



TECHNICAL SERVICES DEPARTMENT

Engineering Services Directorate

Development Engineering Division

PROCUREMENT DOCUMENT : Infrastructure (SAICE GCC)

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: 34652 – 3V

Contract Title: [Inner City Corridors of Excellence, Corridor 2 – Upgrade of Dr. Pixley Ka Seme Street from Samora Machel Street to O.R. Tambo Parade\(Ward 28\).](#)

Estimated CIBD: Grade: 7 Class: CE

CLARIFICATION MEETING AND QUERIES

Clarification Meeting: Compulsory Clarification Meeting

Meeting Location: The Intersection of Samora Machel Street and Dr. Pixley ka Seme Street,

Date, Time: on 24 March 2026 at 10H00. Questions and Answers from the clarification meeting will be consolidated and uploaded on the website on the 09 April 2026.

Queries can be addressed to: Name: Vuyo Adoons
The Employer's Agent's: Tel: 031 311 7838
Representative: email: vuyo.adoons@durban.gov.za

TENDER SUBMISSION

The Tender Offer (hard copy) shall be delivered to:

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

An **electronic submission** is also to be made via the eThekweni Municipality **JDE System (SSS Module)** (see Tender Data: C.2.13).

JDE Queries Contact: Lindo Dlamini: Tel: 031-322-7133 / 031-322-7153
Email: supplier.selfservice@durban.gov.za

Closing Date/ Time: Friday, 17 April 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 Director: Development Engineering Division

Date of Issue: 25/02/2026

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

INDEX to PROCUREMENT DOCUMENT

TENDER PART	Part T1	TENDERING PROCEDURES		Page
		T1.1 Tender Notice and Invitation to Tender		
		T1.1.1 Tender Notice and Invitation to Tender		2
		T1.1.2 Information Regarding the eThekwini JDE System		3
		T1.1.3 Notes to Tenderers		5
		T1.2 Tender Data		
		T1.2.1 Standard Conditions of Tender		7
		T1.2.2 Tender Data (<i>applicable to this tender</i>)		16
		T1.2.3 Additional Conditions of Tender		28
		Part T2	RETURNABLE DOCUMENTS	
T2.1 List of Returnable Documents			29	
T2.2 Returnable Schedules, Forms and Certificates			30	

CONTRACT PART	Part C1	AGREEMENT AND CONTRACT DATA		Page
		C1.1 Form of Offer and Acceptance		
		C1.1.1 Offer		52
		C1.1.2 Acceptance		53
		C1.1.3 Schedule of Deviations		54
		C1.2 Contract Data		
		C1.2.1 Standard Conditions of Contract.....		55
		C1.2.2 Contract Data		55
		C1.2.3 Additional Conditions of Contract		61
		Part C2	PRICING DATA	
	C2.1 Pricing Assumptions / Instructions.....			65
	C2.2 Bill of Quantities (separate page numbering system).....			67
	Part C3	SCOPE OF WORK		Page
		C3.1 Project Description and Scope of Contract.....		84
		C3.2 Project Specifications.....		89
		C3.3 Standard Specifications		108
		C3.4 Particular Specifications		167
		C3.5 Contract and Standard Drawings		168
		C3.6 Annexures.....		169
	Part C4	SITE INFORMATION		Page
C4.1 Locality Plan			170	
C4.2 Conditions on Site.....			171	
C4.3 Test Results			171	

PART T1: TENDERING PROCEDURES

T1.1.1: TENDER NOTICE AND INVITATION TO TENDER

Tenders are hereby invited for the works to upgrade and improve pedestrian safety within the Durban CBD by raising road intersections and pedestrian crossings.

Subject	Description	Tender Data
Employer	The Employer is the eThekweni Municipality as represented by: Deputy Director: Development Engineering Division	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	It is <u>estimated</u> that Tenderers should have a CIDB contractor grading designation of 7 CE (or higher).	C.2.1.2
Clarification Meeting	The Intersection of Samora Machel Street and Dr. Pixley ka Seme Street, on 24 March 2026 at 10H00. Questions and Answers from the clarification meeting will be consolidated and uploaded on the website on the 09 April 2026.	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: Vuyo Adoons Tel: 031 311 7838 email: vuyo.adoons@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 An electronic submission , via the eThekweni Municipality JDE System (SSS Module) , is also to be made. Refer to Part T1.1.2 and Tender Data: C.2.13. Notwithstanding the electronic submission , a tender offer will only be deemed valid if the “hard copy” submission has been made.	C.2.13
Closing Time	The Tender Offer (hard copy) shall be delivered, and the electronic submission completed, both on or before Friday, 17 April 2026 , at or before 11h00 .	C.2.15
Evaluation of Tender Offers	Either the 80/20 or 90/10 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

CIDB B.U.I.L.D. Programme Standards

CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts	Applicable
CIDB Standard for Developing Skills through Infrastructure Contracts	Applicable

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. The “hard copy” submission will be deemed to be the ruling version.

Bidders are responsible for resolving all access rights and submission queries on the JDE System before the tender closing date/ time, as stated in the **Tender Data: C.2.15**.

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>

T1.1.3: NOTES TO TENDERERS

These “Notes to Tenderers” are intended to provide guidance to Tenderers regarding tendering obligations and requirements.

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 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(b)(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)

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

Regulation 25(8)

9) It should be noted that 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"**.

B.U.I.L.D. Programme

10) 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.

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:
 - a someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - b 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
 - c 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.

C.2.5 Reference documents

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.

