



DEPARTMENT
TECHNICAL SERVICES
DIRECTORATE
ROAD INFRASTRUCTURE MANAGEMENT
DIVISION
ROADS PROVISION

PROCUREMENT DOCUMENT : INFRASTRUCTURE

Documents are to be obtained, free of charge, in electronic format, from the [National Treasury's eTenders website](#) or the [eThekweni Municipality website](#)

Contract No: 1R-34224

Contract Title: Rates-Based Panel Contract for Road Rehabilitation Construction Works to be used As-and-When-Required, for a period of 3 Years (CIDB Grades 5 to 6CE), on Category C and D roads only

CIDB Grade/ Class: 5,6 CE

CLARIFICATION MEETING AND QUERIES

Clarification Meeting: Compulsory: 11h00 on 04/12/2025. Questions and answers from the clarification meeting will be consolidated and posted on eTenders/Municipal website for the benefit of all tenderers by 03 February 2026

Meeting Location: Electricity Training Centre, 17 Supply Road, Springfield

Queries can be addressed to: Name : B.Naidoo
The Employer's Agent's: Tel : 031-322-8305
Representative: eMail : Brandon.Naidoo@durban.gov.za

TENDER SUBMISSION

The Tender Offer shall be delivered to:

Delivery location: [The Tender Box in the foyer of the Municipal Building, 166 KE Masinga Road, Durban](#)

Tenderers are to also make an electronic submission via the eThekweni Municipality JDE System (SSS Module)

Closing Date/ Time: [Friday, 13 February 2026](#) at [11h00](#)

Tender Offers submitted via any means other than that stated in the Tender Data will be deemed invalid

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Head: [ROADS PROVISION](#)

Issued: [November 2025](#)

Document Version 01/07/2025

FOR OFFICIAL USE ONLY

Tenderer Name:			VAT Registered: Yes No
	Price (excl)	VAT	Price (incl)
Submitted: R		R	R
Corrected: R		R	R

FOR OFFICIAL USE ONLY

Tenderer Name:			VAT Registered: Yes No
	Price (excl)	VAT	Price (incl)
Submitted: R		R	R
Corrected: R		R	R

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PART T1: TENDERING PROCEDURES

T1.1.1: TENDER NOTICE AND INVITATION TO TENDER

The eThekweni Municipality's Roads Provision Division seeks to appoint a Panel of Contractors for use on an "As-and-when-required" basis for a period of three years. The intention for the establishment of the Panel is so that projects can be implemented without first having to start a lengthy procurement process. The panels will be evaluated and formulated using the submitted Rates for a "basket" of items. When required, Contracts for specific Works will be issued using Works Package Orders. These will also be compiled using the submitted Rates.

The Works, when required, shall include, inter alia, the rehabilitation and improvement of roadway infrastructure limited to Category A and B roads as determined by the eThekweni Municipality Pavement Management System. This will comprise pavement rehabilitation (including surfacing, base, sub-base, and subgrade layers), drainage improvements or repairs (such as stormwater inlets, manholes, kerbs, and channels), pedestrian facility upgrades or repairs (including sidewalks and pedestrian access scoops), and verge or roadway-related improvements or repairs (such as retaining walls, road signage, and other associated works).

The establishment of the panel gives no guarantee of any quantum of works being issued. Work Package Orders may be issued on an "As-and-when-required" basis, dependant on adequate funding being sourced. The use of the panel will be on a non-exclusive basis. It will be at the Employer's sole discretion if the panel will be used, or if projects will be facilitated through any other procurement mechanism.

Subject	Description	Tender Data
Employer	The Employer is the eThekweni Municipality as represented by: Deputy Head: ROADS PROVISION	C.1.1.1
Tender Documents	Documentation is to be downloaded from the National Treasury's eTenders website or the eThekweni Municipality Website : <ul style="list-style-type: none"> https://www.etenders.gov.za/ https://www.durban.gov.za/pages/business/procurement 	C.1.2
CIDB Eligibility	Tenderers should have a CIDB contractor grading designation of 5,6 CE .	C.2.1.2
Clarification Meeting	Compulsory: 11h00 on 04/12/2025. Questions and answers from the clarification meeting will be consolidated and posted on eTenders/Municipal website for the benefit of all tenderers by 03 February 2026 Tenderers are to bring Returnable Form T2.2.2: "Certificate of Attendance at Clarification Meeting/ Site Inspection" to the meeting.	C.2.7
Meeting Location	Electricity Training Centre, 17 Supply Road, Springfield	C.2.7
Seek Clarification	Queries relating to these documents are to be addressed to the Employer's Agent's Representative whose contact details are: Name : B.Naidoo Tel : 031-322-8305 eMail : Brandon.Naidoo@durban.gov.za	C.1.4
Submitting a Tender Offer	The Tender Offer ("hard copy") shall be delivered to: The Tender Box in the foyer of the Municipal Building, 166 KE Masinga Road, Durban	C.2.13
JDE	An electronic submission , via the eThekweni Municipality JDE System (SSS Module) , is also to be made. Notwithstanding the electronic submission , the Tender Offer will only be deemed valid if the "hard copy" submission has been made.	C.2.13
Closing Time	The Tender Offer shall be delivered on or before Friday, 13 February 2026 , at or before 11h00 .	C.2.15
Evaluation of Tender Offers	The 80/20 Price Preference Point System , as specified in the SCM Policy: Section 52: Preferential Procurement will be applied in the evaluation of tenders. Tender Data: C.3.11: Evaluation of Tender Offers details the awarding of Preference Points, and other related evaluation requirements.	C.3.11

Requirements for sealing, addressing, delivery, opening, and assessment of tenders are stated in the **Tender Data**

Should a **Works Package Order** trigger the requirements of the CIDB B.U.I.L.D. Programme in terms of either:

- The Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, or

- The Standard for Developing Skills through Infrastructure Contracts, then the requirements will be specified in the **Works Package Order Documentation**.

T1.1.2: NOTES TO TENDERERS

These “**Notes to Tenderers**” are intended to provide general guidance to Tenderers regarding the Employer’s SCM Policy.

Compliance requirements are stated in the relevant parts of the Tender Data: T1.2.

eThekwini Supply Chain Management Policy (SCMP)

The requirements as stated in the Employer’s SCM Policy include, but are not limited to, the following:

1) Section 14(4): ETM Supplier Database

The eThekwini Supply Chain Management Policy requires suppliers/ service providers/ contractors to be registered on the eThekwini Municipality’s Supplier Vendor Portal.

In the event of the Tenderer not being registered on the eThekwini Municipality’s Supplier Portal, the Tenderer must register on the internet at www.durban.gov.za by following these links:

- Business
- Supply Chain Management (SCM)
- Accredited Supplier and Contractor's Database.

The following is to be noted:

- The information for registration as in the possession of the eThekwini Municipality will apply.
- It is the Tenderer's responsibility to ensure that the details submitted to the Municipality are correct.
- Tenderers are to register prior to the submission of tenders.

2) Section 20(1)(d)(i): Audited Financial Statements

Audited Financial Statements are required to be submitted if the value of the tender offer exceeds R10 million (incl. VAT). See **Returnable Form “MBD 5”** and **Returnable Form “Contracts awarded by Organs of State”** in the past 5 years.

3) Section 20(1)(d)(iii): Contracts Awarded during the past 5 Years

Tenderers are to include with their submission a listing of any contracts awarded to the Tenderer during the past 5 years, including particulars of any material non-compliance or dispute concerning the execution of the contracts. Tenderers are referred to **Returnable Form “MBD 5”**.

4) Section 13.1(vii), 20(1)(d)(ii), 28.2(d), 29.6(a), 38.1(d), and 29.14: Municipal Rates and Taxes (Fees)

Tenderers are to refer to **Returnable Form “Declaration of Municipal Fees”** to certify that they have no undisputed commitments for municipal services towards any municipality. Prior to an award, a Tenderer’s municipal rates and taxes cannot be in arrears. Should a Tenderer be in arrears with respect to municipal services and has formalised an agreement with the respective municipality to offset the arrears, the agreement must be in place at time of tender closing.

5) Section 21.2: Tender Validity

Tenders are to remain valid for twelve (12) months after the expiry of the original tender validity period unless the Municipality is notified, in writing, of anything to the contrary.

6) Section 28(2)(d), Section 28(2)(h) and Section use 29(12): Certifications and Registrations

CIDB Registration and Status, B-BBEE Certificates, and Tax Compliance Status PINs must be valid at tender closing, and before final award.

The Tenderer's Tax Compliance Status, CIDB Registration and Status (if required), and B-BBEE Level Status (if required), will be verified using the National Treasury Central Supplier Database (CSD). Tenderers are referred to **Returnable Form "Compulsory Enterprise Questionnaire"**.

It is the Tenderer's responsibility to ensure that their data on the CSD is kept updated and correctly reflects the status of the tendering entity.

7) Section 28(2)(f), and 52.5.13: Joint Ventures (JV)

If Joint Venture submissions are acceptable, the following applies.

Each party of a JV must submit separate Tax Compliance Status PINs.

Also, and unless otherwise stated, the requirements for a single entity submission in terms of documentation requirements, will apply to each member of a JV making a submission.

As proof that a JV has been formalised, or that the parties to the JV agree to formalise the JV should they be successful in being recommended for the award of this tender, Tenderers are referred to **Returnable Form: "Joint Venture Agreements"**.

8) Section 49.1.2: Complaints and Objections (Appeals)

A **non-refundable tariff**, as per the approved Council tariffs, is payable by the Complainant to the Municipality. Proof of the payment of the Fee must be attached to the Complaint.

CIDB

9) Regulation 25(8): It should be noted that, unless stated otherwise in the **Tender Data**, this contract is not part of a **Targeted Development Programme (TDP)**. The CIDB provisions in relation to a Contractor's **Potentially Emerging (PE) status** do not apply.

Tenderers are referred to **CIDB Inform Practice Note #32: "Application of the Potentially Emerging (PE) Status"** for more information in this regard.

10) B.U.I.L.D. Programme: A programme to accelerate transformation in the construction industry, increase the capacity of the construction industry to deliver infrastructure and support the growth of emerging contractors, was launched on 14 March 2024 by the Deputy Minister of Public Works and Infrastructure and the Construction Industry Development Board.

Details of the B.U.I.L.D. Programme were published in a Government Gazette in 2020 (GG 43726) and B.U.I.L.D. has gradually been phased in at various levels of government and the private sector. The CIDB, a public entity with the mandate to promote improved performance in construction, oversees the programme and manages the B.U.I.L.D Fund.

The B.U.I.L.D programme determines that public sector entities which implement construction projects, that meet certain minimum requirements, must include developmental goals to the deliverables defined in the tenders. Contractors are required to include these goals in the plans and pricing when they submit their tender bids.

This information is intended to provide general guidance to Tenderers regarding the Employer's JDE System.

1) General

- Viewing of available (open) Tenders,
- Downloading procurement documentation for Tenders,
- Uploading completed and signed Tender documentation,
- Completion and submission of Tenders electronically,
- Viewing the Tender opening schedule.

- Service providers requiring access must send an email to supplier.selfservice@durban.gov.za
The following information is required:
 - Copy of the **Director's ID**.
- On receipt of this email, the Procurement and Supply Chain Management (P&SCM) Directorate will respond with the login credentials and a link to the **JDE System**.

By following link <https://rfq.durban.gov.za/jde/E1Menu.maf> prospective Service Providers will be able to view available (open) Tender opportunities without signing into the system. However, Service Providers will not be able to respond to a Tender without being signed into the system using a JDE User ID and Password.

5) Tender documentation

By accessing the **JDE System** (using <https://rfq.durban.gov.za/>) and viewing any available Tenders, prospective Service Providers will be able to download the relevant Tender documentation.

The Tender documentation consists of the **TENDER** and **CONTRACT Parts**, as described in the INDEX, and will include any drawings and other information (if applicable). Referred to or included in the documentation are the **Standard Conditions of Tender (and associated Tender Data)**, and the **Conditions of Contract (and associated Contract Data)** which will govern the tendering and contract processes respectively.

6) Submission of tender offers

Reference is to be made to the **Tender Data: C.2.13** that specifies compliance requirements.

Tender Offers are to be delivered, in “hard copy” format, to the Delivery Location as stated in the **Tender Data**.

In addition to the above, Tender Offers are **also** to be SUBMITTED ELECTRONICALLY (uploaded) on the eThekweni Municipality JDE System (Supplier Self Service (JDE-SSS) Module). Notwithstanding the **electronic submission**, a tender offer will only be deemed valid if the “hard copy” submission has been made.

Bidders are responsible for resolving all access rights and submission queries on the JDE System before the tender closing date/ time.

7) Viewing the Tender opening schedule

Users on the **JDE System** will be able to view the **Tender Opening Schedule** for each closed Tender. The tender opening schedule will also be made available on the eThekweni Municipal website at URL: <https://www.durban.gov.za/pages/business/publication-of-received-bids>

PART T1: TENDERING PROCEDURES

T1.2: TENDER DATA

T1.2.1 STANDARD CONDITIONS OF TENDER

The conditions of tender are the **Standard Conditions of Tender** as contained in **Annex C** of the CIDB Standard for Uniformity in Construction Procurement as published in Government Gazette No 42622, Board Notice 423 of 8 August 2019, as duplicated below.

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.

Annex C

Standard Conditions of Tender

C.1 GENERAL

C.1.1 Actions

C.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

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

Note:

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

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

C.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the **Tender Data**.

C.1.3 Interpretation

C.1.3.1 The **Tender Data** and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

C.1.3.2 These conditions of tender, the **Tender Data** and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

- a) **conflict of interest** means any situation in which:
 - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.
- b) **comparative offer** means the price after the factors of a non-firm price and all unconditional **discounts** it can be utilised to have been taken into consideration;
- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels.

C.1.4 Communication and employer's agent

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

C.1.5 Cancellation and Re-Invitation of Tenders

- C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if:
 - a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
 - b) funds are no longer available to cover the total envisaged expenditure;

- c) no acceptable tenders are received;
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the *original* tender invitation was advertised.

C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

C.1.6 Procurement procedures

C.1.6.1 General

Unless otherwise stated in the **Tender Data**, a contract will, subject to C.3.13, be concluded with the tenderer who in terms of C.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the **Tender Data** require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the **Tender Data** shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the Tender Data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

C.1.6.3.2 Option 2

C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

C.1.6.3.2.2 The employer shall evaluate tenders received during the second stage, in terms of the method of evaluation stated in the **Tender Data**, and award the contract in terms of these conditions of tender.

C.2 TENDERER'S OBLIGATIONS

C.2.1 Eligibility

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

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

C.2.2 Cost of tendering

C.2.2.1 Accept that, unless otherwise stated in the **Tender Data**, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

C.2.3 Check documents

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

C.2.4 Confidentiality and copyright of documents

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

<p>C.2.5 Reference documents</p> <p>Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.</p>	<p>C.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the Contract Data.</p>
<p>C.2.6 Acknowledge addenda</p> <p>Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the Tender Data, in order to take the addenda into account.</p>	<p>C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the Tender Data. The conditions of contract identified in the Contract Data may provide for part payment in other currencies.</p>
<p>C.2.7 Clarification meeting</p> <p>Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the Tender Data.</p>	<p>C.2.11 Alterations to documents</p> <p>Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.</p>
<p>C.2.8 Seek clarification</p> <p>Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the Tender Data.</p>	<p>C.2.12 Alternative tender offers</p> <p>C.2.12.1 Unless otherwise stated in the Tender Data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.</p>
<p>C.2.9 Insurance</p> <p>Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the Contract Data. The tenderer is advised to seek qualified advice regarding insurance.</p>	<p>C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the Tender Data or criteria otherwise acceptable to the employer.</p> <p>C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.</p>
<p>C.2.10 Pricing the tender offer</p> <p>C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the Tender Data.</p>	<p>C.2.13 Submitting a tender offer</p> <p>C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the Contract Data and described in the scope of works, unless stated otherwise in the Tender Data.</p>
<p>C.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.</p>	<p>C.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.</p>

<p>C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the Tender Data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.</p>	<p>C.2.14 Information and data to be completed in all respects</p> <p>Accept that tender offers, which do not provide all the data or information requested completely, and in the form required, may be regarded by the employer as non-responsive.</p>
<p>C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the Tender Data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.</p>	<p>C.2.15 Closing time</p> <p>C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the Tender Data not later than the closing time stated in the Tender Data. Accept that proof of posting shall not be accepted as proof of delivery.</p>
<p>C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the Tender Data, as well as the tenderer's name and contact address.</p>	<p>C.2.15.2 Accept that, if the employer extends the closing time stated in the Tender Data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.</p> <p>C.2.16 Tender offer validity</p>
<p>C.2.13.6 Where a two-envelope system is required in terms of the Tender Data, place and seal the returnable documents listed in the Tender Data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the Tender Data, as well as the tenderer's name and contact address.</p>	<p>C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the Tender Data after the closing time stated in the Tender Data.</p>
<p>C.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the Tender Data.</p>	<p>C.2.16.2 If requested by the employer, consider extending the validity period stated in the Tender Data for an agreed additional period with or without any conditions attached to such extension.</p>
<p>C.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.</p>	<p>C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).</p>
<p>C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the Tender Data.</p>	<p>C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".</p>

C.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

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

C.2.18 Provide other material

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

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

C.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the **Tender Data**.

C.2.20 Submit securities, bonds and policies

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

C.2.21 Check final draft

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

C.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the **Tender Data**.

C.2.23 Certificates

Include in the tender submission or provide the employer with any certificates as stated in the **Tender Data**.

C.3 THE EMPLOYER'S UNDERTAKINGS

C.3.1 Respond to requests from the tenderer

C.3.1.1 Unless otherwise stated in the **Tender Data**, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the **Tender Data** and notify all tenderers who collected tender documents.

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

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

C.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the **Tender Data**. If, as a result a tenderer applies for an extension to the closing time stated in the **Tender Data**, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

C.3.3 Return late tender offers

Return tender offers received after the closing time stated in the **Tender Data**, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

C.3.4 Opening of tender submissions

C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the **Tender Data**. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the **Tender Data**, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

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

C.3.5 Two-envelope system

C.3.5.1 Where stated in the **Tender Data** that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the **Tender Data** and announce the name of each tenderer whose technical proposal is opened.

C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the **Tender Data**, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

C.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract,

	until after the award of the contract to the successful tenderer.		
C.3.7	Grounds for rejection and disqualification		
	Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.		<ul style="list-style-type: none"> a) the gross misplacement of the decimal point in any unit rate; b) omissions made in completing the pricing schedule or bills of quantities; or c) arithmetic errors in: <ul style="list-style-type: none"> (i) line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or (ii) the summation of the prices.
C.3.8	Test for responsiveness	C.3.9.3	Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.
C.3.8.1	Determine, after opening and before detailed evaluation, whether each tender offer properly received: <ul style="list-style-type: none"> a) complies with the requirements of these Conditions of Tender, b) has been properly and fully completed and signed, and c) is responsive to the other requirements of the tender documents. 	C.3.9.4	Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows: <ul style="list-style-type: none"> a) If bills of quantities or pricing schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the line-item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected. b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.
C.3.8.2	A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would: <ul style="list-style-type: none"> a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work, b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified. <p>Reject a non-responsive tender offer and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.</p>	C.3.10	Clarification of a tender offer
C.3.9	Arithmetical errors, omissions and discrepancies		
C.3.9.1	Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.	C.3.11	Evaluation of tender offers
C.3.9.2	Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:		The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:	
Requirement	Qualitative interpretation of goal
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.
Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.
Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.

The activities associated with evaluating tender offers are as follows:

- Open and record tender offers received
- Determine whether or not tender offers are complete
- Determine whether or not tender offers are responsive
- Evaluate tender offers
- Determine if there are any grounds for disqualification

- Determine acceptability of preferred tenderer
- Prepare a tender evaluation report
- Confirm the recommendation contained in the tender evaluation report .

C.3.11.1 General

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the **Tender Data**.

C.3.12 Insurance provided by the employer

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

C.3.13 Acceptance of tender offer

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

- is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;
- can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- has the legal capacity to enter into the contract;
- is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;
- complies with the legal requirements, if any, stated in the **Tender Data**; and

<p>f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.</p>	
<p>C.3.14 Prepare contract documents</p>	<p>C.3.16 Registration of the award</p> <p>An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the cidb Register of Projects.</p>
<p>C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:</p> <ul style="list-style-type: none"> a) addenda issued during the tender period, b) inclusion of some of the returnable documents and c) other revisions agreed between the employer and the successful tenderer. 	<p>C.3.17 Provide copies of the contracts</p> <p>Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.</p>
<p>C.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.</p>	<p>C.3.18 Provide written reasons for actions taken</p>
<p>C.3.15 Complete adjudicator's contract</p> <p>Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.</p>	<p>Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.</p>

T1.2.2 TENDER DATA

DEFINITION: Work Package Order and Agreement: the documentation issued to the Contractor, on an “As-and-when-required” basis, that specifies the Works and Conditions applicable to a specific Work Package Order.

Each item of **Tender Data** given below is cross-referenced to the clause in the **Standard Conditions of Tender** to which it mainly applies. Work Package Orders will use the same **Standard Conditions of Tender** and include, if applicable, Tender Data specific to the Work Package Order.

C.1: GENERAL

C.1.1 The employer:

The Employer for this Contract is the **eThekwini Municipality** as represented by:
Deputy Head: [ROADS PROVISION](#)

C.1.2 Tender documents:

The Tender Documents issued by the Employer comprise:

- 1) This Procurement Document.
- 2) EXCEL Bill of Quantities file.
- 3) **Drawings**, if applicable, issued separately from this document, or bound in Section C3.4: “Particular Specifications”.

Electronically downloaded documentation is obtainable from the National Treasury’s **eTenders Website** or the **eThekwini Municipality Website** at URL:

- <https://www.etenders.gov.za/>
- <https://www.durban.gov.za/pages/business/procurement>

Tenderers are referred to **Tender Data C2.5: “Reference documents”**.

C.1.4 Communication and employer’s agent:

The Employer’s Agent is:

Name: Londa Zwane
Tel: 031-311-7442
eMail: Zwane.Londa@durban.gov.za

The Employer’s Agent’s Representative is:

Name : B.Naidoo
Tel : 031-322-8305
eMail : Brandon.Naidoo@durban.gov.za

The Tenderer’s contact details, as indicated on **Returnable Document “Compulsory Enterprise Questionnaire”**, shall be deemed as the only valid contact details for the Tenderer for use in communications between the Employer’s Agent and the Tenderer during tender evaluation.

C.2: TENDERER'S OBLIGATIONS

C.2.1 Eligibility:

Entities may only submit one (1) tender offer. Should a tendering entity submit more than one (1) tender, all submissions by that tendering entity will be deemed not to be eligible.

C.2.1.1 Eligibility: General

A Tenderer will not be eligible to submit a tender if:

- (a) The tender submission is made by a Joint Venture.
- (b) The Tenderer fails to have **Returnable Document: "Certificate of Attendance at Clarification Meeting"** signed by the Employer's Agent, or their representative, at the compulsory Clarification Meeting.
- (c) At the time of tender closing, the Tenderer is not registered on the **National Treasury Central Supplier Database (CSD)** and the **eThekweni Municipality Vendor Portal**.
- (d) The following documentation is not completed in full, signed, and returned with the tender submission.
 - T2.2.1: Compulsory Enterprise Questionnaire.
 - T2.2.2: MBD 4: Declaration of Interest.
 - T2.2.3: MBD 5: Declaration for Procurement Above R10 Million. (regardless of Price on the Offer).
 - T2.2.6: MBD 8: Declaration of Bidder's Past SCM Practices.
 - T2.2.7: MBD 9: Certificate of Independent Bid Determination.
 - T2.2.8: Declaration of Municipal Fees.

Failure to comply will result in the tender offer being deemed non-responsive.
- (e) The following certificates, as listed in the **Tender Data C.2.23: "Certificates"**, are not included with the tender submission.
 - T2.2.1: SARS Tax Compliance Status - PIN Issued. (submitted with the Compulsory Enterprise Questionnaire).
 - T2.2.10: Central Supplier Database (CSD) Report.
 - T2.2.11: CIDB Registration and Status.

Failure to comply will result in the tender offer being deemed non-responsive.
- (f) The Tenderer fails to submit a printout of the Bill of Quantities generated from the EXCEL Bill of Quantities file issued by the Employer (see C.1.2(2)).

C.2.1.2 Eligibility: CIDB

Tenderers are to reference the provisions of **Tender Data C.2.23: "Certificates"**, and **Returnable Document: "CIDB Registration and Status"** with respect to CIDB registration.

Only those Tenderers who are registered (as "Active") with the CIDB (at time of tender closing), in a contractor Grading Designation of 5,6 in a CE Class will be eligible to have their tenders evaluated.

C.2.1.3 Eligibility: Tenderer's Experience

Tenderers are to complete and sign **Returnable Form: Eligibility: "Experience of Tenderer"**.

Only those Tenderers that can demonstrate experience and submit the associated documentation/information, in works of a similar nature, within the past 10 years, will be eligible to have their tenders evaluated in terms of **Tender Data C.3.11: "Evaluation of Tender Offers"**.

- **Table 1:** The **Experience Requirement** is specified on this table.
- **Table 2:** The experience is to be **Similar in Nature** to that specified on this table. Tenderers are to note the exclusions (if any) stated on the table.
- **Table 3:** The **Documentation/ Information** that is required to be included in the submission is specified on this table (which includes the Notes below the table).
- **Guidance** on the completion of the **Experience Submission Form** is provided on the first page of **Returnable Form: "Experience of Tenderer"**.

Tenderers are to indicate the documentation that has been included in the tender submission, in support of each experience submission, in the shaded column on Page 49. Should there be insufficient evidence for verification of the information submitted for any specific experience submission, that experience submission will be deemed invalid.

Table 1: Experience Requirement (Grades 5 to 6)

A minimum of 3 completed contracts, comprising works of a similar nature, within the past 10 years, where the experience was gained as the Main Contractor.
Each contract shall have a minimum value of at least sixty-five percent (65%) of the upper limit of the CIDB grading range immediately below the Tenderer's current grading.

Returnable Form: "Experience of Tenderer" is to be completed in full and signed.

Failure to do so will result in the experience submission being deemed invalid.

Table 2: Works of a Similar Nature

Provision of Roads and Ancillary Works

- Projects of a similar nature that will be considered will be one, or a combination of, the following types of projects:
 - bituminous resurfacings
 - pavement layers re-construction
- Each project must consist of roadway layer-works and/or roadway asphalt surfacing, together with at least three of the following elements:

○ kerbing / channelling	○ traffic calming measures
○ sidewalk / walkway construction	○ retaining structures
○ stormwater drainage	○ dealing with underground services (watermains, sewers, electricity, communication infrastructure)
- Projects that will be excluded are:

○ the construction of gravel roads	○ road routine maintenance projects
○ materials investigation, analysis and pavement design experience	

Table 3: Documentation / Information Requirements	
Note: an "X" in this table indicates that the associated documentation must be provided.	Works as Main Contractor
	Completed Contracts
Letter of Award OR Form of Offer & Acceptance To include the names of the parties, the managing entity's name, the effective dates, and the signature(s) page, all pertaining to the agreement.	X
Quantities summary To give an indication of the Works Elements as indicated on Returnable Form: "Experience of Tenderer"	X
Final Payment Certificate (with Quantities summary) Issued by the Client / Employer.	X
Completion Certificate Issued by the Client / Employer.	X
Scope of Work The overall contract Scope-of-Work is to be indicated on individual experience submission forms (see Returnable Form: "Experience of Tenderer")	X

C.2.1.4 Eligibility: Financial Capacity

C.2.1.4.1 General

To be eligible for award under this panel contract, the Bidder shall demonstrate sufficient financial capacity, liquidity, and access to key material supply lines necessary for successful completion of the Works. All information submitted shall be supported by verifiable documentation, certified by duly registered professionals as required.

C.2.1.4.2 Minimum Financial Capacity Requirements

The Bidder shall demonstrate compliance with the following minimum financial ratios, determined over the **three (3) most recent consecutive financial years**, in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Regulations:

- A **Current Ratio** of not less than **3:1**
- An **Acid-Test Ratio** of not less than **2:1**

C.2.1.4.3 Supplier Credit Facility Requirements

The Bidder shall demonstrate evidence of either an **existing credit facility** or a **formal confirmation from suppliers** that the Bidder **qualifies for the minimum credit facility** values required for key construction materials, as follows:

Material Type	Minimum Credit Facility	Required Supporting Evidence
Asphalt Products	R 4,000,000	Valid credit confirmation letter(s) from supplier(s)

Each credit facility confirmation shall:

- Be issued on the supplier's official letterhead;
- Be dated within **three (3) months** prior to tender closing;
- Clearly indicate the bidder's name, available credit amount, and terms; and
- Be signed by an authorized representative of the supplier.

C.2.1.4.4 Submission Requirements

Bidders shall include the following documents in their tender submission:

- a) **Audited Annual Financial Statements (AFS)** for the three most recent consecutive financial years, comprising the following components:
- Balance Sheet (Statement of Financial Position)
 - Income Statement (Statement of Comprehensive Income)
 - Cash Flow Statement
 - Statement of Changes in Equity
 - Notes to the Financial Statements
- b) A **Financial Ratio Verification Letter**, signed and stamped by a **Registered Professional Accountant (SA)**, **Associate General Accountant (AGA(SA))**, or **Chartered Accountant (CA(SA))**, confirming the Current and Acid-Test Ratios for each of the three years, derived directly from the audited financial statements submitted.

Note: AGA(SA) professionals are registered with SAICA and are deemed equivalent to Professional Accountants for the purposes of this verification.

- c) The **Supplier Credit Facility Confirmation Letters** as outlined in Section C.2.1.4.3 above.

C.2.1.4.5 Evaluation and Compliance

Failure to submit the above documents or failure to meet the stated minimum ratios and supplier credit thresholds shall render the tender **non-responsive**, and such bids shall not proceed to further evaluation.

C.2.1.4.6 Post-Award Verification

Bidders are advised that the **Employer reserves the right to re-verify** all financial and supplier credit documentation **at the time of issuing any Works Package Order** under this panel contract. Should any discrepancies, expired documents, or loss of credit capacity be identified, the Employer may, at its sole discretion, decline to issue the Work Package Order and assign it to another eligible panel contractor.

C.2.2.2 The cost of the tender documents:

Replace this paragraph with the following:

"Documents are to be downloaded, free of charge, from the **National Treasury's eTenders website** or the **eThekweni Municipality's Website**."

C.2.5 Reference documents:

- 1) The **Conditions of Contract** identified in Section C1.2.1.1. Tenderers/ Contractors are required to obtain their own copies.
- 2) The **Specifications** identified in Section C3.3.1. Tenderers/ Contractors are required to obtain their own copies.
- 3) Tenderers are advised, in their own interest, to obtain their own copies of the following acts, regulations, and standards referred to in this document as they are essential for the Tenderer to get acquainted with the basics of construction management, the implementation of preferential construction procurement policies, and the participation of targeted enterprise and labour.
 - The Employer's Supply Chain Management Policy (as at advertising date).
 - The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations (2014).

- The Construction Industry Development Board Act No 38 of 2000 and the Regulations issued in terms of the Act (July 2013 as amended).
- SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
- Any other eThekweni Policy documents referenced in the Tender Documents.

C.2.6 Acknowledge addenda:

Add the following paragraphs:

“Addenda will be published on the **eThekweni Municipality website** as stated in **Tender Data C.1.2: “Tender documents”**. Tenderers are to ensure that this website is consulted for any published addenda pertaining to this tender up to three days before the tender closing time as stated in the **Tender Data**.”

“Acknowledgement of receipt of the addenda will be by the return of the relevant completed, dated, and signed portion of the addenda, to the physical or email address as specified on the addenda.

Failure of the Tenderer to comply with the requirements of the addenda will result in the tender submission being made non-responsive.”

C.2.7 Clarification meeting:

Meeting : Compulsory: 11h00 on 04/12/2025. Questions and answers from the clarification meeting will be consolidated and posted on eTenders/Municipal website for the benefit of all tenderers by 03 February 2026

Location : Electricity Training Centre, 17 Supply Road, Springfield

Tenderers are to bring **Returnable Form: “Certificate of Attendance at Clarification Meeting/ Site Inspection”** to the clarification meeting. The form is to be completed to the extent possible by the tenderer. No “blank” forms will be signed by the Employer’s Agent, or their representative, at the Clarification Meeting.

C.2.12 Alternative tender offers:

No alternative tender offers will be considered.

C.2.13 Submitting a tender offer:

The Tender documentation, downloaded from the National Treasury’s **eTenders-Website** or the **eThekweni Municipality Website**, is to be printed in its entirety. Printing should be done on white A4 paper, with printing on only one side of the paper.

The **Tender Offer** (“hard copy”), hereinafter the **Tender Offer**, is to comprise of the following portions of the Tender document:

- 1) Cover Page
- 2) Part T1.1.1 : Tender Notice and Invitation to Tender.....page 2
- 3) Part T1.2.2 : Tender Data (applicable to this tender).....pages 17 to 27
- 4) Part T1.2.3 : Additional Conditions of Tenderpages 28 to 28
- 5) Part T2 : Returnable Documents.....pages 29 to 54
- 6) Part C1.1 : Signed Form of Offer.....pages 55
- 7) Part C1.2 : Contract Datapages 58 to 63
- 8) Part C1.3 : Additional Conditions of Contract.....pages 64 to 70
- 9) Part C2.1 : Pricing Assumptions/ Instructionspages 71 to 72
- 10) Part C2.2 : Priced Bill of Quantitiespages BoQ.1 to BoQ.48

An incomplete Tender Offer (“hard copy”) will result in the tender submission being made non-responsive.

The **Tender Offer** is to be sealed in an envelope, addressed to the City Manager, marked with the **identification details** and be delivered to the **delivery address**, both as stated below.

The **Tender Offer** is to be delivered to the following **delivery address**:

The Tender Box in the foyer of the Municipal Building,
166 KE Masinga Road, Durban

Identification details to be shown on the **Tender Offer** package are:

Contract No.: **1R-34224**

Contract Title: Rates-Based Panel Contract for Road Rehabilitation Construction Works to be used As-and-When-Required, for a period of 3 Years (CIDB Grades 5 to 6CE), on Category C and D roads only

Tender Offers are also to be **SUBMITTED ELECTRONICALLY** (uploaded) on the eThekweni Municipality **JDE System** (Supplier Self Service (SSS) Module). For general information pertaining to the JDE System, Tenderers are referred to Information in **Part T1.1.3**.

After completion and signature (using **BLACK INK**), the **Tender Offer** is to be scanned to a single PDF (Portable Document Format) document, at a resolution of 300 DPI (dots per inch).

The PDF document is to be uploaded via the (Tender specific) upload option on the JDE System (SSS Module). The EXCEL version of the Bill of Quantities, reflecting the rates submitted in the **Tender Offer** submission, is also to be uploaded via the (tender specific) upload option on the JDE System.

Tenderers are responsible for resolving all access rights and submission queries on the JDE System before the tender **closing date/ time** (see **Tender Data C.2.15: “Closing date and time”**).

Notwithstanding the **electronic submission**, a tender offer will only be deemed valid if the **Tender Offer** (“hard copy”) submission has been made. The **Tender Offer** shall be the governing version.

The submission of Tender Offers via any means other than that stated above will not be accepted, and those that are will be deemed invalid.

Tenderers are to retain a copy of the complete documentation for their own records.

C.2.15 Closing date and time:

The closing time is:

- **Date** : **Friday, 13 February 2026**
- **Time** : **11h00**

The **delivery of the Tender Offer** is to be completed prior to the Tender **closing date and time** as stated above. Any **Tender Offer** submitted thereafter will not be considered.

C.2.16 Tender offer validity:

The Tender Offer validity period is **120 Days** from the closing date for submission of tenders.

In terms of the SCM Policy (Cl.21.2) tenders must remain valid for acceptance for a period of twelve (12) months after the expiry of the original validity period, unless the Municipality is notified in writing of anything to the contrary by the Tenderer.

C.2.23 Certificates:

Refer to **Part T2.1: “List of Returnable Documents”** for a listing of certificates that must be provided with the tender. All certificates must be valid at the time of tender closing.

Tenderers are to include a printout of the required documents/ certificates at the back of their tender submission.

1) SARS Tax Compliance Status – PIN Issued

Reference is to be made to **Returnable Document “Compulsory Enterprise Questionnaire”** which requires the “SARS Tax Compliance Status – PIN Issued” to be included with this returnable document.

2) Central Supplier Database (CSD)

Reference is to be made to **Returnable Document “CSD Registration Report”**.

The entities **CSD Registration Report**, obtained from the National Treasury Central Supplier Database (CSD), is to be included in the tender submission (<https://secure.csd.gov.za>).

The date of obtaining the CSD printout is to be indicated on the printout and **should be on or after the date of advertising of this tender.**

3) CIDB Registration

Reference is to be made to **Returnable Document “Verification of CIDB Registration and Status”**.

Tenderers are to include with their submission a printout of their **CIDB Registration**, obtained from the CIDB website (<https://portal.cidb.org.za/RegisterOfContractors/>).

The date of obtaining the CIDB printout(s) is to be indicated on the printout, and the Tenderer's registration with the CIDB must be reflected as “Active” as at the date of tender closing.

Failure to comply with the above will result in the tender offer being deemed non-responsive.

Should the Tenderer intend claiming Preferential Procurement Points (see **Tender Data C.3.11: "Evaluation of Tender Offers"**) the following certificate is required for verification of claimed points. **Failure to submit this certificate will result in no Preferential Points being evaluated.**

4) B-BBEE Status Level of Contribution Certificate

Tenderers are referred to **Returnable Document "MBD 6.1: Preference Points Claim"** for the B-BBEE Certificate requirements. **Notwithstanding the completion of Returnable Document "MBD 6.1: Preference Points Claim", should no B-BBEE Status Level of Contribution Certificate be returned no points for Preferential Procurement will be deemed to have been claimed.**

The Amended Construction Sector Code (Government Gazette No.41287) is applicable to the B-BBEE compliance measurement of all entities that fall within the Construction Sector. The requirements for measurement and verification of entities are contained in the "Amended Code Series CSC000: Framework for Measuring Broad Based Black Economic Empowerment in the Construction Sector", as published in Notice 931 of 2017, Government Gazette No.41287 of 01/12/2017.

An EME Contractor with a Total Annual Revenue of less than R3 million may present an affidavit OR a certificate issued by the CIPC, OR an authorised B-BBEE verification certificate by a SANAS accredited Verification Agency.

Any B-BBEE Certificate where the entity has been assessed using Generic Codes will not be accepted.

C.3: THE EMPLOYER'S UNDERTAKINGS

C.3.1.1 Respond to requests from the tenderer:

Replace the words “five working days” with “three working days”.

C.3.2 Issue addenda:

Add the following paragraph:

“Addenda will be published on the **eThekwini Municipality Website** (refer to **Tender Data C.1.2: “Tender documents”**).”

C.3.4 Opening of Tender Submissions:

Tenders will be opened immediately after the closing time for tenders. The public reading of tenders will take place in the SCM Boardroom, 6th Floor, Engineering Unit Building, 166 KE Masinga Road, Durban.

The tender opening schedule will also be made available on the eThekwini Municipal website at URL: <https://www.durban.gov.za/pages/business/publication-of-received-bids>

C.3.9 Arithmetical errors, omissions and discrepancies:

Add the following Clause:

“C.3.9.5 Reject a tender offer if the Tenderer does not accept the correction of the arithmetical error in the manner described in C.3.9.4.”

C.3.11 Evaluation of Tender Offers:

Eligibility

Tenders will be checked for compliance with the eligibility requirements as specified in the **Tender Data C.2.1: “Eligibility”**. Tenders not in compliance will be deemed non-responsive.

Preference Point System

The procedure for the evaluation of responsive tenders will be the **80/20** Preference Points System.

Price Points

The Total of the Bill of Quantities will be used as a Tender Assessment Schedule Value. This Total will be used for comparison and assessment purposes only and is not related to any CIDB Grading Range or Contract Sum.

The Formula used to calculate the **Price Points (max. 80)** will be according to that specified below.

$$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where:

Ps	=	Points scored for comparative price of bid under consideration
Pt	=	Comparative price of bid under consideration
$Pmin$	=	Comparative price of lowest acceptable bid

Preference Points

Preference will be in accordance with the Employer's **SCM Policy: Section 52.5: "Broad-Based Black Economic Empowerment"**.

Reference is to be made to **Returnable Form "MBD 6.1: Preference Points Claim"**, Broad-Based Black Economic Empowerment (SCM Policy Section 52.5) and **Tender Data C.2.23: "Certificates"**.

A maximum of 20 tender evaluation Preference Points will be derived from points claimed for the Tenderer's **B-BBEE Status Level of Contributor**, as indicated on their B-BBEE Status Level Verification Certificates, on **Returnable Form: "MBD 6.1: Preference Points Claim"**, in accordance with the table below.

80/20 Preference Points System				
B-BBEE Level Contributor	Preference Points		B-BBEE Level Contributor	Preference Points
1	20		5	8
2	18		6	6
3	14		7	4
4	12		8	2
Non-Compliant: 0 points				

Panel Appointments

Ten (10) contractors will be appointed to this Panel. Contractors will be appointed according to the Preference Points System (points of responsive Tenderers from highest to lowest).

Tenderers are referred to **Part C3.1.1: "Employer's Objective"** for information on the process that will be followed for the issuing of Work Package Orders.

C.3.13 Acceptance of tender offer:

In addition to the requirements of the **Standard Conditions of Tender C.3.13: "Acceptance of tender offer"**, tender offers will only be accepted if:

- The Tenderer's **municipal rates and taxes** are not in arrears, or they have made arrangements to meet outstanding municipal fee obligations.
- The Tenderer's **tax compliance status** has been verified, or they have made arrangements to meet outstanding tax obligations.
- The Tenderer is **registered, and "Active"**, with the Construction Industry Development Board in an appropriate contractor grading designation.
- The Tenderer or any of its directors/ shareholders are 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.
- The Tenderer has not:
 - Abused the Employer's Supply Chain Management System; or
 - Failed to perform** on any previous contract and has been given a written notice to this effect.

C.3.15 Complete adjudicator's contract:

Refer to the **Conditions of Contract** and the **Contract Data** that will be included as part of any Work Package Order Documentation.

C.3.17 Copies of contract:

The number of paper copies of the signed contract to be provided by the Employer is ONE (1).

T1.2.3 ADDITIONAL CONDITIONS OF TENDER

T1.2.3.1 Complaints and Objections (Appeals)

Reference is to be made to **Section 49 of the eThekweni Supply Chain Management Policy**.

In terms of Section 49 of the EtheKwini SCM Policy, any person aggrieved by decisions taken in the implementation of the SCM System may lodge, within 14 days of notification thereof, a written objection against the decision. The objection with regard to the decision is to be directed to:

The City Manager
Attention Ms S. Pillay eMail: Simone.Pillay@durban.gov.za
P O Box 1394
DURBAN
4000

Any objection will only be processed upon receipt of a **non-refundable administration fee of R1,814.00** (including VAT), as stipulated in the Municipality's current SCM Policy. An objection will only be considered upon receipt of proof of payment of this fee which must be paid into the following bank account as a real-time payment:

eThekweni Metropolitan Municipality
First National Bank
Account Number: 63165746331
Reference Number: *Use the Contract Number*

T1.2.3.2 Prohibition on awards to persons in the service of the state

Section 44 of the Supply Chain Management Regulations states that the Municipality or Municipal Entity may not make any award to a person:

- (a) Who is in the service of the State;
- (b) If that person is not a natural person, of which a director, manager, principal shareholder or stakeholder is a person in the service of the state; or
- (c) Who is an advisor or consultant contracted with the municipality or a municipal entity.