C.2.6 Acknowledge addenda

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.

C.2.7 Clarification meeting

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**.

C.2.8 Seek clarification

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**.

C.2.9 Insurance

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.

C.2.10 Pricing the tender offer

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**.

C.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

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**.

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.

C.2.11 Alterations to documents

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.

C.2.12 Alternative tender offers

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.

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.

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

C.2.13 Submitting a tender offer

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**.

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.

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.

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>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>the requirements of these conditions of tender apply equally to the extended deadline.</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 Tender offer validity</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.2.16.1 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.2.13.8 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.2.16.2 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.2.13.9 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.2.16.3 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.2.14 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.2.16.4 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>
<p>C.2.15 Closing time</p>	<p>C.2.17 Clarification of tender offer after submission</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>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.</p>
<p>C.2.15.2 Accept that, if the employer extends the closing time stated in the Tender Data for any reason,</p>	<p><i>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.</i></p>
	<p>C.2.18 Provide other material</p>
	<p>C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer,</p>

<p>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.</p> <p>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.</p>	<p>notify all tenderers who collected tender documents.</p>
<p>C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.</p>	<p>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:</p> <ul style="list-style-type: none"> 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.
<p>C.2.19 Inspections, tests and analysis</p> <p>Provide access during working hours to premises for inspections, tests and analysis as provided for in the <i>Tender Data</i>.</p>	<p>C.3.2 Issue Addenda</p> <p>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 <i>Tender Data</i>. If, as a result a tenderer applies for an extension to the closing time stated in the <i>Tender Data</i>, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.</p>
<p>C.2.20 Submit securities, bonds and policies</p> <p>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 <i>Contract Data</i>.</p>	<p>C.3.3 Return late tender offers</p> <p>Return tender offers received after the closing time stated in the <i>Tender Data</i>, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.</p>
<p>C.2.21 Check final draft</p> <p>Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.</p>	<p>C.3.4 Opening of tender submissions</p>
<p>C.2.22 Return of other tender documents</p> <p>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 <i>Tender Data</i>.</p>	<p>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 <i>Tender Data</i>. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.</p>
<p>C.2.23 Certificates</p> <p>Include in the tender submission or provide the employer with any certificates as stated in the <i>Tender Data</i>.</p>	
<p>C.3 The employer’s undertakings</p>	
<p>C.3.1 Respond to requests from the tenderer</p>	
<p>C.3.1.1 Unless otherwise stated in the <i>Tender Data</i>, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the <i>Tender Data</i> and</p>	

<p>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.</p>	<p>C.3.8 Test for responsiveness</p>
<p>C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.</p>	<p>C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:</p> <ul style="list-style-type: none"> • complies with the requirements of these Conditions of Tender, • has been properly and fully completed and signed, and • is responsive to the other requirements of the tender documents.
<p>C.3.5 Two-envelope system</p>	
<p>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.</p>	<p>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:</p> <ol style="list-style-type: none"> I. detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work, II. significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or III. affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.
<p>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.</p>	<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>
<p>C.3.6 Non-disclosure</p>	<p>C.3.9 Arithmetical errors, omissions and discrepancies</p>
<p>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.</p>	<p>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.</p>
<p>C.3.7 Grounds for rejection and disqualification</p>	<p>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:</p> <ul style="list-style-type: none"> • the gross misplacement of the decimal point in any unit rate; • omissions made in completing the pricing schedule or bills of quantities; or • arithmetic errors in: <ul style="list-style-type: none"> line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or the summation of the prices.

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.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- 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.
- 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.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

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:

1. is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;
2. 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;
3. has the legal capacity to enter into the contract;
4. 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;
5. complies with the legal requirements, if any, stated in the **Tender Data**; and
6. is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

C.3.14 Prepare contract documents

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:

- addenda issued during the tender period,
- inclusion of some of the returnable documents and
- other revisions agreed between the employer and the successful tenderer.

C.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

C.3.15 Complete adjudicator's contract

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

C.3.16 Registration of the award

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.

C.3.17 Provide copies of the contracts

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.

C.3.18 Provide written reasons for actions taken

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.

T1.2.2 TENDER DATA

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

C.1: GENERAL

C.1.1 The employer:

The Employer for this Contract is the **eThekwini Municipality** as represented by:
Deputy Director: **Development Engineering Division**

C.1.2 Tender documents:

The Tender Documents issued by the Employer comprise:

- 1) This procurement document.
- 2) The **Conditions of Contract** and associated **Contract Data** are identified in **Section C1.2.1**. Tenderers/ Contractors are required to obtain their own copies.
- 3) The **Specifications** identified in **Section C3.3.1**. Tenderers/ Contractors are required to obtain their own copies.
- 4) **Drawings**, if applicable, issued separately from this document, or bound in **Section C3.4** (as an Annexure).
- 5) In addition, 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).
 - SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
 - CIDB Standard for Developing Skills Through Infrastructure Contracts, published in Gazette Notice No. 48491 of 28 April 2023.
 - CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, published in Gazette Notice No. 36190 of 25 February 2013.
 - Any other eThekwini Policy documents referenced in the Tender Documents.

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>

C.1.4 Communication and employer's agent:

The Employer's Agent is:

Name: Collin Pillay
Tel: 031 311 7785
email: moganthran.pillay@durban.gov.za

The Employer's Agent's Representative is:

Name: Vuyo Adoons
Tel: 031 311 7838
email: vuyo.adoons@durban.gov.za

The Tenderer's contact details, as indicated on **Returnable Document T2.2.1: 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.1.6 Procurement procedures:

The following Sections of the **Standard Conditions of Tender** are not applicable to this tender:

- **C.1.6.2: Competitive negotiation procedure**, and
- **C.1.6.3: Proposal procedure using the two-stage system**.