Should a contract be awarded, and it is subsequently established that Section 44 has been breached, the Employer shall have the right to terminate the contract with immediate effect.

T1.2.3.3 Code of Conduct and Local Labour

The Tenderers shall make themselves familiar with the requirements of the following policies:

- Code of Conduct;
- The Use of CLOs and Local Labour.

T1.2.3.4 Contract Awards and Work Package Orders

Tenderers are referred to **Part C3.1.1: "Employer's Objective"**.

PART T2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

T2.1.1 General

The Tender Submission Documentation must be submitted in its entirety. All forms must be properly completed and signed as required.

The Tenderer is required to complete and sign each and every Schedule and Form listed below to the best of their ability as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer.

Failure of a Tenderer to complete the Schedules and Forms to the satisfaction of the Employer will inevitably prejudice the tender and may lead to rejection on the grounds that the tender is non-responsive.

Tenderers are referred to **Tender Data C.2.1: “Eligibility”** that specifies mandatory requirements in terms of the **Returnable Schedules, Forms and Certificates**.

T2.1.2 Returnable Schedules, Forms and Certificates

Entity Specific

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T2.2.3	MBD 5: Declaration for Procurement Above R10 Million (Regardless of the amount on the Form of Offer)	33
T2.2.4	Contracts Awarded by Organs of State in the past 5 years	34
T2.2.5	MBD 6.1: Preference Points Claim Form (SCM Policy Section 52.5)	35
T2.2.6	MBD 8: Declaration of Bidder's Past SCM Practices	38
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Contract Part: The Tenderer is required to complete following forms:

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C2.2	Bill of Quantities	71

T2.2.1 COMPULSORY ENTERPRISE QUESTIONNAIRE

Ref	Description	Tenderer to Complete	
1.1	Name of enterprise		
1.2	Name of enterprise's representative		
1.3	Email address of representative		
1.4	Contact numbers of representative	Tel:	Cell:
1.5	National Treasury Central Supplier Database Registration number	MAAA	
1.6	VAT registration number, if any:		
1.7	CIDB registration number, if any:		
1.8	Department of Labour: Registration number		

2.0 Particulars of sole proprietors and partners in partnerships (attach separate pages if more than 3 partners)			
	Full Name	Identity No.	Personal income tax No. *
2.1			
2.2			
2.3			

3.0 Particulars of companies and close corporations	
3.1	Company registration number, if applicable:
3.2	Close corporation number, if applicable:
3.3	Tax Reference number, if any:
3.4	South African Revenue Service: Tax Compliance Status PIN:

4.0	MBD 4, MBD 6, MBD 8, and MBD9 issued by National Treasury <u>must be completed for each tender and be included as a tender requirement.</u>
-----	--

Tenderers are to include a printout of their SARS "Tax Compliance Status - PIN Issued" certificate at the back of their tender submission.

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

- i) authorizes the Employer to verify the Tenderer's tax clearance status from the South African Revenue Services that it is in order.
- ii) confirms that the 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.
- 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.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.2 MBD 4: DECLARATION OF INTEREST

MSCM Regulations: “**in the service of the state**” means to be:

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

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

- 1 No bid will be accepted from persons **in the service of the state**¹.
- 2 Any person, having a kinship with persons **in the service of the state**, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to **persons in service of the state**, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
- 3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Name of enterprise

Name of enterprise’s representative

3.2 ID Number of enterprise’s representative

3.3 Position enterprise’s representative occupies in the enterprise

3.4 Company Registration number

3.5 Tax Reference number

3.6 VAT registration number

3.7 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted.

3.8 Are you presently in the service of the state?

Circle Applicable

YES

NO

If yes, furnish particulars:

.....

3.9 Have you been in the service of the state for the past twelve months?

YES

NO

If yes, furnish particulars:

.....

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

YES

NO

If yes, furnish particulars:

.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

YES

NO

If yes, furnish particulars:

.....

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES

NO

If yes, furnish particulars:

.....

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

YES

NO

If yes, furnish particulars:

.....

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

YES

NO

If yes, furnish particulars:

.....

4 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted

Full Name	Identity No.	State Employee No.	Personal income tax No.
Use additional pages if necessary			

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

NAME (Block Capitals):

Date

SIGNATURE:

**T2.2.3 MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION
(ALL APPLICABLE TAXES INCLUDED)**

All bidders must complete this MBD 5.0 Returnable Document.

		Circle Applicable	
		YES	NO
1.0	Are you by law required to prepare annual financial statements for auditing?		
1.1	Submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.		
2.0	Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?	YES	NO
2.1	If NO, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.		
2.2	If YES, provide particulars.		
3.0	Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?	YES	NO
3.1	If YES, provide particulars. See Returnable Form: "Contracts Awarded by Organs of State in the past 5 years"		
4.0	Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic?	YES	NO
4.1	If YES, provide particulars.		

Tenderers are to include a printout of their Audited Annual Financial Statements at the back of their tender submission.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and, if required, that the requested documentation has been included in the tender submission.

NAME (Block Capitals): **Date**

SIGNATURE:

T2.2.4 CONTRACTS AWARDED BY ORGANS OF STATE IN THE PAST 5 YEARS

In terms of SCM Policy Section 20(1)(d)(iii), Tenderers are to provide details of Works undertaken for the Government or Public Sector entities/ Organs of State in the past 5 Years, including particulars of any material non-compliance or dispute concerning the execution of such contract.

Material non-compliance or dispute (Yes or No)													
Date Completed													
Value of Work													
Consulting Engineer/ Engineers representative													
Employer													
Contract Number													

I, the undersigned, who warrants that they are authorised to sign on behalf of the entity, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.5 MBD 6.1: PREFERENCE POINTS CLAIM) (SCMP 52.5: Broad-Based Black Economic Empowerment)

This form serves as a claim form for preference points for **Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution**. **Reference is to be made to the Tender Data C.3.11: "Evaluation of Tender Offers"**.

1.0 GENERAL CONDITIONS

1.1 The relevant **Preference Points System (80/20 or 90/10)** applicable to this bid is stated in the **Tender Data C.3.11: "Evaluation of Tender Offers"**.

1.2 Failure on the part of a bidder to fill in and/ or sign this form, and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS), or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA), or sworn affidavits in the case of Exempted Micro Enterprises or Qualifying Small Enterprises, together with the bid, will be interpreted to mean that preference points for **B-BBEE Status Level Of Contribution** are not claimed.

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

2.0 ADJUDICATION USING A POINT SYSTEM

2.1 The bidder obtaining the highest number of total points will be recommended for the award of the contract.

2.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.

2.3 Points scored will be rounded off to the nearest 2 decimal places.

2.4 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.

2.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.

2.6 Should two or more bids be equal in all respects the award shall be decided by the drawing of lots.

3.0 POINTS AWARDED FOR PRICE

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

80/20 Procurement System

or

90/10 Procurement System

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

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

Where: P_s = Points scored for comparative price of bid under consideration
 P_t = Comparative price of bid under consideration
 P_{\min} = Comparative price of lowest acceptable bid

4.0 POINTS ALLOCATED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

- 4.1 Preference points must be claimed by a bidder for attaining the **B-BBEE Status Level of Contribution** in accordance with the applicable table below:

80/20 Preference Points System	
B-BBEE Level Contributor	Preference Points
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-Compliant	0

- 4.2 All bidders must submit **B-BBEE Status Level of Contribution Certificates**, issued by either verification agencies accredited by the South African Accreditation System (SANAS), or by registered auditors approved by the Independent Regulatory Board for Auditors (IRBA), or sworn affidavits in a case of an Exempted Micro Enterprise (EME) or a Qualifying Small Enterprise (QSE).
- 4.3 Any enterprise with an annual Total Revenue of R 10 million or less qualifies as an Exempted Micro-Enterprise.
- 4.4 Exempted Micro-Enterprises are deemed to have B-BBEE Status of "Level Four Contributor" having a B-BBEE procurement recognition of 100% in terms of the Codes of Good Practice.
- 4.5 An Exempted Micro Enterprise (EME) with at least 51% black ownership qualifies as a Level 2 contributor with BBBEE level of 125% in terms of the Codes of Good Practice.
- 4.6 An Exempted Micro Enterprise with 100% black ownership qualifies as a Level 1 contributor with BBBEE level of 135% in terms of the Codes of Good Practice.
- 4.7 An Exempted Micro Enterprise that is regarded as a specialized enterprise with at least 75% black beneficiaries qualifies as a Level 1 contributor with BBBEE level of 135% in terms of the Codes of Good Practice.
- 4.8 An Exempted Micro Enterprise that is regarded as a specialized enterprise with at least 51% black beneficiaries qualifies as a Level 2 contributor with BBBEE level of 125% in terms of the Codes of Good Practice.
- 4.9 A Qualifying Small Enterprise (QSE) with at least 51% black ownership qualifies as a Level 2 contributor.
- 4.10 A QSE with 100% black ownership qualifies as a Level 1 contributor.
- 4.11 A QSE that is regarded as a specialized enterprise with at least 51% black beneficiaries qualifies as a Level 2 contributor with BBBEE level of 125% in terms of the Codes of Good Practice.
- 4.12 A QSE with less than 51% black ownership is required to submit a BBBEE level verification certificate issued by a BBBEE verification professional.
- 4.13 A Trust, consortium or joint venture:
- must submit a B-BBEE status level certificate in order to qualify for points;
 - may qualify for points as an unincorporated entity provided, that they submit their consolidated scorecard is prepared for separate tender; and
 - where no consolidated scorecard exists, the weighted average (in accordance with participation percentages) must be used and rounded off to the nearest status level.
- 4.14 Gazetted Sector Codes supersede Generic Codes.

5.0 SUB-CONTRACTING

- 5.1 B-BBEE points must not be awarded to a Tenderer who intends sub-contracting more than 25% of the value of the contract to an enterprise that does not qualify for at least the points that such contractor qualifies for, unless the intended sub-contractor is an EME who has the ability and capability to execute the contract.
- 5.2 A person awarded a contract may not sub-contract more than 25% of the value of the contract to an enterprise that does not have an equal or higher B-BBEE status level, unless the intended sub-contractor is an EME who has the ability and capability to execute the contract.
- 5.3 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 prescribed minimum threshold.

6.0 BID DECLARATION

- 6.1 Bidders who wish to claim points in respect of **B-BBEE Status Level of Contribution** must complete the following:

B-BBEE Status Level of Contribution	Tenderer's Preference Points Claim (maximum of 20 points)
Points claimed must be in accordance with the relevant table reflected in paragraph 4.1 and must be substantiated by means of a B-BBEE Status Level of Contribution Certificate issued by a verification agency accredited by the South African Accreditation System (SANAS), or by registered auditors approved by the Independent Regulatory Board for Auditors (IRBA), or sworn affidavits in a case of an Exempted Micro Enterprise (EME) or a Qualifying Small Enterprise (QSE).	

Tenderers are to include their B-BBEE Status Level of Contribution Certificate, or sworn affidavits in a case of an Exempted Micro Enterprise (EME), or a Qualifying Small Enterprise (QSE), at the back of their tender submission.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and, if required, that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.6 MBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

- 4.1 Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?

(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer / Authority of the institution that imposed the restriction after the audi alteram partem rule was applied.)

The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.

- 4.1.1 If YES, provide particulars.

.....

.....

- 4.2 Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?

The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.

- 4.2.1 If YES, provide particulars.

.....

.....

- 4.3 Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?

- 4.3.1 If YES, provide particulars.

.....

.....

Circle Applicable	
YES	NO
YES	NO
YES	NO

4.4 Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?

YES

NO

4.4.1 If YES, provide particulars.

.....

4.5 Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?

YES

NO

4.5.1 If YES, provide particulars.

.....

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

I accept that, in addition to cancellation of a contract, action may be taken against me should this declaration prove to be false.

NAME (Block Capitals):

Date

SIGNATURE:

.....

.....

.....

T2.2.7 MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

NOTES

- ¹ Includes price quotations, advertised competitive bids, limited bids and proposals.
- ² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.
- ³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

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

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid for: Contract **1R-34224**

Rates-Based Panel Contract for Road Rehabilitation Construction Works to be used As-and-When-Required, for a period of 3 Years (CIDB Grades 5 to 6CE), on Category C and D roads only

in response to the invitation for the bid made by: **ETHEKWINI MUNICIPALITY**

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

I certify, on behalf of:

that:

(continued on next page)

1. I have read and I understand the contents of this Certificate.
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect.
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation.
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience.
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement, or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices.
 - (b) geographical area where product or service will be rendered (market allocation).
 - (c) methods, factors or formulas used to calculate prices.
 - (d) the intention or decision to submit or not to submit, a bid.
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid.
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements, or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.8 DECLARATION OF MUNICIPAL FEES

Reference is to be made to the **Tender Data: C.2.1.1(d) and C.3.13(a)**.

I, the undersigned, do hereby declare that the Municipal fees of:

.....
(full name of Company / Close Corporation / partnership / sole proprietary/Joint Venture)

(hereinafter referred to as the TENDERER) are, as at the date hereunder, fully paid or an Acknowledgement of Debt has been concluded with the Municipality to pay the said charges in instalments.

The following account details relate to property of the said TENDERER:

<u>Account</u>	<u>Account Number: to be completed by Tenderer</u>											
Consolidated Account												
Electricity												
Water												
Rates												
JSB Levies												
Other												

- If applicable, a copy of a recent (within the past 3 months) Metro Bill is to be provided.

I acknowledge that should the aforesaid Municipal charges fall into arrears, the Municipality may take such remedial action as is required, including termination of any contract, and any payments due to the Contractor by the Municipality shall be first set off against such arrears.

- Where the Tenderer's place of business or business interests are outside the jurisdiction of eThekweni municipality, a copy of the accounts/ agreements from the relevant municipality are to be provided.
- Where the Tenderer's Municipal Accounts are part of their lease agreement, then a copy of the agreement, or an official letter to that effect, is to be provided.
- Where a Tenderer's place of business or business interests are carried out from premises as part of any other agreement, then a copy of the agreement, or an official letter to that effect, is to be provided.

Tenderers are to include copies of the above-mentioned account's, agreements signed with the municipality, lease agreements, or official letters, at the back of their tender submission.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.9 CONTRACTOR'S HEALTH AND SAFETY DECLARATION

In terms of Clause 5(1)(h) of the OHS Act 1993 Construction Regulations 2014 (referred to as "the Regulations" hereafter), a Principal Contractor may only be appointed to perform construction work if the Client is satisfied that the Principal Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHS Act 1993 Construction Regulations 2014.

To that effect, a person duly authorised by the Tenderer, must complete and sign the declaration hereafter in detail.

Declaration by Tenderer

- 1 I, the undersigned, hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHS Act 1993 Construction Regulations 2014.
- 2 I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
- 3 I propose to achieve compliance with the Regulations by one of the following **(Tenderers are to Circle Applicable - Yes or No)**:

(a) From my own competent resources as detailed in 4(a) hereafter.

(b) From my own resources still to be appointed or trained until competency is achieved, as detailed in 4(b) hereafter:

(c) From outside sources by appointment of competent specialist Subcontractors as detailed in 4(c) hereafter:

Circle Applicable	
Yes	No
Yes	No
Yes	No

- 4 Details of resources I propose:

(Note: Competent resources shall include safety personnel such as a construction supervisor and construction safety officer as defined in Regulation 8, and competent persons as defined in Regulations 9, 10, 11, 12, 13, 14, 16, 17, 20, 21, 22, 23(1), 24, 25, 26, 27, 28 and 29, as applicable).

- (a) Details of the competent and qualified key persons from my company's own resources, who will form part of the contract team:

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

(b) Details of training of persons from my company's own resources (or to be hired) who still have to be trained to achieve the necessary competency:

(i) By whom will training be provided?

(ii) When will training be undertaken?

(iii) Positions to be filled by persons to be trained or hired:

(c) Details of competent resources to be appointed as subcontractors if competent persons cannot be supplied from own company:

Name of proposed subcontractor:

Qualifications or details of competency of the subcontractor:

5 I, the undersigned, hereby undertake, if this tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 7(1) of the Construction Regulations, which plan shall be subject to approval by the Client.

6 I, the undersigned, confirm that copies of this company's approved Health and Safety Plan, the Client's Safety Specifications as well as the OHSA 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Principal Contractor's personnel, the Client's personnel, the Employer's Agent, visitors, and officials and inspectors of the Department of Labour.

7 I, the undersigned, hereby confirm that adequate provision has been made in the tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2014, and that I will be liable for any penalties that may be applied by the Client in terms of the said Regulations (Regulation 33) for failure on the Principal Contractor's part to comply with the provisions of the Act and the Regulations.

8 I, the undersigned, agree that failure to complete and execute this declaration to the satisfaction of the Client will mean that this company is unable to comply with the requirements of the OHSA 1993 Construction Regulations (2014) and accept that this tender will be prejudiced and may be rejected at the discretion of the Client.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.10 CSD REGISTRATION REPORT

Reference is to be made to **Tender Data: C.2.1.1(e) and C.2.23.**

The **Tender Data: C.2.1: Eligibility**, requires a Tenderer to be registered, at the time of tender closing, on the **National Treasury Central Supplier Database (CSD)** as a service provider.

CSD Registration Reports can be obtained from the National Treasury's CSD website at <https://secure.csd.gov.za/Account/Login>.

The date of obtaining the CSD printout is to be indicated on the printout and should be on or after the date of advertising of this tender.

The following is an example of the printout obtained from the above website.
Note: the printout will contain more than one page.

The screenshot shows the CSD Registration Report form. At the top left is the Central Supplier Database logo. To the right are two input fields: 'Report Date:' and 'Report Ran By:'. Below these is a green header bar with 'CSD REGISTRATION REPORT'. The main section is titled 'SUPPLIER IDENTIFICATION' and contains two columns of input fields. The first column includes fields for Supplier number, Is supplier active?, Supplier type, Supplier sub-type, Legal name, Trading name, Identification type, Government breakdown, Business status, Country of origin, and South African company/CC registration number. The second column includes fields for Have Bank Account, Total annual turnover, Financial year start date, Registration date, Created by, Created date, Edit by, Edit date, Restricted Supplier, and Restriction Last Verification Date.

Tenderers are to include a printout of their CSD Registration Report, at the back of their tender submission.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.11 CIDB REGISTRATION AND STATUS

Reference is to be made to the **Tender Data: C.2.1.1(e), C.2.23, and C.3.13(c)**.

The **Tender Data: C.2.1.1: "Eligibility"**, requires a Tenderer to be registered, as "Active", with the CIDB (at time of tender closing).

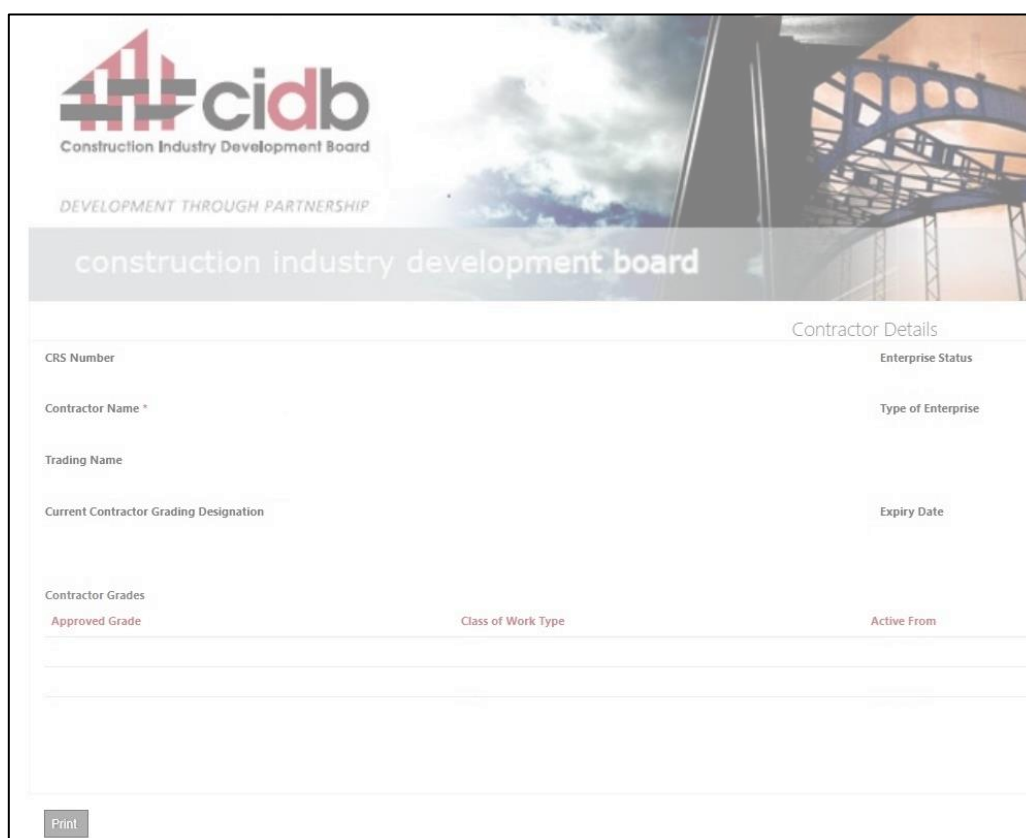
The required Grading, and Class of construction work, is specified in the **Tender Data C.2.1.2: "Eligibility: CIDB"**.

CIDB Registrations can be obtained from the CIDB website at:

<https://portal.cidb.org.za/RegisterOfContractors/>

The date of obtaining the CIDB printout(s) is to be indicated on the printout and should be on or after the date of advertising of this tender. The Tenderer's registration with the CIDB must be reflected as "Active" as at the date of tender closing.

The following is an example of the printout obtained from the above website using the provided "Print" button.
Note: the printout may contain more than one page.

The image shows a screenshot of a CIDB (Construction Industry Development Board) printout. At the top, there is a header with the CIDB logo, the text 'Construction Industry Development Board', and the tagline 'DEVELOPMENT THROUGH PARTNERSHIP'. Below this, the text 'construction industry development board' is displayed in a large, bold font. The main body of the printout is a form titled 'Contractor Details'. It contains several fields: 'CRS Number', 'Contractor Name *', 'Trading Name', 'Current Contractor Grading Designation', 'Contractor Grades', 'Enterprise Status', 'Type of Enterprise', 'Expiry Date', 'Approved Grade', 'Class of Work Type', and 'Active From'. A 'Print' button is located at the bottom left of the form.

Tenderers are to include a printout of their CIDB Registration and Status, at the back of their tender submission.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals): _____

Date

SIGNATURE: _____

T2.2.12 RECORD OF ADDENDA TO TENDER DOCUMENTS

Reference is to be made to the **Tender Data C.2.6: "Acknowledge addenda"**.

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

ADD.No	DATE	TITLE OR DETAILS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Failure of the Tenderer to comply with the requirements of the addenda WILL result in the tender submission being made non-responsive.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

It is also confirmed that the requirements, as stated on the Addenda, have been complied with.

NAME (Block Capitals): _____

Date

SIGNATURE: _____

T2.2.13 ELIGIBILITY: EXPERIENCE OF TENDERER

Only those Tenderers that can demonstrate experience and submit the associated documentation/ information, in works of a similar nature, within the past 10 years, will be eligible to have their tenders evaluated in terms of **Tender Data C.3.11: “Evaluation of Tender Offers”**.

Reference is to be made to the **Tender Data C.2.1.3: “Eligibility: Tenderer’s Experience”**.

- The **Eligibility Criteria Requirement** is as stated on **Table 1: “Experience Requirement”**.
- The experience is to be **“Similar in Nature”** to that specified on **Table 2: “Works of a Similar Nature”**. Tenderers are to note the exclusions (if any) stated on this table.
- The **Documentation/ Information** that is required to be submitted is specified on **Table 3: “Documentation/ Information Requirements”** (which includes the Notes below the table).
- Tenderers must submit experience gained as **Main Contractors**.

It is the responsibility of the Tenderer to ensure that the experience submissions comply with the requirements as stated in the Tender Data C.2.1.3: “Eligibility: Tenderer’s Experience”.

Guidance to Tenderers: Experience Submission Form

Client / Employer Details

- Provide details for whom the works were carried out (works owner).
- Provide **Contact details of the Client**.

The contact details may be used by the Employer to verify the information, pertaining to the experience submission. Should the Employer’s reasonable attempts to make contact with the Client fail (for whatever reason), that specific experience submission may be considered invalid.

Contract Details

- Provide the **Contract Reference Number** and **Contract Title**.
- Indicate if this contract has been completed or is still in progress.
- Provide **Contract Dates**.
- Provide **Contract Values** of completed Contracts.

Scope of Works

- Indicate the **Works Type(s)** that best describe the works included in the project.
Select the most applicable option (only 1).
- Indicate the **Works Elements(s)** that were included in the project.
Each project must include at least five of the listed elements.
Select the elements that were included in the contract.

(This form is continued on the next page)

Confirmation of submission of Information/ Documentation

The Tenderer is to indicate (by marking with an "X" in the shaded column) the documentation that has been included in this tender submission, in support of each experience submission.

If submitted, mark with an "X"

SUBMISSION #1	Experience Submission Form on page 50 fully completed and signed	
	Letter of Award OR Form of Offer & Acceptance	
	Quantities summary	
	Final Payment Certificate OR INVOICE	
	Completion Certificate	
SUBMISSION #2	Experience Submission Form on page 51 fully completed and signed	
	Letter of Award OR Form of Offer & Acceptance	
	Quantities summary	
	Final Payment Certificate OR INVOICE	
	Completion Certificate	
SUBMISSION #3	Experience Submission Form on page 52 fully completed and signed	
	Letter of Award OR Form of Offer & Acceptance	
	Quantities summary	
	Final Payment Certificate OR INVOICE	
	Completion Certificate	

Note: Should there be insufficient evidence for verification of the information submitted for any specific experience submission, that experience submission WILL be deemed invalid.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

EXPERIENCE SUBMISSION #1

Reference is to be made to the **Tender Data C.2.1.3: "Eligibility: Tenderer's Experience"**.
Failure to complete and sign this form will invalidate this Experience Submission.

(Where required, in the shaded areas, clearly mark selection with an "X" or circle applicable)

Experience as a:	Sub-Contractor:		Main Contractor:	
-------------------------	------------------------	--	-------------------------	--

Client/ Employer Should the Employer's reasonable attempts to make contact, to verify the information provided, fail (for whatever reason) this experience submission WILL be considered invalid.	Entity Name:														
	Contact Name:														
	Contact Tel:					-					-				
	Contact Cell:					-					-				
	Contact email / other:														

Contract Details	Contract (Reference) Number:																			
	Contract Title:																			
	Has this Contract been completed?	Y	N	Commencement Date:	d	d	m	m	2	0	y	y	Completion Date (if applicable):	d	d	m	m	2	0	y
Tendered Value (Contract Sum)	R	Final Contract Price:				R														

Contract Scope-of-Work (Type of Project and Works Elements):

Which Works Type(s) best describe the project?		
bituminous resurfacings		
pavement layers re-construction		
OTHER: provide a description of the type of project		

Which Works Element(s) were included in the project?		
roadway layer-works		asphalt roadway surfacing
kerbing/ channelling		sidewalk/ walkway construction
traffic calming measures		stormwater drainage
retaining structures		dealing with underground services
OTHER: List works elements included in project		

Confirmation of documentation submitted is to be recorded on Page 49

Tenderers are to include copies of the required documentation at the back of their tender submission.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

EXPERIENCE SUBMISSION #2

Reference is to be made to the **Tender Data C.2.1.3: "Eligibility: Tenderer's Experience"**.
Failure to complete and sign this form will invalidate this Experience Submission.

(Where required, in the shaded areas, clearly mark selection with an "X" or circle applicable)

Experience as a:	Sub-Contractor:		Main Contractor:	
-------------------------	------------------------	--	-------------------------	--

Client/ Employer Should the Employer's reasonable attempts to make contact, to verify the information provided, fail (for whatever reason) this experience submission WILL be considered invalid.	Entity Name:														
	Contact Name:														
	Contact Tel:					-					-				
	Contact Cell:					-					-				
	Contact email / other:														

Contract Details	Contract (Reference) Number:																			
	Contract Title:																			
	Has this Contract been completed?	Y	N	Commencement Date:	d	d	m	m	2	0	y	y	Completion Date (if applicable):	d	d	m	m	2	0	y
Tendered Value (Contract Sum):	R	Final Contract Price:				R														

Contract Scope-of-Work (Type of Project and Works Elements):

Which Works Type(s) best describe the project?		
bituminous resurfacings		
pavement layers re-construction		
OTHER: provide a description of the type of project		

Which Works Element(s) were included in the project?		
roadway layer-works		asphalt roadway surfacing
kerbing/ channelling		sidewalk/ walkway construction
traffic calming measures		stormwater drainage
retaining structures		dealing with underground services
OTHER: List works elements included in project		

Confirmation of documentation submitted is to be recorded on Page 49

Tenderers are to include copies of the required documentation at the back of their tender submission.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

EXPERIENCE SUBMISSION #3

Reference is to be made to the **Tender Data C.2.1.3: "Eligibility: Tenderer's Experience"**.
Failure to complete and sign this form will invalidate this Experience Submission.

(Where required, in the shaded areas, clearly mark selection with an "X" or circle applicable)

Experience as a:	Sub-Contractor:		Main Contractor:	
-------------------------	------------------------	--	-------------------------	--

Client/ Employer Should the Employer's reasonable attempts to make contact, to verify the information provided, fail (for whatever reason) this experience submission WILL be considered invalid.	Entity Name:														
	Contact Name:														
	Contact Tel:					-					-				
	Contact Cell:					-					-				
	Contact email / other:														

Contract Details	Contract (Reference) Number:																			
	Contract Title:																			
	Has this Contract been completed?	Y	N	Commencement Date:	d	d	m	m	2	0	y	y	Completion Date (if applicable):	d	d	m	m	2	0	y
Tendered Value (Contract Sum):	R	Final Contract Price:				R														

Contract Scope-of-Work (Type of Project and Works Elements):

Which Works Type(s) best describe the project?		
bituminous resurfacings		
pavement layers re-construction		
OTHER: provide a description of the type of project		

Which Works Element(s) were included in the project?		
roadway layer-works		asphalt roadway surfacing
kerbing/ channelling		sidewalk/ walkway construction
traffic calming measures		stormwater drainage
retaining structures		dealing with underground services
OTHER: List works elements included in project		

Confirmation of documentation submitted is to be recorded on Page 49

Tenderers are to include copies of the required documentation at the back of their tender submission.

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.14 CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING

Reference is to be made to the **Tender Data C.2.1.1(b): “Eligibility”** and **C.2.7: “Clarification meeting”**.

This is to certify that:

(entity name):

of (address):

was represented by the person(s) named below at the Clarification Meeting for Contract **1R-34224** held for all Tenderers, the details of which are stated in the **Tender Data C.2.7: “Clarification meeting”**.

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

Particulars of person(s) attending the meeting:

Name:

Name:

Signature:

Signature:

Capacity:

Capacity:

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

Name:

Signature:

Date:

T2.2.15 ELIGIBILITY: FINANCIAL CAPACITY

The Tenderer is to verify below that documentation submitted pertaining to “**Eligibility: Financial Capacity**” complies with the requirements and is attached at the back of this tender submission.

- a) Audited Annual Financial Statements (AFS) for the three most recent consecutive financial years, including:
- Balance Sheet (Statement of Financial Position)
 - Income Statement (Statement of Comprehensive Income)
 - Cash Flow Statement
 - Statement of Changes in Equity
 - Notes to the Financial Statements
- b) A **Financial Ratio Verification Letter**, signed and stamped by a Registered Professional Accountant (SA), Associate General Accountant (AGA(SA)), or Chartered Accountant (CA(SA)), **confirming the Current and Acid-Test Ratios** for each of the three years, derived directly from the audited financial statements submitted.
- c) Supplier Credit Facility Confirmation Letters
- Asphalt Products (R4,000,000)

Complies and is Included Circle Applicable	
Yes	No
Yes	No
Yes	No
Yes	No
Yes	No
Yes	No
Yes	No
Yes	No
Yes	No

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and, if required, that the requested documentation has been included in the tender submission.

NAME (Block Capitals):

Date

SIGNATURE:

PART C1: AGREEMENT AND CONTRACT DATA

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.1.1: OFFER

The “**OFFER**” is the **Total of the Bill of Quantities**. It will be used as a Tender Assessment Schedule Value for comparison and assessment purposes only. It is not related to any CIDB Grading Range, or Contract Sum.

The Employer, identified in the Acceptance signature block, has solicited offers to enter into an “As-and-when-Required”, Rates-Based, Panel Contract, in respect of the following works:

Contract No: 1R-34224

Contract Title: Rates-Based Panel Contract for Road Rehabilitation Construction Works to be used As-and-When-Required, for a period of 3 Years (CIDB Grades 5 to 6CE), on Category C and D roads only

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

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

Note: * Indicates what information is mandatory.
Failure to complete the mandatory information and sign this form will invalidate the tender.

* The total of the prices, inclusive of Value Added Tax, is:

R..... (In words)
.....)

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data.

For the Tenderer:

As witness:

.....
* **Name of Tenderer** (organisation)

.....
* **Signature** (of person authorized to sign the tender)

.....
* **Name** (of signatory in capitals)

.....
Capacity (of Signatory)

.....
Date

.....
Telephone

.....
Signature

.....
Name (in capitals)

.....
Date

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.1.2: FORM OF ACCEPTANCE

This Form will be completed by the Employer

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

The terms of the contract are contained in:

- Part C1 : Agreement and Contract Data, (which includes this Agreement)
- Part C2 : Pricing Data, including the Bill of Quantities
- Part C3 : Scope of Work
- Part C4 : Site Information

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

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

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

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

Signature (*person authorized to sign the acceptance*) :

Name (*of signatory in capitals*) :

Capacity (*of Signatory*) :

Name of Employer (*organisation*) :

Address :

Witness:

Signature : **Date** :

Name(*in capitals*) :

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.1.3: SCHEDULE OF DEVIATIONS

This form will be completed by THE EMPLOYER and ONLY THE SUCCESSFUL TENDERER

1.

Subject

:

Details

:

:

2.

Subject

:

Details

:

:

3.

Subject

:

Details

:

:

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

FOR THE TENDERER		FOR THE EMPLOYER
	Signature	
	Name (<i>in capitals</i>)	
	Capacity	
	Name and Address of	
	Organisation	
	Witness Signature	
	Witness Name	
	Date	

C1.2: CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

Definition

Work Package Order and Agreement: the documentation issued to the Contractor, on an “As-and-when-required” basis, that specifies the Works and Conditions applicable to a specific Work Package Order. The Work Package Order and Agreement is to be read in conjunction with, and shall have precedence over, the Contract Data below.

C1.2.1.1 GENERAL CONDITIONS OF CONTRACT

The Conditions of Contract are the **General Conditions of Contract for Construction Works (2015 3rd Edition)**, (**GCC 2015**) published by the South African Institution of Civil Engineering. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Tel: 011-805-5947, Fax: 011-805-5971, E-mail: civilinfo@saice.org.za).

The Contract Data (including variations and additions) shall amplify, modify, or supersede, the GCC 2015 to the extent specified below, and shall take precedence and shall govern.

Each item of data given below is cross-referenced to the clause in the GCC 2015 to which it mainly applies.

C1.2.2 CONTRACT DATA

C1.2.2.1 DATA TO BE PROVIDED BY THE EMPLOYER

- 1.1.1.13 The **Defects Liability Period** for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.
- 1.1.1.14 The **time for achieving Practical Completion** for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.
- 1.1.1.15 **The Employer** is the eThekweni Municipality as represented by:
Deputy Head: **ROADS PROVISION**
- 1.1.1.16 The **name of the Employer's Agent** for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.
- 1.1.1.17 The name of the **Employer's Agent's Representative** for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.
- 1.1.1.26 The **Pricing Strategy** is by **Re-measurement Contract**.
- 1.2.1.2 The address of the Employer is:

Physical: Roads Provision Department, 166 K.E. Masinga Road, DURBAN, 4001

Postal: Roads Provision Department, P O Box 680, DURBAN, 4000

Telephone: 031-311-7326 (t)

E-Mail: Sandile.Masondo@durban.gov.za

1.2.1.2 The address of the **Employer's Agent** for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

4.11.1 To carry out and complete the works, the Contractor shall employ a competent Contracts Manager and Construction Manager as part of the key staff.

- Contracts Manager: with more than 10 years of road construction experience or more than 7 years road rehabilitation experience on projects of a similar nature; with relevant accredited 3 year diploma / 4 year degree. Also registered with ECSA as a Professional Civil Engineer or Professional Civil Engineering Technologist or registration with SACPCMP as a Professional Construction Project Manager.
- Construction Manager: with more than 5 years road construction experience or more than 3 years road rehabilitation experience on projects of a similar nature; with relevant accredited 3 year diploma / 4 year degree. Also be registered with ECSA as a Professional Civil Engineering: Engineer, Technologist or Technician or registration with SACPCMP as a Professional Construction Project Manager or Professional Construction Manager.

Note 1: Road rehabilitation experience shall include mill and asphalt inlay, asphalt overlay, and rehabilitation of the base, sub-base or subgrade pavement layers.

Note 2: Road construction experience shall include new road construction, road widening/upgrade projects, intersection improvements, special maintenance and routine maintenance, gravel to surface road upgrades, access road upgrades and parking areas, ancillary/secondary works (kerbing, drainage, sidewalks, road signs, gabions etc).

Note 3: The following is excluded – materials investigation and analysis, and all forms of design experience.

The CV of the Contracts Manager and Construction Manager should be submitted to the Employer's Agent's Representative for acceptance by the Department (reference is made to Cl.5.3.1 of the Contract Data).

5.3.1 The **documentation required** before commencement with Works execution will be stated in the **Work Package Order and Agreement** documentation. These documents will include (inter-alia):

- Health and Safety Plan (refer to Clause 4.3)
- Initial Programme (refer to Clause 5.6)
- Security (refer to Clause 6.2)
- Insurance (refer to Clause 8.6)
- CV(s) of Key Site Staff (refer to Clause 4.11.1)
- Sub-Contracting (CSCG) Implementation Plan
- If required to be registered, in terms of the Occupational Injuries and Diseases Act (130 of 1993 as amended), the Contractor is to supply proof of being registered and in good standing with the compensation fund by submitting a valid Letter of Good Standing from the Compensation Commissioner. Should the Contractor's Letter of Good Standing be expired, but an application for renewal has been made, the Contractor is to submit the expired Letter of Good Standing AND proof of an application for renewal.

5.3.2 The **time to submit the documentation** required before commencement with Works for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

5.3.3 Add the following paragraph:

"If a construction work permit, in terms of Clause 3(1) of the Construction Regulations (2014), is applicable, the instruction to commence carrying out of the works may only be issued once the construction work permit has been obtained by the Employer's Agent. If a construction work permit is applicable, the contractor shall allow for a minimum period of 37 days, after the

submission (or re-submission) of the documentation referred to in Clause 5.3.1., for the issuing of the construction work permit.”

5.8.1 The **non-working days** are **Saturdays and** Sundays.

(5.1.1) The **special non-working** days are:

- All statutory holidays as declared by National or Regional Government.
- The year-end break:
 - Commencing on the first working day after 15 December.
 - Work resumes on the first working day after 5 January of the next year.

5.8.1 Delete the words “sunset and sunrise” and replace with “17:00 and 07:00”.

5.12.2.2 **Abnormal Climatic Conditions (Rain Delays)** - The numbers of days per month on which work is expected not to be possible as a result of rainfall, for which the Contractor shall make provision, is given in the table below. During the execution of the Works, the Employer’s Agent’s Representative will certify a day lost due to rainfall only if at least 75% of the workforce and construction equipment on site could not work during that specific working day.

Extension of time as a result of rainfall shall be calculated monthly being equal to the number days certified by the Employer’s Agent’s Representative as lost due to rainfall, less the number of days allowed for as in table below, which could result in a negative figure for certain months. The total extension of time for which the Contractor may apply, shall be the cumulative algebraic sum of the monthly extensions. Should the sum thus obtained be negative, the extension of time shall be taken as NIL.

<u>Month</u>	<u>Days Lost</u>	<u>Average Rainfall</u>	<u>Month</u>	<u>Days Lost</u>	<u>Average Rainfall</u>
January	4*	134	July	1	39
February	3	113	August	2	62
March	3	120	September	2	73
April	2	73	October	3	98
May	2	59	November	3	108
June	1	28	December	1*	102
TOTAL	27	1009mm	* = The number of working days lost allows for the annual statutory Construction holiday in December and January of each year.		

5.13.1 The **penalty for delay** in failing to complete the Works for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

5.14.1 The **requirements for achieving Practical Completion** for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

5.16.3 The **latent defect liability** period for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

6.2.1 **Security (Performance Guarantee):** for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

6.5.1.2.3 The **percentage allowance** to cover overhead charges for daywork are as follows:

- **80%** of the gross remuneration of workmen and foremen actually engaged in the daywork.
- **20%** on the net cost of materials actually used in the completed work.

No allowance will be made for work done, or for materials and equipment for which daywork rates have been quoted at tender stage.

6.8.2 **Contract Price Adjustment Factor:** The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule (GCC 2015 - page 86) with the following Indices / Descriptions / Coefficients:

- The proportion not subject to adjustment: **x = 0.10**.
- The base month will be the month prior to the month in which tenders close.
- The Index for, **Plant, Materials, and Fuel** shall be based on **2023 = 100**.
- The Index for **Labour** shall be based on **2024 = 100**.

	STATS SA Statistical Release	Table	Description	Coefficient
• "L" is the "Labour Index"	P0141	Table A	Geographic Indices; CPI per Province; Kwa-Zulu Natal	a = 0.2
• "P" is the "Contractor's Equipment Index"	P0151.1	Table 4	Plant and Equipment	b = 0.3
• "M" is the "Materials Index"	P0151.1	Table 6	Civil Engineering Material (excluding bitumen)	c = 0.3
• "F" is the "Fuel Index"	P0142.1	Table 1	Coke, petroleum, chemical, rubber and plastic products; Coal and petroleum products; Diesel	d = 0.2

6.8.3 Price adjustments for **variation in the cost of the special material(s)**, listed below, will be allowed.

Bitumen - escalation will be calculated using the "Rise and Fall" method as determined by the Employer. The base price for bitumen on this contract shall be the ruling price of 50/70 grade bitumen based on the **RUBIS Asphalt South Africa List Selling Price** for Penetration Grade Bitumen, seven (7) days prior to the closing date of tenders.

6.10.1.5 The **percentage advance** on materials not yet built into the Permanent Works is **Nil**.

The **percentage advance** on Plant not yet supplied to Site: **Not Required**

6.10.3 **Retention Money:** for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

Interest will not be paid on retention withheld by the Employer.

8.6.1.1.2 The **value of Plant and materials** supplied by the Employer to be included in the insurance sum: **Not Required**.

8.6.1.1.3 The **amount to cover professional fees** for repairing damage and loss to be included in the insurance sum: **Not Required**.

8.6.1.2 **SASRIA Coupon Policy** for Special Risks: for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

8.6.1.3 The limit of indemnity for **liability insurance**: : for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

8.6.1.4 **Ground Support Insurance:** for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

- 8.6.1.5 Furthermore, the insurance cover effected by the Contractor shall meet the following requirements:

Third Party Insurance (Public Liability) : for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

Principal's own surrounding Property Insurance: for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

Insurance of Works: for each **Work Package Order** will be stated in the **Work Package Order and Agreement** documentation.