C.2: TENDERER'S OBLIGATIONS

C.2.1 Eligibility:

Entities may only submit one (1) tender offer, either as a single tendering entity or as a partner of a joint venture. Should a tendering entity submit more than one (1) tender, **all** submissions by that tendering entity, including submissions where the entity is a partner of a joint venture, 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) In the event of a Compulsory Clarification Meeting:
 - i) the Tenderer fails to attend the Compulsory Clarification Meeting, or
 - ii) the Tenderer fails to have **Returnable Document T2.2.2: Certificate of Attendance at Clarification Meeting / Site Inspection** signed by the Employer's Agent or their representative.
- (b) At the time of tender closing, the Tenderer is not registered on the **National Treasury Central Supplier Database (CSD)** and the **eThekweni Municipality Supplier Portal**. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture. Tenderers are to reference **Returnable Document T2.2.1: Compulsory Enterprise Questionnaire** (section 1.5) and **Returnable Document T2.2.12: "CSD Registration Report"**.
- (c) In the case of Joint Venture (JV) submissions, two or more JV entities have common directors/ shareholders or common entities tendering for the same works.
- (d) The following documentation is to be completed in full, signed, and returned with the tender submission. **Failure to comply will result in the tender offer being deemed non-responsive:**
 - T2.2.1: Compulsory Enterprise Questionnaire.
 - T2.2.5: MBD 4: Declaration of Interest.
 - T2.2.6: MBD 5: Declaration for Procurement Above R10 Million.
 - T2.2.8: MBD 8: Declaration of Bidder's Past SCM Practices.
 - T2.2.9: MBD 9: Certificate of Independent Bid Determination.
 - T2.2.10: Declaration of Municipal Fees
- (e) The certificates listed in the **Tender Data: C.2.23: Certificates** are to be included with the tender submission. **Failure to comply will result in the tender offer being deemed non-responsive.**
 - T2.2.1: SARS Tax Compliance Status - PIN Issued (submitted with the Compulsory Enterprise Questionnaire).
 - T2.2.12: Central Supplier Database (CSD) Report.
 - T2.2.13: CIDB Registration and Status.

C.2.1.2 Eligibility: CIDB

Tenderers are to reference the provisions of **Tender Data: C.2.23: Certificates** and **Returnable Document: T2.2.13: Verification of 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 equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations, for a **CE** class of construction work, are eligible to have their tenders evaluated.

Joint ventures are eligible to submit tenders provided that:

- (a) Every member of the joint venture is registered (as “Active”) with the CIDB (at time of tender closing),
- (b) The lead partner has a contractor grading designation in the **CE** class of construction work and has a grading designation of not lower than one level below the required grading designation, and
- (c) The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations (2013) is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **CE** class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

C.2.1.3 Eligibility: Tenderer’s Experience

Tenderers are to complete and sign **Returnable Form T2.2.16: 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 Clause C.3.11.

- **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 this table.
- **Table 3: The Documentation/ Information** that is required to be included in this submission is specified on this table (which includes the Notes below the table).
- Tenderers may submit experience gained as **Sub-Contractors or Main Contractors**.
- **Guidance** on the completion of the **Experience Submission Form** is provided on the first page of **Returnable Form T2.2.16**.

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 **50**.

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

A minimum of 3 contracts, with works of a similar nature, within the past 10 years, each with a minimum value of 50% of the tender value submitted for this tender on the **Form of Offer (C1.1.1)**.

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:
 - new road construction
 - road widening/upgrades
 - intersection improvements
 - gravel to surfaced road upgrade
- Each project must consist of at least two of the following elements:
 - roadway layer-works
 - asphalt roadway surfacing
 - kerbing / channelling
 - sidewalk / walkway construction
 - stormwater drainage
 - traffic calming measures
 - dealing with underground services (watermains, sewers, electricity, communication infrastructure)
- Projects that will be excluded are:
 - road rehabilitation projects
 - the construction of gravel roads
 - road maintenance projects
 - bulk earthworks

Table 3: Documentation / Information Requirements

Note: an “X” in this table indicates that the associated documentation should be provided, if applicable.	Works as Sub-Contractor		Works as Main Contractor	
	Current Contracts	Completed Contracts	Current Contracts	Completed Contracts
Proof of Sub-Contract Agreement See Note 1.	X	X	-	-
Letter of Award OR Form of Offer & Acceptance See Note 2.	-	-	X	X
Most recent Payment Certificate (with Quantities summary), OR Invoice (with Quantities summary). See Note 3.	X	-	X	-
Final Payment Certificate (with Quantities summary), OR Invoice (with Quantities summary). See Note 4.	-	X	-	X
Completion Certificate. See Note 5.	-	-	-	X
Scope of Work See Note 6.	To be indicated on individual experience submission form			

NOTES (for Table 3)

1. 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.
2. Issued by the Client / Employer.
3. Proof of the most recent payment received from the Main Contractor or Client/ Employer, OR the most recent submitted INVOICE. Whichever of these documents is submitted, a summary breakdown of quantities is to accompany that document.
4. Proof of the final payment received from the Main Contractor or Client/ Employer, OR the most recent submitted INVOICE. Whichever of these documents is submitted, a summary breakdown of quantities is to accompany that document.
5. Issued by the Client/ Employer.
6. If executed as a Sub-Contractor, the Scope-of-Work should be indicative of only the works carried out by the Sub-Contractor, and not the overall Scope-of-Work of the main contract. If executed as a Main Contractor, the overall contract Scope-of-Work is to be indicated.