- 8.6.5 **Approval by Employer:** At the end of the sub-clause, add the following paragraph:

"Except where otherwise provided in the Special Conditions of Contract, the insurance cover effected by the Contractor in terms of this clause shall not carry a first loss amount greater than those set out below:

Contract Price	First Loss
Less than R 100,000	R 5,000
R 100,000 to R 500,000	R 10,000
R 500,000 to R 1,000,000	R 20,000
R 1,000,000 to R 2,000,000	R 30,000
R 2,000,000 to R 4,000,000	R 40,000
Greater than R 4,000,000	R 50,000

The insurance policy shall contain a specific provision whereby cancellation of the policy prior to the end of the period referred to in Cause 8.2.1 cannot take place without the prior written approval of the Employer. "

- 10.7.1 Failing resolution by (ad-hoc) adjudication, the determination of disputes shall be by arbitration.
- 10.8.1 Failing resolution by arbitration, determination of disputes shall be by court proceedings.

C1.2.2.2 DATA TO BE PROVIDED BY CONTRACTOR

1.1.1.9 The legal name of Contractor is:

.....

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.....

1.2.1.2 The Physical address of the Contractor is:

.....

.....

.....

.....

The Postal address of the Contractor is:

.....

.....

.....

.....

The contact numbers of the Contractor are:

Telephone:

The E-Mail address of the Contractor is:

.....

C1.2.1.2 SPECIAL CONDITIONS OF CONTRACT

These Special Conditions of contract shall amplify, modify or supercede, as the case may be, the General Conditions of Contract 2015 to the extent specified, and shall take precedence and shall govern for individual Package Orders issued under this Panel Contract.

5.5 "Time for Practical Completion" : delete this clause and all references thereto throughout the General Conditions of Contract.

5.13.1 "Penalty for Delay" : delete the first paragraph and replace with "If the Contractor fails to complete the whole Works specified in the Work Package Order by the Due Completion Date of the Work Package Order or as amended, the Contractor shall be liable to the Employer for the sum stated in the Work Package Order Contract Specific Data as a penalty for every day that elapses after the Due Completion Date or as amended, including non-working and special non-working days".

5.14.1 "Practical Completion" : delete this clause and all references thereto throughout the General Conditions of Contract.

1.14.7 "Completion" Delete the words "Contract Data" and replace with "Work Package Order Specific Contract Data"

6.10.3 **Retention Money** : Delete the word "selected". The percentage retention on the amounts due to the Contractor per Work Package Order is 10%, which will be reduced to 5% upon receipt of completion certificate for that specific Work Package Order and will be reduced to 0% after the Defects Liability Period has elapsed.

The limit of retention per Work Package Order is 10% of the Contract Sum.

Should the Contract Price exceed the Contract Sum then the limit of "retention money" is 10% of the Contract Price.

Interest will not be paid on retention withheld by the Employer.

6.11 "Variations exceeding 15%": Delete this clause and all references thereto throughout the General Conditions of Contract.

4.4 Subcontracting: Add the following sub-clauses

4.4.8.1 The Contractor shall enter into a written subcontract agreement with the Sub-contractors. The subcontract agreement between the Contractor and the Sub-contractors shall be the standard General Conditions of Subcontract for Construction Works (First Edition, GCSC 2018).

4.4.8.1.1 Each subcontract shall include the provisions:

(a) The Contractor undertakes to make payment within 14 days after the date on which the Sub-contractor has submitted a statement for payment or a claim for payment to the Contractor for work completed or goods delivered in accordance with the contract between the Contractor and Sub-contractor; and

(b) The Contractor undertakes to supply the sub-contractors with the relevant and sufficient data to undertake the works as specified by the Employers Agent/Employer, which shall include but not limited to the relevant contract data and special and/or additional conditions of contract, standard and/or amended specifications, contract standard and project specific drawings etc.

(c) The training, coaching, guidance or mentoring to be provided to the sub-contractors workforce (where required and subject to the

approval of the Employer's Agent), and an obligation on the sub-contractor to participate and co-operate in such support as is provided for in this Contract.

(d) Dispute avoidance and resolution procedures, including any sanctions in the event of failure by the sub-contractor to comply with the terms and conditions of the subcontract agreement.

- 4.4.8.2 The Contractor shall disclose all subcontracting arrangements to the Employer upon request thereof, within 2 working days.
- 4.4.8.3 No performance security shall be required for sub-contractors.
- 4.4.8.4 Delay Damages for sub-contractors shall be limited to 10% of the accepted sub-contract amount.

C1.2.3 ADDITIONAL CONDITIONS OF CONTRACT

C1.2.3.1 COMMUNITY LIAISON OFFICER

The Ward Councillor(s) in whose ward(s) work is to be done will, collectively, identify a community liaison officer (CLO) for the project and make the person known to the Contractor within two days of being requested to do so. The Contractor will be required to enter a written contract with the CLO that specifies:

- The hours of work and the wage rate of the CLO (200% of the Civil Engineering Industry minimum wage).
- The duration of the appointment.
- The duties to be undertaken by the CLO which could include:
 - represent the community and assist the contractor, the engineer and the employer with communication between them and the community;
 - work an 8-hour day with a total of 40 hours worked per week, and shall be present on site each day except when performing off-site community liaison activities;
 - communicate daily with the contractor on labour related issues such as numbers and skill;
 - assist in the identification and screening of local labourers from the community in accordance with the contractor's requirements;
 - inform local labour of their conditions of employment, including their period of employment;
 - attend disciplinary proceedings involving local labour, and ensure that hearings are fair and reasonable;
 - attend all meetings at which the community and/or local labour are present or are required to be represented;
 - attend monthly site meetings to report on community and local labour matters;
 - keep a daily written record of interviews and community liaison;
 - submit monthly returns regarding community liaison; and
 - carry out all such other duties as agreed upon between all parties concerned.

Responsibility for the identification of a pool of suitable labour shall rest with the CLO, although the Contractor shall have the right to choose from that pool. The Contractor shall have the right to determine the total number labourers required at any one time and this may vary during the contract.

The Contractor shall have the right to replace labour that is not performing adequately. Should such occasion arise, it must be done in conjunction with the CLO.

Payment: The CLO will be reimbursed from the PC Sum item in the Preliminary & General Section of the Bill of Quantities.

Note: The Employers Agent shall determine, based on the extent of works issued in the Works Order Package(s), the number of CLO(s) required to ensure successful operations of the works.

Note: Should the Contractor request for permission to work on non-working or special non-

working days or any other overtime, this shall be at the Contractors cost, and such request be approved by the Employer's Agent in writing. The Contractor shall be liable to make payment to the CLO for these working hours/day(s) including any overtime or other benefits as provided by the Contractor. Such request must be submitted to the Employer's Agent at least 3 working days prior to the day/s for which permission is being requested. All overtime and benefits shall not be re-imbursed by the Employer, i.e. at the Contractors cost.

C1.2.3.2 EMPLOYMENT OF LOCAL LABOUR

It is a condition of contract that the contractor will be required to employ local labour as specified in eThekweni Council Policy "The use of CLOs and Local Labour". The contractor will be required to ensure that a minimum of 50% of the unskilled labour force is made up of local labour. For the purposes of this contract and associated **Work Package Orders**, "Local labour" will be deemed to be any **persons who reside within the Ward(s) in which the Works is situated**. The contractor will be required to provide proof of authenticity of local labour. Signed confirmation by the appointed CLO will suffice for this.

The penalty for not employing local labour shall be taken as the number of local labour not employed, multiplied by the number days local labour was not employed, multiplied by the daily wage rate, multiplied by a factor of two (2).

No additional costs will be entertained due to this Particular Specification. The contractor will remain responsible for providing proper supervision of all labour and will be responsible for the quality of work produced.

C1.2.3.3 SUB-CONTRACTING GOAL (CSCG)

Sub-contracting percentages will be determined on a **Work Package Order** specific basis, depending on the nature of works and sub-contracting potential. The following provisions shall generally apply to issued **Work Package Orders**:

- Value greater than R1m, up to R3m: Minimum 10% sub-contracting.
- Value greater than R3m, up to R5m: Minimum 20% sub-contracting.
- Value greater than R5m: Minimum 30% sub-contracting.

The Contractor shall sub-contract to an EME or QSE which is at least 51% owned by black people. These Enterprises must be from the ward(s) where work is taking place in the first instance and, if the Contractor cannot procure such enterprises from the ward(s), this may be achieved by sub-contracting with such qualifying Enterprises located within adjacent wards, failing which the Sub-Contractors may be sourced within the jurisdiction of eThekweni Municipality.

CSCG sub-contracting may be to:

- Contractors who are registered with the Construction Industry Development Board in the Grades ranging from 1 to 4,
- Material and equipment suppliers who meet the requirements of an EME or QSE as detailed above.

Payment certificates (where applicable), Tax invoices, Proof of payment to the subcontractors and equipment and material suppliers will be required to verify that this has been achieved.

The contractor shall be fully responsible for the management of all appointed Sub-Contractors. The contractor shall ensure that a suitable quality monitoring process is in place for each element of the works and that the Sub-Contractors are conversant on the requirements thereof.

For any work being sub-contracted, documents of the relevant sub-contractor must be submitted to the Employer's Agent in writing for approval well in advance before commencement of any of

the activities on the programme. Subcontractors shall be approved by the Employer. The Employer is under no obligation to accept the proposed Subcontractor, and rejection by the Employer does not absolve the Contractor of their CSCG responsibilities in terms of this contract.

No additional costs will be entertained for compliance with this requirement.

Submission of CSCG Plan

At the commencement of each **Work Package Order**, the Contractor shall provide a Sub-Contracting Plan (CSCG Plan) for the Sub-Contracting using the Scope of Work and its related cost to demonstrate how the stipulated CSCG targets will be achieved.

Prior to commencement of works, as per Clause 5.3.1 of the Contract Data, the Contractor shall provide such comprehensive CSCG Plan for approval by the Employer's Agent. Should the Sub-Contractors be allocated work that exceeds their CIDB grading, then the work allocated to these Sub-Contractors shall be reduced to the upper limit of their CIDB Grading, and the Main Contractor shall be required to source additional Sub-Contractors to achieve the tendered Sub-Contract CSCG Value. The Primary Contractor shall be required to update the CSCG Plan for approval by the Employer's Agent before work commences. This plan may be updated during the contract period but shall still be for the approval of the Employer's Agent. The CSCG Plan shall ensure an adequate and acceptable distribution of works across the identified CIDB Grading range (viz. 1 CE to 4 CE); the plan shall be subject to approval by the Employer, (taking into consideration the scope of works risk profile and associated allocation of works), and any amendments required to achieve an acceptable distribution of works shall be implemented by the Contractor at no additional cost to the contract.

Rates of works allocated to CSCG Sub-Contractors shall be evaluated to ensure they are market related. The Contractor will be required to demonstrate that the rates provided are fair and reasonable, taking into consideration the limitations that CSCG contractors may face to procure materials and equipment at discounted rates. Where it is found that the rates provided are unrealistic/not market related and the CSCG contractor cannot undertake the works at the rates tendered by the main contractor, the main contractor will be required to balance their rates, at no additional cost to the contract, to address the non-market related rates tendered by the main contractor; (market related rates will be based on cost structures applicable to the level of CSCG company undertaking the works). The approval of the CSCG Plan shall not absolve the main contractor of his contractual responsibility or for any rates dispute that may arise during the implementation of the contract, based on the rates tendered or adjusted during the award process.

The penalty for not achieving the specified CSCG will be 0.5% of the **Work Package Order** value (excluding PC Sum items and Fixed Cost allowances) for every 1% of CSCG not achieved.

C1.2.3.4 FTE (Full Time Equivalent) EMPLOYMENT INFORMATION

It is a condition of contract that the Contractor supplies the Employer's Agent's Representative with information in respect of the employment of all foremen, artisans and Labour (skilled and unskilled) employed to work on each Works Order Package. The information required is:

- Initials (per ID doc):
- Last Name (per ID doc):
- ID Number:
- Disability (y / n):

• Education Level:	Level 1 Unknown	Level 2 No Schooling	Level 3 Grade 1-3	Level 4 Grade 4	Level 5 Grade 5-6
	Level 6 Grade 7-8	Level 7 Grade 9	Level 8 Grade 10-11	Level 9 Grade 12	Level 10 Post Matric
• Category of Employment:	Category A: Employed as Local Labour for this contract only Category B: Temporarily employed by the Contractor Category C: Permanently employed by the Contractor				

In addition, the following information is required in respect of each person listed above, on a monthly basis:

- Number of days worked during the month;
- Daily wage rate;
- Number of training days during the month.
- Copies of identity documents;
- Proof of employment contracts, and
- Proof of payment.

The information is to be forwarded in a format acceptable to the Employer's Agent's Representative, but preferably in the form of an emailed EXCEL file (an original file, to be used as a template, will be issued to the Contractor). Contractors without computer facilities will be required to submit a hard copy of the information in the format as agreed to between the Contractor and the Employer's Agent's Representative.

In addition to the tax invoice, to be submitted by the Contractor with his monthly statement, mentioned in Clause 6.10.4 of GCC 2015, the Employer reserves the right to withhold payment until the monthly FTE information has been forwarded to the Employer's Agent's Representative. No additional payment for complying with the above will be made and the Contractor is to make allowance for complying through the time related P & G items in Part 0102: General Requirements and Provisions, of the Bill of Quantities.

C1.2.3.5 DUTIES AND RESPONSIBILITIES OF A CONTRACTS MANAGER

In addition to requirements laid down in the Code of Conduct for the registered professionals by ECSA or SACPCMP, the Contracts Manager shall undertake the following minimum requirements;

The Contracts Manager shall:

- Be the link between the employer's Agent and the Contractor.
- Be available at all times during the execution of any **Work Package Orders** and be immediately physically available when requested.
- Always be up-to-date with the activities and problems on all projects within the Contract.
- Monitor **Work Package Order** progress and performance to ensure goods and services conform to the **Work Package Order** requirements.
- Ensure proper co-ordination of all **Work Package Orders** within the Contract.
- Ensure that sufficient human resources are available to function adequately, for example Construction Managers.
- Ensure that sufficient constructional plant and equipment resources are available to complete all projects allocated.
- Ensure that the proper sub-contracting resources are arranged on time for the timeous completion of all projects.
- Prepare and submit the combined weekly programme of works of **Work Package Orders** to the Employer's Agent's Representative.

- Prepare and submit the combined monthly cashflow of all **Work Package Orders** to the Employer's Agent's Representative.
- Prepare and submit the combined weekly progress report of all **Work Package Orders** to the Employer's Agent's Representative.
- Prepare and submit the combined monthly quality report of **Work Package Orders** to the Employer's Agent's Representative.
- Authorize payment claims consistence with Contract terms.
- Oversee and ensure that construction managers are carrying out all **Work Package Orders** to the required specification.
- Ensure that all sites are in compliance with the Health and Safety specifications.
- Resolve disputes in a timely manner.
- Establish control of correspondence, data and reports.
- Establish a procedure, identifying a responsible person and establish a timeframe for handling non-compliance.

C1.2.3.6 PERFORMANCE MONITORING OF SERVICE PROVIDERS

The Contractor shall be subjected to "Performance Monitoring" assessments in terms of the applicable Section (S.53) of the Employer's Supply Chain Management Policy.

Appropriate key performance indicators (KPIs) for the contract will be set by the Municipality as a yardstick for measuring performance. Key Performance Indicators (KPIs) will be discussed and agreed with the Contractor before commencement of the contract.

The following KPIs may be applicable to this contract:

- (a) Time Management
- (b) Financial Management
- (c) Quality Management
- (d) Occupational Health and Safety Management
- (e) Environmental Management
- (f) Meeting CSCG Targets

C1.2.3.7 EXCEPTED RISKS (Clause 8.3)

Pursuant to Clause 8.3 of the Conditions of Contract (GCC 2015), the Employer shall not be liable for the payment of standing time costs as a result of the occurrence of any of the "Excepted Risks" as defined under Clause 8.3.

However, the Employer shall reimburse the Contractor in respect of plant de-establishment and re-establishment costs as a result of "Excepted risks" when a written instruction to de-establish is issued to the Contractor.

C1.2.3.8 NON-EXCLUSIVE APPOINTMENT

The Contractor must note that, whilst this contract is intended to execute Infrastructure projects, there is no guarantee of works being allocated via this appointment.

The Employer may elect, at any time, to implement projects using other available procurement mechanisms as to ensure necessary expenditure and service delivery timeframes are met.

The works undertaken for this contract are on a non-exclusive basis and the Contractor shall have no recourse against the Employer for any works allocated to other parties through other Employer procurement mechanisms.

C1.2.3.9 WORKS ALLOCATION

The Employer reserves the right to issue **Work Package Orders** to the most suited of the Panel Contractors.

C1.2.3.10 CIDB BUILD PROGRAMME

Should a **Work Package Order** trigger the requirements of the CIDB B.U.I.L.D. Programme in terms of either:

- The Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts published in Gazette Notice No. 36190 of 25 February 2013, or
- The Standard for Developing Skills through Infrastructure Contracts published in Gazette Notice No. 48491 of 28 April 2023,

then the requirements will be specified in the **Work Package Order** documentation.

C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS

C2.1.1 GENERAL

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents (refer to C.1.2 and C.2.5 of the Tender Data).

C2.1.2 PRICING INSTRUCTIONS AND DESCRIPTION OF ITEMS IN THE SCHEDULE

Measurement and payment shall be in accordance with the relevant provisions of Part C of the Committee of Transport Officials (COTO) – Standard Specifications for Road and Bridge Works for South African Road Authorities – Draft Standard, referred to in the Scope of Work. The Preliminary and General items shall be measured in accordance with the provisions of C2.1.8.

The descriptions of the items in the Bill of Quantities are for identification purposes only and comply generally with those in the Standard Specification.

Part C of the Standard Specification, read together with the relevant clauses of the Scope of the works, set out what ancillary or associated work and activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standard Specification, or the Scope of the works, conflict with the Bill of Quantities, the requirements of the Standard Specification or Scope of the work, as applicable, shall prevail.

C2.1.3 QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bill of Quantities are estimates only, and subject to re-measuring during the execution of the work. The Contractor shall obtain the Employer's Agent's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the

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

The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

C2.1.5 MONTHLY PAYMENTS

Unless otherwise specified in the Specifications and Project Specifications, progress payments in Interim Certificates, referred to in Clause 6.10.1 of the General Conditions of Contract, in respect of "sum" items in the Bill of Quantities shall be by means of interim progress instalments assessed by the Employer's Agent and based on the measure in which the work actually carried out relates to the extent of the work to be done by the Contractor.

C2.1.4 PROVISIONAL SUMS / PRIME COST SUMS

Where Provisional Sums or Prime Cost sums (PC Sum) are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with Clause 6.6 of the General Conditions of Contract. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorized in writing by the Employer before closure of tenders. Any unauthorized changes made by the Tenderer to provisional items in the schedule, or to the provisional percentages and sums in the Summary of the Bill of Quantities, will be treated as arithmetical errors.

C2.1.6 PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required (Rate Only), or items which already have Prime Cost or Provisional Sums affixed thereto. **If the Contractor omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.**

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

All rates and amounts quoted in the Bill of Quantities shall be in Rands and Cents and shall include all levies and taxes (other than VAT). VAT will be added in the Summary of the Bill of Quantities.

C2.1.7 "RATE ONLY" ITEMS

The Tenderer shall fill in rates for all items where the words "Rate Only" appear in the "Total" column. "Rate Only" items have been included where:

- (a) an alternative item or material is contemplated;
- (b) variations of specified components in the make-up of a pay item may be expected; and
- (c) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For "Rate Only" items no quantities are given in the "Quantity" column but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall however note that in terms of the

Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

C2.1.8 PRELIMINARY AND GENERAL

The Preliminary and General Section is provided to cover the Contractor's expenses incurred in complying with the requirements of the tender documents and consists of the following parts:

- Part C1.2: General Requirements and Provisions
- Part C1.4: Facilities for the Engineer
- Part C1.5: Accommodation of Traffic

Fixed Charge Items: Each item should be priced separately and, subject to the Engineer certifying in terms of **Clause 6.7 of the General Conditions of Contract** that the work has been done, payment will be made as follows:

- (i) the total amount due when the certified value fixed charge items in this section is less than 5% of the net contract price;
- (ii) when the certified value of fixed charge items in this section is greater than 5% of the net contract price, payment will be limited to 5% of the net contract price. The remainder will be paid when the value of the work done under the contract, excluding the value of fixed charge items in this section, is greater than 50% of the net contract price, excluding the value of fixed charge items in this section.

Time Related Items: Any Time Related items not priced shall be deemed to be covered by the prices of other items in the section.

Payment of Time Related items in this section will be made throughout the contract period, the amount per month being the value of the item divided by the completion in months or, if specified in weeks, the equivalent number of months, in terms of **Clause 5.5 of the General Conditions of Contract**. The final monthly increment will only be paid upon the issue of a completion certificate.

Value Related Items: Value Related Items are not included in the Bill of Quantities. The Tenderer shall include any costs associated with Value Related Items under the relevant Fixed Charge Items or Time Related Items.

C2.2: BILL OF QUANTITIES

The Bill of Quantities is to be downloaded as a separate EXCEL document.

When completed, it is to be printed and inserted into the submission after page 69.

It is also to be uploaded on the JDE SSS Module (see **Tender Data C.2.13: “Submitting a tender offer”**).

The Bill of Quantities consists of the following:

- C.2.2.1: **INDEX to BILL of QUANTITIES** Page BoQ.1 to 2
- C.2.2.2 **BILL of QUANTITIES** Page BoQ.3 to 46
 - SECTION 1: General Requirements and Provisions
 - SECTION 2: Contractors Site Establishment
 - SECTION 3: Accommodation of Traffic
 - SECTION 4: Loading and Hauling
 - SECTION 5: General Requirements and Trenching for Services
 - SECTION 6: Dry Services
 - SECTION 7: Drains
 - SECTION 8: Culverts
 - SECTION 9: Concrete Kerbing and Channeling, Asphalt Berms
 - SECTION 10: Existing Road Materials
 - SECTION 11: Commercial Materials
 - SECTION 12: Road Pavement Layers
 - SECTION 13: Stabilisation
 - SECTION 14: Reconstruction of Pavement Layers
 - SECTION 15: Segmental Block Paving Layers
 - SECTION 16: Prime Coat
 - SECTION 17: Cover Sprays, Fog Sprays and Rejuvenation Sprays
 - SECTION 18: Standard Crack Sealing
 - SECTION 19: Geosynthetic Crack Sealing
 - SECTION 20: Planning
 - SECTION 21: Patching and Edge Break Repair
 - SECTION 22: Asphalt Layers
 - SECTION 23: Surface Treatments
 - SECTION 24: Non-Structural Gabions
 - SECTION 25: Road Restraint Systems
 - SECTION 26: Road Signs
 - SECTION 27: Road Marking
 - SECTION 28: Landscaping and Planting Plants
 - SECTION 29: Chemical Control of Undesirable Vegetation
 - SECTION 30: Quality Assurance

- C.2.2.3 **SUMMARY** of Bill of QuantitiesPage BoQ.47 to 48

The **EXCEL BoQ** is “locked”. Tenderers will only be able to access the **YELLOW** shaded cells, where the item **RATES** are to be entered.

The **EXCEL BoQ** will execute the following automations:

- The **Totals** for each **Part** in a **Section** are carried to the **SUMMARY** page.
- The **Section Totals** are summed to the **Sub-Total** on the **SUMMARY** page.
- V.A.T. (at 15%) is calculated on the **Sub-Total** amount.
- The **Sub-Total** and **V.A.T.** amounts are summed to the **TOTAL**.
- The **TOTAL** is to be carried to the **FORM of OFFER**.

NOTES:

- 1) The **TOTAL** of the Bill of Quantities will be used as a **Tender Assessment Schedule Value** for comparison and assessment purposes only. It is not related to any CIDB Grading Range, or Contract Sum.

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C3.1 : PROJECT DESCRIPTION AND SCOPE OF CONTRACT

C3.1.1 EMPLOYERS OBJECTIVE

It is the intention of the **Roads Provision Division** to appoint Civils Contractor(s) in the eThekweni Municipality area, for Works to be issued on an “**as-and-when-required**” basis, with no guarantee on the quantum of works.

The establishment of Panels, of varying CIDB Grades, is so that projects can be executed without first having to start a lengthy procurement process.

The Works to be undertaken under this contract shall be limited to Category C and D roads, as determined by the eThekweni Municipality Pavement Management System.

The appointment will be for a period of three (3) years from the date of the issue of the “Letter of Award”.

C3.1.1.1 MTREF Budget Projects

The MTREF (medium term revenue expenditure framework) is a three-year overview of expected revenue and expenditure trends for local government in South Africa. This budget is approved prior to the commencement of a financial year (FY) but is subject to adjustments.

The Employer has already commenced with, or completed, procurement for the 2025/26 and 2026/27 FY’s MTREF projects. Consequently, the majority (if not all) of the 2025/26 and 2026/27 MTREF projects will be executed by Contractors other than the appointed Contractor(s).

Unexpected events such as economic downturns, changes in grant allocations, updated forecasts, policy changes, or unforeseen expenditure can necessitate budget adjustments.

C3.1.1.2 Work Order Package and Agreements

Work Package Orders are to be executed, on an “**as-and-when-required**” basis, in terms of **Work Package Order and Agreement** documentation signed by the Employer and the Contractor.

The **Work Package Order and Agreement** will include information specific to the Work Package, inter-alia the relevant Contract Data, Schedule of Quantities, Scope, Specifications, and relevant drawings. It must be read in combination with this document and shall have precedence in the interpretation of any ambiguity or inconsistency between it and the contents of this document.

The **Work Package Order and Agreement** will be based on the “basket of items” and their associated rates (as submitted in **Part C2: Pricing Data**). Works will be identified from projects on the Department’s **Medium Term Revenue and Expenditure Framework Budget (MTREF)** (as may be adjusted), or from funding secured for other similar Works that may arise.

A proforma **Work Package Order and Agreement** document can be found in **ANNEXURE 3.6.1**.

C3.1.1.3 Issuing of Work Package Orders

Work Package Orders will be issued, on an as-and-when-required basis. They will be limited to the approved contract/ project authority.

The most responsive **Contractor**, in terms of the applicable Bill of Quantities, and on acceptance by the Contractor, will be issued a **Work Package Order**.

The approval by the Division (Department) Head is required prior to the issuing of **Work Package Orders**,

A Contractor may be issued with up to three (3) Work Package Orders simultaneously, up to the maximum value permitted by their CIDB grading. Additional Work Package Orders may be granted if the Contractor can demonstrate sufficient capacity to undertake further work. Such proof shall include, inter alia, evidence of adequate plant ownership or hire arrangements, sufficient cash flow to cover material supply and subcontractor payments, and the availability of competent key personnel. Any such additional allocations shall be subject to the approval of the Division (Department) Head.

C3.1.1.4 Unscheduled/ Emergency Works

For unscheduled/ emergency Works, the Employer reserves the right to issue **Work Package Orders** to the most suited of the Contractors.

The Employer also reserves the right not to use any of the Contractors should the Employer deem it so necessary.

C3.1.2 DESCRIPTION OF WORKS

The works will take place in the eThekweni municipality (city wide) in various Wards and includes, inter alia, the following work types:

- Pavement rehabilitation,
- Drainage improvement/repair,
- Pedestrian facilities improvement/repair,
- Verge roadway related improvement/repair,
- Other miscellaneous, unscheduled, disaster/ emergency works.

The scope of work shall be differentiated into categories as described below. The individual Work Package Order shall stipulate the works category applicable to that project.

- **Surfacing Works**
Projects which include the construction of new pavement layers which are all asphalt layers shall be classified under "Surfacing Works".
- **Recycling Works**
Projects which include construction of BSM (Bitumen Stabilised Material) layers shall be classified under "Recycling Works". This category shall include both in-situ recycling and in-plant recycling. This category shall also include cement or lime stabilization of pavement layers, and the construction of asphalt layers.
- **Granular Works**
Projects which include the construction of new granular pavement layers above the formation level (i.e. Base and/or Subbase) shall be classified under "Granular Works". These works shall include construction of layers using both virgin materials and reuse of existing granular materials. This category shall also include the construction of BSM

layers and asphalt layers.

- **Subgrade Improvement Works**
Projects which include improvements/re-construction of the subgrade layers below the formation level of the pavement shall be classified under “Subgrade Improvement Works”. This shall only be applicable to projects where greater than 15% of the length of the road requires subgrade improvements. These works shall also involve reconstruction of the layers above formation and the construction of all types of layers shall be covered by this category of rehabilitation.
- **Ancillary Works**
Projects where the scope of works is not rehabilitation of pavement layers shall be classified under “Ancillary Works”. Examples of the projects this category is intended to cover include raising/lowering of services, construction/re-construction of sidewalks, laying of kerbs or kerb & channel or asphalt haunching, patch work and laying of sub-soil drains

NOTE: All rehabilitation categories (Surfacing, Recycling, Granular, Subgrade Improvement, Concrete Pavement) may have some type of ancillary works i.e. patching, reinstating kerbs, raising sidewalks, raising services, etc. This will in no way change or affect the rehabilitation category of the project.

C3.1.2.1 Description of Site and Access

The sites will be made indicated in the **Work Package Order and Agreement** documentation.

C3.1.2.2 Nature of Ground and Subsoil Conditions

Specific information regarding the nature of the ground and subsoil conditions will be made available in the **Work Package Order and Agreement** documentation.

C3.1.3 GENERAL PROVISIONS

C3.1.3.1 Key Staff

Reference is to be made to Clause 4.11.1 and C1.2.3.5 of the Contract Data.

Key personnel must have sufficient skill and competency to implement multiple projects. Personnel must further be able to project manage and implement projects including being able to deal with socio-economic and related conditions arising from such works.

C3.1.3.2 Co-operation with other services providers / Stakeholders

In undertaking the works, the Contractor will be required to work closely with, but not limited to:

- Employer's Departmental representative
- Ward Councillor and CLO
- CSCG Suppliers and Sub-Contractors
- Business Interest Groups
- Materials and equipment suppliers

C3.1.3.3 Procurement Assistance

The Contractor may be required to assist Sub-Contractors with the procurement of materials, equipment hire, cash flow issues, etc.

C3.1.3.4 Sub-Contractors

Reference is to be made to Clause C1.2.3.3 of the Contract Data.

Entities that would be eligible for work opportunities are those that are registered on National Treasury's Central Supplier Database (CSD) and with the CIDB (if required to be so registered).

A formal Sub-Contract Agreement (similar to the CIDB Sub-Contract Agreement) is to be entered into for all Sub-Contractors.

The Contractor is to supply the Employer's Agent's Representative with information in respect of the employment of all Sub-Contractors. The information required is:

- Name of Sub-Contractor (as registered with SARS)
- Grading as registered with the CIDB
- B-BBEE Status
- Ward the Contractor's company is established
- Names and Copies of Identity Documents of the Main Members of the Sub-Contracting firm
- Copy of Sub-Contract Agreement with main contractor
- Information of staff working for the Sub-Contractor will be collated as per Clause C1.2.3.4: "FTE Employment Information" of the Contract Data.
- Any other information required by the Employer to be reported on Sub-Contractors.

The information is to be forwarded in a format acceptable to the Employer's Agent's Representative, but preferably in the form of an emailed EXCEL file (an original file, to be used as a template, will be issued to the Contractor). Contractors without computer facilities will be required to submit a hard copy of the information in a format agreed to between the Contractor and the Employer's Agent's Representative.

The cost of the above requirements shall be included in the P&G Time Related costs.

C3.1.3.5 Quality management

The Contractor shall be fully responsible for the management of all appointed Sub-Contractors. The Contractor shall ensure that a suitable quality monitoring process is in place for each element of the works and that the appointed Sub-Contractors are conversant on the requirements thereof.

The Contractor shall keep relevant records of all tests and inspections undertaken and will be responsible for submission of all test results as may be required in terms of the Project Specification.

C3.1.3.6 Management / Site Meetings

Requirements for Management Meetings will be specified upon commencement of a specific **Work Package Order**. Meetings will be held at a venue provided by the Contractor's representative. The Contractor shall report on the over-all progress of the contract to date and any specific **Work Package Order** issues requiring further Client engagement.

Ad-hoc Site Meetings will be held as and when necessary. So far as is reasonably possible, site and **Work Package Order** specific issues are to be resolved at these ad-hoc site meetings. Items/ issues that cannot be resolved by the parties at these meetings may be escalated to the Management Meeting.

C3.1.3.7 Payment Certificates

Interim payment certificates will be submitted for each **Work Package Order**. The payment certificate will be subject to approval by the Clerk-of-Works and the relevant Project/ Branch Manager.

Upon confirmation of above, the Contractor will submit a consolidated invoice and payment certificate to the Employer's representative for processing. Certificates are to be submitted monthly or at intervals as agreed upon with the Client. The time allowed for payment of payment certificates will commence upon submission of the consolidated invoice and payment certificate. This process may be amended by the Employer's Agent, dependent on any changed operational requirement.

The contractor must ensure full reporting (CSCG beneficiaries, FTE Statistics, etc) accompanies each consolidated invoice and payment certificate.

C3.1.3.8 Proof of compliance with the law

The Contractor shall ensure full compliance with all applicable laws for the duration of the Contract. This requirement shall extend to all Sub-Contractors appointed by the Contractor. The Contractor shall further ensure compliance with gazetted labour rates for the duration of the contract

C3.1.3.9 Variations to Scope

Where the items specified in the Bill of Quantities do not reasonably satisfy the requirements in the Scope of a **Work Package Order**, the Scope of Works and related items will be handled as a variation, with rates to be reviewed by the Employer's Agent, and approved by the Employer.

C3.1.3.10 Design / Supervision by Employer

All works will be designed and supervised by the Employer, or any identified representative of the Employer.

C3.2: PROJECT SPECIFICATION

C3.2.1 PREAMBLE

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

- 1) The words **CONTRACT** and **WORK PACKAGE ORDER** refer to either the formation of the various **PANELS**, or the **WORKS** to be executed through the Contract using **WORK PACKAGE ORDERS** respectively. The words take on the meaning within the context in which they are used.
- 2) Works, when required, will be executed by the issuing a **Work Package Order and Agreement**. The **Work Package Order** documentation will contain **PROJECT SPECIFICATIONS** specific to the Works included in the **Work Package Order**. The **Work Package Order** Project Specification is to be read together with the Project Specification below. Should there be any ambiguity then the Project Specification in the **Work Package Order** shall take precedence.
- 3) At **Panel formation stage**, no Works have been identified. The following Project Specifications will, in general, be largely applicable **Work Package Orders**.

The following is to be read in combination with the Specifications contained in the Work Package Documentation.

C3.2.2 GENERAL

PS.1 PROGRAMME, METHOD OF WORK, AND ACCOMMODATION OF TRAFFIC

This Clause is to be read in conjunction with the provisions and obligations as contained in **SANS 1921-1**, **SANS 1921-2**, and the Coto Chapter 1: General.

PS.1.1 Preliminary Programme

The Contractor shall include with his approval of the **Work Package Order Agreement** documentation, a preliminary programme. The programme shall be in the form of a simplified bar chart with sufficient details to clearly show how the works will be performed within the time for completion as stated in the **Work Package Order** Contract Data.

The Contractor shall be deemed to have allowed fully in the tendered rates and prices, as well as in his programme, for all possible delays due to normal adverse **weather conditions** (refer to **Contract Data Clause 5.12.2.2**) and special non-working days (refer to **GCC2015 Clause 5.1.1**) as specified in the in the **Work Package Order** Contract Data.

PS.1.2 Programme in Terms of Clause 5.6 of the General Conditions of Contract

The construction programme, conforming in all respects to Clause 5.6 of the General Conditions of Contract, is to be furnished within the time allowed for in the **Work Package Order Agreement** documentation (refer to **Contract Data Clause 5.3.2**).

The programme shall further be in accordance with clause A1.2.7 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.

In addition to any other restrictions accommodated by the Contractor in compiling the construction programme, the following constraints shall be taken into account in the preparation thereof:

- (a) The whole of the Works (and the portions of the Works if completion in portions is required) shall be completed within the time period(s) stated (refer to the Contract Data in section C1.2.2).
- (b) Working days lost due to abnormal rainfall shall be treated as set out in clause A1.2.3.4 (b)
- (c) Allowance shall be made for non-working days and special non-working days (refer to the Contract Data in section C1.2.2).
- (d) Construction activities must comply with all the specified environmental requirements including clause A1.2.3.3 of Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 and the requirements of **Part C: Environmental Management Specification contained in section C3.3 Particular Specifications**.
- (e) Construction activities must comply with all the specified health and safety obligations including the requirements of **Part D: OHS 1993 Health and Safety Specification contained in section C3.3 Particular Specifications**.
- (f) Strict control of access to and from local public roads shall be required when construction vehicles, plant or equipment leave or enter the site.
- (g) Throughout the contract period traffic must be accommodated through the site and all other contractors engaged on the construction of identified roads must be accommodated.
- (h) The Contractor's programme of work shall take due cognisance of risks by limiting the duration of the exposure of the various construction elements to natural phenomena.

The Contractor's attention is drawn to the fact that a number of factors will affect the programming of and method of carrying out the works. These will be documented in the **Work Package Order Agreement** documentation. These may include, but are not limited to:

- Proving or relocation of Services
- Time required for service relocations.
- Time allowances to be made for the ordering of special items.
- Notification required by service organisations.
- Any special sequence in which work must be carried out. Must certain areas of work be finished before work commences on others?
- If delays are anticipated with service relocations the contractor should be asked to allow time.
- Those known, existing services in the area of the works will be depicted on the contract drawings. It is evident, however, that the status of existing service records as far as can be ascertained might not reflect the actual situation in the field. As such, due allowance has been made in the Bill of Quantities for the proving of services, where directed by the Employer's Agent's Representative.
- Is work required out of normal hours? (eg. to accesses).
- Vehicular access to private property is to be maintained.
- Traffic restrictions: Minimum lanes of traffic open to traffic at all times.
- Community and Labour Disruptions.
- Work stoppages
- Business and associated Forum Disruptions

The programme will be reviewed at the monthly site meetings at which the contractor shall provide sufficient details that will allow the comparison of completed work per activity against the original approved programme. The contractor shall indicate what resources and programme changes he intends to implement in order to remedy any activity that has fallen behind. The Employer's Agent's Representative may demand from the Contractor a major revision of the programme. Such a revision shall be submitted for approval within fourteen days of the demand.

PS.1.3 Requirements for Accommodation of Traffic

PS.1.3.1 General

Accommodation of traffic, where applicable, shall comply with **SANS 1921-2: 2004: Construction and Management Requirements for Works Contracts, Part 2: Accommodation of Traffic on Public Roads occupied by the Contractor**. The Contractor shall obtain this specification from Standards South Africa if accommodation of traffic will be involved on any part of the construction works.

Clause 4.10.4 of SANS 1921-2: 2004 shall be replaced with the following:

"Road signs and markings shall comply with the requirements of the **"SADC Road Traffic Signs Manual - Volume 2: Roadworks Signing"**.

PS.1.3.2 Basic Requirements

The travelling public shall have the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

The Contractor shall provide, erect and maintain sufficient road signs, barricades, fencing and guarding as may be necessary or required by the Employer's Agent or by any act, regulation or statutory authority in order to minimise the danger and inconvenience caused to vehicle and pedestrian traffic. The Contractor shall ensure that all road signs, barricades, delineators, flagmen and speed controls are effective, and that courtesy is extended to the public at all times.

Failure to maintain road signs, warning signs or flicker lights, etc, in a good condition shall constitute ample reason for the Employer's Agent to suspend the work until the road signs, etc, have been repaired to his satisfaction.

The Contractor may not commence constructional activities affecting existing roads before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual.

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations. The Contractor shall ensure that the existing property accesses are maintained at all times. Where necessary the Contractor shall make allowance in the rates for completing the work required to the accesses out of normal hours.

When vehicles or plant are travelling or working on a public road, the following shall apply:

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

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

The Contractor's acceptance of this Contract shall also indemnify the Employer and the Employer's Agent against any claims that may arise as a result of works done not to specification until the End of Maintenance period.

PS.1.3.3 Pedestrian Movement

The Contractor shall make provision for accommodating all pedestrian movements in the area of the works. Allowance shall be made in the relevant rates for any barricades and signs required.

PS.1.3.4 Traffic Safety Officer

Where warranted by traffic conditions on or near the site, the Contractor shall nominate a suitable member of his staff as traffic safety officer to be responsible for the arrangement and maintenance of all the measures for the accommodation of traffic for the duration of the project. Duties of the traffic safety officer shall be in compliance with the Occupational Health and Safety Act 1993 and the Construction Regulations 2014.

PS.1.3.5 Road Deviations and Traffic Control

- a) Deviations required by the Contractor shall comply with the requirements of COTO 1.5. Details shall be submitted to the Employers Agent for approval at least four weeks in advance of date on which it is anticipated that work on the deviation will commence.
- b) On deviations provided in terms of (a) above the Contractor shall ensure at all times and during all weather conditions that all temporary surfaces that are intended to carry traffic are in fact trafficable with regard to reasonable standards of safety and comfort. No additional payment shall be made to the Contractor for compliance with this clause.
- c) Unless indicated otherwise, over the entire length of the site, and for the duration of the contract, traffic is required to be accommodated in both directions at all times. The Contractor shall ensure that the full width of the road, or a width of road approved by the Employers Agent, is available for traffic during the peak traffic periods (i.e. 07:00 - 09:00 and 16:00 to 18:00).
- d) At all times signposting shall be in accordance with the "SADC Road Traffic Signs Manual - Volume 2: Roadworks Signing".

PS.1.3.6 Barriers for Accommodation of Traffic

The contractor shall use New Jersey barriers, steel barriers or similar products as approved by the Employer's Agent. The rate shall be in meters (m) and shall include the supply and installation of barriers for the accommodation of traffic.

The contractor must also allow for the installation and removal of the barriers, and the movement of barriers to different works areas as required for the duration of the works.

PS.1.3.7 Penalties for Non-Compliance of Traffic Accommodation Requirements

A fixed cost penalty of R2,000-00 per calendar day shall be to the Contractor's account should he/she not comply with the relevant clauses regarding accommodation of traffic flows required for this project.

A Time related cost of R1,000-00 per hour shall be applicable for delay caused by the above-mentioned non-compliance. The measurement of time shall be from when the Level of Service in vehicular capacity has reduced, due to the act of non-compliance, to the time that the Level of Service is restored to before the incident had occurred. The evaluation of the level of service shall be at the sole discretion of the Employer's Agent or his Representative.

PS.1.3.8 Payment

The Contractor's tendered rates for the relevant items in the Bill of Quantities shall include full compensation for all possible additional costs which may arise from the requirements for the accommodation of traffic, and no claims for extra payment due to inconvenience as a result of the modus operandi will be considered.

PS.1.3.9 Temporary Reinstatements

Provided always that if in the course, or for the purpose of the execution of the works or any part thereof, any road or way shall have been broken up, then notwithstanding anything herein contained:

- (a) if the permanent reinstatement of such road or way is to be carried out by the appropriate authority or by some person other than the contractor (or any subcontractor to him), the contractor shall at his own cost and independently of any requirement of or notice from the Employer's Agent's Representative be responsible for the making good of any subsidence or shrinkage or other defect, imperfection or fault in the temporary reinstatement of such road or way, and for the execution of any necessary repair or amendment thereof from whatever cause the necessity arises, until the end of the period of maintenance in respect of works beneath such road or way until the authority or other person as aforesaid shall have taken possession of the site for the purpose of carrying out permanent reinstatement (whichever is the earlier), and shall indemnify and save harmless that Council against and from any damage or injury to the Council or to third parties arising out of or in consequence of any neglect or failure of the Contractor to comply with the foregoing obligations or any of them and against and from all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.
- (b) where the authority or person as aforesaid shall take possession of the site as aforesaid in sections or lengths, the responsibility of the contractor under paragraph (a) of this sub-clause shall cease in regard to any such section or length at the time possession thereof is so taken, but shall during the continuance of the said period of maintenance continue in regard to any length of which possession has not been taken and the indemnity given by the contractor under the said paragraph shall be construed and have effect accordingly.