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 **eThekwini Municipality's Website**.”

C.2.6 Acknowledge addenda:

Add the following paragraphs:

“Addenda will be published on the **eThekwini Municipality website** as stated in **Tender Data: C.1.2**. 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:

The Intersection of Samora Machel Street and Dr. Pixley ka Seme Street, on 24 March 2026 at 10H00. Questions and Answers from the clarification meeting will be consolidated and uploaded on the website on the 09 April 2026.

In the event of a Compulsory Clarification Meeting, Tenderers must sign the attendance register in the name of the tendering entity. The Tenderer's representative(s) at the clarification meeting must be able to clearly convey the discussions at the meeting to the person(s) responsible for compiling the entity's tender offer.

C.2.10.2 Pricing the tender offer:

The following is to be noted in terms of Tenderers being **VAT Registered**, or being a **Non-VAT Vendor** (ie. not VAT registered).

If the Tenderer is **VAT registered**, the Tenderer's Rates in the Bill of Quantities (BoQ) are to exclude VAT. VAT is to be shown separately on the BoQ summary page, and on the Form of Offer (Part C1.1.1).

If the Tenderer is a **Non-VAT Vendor**, the Tenderer's Rates in the Bill of Quantities are to include VAT. VAT is not to be shown separately on the BoQ summary page, or on the Form of Offer (Part C1.1.1). VAT will not be added to, or deducted from, rates or prices submitted from **Non-VAT Vendors**. The tendered priced will be deemed to include all VAT, taxes, and any applicable excise duties.

Tenderers are to refer to Part C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS prior to pricing the tender offer.

C.2.12 Alternative tender offers:

No alternative tender offers will be considered.

C.2.13 Submitting a tender offer:

The signed Tender Offer ("hard copy") 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** (hard copy) 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 hard copy package are:

- Contract No. : **34652 – 3V**
- Contract Title : **Inner City Corridors of Excellence, Corridor 2 – Upgrade of Dr. Pixley Ka Seme Street from Samora Machel Street to O.R. Tambo Parade(Ward 28).**

Tender Offers are also to be **SUBMITTED ELECTRONICALLY** (uploaded) on the eThekweni Municipality **JDE System** (Supplier Self Service (SSS Module)). For information pertaining to the JDE System, Tenderers are referred to **Section T1.1.2**.

Notwithstanding the **electronic submission**, a tender offer will only be deemed valid if the "hard copy" submission has been made. The "hard copy" submission will be the governing submission.

The Tender documentation, issued by the eThekweni Municipality (refer to **Tender Data: C.1.2**), is to be printed in its entirety. Printing should be done on white A4 paper, with printing on only one side of the paper. (It is suggested that the Tender documentation is not stapled, or punched for filing, prior to scanning, as this could affect the scanning process.)

After completion and signature (using **BLACK INK**), the entire Tender document is to be scanned to a single PDF (**P**ortable **D**ocument **F**ormat) 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). Tenderers are responsible for resolving all access rights and submission queries on the JDE System before the tender closing date/ time (**Tender Data: C.2.15**).

Tender Offer delivery, and the electronic submission on the JDE System, are both to be completed on or before the closing date/ time stated in the **Tender Data: C.2.15**.

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.

Parts of each tender offer communicated on paper shall be submitted as an original.

C.2.15 Closing date and time:

The closing time is:

- **Date : Friday, 17 April 2026**
- **Time : 11h00**

The **delivery of the hard copy AND** the completion of the requirements on the **JDE System (SSS Module)** are 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 **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.

SARS Tax Compliance Status – PIN Issued

Reference is to be made to **Returnable Document T2.2.1: Compulsory Enterprise Questionnaire** which requires the “SARS Tax Compliance Status – PIN Issued” to be included with this returnable document.

Central Supplier Database (CSD)

Reference is to be made to **Returnable Document T2.2.12: 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 the report, as indicated at the top right of each page, should be on or after the date of advertising of this tender.

Separate **CSD Registration Reports** are required for each party to a Joint Venture.

CIDB Registration (if applicable)

Reference is to be made to **Returnable Document T2.2.13: 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.

Separate **CIDB Registration printouts** are required for each party to a Joint Venture.

The **Joint Venture Grading Designation Calculator** printout should be included when making a submission as a Joint Venture:

(<https://registers.cidb.org.za/PublicContractors/JVGradingDesignationCalc>)

B-BBEE Status Level of Contribution Certificate

Tenderers are referred to **Returnable Document T2.2.6: MBD 6.1: Preference Points Claim** for the B-BBEE Certificate requirements. Notwithstanding the completion of Returnable Document T2.2.6, 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**).

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 P&SCM Boardroom, 6th Floor, (Municipal 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**. Tenders not in compliance will be deemed non-responsive.

Functionality

FUNCTIONALITY will not be used in the evaluation of tenders.

Preference Point System

The procedure for the evaluation of responsive tenders is **PRICE AND PREFERENCE**, in accordance with the Employer's **SCM Policy: Section 52: Preferential Procurement**.

The **80/20** preference points system, for requirements with a Rand value of up to R50,000,000 (all applicable taxes included), will be applied. The Formula used to calculate the **Price Points (max. 80)** will be according to that specified below.