PS.2 SERVICES

PS.2.1 General

Those known, existing services in the area of the works will be depicted on the contract drawings, if available. It is evident, however, that the status of existing service records as far as can be ascertained might not reflect the actual situation in the field. As such, due allowance has been made in the Bill of Quantities for the proving of services where directed by the Employer's Agent.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

The payment of the PC sum items to deal with service relocations may be one or a combination of the following processes:

- 1) Identification of service relocation/ renewal scope of work in consultation with the service owner.
- 2) Preparation of a tender and bill of quantities for service management in consultation with service owner or the employer's agent.
- 3) Sourcing prices for the works done through a process directed by the employer's agent that subscribes to a fair, transparent and equitable practices.
- 4) The Contractor will appoint and manage the sub-contractor.
- 5) Manage the workflow process, risk, time, cost, quality of the sub-contractor.
- 6) Where the service provider chooses to undertake the service management at their own Accord, then the contractor will facilitate payment after agreement with the Employer's Agent.

The contractor is also required to manage the process of risk, time, cost, quality of the service provider.

It is noted that the above procedures are aimed at putting the responsibility of the service management in the hands of the contractor, who is best suited to mitigate contract risk in this regard.

This contract will not make provisions for any extension of time or delay relating to service management. The contract programme must reflect a realistic timeline that attends to the service management scope of this project.

This Clause is to be read in conjunction with the provisions and obligations as contained in **COTO A2**.

PS.2.2 Existing Services

The Tenderer's attention is drawn to the numerous existing services in the area. Although every effort has been made to depict these services accurately the positions shown must be regarded as approximate.

The Contractor shall make himself acquainted with the position of all existing services before any excavation or other work likely to affect the existing services is commenced.

Before any work commences, the Contractor shall contact all private owners or public authorities controlling services so that they may, either protect, move or relocate any service as required, or confirm that all such work has been completed.

All known existing services and those services which require relocation and protection, will be shown on the services plans. The Contractor's attention is drawn to the fact that such services information is based on information supplied by others, and the accuracy and completeness of this information has not been confirmed.

The Contractor, immediately upon commencing work, shall survey existing valves, manholes, catchpits and cable duct markers. The coordinates are to be submitted to the Employer's Agent. Particular attention should be drawn to the electrical overhead services and the existing sewer line which is required within two weeks of commencement.

The Contractor will therefore be required to proceed with extreme caution so as to avoid damage to existing services. Before commencing any work in the vicinity of services, the Contractor shall contact the relevant service authorities for assistance in locating the exact position of the services and where necessary the Contractor shall accurately locate the services by careful hand excavation. The Contractor shall allow in his programme minimum of eight weeks for the relocation of services from notification of service relocation to service provider and this period must be shown in the contractor's programme.

In general, the Employers Agent may call upon the Contractor to re-excavate trenches previously excavated and backfilled by others where in the opinion of the Employers Agent such work is necessary to ensure the stability of any other works over such trenches. This in no way relieves the Contractor of his responsibilities in terms of the works.

PS.2.3 Proving Underground Services

This clause must be read in conjunction with COTO Chapter 2, the requirements of which shall be extended to cover all earthworks operations whether for trenching or bulk earthworks, in the vicinity of underground services.

All services in a particular area must be proven before commencing work in that area.

Insofar as bulk earthworks are concerned, where services are indicated on the drawings or where from site observations can reasonably be expected that such services are likely to exist where excavations are to take place, the Contractor shall without instructions from the Employer's Agent carefully excavate by hand to expose and prove their positions.

The cost of the proving trenches is included in the BOQ in Part 0201: Item C2.1.2.5.

When a service is not located in its expected position the Contractor shall immediately report such circumstances to the Employer's Agent who will decide what further searching or other necessary action is to be carried out and shall instruct the Contractor accordingly. The cost of this additional searching shall be to the Council's cost and shall be paid for under items in the BOQ.

Should any service be damaged by the Contractor in carrying out the works and should it be found that the procedure as laid down in this clause has not been followed then all costs in connection with the repair of the service will be to the Contractor's account.

Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service owners to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period.

All service relocations shall be completed and finalised within the contract period or sooner. No delay / disruption / standing time claims will be entertained for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution.

The identification, protection, relocation and renewal of any underground and overhead service forms part of the scope of this contract. Accordingly, the responsibility of dealing with these services in whatever way deemed necessary by the service owner or employer's agent, belongs to the contractor.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates. Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

When electrical cables are not in the positions shown on drawings of eThekweni Electricity and cannot be found after proving trenches have been put down, assistance may be obtained by calling an official of the **Works Branch on Telephone No. 031-311-1111** during office hours, or by contacting **Control on Telephone No. 031-305-7171** after hours.

It should be noted that 33,000 Volt and 132,000 Volt cables may only be exposed by the eThekweni Electricity's personnel. The cables are usually protected by concrete covering slabs, and therefore if the slabs are inadvertently exposed, excavation work must stop, and the eThekweni Electricity shall be contacted immediately on the above telephone numbers.

Proving of services shall be completed at least eight weeks in advance of the actual programmed date for commencing work in the area. The position of these services located must be co-ordinated and levelled by the Contractor, and the information given in writing to the Employer's Agent's Representative. No delay claims / stoppages etc. for affected services will be entertained for any service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services.

The requirements of this clause do not relieve the Contractor of any obligations as detailed in the Conditions of Contract or under **Clause 4.17 of SANS 1921-1**.

PS.2.4 New Services and Relocation of Existing

This clause shall be read in conjunction with **Clause PS.1**.

New services are either to be installed by the Contractor as part of the contract or by others during the contract period. In the latter case excavation and subsequent backfilling of the trench from

the top of the bedding layer shall generally be carried out by the Contractor.

Relocation of services shall generally be carried out by the relevant services organisation. Their work shall include the excavating and bedding the service which will include backfilling to a depth of approximately 300 mm above the service. The remainder of the backfilling shall be carried out by the Contractor.

Generally, work shall only commence on the installation of new services once the bulk earthworks have been completed and roughly trimmed to level along a substantial portion of the services route. In addition, no sidewalk, verge, median or island shall be surfaced or topsoiled until all work on the services has been completed.

Services that may be affected by the contract are described as follows:

- PS.3: Watermains
- PS.4: Sewers
- PS.5: Stormwater
- PS.6: Electrical Cables / Lighting
- PS.7: Telkom / Neotel
- PS.8: CCTV

Further to the above, Tenderers are referred to the services drawing (if available) and are to note that several minor cables / pipes may be encountered during excavation works which may require to be relocated to some extent. It is anticipated that the two week period required under **PS.2.2** will allow sufficient time for these relocations.

PS.2.5 Accommodation of Services

Further to **Clauses PS.1 and PS.2** of this specification, Tenderers are to note that allowance must be made under this item and/ or the appropriate rates, for all costs incurred as a result of complying with these clauses. It shall also cover liaison with the services organisations and accommodation of their work gangs / contractors on site.

PS.3 WATERMAINS

PS.3.1 General

Tenderers are to read this clause in conjunction with Clause PS.1 and PS.2.

The contractor shall prove the position of water lines and ensure they are not damaged during construction. The proving of water lines shall be included in the tenderer's rates.

All known services have been shown on the services drawing(s), however, should any unknown watermains be discovered the Contractor shall be responsible for ensuring that water-mains are not damaged during construction and if a need to relocate or modify, the Contractor shall notify eThekweni Municipality.

Any relocations will be carried out by a Contractor/sub-contractor that will be approved by Metro Water, while the connection to the existing main will be done by Metro Water. Civil works will be carried out by the Main contractor. The Contractor shall notify the Employer's Agent's Representative and Metro Water at least 8 weeks in advance for any relocations required, to enable all parties involved to be on site timeously.

PS.3.2 Water Main Valve Access

Due to the dangerous situation occurring when water main valves are covered over, the Contractor shall maintain access to all water main valves at all times. During asphalt layer work, after each pass by the paving machine, the valves shall be exposed and access maintained in a safe condition.

Whatever method the Contractor chooses to use for this work, the cost of raising the valves from existing level to ultimate level shall be paid only once, irrespective of the number of times the valve is uncovered. Spacer rings required for the height adjustment of valve covers shall be supplied by the Water and Sanitation Unit. Tolerances on valve cover levels shall be as specified in COTO A2. Before final setting in position of valve covers the Contractor shall liaise with the Employer's Agent regarding the direction in which covers shall be placed.

PS.3.3 Restriction on Compaction Equipment

The Contractor is to note that existing watermains may traverse the site of the works and special care is to be taken in close proximity to these mains and connections. The existing mains and connections shall be proved on site by the Contractor prior to any construction work commencing in the vicinity of the watermains.

Under no circumstances will heavy road-making equipment, other heavy plant or vibratory compaction equipment be permitted to operate within 800 mm vertically or horizontally of the existing mains or connections. The permissible compaction plant within this restricted area shall be the equivalent of a "Bomag 90" under static compaction, or similar approved plant. When the roadworks are far enough advanced to provide a minimum of 800 mm cover to the existing mains, the above restriction will fall away.

The Contractor is to take cognisance of the above requirements when entering rates in the Bill of Quantities and in the programming of the works. No claim for additional payment based on the inability to use plant as a result of the requirements of this clause will be accepted. The Contractor will be held liable for any costs should the existing watermains or connections be damaged during construction.

PS.4 SEWERS

PS.4.1 General

Tenderers are to read this clause in conjunction with Clause PS.1 and PS.2.

There may be existing sewer services affecting the works. The as-built information of this service is inaccurate and, as a result, the Contractor may be required to search for all sewer manholes and survey these manholes, (X, Y and Z) of the cover and invert level.

The request for this shall come from the Employer's Agent and shall be paid under the PC Sum item in the Bill of Quantities.

The payment of PC Sum items will be as per the process outlined in PS.2

The Contractor shall be responsible for ensuring that sewer manholes are marked raised and that the connecting sewer pipes are not damaged by heavy plant, the Contractor shall maintain access to all sewer manholes at all times. During asphalt layer work, after each pass by the paving machine, the manholes shall be exposed and access maintained in a safe condition.

Whatever method the Contractor chooses to use for this work, the cost of raising the valves from existing level to ultimate level shall be paid only once, irrespective of the number of times manhole is uncovered. Spacer rings required for the height adjustment of valve covers shall be supplied by the Water and Sanitation Unit. Tolerances on valve cover levels shall be as specified in the relevant COTO Specifications.

PS.4.2 Blockage of Foul Water Sewers

The Contractor shall be responsible for ensuring that construction material, cementitious sludge, sand and rubble from the works do not enter the foul water reticulation system. The Contractor shall be liable for any costs incurred by the Council or others as a result of blockages in the reticulation system attributed to failure to comply with the above requirement.

PS.5 STORMWATER

PS.5.1 General

Tenderers are to read this clause in conjunction with Clause PS.1 and PS.2.

Extensive stormwater improvements may be required in the works. New pipe sizes will vary from standard 375mm Class100D and upwards. Excavations are of varying depths in many different materials ranging from soft, intermediate or hard materials. Shoring will be required to protect works during installation in excess of the safe working depths as indicated in the OHS Standards.

The payment of PC Sum items will be as per the process outlined in PS.2

The Contractor shall be responsible for ensuring that existing stormwater manholes are marked raised and that the connecting stormwater pipes are not damaged by heavy plant, the Contractor shall maintain access to all stormwater manholes at all times. During asphalt layer work, after each pass by the paving machine, the manholes shall be exposed and access maintained in a safe condition.

Whatever method the Contractor chooses to use for this work, the cost of raising the valves from existing level to ultimate level shall be paid only once, irrespective of the number of times manhole is uncovered. Spacer rings required for the height adjustment of valve covers shall be supplied by the Contractor. Tolerances on valve cover levels shall be as specified in clause the specifications.

The Employers agent will provide standard details or drawings detailing new stormwater construction as and when required that will be the Contractors responsibility to plan, provide the necessary plant, labour and material to construct it to specification.

PS.5.2 Blockage of Stormwater

The Contractor shall be responsible for ensuring that cementitious sludge, sand and rubble from the works do not enter the stormwater reticulation system. The Contractor shall be liable for any costs incurred by the Council or others as a result of blockages in the reticulation system attributed to failure to comply with the above requirement.

PS.6 ELECTRICAL PLANT

PS.6.1 General

Tenderers are to read this clause in conjunction with Clause PS.1 and PS.2.

Various types of electrical cables including high voltage, low voltage, street lighting and domestic connection cables may be affected by the contract. The laying, relocation and jointing of all cables will be carried out by eThekweni Electricity's work gangs, or agents appointed by them, whilst the excavation and backfilling forms part of this contract. Close liaison will therefore be necessary with eThekweni Electricity throughout the contract.

The payment of PC Sum items will be as per the process outlined in PS.2

PS.6.2 Street Lighting

The existing lighting, if present, and if requiring removal on instruction from the Employer's Agent's Representative, will be removed in stages and replaced in the centre median / intersection corners. Relocation will take place during this contract and be executed by eThekweni Electricity or their agents. It is a requirement that the street lighting be operational at all times.

PS.6.3 MV / LV Cables

Certain MV / LV cables may be replaced within the contract area. The actual cable work associated with this relocation and / or replacement of these cables will be carried out by eThekweni Electricity, and it is stressed that the two week period referred to in Clause PS.2 is the minimum period required to enable eThekweni Electricity to be on site timeously.

PS.6.4 Relocation of Existing Services

Should it be necessary to adjust the line, level and / or position of any service not catered for in the contract to enable the construction to proceed the Contractor shall on no account effect such adjustment himself but shall notify the Employer's Agent's Representative who will arrange for the work to be carried out at no cost to the Contractor.

PS.6.5 Overhead Cables

The Contractor is required to ensure all machinery and equipment is used safely and all works maintain a clearance to the powerlines of at least 7m. When overhead electrical cables supported by Pylons are found, and the new works run directly under these High Voltage overhead cables, the contractor is required to check the levels of the overhead cables and submit to the Employer's Agent's Representative eight weeks prior to construction commencing below these lines.

PS.7 TELKOM S.A. LIMITED / NEOTEL PLANT / FIBRE SERVICES / METRO CONNECT AND OTHER SERVICES

The Contractor shall pay special attention to the following:

No relocation of Telkom S.A. Limited / Neotel Plant / Fibre Services / Metro Connect fibre optic cables and Other Services is envisaged. However, these services may be encountered upon the Contractor's proving excavations. The Contractor shall notify the Employer's Agent's Representative and service providers at least eight weeks in advance for any relocations that's required.

Where these services are encountered, the contractor shall immediately notify the service owner and Employer's Agent's Representative. The laying, relocation and jointing of all services, where warranted, shall be carried out by the services owner, or agents appointed by them, whilst the excavation and backfilling will form part of this contract and paid by the relevant items in this bill.

PS.8 CCTV PLANT

No work to CCTV Plant is envisaged, but the contractor's attention is drawn to the fact that CCTV cables and fibre optic cables may exist within the contract area and if found the contractor shall immediately notify the service owner.

PS.9 MANAGEMENT OF THE ENVIRONMENT

The Contractor shall pay special attention to the following:

PS.9.1 Natural Vegetation

The Contractor shall confine his operation to as small an area of the site as may be practical for the purpose of constructing the works.

Only those trees and shrubs directly affected by the works, and such others as the Employer's Agent may direct in writing, shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work, or where directed by the Employer's Agent's Representative.

PS.9.2 Fires

The Contractor shall comply with the statutory and local fire regulations and shall also take all necessary precautions to prevent any fires. In the event of fire, the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

PS.9.3 Environmental Management Plan

All requirements according to the Environmental Management Plan as detailed in **C3.4: Particular Specifications**, shall be adhered to.

PS.10 OCCUPATIONAL HEALTH AND SAFETY

PS.10.1 General

When considering the safety on site the Contractor's attention is drawn to the following:

1. The contract area may be in a busy road with exceptionally high volumes of vehicular traffic and pedestrian movement.
2. The area may be bounded by business and industrial properties.
3. The proposed works will require machinery and plant of varying size.
4. The manual moving of heavy precast products will be required.
5. The raw asphalt used will be delivered to site at a high temperature, which, after processing, remains hot for some time.
6. The gradient of the roads may be moderate to steep. Plant and machinery will need to be well controlled.
7. Stormwater run-off from the site is to be well managed.
8. The deviation of the traffic must be maintained throughout the day and night, weekends and public holidays.
9. All road signs must be maintained to allow for adequate sight distance by the road users.
10. There may be numerous services which the Contractor will either have to protect or relocate.
11. Working within or near rivers.

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2014 issued on 7 February 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of Section 37(2) of the Occupational Health and Safety Act.

PS.10.2 Employer's Health and Safety Specification

The Employer's Health and Safety Specification is included in **C3.4: Particular Specifications**.

PS.10.3 Tenderer's Health and Safety Plan

For Works Package Orders, the Contractor shall submit a Health and Safety Plan as required in terms of Regulation 7 of the Occupational Health and Safety Act 1993 Construction Regulations 2014 and referred to in **T2.2: Contractor's Health and Safety Plan**.

The detailed safety plan will take into consideration the **site specific risks as mentioned under PS.10.1** and must cover at least the following:

- (i) A proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 9 to 29;
- (ii) Pro-active identification of potential hazards and unsafe working conditions;
- (iii) Provision of a safe working environment and equipment;
- (iv) Statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 7*);
- (v) Monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) Details of the Construction Supervisor, the Construction Safety Officers, and other competent persons he intends to appoint for the construction works in terms of Regulation 8 and other applicable regulations; and
- (vii) Details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment, if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs

A generic plan will not be acceptable.

PS.10.3.1 Compensation for occupational injuries and diseases act, 1993

All labour employed on the site shall be covered by the Compensation for Occupational Injuries and Diseases Act, 1993, as amended. The Contractor shall pay in full, including the payment of the necessary levies, such amounts as are due in terms of the Act. The manner in which compensation in terms of this Act shall be handled shall be resolved by the Contractor at the commencement of each Work Package.

PS.10.4 Risks Associated with the Works

In addition to traffic related risks as stipulated in Chapter 1, Section 1.5, the Contractor is advised on some other risks associated with different treatments applicable in this contract in order to make allowances for such in the Health and Safety Plan.

- Exposure to dust during the placing of stabilising agent or excavating operation that could have an effect on labourer's respiratory systems if proper protection is not provided, and other significant safety risks.
- Working with hazardous materials that can cause harm on both the skin and the respiratory system i.e. lime
- Exposure to fumes from hot asphalt.
- Nature of work requires specialized skills and knowledge,
- Use of heavy specialized equipment,

- Working with hot poured bitumen-based sealant that could cause skin burn when mishandled or poured on water.
- Handling and utilization of specialized and hazardous (combustible) materials i.e. hot bitumen etc.
- Construction under live heavy vehicular and pedestrian traffic conditions,
- Need to provide continuous access to general road users, businesses and residents,
- Due to works requiring a number of labourer's, the potential of transmission of bacteria/viruses due to close proximity with one another.

The Contractor is to further note the risks involved in the planning processes, including production rates, as well as health and safety compliance where multiple activities are being undertaken concurrently on a number of roads, as may be the Works Package Order as issued by the Employers Agent.

PS.10.5 Cost of compliance with the OHSA Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract. Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

Items that may qualify for remuneration will be specified in the Employer's Health and Safety Specification.

PS.11 MANAGEMENT and RELATED REQUIREMENTS

PS.11.1 Quality Assurance (QA)

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

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

PS.11.2 Contractors Resources (Key Personal, Staffing and Plant)

It is the intention of the Employer that each Works Package Order issued is adequately resourced in terms of personnel and equipment. The minimum requirement for projects issued in terms of human resource shall be an adequately qualified and experienced Contracts Manager, and a dedicated Construction Manager for each project. Failure to provide the required resource will delay the Works Package Order issuing, with a possibility of Contract termination should it be proven that the Contractor lacks capacity to timeously execute issued Work.

PS.11.3 Contractors Plant

The Employer's Agent shall have the right to order the immediate removal from the site of any plant which he may deem to be unsatisfactory for the proper execution of the work. The Contractor shall obtain without delay satisfactory plant to replace that removed. Any costs arising from the removal and subsequent replacement of plant shall be to the Contractor's account.

PS.11.4 Site Security

The Contractor shall, for the duration of the contract, provide sufficient security and watchmen to adequately ensure the safety and protection of the works, the Contractor's staff, including local labour and subcontractors, and all site plant and construction equipment required for the works.

Site Security, in conjunction with the SAPS (where necessary), shall be responsible for removal of disruptive elements, that may interrupt the progress of the contract through acts such as, but not limited to, intimidation, threats of disruption, violent disruption, or criminal and illegal activity by the local community or independent organisations or entities that may result in slowing down or partial or total stoppage of the works.

The Contractor is to take note of the prevailing PSIRA rates for security when pricing this item.

The process of negotiation will not be deemed as work stoppage.

Payment for this item shall be made under Section 1: Preliminary and General Items, Part 0102 of the Bill of Quantities.

PS.11.5 Determination of Quantities in Respect of Materials Delivery Notes

Material delivery notes supplied by the Contractor and submitted to the Employer's Agent shall be for purposes of confirming the type of material supplied and date of delivery to site. The delivery notes shall also be used as a basis for rejecting any materials to be used for the works that may have exceeded the materials shelf-life as prescribed by the materials supplier data sheets.

Unless specified by the Employer's Agent, the quantities to be certified shall be based on the approved and authorized dimensions of the works, multiplied by the relevant material bulking/conversion factors where applicable.

PS.11.6 Allowance for Professional Services

During the contract, the Employer's Agent may call on the services of external professionals / specialist in the field for site related issues. The payment for their services shall be made through the contract for which an item has been allowed for in the BOQ. The contractor will be paid a percentage of the cost of the professional services fee for his administration cost.

PS.11.7 Adjudication

Alternate dispute resolution for the contract will commence with ad-hoc adjudication as per GCC 2015.

The proposed Adjudicators must be registered with SAICE and/or the Association of Arbitrators as an Adjudicator at the least.

An allowance has been made in the BOQ for the partial costs of the appointment and services of the Adjudicator(s). This item shall cover only 50% of the Adjudicator's(s) cost which shall be the Employers contribution only. The Contractor shall be responsible for payment of his (the Contractor) costs and shall not be allowed for in the contract.

An item has also been allowed for in the BOQ for the contractor's administration cost in this regard. It is a percentage of the cost of 50% of the Adjudicator's fees and is limited to a maximum of 7,5%.

PS.12 CONSTRUCTION RELATED REQUIREMENTS

PS.12.1 Occupation of the Site

The Employer may from time to time be carrying out routine maintenance in the immediate vicinity of the Works. The Contractor shall therefore liaise closely with the Employer in this regard and shall ensure that their adjacent operational requirements and activities are catered for in the programming of the work. No claims for delay or additional payments will be entertained, if, in the opinion of the Employer's Agent, claims are due the Contractor's failure to liaise with and plan for the adjacent activities of the Employer.

The site includes portions of public roads, which will remain in use during the course of the work. The Contractor shall note that no roads or traffic lanes, other than sections being upgraded, may be closed to traffic without the prior written permission of the Employer's Agent. Every effort shall be made by the Contractor to keep the disruption of existing traffic and pedestrian flows to a minimum during construction.

The Contractor shall, as far as possible confine his operations to within the limits of the site or the land provided by the Employer, but if this is inadequate for his purpose, he shall make all arrangements for any further land he may require in accordance with the specifications and shall pay all costs and charges in this connection.

PS.12.2 Supply of Plant, Material and Labour

Except where otherwise specified the Contractor shall at his own expense supply and provide all the construction plant, temporary works, materials for both temporary and permanent works, labour (including supervision thereof), transport to and from the site and in and about the works and other things of every kind required for the construction, completion and where specified, maintenance of the works. The contractor shall also make his own arrangements with the proper authorities and at his own cost for the supply of water, electricity and any other services he may require for the construction and completion of the works.

PS.12.3 Additional Survey

An item has been provided in the BOQ for additional survey to be undertaken upon the Employer's Agent's request by the contractor for the Employer's Agent's use. An item for handling cost has been provided in the BOQ for the Contractor administration in this regard.

PS.12.4 As-Built Data

The Contractor is required to capture as-built data at the completion of each project. The unit of measurement and payment description is detailed below.

(a) Capturing of as-built data at the completion of the project	Number (No.)
(i) Surfacing Works	no.
(ii) Recycling Works	no.
(iii) Granular Works	no.
(iv) Subgrade Improvement Works	no.
(v) Ancillary Works	no.

The unit of measurement shall be the number (No.) of as-builts captured (one per road), submitted in full to the Employers Agent Representative and as approved.

The materials as-built data shall be in the format approved by the Senior Manager of the Pavement and Geotechnical Laboratory – Roads Infrastructure Management Division. The rate shall cover full compensation for capturing full material and layer as-built data which shall include inter alia: layer thickness, levels, compaction, material delivery and quality for each layer. The completed file must be submitted to the Employer's Agent within two (2) weeks after the completion of each project.

The contractor shall provide the Employer's Agent with fully completed and signed printed copies on A4 paper, as well as electronic copies in editable formats such as MS Excel or Word.

The Certificate of Completion shall not be issued unless the above information has been forwarded and approved by the Employer's Agent.

The capturing of as-built data is compulsory on all projects.

PS.12.5 Progress Photographs

Digital photographs shall be taken on a daily basis across the entire site, or at the discretion of the Employer's Agent, as is deemed to be included in the construction rates.

The images shall be the property of the eThekweni Municipality and may be used from time to time to update the public on the progress of the works, whether at direct community engagements or broader publications such as newspapers and social media posts.

PS.12.6 Undertaking of Construction Activities Outside the Specified and Agreed Working Hours

Unless specified and agreed by the Employer's Agent in writing, all construction activities are to be carried out within the working hours as stipulated in Clause PS1.1 of Part A: General, of this section. The penalty for noncompliance to this specification shall be as follows:

Penalty (per road) = R 5000 (fixed) + R 500 per hour (time related for every hour until the works are complete)

The Employer's Agent shall, at his discretion, upon written explanation from the Contractor within 3 working days after the event, evaluate whether the reasons for working outside the specified hours are within the Contractor's control. Circumstances beyond the Contractor's control shall not result in any penalties being imposed. Poor planning in respect of delivery of materials to site does not absolve the penalty.

PS.12.7 Overloading of Trucks

Trucks must have a mounted plate depicting the allowed mass allowed to be carried. Failure to have this in place will result in that truck being barred from delivering to any of the Sites within this Contract.

Overloading will not be entertained, and the following penalty shall be implemented:

The amount overweight will be multiplied by a factor of 2. This total will then be multiplied by the supply and application rate, which total will be subtracted from the invoiced amount.

For which the formula is;

= Invoiced amount - [(supply load – legal load) x 2 x (Rate of supplying and laying the material)]

PS.12.8 Removal of Construction Rubble

Material removed or excavated from the road construction shall not be left on site for more than two days (48 hours). Cost of removing or hauling this material shall be included in the breaking or excavation rate for the relevant item and no extra cost shall be paid for this item. Failure or refusal on the part of the contractor to remove rubble within two days or 48 hours shall be sufficient cause for the Employer's Agent to apply penalties as follows:

A fixed penalty of R5000 per day shall be deducted for non-compliance immediately after the Employer's Agent has given an instruction to this effect. The Employer's Agent's instruction shall state the time of incidence. Should the Contractor fail to adhere to this instruction within two hours, the time-related penalty of R500 per hour shall be applied from the time the instruction was given.

PS.12.9 Pre-cutting of pavement surfaces

Due to the deterioration of pavement materials caused by water ingress into the pavement layers, the Contractor and Sub-Contractors, where applicable, shall not be permitted to pre-cut the pavement surfacing, for the following activities, but not limited to:

- i. Patching works,
- ii. Raising/Lowering services within the pavement structure,
- iii. Works related to the construction of kerbing or kerb-channel combinations,
- iv. Construction of sub-soil drains which require cutting of surfaced sidewalks,
- v. Speed-hump construction works,
- vi. Milling of asphalt material.

All work activities that require saw-cutting or milling (which exposes granular base layers) of any kind shall be planned and programmed in sections such that these work activities shall be completed within that particular day.

Non-compliance to this specification shall result in a penalty imposed which shall be calculated as follows:

Penalty = 2 x quantity of incomplete work for that day x tendered rate of that work activity

PS.12.10 Variations from Specified Nominal Rates of Application or Nominal Mix Proportions

The various sections of these specifications specify nominal rates of application or nominal mix proportions for materials such as bituminous materials, aggregates, fillers, stabilizing agents, paint and the like. Tenderers shall base their tenders on these nominal rates of application and mix proportions.

Where such nominal rates of application or mix proportions are specified, provision is made for deviations in quantities of material due to amendments to nominal rates or mix proportions as ordered by the Employer's Agent in writing from time to time. These changes may be necessitated by varying site conditions or availability of materials.

Where actual rates of application or mix proportions are varied, adjustment of compensation will be made -

- a) as a payment to the Contractor in respect of any authorised increase in quantities which exceed those specified, where such increase is as a result of a written order by the Employer's Agent ; or

- b) as a refund to the Employer in respect of a decrease in quantities which are less than those specified, irrespective of whether such decreases result from an authorised decrease in the rates of application or mix proportions, or from unauthorised reductions on the part of the Contractor.

Payment for a prescribed rate of application or mix proportion shall be based on the actual rate of application or mix proportion used, provided that this does not exceed the prescribed rate of application or mix proportion, plus any allowable tolerance. If the actual rate of application or mix proportion exceeds the prescribed rate of application or mix proportion, payment shall be based on the prescribed rate of application or mix proportion plus any tolerance allowed. If the actual rate of application or mix proportion is below that prescribed, payment shall be based on the actual rate of application or mix proportion regardless of any tolerance allowed.

Notwithstanding the above, the Employer's Agent shall be fully entitled to reject work, which has not been constructed in accordance with the specifications or the rates of application, or mix proportions prescribed.

The Employer shall be refunded for any decrease in the specified rate of application or mix proportion at the same rate per unit measurement as that tendered by the Contractor for additional materials required by an increase in the rates of application or mix proportions.

PS.12.11 Construction in confined areas

It may be necessary for the Contractor to work within confined areas. Except where provided for in the specifications, no additional payment shall be made for work done in restricted areas. In certain places the width of the fill material and pavement layers may decrease to zero and the working space may be confined. The method of construction in these confined areas largely depends on the Contractor's constructional plant. However, the Contractor shall note that, unless otherwise provided for in terms of the scheduled payment items in the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 or these project specifications, measurement and payment shall be in accordance with the specified cross sections and dimensions only, irrespective of the method used for achieving these cross sections and dimensions, and that the tendered rates and amounts shall include full compensation for all special equipment and construction methods and for all difficulties encountered when working in confined areas and narrow widths, and at or around obstructions, and that no extra payment shall be made nor shall any claim for additional payment be considered in such cases.

PS.12.12 Maintenance of the works during the construction period

The Contractor shall take note of the various requirements of the General Conditions of Contract 2015 and the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 with respect to the care and protection of the Works.

The handing-over of the road reserve for this contract is described in clause A1.2.3 of Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020. The Contractor shall be responsible for maintaining this portion of the road from the date of hand-over until the issue of the Certificate of Completion.

PS.12.13 Management

Applicable SANS 1921 standards

The following parts of SANS 1921 and associated specification data are applicable:

PS27.1.1 SANS 1921-1 Part 1: General engineering and construction works

Specification data associated with SANS 1921-1	
No.	Essential data
4.1.7	There are no requirements for drawings, information and calculations for which the Contractor is responsible.
4.2.1	The responsibility strategy assigned to the Contractor for the works is 'A'.
4.3.1	The programme must conform to clause A1.2.7.1 (Scheme 1) 'Programme of Work' of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 and clause 5.6 'Programme' of the 'General Conditions of Contract 2015'.
4.3.3	The Contractor must give 24 hours' notice for inspection of work that is to be covered up.
4.7.3	Where applicable, the Contractor is afforded the opportunity of pricing an item to cover costs of unavoidable over-break.
4.12.2	The samples of materials, workmanship and finishes that the Contractor is to provide and deliver to the Employer/Employer's Agent are to be as described in clause A1.2.8 'Workmanship and Quality Control' of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 and clause 7 'Quality and Related Matters' of the 'General Conditions of Contract 2015'.
4.12.2	The fabrication drawings that the Contractor is to provide to the Employer are: none.
4.14.5	The Contractor is to provide latrine and ablution facilities as described in Part C 'Environmental Management Plan' in Section C3.3 Particular Specifications of these Project Specifications.
4.14.6	The requirements for the provision and erection of signboards are as described in clause A1.2.3.10 'Notices, Signs and Advertisements' of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020, and as detailed in the 'Example of Contract Signboard Details' in Section C4: Site Information of these Project Specifications.
4.17.1	The requirements for the termination, diversion or maintenance of existing services are described in clause A1.2.7.3 and Chapter 2 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020
4.17.3	Services that are known to exist on the site are described in clause A1.2.7.3 and Chapter 2 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020.
4.17.4	The requirements for detection apparatus for locating underground services are: none.
4.18	The additional health and safety requirements are described in Part D 'OHS 1993 Health and Safety Specification' in Section C3.3 Particular Specifications of these Project Specifications.

PS.12.14 Recording of weather

The Contractor shall erect a rain gauge and record the rainfall as described in clause A1.2.3.4 of the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020. This information together with other details of the prevailing weather conditions shall be recorded in the daily site diary.

PS.12.15 Unauthorised persons

The Contractor shall keep unauthorised persons away from the Works at all times. Under no circumstances may the Contractor's personnel be accommodated on the site.

PS.12.16 Management meetings

Management meetings are to be held weekly/monthly (as determined by the Employer's Agent) at a time convenient to all concerned, to discuss planning and health and safety amongst other things. Attendance by the Contracts Manager, Construction Manager and the Employer's Agent's Representatives on site is mandatory, and attendance by other interested parties will be by invitation.

PS.12.17 Forms for contract administration

The Employer's Agent's Representative will provide standard forms to be used by the Contractor during the implementation of projects – a proforma of same is included in Clause C3.6.2.

The following forms are provided, but not limited to:

- Daily foreman's report;
- Daily site diary;
- Paving tally sheet;
- Traffic inspection sheet;
- Safety checklist;
- Various quality control checklists; and
- Checklist for documentation required for processing of payment certificates.

If the Contractor considers that any form omits information or data which may materially prejudice the Contractor in the submission of contractual claims, the Contractor shall notify the Employer's Agent in writing at the commencement of the Contract. Upon receipt of such notification, the Employer's Agent may, at their discretion, issue revised templates for use.

PS.12.17 Daily records

A site diary (triplicate) is to be compiled by the Construction Manager, vetted by the Employer's Agent's Representatives on site and is to be agreed and signed by both parties. The original signed copy is to be retained by the Employer's Agent's Representative.

The Contractor is to keep daily records of people and equipment on site in a format to be agreed by the Employer's Agent's Representative, and is to provide copies to the Employer's Agent's Representative when requested.

The Contractor must in addition to the site diaries, provide to the Employer's Agent on a daily basis where applicable, daily construction works checklists, plant and equipment pre-start checklists, traffic accommodation reports, quality control test reports, foremans reports, paving spreadsheets, timesheets for local labour employed, construction and traffic accommodation daily photographs and all other requirements as detailed in the Contractors Quality Control, Quality Management Plans and Clause PS.12.16 above.

The requirement for compliance to this specification shall be deemed to be included in the Contractors time related obligations.

PS.12.18 Contractor's camp site

The Contractor shall make his own arrangements regarding the acquisitions and location of the camp site/store yard. The proposed location of the camp site must be approved by the Employer's Agent and the landowner concerned. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.

All necessary toilet/ablution facilities, suitably screened, shall be provided by the Contractor to the satisfaction of the Health Department. The provision of portable chemical toilets is advised.

The Contractor shall make his own arrangements with Ethekwini Municipality's Water Department for the necessary water connections he requires for the execution of the works. Applications for a metered water connection must be made timeously to Ethekwini Municipality's Water Department.

The Contractor shall make his own arrangements with Ethekwini Municipality's Electricity Department for the necessary power connections he requires for the execution of the work under this contract. Again timeous applications must be made for this connection.

No direct payment will be made for the provision of electricity, water and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

In addition the following requirements are to be observed:

- a) The ground levels of the camp site must not be altered without the permission of the employer's Agent.
- b) The Employer is indemnified in all respects through the occupation and use of the land including all claims by third parties.
- c) The site must not be used for the accommodation of staff employed by the Contractor other than a night watchman for security purposes.
- d) No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.
- e) No informal housing or squatting will be allowed.
- f) The Contractor shall provide the necessary ablution facilities at his campsite and the site of the works for the use of his employees. Chemical toilets only will be allowed where temporary facilities have to be provided.
- g) When the land is vacated it must be left in a clean and tidy state, which is acceptable to the Employer's Agent.
- h) The campsite/store yard shall be cleared and vacated by the Contractor no later than 14 days after the date of completion of the Project unless written permission from the Employer's Agent is obtained to occupy the site for a longer period.

PS.12.19 Public awareness notice boards

The Contractor shall arrange for pre-made Notice Boards (45 cm x 60 cm cardboard "Warning Notice Board"), which are to be erected on site (strapped to ELPs, etc) atleast at every 50m spacing (in both directions of travel) together with the delivery of the "Notice to Residents" to all the affected residents well in advance of the work commencing. The cost thereof and for the removal of the boards shall be deemed to be included in the rates and amounts tendered for the various items of work for each Project. The Contractor shall remove the Notice Boards within 14 days upon completion of works on that particular road.

Photographs supplied to the Employer's Agent for the installation and removal of the Notice Boards shall be deemed to satisfy the requirements and serve as evidence of meeting such requirements. Note that the Employer's Agent may determine in instances where such notice to residents are not appropriate/required such as the rehabilitation of Major Freeways.

The Employer's Agent shall impose a penalty for non-compliance to the requirements of this section, which shall be calculated as follows:

Penalty for non-installation of Notice Boards (per road) = R 1000 per day, effective until compliance to this specification. This penalty is also applicable to instances whereby an inadequate number of notice boards are installed.

Penalty for failure to remove Notice Boards (per road) = R 1000 per day, effective until compliance to this specification. This penalty is also applicable to instances whereby the Contractor has attended to only partial removal of the notice boards.

No additional payment will be made for this item and will therefore be deemed to be included in the construction rates.

PS.12.20 Approved spoil/tip sites

The approved tip sites for this contract are as follows in accordance with the Ethekeini Regions:

- North and North Central Regions : Buffelsdraai (Verulam) and Bisasar (Springfield)
- West and West Central Regions : Marianhill and Bisasar (Springfield)
- South and South Central Regions : Bisasar (Springfield)

Haulage shall only be to the above tip sites based on the regional boundaries. Should the Contractor wish to dispose the material outside the Contract's region then, prior approval shall be obtained from the Employer's Agent which it shall not be unreasonably withheld.

All haulage to these tip sites shall be free haul, ie. tendered rates shall include for any haulage to the tip site. Unless otherwise specified or agreed to by the Employer's Agent in writing all material to spoil shall be disposed of at this tip site. However, asphalt milled material may be directed to various municipal depots located closer to the works site for temporary storage or reuse. Such alternative tip locations shall be clearly stated in the relevant Works Package Order.

Only material which can be used as cover at this tip will be accepted free of charge being : sand, clay and builders rubble less than 500 mm in diameter, all other material shall be subject to a tariff charge, which will be to this Departments cost. Contractors are required to make request in writing to this branch well in advance of this activity taking place.

PS.13 MATERIALS and TESTING

PS.13.1 Contamination of Materials

The contractor is to ensure that contamination/ mixing of different materials are prevented during excavation/ handling or processing to ensure maximum reuse of suitable material (engineered fill of G9 or better quality). Should the Employer's Agent's Representative become aware of suitable material from excavation being contaminated and that sufficient care has not been taken to prevent such contamination, he shall have recourse to request testing on such materials. If the contractor has been negligent in preventing such contamination, spoiling of such materials shall be to his account and he shall have no recourse for any payment.

PS.13.2 Testing Requested by Employer's Agent

The Contractor is to include in his unit rates for the cost of classification testing of all materials delivered to site intended for use in the layerworks and for all density of all materials delivered to site intended for use in the layerworks as per the pavement design.

The Contractors is to provide results of all control testing to the Employers Agent. If the Employers Agent is satisfied with the results, the Contractor will then be given the approval by the Employers Agent's Representative to proceed with the next stage of construction.

The Contractor is to also include in his unit rates for the cost of classification testing and density tests of all materials excavated from site intended for use in the bulk earthworks. The Contractor is to provide the test results of all these materials to the Employers Agent. If the Employers Agent is satisfied with the results, the Contractor will then be given the go ahead by the Employers Agent's Representative to proceed with the next stage of construction.

Random acceptance testing will be undertaken by the Roads Provision Department, Pavement and Geotechnical Engineering Branch.

PS.14 STAKEHOLDER MANAGEMENT AND LIAISON

The construction environment is one of uncertainty in terms of participation expected from various bodies, organisations and community structures that may present themselves in various guise and forms.

The employer has identified this as a contractual risk but is unable to directly influence actions that will mitigate these risks. It is therefore a condition of this contract that any risk pertaining to the above stated conditions are placed as the sole responsibility of the contractor who is best suited to and possesses the most influence in identifying, mitigating and managing these risks.

The contractor is therefore required to take whatever steps deemed necessary to prevent any delays or cost implications to the project, by actively putting in place a Stakeholder Management Plan that deals with:

- Create a Stakeholder Register which identifies all stakeholders at the onset and throughout the duration of the contract
- Categorizing of stakeholders according to their interests, influence and contribution to the project
- Rating of stakeholders according to their influence and power on the project
- Addressing and communicating contractual opportunities to the identified groups
- Identifying Risks associated with stakeholders
- Continuous mitigation of Risks in terms of the Stakeholder Management Plan

The identification of Stakeholders and the contents of the Stakeholder Management Plan must be continuously updated and shall be approved by the Employer's Agent.

The requirements of this clause shall not be measured or paid for separately but shall be deemed to be included in the Contractor's General Obligations and the construction rates tendered. All costs and activities associated with stakeholder engagement and management, including the preparation and implementation of the Stakeholder Management Plan, identification of stakeholders, ongoing risk mitigation, as well as the mentoring, coaching, and management of subcontractors, local labour, and community structures, shall be deemed incidental to the execution of the Works. No additional claims shall be entertained for time, Preliminary and General items, or standing time costs arising from stakeholder-related disruptions, whether by identified or unidentified parties. The full responsibility for managing and mitigating these risks rests with the Contractor.

C3.3 : STANDARD SPECIFICATIONS

C3.3.1 The Standard Specifications on which this contract is based are the **COTO Standard Specifications for Road and Bridge Works for South African Road Authorities: October 2020 edition.**

For the purposes of this contract, references to the term “**Engineer**” within the COTO Standard Specifications shall be deemed to have the same meaning as “**Employer’s Agent**” as defined in the SAICE General Conditions of Contract (GCC) 2015. These terms are used interchangeably throughout this tender document and shall carry identical authority, responsibilities, and functions as applicable to the context of the Works.

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

Part A contains a general description of the works, the site and the requirements to be met (Part C3.2 – Project Specification).

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

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

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

C3.3.2 AMENDMENTS TO THE STANDARD SPECIFICATIONS

INTRODUCTION

In certain clauses of the COTO Standard Specifications, provision is made for specifying a choice in the Project Specifications between alternative materials or methods of construction, as well as for including additional requirements tailored to a particular contract. Details of such alternatives and additional requirements applicable to this Contract are provided in this part of the Project Specifications. This section also contains any additional specifications necessary for the execution of this Contract.

The clauses and payment items addressed in this part of the Project Specifications are numbered with the prefix 'PS', corresponding to the relevant clause or item number in the COTO Standard Specifications.

New clauses and payment items that are not covered by the COTO Standard Specifications are also included in this section. These have been designated with the prefix 'PS' and assigned new numbers sequentially, following the last number used in the relevant section of the COTO.

CHAPTER 1: GENERAL

A1.1 GENERAL PREAMBLE

PART A: SPECIFICATIONS

A1.1.2 DEFINITIONS

Add the following definitions:

“Acceptance control” - acceptance control means whatever testing the Employer’s Agent carries out over the above the process control testing already carried out by the Contractor in order to decide on Acceptability of any work submitted by the Contractor. Such testing will be carried out at the cost of the Employer in either the Employer’s Agent’s laboratory or one approved by him.

“Ancillary Works” - Projects where the scope of works is not upgrading of pavement layers shall be classified under “Ancillary Works”. Examples of the projects this category is intended to cover include raising/lowering of services, construction/re-construction of sidewalks, laying of kerbs or kerb & channel or asphalt haunching, repairs or reconstruction of sidewalks and laying of sub-soil drains.

“Business Enterprise”- A sole trader, partnership or legal entity which adheres to statutory labour practices, is registered with the South African Revenue Services and is a continuing and Independent Enterprise for profit, providing a Commercially Useful Function.

“Commercial source” - a source of supply of materials chosen by the Contractor. The Contractor shall take full responsibility for the quality of all materials and services supplied from commercial sources.

“Concrete Pavement Works” - Projects which include concrete pavements for surfacing shall be classified under “Concrete Pavement Works”.

“Contracts Manager” - A competent person responsible for managing the Contract, including all the Projects within a Contract. The responsibilities include Contract administration, works programming, Contract cashflow and managing all the Construction Managers and other resources within a contract.

“Granular Works” - Projects which include the construction of new granular pavement layers above the formation level (i.e. Base and/or Subbase) shall be classified under “Granular Works”. These works shall include construction of layers using both virgin materials and reuse of existing granular materials. This category shall also include the construction of BSM layers and asphalt layers.

“Process control” - process control means all testing required to be carried out by the Contractor at his cost in order ensure that the completed permanent works comply with specifications and drawings. All such testing will be subject to inspection and approval by the Employer’s Agent.

“Recycling Works” - Projects which include construction of BSM (Bitumen Stabilised Material), Lime Stabilised Material or Cement Stabilised Material layers shall be classified under “Recycling Works”. This category shall include both in-situ recycling and in-plant recycling. This category shall also include cement, lime or bitumen stabilization of pavement layers, and the construction of asphalt layers.

Upgrading Categories

Road Categories (Roads Infrastructure Strategic Framework for South Africa - RIFSA)

“Class 1” – Major Arterials or Freeways

“Class 2” – Urban Arterials, Major Bus Routes, CBD and Industrial Roads

“Class 3” – Minor Bus Routes and Collectors

“Class 4” – Residential Streets

“Sand” - sand is defined as a non-plastic material that conforms to the HRB classification for an A3 material as follows : % passing 5 mm sieve 95 min 0,425 mm sieve 50 min 0,075 mm sieve 10 max

“Subgrade Improvement Works” - Projects which include improvements/re-construction of the subgrade layers below the formation level of the pavement shall be classified under “Subgrade Improvement Works”. This shall only be applicable to projects where greater than 15% of the length of the road requires subgrade improvements. These works shall also involve reconstruction of the layers above formation and the construction of all types of layers shall be covered by this category of upgrading work.

“Surfacing Works” - Projects which include the construction of new pavement layers which are all asphalt layers, or layers which may be described as bituminous surfacings such as slurries, single seals, micro-surfacings etc shall be classified under “Surfacing Works”.

“Work in restricted areas” - no additional or extra over payment will be made for work in restricted or confined areas, unless the items of work to which it will apply and the pay items under which payment will be effected, are explicitly specified in these Standard Specifications or in the Project Specifications and Included in the Schedule of Quantities.

PS.1115 GENERAL CONDITIONS OF CONTRACT

Replace clause 1115 with the following:

“The General Conditions of Contract for Construction Works 3rd edition 2015 published by the South African Institution of Civil Engineering (SAICE), together with the Special Conditions of Contract form part of the contract.

All references in the COTO Standard Specifications for Road and Bridge Works are to the **COTO General Conditions of Contract for Road and Bridge Works for State Road Authorities**. Consequently, all references in the COTO Standard Specifications have to be amended accordingly to reflect the appropriate General Conditions of Contract relevant to the Contract. The COTO Standard Specifications have been scrutinized and the clauses, which refer to the COTO General Conditions of Contract, identified. Each COTO clause reference is tabulated in Table PS.1115 below (context of reference is also given) together with the relevant equivalent clause in the SAICE General Conditions of Contract for Construction Works 3rd edition 2015 applicable for this Contract.

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 SAICE General Conditions of Contract for Construction Works 3rd edition 2015 reference, as amended by the Special Conditions of Contract in the Contract Data, shall apply and the Contractor shall be responsible for interpretation of the equivalent clause.

TABLE PS1115: REFERENCES IN COLTO STANDARD SPECIFICATIONS TO THE COLTO GENERAL CONDITIONS OF CONTRACT AND RELEVANT SAICE GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS 3rd EDITION 2015

COTO (October 2020) Standard Specification		COLTO General Conditions of Contract 1998		SAICE General Conditions of Contract for Construction Works 3rd edition 2015	
Clause No	Page No	Clause No	Description or Reference	Clause No	Description or Reference
A1.2.7.1	1-18	15	Programme	5.6	Programme of the Works
C1.1.3.5	1-6	52: 52(1)(e) 52(2)	Monthly payments (documentary evidence of ownership of materials) Valuation of material brought onto Site	6.9 & 6.10 6.9 6.10.2	Vesting of materials Valuation of material brought onto Site
1210	1200-5	54	Certificate of practical completion	5.14: 5.14.1 5.14.2 5.14.3	Certificate of practical completion
1212(l)	1200-7 (1-33)	49: 49(2) (C1.3.1.2)	Contract Price Adjustment Factor	6.8: 6.8.2	Contract Price Adjustment Factor

CHAPTER 1.2 GENERAL REQUIREMENTS AND PROVISIONS

A1.2.3 GENERAL

Add the following new subclause:

"A1.2.3.24 Reference Manuals, other specifications and test methods

In various chapters of this Standard Specification, reference is made to Manuals, other specifications and test methods. If not otherwise indicated in the Contract Documentation, the latest published Manual, other specification and test methods at time of close of tender will apply. Any changes to be implemented on a project as a result of revisions to manuals, other specifications and test methods, will be handled in terms of the Conditions of Contract.

Certain TRH and TMH documents are published as Manuals/TRH or Manuals/TMH publications. Where reference is made to the TRH or TMH document, it shall be read as referring to the latest version of the Manual/TRH publication or Manual/TMH publication, respectively."

A1.2.7 EXECUTION OF THE WORKS

A1.2.7.1 Programme of work

a) General

Add the following new paragraphs:

"The contractor shall note that the examination of a road with a view to rehabilitation is normally undertaken a considerable period of time before the commencement of the contract, and that conditions may subsequently change. The engineer will make further examinations during the period of contract, and, depending on the results of such examinations, the quantities of any items of work may be drastically increased or decreased.

The contractor shall base his initial programme for road rehabilitation on the scope of the work as described in the project specifications and the quantities contained in the Pricing Schedule."

Add the following heading and descriptive paragraphs at the end of the section

(A1.2.7): "A1.2.7.6 Lighting requirements during nighttime

The contractor shall provide sufficient lighting for night work to ensure that all inspection and work areas are illuminated to a minimum average of 100 lux at an overall uniformity of 0,33. The illuminance for active work areas shall comply with the requirements of the Occupational Health and Safety Act (Act 85 of 1993) and the

related Environmental Regulations for Workplaces (1987) and all lighting shall be subject to a minimum glare control of 5. Luminaries mounted on masts shall have a minimum mounting height of 4 m. The contractor shall ensure sufficient backup lighting to replace faulty lighting. The full specified lighting must be provided at all activities undertaken at night. The lighting must be positioned so as not to cause a hazard to the travelling public using the road. Should the Engineer be of the opinion that the lighting is insufficient or that it is a hazard to the road users, the contractor must rectify it immediately. Non-compliance will be subject to penalties. Two mobile lighting units, including the towing vehicle and operators must on request be made available to the engineer for nighttime inspections. The contractor shall submit his lighting operational plan to the engineer for approval and demonstrate the effectiveness of the lights before the commencement of any night work. The Engineer shall also inspect and approve all lighting equipment prior to the commencement of the night work. A trial set-up of the lighting equipment shall be made at an appropriate site. The contractor shall arrange for the measurement and certification of the lighting adequacy by a reputable service provider. Once the lighting plan and equipment have been approved, the contractor may not deviate from it unless agreed by the Engineer. If lighting requirements are not met for any activity, the Engineer will order that activity to be stopped until the required lighting has been reinstated."

PSA1.2.3.4 EXTENSION OF TIME FOR DELAYS BY RAINFALL

Add the following to the end of A1.2.3.4(b) Method 2 (Critical path method with consequential delays):

The value of "n" working days expected delay caused by normal rainy weather as referred to in Method (ii) shall be as given in the table below for each respective calendar month of any year:

Month	Expected delay of "n" working days due to normal rainy weather	Month	Expected delay of "n" working days due to normal rainy weather
January***	4	July	1
February	3	August	2
March	3	September	2
April	3	October	3
May	2	November	3
June	1	December***	1

*** Includes the whole month of December / January.

PSA1.2.3.11 ORDERING OF DAYWORKS

Replace Clause A1.2.3.11 with the following:

PSA1.2.3.11 DAYWORKS

a. Scope

Rates for daywork shall be entered in the under item C1.2.8.1 in accordance with the following

specifications.

b. Daywork Rates

According to Clause 6.5 of the General Conditions of Contract 2015, certain work may be carried out using rates tendered in the daywork schedule. A schedule of personnel, construction equipment and vehicles which may be required to perform work on a daywork basis is included in the Bill of Quantities. The quantities used in the Bill of Quantities are for tender evaluation purposes only and the use or not of these items shall not constitute a variation in terms of Clause 6.3 of the General Conditions of Contract 2015.

No work will be paid for as daywork without the written instruction or approval of the Employer's Agent.

c. Type of Work

The Employer's Agent may order daywork in certain cases where it is necessary to vary or to extend the works due to new or unforeseen circumstances to such an extent that the tendered rates for specific items of work are no longer applicable, or where no suitable combination of tendered rates can be used to pay for such work.

As a general rule, applicable rates for additional work items will be agreed between the Contractor and the Employer's Agent. Daywork will only be used in exceptional circumstances.

d. Materials

Materials for use in works carried out under daywork shall be purchased by the Contractor who shall also arrange for delivery to site, and shall be responsible for any other requirements associated with specific materials. A Provisional Sum has been allowed in C1.2.8 of the Bill of Quantities for daywork materials. The Contractor shall enter a tendered percentage in the Bill of Quantities to cover his handling costs and profit, as per other provisional and prime cost sums in this Contract.

Materials shall be paid for using the method described in C2.1, 'Pricing Assumptions'. No contract price adjustment will be applicable to materials.

The Contractor shall submit proof of ownership for any materials used in daywork with his daywork claim to the Employer's Agent. Further, if specific materials are required for daywork, quotations will be called for as per Clause 6.5.2 of the General Conditions of Contract 2015.

e. Construction Equipment

Where daywork is ordered, the tendered rates for construction equipment in C1.2.8 of the Bill of Quantities shall be used in calculating the payment due for any construction equipment required to execute the daywork. If no rate is included in the Bill of Quantities for a particular item of construction equipment, and where no other rate or combination of rates would provide suitable compensation, then the daywork method of payment described in Clause 6.5.1.3 of the General Conditions of Contract 2015 will be used.

The tendered rates for each item of construction equipment shall include for all operating costs associated with the said item of construction equipment. Such costs are deemed to include fuel, re-fuelling costs, lubrication and routine servicing / maintenance, breakdowns and spares, all overhead costs, site management costs and administration costs. The tendered rates shall also include the construction equipment operator and the general supervision of the construction equipment while it is engaged in the daywork.

f. Salaries and Wages of Workmen

The salaries and wages of workmen executing daywork shall be paid for using the tendered rates in the Bill of Quantities. The tendered rates shall include for all costs associated with the employment of personnel, including salaries, wages, allowances, workmen's compensation, medical aid and pension contributions, government levies and taxes, training costs and any costs associated with living on the site. The tendered rates shall also include for the transportation of the workmen to the site of the daywork.

All overhead costs, administration costs, site management costs and the Contractor's profit are deemed to be covered by the daywork rates and no additions or mark ups will be made to the tendered rates.

The tendered rates shall also include any hand tools normally associated with the workmen's job description e.g. picks, shovels, hammers, saws and spirit levels. The tendered rate for labourers shall also include for the casual supervision by a gang leader or foreman. Only when specifically called for by the Employer's Agent, will payment be made for the use of a gang leader or foreman supervising on a continuous basis.

g. Measurement and Payment

The following principles shall also apply to the measurement and payment of daywork.

The unit of measurement for construction equipment shall be the number of Vibroclock hours worked and each item of construction equipment shall be fitted with a Vibroclock, the cost of which shall be included in the rates. Excessive non-productive time when the engine is idling will not be paid for. Where there is ambiguity between the flywheel horsepower and mass of the machine, the flywheel horsepower shall govern the measurement category. Where width and mass are specified, mass shall govern the measurement category.

The Contractor's attention is drawn to the requirements of Clauses 6.5.3 and 6.5.4 of the General Conditions of Contract 2015 with regard to the submission of lists and statements of personnel, materials and construction equipment used for daywork.

The payment items under C1.2.8 in the Standard Specifications for Road and Bridge Works for South African Road Authorities (COTO), Draft Standard (DS), October 2020 will be applicable.

PSA1.2.3.18 Stakeholder liaison

Add the following to Clause A1.2.3.18:

a. Project Liaison Committee

The process of implementing infrastructure projects will be undertaken by means of structured engagement between those responsible for the delivery of the project and the community.

A Project Liaison Committee (PLC) is a vital means of communication between the parties involved with the project. A PLC may be formed if deemed necessary by the Employer's Agent, specifically on larger projects with substantial impact to the community.

The PLC comprises representatives of the employer, the engineer and formal structures within the community. The contractor shall make use of these communication channels, and shall appoint from amongst his site personnel a responsible person to participate in the affairs of the PLC, and this representative shall also attend the monthly PLC meetings when so requested.

The PLC shall meet at least once every month until such time as it is of the opinion that it could fulfil its tasks by meeting less frequently.

The PLC deals with local labour on the project, and is tasked with:

- assisting with community liaison and the resolution of community disputes;
- devising fair and transparent procedures that will assist the contractor in the engagement of labour;
- advising on and monitoring labour issues; and
- assisting in the resolution of labour disputes.

All labour recruitment, employment and associated risks shall remain the sole responsibility of the contractor.

A new pay item is included in Chapter 1.2 of the schedule of quantities relating to the payment of the PLC on a provisional sum basis. Payment under this item shall be made only for the period for which the duties of the PLC are required, and not necessarily for the full duration of the contract.

b. Community Liaison Officer (CLO)

The contractor shall appoint a competent local person as a Community Liaison Officer (CLO). The contractor shall appoint the CLO as part of his site personnel and shall direct all his liaison efforts with the local community through the appointed CLO.

The period of employment and the remuneration of the CLO shall be determined jointly by the contractor, the engineer and the employer.

The CLO shall:

- i. represent the community and assist the contractor, the engineer and the employer with communication between them and the community;
- ii. work an 8-hour day with a total of 40 hours worked per week, and shall be present on site each day except when performing off-site community liaison activities;
- iii. communicate daily with the contractor on labour related issues such as numbers and skill;
- iv. assist in the identification and screening of local labourers from the community in accordance with the contractor's requirements;
- v. inform local labour of their conditions of employment, including their period of employment;
- vi. attend disciplinary proceedings involving local labour, and ensure that hearings are fair and reasonable;
- vii. attend all meetings at which the community and/or local labour are present or are required to be represented;
- viii. attend monthly site meetings to report on community and local labour matters;
- ix. keep a daily written record of interviews and community liaison;
- x. submit monthly returns regarding community liaison; and
- xi. carry out all such other duties as agreed upon between all parties concerned.

A new pay item is included in Chapter 1.2 of the schedule of quantities relating to the payment of the CLO on a provisional sum basis. Payment under this item shall be made only for the period for which the duties of the CLO are required, and not necessarily for the full duration of the contract.

Add the following new Clause A1.2.3.24:

PSA1.2.3.24 Compliance with the Road Traffic Act

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

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

The Contractor shall provide, erect and maintain sufficient road signs, barricades, fencing and guarding as may be necessary or required by the Employer's Agent or by any act, regulation or statutory authority in order to minimise the danger and inconvenience caused to vehicle and pedestrian traffic. The Contractor by accepting this contract shall be deemed to have indemnified the Employer and the Employer's Agent against any claims, damages and / or costs that may arise in this regard.

Add the following new payment item.

PSC1.2 MEASUREMENT AND PAYMENT

Item	Unit
PSC1.2.10 Community Participation	

- (a) Cost for community Participation (PLC and CLO) Prime Cost Sum
- (b) Handling costs and profit in respect of sub-item PSC1.2.10(a) above percentage (%)

Expenditure under this item shall be made in accordance with clause 6.6 of the General Conditions of Contract 2015.

The tendered percentage is a percentage of the amount of expenditure approved by the Employer's Agent under sub-item PSC1.2.10(a), and shall include full compensation for the handling costs of the Contractor and the profit in connection with the provision of a Community Liaison Officer.

PSC1.2.11 Dispute Adjudication Board (DAB)

PSC1.2.11.1 Employer's contribution to DAB (50%) prime cost (PC) sum

The unit of measurement for item PSC1.2.11.1 is the prime cost sum. Payment of the prime cost sum shall be in terms of GCC Clause 10.5 for 50% of the amounts invoiced from the appointed DAB. No sum for overhead charges and profit in terms of GCC Clause 10.5 is payable for this item."

Item	Description	Unit
PSC1.2.12	Provision of lighting for night time work.....	month

The unit of measurement for item C1.2.12 is the month or part thereof that the provision of lighting for night work to the work zone is provided for the duration of the contract.

The tendered rate shall include full compensation for providing, operating, maintaining and decommissioning upon completion, of all the required equipment, labour and tools, incidentals and supervision to carry out the activity as described in clause A1.2.7.6 herein.

CHAPTER 1.3: CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS

PS.C1.3.1 The Contractor's General Obligations:

In addition to the Standard Specification, the Contractors General Obligations shall also include:

- Training and supervision of local labour
- Management of labour where labour enhance construction methods are specified
- Compliance with, and application of the Compensation for Occupational Injuries and Diseases Act
- The Contractor's camp site and store yard.

Note: The Contractor's office for this contract shall be as required to fulfil his obligations under the Contract. The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and labourers. If the Employer can make any specific site available to the Contractors camp site, such site will be pointed out to the Contractor.

Clearing and Grubbing for the construction of camp sites shall not be measured separately. Payment shall be regarded as included in the rates tendered for the applicable items.

However, the Contractor may, if he prefers to, have a camp site at another location and must first obtain the written permission of the landowner, and subsequently the Employer's Agent, to do so.

Any clearing of the site that is necessary and the making good after de-establishment will be the responsibility of the Contractor.

The following conditions shall also apply:

- None of the existing roads shall be damaged in any way.
- No waterborne sewerage facilities or potable water connection are available on the site. The Contractor shall make his own arrangements in this regard.
- No electrical facilities exist on site.
- It shall be the responsibility of the Contractor to make good any damage caused to the camp site area or any improvements on it, including services, and for reinstating it to its former condition when vacated. The standard of reinstatement must be to the satisfaction of the Employer's Agent; Deputy Head: Real Estate and/or Deputy Head of Parks, Recreation and Beaches Department; or other owner. Particular attention should be directed to these requirements and written clearances from the relevant Departments or other owners will be required.

No employees except for security guards will be allowed to sleep or be accommodated on the site in urban areas. No housing is available for the Contractor's employees and the Contractor

shall make his own arrangements to house his employees and to transport them to site.

No informal housing or squatting will be allowed.

Chemical toilets only will be allowed where temporary facilities have to be provided.

PS.C1.3.1.1 The Contractor's Fixed Obligations:

In addition to the provisions of the Standard Specifications, such charges shall be priced as a percentage of the value of the Works Package Order awarded to the successful Contractor. These charges shall include all that is required thereunder, including obligations arising from the Value-Related Obligations, determined in accordance with the size and category of the CIDB work awarded.

PS.C1.3.1.2 The Contractor's Value Related Obligations:

No separate payment will be made for this item. The Contractor shall make full provision for this requirement under Fixed and Time-Related Charges.

PS.C1.3.2 Contract Sign Boards:

The tendered rate shall include full compensation for providing and erecting each sign board, including for timber poles, concrete bases if required, fixings, excavation and backfill, and for the later removal of the sign board, structures and fixings, and reinstating the area upon completion of the contract. The rate shall include for all labour, plant, tools, materials and equipment.

PART C: MEASUREMENT AND PAYMENT

Item

Unit

C1.3.1 The Contractor's general obligations

Delete subitem C1.3.1.3 and replace with the following:

"PSC1.3.1.3 Time related obligations:

- a) Mobilisation period month
- b) Execution of the works month"

Add the following pay subitems:

"PSC1.3.1.4 Suspension Cost

- a) De-establishment Number
- b) Re-establishment Number
- c) Suspension period month
- d) Engineer's cost prime cost sum (PC) sum

Under the heading "Item C1.3.1.3", delete the 2nd paragraph and replace with the following:

"The contract rate shall include full compensation for that part of the Contractor's general obligations which are mainly a function of construction time. The contract rate shall be deemed to include, leasing costs, hire costs or cost of ownership per month for Contractor's Equipment. The contract rate will be paid monthly, pro rata for parts of a month, from the Commencement Date in terms of the Contract Documentation until the end of the Mobilisation Period for item C1.3.1.3(a). For item C1.3.1.3(b) the contract rate will be paid monthly, pro rata for parts of a month, from the end of Mobilisation Period until the end of the original Contract Period specified for completion of the Works."

Add the following new paragraphs:

"Item C1.3.1.4

The rates tendered under subitem C1.3.1.4 shall represent full compensation for all Costs for Suspension of Work and all Costs during Suspension of Works period, and no other Costs (including other monthly costs) shall be payable.

Payment of subitems C1.3.1.4(a) and C1.3.1.4(b) shall be made for the number of de-establishments and re-establishments of all Personnel and Goods (Contractor's Equipment, Materials, Plant and Temporary Works) as instructed by the Engineer. Payment of subitems C1.3.1.4(a) and C1.3.1.4(b) shall not apply during the Mobilisation Period.

Payment of subitem C1.3.1.4(c) shall be made monthly, pro rata for parts of a month, from the date on which the Contractor has suspended progress of all of the Works in terms of Conditions of Contract clause 5.11.1 or 5.11.2 and commenced with de-establishment of the site, until permission or instruction to proceed in terms of Conditions of Contract clause 5.11.5 is given. Payment of subitem C1.3.1.4(c) shall not apply during the Mobilisation Period.

The Prime Sum in subitem C1.3.1.4(d) is provided to cover the cost of the Engineer during the period of suspension of the works. The amounts certified by the Employer shall be made to the Engineer, within 30 days of it being certified by the Employer.”

CHAPTER 1.5 ACCOMMODATION OF TRAFFIC

PART A: SPECIFICATIONS

Add the following clause:

PSA1.5.3.15 NIGHT WORK AND WEEKEND WORK

Where night work has been approved by the Employer's Agent, the following specification shall be complied with:

Road closures can only commence at 18:00 until 06:00, where the road shall be open to traffic.

The road shall not be closed off to traffic before 18:00, unless permission to do so has been granted by the Employer's Agent.

For night and weekend work, the contractor must ensure that he:

- Makes arrangements for all the necessary testing required.
- Undertakes all checks for all activities and populates the necessary checklists.
- Submits all the necessary documents to the Employer's Agent's Representative on the very next working day.
- Submits the traffic report and site diary to the Employer's Agent's Representative on the very next working day.
- Site safety and traffic signage is monitored even outside working hours, as the Contractor is responsible for the site safety 24/7.

No additional payment will be made for this item and will therefore be deemed to be included in the construction rates.

PSA1.5.3.16 SUB-CONTRACTING OF TRAFFIC ACCOMMODATION

Due to the nature and risks involved with working under live traffic conditions, it is of paramount importance to maximize safety of road users, general public and the labour force. It is therefore a condition of this contract that traffic accommodation shall not be sub-contracted to local enterprises. The Contractor shall remain responsible for the traffic accommodation designs in accordance to the relevant specifications, provision of traffic accommodation devices, supervision and all other requirements in relation to this specification. Any penalties imposed onto the Contractor for non-compliance to the approved traffic accommodation plans on-site shall not be transposed onto the sub-contractors. In the event of such penalties being transferred onto the sub-contractors, the Employer reserves the right to deduct such amounts from the payment certificate/s due to the Contractor.

The Employers Agent, may at his discretion, permit the sub-contracting of traffic accommodation upon written request from the Contractor. The Contractor is to include in his motivation the skills, competencies and resources that the sub-contractors possess to adequately and safely undertake the works to a standard or better as if the Contractor was undertaking the traffic accommodation himself.

No additional payment will be made for this item and will therefore be deemed to be included in the construction rates.

Amend the payment items and the descriptive paragraphs as follows:

Item	Description	Unit
"C1.5.8	Traffic safety officer(s).....	man-month

The unit of measurement for item C1.5.8 shall be the man-months or part thereof during the approved contract period that the / all traffic safety officer(s) are deployed on the site of works. It should be noted that although the projects may comprise nighttime construction, traffic accommodation is generally required during daytime. No separate payment shall be considered should two (2) or more traffic safety officers be required. The rate tendered shall be deemed all-inclusive for daytime and nighttime works, irrespective of the number of traffic safety officer required during each period and shall be in line with the submitted construction programme". Replace all references to "traffic safety officer" in the description with "traffic safety officer(s)".

CHAPTER 2

CHAPTER 2.1: GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES

PART A: SPECIFICATION

A2.1.3 GENERAL

A2.1.3.2 Location, identification, protection and relocation of existing services

Delete A2.1.3.2 a) and replace with the following:

Services in the project area are unknown, thus before any work can commence, the contractor shall verify the services in the vicinity of the works (type and actual position of each service) and bring this to the attention of the engineer.

Add the following before the 1st paragraph of b) Location of existing services:

Before any work commences, the Contractor shall contact all private owners or public authorities controlling services so that they may, either protect, move or relocate any service as required, or confirm that all such work has been completed. Payment will not be made for any inconvenience caused to the Contractor in regard to any services crossing the site or any authority working on or relocating any such services, nor will any delays caused by such work or relocation be accepted as a basis for claiming an extension of time for completing the works.

Add the following before the 1st paragraph of d) Protection of services:

All known existing services and those services which require relocation and protection, are shown on the services plans. The Contractor's attention is drawn to the fact that such services information is based on information supplied by others, and the accuracy and completeness of this information has not been confirmed. The Contractor will therefore be required to proceed with extreme caution in order to avoid damage to existing services. Before commencing any work in the vicinity of services, the Contractor shall contact the relevant service authorities for assistance in locating the exact position of the services and where necessary the Contractor shall accurately locate the services by careful hand excavation.

In general, the Employer's Agent may call upon the Contractor to re-excavate trenches previously dug and backfilled by others where in the opinion of the Employer's Agent such work is necessary to ensure the stability of any other works over such trenches.

This in no way relieves the Contractor of his responsibilities in terms of the works.

A2.1.7.1 Trenching for services

Add the following after the last paragraph of a) General:

The Tenderer's attention is drawn to the presence of existing services in the area. The Contractor may find it impractical to use mechanical plant for excavation on some portions of the works due to conditions caused by the presence of these services.

The Tenderer's attention is further drawn to the fact that his rates for excavation and backfilling must include for all costs associated with working around these existing services and their protection and accommodation, as no claim for extra payment will be accepted for increased working space or for the inability to use plant in any circumstances.

The following requirements in respect of trench excavation, backfilling and reinstatement shall be adhered to:

1) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling.

It will be the Contractor's responsibility to use selective methods of excavation to ensure that this unsuitable material does not contaminate other materials suitable for reuse.

2) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling in areas subject to traffic loading. An item has been included in the Bill of Quantities for the disposal of unsuitable material to tip and the Contractor's tendered rate for this item shall include for stockpiling if deemed necessary.

3) Where the Contractor chooses to trench by open excavation e.g. battering sides of the trenches, this over-excavation shall not be backfilled with unsuitable excavated material but shall be backfilled with the same imported material as used for the pay-width of the trench. Payment for the imported backfill shall be limited to the pay-width of the trench only and the Contractor shall allow in his rates for any extra backfill material that may be required as a result of over-excavating

4) Notwithstanding the method of trench excavation adopted by the Contractor, the restriction on the maximum trench width must be strictly adhered to. Should the Contractor over-excavate the trench then he will be responsible for increasing the pipe strength and / or bedding class to be used, all to his cost.

The measurements for excavation shall be the total through-length along the centre-line of a pipeline measured HORIZONTALLY with deductions for manholes. In addition, trench depth will be measured vertically on the centre-line of the pipeline from the existing ground level to the invert level.

Add the following before the 1st paragraph of I) Timbering and Shoring, (ii) Contract Specific Shoring Requirements:

The Contractor shall be responsible for the design and installation of all shoring where applicable, which must not only comply with all of the relevant safety regulations pertaining to the provision of safe working conditions in earthwork excavations but also will provide sufficient lateral support to minimise any damage to adjacent structures, services or road surfaces.

In addition to the above all excavations in road reserves and adjacent to structures and where excavations are in excess of 1,0 m in depth shall be supported with close shoring and no open or intermittent shoring of any description will be permitted.

The minimum requirements for shoring of these trench excavations shall be as follows:

1. Either ribbed steel trench sheeting of suitable thickness with an edged return for interlocking or suitably sized timber poling boards or runners are to be used. Adequate sized walling's at suitable intervals are to be provided. Struts shall consist of either adjustable tubular steel jacks or timber suitably sized for the load application.
2. The shoring for the excavations shall be progressively installed as the excavation proceeds. Care being taken to ensure the soil is not removed

within a minimum 300 mm of the toe of the runners.

3. Installation of shoring after the trench has been excavated to a depth in excess of 1,5 m is not acceptable.
4. Details of the proposed shoring must be supplied to the Employer's Agent at least two weeks before the operation commences. During the backfilling, sides of the trench including the road layers above any over-excavated sections are to be cut back to a point behind the over excavation.

No separate item has been allowed for in the Bill of quantities and the Contractor shall allow in his excavation rates for shoring as necessary. The cutting back of the trench sides shall be to the Contractor's account.

PS.C2.2.7.4 Brick Headwall to Ducts:

Ducts shall have brick headwalls constructed at each end of the ducts, as shown on standard Drawing No. 38581. Bricks for these headwalls shall be selected good quality clay commons. Mortar shall conform to mix Class A as defined in the latest edition of the Standard Building Regulations.

PART C: MEASUREMENT AND PAYMENT

Add the following clause

PSC2.2.10 Raising or lowering of various drainage or service structures No.

The unit of measurement shall be the number of drainage or service structures to be raised or lowered. Type of structure and depth range indicated in the schedule of quantities.

The tendered rate shall include full compensation for the raising or lowering of existing services, including the careful removal of existing components such as cover slabs, frames, lids, and fittings, and storing them on site for re-use where applicable. The rate shall further include the demolition or modification of existing structures as necessary, and the provision of all labour, materials, and equipment required to reconstruct, extend, or reduce the height of chambers, manholes, valve boxes, catchpits, or similar structures to the designated new level.

It shall also include reinstallation and setting of covers, frames, and fittings to the correct finished level, making good of surrounding surfaces, disposal of surplus material, and completion of the work to the satisfaction of the Employer's Agent.

It should also be noted that the roadway is to be opened to traffic as soon as possible and therefore the Contractor is to ensure that the concrete has set sufficiently. This will involve the use of rapid curing cement. Failure to use the prescribed cement will result in the work being rejected and the Contractor being instructed to re-do this work.

CHAPTER 3

A3.2.5.2 Culvert Material

c) Prefabricated concrete pipe culvert units – Replace “Ogee joints” with “Spigot and Socket pipes”

Reinforced concrete pipes for stormwater shall –

- a) comply with S.A.B.S. 677 for S.C. type pipes without lifting holes;
- b) be manufactured with a spigot and socket type joint suitable for use with a rubber ring joint; and
- c) comply with the proof load requirements for the various classes of pipe as indicated on the contract drawings and/or in the schedule of quantities.

The rubber ring joints shall comply with S.A.B.S. 974 - Part 1.

A3.2.7.7 Laying and bedding of prefabricated culverts

Add the following before a) Concrete pipe culverts

All pipelaying and jointing shall be undertaken by experienced pipelayers who shall, when requested, produce proof of their capabilities to the satisfaction of the Employer's Agent's Representative. The various types of pipes and culverts shall be handled and laid in accordance with the manufacturer's instructions. The Contractor shall provide the latest copy of the instructions and shall ensure that all pipe layers have a good working knowledge of the required procedures. Notwithstanding anything contained in the instructions, the Employer's Agent's Representative's interpretation shall be final.

Pipes and culverts shall be lowered gently and carefully into the trench without jarring or bumping by crane, derrick, or other approved lifting tackle and care shall be taken not to damage the items. The hand installation of pipes shall only be permitted when using U.P.V.C. or A.C. pipes up to a nominal diameter of 150 mm unless authorised by the Employer's Agent's Representative.

Control of the level and line of the pipeline, to ensure correct placing to designed line and level, shall be by side and top lines or other acceptable means approved by the Employer's Agent's Representative.

All internal surfaces of pipes and fittings shall be kept clean and free of foreign matter both during and after laying. The surfaces of all joints shall be thoroughly cleaned before the pipe or special is placed in its final position. No water shall be allowed to come in contact with or run through any pipe before the joint has been completed and at no time shall muddy, clayey or dirty water be allowed to enter the pipe.

Exposed ends of pipe and fittings in the trench shall be sealed by suitable end caps at all times when pipelaying is not actually in progress.

Laying shall commence at the lower end of the trench and proceed upgrade. Pipes and fittings must be laid with their spigots or male end pointing in the direction of the flow. All pipes and culverts shall be laid in a straight line, both in the horizontal and vertical plane, between adjacent manholes or catchpits except where shown on the contract drawings or directed by the Employer's Agent's Representative.

Each pipe, fitting or culvert unit shall mate uniformly with the next to preserve an invert free from steps. Except with the prior consent of the Employer's Agent's Representative, the laying of pipes and the bedding cradle, if specified, between any two consecutive manholes shall be checked by

the Employer's Agent's Representative for line and level before the selected fill blanket is placed.

Where pipes are required to be cut on site, only manufacturer's recommended special machines shall be used and the resultant pipe end must be clean and uniform.

No pipes shall be left overnight or during rainy weather without sufficient backfilling between pipe couplings to prevent flotation. Where pipes are indicated on the contract drawings to be laid to a horizontally curved alignment the pipes must be fully jointed in a straight line and subsequently deflected with the previously laid pipe suitably anchored to prevent movement. Care must be taken to ensure the pipes are laid in a smooth curve with equal deflections at each joint.

Jointing:

All pipe joints and the operation of jointing shall be carried out strictly in accordance with the pipe suppliers instructions. In particular:

- a) all rubber rings and seals shall be carefully inspected after being placed in position and before the joint is closed to ensure that they have not suffered any cuts, tears or other damage and are not in any other way defective;

Care shall be taken to ensure that:

- i) all jointing surfaces are cleaned immediately prior to jointing;
 - ii) the joint gaps in the bedding remain clear and the alignment of the pipe remains true;
 - iii) the full weight of the pipe does not rest on the rubber ring during jointing;
 - iv) pipes with damaged jointing surfaces are not used in the pipe run between manholes but are set aside for building into manhole walls etc.;
- b) pipes and fittings of different materials shall be jointed only with special adaptors recommended by the pipe manufacturer; and
 - c) where a pipeline passes through a rigid structure and to prevent possible shear failure of the pipe, two flexible joints shall be positioned on each side of the structure. These shall be positioned 0,3 m and 0,8 m respectively from the nearside faces of the structures.

Add the following after the last sentence in section c) Width of excavation

For payment purposes only, where measurement is specified by volume and a pipe is to be laid, the pay trench width shall be as indicated in the table below which is based on the excavation having vertical sides. Wherever the pay width is used to compute the measurement of volume in the following measurement and payment items provision shall be allowed in the rates for additional excavation necessary to either shore or batter back, the trench sides, if open battered trench excavations is permitted.

Nominal Diameter (mm)		Trench Width (mm)
over	upto	
0	100	700
100	700	nominal internal diameter plus 600
700	1000	" plus 800
1000	2000	" plus 1 000
2000	-	" plus 1 200

Pipe laying shall also include: compaction of bedding, the laying, including curved alignment where specified, building pipes into manholes, catchpits and through rigid structures, all cutting and wastage of materials.

Add the following before v) Concrete casing

The lower part of the encasement shall be constructed as for a class A bedding. Once the line has been tested and approved, the encasement of the pipes shall be completed, care being taken to ensure that the expansion joints in the upper part of the encasement coincide with that in the lower part. No backfilling over the concrete shall be commenced until the concrete has achieved a compressive strength of 15 MPa.

PS.C3.2.19.8 Accessories:

The tendered rate for these items shall be the number of accessories supplied and installed. Standard drawings - refer to drawing nos. 38570, 38571, 38572, 38573 and 38574.

The tendered rates shall include full compensation for the removal and replacement of any broken or deteriorated precast elements forming part of manholes and catchpits. This shall include the careful removal and disposal of existing damaged components, procurement, supply, testing, loading, transportation, off-loading, and installation of new precast elements as specified. The rate shall further include all associated cutting, fitting, jointing, sealing, and making good of adjoining works, as well as all materials, labour, plant, and waste disposal necessary to complete the replacement to the satisfaction of the Employer's Agent.

Where replacement precast elements are installed onto existing cast in situ concrete or brickwork structures, no additional payment shall be made for any interface or adaptation required between existing and new works.

Unit of Measure: Number (No.)

Refer to COTO A3.2.

PS.C3.3.2.1 Precast Concrete Kerbing and Cast In-situ Channelling:

The grade of concrete for all cast in-situ work shall be grade 20/13

The sealer shall conform to B.S.4254 of 1967 - Two part polysulphide based sealants for the building industry, as amended.

All kerbs shall be precast, supplied in 1 m lengths and shall conform to the requirements of S.A.B.S. 927 of 1969 - Precast concrete kerbs and channels as published in General Notice 463 dated 9 July 1982.

If the curve radius is less than 25 m, but greater than 2 m, the maximum permissible length of kerb shall be 300 mm. Where the kerb radius is less than 2 m the kerb and channel shall be cast-in-situ.

It is essential that moulds are manufactured and braced from a material which will not warp or distort after repeated use.

Kerbs and in-situ channels shall be laid on a concrete foundation true to line and level to the dimensions shown on the contract drawings. The correct grade and line shall be maintained by use of an approved cord or line. The Contractor shall place sufficient pegs to ensure that the kerbs are laid on a true curve and NOT in a series of chords. Levels shall be adhered to strictly, particularly when graded channels are required between inlets. Kerbs shall be laid with a 13 mm gap and this joint shall be filled with cement mortar and the outside face of the joint shall be struck with a semi-circular jointer.

In addition, suitable expansion joints 13 mm in width shall be provided at $\pm 18,0$ m centres through kerb, channel and supporting concrete. This joint shall consist of a compressible material and polysulphide filler which shall match the colour of the concrete.

Unless otherwise stated in the drawing, the interface between the channel/fillet and the road asphalt is the sett position, as such the kerbs and channels/fillets shall be constructed relative to the sett position and true to level. The precast items and cast-in-situ channels/fillets shall be protected from damage from the remaining road construction operations.

For COTO item C3.3.2.1, the Kerb only shall be prefabricated, and all other components shall be cast in-situ (channels, backing, base etc.)

The unit of measurement shall be the metre (m) and the rate shall cover the supply of all precast items, including transporting, loading, laying and jointing (including all expansion joints and sealer), cast-in-situ concrete foundation, including mixing, laying, float finishing, setting out of kerb and channel, all supervision, plant, testing, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.

Unit of Measure: Meter (m)

Standard drawings refer to drawing no. 38577

CHAPTER 4

PS.A4.3.7.7 Excavation of crushed stone, macadam, cemented and gravel materials:

Add the following before the 1st paragraph

Existing road/gravel layerworks, excluding the asphalt, shall be excavated as restricted excavation ensuring no contaminating between layers and either:

- (a) storing on site for re-use, or;
- (b) transporting and off-loading to the Municipal Depot, near to the works or
- (c) spoiling at an approved tip site.

The Contractor's rate for the removal of the layerworks, excluding the asphalt, shall include for the full operation, inclusive of haulage, and is to include for the restricted operation as well.

PS.C4.3.5.1 (i) Moving the small milling machine with a cutting width of 1,2 m or smaller within the municipal boundary

The unit of measurement shall be the number of times the milling machine is required to be moved from one site to another and cannot be driven and will require a lowbed. Moving of plant will require prior written approval from the Employer's Agent's Representative.

The tendered rates shall include full compensation for the number of lowbed moves within a 25km radius.

PS.C4.3.5.2 (ii) Moving the large milling machine with a cutting width of greater than 1,2 within the municipal boundary

The unit of measurement shall be the number of times the milling machine is required to be moved from one site to another and cannot be driven and will require a lowbed. Moving of plant will require prior written approval from the Employer's Agent's Representative.

The tendered rates shall include full compensation for the number of lowbed moves within a 25km radius.

PS.C4.3.5.3(i) Providing of a Wirtgen KMA 240 recycler (or similar) on site

The unit of measurement shall be the number of Wirtgen KMA 240 Recycling machines provided on the site, or the number of times a recycling machine is brought onto the site where it had to be removed temporarily with prior approval. De-establishment and subsequent re-establishment shall also only be measured if undertaken with prior approval.

The tendered rates shall include full compensation for establishment and for de-establishment of the recycling machine.

Payment for returning the machine to the site after removal shall be made only where the removal was in accordance with the Contractor's approved programme of work and not for any other reason. Payment shall not be made for replacing any defective plant.

Payment shall also not be made for moving the machine around on the site.

PS.C4.3.5.3(ii) Moving the Wirtgen KMA 240 recycler (or similar) within the municipal boundary

The unit of measurement shall be the number of times the recycling machine is required to be moved from one site to another and cannot be driven and will require a lowbed. Moving of plant will require prior written approval from the Employer's Agent's Representative.

The tendered rates shall include full compensation for the number of lowbed moves within a 25km radius.

PS.A4.4.5.2 Traditional cementitious stabilising agents:

Add the following before the 1st paragraph of a) Cement

The cement used shall conform to SABS ENV 197-1 and shall be classified as either CEM II/A-S 42.5 or CEM III/A 32.5 respectively Prior to the commencement of paving of the layer the Contractor shall construct a section of trial layer to demonstrate his capability of constructing the layer in accordance with the specifications.