Preference Point System

The procedure for the evaluation of responsive tenders is **PRICE AND PREFERENCE**, in accordance with the Employer's **SCM Policy: Section 52: Preferential Procurement**.

The **80/20** preference points system, for requirements with a Rand value of up to R50,000,000 (all applicable taxes included), will be applied. The Formula used to calculate the **Price Points (max. 80)** will be according to that specified below.

The **90/10** preference points system, for requirements with a Rand value above R50,000,000 (all applicable taxes included), will be applied. The Formula used to calculate the **Price Points (max. 90)** will be according to that specified below.

It is unclear (at the time of advertising) which of the two preference point systems applies, either the **80/20 or 90/10** preference point system will apply, determined by the price offered by the lowest acceptable tender.

Price Points

The financial offer will be reduced to a comparative basis using the **Tender Assessment Schedule**.

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

$$\begin{array}{ccc} \mathbf{80/20 Procurement System} & \mathbf{or} & \mathbf{90/10 Procurement System} \\ P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) & & P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \end{array}$$

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

Preference Points

Reference is to be made to **Returnable Form: MBD 6.1: Preference Points Claim**.

The Basket of Preference Goals (SCM Policy Section 52.7)

The provisions of the SCM Policy: **Section 52.7: The Basket of Preference Goals** shall apply. Reference is to be made to **Returnable Form: MBD 6.1: Preference Points Claim**.

The Preference Points (either 20 or 10) will be derived from points claimed for **Specific Goals** as indicated in the table(s) below, according to the specified **Goal/ Category Weightings**.

• **Ownership Goal**

Goal Weighting: 60%

The tendering entity's **Percentage Ownership**, in terms of the **Ownership Category(s)** listed below, is to be used in the determination of the Tenderer's claim for **Preference Points**.

Ownership Categories	Criteria	80/20	90/10
Race: Black (w1)	Equals 0%	0	0
	Between 0% and 51%	2.0	1
	Greater or equal to 51% and less than 100%	4.0	2
	Equals 100%	7.0	3.5
Gender: Female (w2)	Equals 0%	0	0
	Between 0% and 51%	2.0	1.0
	Greater or equal to 51% and less than 100%	3.0	1.5
	Equals 100%	4.0	2.0
Disabilities (w3)	Equals 0%	0	0
	Between 0% and 51%	0.3	0.15
	Greater or equal to 51% and less than 100%	0.6	0.3
	Equals 100%	1.0	0.5
Maximum Ownership Goal Points:		12.0	6.0

The Weightings of the Ownership Categories will be:	
<ul style="list-style-type: none"> w1 = 60%, w2=35%, w3=5% (where: w1 + w2 + w3 = 100%) 	
Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the Tenderer's status)	
<ul style="list-style-type: none"> Companies and Intellectual Property Commission registration document (CIPC) CSD report. B-BBEE Certificate of the tendering entity. Consolidated BBBEE Certificate if the tendering entity is a Consortium, Joint Venture, or Trust (Issued by verification agency accredited by the South African Accreditation System). Agreement for a Consortium, Joint Venture, or Trust. 	

• **RDP Goal: The promotion of South African owned enterprises**

Goal Weighting: 20%

The tendering entity's **Address** (as stated on the National Treasury Central Supplier Database (CSD) or on the eThekweni Municipality Vendor Portal) is to be used in the determination of the Tenderer's claim for **Preference Points** for this Specific Goal.

Location	80/20	90/10
Not in South Africa	0	0
South Africa	2.0	1.0
Kwa Zulu Natal	3.0	1.5
eThekwini Municipality	4.0	2.0
Maximum Goal Points:	4.0	2.0

Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the Tenderer’s status)

- CSD report

• **RDP Goal: The promotion of enterprises located in a specific municipal area**

Goal Weighting: 20%

The tendering entity’s **Address** (as stated on the National Treasury Central Supplier Database (CSD) or on the eThekwini Municipality Vendor Portal) is to be used in the determination of the Tenderer’s claim for **Preference Points** for this Specific Goal. The **regions** and **zones** (or wards) within the eThekwini Municipality are as specified on the Part C4: “Site Information” of this procurement document.

Municipal Area	80/20	90/10
Not within eThekwini Municipality	0	0
Within eThekwini Municipality	2.0	1.
Within the specified region / Adjoining Wards	3.0	1.5
Within the specified zone / Project Ward(s)	4.0	2.0
Maximum Goal Points:	4.0	2.0

Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the Tenderer’s status)

- CSD Report

C.3.13 Acceptance of tender offer:

In addition to the requirements of **Tender Data: C.3.13** of the **Standard Conditions of Tender**, 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.
- If applicable, 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.

- (f) The Employer is reasonably satisfied that the Tenderer has in terms of the Construction Regulations (2014), issued in terms of the Occupational Health and Safety Act (1993), the **necessary competencies and resources to carry out the work safely.**

The Municipality does not bind itself to accept the lowest or any tender. It reserves the right to accept the whole or any part of a tender to place orders. Bidders shall not bind the Municipality to any minimum quantity per order. The successful Tenderer(s) shall be bound to provide any quantities stipulated in the specification.

The municipality has a firm intention to proceed with the work, subject to funding being identified. Notwithstanding the **Standard Conditions of Tender: C.1.1.3** of, the municipality reserves the right to award or not award the tender based on the municipalities available budget.

C.3.15 Complete adjudicator’s contract:

Refer to the **Conditions of Contract** and the **Contract Data**.