The trial layer shall be constructed with the same materials, mix proportions and equipment as the Contractor intends using for the main layer. A trial section of not less than 1 000 m² shall be submitted for approval. The Employer's Agent shall also have the right to call for a new trial section at any stage of the contract when, in his opinion, changes by the Contractor in the approved equipment, materials, mix or plant warrant such a procedure.

The Contractor may, unless advised of any deficiencies in the trial layer, proceed with the main layer from a time ten days after the completion of the trial section or such earlier time as the Employer's Agent may allow. In the event of deficiencies in the trial layer, the Employer's Agent may order the Contractor to construct further trial sections until a satisfactory section is achieved. The Contractor may then proceed with the main layer from a time ten days after the successful completion of the satisfactory trial section.

An item has been provided in the BOQ for the trial layer section.

PS.A4.4.5.3 Traditional bituminous stabilising agents:

Add the following before the 1st paragraph of a) Bitumen

The bitumen to be used is as stated in bill of quantities. Prior to the commencement of paving of the layer the Contractor shall construct a section of trial layer to demonstrate his capability of constructing the layer in accordance with the specifications.

The trial layer shall be constructed with the same materials, mix proportions and equipment as the Contractor intends using for the main layer. A trial section of not less than 1 000 m² shall be submitted for approval. The Employer's Agent shall also have the right to call for a new trial section at any stage of the contract when, in his opinion, changes by the Contractor in the approved equipment, materials, mix or plant warrant such a procedure.

The Contractor may, unless advised of any deficiencies in the trial layer, proceed with the main layer from a time ten days after the completion of the trial section or such earlier time as the Employer's Agent may allow. In the event of deficiencies in the trial layer, the Employer's Agent may order the Contractor to construct further trial sections until a satisfactory section is achieved.

The Contractor may then proceed with the main layer from a time ten days after the successful completion of the satisfactory trial section.

An item has been provided in the BOQ for the trial layer section.

COTO CHAPTER 5: EARTHWORKS AND PAVEMENT LAYERS: CONSTRUCTION

CHAPTER 5.3: ROAD PAVEMENT LAYERS

PART A: SPECIFICATION

A5.3.8 WORKMANSHIP

A5.3.8.4 Construction tolerances for pavement layers

Add the following as a new sub-clause:

“f) Surface texture

The maximum volumetric texture depth (measured as described in SANS 3001-BT11) of the base, shall be as specified in Table A5.3.8-7, for the different seal types to be placed on the base.

Table A5.3.8-7: Maximum texture of base

Surfacing type	Max texture depth of the base
Single seal with 10 mm aggregate	0,8
Single seal with 10 mm aggregate (with cover spray)	1,0
Single seal with 14 mm aggregate	0,8
Single seal with 14 mm aggregate (with cover spray)	1,5
Single seal with 14 mm aggregate (with Bitumen rubber)	1,2
Double seal with 10 mm aggregate and sand	1,0
Double seal with 14 mm aggregate and sand	1,5
Cape Seal with 10 mm aggregate and one layer of slurry	1,5
Cape Seal with 14 mm aggregate and one layer of slurry	2,0
Cape Seal with 20 mm aggregate and two layers of slurry	2,5
Double seal with 14 mm aggregate and a layer of 7 mm aggregate	1,5
Double seal with 14 mm aggregate and a layer of 5 mm aggregate	1,5
Double seal with 20 mm aggregate and a layer of 10 mm aggregate	2,0
Double seal with 20 mm aggregate and a layer of 7 mm aggregate	2,0
Double seal with 20 mm aggregate and two layers of 7 mm aggregate	1,5

A5.3.8.5 Surface regularity

Add the following to the 1st paragraph:

“The surface regularity shall be assessed on the final prepared layer after all excess fines have been swept off the surface.”

c) By using a profiler

In the paragraph following Table A3.5.8--6, delete the following: " for payment items ***
_____, and replace with the following: "for payment items as specified in
the Contract Documentation".

CHAPTER 5.4: STABILISATION

PART C: MEASUREMENT AND PAYMENT

Item	Description	Unit
PSC5.4.18	Damp protective layer curing	square metre (m ²)

The unit of measurement shall be the square metre of chemically stabilised pavement layer being cured by covering it with a damp temporary protective layer (wet hessian) The quantity will be determined by the plan area of the authorised dimensions of the layer being cured.

The tendered rate shall include full compensation for incidentals in respect of applying the damp temporary protective layer for curing as specified, including the cost of regularly supplying and applying water.”

COTO CHAPTER 8: PRETREATMENT AND REPAIR OF EXISTING LAYERS

CHAPTER 8.1: PRIME COAT

PART A: SPECIFICATION

A8.1.5 MATERIALS

A8.1.5.1 Bituminous material

In Table A8.1.5-1 Delete “the excavated area” in the table caption and heading.

A8.1.8 WORKMANSHIP

A8.1.8.2 Testing

Replace the last sentence of the 1st paragraph with the following: “Unless agreed in advance and in writing, the Contractor shall only spray when the Engineer’s representative is present.”

CHAPTER 8.3: TEXTURE TREATMENT

PART A: SPECIFICATION

A8.3.5 MATERIALS

A8.3.5.2 Aggregate

*In clause a), delete reference to “A10.15.17” and replace with “A10.1.5.17”.
In clause b), delete reference to “A10.15.18” and replace with “A10.1.5.18”.*

CHAPTER 8.6: GEOSYNTHETIC CRACK SEALING

PART A: SPECIFICATION

A8.6.5 MATERIALS

Add the following:

The glass fibre grid used with this specification shall be constructed of fibreglass reinforcement coated with an elastomeric polymer and a pressure sensitive adhesive backing. The material shall conform to the property values listed in the table below:

Table A8.6.5-2: Glass fibre grid properties

Property	Unit	Value
Tensile strength (Ultimate)	kN/m	115 x 215 +/- 15
Tensile Elongation (Ultimate)	%	2.5 +/- 0.5
Tensile Resistance @ 2% Strain	kN/m	95 x 180 +/- 20
Melting Point Coating	°C	>232
Melting Point Glass	°C	>820
Damage During Installation	%	<5
Roll Width	m	1.5
Adhesive Backing	Pressure sensitive	
Grid Size (Centre to Centre of Strand)	mm	25 x 19

A8.6.7 EXECUTION OF THE WORKS

Add the following new paragraph:

The surface on which the glass fibre grid is to be placed shall be dry and free of loose soil, dust, water, organic material or other deleterious substances. The road surface temperature must be between 5°C and 60°C.

On asphalt surfaces less than 24 hours old, the surface temperature must be between 5°C and 46°C. The joint and surrounding surface shall be cleaned using compressed air and weeping the area with hand brooms. A tack coat of the specified bitumen emulsion shall be applied at a spray rate of 0,8 l/m² by means of a hand applicator.

In order to preserve its adhesive properties, the material must be stored inside a dust-free environment and kept dry at the job site. The glass fibre grid shall be cut to the required width and shall be laid out, adhesive side down, with sufficient tension to eliminate ripples. Should ripples occur, these must be removed by pulling the grid tight or in extreme cases (on tight radii), by cutting and laying flat. Roll only with a rubber-tired roller to activate the self-adhesive glue to ensure satisfactory bonding between the grid and road surface.

Test for proper adhesion by inserting a hook of spring balance under the centre of glass fibre grid. Pull upward until glass fibre grid starts to pull from the surface. Record the results in kg. If the pull-away force is greater than 9kg's, paving can commence. If the pull-away force is less than 9kg's, the paving operation must be aborted until corrective action has been implemented and the minimum pull-away force achieved. All longitudinal joints shall overlap by 300 mm.

Part C: MEASUREMENT AND PAYMENT

Add the following new pay item:

Item	Unit
PSC8.6.2 Bituminous binder variation	
PSC8.6.2.1 Bitumen emulsion (SC-E1 - (Solvent omitted))	litre (ℓ)

The unit of measurement for bituminous binder in respect of an increase or a decrease in the specified rates of application shall be the litre measured in terms of the residual cold bitumen before dilution.

CHAPTER 8.8 PATCHING AND EDGE BREAK REPAIR

Add the following new payment item.

PSC8.8 MEASUREMENT AND PAYMENT

Item		Unit
PSC8.8.7	CATEGORISED PATCHES	
PSC8.8.7.1.	Category 1 – Surface Patch	
a)	Deep patching (101-160mm) – Cat A & B roads	square meter (m ²)
b)	Deep patching (51-100mm) – Cat C roads	square meter (m ²)
c)	Shallow patching (0-50mm)	square meter (m ²)

The tendered rate shall include full compensation for providing all the material, transport, work in restricted areas, machinery, equipment, labour, supervision, mechanical saw cutting into the existing surface, excavating and removing the existing premix surface to the depth categories specified, scarifying and removal of all loose material and dust by means of sweeping and compacting the floor of the excavation to a density of 98% MOD AASHTO, preparing the excavated surface with 0.55 l/m² of 60% Anionic Bitumen emulsion tack coat and backfilling with continuously graded medium asphalt surface mix (using a class 50/70 pen binder with a maximum size of aggregate 10.0mm), compacting to a density of 97 % Rice – design voids, to be flush with the adjacent road surface. The rate shall also include for including the loading, hauling, offloading and disposal of all rubble and surplus material to approved spoil or tip sites.

PSC8.8.7.2. Category 2 – Structural Patch using G2

a)	Category B – 160mm asphalt, 150mm G2	square meter (m ²)
b)	Category C – 80mm asphalt, 150mm G2	square meter (m ²)
c)	Category D – 50mm asphalt, 150mm G2	square meter (m ²)

The tendered rate shall include full compensation for providing all the material, transport, work in restricted areas, machinery, equipment, labour, supervision, mechanical saw cutting into the existing surface, excavating and removing the existing premix surface, scarifying and removal of base material to the required depths, removal of dust by means of sweeping and compacting the floor of the excavation to a density of 98% MOD AASHTO. Prepare the compacted surface to receive new G2 Material obtained from a commercial source and compacted in layers not exceeding 100mm thick to a density of 85% Bulk Relative Density. Prepare the G2 surface with 0.7/m² prime coat, MSP 1 or similar approved and 0.55l/m² of 60% anionic Bitumen emulsion tack coat and backfilling the area with continuously graded medium Asphalt surface mix (using a class 50/70 pen binder with a maximum aggregate size of 10mm), compacted to a density of 97 % Rice – design voids, to be flush with the adjacent road surface. The rate shall also include for including the loading, hauling, offloading and disposal of all rubble and surplus material to approved spoil or tip sites.

PSC8.8.7.3. Category 3 – Structural Patch using BSM

a)	Category B – 160mm asphalt, 150mm BSM	square meter (m ²)
b)	Category C – 80mm asphalt, 150mm BSM	square meter (m ²)
c)	Category D – 50mm asphalt, 150mm BSM	square meter (m ²)

The tendered rate shall include full compensation for providing all the material, transport, work in restricted areas, machinery, equipment, labour, supervision, mechanical saw cutting into the existing surface, excavating and removing the existing premix surface, scarifying and removal of base material to the required depths, removal of dust by means of sweeping and compacting the floor of the excavation to a density of 98% MOD AASHTO. Prepare the compacted surface to receive new BSM2 Material obtained from a commercial source and compacted in layers not exceeding 150mm thick to a

density of 100% Mod AASHTO. Prepare the BSM surface with 0.55l/m² of 60% anionic Bitumen emulsion tack coat and backfilling the area with continuously graded medium Asphalt surface mix (using a class 50/70 pen binder with a maximum aggregate size of 10mm), compacted to a density of 97 % Rice – design voids, to be flush with the adjacent road surface. The rate shall also include for including the loading, hauling, offloading and disposal of all rubble and surplus material to approved spoil or tip sites.

PSC8.8.7.4.	Patching or Reconstruction of Existing Asphalt Sidewalk/Driveway Access Scoops	
	Repairs or reconstruction of existing Sidewalks or Vehicular Access Scoops using the crusher run (G2)	
a)	material.	square meter (m ²)
b)	Repairs or reconstruction of existing Sidewalks or Vehicular Access Scoops using in-plant foamed BSM.	square meter (m ²)

Those areas of the existing asphalt sidewalk/access scoops which require patching or requiring reconstruction will be marked by the Engineer.

The existing wearing course (25 mm) and crusher run(100 mm) layer to be cut vertically (saw-cutting) and removed to spoil.

The tendered rate for item PSC8.8.7.4 a) shall include full compensation for providing all the material, transport, work in restricted areas, machinery, equipment, labour, supervision, mechanical saw cutting into the existing surface, excavating and removing the existing premix surface, scarifying and removal of base material to the required depths, removal of dust by means of sweeping and compacting the floor of the excavation to a density of 98% MOD AASHTO. Prepare the compacted surface to receive new G2 Material obtained from a commercial source and compacted in layers not exceeding 100mm thick to a density of 85% Bulk Relative Density. Prepare the G2 surface with 0.7/m² prime coat, MSP 1 or similar approved and 0.55l/m² of 60% anionic Bitumen emulsion tack coat and backfilling the area with continuously graded medium Asphalt surface mix (using a class 70/100 pen binder with a maximum aggregate size of 10mm), compacted to a density of 97 % Rice – design voids, to be flush with the adjacent sidewalk surface. The rate shall also include for including the loading, hauling, offloading and disposal of all rubble and surplus material to approved spoil or tip sites.

The tendered rate for item PSC8.8.7.4 b) shall include full compensation for providing all the material, transport, work in restricted areas, machinery, equipment, labour, supervision, mechanical saw cutting into the existing surface, excavating and removing the existing premix surface, scarifying and removal of base material to the required depths, removal of dust by means of sweeping and compacting the floor of the excavation to a density of 98% MOD AASHTO. Prepare the compacted surface to receive new BSM2 Material obtained from a commercial source and compacted in layers not exceeding 150mm thick to a density of 98% Mod AASHTO. Prepare the BSM surface with 0.55l/m² of 60% anionic Bitumen emulsion tack coat and backfilling the area with continuously graded medium Asphalt surface mix (using a class 70/100 pen binder with a maximum aggregate size of 10mm), compacted to a density of 97 % Rice – design voids, to be flush with the adjacent sidewalk surface. The rate shall also include for including the loading, hauling, offloading and disposal of all rubble and surplus material to approved spoil or tip sites.

PSC8.8.7.5. Speedhumps

a)	Removal of Speed humps	meter (m)
b)	Reinstating of Speed humps	meter (m)

The unit of measurement shall be linear meter measured across the width of road of asphalt traffic calming devices or speed hump removed/re-instated as per the municipal standard detail 43924 A/1.

The tendered rate for PSC8.8.7.5 a) shall include full compensation for the breaking-out of the asphalt, removing, loading and carting to a spoil site(freehaul).

The tendered rate for PSC8.8.7.5 b) shall include full compensation for providing all the material, transport, work in restricted areas, machinery, equipment, labour, supervision, mechanical saw cutting keys into the existing surface, excavating and removing the existing premix surface, loading, carting to

a spoil site (freehaul), apply 0.55l/m² of 60% anionic Bitumen emulsion tack coat, supply of continuously graded medium Asphalt surface mix (using a class 70/100 pen binder with a maximum aggregate size of 10mm). Painting the permanent road markings with the thermal plastic paint and road studs as per the standard detail, is paid for separately under section C11.7.

COTO CHAPTER 9: ASPHALT LAYERS

PART A: SPECIFICATION

A9.1.4 DESIGN BY THE CONTRACTOR

A9.1.4.3 Changes to mix components

Add the following:

"If the binder source or crude oil source changes, the following tests and report will be conducted and evaluated in order to determine whether there is a material difference between the original binder and the alternative source binder:

1. Saturates, Aromatics, Resins and Asphaltenes (SARA) fractionation analysis;
2. Fourier Transform Infrared (FTIR) spectroscopy testing;
3. Specialist Evaluation Report on the above binder test results related to chemical, structural and mechanical properties, including blending compatibility and stability characteristics. The report shall include a direct comparison with the original binder.
4. Asphalt mix volumetric and performance testing including Indirect Tensile Strength (ITS), Immersion Index, Air Permeability, Modified Lottman, and Hamburg Wheel Tracking tests.

If the above tests indicate a material difference in binder properties and mix performance, the mix design process will be repeated. The above mentioned tests will also be conducted on the original proposed binder during the asphalt mix design process for future comparison purposes if the binder source or crude oil source changes.

All costs related to the above processes shall be at the cost of the Contractor and shall be deemed to be included in the relevant tendered rates."

A9.1.5 MATERIALS

A9.1.5.4 Aggregates

a) Aggregate properties

In the 1st paragraph, delete the 2nd sentence: "Coarse and fine aggregate shall be clean and free from decomposed materials, vegetable matter or any other deleterious substances, and shall meet the requirements listed in Table A9.1.5-1 below unless otherwise specifically stated in the Contract Documentation.", and replace with the following:

"Coarse and fine aggregate shall be clean from excess dust and free from decomposed materials, vegetable matter and any other deleterious substances such as clay lumps and organic matter and shall meet the requirements listed in Table A9.1.5-1 below unless otherwise specifically stated in the Contract Documentation."

A9.1.6. CONSTRUCTION EQUIPMENT

A9.1.6.7 Vehicles

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

"The use of the thermal blankets is obligatory and shall be fully attached to the truck on the front, back and sides of the bucket."

A9.1.6.8 Material transfer vehicle

Delete the following from the first sentence of the first paragraph:

"Where so specified, and provision thereof is included under Measurement and Payment,"

A9.1.7. EXECUTION OF THE WORKS

A9.1.7.5 Bond coat

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

"A bond coat shall in all instances be applied to the surface to be paved or covered with asphalt including all vertical cut edges."

A9.1.7.6 Placing the asphalt

Add the following to the end of the fourth paragraph:

“Due to the high stiffness of modified asphalt mixes hand work shall be limited as far as possible and, if done, shall be done while the mix is still at its specified paving temperature and in the shortest time possible. This precludes the paving of large areas by hand.”

A9.1.7.7 Compaction

Replace the third sentence of the second paragraph with the following:

“Under no circumstances may any form of detergent, fuel oil or any petroleum product be used on roller drums to prevent pick-up”

Add the following after the last paragraph:

“Asphalt layers in excess of 50mm may need to be constructed in more than one layer. The Contractor shall make provision in his trial section and method statements to ensure compaction as specified. No additional remuneration shall be due to the Contractor, should it be required to construct the asphalt in more than one layer to meet the specification.”

A9.1.7.10 Treatment of joints for traffic accommodation

Add the following to the last paragraph:

“Where the longitudinal step equals or exceeds 40mm, the provision and removal of these temporary ramps shall be paid separately.”

A9.1.8 WORKMANSHIP

A9.1.8.3 Construction joints

Add the following paragraph: “On single lane ramps it will not be possible to have joints in asphalt under the line markings due to accommodation of traffic on half of the ramp. The asphalt construction joint must be set out from one edge (to obtain a “straight” line/joint) and cut properly to achieve this.”

A9.1.8.4 Surface regularity

a) Measured using inertial laser profilometers

In the 6th paragraph add the following prior to “The applicable Full Payment Bracket ...”:

“For the Asphalt Base the values in Payment Bracket 6 in Table A9.1.8-3 shall be applied as the payment adjustment factors for the Asphalt Base on the contract or section, and for the Asphalt Surfacing”.

In the 6th paragraph add the following after “...assessment of the base as per Clause A5.3.8.5c) of Chapter 5 for granular bases”:

“, and this clause A9.1.8.4a) for Asphalt bases.”

In the 7th paragraph, delete: “under 1”.

Add the following after the 8th paragraph:

“Where the asphalt surfacing is placed on a surface, other than a granular or asphalt base, constructed by the Contractor through mill and replace or patching, the surface regularity of the replaced or patched surface shall be measured before the surfacing is placed. Should the IRI values per 100m section so determined be better than the IRI values of the original surfacing for the particular 100m section, the measured values shall be used for the $IRI_{b Ave}$ in the above calculation. Should the IRI values per 100m section so determined be worse than the IRI values of the original surfacing for the particular 100m section, the IRI values of the original surfacing shall be used for the $IRI_{b Ave}$ in the above calculation.”

In the 9th paragraph, delete : “surfacing”.

For Table A9.1.8-3, delete “surfacing” in the heading and add the following additional Payment Bracket to Table A9.1.8-3

“Target IRI _{100m Ave} (m/km)	Payment Bracket 9
< 0.80	1.050
0.81 to 0.90	1.050
0.91 to 1.00	1.050
1.01 to 1.10	1.050
1.11 to 1.20	1.050
1.21 to 1.30	1.050
1.31 to 1.40	1.050
1.41 to 1.50	1.050
1.51 to 1.60	1.050
1.61 to 1.70	1.025
1.71 to 1.80	1.010
1.81 to 1.90	1.000
1.91 to 2.00	0,990
2.01 to 2.10	0,975
2.11 to 2.20	0,955
2.21 to 2.30	0,930
2.31 to 2.40	0,900
2.41 to 2.50	0.865
>2.51	Reject”

Replace the 15th paragraph with the following:

“On all road sections and in areas where the use of a profilometer is not possible, the rolling straight-edge, or 3,0m straight-edge, as specified in the Contract Documentation shall apply.”

A9.1.8.8 Sampling

(a) Coring of completed layers

Add the following paragraph after the last paragraph:

“At least 25% of the cores drilled on the completed asphalt layers to determine the density, must be drilled randomly within 250 mm of the joints.”

Insert the following sub-clause after Sub-Clause A9.1.8.8

A9.1.8.9 Surface Texture

“The final surface texture of any asphalt surface shall not be less than 0,8 mm and shall be demonstrated as being achievable in the trial section, as described in Clause A9.1.3.3. Measurement of texture depth shall be in accordance SANS 3001-BT11, or by means of instrumentally measurements as described and specified in Clause A20.1.5.5 of Chapter 20 “Tests on pavements”

PART C: MEASUREMENT AND PAYMENT

(iii) Items that will not be measured separately

Delete activity 6, and replace with the following:

“6. No separate payment will be made for transporting materials from commercial sources irrespective of the haul distance and no separate payment will be made for transporting asphalt from any source, irrespective of the haul distance.”

Add the following after point 8:

“9. No additional or separate remuneration shall be due to the Contractor, should it be required to construct the asphalt in more than one layer to meet the specification.”

“10. No separate payment will be made for establishing, utilising, and removal upon completion of the material transfer vehicle specified.

C9.1.1 Asphalt mix designs

Where a Contractor is issued with multiple Work Package Orders, whether simultaneously or successively, and the asphalt mix design for a particular mix type has already been submitted and approved by the Employer's Agent under a previous Work Package Order, no additional payment shall be made for the same mix design under subsequent orders.

The approved mix design shall remain valid and applicable for all related Work Package Orders using the same mix type, unless a revision or new design is specifically instructed in writing by the Employer's Agent.

Tenderer's are to further take note of the Technical Specification for Asphalt Contained in Part C3.4.3, which is issued by the eThekweni Municipality **Pavement and Geotechnical Engineering Branch** and shall be read in conjunction with **COTO Chapter 9**.

In the event of any discrepancy between the standard specifications and the Technical Specification for Asphalt, the **Technical Specification for Asphalt** shall take precedence. Any ambiguity or uncertainty in interpretation shall be referred to the Senior Manager: **Pavement and Geotechnical Engineering Branch** for final consideration and/or approval.

SECTION PS9000: ULTRA-THIN FRICTION COURSE (UTFC)

PS9001 SCOPE

This section covers the specifications and work related to the construction of an Ultra Thin Friction Course (UTFC) surfacing in terms of performance criteria and includes, inter alia, field measurements, acceptance criteria, remedial work and payment items related to the UTFC. Reference shall also be made to Form E1: Quality Assurance - UTFC, which shall be construed to form part of these specifications.

PS9002 GENERAL

This specification supplements Chapter 9 of COTO. In the event that any part of this specification is at variance with Chapter 9 of COTO, these specifications shall apply.

The ultra-thin frictional course (UTFC) surfacing shall be Agrément certified as “Fit-for- Purpose” and will be required to provide the following functional performance properties:

- (a) Improved functional properties such as skid-resistance and water drainage
- (b) A levelling action and ride-quality improvement similar to those of a thin asphalt
- (c) Reduced traffic noise
- (d) No chip-loss or loose stone
- (e) A hard-wearing riding surface
- (f) Quick curing, able to be opened to traffic almost immediately
- (g) Environmentally-friendly work, with no tack being carried off the section
- (h) Improved exclusion of water from the substrate
- (i) Improved adhesion to the lower layer

The Contractor shall comply with the following additional requirements listed below, and as contained in Part C3.6 of this document. The contractor shall be required to submit Form E1, and E2 listed below, to the Employers Agent for approval within ten (10) days of the commencement of the Contract.

- 1. Quality Assurance: UTFC - refer to Form E1
- 2. Design Constraints for the proposed UTFC Products - refer to Form E2.

PS9003 WARRANTY REQUIREMENTS

With the exception of de-bonding between the UTFC and the substrate, the contractor shall not be held liable for any failures of the UTFC that might occur as a result of failure within the underlying layers. The contractor shall also not be held liable for any damage to the UTFC surfacing resulting from “outside” sources, including, but not limited to:

- (a) Traffic accidents
- (b) Spillage of fuel, oils, hazardous materials, etc.
- (c) Materials falling off vehicles
- (d) Travelling of construction/tracked plant (other than his own) after completion of the Works.

PS9004 MATERIALS

Unless contrary to the requirements of a certified proprietary product, the constituents shall comply with the following requirements:

a) Tack coat

The tack coat shall be as stated by the tenderer (Form E1: Quality Assurance: UTFC) which shall include the proposed application rate, as well as the type and proposed percentage modifier (if any).

The tack coat shall be applied in a continuous spray and application by hand spray shall not be permitted. Where a self-priming paver is not used, the tack coat shall have such properties as to not be picked up by construction (or other) traffic during the paving operation.

b) Bituminous binder

(i) The type of binder utilised in the mix shall conform to the requirements specified in Form E1: Quality Assurance: UTFC. Where a homogeneous modified binder is to be used in the production of the surfacing mix, the binder shall comply with the requirements of "Technical Guideline: The use of Modified Bituminous Binders in Road Construction (TG 1-2020): Asphalt Academy", type A-E2 or A-P2. Should the contractor wish to use a binder with properties different from those specified in TG1, further details regarding the composition, test methods and acceptance criteria shall be included in the tender under Form E1: Quality Assurance: UTFC.

(ii) The type and percentage of anti-stripping agent (if applicable) shall be as stated in Form E1: Quality Assurance: UTFC.

c) Aggregates

(i) The coarse aggregates shall consist of crushed, single-sized low-absorptive stone, conforming to the quality requirements in Table PS9004/1.

TABLE PS9004/1: QUALITY REQUIREMENTS FOR COARSE AGGREGATES

Description	Test Method	Limits
Aggregate Crushing Value	TMH 1 : Method B1	Max. 21
Polished Stone Value	SABS Method 848	Min. 50
Flakiness Index	TMH 1 Method B3	Max. 20
Absorption (water)	TMH 1 Methods	Max. 1.0% (coarse)
	B14 and B15	Max. 1.5% (fine)

(ii) The several aggregate fractions for the mixture shall be sized, graded and combined in such proportions that the resulting composite blend meets the required performance criteria.

PS9005 COMPOSITION OF MIX

The composition of the UTFC mix shall be as proposed by the tenderer in Form E1: Quality Assurance: UTFC.

No adjustment of compensation shall be made should the actual mix proportions used in the works vary from that nominated by the contractor on Form E1: Quality Assurance: UTFC.

The contractor shall submit to the Employers Agent his design for the surfacing mix within thirty (30) days of the commencement of the Project Order. The target binder content, filler content and aggregate grading shall be subject to the tolerances given in the Standard COTO Specifications and in Clause PS9010 hereof. All production and application shall be carried out in terms of the details included under Form E1: Quality Assurance: UTFC.

PS9006 PLANT AND EQUIPMENT

The following shall apply in addition to the requirements of Chapter 9 of the COTO Standard Specifications.

a) Mixing plant

The UTFC surfacing mix shall be produced by an approved type of asphalt plant suitable for producing the mix as per the details included under Form E1: Quality Assurance: UTFC.

b) Paving equipment

The paver shall have a variable width, heated, screed plate.

PS9007 CONSTRUCTION AND WEATHER LIMITATIONS

Paving works shall only be undertaken when the air temperature is at least 8°C and rising and the road surface temperature is at least 10°C and rising. No paving shall be undertaken during rain or immediately after a rainy spell.

PS9008 PLACING AND FINISHING

a) Surface requirements

Immediately before paving, the surface shall be cleaned and swept clear of all loose or deleterious material. Surface defects shall be repaired prior to paving (including crack sealing as required and/or as instructed by the Employers Agent).

The contractor shall demonstrate, as part of the paving trials, the methods to be used for the construction of joints, etc. Handwork with UTFC surfacing shall not be permitted within trafficked lanes or shoulders.

b) Mixture requirements

The mixture temperature will be measured in the truck, just before being dumped into the paver hopper.

c) Tack coat requirements

- (i) The application rate for the tack coat shall be nominated by the contractor for a specific area, taking account of:
- the results of sand-patch tests.
 - the traffic counts for that area.
 - the percentage of heavy vehicles.
 - the dryness of the existing surfacing.
- (ii) No adjustment in compensation shall apply should the actual tack coat application be higher or lower than that nominated by the contractor.

d) At the approaches to exposed bridge joints the contractor shall mill out the existing asphalt base or surfacing on the abutment side to a depth of 15mm and for a distance of 5m. The UTFC surfacing shall be placed to form a smooth transition towards the bridge joint.

PS9009 COMPACTION

a) Rollers

Reference is made to clause A9.1.6.5 of the COTO Standard Specifications.

Add the following: "A solution of suitable soluble oil may be used as the lubricating agent on the steel drums, subject to the approval by the Engineer."

PS9010 CONSTRUCTION TOLERANCES AND FINISH REQUIREMENTS

a) Working mix

The permitted deviation of the working mix from the accepted target mix proportions shall be within the limits specified in Form E1: Quality Assurance: UTFC but shall in no instance exceed the values listed in Table PS9010/1.

b) Tack coat

The application of the tack coat shall be at the rates specified in Form E1: Quality Assurance: UTFC, but shall have a tolerance not exceeding $\pm 0,1 \text{ l/m}^2$ (nett cold bitumen)

TABLE PS9010/1: DEVIATIONS PERMITTED

Aggregate sieve size (mm)	Permissible deviation from target grading (%)
9,5mm	± 4,0
6,7mm	± 4,0
4,75mm	± 3,0
2,36mm	± 3,0
1,18mm	± 3,0
0,600mm	± 3,0
0,300mm	± 3,0
0,150mm	± 3,0
0,075mm	± 1,5

c) Asphalt binder content

The binder content in the working mix shall have a tolerance of ± 0,3%

d) Thickness

The mixture shall be laid at a nominal compacted thickness of 18mm, with a tolerance of ± 2mm. Increased thicknesses may come about as a result of filling ruts of less than 10mm depth (at the same time as paving the nominal 18mm surfacing layer). The Contractor shall make provision in their tendered m² rate for any additional quantities of surfacing required as a result of filling such ruts.

PS9011 QUALITY OF MATERIALS AND WORKMANSHIP

The Contractor shall be required to submit his detailed Quality Assurance Plan to the Employers Agent for approval within ten (10) days of the commencement of the Contract. Once it has been approved, the contractor shall not deviate from it without prior written agreement with the Employers Agent.

The onus rests with the contractor to produce work pertaining to the UTFc which conforms in quality to the Quality Assurance Plan, to the specifications and requirements herein, and to other relevant specifications and standards defined in the submitted plan (e.g. in Form E1: Quality Assurance: UTFc).

The Employers Agent shall, however, conduct such tests as he may deem applicable and shall retain all rights related to bad workmanship and to unacceptable materials. This shall also be applicable to the accepted UTFc surfacing (or design) and related specifications.

PS9012 FUNCTIONAL PERFORMANCE ASSESSMENTS

The monitoring of the functional performance of the UTFc surfacing shall be by the visual assessment of functional performance parameters immediately after completion (prior to the issue of the Completion Certificate), and then by the visual and instrumental assessments of the relevant parameters at the end of the defects liability period. If so instructed by the Employer or the Employers Agent, instrumental assessment of relevant parameters may also be carried out immediately after completion.

The functional performance parameters to be assessed are listed in Table PS9012/1 for both visually - as well as instrumentally - assessed parameters.

TABLE PS9012/1: FUNCTIONAL PERFORMANCE PARAMETERS FOR UTFC SURFACING

Visually-assessed parameters	Instrumentally-assessed parameters
1. Deformation (shoving)	1. Roughness (riding quality)
2. Surface failure (de-bonding)	2. Surface macro-texture
3. Surface cracking	
4. Surface ravelling (aggregate loss)	
5. Bleeding	

The functional performance assessments undertaken during the defects liability period shall, as far as practicably possible, coincide with the Employer's regular road-assessment programme within that year. The roughness and surface macro-texture surveys will be commissioned, and the costs thereof will be borne, by the Employer.

PS9013 VISUALLY-ASSESSED PROPERTIES

a) Definition

The detailed description and definition for the visually-assessed parameters shall be as specified in TMH9 (1992): "Pavement Management Systems: Standard Visual Assessment Manual for Flexible Pavements", issued by the Committee of Transport Officials (COTO).

b) Assessment methodology

The visual assessments of the pavement surfacing during shall be undertaken by means of a Visual-Assessment Panel comprising the following representatives:

- Employer - 1 representative
- Contractor - 1 representative
- Appointed Employers Agent or suitably qualified external assessor - 1 representative

All site investigations or inspections shall be undertaken by the panel of representatives. The arrangements, responsibilities and costs for such inspections shall vest with the contractor, but he shall not be responsible for the travel, accommodation and personnel costs of the Employer and Employers Agent during the panel inspections. The presence of the Employer's representatives and the Employers Agent in the panel inspection shall be at the discretion of the Employer. The visual assessments shall be carried out during daylight hours in off-peak periods.

c) Assessment specification

The visual-assessment panel will quantify each occurrence of the visually-assessed parameters by rating the degree of distress according to the TMH 9 definitions and the extent as the linear length (in metres) affected in the direction of travel. The minimum linear length to be recorded for any single occurrence of any of the visually-assessed parameters shall be 0,5 metres. Visual assessments must be done in accordance with the specification presented in Table PS9013/1.

TABLE PS9013/1: SPECIFICATION FOR VISUAL ASSESSMENT

Item	Specification
Frequency of Assessment	Immediately after completion, and at the end of the defects liability period, coinciding with the Employer's regular road-assessment programme, where applicable.
Position of assessment	Each lane and shoulder shall be individually assessed.
Segment lengths	1 km
Degree	As defined in TMH 9.
Extent	The actual length affected, with a minimum recorded linear length per single occurrence of 0,5 metres.

PS9014 INSTRUMENTALLY- ASSESSED PROPERTIES

a) Roughness

(i) Definition

Road roughness is defined as the deviations of a road pavement from a true planar surface, which deviations affect vehicle dynamics, riding quality and the dynamic loads exerted on the pavement.

(ii) Equipment and accuracy

The roughness data should be derived from the longitudinal profile characteristics obtained from the measurement by a non-contact laser sensor-based profilometer in each wheel path. The profilometer should comply with the ASTM E950-94 standard with:

- a vertical measurement resolution of less than or equal to 0,1mm, and
- a longitudinal sampling interval of less than or equal to 100mm.

(iii) Validation and operation

Validation and operation of the profilometer must be carried out in accordance with the manufacturers and the Employer's requirements, and it must have successfully completed the validation trials of the Employer not more than six months before the measurements are taken in accordance with these specifications.

(iv) Measurement specification

The specification for the measurement of roughness is given in Table PS9014/1.

TABLE PS9014/1: SPECIFICATION FOR MEASUREMENT OF ROUGHNESS

Item	Specification
Frequency of measurement	Immediately after completion, and at the end of the defects liability period, coinciding with the Employer's regular road-assessment programme, where applicable.
Position of measurement	In both wheel paths of all trafficked lanes.
Testing interval	The longitudinal profile measurements shall be at intervals of 100mm or less.

(v) Data processing and reports

Roughness data must be processed so as to produce results in the format specified in Table PS9014/2.

TABLE PS9014/2: SPECIFICATION FOR OUTPUT OF ROUGHNESS RESULTS

Item	Specification
Processing unit	The longitudinal profile data in each wheel path shall be processed according to ASTM E1170-92 and World Bank Technical Paper 46 to produce the International Roughness Index (IRI) (m/km) for every 100m of each wheel path.
Output unit	The average 100m IRI for a lane is calculated by averaging the 100m IRI left & right wheel path values.
Segment lengths	1 km
Statistical summary	Produce cumulative distribution graph of the 100m IRI average values for a lane for each 1km segment.

(vi) Acceptance criteria

Using the cumulative distribution graph, the processed roughness results must meet the acceptance criteria presented in Table PS9014/3 for the applicable year of the survey.

TABLE PS9014/3: ACCEPTANCE CRITERIA FOR ROUGHNESS

Time ¹ (Years)	Limit Value (Average 100m IRI) ²	Maximum (%) of 1 km Segment With Roughness Worse Than Limit Value
1	1.40	20%
	1.60	5%
	2.00	0%

Notes:

1. Time in years after the issuing of the Completion Certificate

2. Average 100m IRI =
$$\frac{100 \text{ m IRI}_{\text{Left Wheel Path}} + 100 \text{ m IRI}_{\text{Right Wheel Path}}}{2}$$

b) Surface macro-texture

(i) Definition

Macro-texture is the deviation of a pavement surface from a true planar surface with the characteristic dimensions along the surface of 0,5 – 50mm.

(ii) Equipment and accuracy

The macro-texture shall be measured using a non-contact laser spot sensor capable of meeting the requirements contained within ISO 13473-1 for measuring mean profile depth (mpd).

(iii) Validation and operation

Validation and operation of the non-contact laser spot sensor must be carried out in accordance with the manufacturer's requirements, and it must have successfully completed the validation trials of the Employer not more than six months before the measurements are taken in accordance with these specifications.

(iv) Measurement specification

Macro-texture measurements must be taken in accordance with the specification presented in Table PS9014/4.

TABLE PS9014/4: SPECIFICATION FOR MEASUREMENT OF SURFACE MACROTEXTURE

Item	Specification
Frequency of measurement	Immediately after completion, and at the end of the defects liability period, coinciding with the Employer's regular road-assessment programme, where applicable.
Position of measurement	Outer wheel path of all trafficked lanes.
Testing intervals	Record data over 10m intervals.

(v) Data Processing and Reports

Surface macro-texture data must be processed so as to produce results in the format specified in Table PS9014/5.

TABLE PS9014/5: SPECIFICATION FOR OUTPUT OF SURFACE MACRO-TEXTURE

Item	Specification
Unit	Mean Profile Depth (ISO 13473-1) calculated for each 10 metres.
Segment lengths	1 km
Statistical summary	Produce cumulative distribution graph for each segment

(vi) Acceptance criteria

Using the cumulative distribution graph for each segment, the measured surface macro-texture must

meet the acceptance criteria presented in Table PS9014/6.

TABLE PS9014/6: ACCEPTANCE CRITERIA FOR SURFACE MACRO-TEXTURE

Time ¹ (Years)	Limit value (Mean profile depth (mm)) ²	Maximum (%) of 1 km segment with surface macro-texture value worse than limit value
1	1.3	20%
	1.2	5%
	1.1	0%

Notes:

1. Time in years after the issuing of the Completion Certificate.
2. Mean Profile Depth value over 10 metres.

PS9015 EVALUATION FOR ACCEPTANCE BY EMPLOYERS AGENT

The following procedures shall be followed by the Employers Agent to determine the acceptance of the UTFC surfacing or to determine whether remedial work is required on it. These procedures shall be followed as appropriate after each of the assessments.

a) Assessment on completion of the works

An assessment shall be done on completion of the Works and the contractor shall repair all defects before a Completion Certificate will be issued. The first 50% of the Retention Money shall then be released.

b) Assessment one year after issuing of the Completion Certificate, i.e. at the end of the Defects Liability Period

Should all parameters meet the full Acceptance Criteria, the Employers Agent shall issue a report to the Employer and notify the contractor accordingly.

The balance of the Retention Money shall then be released.

Should the full Acceptance Criteria not be met, the Employers Agent shall advise the contractor of such defects as may be evident and may, in consultation with the Employer, either:

- (i) Instruct the contractor to undertake immediate remedial work.
- (ii) Grant a concession to allow the remedial work to be held in abeyance until further notices are issued by the Employers Agent.
- (iii) Notwithstanding the concessions that may be granted under (ii) above, the contractor may elect to attend to and defects immediately.

c) Assessment at any time during the Defects Liability Period

The Employer or the Employers Agent shall be entitled to carry out an assessment of the work at any time during the Defects Liability Period. Should any parameter/s fall into the remedial-work-required category, the Employer or his agent shall inform the contractor who shall immediately propose a solution to rectify the problem/s and obtain the Employer's or his agent's approval and rectify the problem/s in accordance with Clauses PS9016, PS9017 and PS9018.

PS9016 PROCEDURES TO BE ADOPTED IN THE EVENT OF FAILURE

Where distress has occurred in excess of the permissible or maximum specified limits relating to the performance of the pavement surfacing, the contractor shall, at his own cost and in terms of the Contract, rectify all segments in which such defect/s occur which exceed the permissible or maximum criteria listed in Tables PS9013/3, PS9014/3 and PS9014/6 hereof.

The Employers Agent's approval shall be obtained prior to the contractor's carrying out any remedial work. Notwithstanding the approval by the Employers Agent of the remedial work, the contractor shall remain fully liable for the performance of his proposed remedial action/s measured in terms of the specified performance parameters.

In the event of the contractor's failing to undertake the required steps to rectify/reinstate any defects to conform with the specified requirements, the Employer reserves the right to withhold payment of any monies which are payable to the contractor or which may become payable to him under the Contract.

PS9017 NOTIFICATION OF REMEDIAL WORK

The Employer or his agent shall notify the contractor in writing of any remedial work or repairs required to the surfacing in terms of this section of the specifications. Such notification shall take place at any time during the Defects Liability Period. A programme of work must be submitted for approval to the Employer or his agent within fourteen (14) days of the date of such notification.

The contractor shall commence with the remedial work within ten (10) days from the date on which the site is handed to him by an order in writing from the Employers Agent.

PS9018 REMEDIAL WORK

All remedial work or repairs to the surfacing shall comply with the following requirements:

- (a) The contractor shall, at his own cost, supply, erect and maintain the necessary temporary traffic-control signs in accordance with the requirements in Section 1500 of the Project Specifications, the drawings, and the South African Road Traffic Signs Manual, Volume 2, Chapter 13, Roadworks Signing, November 1997. Any future amendments to the aforementioned manual shall also be complied with.
- (b) The contractor shall, also at his own cost, repair/reinstate such items as road studs, road marking, etc., should these be damaged or influenced by the required remedial work.
- (c) The various types of remedial work contained in Table PS9018/1, depending on the degree of distress, shall be undertaken by the contractor, at his own cost, to reinstate/rectify specified defects in the pavement surfacing during the Defects Liability Period.

Final acceptance shall only be given upon completion of all remedial works to the satisfaction of the Employer and the Employers Agent.