C.3.17 Copies of contract:

The number of paper copies of the signed contract to be provided by the Employer is **ONE (1)**. Tenderers are referred to the requirements as stated in the **Tender Data: C.2.13**.

T1.2.3 ADDITIONAL CONDITIONS OF TENDER

T1.2.3.1 Complaints and Objections (Appeals)

Reference is to be made to Clause 49 of the eThekwini 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:

EThekwini Metropolitan Municipality
First National Bank (FNB)
Account Number: 631-6574-6331
Reference Number: **Enter contract number**

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

Clause 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 Clause 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 Functionality Specification

Functionality Evaluation is not applicable to this tender.

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.

T2.1.2 Returnable Schedules, Forms and Certificates

Entity Specific

T2.2.1	Compulsory Enterprise Questionnaire	30
T2.2.2	Certificate of Attendance at Clarification Meeting/ Site Inspection	31
T2.2.3	MBD 4: Declaration of Interest	32
T2.2.4	MBD 5: Declaration for Procurement Above R10 Million (if applicable)	34
T2.2.5	Contracts Awarded by Organs of State in the past 5 years	35
T2.2.6	MBD 6.1: Preference Points Claim Form (SCM Policy Section 52.7)	36
T2.2.8	MBD 8: Declaration of Bidder's Past SCM Practices	38
T2.2.9	MBD 9: Certificate of Independent Bid Determination	40
T2.2.10	Declaration of Municipal Fees	42
T2.2.11	Contractor's Health and Safety Declaration	43
T2.2.12	CSD Registration Report.....	45
T2.2.13	CIDB Registration and Status	46
T2.2.14	Joint Venture Agreements (if applicable)	47
T2.2.15	Record of Addenda to Tender Documents.....	48
T2.2.16	Experience of Tenderer.....	49

Contract Part: The Tenderer is required to complete following forms:

C1.1.1	Form of Offer	52
C1.2.2.2	Data to be Provided by Contractor	55
C2.2	Bill of Quantities	65

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		
1.9	Department of Labour: Letter of Good Standing Certificate number		

2.0 Particulars of sole proprietors and partners in partnerships (attach separate pages if more than 4 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 must be completed for each tender and be included as a tender requirement.

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:

- 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 CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING / SITE INSPECTION

Reference is to be made to the **Tender Data: C.2.1.1(a) and C.2.7.**

This is to certify that:

(entity name):

of (address):

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

was represented by the person(s) named below at the Clarification Meeting for Contract **34652 – 3V** held for all Tenderers, the details of which are stated in the **Tender Data: C.2.7.**

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:

T2.2.3 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:

**T2.2.4 MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION
(ALL APPLICABLE TAXES INCLUDED)**

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

		Circle Applicable	
		YES	NO
1.0	Are you by law required to prepare annual financial statements for auditing?		
1.1	If YES, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.		
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?		
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?		
3.1	If YES, provide particulars. SEE Returnable Document T2.2.5		
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?		
4.1	If YES, provide particulars.		

If required by 1.1 above, Tenderers are to include, at the back of their tender submission, a printout of their audited annual financial statements.

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 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**.

1.0 GENERAL CONDITIONS

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

6.2 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 Mico 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.

6.3 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 points is allocated for price on the following basis:

80/20 Procurement System	or	90/10 Procurement System
$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$		$Ps = 90 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$

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

4.0 POINTS ALLOCATED FOR THE BASKET OF PREFERENCE GOALS

4.1 Preference points may be claimed for the **Specific Goals** stated in the **Tender Data: C.3.11**.

For the purposes of this tender, the Tenderer may claim points based on the goal(s) stated in the table below, as supported by proof/ documentation specified in the Tender Data.

As the points system to be used is unknown at tender stage, Tenderer’s are to claim points in both tables below.

80/20 Preference Points System The Specific Goals to be allocated points in terms of this tender:	Maximum Number of points ALLOCATED	Tenderer’s Number of points CLAIMED
Ownership Goal: Race (black)	7	
Ownership Goal: Gender (female)	4	
Ownership Goal: Disabilities	1	
RDP Goal: The promotion of South African owned enterprises.	4	
RDP Goal: The promotion of enterprises located in a specific municipal area.	4	
Total CLAIMED Points (maximum 20)	20	

OR

90/10 Preference Points System The Specific Goals to be allocated points in terms of this tender:	Maximum Number of points ALLOCATED	Tenderer’s Number of points CLAIMED
Ownership Goal: Race (black)	3.5	
Ownership Goal: Gender (female)	2.0	
Ownership Goal: Disabilities	0.5	
RDP Goal: The promotion of South African owned enterprises.	2	
RDP Goal: The promotion of enterprises located in a specific municipal area.	2	
Total CLAIMED Points (maximum 10)	10	

5.0 REMIDIES FOR THE SUBMISSION OF FALSE INFORMATION

5.1 The remedies for the submission of false information regarding claims for specific goals are stated in the **SCM Policy: Section 52.9**.

Tenderers are to include, at the back of their tender submission, the required proof/ documentation in support of their Preference Goal claims.

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:

T2.2.8 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:
 - a) abused the municipal entity’s supply chain management system or committed any improper conduct in relation to such system.
 - b) been convicted for fraud or corruption during the past five years.
 - c) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years.
 - d) 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.

Circle Applicable	
YES	NO

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.

YES	NO
-----	----

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?

YES	NO
-----	----

4.3.1 If YES, provide particulars.

.....

.....

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

YES	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:

.....

.....

T2.2.9 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:
 - a. take all reasonable steps to prevent such abuse;
 - b. 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
 - c. 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 **34652 – 3V**
Inner City Corridors of Excellence, Corridor 2 – Upgrade of Dr. Pixley Ka Seme Street from Samora Machel Street to O.R. Tambo Parade(Ward 28).

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:

T2.2.10 DECLARATION OF MUNICIPAL FEES

Reference is to be made to the **Tender Data: C.2.23 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, 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: _____

T2.2.11 CONTRACTOR'S HEALTH AND SAFETY DECLARATION

Reference is to be made to Clauses C.2.1(e) and C.2.23 of the Tender Data.

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)**:

Circle Applicable	
Yes	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:

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 OHS 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 OHS 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 OHS 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:

T2.2.12 CSD REGISTRATION REPORT

Reference is to be made to **Tender Data: C.2.1.1(b) 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.

The date of obtaining the printout is to be printed on the printout.

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.

SUPPLIER IDENTIFICATION			
Supplier number		Have Bank Account	
Is supplier active?		Total annual turnover	
Supplier type		Financial year start date	
Supplier sub-type		Registration date	
Legal name		Created by	
Trading name		Created date	
Identification type		Edit by	
Government breakdown		Edit date	
Business status		Restricted Supplier	
Country of origin		Restriction Last Verification Date	
South African company/CC registration number			

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: _____

T2.2.13 CIDB REGISTRATION AND STATUS

Reference is to be made to the **Tender Data: C.2.1.2, 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), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

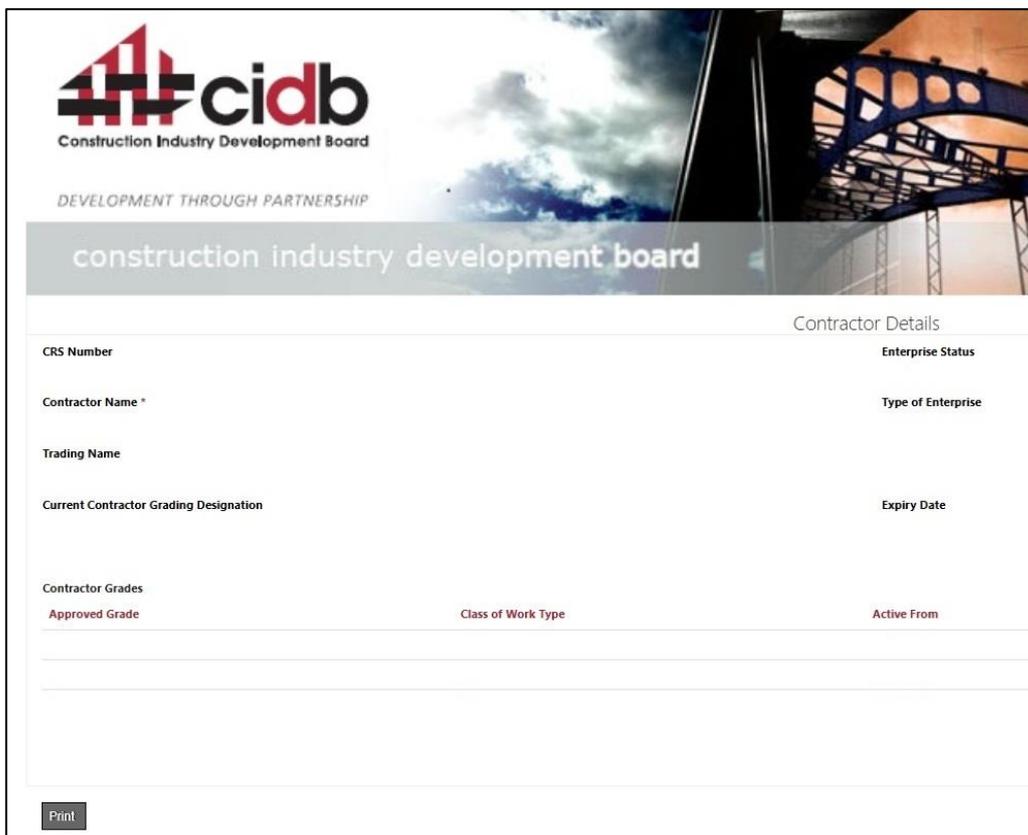
The required class of construction work is specified in the **Tender Data: C.2.1.2.**

The date of obtaining the printout is to be printed on the printout.

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.



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: _____

T2.2.14 JOINT VENTURES AGREEMENTS

If this tender submission is to be made by an established Joint Venture, the Joint Venture Agreements and Power of Attorney Agreements are to be attached here.

Should the Joint Venture, at the time of submission, not yet be formalised, this form is to be completed in full and signed by all parties to the proposed Joint Venture.

The Lead Partner of the Joint Venture is to sign the **Form of Offer** in Section **C1.1.1**.

INTENT TO FORM A JOINT VENTURE

Should our submission for CONTRACT: **34652 – 3V** be successful, a Joint Venture will be established by the parties as listed below, as an unincorporated association, with the purposes of securing and executing the Contract, for the benefit of the Members.