TABLE PS9018/1: REMEDIAL WORK FOR UTFC SURFACING

Type of Distress	Acceptance Criteria	Minimum Remedial Measures
Deformation (shoving) of asphalt	Requirements in Table PS9013/3 not met	Mill out full depth of defective surfacing and repave surfacing
Surface Failure	Requirements in Table PS9013/3 not met	Mill out full depth of defective surfacing and repave surfacing
Surface Cracking	Requirements in Table PS9013/3 not met	Crack seal or mill out full depth of defective surfacing and repave surfacing
Surface Ravelling	Requirements in Table PS9013/3 not met	Repair with UTFC surfacing or mill out full depth of defective surfacing and repave surfacing
Bleeding	Requirements in Table PS9013/3 not met	Mill out full depth of defective surfacing and repave surfacing
Roughness	Requirements in Table PS9014/3 not met	Mill out full depth of defective surfacing and repave surfacing
Surface Macrotexture	Requirements in Table PS9014/6 not met	Mill out full depth of defective surfacing and repave surfacing

COTO CHAPTER 10: SURFACE TREATMENTS

CHAPTER 10.1: GENERAL REQUIREMENTS FOR SURFACE TREATMENTS

PART A: SPECIFICATION

A10.1.3 GENERAL

A10.1.3.2 Weather limitations

Delete the 1st sentence of the 2nd paragraph, and replace with the following:
"No seal work will be allowed in the Seal Embargo Period defined in the Contract Documentation, unless otherwise specified in the Contract Documentation."

A10.1.3.14 Nominal rates of application for tender purposes

In the 1st sentence of the 2nd paragraph, after the wording: "...used in the various types of seals", add the following: "as specified in the Contract Documentation".

e) Nominal binder application and aggregate spread rates for Cape seals (Slurry component)

In Table A10.1.3-7 in the last row of the 1st column, delete "1" and replace with "10".

g) Cover sprays

Replace the 1st paragraph with the following: "The nominal application rate of a diluted emulsion cover spray (50/50) as specified, shall for tender purposes be 0,8 l/m² residual cold bitumen."

A10.1.5 MATERIALS

A10.1.5.7 Precoating fluid

Add the following new paragraph: "The precoating fluid shall be a low viscosity bitumen-based product containing petroleum cutters and a chemical adhesion agent. It shall comply with the specifications as provided in the SABITA Manual 30: Requirements for stone precoating fluids."

A10.1.6 CONSTRUCTION EQUIPMENT

A10.1.6.1 Binder distributor

In the last paragraph replace the 1st sentence with the following: "The transverse distribution of spray flares shall be field verified according to SANS 3001-BT25 and Clause A20.1.5.9 of Chapter 20 and by visual observations to ensure a uniform transverse distribution of binder."

A10.1.6.2 Chip spreaders

In the last paragraph delete the 2nd bullet and replace with the following:
"- of spreading Grade C aggregate, Graded aggregate and Sand- or Grit seals."

PART C: MEASUREMENT AND PAYMENT

Item	Description	Unit
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C10.1.3 Multiple stone seals including a cover spray, if specified using:

Replace the 1st sentence of the 2nd paragraph of the item description, with the following:
"The nominal rates for multiple stone seals indicated in A10.1.3.14(b) and for cover sprays indicated in A10.1.3.14(g), shall apply."

C10.1.4 Embargo period effects

In the 1st paragraph of the item description, delete reference to: “C10.1.6.1”, and replace with: “C10.1.4.1”.

In the 2nd paragraph of the item description, delete reference to: “C10.1.6.2”, and replace with: “C10.1.4.2”.

C10.1.12 Application of cover spray by hand

In the 2nd paragraph of the item description, delete reference to: “A10.1.3.15”, and replace with: “A10.1.3.14”.

PART D: GUARANTEES AND COMPLIANCE CERTIFICATES

D10.1.5 VISUALLY ASSESSED PROPERTIES

D10.1.5.4 Acceptance criteria

In note 2 below Table D10.1.5-3, delete “May 2016” and replace with “Latest version”.

COTO CHAPTER 11: ANCILLARY ROAD WORKS

CHAPTER 11.4: ROAD RESTRAINT SYSTEMS

PART A: SPECIFICATION

A11.4.1 SCOPE

Delete the last paragraph, and replace with the following:

“Moveable vehicle restraint systems required for traffic accommodation during construction and truck mounted attenuators are also specified in Clauses A1.5.6.1, A1.5.6.3 and A1.5.7.11 of Chapter 1.”.

PS.A11.4.5 MATERIALS

PS.A11.4.5.2 a) Steel Guardrails for Erection on Concrete Posts

- Refer to eThekweni Standard Drawing for Concrete Bollard and Steel Guard Rail (Drawing No. 38580)
- Guardrail available in effective lengths of 3.81m and 4m.
- Special lengths available on request.
- Individual sections may be curved to fit any radius from 3 to 45m.
- Manufactured to SANS 1350:2005.
- End protection available in standard bullnose end wings.
- Available either hot dip galvanized to SABS ISO 1461 or uncoated.
- Installation guidelines available on request.

Wherever the Standard Specifications make reference to the use of timber posts for the construction of guardrails, such reference shall be deemed to be amended to require the use of posts as specified in this document and as detailed on Drawing No. 3850.

The substitution of the specified posts in lieu of timber posts shall not constitute grounds for any additional payment. The tendered rate for this item shall be deemed to cover the full cost of supplying, erecting and finishing the guardrail with posts as specified and shown on Drawing No. 3850.

PS.C11.4.5.2 b) Concrete Bollards

- Concrete bollards to be concrete grade 30/13, steel float finish and bottom face to be brushed finish, bollards shall be securely installed in grade 20/13 foundation concrete as per standard drawing no.:38580. Bollard dimensions to comply with the standard drawing No.:38580.
- The rates shall include for excavation in all materials, backfilling and compaction in all materials, removal of existing material to spoil, supply and place concrete complete.
- The unit of measurement shall be number (No) of completed concrete bollards

PS.C11.4.5.2 c) Supply and erect new precast concrete post

- Refer to eThekweni Standard Drawing for Concrete Bollard and Steel Guard Rail (Drawing No. 38580)

CHAPTER 11.6: ROAD SIGNS

PART A: SPECIFICATION

A11.6.7 EXECUTION OF THE WORKS

A11.6.7.5 Erecting road signs

b) Excavation and backfilling

In the 1st sentence of the 2nd paragraph, before "Section A13.4 of Chapter 13", add the following:

"Section A13.2, Section A13.3 and".

PART C: MEASUREMENT AND PAYMENT

Item	Unit
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C11.6.1 Road signboards with painted or coloured semi-matt background. Symbols, lettering and borders in semi- matt black or in Class I retro-reflective material, where the sign board is constructed from:

Add the following new pay item:

"C11.6.1.13 Moveable barricade/road sign combination (signboard material, background, symbol retro-reflective class and size indicated)	number (No)
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The unit of measurement for item C11.6.1.13 shall be the number of moveable barricades, complete with road signs provided.

The tendered rate for item C11.6.1.13 shall include full compensation for providing and erecting each moveable barricade and signs and shall also include full compensation for moving the barricade as and when required."

PS.C11.7.4.1 Road Markings:

PART A: SPECIFICATION

A11.7.5 MATERIALS

A11.7.5.2 Materials

a) Marking materials

(iii) Thermoplastic road marking material

In the 4th paragraph, delete “mcd/m².lux” and replace with “mcd/m²/lux”.

The plastic road marking material shall comply with the requirements of Specification BS.3262, 1987 Part 3.

- a) **The material:** shall consist of a light-coloured aggregate, pigment and extender, bound together with a thermoplastic resin, plasticised as necessary.

The approximate composition of the material as laid is dependent on the appropriate specification, but for example shall be:

- Aggregate 40 parts
- Solid Glass Beads 20 parts
- Pigment and Extender 20 parts
- Binder 20 parts.

The proportioning of the various ingredients shall be such that the material, when in a molten state, can be sprayed readily onto the road surface to give an even line of good definition.

- b) **Aggregate:** The aggregate shall consist of white silica sand, crushed calcite calcined flint, quartz, or other approved aggregate.
- c) **Reflectorisation:** The solid glass beads incorporated in the mixture shall comply with the Class A category of BS 6088 (1981) that is:

Sieve	% Retained
0,18 mm	0 - 3
0,850 mm	5 - 20
0,425 mm	65 - 95
Below 0,425 mm	0 - 10

Minimum of spherical beads by number 70%

- d) **Luminance:** The luminance factor of white SPRAYPLASTIC shall be not less than 70.
- e) **Flow resistance:** The percentage decrease in the height of the cone of SPRAYPLASTIC shall not be more than 25 after testing for 48 hours at 23 C (temperate grade) or 40 C (semi-tropical or tropical grades).
- f) **Low Temperature Impact Resistance:** Shall pass the impact test when tested at -10 C (temperate grade) or -1 C (semi-tropical or tropical grades).

- g) **Abrasion resistance:** The abrasive wear of SPRAYPLASTIC shall typically be less than 0,5 g per 100 revolutions. Items have been included in the Bill of Quantities for the provision of temporary road marking using P.V.A. paint.

PART C: MEASUREMENT AND PAYMENT

Item	Unit
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C11.7.3 Thermoplastic road marking

Amend the retro-reflective luminance unit to be "mcd/m²/lux".

CHAPTER 12

PS.C12.3.20 (i) Dumprock:

The dumprock shall consist of fresh to slightly weathered upgraded waste rock from mining activities, blasting or rock excavation. Shales, slates or other laminated mudrocks shall not be accepted. Dumprock shall have a minimum size not more than two-thirds of the compacted thickness of the layer. The rock shall otherwise be upgraded but shall contain less than 10% passing the 37,5 mm sieve when spread on site.

Dumprock shall have a minimum 10% FACT value of 100 kN when dry and 40 kN when tested drained after 24 hours soaking.

Dumprock shall be spread and levelled such that when compacted it is at the specified thickness and levels. When the correct road profile has been attained the dumprock layer shall be rolled 5 passes of a 10/12 ton static three wheel steel roller or equivalent vibrating roller.

Dry, fine material (13,2 mm down) with a Plastic Index of between 0 and 7 shall then be applied in a blanket over the full width of the layer. With hand labour following the roller, the fine material shall be rolled and broomed into the voids of the stone. This procedure shall be repeated until the stone layer will accept no further fines. Compaction of the layer shall continue until movement of the material under the compactor becomes negligible or for a maximum of 10 passes of the roller whichever occurs first.

The completed dumprock layer shall be measured in cubic metre (m³). The rate shall cover the supply, loading, transporting, dumping, spreading of all materials and all processing of the layer and proof rolling, all as detailed.

Unit of measurement shall be cubic meter (m³)

PS.12.3.20 (ii) Choking of G5 Material into Dump rock Layer

After the dump rock layer has been processed and approved by the Employer's Agent's Representative, G5 material shall be imported and spread over the dump rock layer. The G5 material must fill the voids of the upper surface of the dump rock and then be used to provide for level / uniform surface on the dump rock layer. Rate to include for importing, spreading, choking, spreading again and then rolled with a steel drum roller with vibration. On completion of the rolling and vibration. On completion of rolling and vibration, all voids are to be closed to provide a uniform surface. A light roll without vibration by the roller may be required again. The unit of measurement shall be in cubic meter (m³) and the quantity used will be based on the tally slips. All original tally slips to be received by the Resident Employer's Agent's Representative.

PS.C12.3.20 (iii) Geofabrics:

The Engineer's approval of the make and grade of the geosynthetic shall be obtained by the Contractor before any geosynthetic is ordered or used on the works.

The instruction from the Employer's Agent to use a certain geosynthetic shall require the Contractor to supply and install that geosynthetic or an approved equivalent by the Employer's Agent.

The unit of measurement shall be the square metre (m²). The rate shall include for the supply of

the material, transport, laying, joining, cutting and waste.

The synthetic fibres of a geotextile blanket shall consist of at least 100% by mass of polypropylene, polyethylene or a polyester polymer and shall contain such additives as are necessary to render the filaments resistant to the effects of ultra-violet radiation in accordance with the following requirement:

The geotextile shall retain 80% of its specified strength after an effective exposure period of 1500 hours to direct sunlight.

Permeability/porosity of fabric must be determined/verified by the supplier, which will have to be verified on site.

The grade of geotextile shall conform to Table 1 of SABS 0221-1988

TABLE 1 - GRADES OF GEOTEXTILES

1	2	3	4	5	6	7	8	9	10	11
Property	Grades									
	1	2	3	4	5	6	7	8	9	10
Thickness, mm	Minimum value									
	as specified by manufacturer									
Mass per unit area, g/m ²	100	100	140	140	200	200	240	240	300	300
Penetration load, kN	1,0	1,0	1,5	1,5	2,5	2,5	3,0	3,0	4,0	5,0
Tensile strength, kN/m	6	6	10	10	13	13	18	18	25	30
Permeability, 1/s.m ²										
High flow	200	-	170	-	130	-	80	-	40	-
Low flow	-	25	-	20	-	15	-	10	-	5

Add the following new chapter.

CHAPTER 15.1 CHEMICAL CONTROL OF UNDESIRABLE VEGETATION

PS PART A: SPECIFICATION

PSA15.1.1 SCOPE

This specification covers the chemical eradication of declared and undesirable vegetation as well as the chemical control of vegetation growth, through the application of herbicide.

PSA15.1.2 EXECUTION OF WORK

The Contractor's attention is drawn to the requirement that, prior to carrying out any spraying with herbicide, he/she, together with 3 assistants, shall be required to attend an accredited training workshop.

The registered Contractor shall be at the site of application at all times during spraying and shall ensure that no damage is caused to other plants inside or adjacent to the treated areas as a consequence of the application of herbicides.

Application shall not be carried out in high winds or wet weather.

The Contractor shall assess the number of different types of places where application of chemicals will be required and to make provision accordingly for the fluctuating chemical demand per section of road. The herbicide shall be strictly applied at the rate recommended by the manufacturer.

a. Control of vegetation growth

Subject to approval by the Engineer beforehand, spraying shall be executed in the following designated areas:

- i. Shoulder weed spray shall involve the spraying of a 300 mm wide strip of herbicide, 100mm of which will be on the surfaced shoulder and 200 mm on the gravel shoulder; and
- ii. On block paved or other paved areas.

b. The eradication of undesirable vegetation

The eradication of declared and undesirable vegetation shall take place in the road reserve over the whole length of the section of road involved and may include localised patches of noxious weeds, invader plants and other undesired vegetation.

The Contractor shall ensure that no damage whatsoever is caused to any plants inside or adjacent to the areas treated because of the application of the herbicides, either during or after application. This also includes areas outside the road reserve.

Below is a list of preferred chemicals to be used in the various applications.

Verge Application	
Product	Active ingredients:
Tumbleweed (L4781)	Glyphosate 240g/L
Invade (L10093)	Imazapyr 250g/L
Outpace Flo (L4760)	Simazine 250g/L + Terbutylazine 250g/L
Booster AS (L6182)	Ammonium Sulphate 500g/L
Noxious weed Control	
Frixon (L8399)	Fluroxypyr 200g/L
Picloram (L8299)	Picloram 240g/L
Viroaxe (L6663)	Triclopyr 480g/L
Ambition (L7678)	Metsulfuron - Methyl 600g/L

Booster Oil (L6148)	Vegetable Oil 851g/L
Cutstump Treatment	
Invade (L10093)	Imazapyr 250g/L
Booster Oil (L6148)	Vegetable Oil 851g/L
Dye (Stump marker)	Pigment dye

Prior to commencement with application of any herbicide, a registration document from the Department of Agriculture must be provided to the Employers Agent for each chemical to be used. The Employers Agent will approve the use of the specific chemical prior to commencement.

PSA15.1.3 ACCEPTANCE CRITERIA

Eradication of undesired vegetation shall be carried out as specified and to the satisfaction of the Engineer. The herbicide shall be applied at the correct rate to prevent re-growth and the application confined to the undesired vegetation.

Areas shall be left neat and tidy and all vegetation cuttings removed unless otherwise instructed.

PSA15.1.4 CONSTRUCTION EQUIPMENT

Vegetation shall be eradicated using knapsacks or portable weed-spray machines.

It is important that the equipment be in good working condition. The equipment shall distribute the herbicide evenly without spilling. The nozzle shall be able to move close to the ground in order to prevent mist spray blowing away and killing plants which have to be maintained. The equipment shall also be safe for the workers as well as for the travelling public. The Contractor shall ensure that all persons dealing with herbicides are supplied with hats, gloves, boots, goggles, face masks and safety vests and that they always wear them whilst working.

PS PART C: MEASUREMENT AND PAYMENT

Add the following payment items:

Item Unit

PSC15.1.1: Chemical Control of undesirable vegetation

- a) Shoulder Weed Spray: 300mm wide meter (m)
- b) Blocked paved and other paved areas square meter (m²)

The unit of measurement for sub-item PSC15.1.1(a) shall be the metre of control of weeds to the specified width.

The unit of measurement for sub-item PSC15.1.1(b) shall be the square metre of control of vegetation and eradication of weeds.

The tendered rates shall include full compensation for all labour, equipment and minor material (herbicide shall be supplied by the Employer) required for control of vegetation and eradication of weeds in accordance with the manufacturer's specifications and inclusive of any costs arising from restricted working conditions due to the nature of the site or traffic flow.

Payment shall be made as follows:

- (a) 30% upon application
- (b) 30% shall be payable when visible results are obtained
- (c) The remaining 40% shall be payable when at least 90% of the treated vegetation has been controlled in the opinion of the Engineer

COTO CHAPTER 20: QUALITY ASSURANCE

SECTION 20.1: TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP

PART A: SPECIFICATION

A20.1.2 DEFINITIONS

Independent site laboratory

In the definition of "Independent site laboratory", add the following:

"Independent Site laboratory in COTO is equivalent to the combined laboratory in the Employer documentation"

A20.1.4 PUBLISHED TEST METHODS

A20.1.4.8 Testing of asphalt

Add the following new paragraph:

"Sabita Manual 39: Laboratory Testing Protocols for Binders and Asphalt, shall be implemented together with the asphalt tests listed."

Delete reference to: "Sabita Manual 35 for Design and Use of Asphalt in Road Pavements: Determining the Richness Modulus of EME asphalt mixes."

and replace with "Sabita Manual 33 for Design Procedure for High Modulus Asphalt (EME): Determining the Richness Modulus of EME asphalt mixes."

A20.1.7 ACCEPTANCE CONTROL BY STATISTICAL JUDGEMENT PRINCIPLES

A20.1.7.2 Taking samples

a) Stratified random sampling

Add the following new paragraph:

"Where the SARDS Laboratory module is used, the sampling locations must be as per the software. The Engineer may specify additional sampling locations."

b) Minimum samples per lot

Add the following new paragraph:

"Where the SARDS Laboratory module is used, the number of samples per lot must be as per the software, as a minimum. The Engineer may specify additional numbers of samples. The Number of samples must be sufficient to meet the requirements of TMH5."

PART C: MEASUREMENT AND PAYMENT

C20.1.5 Financial contribution for an independent site/commercial laboratory

Delete reference to: "/commercial".

SECTION B: SPECIFICATION DATA

Notes to tenderer:

- 1. In certain clauses, the Standard Specifications allow a choice to be specified in the Contract Documentation or 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 Section B: Specification Data.**
- 2. The number of each clause and each payment item in this part of the project specifications follows the numbering format of the COTO standard specifications. Where, however, a clause has been amended under Section A2, the clause number is prefixed with a "P" in this Section.**

COTO CHAPTER 1: GENERAL

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
1			GENERAL	
	A1.1		GENERAL PREAMBLE	
		PA1.1.2	DEFINITIONS	
			Conditions of Contract	The General Conditions of Contract for Construction Works as published by the South African Institution of Civil Engineers, 3 rd Edition, 2015, shall apply.
			Site / Site of the Works	The limits of construction is provided in the Works Package Order
	A1.2		GENERAL REQUIREMENTS AND PROVISIONS	
		A1.2.3	GENERAL	
			A1.2.3.3 Environmental management	The requirements of the Environmental Officer, if applicable, is indicated in the Works Package Order
			A1.2.3.4 Extension of time for delays caused by rainfall	
			c) Method 2 (Critical path method with consequential delays)	Method 2 (Critical path method with consequential delays) is specified. In calculations of payment for approved extensions of time granted for delays caused by rainfall, payment will be made utilising the applicable payment items for which the unit of measurement is "month" but excluding payment items with negative rates and non-applicable payment items such as pay item PSC1.3.1.4.
			A1.2.3.5 Handing-over of the Site of the Works	The conditions for handing-over of the Site of the Works shall be stated in the Works Package Order

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
			A1.2.3.9 Monthly reports	Information to be included in monthly progress reports shall be stated in the Works Package Order
			A1.2.3.10 Notices, signs and advertisements	Details of the contract sign board is provided in Drawing 40137E
			A1.2.3.12 Ownership of assets and disposal of non-usable assets	The Non-usable assets to be disposed by the Contractor will be listed in the disposal plan specified in the Works Package Order.
			A1.2.3.15 Routine maintenance	The Contractor shall not be responsible for any routine maintenance work other than the project area.
			A1.2.3.18 Stakeholder liaison	Requirements related to structured engagement with project Stakeholders and affected Communities, as well as guidance on the selection and the enhanced utilisation and development of targeted labour is detailed in Clause PSA1.2.3.18
			A1.2.3.20 Road safety audits	A Stage 4 work zone traffic management audit, shall be carried out.
			A1.2.3.22 Wayleaves/Agreements and Permits	Underground services are unknown, and the contractor will be required to identify and detect underground services.
		A1.2.7	EXECUTION OF THE WORKS	
			A1.2.7.1 Programme of work	
			a) General	A scheme 2 programme shall apply.
			b) Scheme 2	The programme shall be drawn up or be compatible with MS Projects.
			A1.2.7.4 Work on, over, under or adjacent to utilities	Underground services are unknown, and the contractor will be required to identify and detect underground services.

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
	A1.3		CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS	
		A1.3.3	GENERAL	
			A1.3.3.1 Construction camps	Contractor to identify site for construction camp. Contractor to submit approval for the use of land for construction camp.
	A1.4		FACILITIES FOR THE ENGINEER	
		A1.4.3	GENERAL	No site camp facilities for the engineer is required.
		A1.4.7	EXECUTION OF THE WORKS	
			A1.4.7.1 Offices and laboratories	
			a) General	No site laboratory shall be required.
			f) Ablution unit	It will be required that separate mobile ablution with shade shelter be provided within each work zone.
	A1.5		ACCOMMODATION OF TRAFFIC	
		A1.5.3	GENERAL	
			A1.5.3.3 Lane width	The lane width of one-way or two-way flow adjacent to construction zones shall be maintained at 3,5 m minimum.
		A1.5.6	CONSTRUCTION EQUIPMENT	
			A1.5.6.1 Traffic control facilities	
			A1.5.6.1 b) Delineators	Delineators Class III including mounting bases and ballast: Double sided, reboundable, reversible left or right (1200mm x 300mm)
			A1.5.6.1 c) Temporary signs	All temporary road signage (except delineators) shall be Class IV Fluorescent.
			A1.5.6.2 Illuminated traffic signs and safety devices	
			d) Sign mounted flashing lights	Flashing lights are to be operated during the night wherever required for safe traffic accommodation. Flashing lights to be installed on all main advance warning signs and arrows.

CH	SEC	CL A1.5.7	SUB-CLAUSE EXECUTION OF THE WORKS	SPECIFICATION DATA
			A1.5.7.3 Accommodation of traffic where the road is constructed in half or partial widths	<p>No specific sequence of work is required. The Contractor's elected sequence of work shall consider accommodation of traffic limitations stipulated below as well as all utility services requirements and timeframes for applying for wayleaves.</p> <p>The Contractor shall submit a plan of work indicating closure lengths and work zones for approval by the Engineer or his delegated representative before the erection of such closures commence</p> <p>Short-term closures (day-time operations only) will be the norm. Overnight closures (medium-term closures) will be the exception.</p> <p>Short-term closures may be manual stop-go control; medium-term closures will be signal control.</p> <p>No STOP/GO one-way traffic sections shall be in operation and two-way traffic shall be accommodated safely within the contract limits during the following additional periods:</p> <ol style="list-style-type: none"> Easter long weekend, and December / January holiday break
	A1.7		LOADING AND HAULING	
		A1.7.7	EXECUTION OF THE WORKS	The Contractor must provide the Engineer with the certified carrying capacity of each vehicle before any construction materials can be transported.

COTO CHAPTER 2: SERVICES

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
2			SERVICES	
	A2.1		GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES	
		A2.1.1	SCOPE	
			A2.1.1.2 Location, identification, protection and relocation of existing services	The Contractor shall obtain from the relevant municipal department the services drawings.
		A2.1.3	GENERAL	
			A2.1.3.2 Location, identification, protection and relocation of existing services	
			a) Existing as-built records	The Contractor shall obtain from the relevant municipal department the services drawings.
			d) Protection of services	
			<i>(i) Service owners</i>	The Contractor shall obtain from the relevant municipal department the services drawings.
			<i>(ii) Protection</i>	As per clause A2.1.3.2 d (i)
			<i>(iv) Relocation</i>	As per clause A2.1.3.2 d (i)
			A2.1.3.3 Safety, Method Statements, safeguarding the works and accommodation of traffic	Refer to project health and safety specifications.
			a) Safety and Method Statements	Refer to project health and safety specifications and Clause A1.2.3.6 of Chapter 1.
			c) Accommodation of traffic	Temporary gravel walkways to be provided while constructing the new walkways, where verge space is available to accommodate such.

COTO CHAPTER 3: DRAINAGE

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
3			DRAINAGE	
	A3.2		CULVERTS	
		A3.2.7	EXECUTION OF THE WORKS	
			A3.2.7.4 Unsuitable founding conditions	Unsuitable material shall be removed to a depth as required and agreed with the Engineer on site. Backfill with approved material in layers not exceeding 150mm, properly compacted to provide a firm foundation layer.
	A3.3		CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS	
		A3.3.7	EXECUTION OF THE WORKS	
			A3.3.7.1 Drainage structures	
			a) Prefabricated concrete kerbing and channelling	Refer to drawing 38577
			f) Cast in situ chutes on cut slopes	If applicable, to be specified in the Works Package Order
			i) Stone pitched open drains	If applicable, to be specified in the Works Package Order
	D3.3		CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS PART D: GUARANTEES AND COMPLIANCE CERTIFICATES	No work relating to guarantees and compliance certificates are foreseen for this Contract.

COTO CHAPTER 4: EARTHWORKS AND PAVEMENT LAYERS: MATERIALS

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
4			EARTHWORKS AND PAVEMENT LAYERS: MATERIALS	
	A4.3		EXISTING ROAD MATERIALS	
		A4.3.3	GENERAL	
			A4.3.3.1 Employer identified existing road materials	If material investigations were carried out, such will be specified in the Works Package Orders.
		A4.3.5	MATERIALS	
			A4.3.5.2 Reclaimed Asphalt Material	If material investigations were carried out, such will be specified in the Works Package Orders.
			A4.3.5.3 Bituminous Seal surfacings	If material investigations were carried out, such will be specified in the Works Package Orders
		A4.3.7	EXECUTION OF THE WORKS	
			A4.3.7.4 Milling	Loose asphalt shall be removed by brooming. Loose local areas in the floor of a milled excavation shall be demarcated and excavated to a minimum depth of 150mm or the full layer depth as instructed by the Engineer. Excavated areas shall be backfilled with similar bituminous materials as removed from the road / layer or as instructed by the Engineer. If material investigations were carried out, such will be specified in the Works Package Orders.
			A4.3.7.12 Stockpiling of material	Stockpiling of material is not required. The onus is on the Contractor to find suitable stockpile areas for temporary placement of excavated material. Milling and excavations should be planned and the temporary placement of the excavated material shall be approved by the Engineer and shall not be paid for separately
			a) Preparation of the stockpile site	The use of stockpiles is not anticipated, but may be required.
	D4.3		EXISTING ROAD MATERIALS PART D: GUARANTEES AND COMPLIANCE CERTIFICATES	No work relating to guarantees and compliance certificates are foreseen for this contract.
	A4.4		COMMERCIAL MATERIALS	
		A4.4.3	GENERAL	
			A4.4.3.1 Employer identified commercial materials	If material investigations were carried out, such will be specified in the Work Package Orders.
			a) Materials from commercial suppliers	If material investigations were carried out, such will be specified in the Work Package Orders.

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
		A4.4.5	MATERIALS	
			A4.4.5.1 Earthworks and pavement layer materials	
			A4.4.5.4 Non-traditional stabilising or soil treatment agents	No non-traditional stabilisation or soil treatment agents to be used.
	D4.4		COMMERCIAL MATERIALS PART D: GUARANTEES AND COMPLIANCE CERTIFICATES	No work relating to guarantees and compliance certificates are foreseen for this contract.
	A4.5		ALTERNATIVE MATERIALS	
		A4.5.5	MATERIALS	
			A4.5.5.3 Industrial operations material	
			a) Slag from the production of ferrous and non-ferrous materials	No slag from the production of ferrous and non-ferrous materials may be used.
		A4.5.8	WORKMANSHIP	No additional hardness and durability tests are required, only tests as required in Clause A4.1.5 shall be applicable.
	D4.5		ALTERNATIVE MATERIALS PART D: GUARANTEES AND COMPLIANCE CERTIFICATES	No work relating to guarantees and compliance certificates are foreseen for this contract.

COTO CHAPTER 5: EARTHWORKS AND PAVEMENT LAYERS: CONSTRUCTION

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
5			EARTHWORKS AND PAVEMENT LAYERS: CONSTRUCTION	
	A5.3		ROAD PAVEMENT LAYERS	
		A5.3.3	GENERAL	
			A5.3.3.3 Requirements prior to the construction of any pavement layer	If material investigations were carried out, such will be specified in the Work Package Orders.
			A5.3.3.4 Compaction of pavement layer material	To be specified in the Work Package Order.
			A5.3.3.7 Joints between pavement layers	
			a) Location of joints	The final longitudinal joint shall be located on the lane road marking.
			b) Longitudinal joints	The saw cut depth for the longitudinal joint shall be a minimum of 30mm thick but can be increased depending on the thickness of the pavement layer being cut. Care must be taken not to saw cut the underlying layer.
			c) Transverse Joints	Saw-cutting will be required if conventional construction equipment is utilised. All other specifications as described in this clause shall be adhered to.
		A5.3.5	MATERIALS	
			A5.3.5.1 Material information	To be specified in the Work Package Order.
			A5.3.5.2 Pavement Layer thickness and compaction requirements	
			a) Pavement layer thickness requirements	To be specified in the Work Package Order.
			b) Gravel and soil pavement layer compaction requirements (G4B to G9 material)	To be specified in the Work Package Order.

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
		A5.3.7	EXECUTION OF WORKS	
			A5.3.7.1 Controlling pavement layer thickness	
			b) Minimum pavement layer thickness in transition areas	To be specified in the Work Package Order.
			A5.3.7.3 Construction of gravel pavement layers	
			a) Construction	Longitudinal construction joints to coincide with the lane markings.
			A5.3.7.12 Construction of trial sections	
			a) Trial Sections	<p>The length of the trial sections for:</p> <ul style="list-style-type: none"> • Layers for the sidewalks shall be: <ul style="list-style-type: none"> ○ 30m Long ○ 1.2m Wide <p>Only one trial section is required for each Work Package Order.</p>
	C5.3		ROAD PAVEMENT LAYERS PART C: MEASUREMENT AND PAYMENT	
		C5.3.1	Compiling and implementing M&U plans for the construction of all the pavement layers	One M&U plan will be required for each individual Work Package Order.
	D5.3		ROAD PAVEMENT LAYERS PART D: GUARANTEES AND COMPLIANCE CERTIFICATES	No work relating to guarantees and compliance certificates are foreseen for this project.

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
	A5.4		STABILISATION	
		A5.4.3	GENERAL	
			A5.4.3.2 Work in restricted areas	No additional payment for work in restricted areas will be made.
			A5.4.3.3 Construction limitations	
			e) Traffic limitations	No other construction equipment is allowed to travel over a compacted stabilised layer
		A5.4.5	MATERIALS	
			A5.4.5.2 Material for modification or pre-treatment	Excavated material that are stockpiled to be tested by the site laboratory and any material that is not compliant for re-use in stabilised layers to be modified by means of mechanical modification by improving grading, PI or CBR strength.
			a) Mechanical pre-treatment of material before stabilization	Lime stabilisation agent at a nominal rate of 2% for tender purposes. Stabilisation design to be carried out to determine stabilisation agent type and correct application rate.
			b) Cementitious pre-treatment of material before stabilization	Lime stabilisation agent at a nominal rate of 2% for tender purposes. Stabilisation design to be carried out to determine stabilisation agent type and correct application rate.
			A5.4.5.3 Cementitious stabilising agents	Cement stabilisation agent at a nominal rate of 3% for tender purposes. Stabilisation design to be carried out to determine stabilisation agent type and correct application rate.
	D5.4		STABILISATION PART D: GUARANTEES AND COMPLIANCE CERTIFICATES	No work relating to guarantees and compliance certificates are foreseen for this contract.

COTO CHAPTER 8: PRETREATMENT AND REPAIR OF EXISTING LAYERS

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
8			PRETREATMENT AND REPAIR OF EXISTING LAYERS	
	A8.1		PRIME COAT	
		A8.1.5	MATERIALS	
			A8.1.5.1 Bituminous material	The priming material shall be as specified in the Work Package Order.
	A8.2		COVER SPRAYS, FOG SPRAYS AND REJUVENATION SPRAYS	
		A8.2.3	GENERAL	
		A8.2.7	EXECUTION OF THE WORKS	
			A8.2.7.1 Preparation and execution	The binder type and application rate of the rejuvenation spray shall be specified in the Work Package Order. <ul style="list-style-type: none"> • Application rate 0,7 l/m²
	A8.5		STANDARD CRACK SEALING	SPECIFICATION DATA
		A8.5.7	EXECUTION OF THE WORKS	
			A8.5.7.1 Preparation and execution	<ul style="list-style-type: none"> • The cracks shall be blown out with hot compressed air • Priming: 65% cationic bitumen emulsion • Sealing: Class C-E1 modified binder crack sealant

COTO CHAPTER 9: ASPHALT LAYERS

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
9			ASPHALT LAYERS	
	A9.1		ASPHALT LAYERS	
		A9.1.3	GENERAL	
			A9.1.3.1 Nominal mix proportions and application rates	
			Table A9.1.3-1: Nominal Mix Proportions of Stone Skeletal Mixes for Tender Purposes Bitumen (type and grade according to Project Documentation) (%)	Base: <ul style="list-style-type: none"> Homogeneously modified bitumen, A-E2 binder (5,0%) Surfacing: <ul style="list-style-type: none"> Homogeneously modified bitumen, A-E2 binder (5,5%)
			Table A9.1.3-1: Nominal Mix Proportions of Stone Skeletal Mixes for Tender Purposes	Base and surfacing: <ul style="list-style-type: none"> Minimum 60% new aggregate Maximum 35% RA allowed 1% Active Filler hydrated lime
			b) Bond coat and rolled-in chippings	Bond coat for asphalt layers base and surfacing: <ul style="list-style-type: none"> 30% stable grade bitumen emulsion Application rate of 0,55 liter/m² Bond coat shall be applied only when instructed by the Engineer
		A9.1.4	DESIGN BY THE CONTRACTOR	
			A9.1.4.1 Mix Designs	<ul style="list-style-type: none"> As specified in the bill of quantities
		A9.1.5	MATERIALS	

			A9.1.5.2 Bituminous binders for asphalt mixes	<ul style="list-style-type: none"> The specific properties relating to the binder class shall conform to the requirements as listed in the latest version of the TG1. The base bitumen shall conform to the product properties as listed in the latest version of SANS 4001-BT1.
			A9.1.5.3 Bitumen bond coat	<p>The bituminous material used for the screed shall be</p> <ul style="list-style-type: none"> Bond coat using 50% diluted stable grade bitumen emulsion
		A9.1.6	CONSTRUCTION EQUIPMENT	
			A9.1.6.3 Paver	No reduction to the levelling beam lengths
			A9.1.6.5 Rollers	Only oscillating type vibratory compaction equipment may be used on bridge decks.
		A9.1.7	EXECUTION OF THE WORKS	
			A9.1.7.11 Surfacing of bridge decks	The project specific surfacing type over bridge decks is the same as for the carriageway. The nominal thickness of the surfacing over bridge decks shall be determined on site, but is estimated at 30 mm, and shall be specified in the Work Package Order.
		A9.1.8	WORKMANSHIP	
			A9.1.8.8 Sampling	
			b) Coring of completed layers	The Contractor shall provide suitable coring machines capable of cutting 100mm or 150mm diameter cores from the completed asphalt layers.
	D9.1		ASPHALT LAYERS	
		D9.1.1	SCOPE	The prescriptions in Part D are only applicable to Category A and B roads as determined by the eThekweni Municipality Pavement Management System

COTO CHAPTER 10: SURFACE TREATMENTS

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
10			SURFACE TREATMENTS	
	A10.1		GENERAL REQUIREMENTS FOR SURFACE TREATMENTS	
		A10.1.3	GENERAL	
			PA10.1.3.2 Weather limitations	The Seal Embargo Period is the period during the months of May, June, and July.
		A10.1.5	MATERIALS	
			A10.1.5.10 Single sized aggregate	
			a) Grading	The Aggregate Grade is indicated in the Pricing Schedule

COTO CHAPTER 11: ANCILLARY ROAD WORKS

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
	A11.6		ROAD SIGNS	
		A11.6.7	EXECUTION OF THE WORKS	
			A11.6.7.1 Classification of Materials	Overbreak in width or depth will be filled by the Contractor and shall not be measurable for payment
			A11.6.7.7 Dismantling, storing and re-erecting existing road signs	Road signs (only signs in good condition with the required retro-reflective class) to be dismantled, stored and re-erected. Road signs in a poor condition or with insufficient reflective class to be dismantled and disposed of, as directed by the Engineer. The dismantling of the road signs will include the road sign face and the support.
	C11.6		ROAD SIGNS PART C: MEASUREMENT AND PAYMENT	
			ii) Notes on measurement and pay	Measurements will be taken from ground surface
	A11.7		ROAD MARKINGS AND ROAD STUDS	
		A11.7.5	MATERIALS	
			A11.7.5.2 Materials	
			a) Marking materials	
			(ii) Retro-reflective road marking	Water-borne retro-reflective road marking paint shall be used for all road markings (longitudinal, transverse, islands etc) during the project upon resurfacing works, or as directed by the Employer's Agent Representative, as a temporary measure to ensure vehicular and pedestrian safety.
			(iii) Thermoplastic road marking material	The thermoplastic road marking materials will be applied at the end of the defects liability period over the existing water borne retro-reflective road marking paint.
			b) Road studs	Permanent road studs compliant to SANS 1442 (yellow/red or red/red or white/red or white/white, bi-directional, surface bonded with anchor shank, glass)

COTO CHAPTER 20: QUALITY ASSURANCE

CH	SEC	CL	SUB-CLAUSE	SPECIFICATION DATA
20			QUALITY ASSURANCE	
	A20.1		TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP	
		A20.1.3	TESTING METHODS	
			A20.1.3.3 The Costs of Testing	
			a) Material and workmanship for quality control	Process control testing is carried out by the Contractor, and acceptance control testing by the Engineer. The cost of process control testing is borne by the Contractor and the cost of acceptance control testing is borne by the Employer.

C3.4: PARTICULAR SPECIFICATIONS

In addition to the Standardized and Project Specifications the following Particular Specifications / Policies shall apply to this contract:

- C3.4.1 Part AH - OHS&A 1993 Safety Specification
(26 Pages)
- C3.4.2 Standard Environmental Management Plan for Civil Engineering Construction Works
(24 Pages)
- C3.4.3 Technical Specifications for Asphalt

C3.4.3: Technical Specification for Asphalt

ASPHALT MIX USE, DESIGN AND QUALITY MANAGEMENT

1. PURPOSE

The Roads Provision Department is the custodian of the eThekweni Municipality's surfaced road network. As such it seeks to guide layer-work design and the use of materials in road construction. This Technical Note seeks to guide the manufacture and use of asphalt mixtures within the eThekweni Municipality.

The Roads Provision Department has moved from the empirically/recipe based method of asphalt mix design to a performance-based approach to asphalt mix design as outlined in Sabita Manual 35. There is a significant shift in responsibilities of role players in the design of asphalt mixes under this approach. This Technical Note outlines the requirements for implementation of this approach when specifying the use of asphalt.

2. SCOPE

This Technical Note covers the design and manufacture of hot/warm mix asphalt supplied to the eThekweni Municipality. Appendix A gives a brief outline on the selection and use of asphalt mixes from a project implementation perspective.

3. REFERENCES AND STANDARD SPECIFICATIONS

Reference to the standard specifications, guideline documents and codes of practice in Table 1, and references within these documents shall be deemed to be part of this Technical Note.

Table 1 Reference and Standard Specifications

Reference	Title	Date of Issue
SANS 9001	Quality management systems – Requirements	Edition 5 2015
SANS 4001-BT1	Penetration grade bitumen	Edition 1.3 2016
SANS 4001-BT3	Anionic bitumen road emulsions	Edition 1 2014
SANS 4001-BT4	Cationic bitumen road emulsions	Edition 1 2014
SANS 1083	Aggregates from natural sources	Edition 2.6 2018
SANS 824	Lime for soil stabilization	Edition 2.1 2006
SANS 50197-1	Cement – Part 1:Composition, specification and conformity criteria for common cements	Edition 2 2013
SATS 3208	South African PG Binder Classification System	Edition 1 2019
Act 85 of 1993	Occupational health and safety act	As amended
Act 39 of 2004	National environmental management : Air quality act	As amended
Sabita Manual 5	Guidelines for the manufacture and construction of hot mix asphalt	4 th Edition January 2008

Reference	Title	Date of Issue
Sabita Manual 24	User guide for the design of asphalt mixes	February 2020

Sabita Manual 27	Guidelines for thin hot mix asphalt wearing courses on residential streets	May 2008
Sabita Manual 32	Best practice guideline for warm mix asphalt	September 2011
Sabita Manual 33	Design procedure for high modulus asphalt (EME)	September 2019
TRH 8 / Sabita Manual 35	Design and use of asphalt in road pavements	Revised 2 nd Edition February 2020
Sabita TG1	The use of modified bituminous binder in road construction	4 th Edition January 2019
TRH 21 / Sabita Manual 36	Use of reclaimed asphalt in the production of asphalt	3 rd Edition 2019
SAPEM	South African Pavement Engineering Manual	Second Edition October 2014

4. DEFINITIONS

4.1. Definitions

The following definitions and abbreviations are used throughout the Technical Note.

Table 2 Definitions

NMPS	Nominal maximum particle size
Sa	Sand skeleton mix
St	Stone skeleton mix
SMA	Stone mastic asphalt
EME	Enrobé à module élevé
UTFC	Ultra thin friction course
WMA	Warm mix asphalt
BRASO	Bitumen rubber semi-open graded asphalt
S	Standard traffic and speed conditions
H	Heavy traffic and speed conditions
V	Very heavy traffic and speed conditions
E	Extreme traffic and speed conditions
R	Permanent deformation (Rutting) foremost consideration in mix
F	Fatigue foremost consideration in mix

4.2. Mix Nomenclature (or Mix Description)

The following nomenclature shall be used for mixes used for the eThekweni Municipality.

A mix shall be defined from amongst the following mix types :-

- Sa
- St (currently not applicable for eThekweni roads unless as a special mix (e.g. SMA, EME))
- Special Mixes
 - SMA
 - EME
 - UTFC
 - BRASO
 - Proprietary Mixes

The mix type shall be further defined by the following :-

- the typical conditions under which a mix is to be used (type Sa mixes only)
 - S Standard conditions
 - H Heavy conditions
 - V Very heavy conditions
 - E Extreme conditions

The criteria for these conditions is based on the binder grade selection procedure outlined in Sabita Manual 35 (reproduced below).

Table 3 Traffic Loading Conditions

Design Traffic (10 ⁶ E80's)	Traffic Speed (km/h)		
	< 20	20 – 80	> 80
< 0.3	S	S	S
0.3 – 3	H	S	S
> 3 – 10	V	H	S
> 10 – 30	E	V	H
> 30 – 100	E	E	V
> 100	E	E	E

- the NMPS of the mix
 - Permitted NMPS sizes are noted in Table 4.
- the critical failure consideration for the mix (optional for Type Sa and EME mixes)
 - F fatigue
 - R permanent deformation (rutting)
- The class of the mix (EME mixes only)
 - Either class 1 or class 2.

The mix types shall thus be labelled as follows :-

- “Mix type”-“Condition”-“NMPS”-“Failure Mode”-(Mix Class)”
 - Examples
 - Sa-H14F
This is a Sand Skeleton mix for use under Heavy traffic loading and speed conditions with Nominal Maximum Particle Size of 14.0mm that should lend itself to maximizing fatigue resistance.
 - EME-14R(2)
This is an EME class 2 mix with Nominal Maximum Particle Size of 14.0mm designed for resistance to permanent deformation (rutting).
 - SMA-14
This is an SMA mix with Nominal Maximum Particle Size of 14.0mm.

Note that the mixes SMA, EME, UTFC and BRASO (etc.) will actually fall into either the type Sa or St mixes. However, these mixes (like the proprietary mixes) are special mixes with very specific characteristics and associated design approaches and are thus specifically and separately named.

5. **MIX DESIGN**

Mix designs are to be conducted in accordance with the documents noted in Table 4. Further reference should be made to Sabita Manual 24 “User Guide for the Design of Asphalt Mixes” as may be required.

Table 4 Asphalt Mix Design Documents

Sand Skeleton Mixes	TRH 8/Sabita Manual 35	Design and use of asphalt in road pavements
Stone Mastic Asphalt (SMA)	TRH 8/Sabita Manual 35	Design and use of asphalt in road pavements (Appendix B)
Enrobé à Module Élevé (EME)	Sabita Manual 33	Design procedure for high modulus asphalt (EME)

Asphalt mixes shall be selected from the list of permitted mixes noted in Table 5. Mix requirements will be detailed in the project specification in terms of :-

- Mix description (as outlined in clause 4.2 Mix Nomenclature)
- The required level of design.

Table 5 eThekweni Asphalt Mixes

Mix Nomenclature	NMPS (mm)			
	7	10	14	20 ¹
Sa-S	X	X	X	

Sa-H		X	X	X
Sa-V			X	X
Sa-E			X	X
SMA		X	X	
EME			X	X
Proprietary and Other Mixes	To hold Agrément South Africa certification or subject to approval by Roads Provision. NMAS as per Manufacturer's specification.			

1. Use of 20mm NMPS mixes is not recommended.

Special asphalt mixes (e.g. UTFC, proprietary mixes, etc.) shall hold Agrément South Africa fit-for-purpose certification. Alternatively, the use of a particular mix shall be subject to the approval of the Roads Provision Department.

5.1. Materials

Materials shall conform to the requirements and recommendations outlined in Sabita Manual 35.

5.1.1. Binders and Aggregates

The specifications pertinent to specific raw materials should conform to accepted industry standards and shall be documented in the Asphalt Mix Design Report. These specifications shall be used for quality management purposes. Any deviations from standard industry practice as outlined in Sabita Manual 35 shall be documented in the Asphalt Mix Design Report and shall specifically be brought to the attention of the Roads Provision Department.

5.1.2. Reclaimed Asphalt

The use of reclaimed asphalt (RA) is permitted subject to the limitations noted under the specific mix types. The inclusion of RA in a mix design shall be documented in the Asphalt Mix Design Report.

The incorporation of reclaimed asphalt into the mix should be guided by Sabita Manual 36 / TRH 21 "Use of reclaimed asphalt in the production of asphalt".

5.1.3. Warm Mix Asphalt Technologies/Additives

The use of Warm Mix Asphalt (WMA) is permitted (and preferred) and shall be documented in the Asphalt Mix Design Report. The use of Warm Mix Asphalt should be guided by Sabita Manual 32 "Best practice guideline for warm mix asphalt".

5.2. Mix Design

No mixes may be supplied without submission of an Asphalt Mix Design Report and acceptance thereof by the Roads Provision Department.

The mix design process shall consist of a laboratory design, a plant trial and (if required) a paved trial for every mix supplied.

5.2.1. Specific Mix Design Requirements

5.2.1.1. Sand Skeleton Mixes

The reclaimed asphalt (RA) content of sand skeleton mixes shall be limited to 50% maximum.

The following additional requirements and guidelines should be taken into consideration for any particular level of mix design :-

5.2.1.1.1. Level IA Design

The design should also take into consideration the recommendations of Sabita Manual 27 "Guidelines for thin hot mix asphalt wearing courses on residential streets".

Further to Sabita Manual 35 Table 23 (VMA), the VMA for the 7.1mm NMPS mix shall be 16% (target design voids 4%).

Mixes shall comply with the requirements noted in Tables 22, 23 and 24 of Sabita Manual 35. Mixes shall further comply with the requirements noted Table 6 (below).

Table 6 Empirical Performance Tests (Level 1A)

Test	Requirement	Test Method / Reference
Filler/Binder Ratio	1.3 max.	Sabita Manual 35 cl. 4.3.4 Note 4.3
Binder Film Thickness (µm)	7.5 min.	Sabita Manual 35 cl. 5.5.1(4)(a)
Modified Lottman (TSR)	0.8 min.	ASTM D 4867 M
Air Permeability (@ 7% Voids) (x 10 ⁻⁸ cm ²)	1.0 max.	TRH 8 App C
Marshall Stability, Flow and Quotient	Report	SANS 3001-AS2

5.2.1.1.2. Level IB Design

A maximum of 10% natural sand (by mass of mix aggregates) may be used in sand skeleton mix types designed to Level IB.

Although Sabita Manual 35 requires the use of a gyratory compactor for laboratory mix evaluation, the use of Marshall compaction will however be permitted. Gyratory compaction is nevertheless the preferred method of compaction. Briquettes for mix evaluation shall be compacted at the compaction effort noted in Table 7.

Table 7 Volumetric Compaction Requirements

Gyratory	Marshall
AASHTO T 312	SANS 3001 AS1
N _{design}	No. Blows
75	75+75

The empirical performance requirements for Level IB mixes shall be as indicated in Sabita Manual 35 save that the mix durability requirements noted in Table 28 of Sabita Manual 35 shall be altered to reflect a minimum Modified Lottman value of 0.8 for both Base and Wearing Course mixes.

5.2.1.1.3. Level II Design

Although Sabita Manual 35 recommends the use of a Level III design for traffic loading in excess of 30 million E80's, within an urban environment there are a number of roads falling within this traffic loading scenario but for which a Level III design is not warranted. The Level II design approach is thus acceptable for roads with this higher traffic loading. However, the laboratory compaction will be as noted in Table 8.

Table 8 Level II Laboratory Compaction Requirements

Design Traffic (E80's)	N _{design}
3 to 30 million	100
> 30 million	125

Therefore, in order to identify the requisite compaction parameters for a particular E80 design traffic loading, the Level II design will be labelled in the project specification as follows :-

- Level II(A)
Level II(A) will cater for an E80 design traffic loading of less than or equal to 30 million E80's.
- Level II(B)
Level II(B) will cater for an E80 design traffic loading of greater than 30 million E80's.

The mix durability requirements noted in Table 28 of Sabita Manual 35 shall be altered to reflect a minimum Modified Lottman value of 0.8 for both Base and Wearing Course mixes.

5.2.1.1.4. Level III Design

Level III designs (if required) will only be conducted on roads with a design traffic loading of greater than 30 million E80's in line with the recommendations of Sabita Manual 35.

The mix durability requirements noted in Table 28 of Sabita Manual 35 shall be altered to reflect a minimum Modified Lottman value of 0.8 for both Base and Wearing Course mixes.

5.2.1.2. Stone Mastic Asphalt Mixes

Stone Mastic Asphalt (SMA) mix designs are to be conducted in accordance with the guidelines set out in Sabita Manual 35 "Design and use of asphalt in road pavements – Appendix B".

SMA mixes are permitted for two NMPS:-

- 10mm
- 14mm

The mix design should ensure that the fine aggregate mortar should not induce dilation of the coarse aggregate stone skeleton after compaction on site thereby ensuring coarse aggregate interlock. Coarse aggregate for both NMPS shall be defined as all material retained on the 5mm sieve.

The use of "natural" sand and reclaimed asphalt (RA) shall not be permitted in SMA mixes.

The stability of the fine aggregate mortar will require enhancement with either cellulose fibre or through modification of the binder or both.

The SMA mix shall also conform to the requirements in Table 9.

Table 9 SMA Mix Specifications

Design Air Void Content (%)	4.0
Voids in Mineral Aggregate (VMA) (Min.)	17
Modified Lottman (TSR) (Min.)	0.7
Schellenberg Drainage Test (%) (Max.)	0.3
Air Permeability (@ 7% Voids) ($\times 10^{-8} \text{cm}^2$) (Max.)	1.0
VCA_{mix}^1 (%)	$< VCA_{\text{drc}}^2$

Note 1. VCA_{mix} is the voids in coarse aggregate (>5mm) of the compacted mix.

Note 2. VCA_{drc} is the voids in coarse aggregate (>5mm) of the dry rodded coarse aggregate.

SMA mixes shall also conform to the permanent deformation requirements noted in Table 33 of Sabita Manual 35.

The mix design document should clearly document the process followed to meet the desired SMA characteristics.

5.2.1.3. Enrobé à Module Élevé (EME) Asphalt Mixes

EME mix design are to be conducted in accordance with the guidelines set out in Sabita Manual 33 “Interim design procedure for high modulus asphalt”.

EME mixes are permitted for two NMPS:-

- 14mm
- 20mm

The use of “natural” sand shall not be permitted in EME mixes.

The reclaimed asphalt (RA) content of EME mixes shall be limited to 20%.

The mix design document should clearly document the process followed to meet the desired EME characteristics.

5.2.1.4. Warm Mix Asphalt

Should a Warm Mix Asphalt be used in the mix, the mix design shall incorporate the use of such a technology/additive in the mix design process. Any consequential deviations from the guidelines set out in Sabita Manual 35 “Design and use of asphalt in road pavements – Appendix B”, Sabita Manual 33 “Design procedure for high modulus asphalt (EME)” or standard industry practice shall be brought to the attention of the Roads Provision Department and shall be documented in the mix design report.

The use of Warm Mix Asphalt should be guided by Sabita Manual 32 “Best practice guideline for warm mix asphalt”.

5.2.2. Asphalt Mix Design Report

Once satisfied that the laboratory design, the plant and (if required) paved trials meet the specified mix requirements, the Manufacturer shall submit an Asphalt Mix Design Report recording the essential information relating to the design. This shall be recorded on the relevant COTO “D3” form **and shall be supplemented with a report documenting any further information required in terms of this Technical Note.**

The final mix parameters (i.e. the Job Mix Formula (JMF)) will be based on the test results for the plant trial and will be used for production quality control and acceptance purposes.

The Manufacturer shall include the following “mix characteristics” as a part of his Mix Design Report submission :-

- A unique identification number for every mix design
- The use of any Warm Mix Asphalt technology/additive. The Manufacturer shall document the name and type of technology/additive to be used together with any other technical information pertinent to its use in the asphalt mix. The Manufacturer shall further comment on any modifications to the “standard” mix design process consequential to the use of the Warm Mix Asphalt technology/additive.
- The recommended maximum mix temperature in the truck at the exit from the plant (in line with industry norms)
- The recommended minimum mix temperature in the truck on delivery (in line with industry norms)
- The minimum recommended mix temperature for compaction of the mix on site (in line with industry norms)
- Comment on any asphalt mix characteristics that should be brought to the attention of the asphalt paving/laying team on site (e.g. EME asphalt mix longitudinal joint construction)

Should substantial changes to material types and properties occur, the asphalt mix designs for affected mixes shall be reviewed and where necessary re-constituted and re-submitted for approval.

5.2.2.1. Mix Design Acceptance Process

It is not necessary for a new mix design to be compiled for every project. The Manufacturer may supply proof that an existing mix design is still current and has already been accepted by the Roads Provision Department. In the case of the submission of a new mix design, the Manufacturer shall submit his proposed mix design to the Roads Provision Department for acceptance of the mix design at least 2 weeks prior to initial supply of any particular mix.

Upon request by the Roads Provision Department, the Manufacturer shall supply samples of raw materials and any other relevant information as may be requested to facilitate acceptance of the mix design.

Once satisfied with the content of the mix design, the Senior Manager : Pavement & Geotechnical Engineering (or his nominee) will give signed acceptance for the mix.

5.2.3. Mix Design Review

Every mix design is to be reviewed at least annually. The review should include verification of the asphalt mix through testing of basic raw material properties and mix characteristics.

Should the binder, aggregate or mix characteristics of any particular mix differ significantly from the characteristics obtained in the initial mix design, then the mix shall be re-designed to meet the relevant volumetric and performance characteristics. In the event of a dispute over the significance of a particular characteristic, the Manufacturer shall undertake the appropriate performance test to prove compliance with the specification.

5.3. Asphalt Production

5.3.1. Mixing Plant

Asphalt shall be manufactured through a plant capable of meeting the full design requirements of any particular mix. The plant shall be operated and kept in a well maintained condition as directed by the Quality Management System. Records of such maintenance shall be made available on request. The plant shall be approved by the Roads Provision Department.

Sufficient reserves of raw materials shall be held at the plant for all mixes being supplied to the eThekweni Municipality to prevent delays in construction projects. It will be incumbent on the plant manager to ascertain demand and time frames from Contractors or Municipal Departments to whom they are supplying mix.

All cold aggregates shall be stockpiled and protected in a manner that precludes the possibility of aggregate contamination from adjacent stockpiles, from the underlying ground or from weather conditions.

Binder storage tanks shall be provided and managed to ensure that there is no risk of contamination of different binder types. Binder storage tanks shall be heated and the binder circulated in such a manner that the binder is not degraded during heating. The heating and circulation of binders should conform to the recommendations of the binder supplier.

The plant and its operation shall conform to the requirements of the following legislation:-

- Occupational Health and Safety Act
- National Environmental Management : Air Quality Act

5.3.2. Quality Control

The Manufacturer shall have an active Quality Management System in place compliant with the quality processes outlined in Sabita Manual 35. The quality of mix produced shall be monitored as directed in the Manufacturer's Quality Management System. The asphalt mix constituents (i.e. binder and aggregates), and the asphalt mix produced shall be checked for compliance and consistency on a regular basis through routine process control testing. The results of such testing shall be made available for review by the Roads Provision Department at all times.

5.3.2.1. Quality Management System

The Quality Management System (QMS) should include documentation outlining the asphalt mix

design process, the annual mix review process and processes pertaining to delivery of the asphalt mix.

The QMS shall also include any agreed frequency of split sampling of either raw mix constituents or asphalt mixes (prepared as agreed) with the Roads Provision Department. Such samples are to be delivered to the Roads Provision's Bitumen and Asphalt Laboratory located at the Roads Provision Asphalt Plant in uMhlathuzana Road. All samples shall be adequately and uniquely labeled so that the location of any related mix is readily traceable.

The QMS shall also document the processes to be followed whenever a deviation from specifications is identified. The Manufacturer shall provide full rectification of any work undertaken with such asphalt mix or materials.

The plant laboratory should preferably be SANAS accredited for the tests undertaken. However, should the laboratory not be SANAS accredited, the laboratory will need to be approved by the Roads Provision Department.

In line with these processes, the QMS should include as a minimum the material characterisation tests included in Table 10 for every type of mix supplied.

Table 10 Test Frequencies

Quality Control Tests			Minimum Test Frequency
Binder	Penetration		Every batch delivered
	Softening Point		Every batch delivered
	SA PG Binder Classification		1 per 6 months
Aggregate	Coarse Aggregate	Aggregate Grading	Every batch delivered
		Flakiness Index (Max.)	1 per month
		Aggregates BRD, ARD and Water Absorption	1 per month
		ACV, 10%FACT	1 per month
		Polished Stone Value (Coarse Aggregates)	1 every year per stone type and source
	Fine Aggregate	Aggregate Grading	Every batch delivered
		Aggregates BRD, ARD and Water Absorption	1 per month
		Sand Equivalent (Fine Aggregates)	Every batch delivered
		Methylene Blue Adsorption Value	1 per month
Asphalt Mix	Temperature of Mix	In the truck at the exit weighbridge	Every load
		In the truck at the point of delivery	Every load
	Binder Content		1 test per 200 tons of output or part thereof per day
	Extracted Mix Aggregate Grading Analysis		1 test per 200 tons of output or part thereof per day

	<p style="text-align: center;">Voids Analysis (Bulk Relative Density and Maximum Theoretical Relative Density)</p>	<p style="text-align: center;">1 test per 200 tons of output or part thereof per day</p>
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5.3.2.1.1. Test Methods

The test methods used in the design of asphalt mixes and quality management in the production of asphalt should be in line with those noted in Sabita Manual 35. However, the determination of the bulk density of asphalt mix in terms of SANS 3001-AS10 shall be modified as follows.

5.3.2.1.1.1. Asphalt Briquette/Core Bulk Density Test Method

The bulk density of compacted asphalt mixtures shall be determined in accordance with SANS 3001-AS10:2011 Edition 1 save that the measurement of the volume of the specimen as stated in clause 6.2 shall not apply.

For general measurement of volume for non-absorptive mixes (generally VIM < 6%), the method outlined in clause 6.4 of SANS 3001-AS10 shall be used.

However, for mixes suspected of being absorptive/porous, or in the event of a dispute over mix density, briquette or core density shall be determined by either the paraffin wax coating method (ASTM D 1188) or the automatic vacuum sealing method (ASTM D 6752).

The density of porous mixtures (generally VIM >15%) shall be measured in accordance with SANS 3001-AS10 with the measurement of volume as specified in clause 6.6.

5.3.2.2. Process Control

The temperature of the mix taken in the truck at the exit to the plant shall not exceed the value stated in the mix design. Furthermore, the temperature of the mix taken in the truck on delivery shall not be less than the value stated in the mix design.

Quality checks on mix production will be based on the Job Mix Formula (JMF) for the approved mix design. Tolerances on variation from the JMF are given in Table 11.

Table 11 Job Mix Formula Tolerances

			Permissible Deviation from JMF (%)	
			Individual Results	Average of 3 Consecutive Results
Aggregate Fraction - Grading	Sieve Size (mm)	28	± 5.0	± 3.0
		20	± 5.0	± 3.0
		14	± 5.0	± 3.0
		10	± 5.0	± 3.0
		7.1	± 5.0	± 3.0
		5	± 4.0	± 2.5
		2	± 4.0	± 2.5
		1	± 4.0	± 2.5
		0.6	± 4.0	± 2.5
		0.3	± 3.0	± 2.0
		0.15	± 2.0	± 1.5

		0.075	± 1.0	± 1.0
Voids in the Mix (@ design compaction)			± 1.5	± 1.0
Binder Content	General Mixes (Sa, SMA, EME, etc.)		± 0.3	± 0.2
	Gap Graded & Bitumen Rubber		± 0.4	± 0.3

All process control testing undertaken by the Manufacturer shall be signed off by the responsible person identified in the QMS and shall be made available to the Roads Provision Department.

- All process control test results shall be referenced back to the unique Mix Design reference number.
- Mix extraction gradings shall be made available within 48 hours of the asphalt being manufactured.
- Binder content and void content shall be made available by 08:00am on the day following manufacture of the asphalt.

The Manufacturer shall be responsible for rectification of any work completed (or partially completed) with asphalt mix that does not meet the specification to the satisfaction of the Roads Provision Department. The processes related to the rectification of such work shall be outlined in the QMS.

5.3.2.3. Acceptance Testing

After reviewing the results of the process control testing, the Roads Provision Department may elect to conduct their own testing of the binder, aggregates or asphalt mix produced. A copy of test results will be submitted to the Manufacturer as soon as they are available.

If the acceptance tests indicate that the mix (or any part thereof) is not to specification, the cost of any re-test by the Municipality shall be borne by the Manufacturer.

5.3.2.4. On Site Mix Problems

The Manufacturer shall also make himself available on site should the workability and compaction of the mix during the paving/laying operation be problematic in order to assist in trouble-shooting the cause of such problems. If the root cause of the problem is related to the asphalt mix design, the Manufacturer shall re-evaluate his mix design to correct such issues and re-submit his mix design for acceptance.

C3.5: CONTRACT AND STANDARD DRAWINGS

C3.5.1 CONTRACT DRAWINGS / DETAILS

To be specified in the Work Package Order Documentation.

C3.5.2 STANDARD DRAWINGS

The Standard Drawings to which these Standard Engineering Specifications refer are listed below.

<u>Dwg. No</u>	<u>Description</u>	<u>Date of Issue</u>	
38570	Ring Manholes	February	1990
38571	Brick Manhole Details	February	1990
38572	Stormwater Inlet Details	February	1990
38573	Stormwater Inlet Special Details	February	1990
38574	Sewer Manholes: Ramp, Backdrop and Channelling Details	February	1990
38575	Sub-Soil Drain, Pipe Bedding and Pipe Protection Details	February	1990
38576	Headwall Details	February	1990
38577	Kerbing Details	February	1990
38578	Concrete Median Barriers	February	1990
38579	Vehicular and Pedestrian Scoops	February	1990
38580	Concrete Bollard and Steel Guard Rail	February	1990
38581	Retaining Wall, PC Steps, Staircase, Cable Ducts and Headwalls	February	1990
38582	Precast Concrete Fencing and Aluminium Gates	February	1990
38583	Wire Mesh Fence and Gate Details	February	1990
38584	Standard Hydrant Thrust Blocks and Trenches	February	1990
38585	Water Connections, Pipework and Fittings	February	1990
43120	Typical Details of Grid Inlets	February	1990

C3.6: ANNEXURES

C3.6.1 **PROFORMA WORK PACKAGE ORDER DOCUMENTATION**

C3.6.2 **STANDARD DRAWINGS** (provided as a separate PDF compilation)

STANDARD PROJECT RETURNABLES (provided as a separate PDF compilation)

C3.6.1 PROFORMA WORK PACKAGE ORDER DOCUMENTATION

Note: this document will be reviewed and edited as is necessary throughout the Appointment Period.



DIRECTORATE
ROAD INFRASTRUCTURE MANAGEMENT
DIVISION
ROADS PROVISION
BRANCH
[CHOOSE AN ITEM](#)

WORK PACKAGE ORDER (WPO) AGREEMENT

between

eThekweni Municipality (“the Employer”)

and

[To be populated with Panel Contractor Names \(“the Contractor”\)](#)

(“the Parties”)

PANEL CONTRACT DETAILS

PANEL CONTRACT No: [1R-34224](#)

PANEL CONTRACT TITLE: [Rates-Based Panel Contract for Road Rehabilitation Construction Works to be used As-and-When-Required, for a period of 3 Years \(CIDB Grades 5 to 6CE\), on Category C and D roads only](#)

WORK PACKAGE ORDER DETAILS

WPO No.: [Choose an item.](#)

WPO TITLE: [Click or tap here to enter text.](#)

CONTRACTOR: [To be populated with Panel Contractor Names](#)

QUERIES

Queries can be addressed to:

The Employer’s Agent’s: [To be specified for each Work Package Order.](#)

Representative:

Document Version 01/07/2025

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C1.1A: FORM of AGREEMENT and ACCEPTANCE (Contractor)

The *Employer*, identified in the Acceptance of Agreement (Employer) signature block, and the *Contractor*, identified in the Acceptance of Agreement (Contractor) signature block, have entered into an *Agreement* (the Agreement) in respect of the following works:

Contract No: 1R-34224

Contract Title: Rates-Based Panel Contract for Road Rehabilitation Construction Works to be used As-and-When-Required, for a period of 3 Years (CIDB Grades 5 to 6CE), on Category C and D roads only

WPOA No.: Choose an item.

WPO TITLE: Click or tap here to enter text.

The **Contractor** has examined this **Work Package Order and Agreement**, and by signing the *Agreement* shall constitute a binding contract between the Parties.

By the representative of the *Contractor*, deemed to be duly authorized, signing this **Work Package Order and Agreement**, offers to perform all of the obligations and liabilities of the *Contractor* under the Contract and Work Package Order, including compliance with all its terms and conditions according to their true intent and meaning, for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data, and Work Package Order Specific Contract Data.

It must be noted that the Work Package Order is based on estimated quantities of work envisaged to be undertaken and is subject to re-measure as the work progresses. The Work Package Order total for this specific project may increase or decrease as the work progresses.

The estimated **Total of the Bill of Quantities**, inclusive of Value Added Tax is:

R.....	(In words
.....)	

The *Agreement* is accepted by the Employer by signing the Acceptance part of this **Work Package Order and Agreement** and returning one copy of the *Agreement* to the *Contractor*.

Contractor: **Contractor's Name** : To be populated with Panel Contractor Names

Signature (of person authorized to sign) :

Name (of signatory in capitals) :

Capacity (of Signatory) :

Date :

Telephone/ Cell phone :

Witness: **Signature** :

Date :

Name (in capitals) :

C1.1A: FORM of AGREEMENT and ACCEPTANCE (Employer)

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

The terms of the contract are contained in:

- Part C1.1A : Agreement and Acceptance of the Work Package Order (Contractor)
- Part C1.1A : Agreement and Acceptance of the Work Package Order (Employer)
- Part C1.2A : Project Specific Contract Data
- Part C2.2A : Bill of Quantities (Compiled using the priced bill of the *Contractor*)
- Part C3.1A : Work Package Order: Scope of Works
- Part C3.3.1A : Standard Specifications
- Part C3.3.2A : Amendments to the Standard Specifications
- Part C3.4A : Particular Specifications
- Part C4.A : Site Information
- : Returnable Documents

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

The *Contractor* shall within one week after receiving a completed copy of this *Agreement*, contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data/ Work Package Order Specific Contract Data at, or just after, the date this *Agreement* comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this *Agreement*.

Notwithstanding anything contained herein, this *Agreement* comes into effect on the date when the *Contractor* receives one fully completed original copy of the *Agreement*. The *Agreement* shall constitute a binding contract between the parties.

Employer: **Employer's Name** : eThekweni Municipality, Roads Provision Division

Signature (of person authorized to sign) :

Name (of signatory in capitals) :

Capacity (of Signatory) :

Date :

Telephone/ Cell phone :

Witness: **Signature** :

Date :

Name (in capitals) :

C1.2A: CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

Definition

Work Package Order and Agreement: the documentation issued to the Contractor, on an “As-and-when-required” basis, that specifies the Works and Conditions applicable to a specific Work Package Order. The Work Package Order and Agreement is to be read in conjunction with, and shall have precedence over, the originating contract’s Contract Data.

C1.2.1.1 GENERAL CONDITIONS OF CONTRACT

The Conditions of Contract are the **General Conditions of Contract for Construction Works (2015 3rd Edition)**, (**GCC 2015**) published by the South African Institution of Civil Engineering. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Tel: 011-805-5947, Fax: 011-805-5971, E-mail: civilinfo@saice.org.za).

The Contract Data (including variations and additions) shall amplify, modify, or supersede, the GCC 2015 to the extent specified below, and shall take precedence and shall govern.

Each item of data given below is cross-referenced to the clause in the GCC 2015 to which it mainly applies.

C1.2.2 CONTRACT DATA (applicable to Work Package Order)

C1.2.2.1 DATA TO BE PROVIDED BY THE EMPLOYER

1.1.1.13 The **Defects Liability Period:** **[Specify]**

1.1.1.14 The **time for achieving Practical Completion:** **[Specify]**

1.1.1.15 **The Employer** is the eThekweni Municipality as represented by:
Deputy Head: **ROADS PROVISION DIVISION**

1.1.1.16 The **name of the Employer’s Agent :** **[Specify]**

1.1.1.17 The name of the **Employer’s Agent’s Representative:**

Name : B.Naidoo

Tel : 031-322-8305

eMail : Brandon.Naidoo@durban.gov.za

1.2.1.2 The address of the **Employer’s Agent:** **[Specify]**

5.3.1 The **documentation required** before commencement with Works execution : **[Specify]**

- Health and Safety Plan (refer to Clause 4.3)
- Initial Programme (refer to Clause 5.6)
- Security (refer to Clause 6.2)
- Insurance (refer to Clause 8.6)
- CV(s) of Key Site Staff (refer to Clause 4.11.1)
- Sub-Contracting (CSCG) Implementation Plan (if applicable)
- If required to be registered, in terms of the Occupational Injuries and Diseases Act (130 of 1993 as amended), the Contractor is to supply proof of being registered and in good standing with the compensation fund by submitting a valid Letter of Good Standing from the Compensation Commissioner. Should the Contractor’s Letter of Good Standing be

expired, but an application for renewal has been made, the Contractor is to submit the expired Letter of Good Standing AND proof of an application for renewal.

- 5.3.2 The **time to submit the documentation:** [Specify]
- 5.13.1 The **penalty for delay** in failing to complete the Works: [Specify]
- 5.14.1 The **requirements for achieving Practical Completion:** [Specify]
- 5.16.3 The **latent defect liability** period: [Specify]
- 6.2.1 **Security (Performance Guarantee) :** [Specify]
- 6.10.3 **Retention Money: :** [Specify]
- 8.6.1.2 **SASRIA Coupon Policy** for Special Risks: [Specify]
- 8.6.1.3 The limit of indemnity for **liability insurance:** [Specify]
- 8.6.1.4 **Ground Support Insurance:** [Specify]
- 8.6.1.5 Furthermore, the insurance cover effected by the Contractor shall meet the following requirements:
 - Third Party Insurance (Public Liability) :** [Specify]
 - Principal's own surrounding Property Insurance:** [Specify]
 - Insurance of Works:** [Specify]

C1.2.2.2 DATA TO BE PROVIDED BY CONTRACTOR

1.1.1.9 The legal name of Contractor is:

.....

.....

.....

.....

1.2.1.2 The Physical address of the Contractor is:

.....

.....

.....

.....

The Postal address of the Contractor is:

.....

.....

.....

.....

The contact numbers of the Contractor are:

Telephone:

The E-Mail address of the Contractor is:

.....

C1.2.3 ADDITIONAL CONDITIONS OF CONTRACT

C1.2.3.10 CIDB BUILD PROGRAMME

Should a **Work Package Order** trigger the requirements of the CIDB B.U.I.L.D. Programme in terms of either:

- The Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts published in Gazette Notice No. 36190 of 25 February 2013, or
- The Standard for Developing Skills through Infrastructure Contracts published in Gazette Notice No. 48491 of 28 April 2023,

then the requirements will be specified in the **Work Package Order** documentation.

C1.2.3.11 [Add other if required]

C2.2A: BILL OF QUANTITIES

ESTIMATED WORK PACKAGE ORDER VALUE

The total estimated value of the Work Package Order, as calculated from the Bill of Quantities (attached), using the Contractor's Rates as submitted in the originating contract, is:

- **R x,xxx,xxx.xx (including VAT)**

The Bill of Quantities consists of the following Sections:

- INDEX to Bill of Quantities
 - SECTION 1: General Requirements and Provisions
 - SECTION 2: Contractors Site Establishment
 - SECTION 3: Accommodation of Traffic
 - SECTION 4: Loading and Hauling
 - SECTION 5: General Requirements and Trenching for Services
 - SECTION 6: Dry Services
 - SECTION 7: Drains
 - SECTION 8: Culverts
 - SECTION 9: Concrete Kerbing and Channeling, Asphalt Berms
 - SECTION 10: Existing Road Materials
 - SECTION 11: Commercial Materials
 - SECTION 12: Road Pavement Layers
 - SECTION 13: Stabilisation
 - SECTION 14: Reconstruction of Pavement Layers
 - SECTION 15: Segmental Block Paving Layers
 - SECTION 16: Prime Coat
 - SECTION 17: Cover Sprays, Fog Sprays and Rejuvenation Sprays
 - SECTION 18: Standard Crack Sealing
 - SECTION 19: Geosynthetic Crack Sealing
 - SECTION 20: Planning
 - SECTION 21: Patching and Edge Break Repair
 - SECTION 22: Asphalt Layers
 - SECTION 23: Surface Treatments
 - SECTION 24: Non-Structural Gabions
 - SECTION 25: Road Restraint Systems
 - SECTION 26: Road Signs
 - SECTION 27: Road Marking
 - SECTION 28: Landscaping and Planting Plants
 - SECTION 29: Chemical Control of Undesirable Vegetation
 - SECTION 30: Quality Assurance
- SUMMARY of Bill of Quantities

PART C3A: SCOPE OF WORK

C3.1A PROJECT DESCRIPTION AND SCOPE OF CONTRACT

C3.3A : STANDARD SPECIFICATIONS

C3.3.1A The Standard Specifications on which this contract is based are the **COTO Standard Specifications for Road and Bridge Works for South African Road Authorities: October 2020 edition** excluding **Chapter 9 (Asphalt Layers)** which has been replaced by the new specification as included in C3.4.3: Particular Specifications.

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

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

C3.3.2A AMENDMENTS TO THE STANDARD SPECIFICATIONS

INTRODUCTION

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

The clauses and payment items dealt with in this part of the Project Specifications are numbered 'PS' with a number corresponding to the relevant clause or item number in the COTO Standard Specifications.

New clauses and payment items not covered by clauses or items in the COTO Standard Specifications have been included here and have also been designated with the prefix 'PS'. Such clauses and items have been given a new number following upon the last number used in the particular section referred to in the COTO Standard Specifications.

CHAPTER 1: GENERAL

A1.1.2 DEFINITIONS

In addition to the **DEFINITIONS** in the originating contract, the following will also be applicable:

[Specify]

[.....]

PS1115 GENERAL CONDITIONS OF CONTRACT

In addition to the **GENERAL CONDITIONS OF CONTRACT** in the originating contract, the following will also be applicable:

[Specify]

[.....]

PS.C1.2 GENERAL REQUIREMENTS AND PROVISIONS

In addition to the **GENERAL REQUIREMENTS AND PROVISIONS** in the originating contract, the following will also be applicable:

[Specify]

[.....]

C3.4A: PARTICULAR SPECIFICATIONS

In addition to the Particular Specifications in the originating contract, the following will also be applicable:

C3.4.1 [Specify]

C3.4.2 [.....]

C3.5A: CONTRACT AND STANDARD DRAWINGS

C3.5.1 CONTRACT DRAWINGS / DETAILS

[Specify]

C4A: SITE INFORMATION

C4.1 LOCALITY PLAN

[Specify]

C4.2 CONDITIONS ON SITE

[Specify]

C4.3 TEST RESULTS

[Specify]

RETURNABLE DOCUMENTS

The following Returnable Schedules, Forms and Certificates are to be updated:

Compulsory Enterprise Questionnaire	30
Declaration of Municipal Fees.....	42
CSD Registration Report	45
CIDB Registration and Status	46

The following Forms are required before commencement with Works:

Acceptance of Undertaking in Terms of OHSA (85 Of 1993)	226
Appointment And Acceptance of Appointment as Responsible Person	227
OHSA: Construction Regulation 5(1)(k): Appointment: Principal Contractor.....	228

COMPULSORY ENTERPRISE QUESTIONNAIRE

Ref	Description	Tenderer to Complete	
1.1	Name of enterprise		
1.2	Name of enterprise's representative		
1.3	Email address of representative		
1.4	Contact numbers of representative	Tel:	Cell:
1.5	National Treasury Central Supplier Database Registration number	MAAA	
1.6	VAT registration number, if any:		
1.7	CIDB registration number, if any:		
1.8	Department of Labour: Registration number		

2.0 Particulars of sole proprietors and partners in partnerships (attach separate pages if more than 3 partners)			
	Full Name	Identity No.	Personal income tax No. *
2.1			
2.2			
2.3			

3.0 Particulars of companies and close corporations	
3.1	Company registration number, if applicable:
3.2	Close corporation number, if applicable:
3.3	Tax Reference number, if any:
3.4	South African Revenue Service: Tax Compliance Status PIN:

4.0	MBD 4, MBD 6, MBD 8, and MBD9 issued by National Treasury <u>must be completed for each tender and be included as a tender requirement.</u>
-----	--

Tenderers are to include, at the back of their tender submission, a printout of their SARS "Tax Compliance Status - PIN Issued" certificate.

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

- vi) authorizes the Employer to verify the Tenderer's tax clearance status from the South African Revenue Services that it is in order.
- vii) confirms that the 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.
- viii) 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.
- ix) 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.
- x) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

NAME (Block Capitals):

Date

SIGNATURE:

DECLARATION OF MUNICIPAL FEES

I, the undersigned, do hereby declare that the Municipal fees of:

.....
(full name of Company / Close Corporation / partnership / sole proprietary/Joint Venture)

(hereinafter referred to as the TENDERER) are, as at the date hereunder, fully paid or an Acknowledgement of Debt has been concluded with the Municipality to pay the said charges in instalments.

The following account details relate to property of the said TENDERER:

<u>Account</u>	<u>Account Number: to be completed by Tenderer</u>											
Consolidated Account												
Electricity												
Water												
Rates												
JSB Levies												
Other												

- If applicable, a copy of a recent (within the past 3 months) Metro Bill is to be provided.

I acknowledge that should the aforesaid Municipal charges fall into arrears, the Municipality may take such remedial action as is required, including termination of any contract, and any payments due to the Contractor by the Municipality shall be first set off against such arrears.

- Where the Tenderer's place of business or business interests are outside the jurisdiction of eThekweni municipality, a copy of the accounts/ agreements from the relevant municipality are to be provided.
- Where the Tenderer's Municipal Accounts are part of their lease agreement, then a copy of the agreement, or an official letter to that effect, is to be provided.
- Where a Tenderer's place of business or business interests are carried out from premises as part of any other agreement, then a copy of the agreement, or an official letter to that effect, is to be provided.

Tenderers are to include, at the back of their tender submission, copies of the above-mentioned account's, agreements signed with the municipality, lease agreements, or official letters.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

CSD REGISTRATION REPORT

The **Tenderer** is to be registered on the **National Treasury Central Supplier Database (CSD)** as a service provider.

CSD Registration Reports can be obtained from the National Treasury's CSD website at
<https://secure.csd.gov.za/Account/Login>.

The following is an example of the printout obtained from the above website.

Note: the printout will contain more than one page.

 CENTRAL SUPPLIER DATABASE FOR GOVERNMENT		Report Date: <input type="text"/>	
		Report Ran By: <input type="text"/>	
CSD REGISTRATION REPORT			
SUPPLIER IDENTIFICATION			
Supplier number	<input type="text"/>	Have Bank Account	<input type="text"/>
Is supplier active?	<input type="text"/>	Total annual turnover	<input type="text"/>
Supplier type	<input type="text"/>	Financial year start date	<input type="text"/>
Supplier sub-type	<input type="text"/>	Registration date	<input type="text"/>
Legal name	<input type="text"/>	Created by	<input type="text"/>
Trading name	<input type="text"/>	Created date	<input type="text"/>
Identification type	<input type="text"/>	Edit by	<input type="text"/>
Government breakdown	<input type="text"/>	Edit date	<input type="text"/>
Business status	<input type="text"/>	Restricted Supplier	<input type="text"/>
Country of origin	<input type="text"/>	Restriction Last Verification Date	<input type="text"/>
South African company/CC registration number	<input type="text"/>		

Tenderers are to include, at the back of their tender submission, a printout of their CSD Registration Report.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

CIDB REGISTRATION AND STATUS

The **Tenderer** is required to be registered, as “Active”, with the CIDB.

CIDB Registrations can be obtained from the CIDB website at:

<https://portal.cidb.org.za/RegisterOfContractors/>

The following is an example of the printout obtained from the above website using the provided “Print” button.

Note: the printout may contain more than one page.

cidb
Construction Industry Development Board
DEVELOPMENT THROUGH PARTNERSHIP

construction industry development board

Contractor Details

CRS Number	Enterprise Status
Contractor Name *	Type of Enterprise
Trading Name	Expiry Date
Current Contractor Grading Designation	
Contractor Grades	
Approved Grade	Class of Work Type
	Active From

Print

Tenderers are to include, at the back of their tender submission, a printout of their CIDB Registration and Status.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

**ACCEPTANCE OF UNDERTAKING IN TERMS OF THE
OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 of 1993)**

Definitions

a) "Council" means the **eTHEKWINI MUNICIPALITY**.

b) "Contractor" means:

Name of Company : To be populated with Panel Contractor Names

Address :

:

:

UNDERTAKING

- (1) The Contractor undertakes to comply with the requirements of the Occupational Health and Safety Act, Act No. 85 of 1993, the regulations promulgated thereunder and any reasonable, lawful direction of the Council thereunder.
- (2) The Council shall at all times have the right to summarily suspend the performance of the Contractor hereunder pending compliance by the Contractor with any requirement, regulation and/or direction referred to in (1) hereof.
- (3) The Council shall be entitled to set-off against any amount owed by the eThekwini Municipality to the Contractor hereunder any loss or damage suffered by it as a result of the suspension of the Contractor's performance in the circumstances envisaged under (2) hereof.
- (4) This undertaking shall constitute the written agreement between the parties as required in terms of section 37(2) of the Act referred to in (1) hereof.

Signed :

Signed :

Name :

Name :

Capacity :

AS WITNESS

Date :

**APPOINTMENT AND ACCEPTANCE OF APPOINTMENT AS RESPONSIBLE PERSON
IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 of 1993)**

APPOINTMENT

I, (name)

on behalf of (name of company)

do hereby appoint you (name)

as a Responsible Person in terms of the Occupational Health and Safety Act (Act 85 of 1993) to exercise general supervision over the works for which you are responsible that is to be carried out under the above mentioned contract.

Signed :

Capacity : Date :

ACCEPTANCE OF APPOINTMENT

I, (name)

hereby accept this appointment.

Signed :

Capacity : Date :

OCCUPATIONAL HEALTH AND SAFETY ACT 1993 (ACT NO. 85 OF 1993)
CONSTRUCTION REGULATION 5(1) (k): APPOINTMENT: PRINCIPAL CONTRACTOR

The Ethekwini Municipality has appointed **To be populated with Panel Contractor Names** as the principal contractor responsible to carry out the above-mentioned contract.

In terms of this appointment, you are responsible to ensure that all construction work herein referred to is carried out as follows:

1. You shall ensure that you meet all the requirements in terms of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and in particular the Construction Regulations as promulgated under Government Notice No. R.1010 of 07 July 2014, or as amended;
2. Ensure that all contractors appointed by yourself and reporting to you complies with the requirements as stipulated in the SAID Regulations;
3. Ensure that all the information and specifications necessary to ensure that the construction work is carried out in a safe manner are discussed and provided to all appointed contractors reporting to you;
4. Ensure that a health and safety file is kept and maintained and made readily available for inspection by any interested party, which file is to be handed over on the completion of the contract;
5. You shall further ensure that all records, registers and required documents are maintained and that all persons appointed to carry out tasks as stipulated by these regulations are competent and have the necessary resources to complete their tasks effectively in such a manner that health and safety is not in any manner compromised.
6. You shall submit a written weekly report on all shortfalls that have not been met in terms of these regulations.

This appointment is valid from **[Specify Date]** to the completion of the stipulated construction work.

.....
DEPUTY HEAD: ROADS PROVISION

.....
Date

Kindly confirm your acceptance of this appointment by completing the following:

I, (*name in block capitals*) understand the implications of the appointment as detailed above and confirm my acceptance thereof.

.....
Signature: **To be populated with Panel Contractor Names**

.....
Date

PART C4: SITE INFORMATION

C4.1 LOCALITY PLAN

To be specified in the Work Package Order Documentation.

C4.2 CONDITIONS ON SITE

To be specified in the Work Package Order Documentation.

C4.3 TEST RESULTS

To be specified in the Work Package Order Documentation.