Proposed Joint Venture

Joint Venture Title (name):

Represented by (name): Tel:

Lead Partner/ Member 1

Entity Name:

Ownership Interest in JV %: CSD Registration:

CIDB #:

Represented by (name): _____ Signature: _____

Partner/ Member 2

Entity Name:

Ownership Interest in JV %: CSD Registration:

CIDB #:

Represented by (name): _____ Signature: _____

Partner/ Member 3

Entity Name:

Ownership Interest in JV %: CSD Registration:

CIDB #:

Represented by (name): _____ Signature: _____

Note: All requirements for Joint Ventures, as stated elsewhere in this procurement document, must be complied with in full.

T2.2.15 RECORD OF ADDENDA TO TENDER DOCUMENTS

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

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		

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: _____

T2.2.16 ELIGIBILITY: EXPERIENCE OF TENDERER

Reference is to be made to the **Tender Data: C.2.1.3.**

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.**

- 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 is specified on **Table 3: “Documentation/ Information Requirements”** (which includes the Notes below the table).
- Tenderers may submit experience gained as **Sub-Contractors or 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.

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 or Main Contractor** (if experience was gained as a sub-contractor) is required to be provided.
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 or Main Contractor 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** - Where works are still in progress, provide the value of works that have been completed as detailed on the most recent payment to the Contractor / Sub-Contractor. If the works are complete, provide the Final Value of the sub-contract or Final Contract Price.

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.
Select any elements that were included in the contract.

Joint Ventures

In the event of a Joint Venture (JV) tendering for this contract, experience gained by the separate entities making up the JV may be used as experience, provided that the experience complies with the requirements, as stipulated in **Table 1**, and that the required documentation/ information is provided.

(T2.2.16 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 (completed and signed)	
	Proof of Sub-Contract Agreement (if experience was gained as a sub-contractor)	
	Letter of Award OR Form of Offer & Acceptance	
	Most recent Payment Certificate (with Quantities summary), OR most recent INVOICE (with Quantities summary)	
	Final Payment Certificate (with Quantities summary), OR most recent INVOICE (with Quantities summary)	
	Completion Certificate	
SUBMISSION #2	Experience Submission Form (completed and signed)	
	Proof of Sub-Contract Agreement (if experience was gained as a sub-contractor)	
	Letter of Award OR Form of Offer & Acceptance	
	Most recent Payment Certificate (with Quantities summary), OR most recent INVOICE (with Quantities summary)	
	Final Payment Certificate (with Quantities summary), OR most recent INVOICE (with Quantities summary)	
	Completion Certificate	
SUBMISSION #3	Experience Submission Form (completed and signed)	
	Proof of Sub-Contract Agreement (if experience was gained as a sub-contractor)	
	Letter of Award OR Form of Offer & Acceptance	
	Most recent Payment Certificate (with Quantities summary), OR most recent INVOICE (with Quantities summary)	
	Final Payment Certificate (with Quantities summary), OR most recent INVOICE (with Quantities summary)	
	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.**

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

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

Client/ Employer OR Main Contractor’s Details 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:																			
Enter the Client/ Employer’s details, OR, if the works was done as a sub-contractor, enter the Main Contractor’s Details																				

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) OR Sub-Contract Value:	R	Final Contract Price OR Final Value of Sub-Contract:												R						

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

Which Works Type(s) best describe the project?		new road construction	
road widening/upgrades		intersection improvements	
gravel to surfaced road upgrades		access road upgrades	
major parking areas		interim roadways to informal settlements	
OTHER: provide a description of the type of project			

Which Works Element(s) were included in the project?		bulk earthworks	
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 50.

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: _____

PART C1: AGREEMENT AND CONTRACT DATA

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.1.1: OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

Contract No: **3V - 34652**

Contract Title: **Inner City Corridors of Excellence, Corridor 2 – Upgrade of Dr. Pixley Ka Seme Street from Samora Machel Street to O.R. Tambo Parade(Ward 28).**

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

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

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

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, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

For the Tenderer:

* **Name of Tenderer** (*organisation*) :

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

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

Capacity (*of Signatory*) :

Address :

:

Telephone :

Witness:

Signature : **Date** :

Name (*in capitals*) : :

Notes:

* **Indicates what information is mandatory.**

Failure to complete the mandatory information and sign this form will invalidate the tender.

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*) :

C1.2: CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

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**, from the date of the Certificate of Completion, is **1 Year**.

1.1.1.14 The **time for achieving Practical Completion**, from the Commencement Date is **21 Months**. The period as stated in 5.3.2, and the 28 days referred to in 5.3.3, are included in the above time for achieving Practical Completion. The special non-working days as stated in 5.8.1 are also included from the above time for achieving Practical Completion.

1.1.1.15 The Employer is the eThekweni Municipality as represented by:
Deputy Director: **Development Engineering Division**

1.2.1.2 The address of the Employer is:
Physical: Engineering Services, 166 KE Masinga Road, DURBAN, 4001
Postal: Engineering Services, P.O Box 680, DURBAN, 4000
Telephone: 031-311-7770 (t)
Fax: N/A
E-Mail: Lorato.Piki@durban.gov.za

1.1.1.16 The **name of the Employer's Agent** is: Collin Pillay

1.2.1.2 The address of the Employer' Agent is:
Physical: Engineering Services, 166 KE Masinga Road, DURBAN, 4001
Postal: Engineering Services, P.O Box 680, DURBAN, 4000
Telephone: 031-311-7785 (t)
Fax: N/A
E-Mail: moganthran.pillay@durban.gov.za

1.1.1.26 The **Pricing Strategy** is by **Re-measurement** 1.1.1.26 The **Pricing Strategy** is by **Re-measurement Contract**.

3.2.3 The Employer's Agent shall obtain the **specific approval of the Employer** before executing any of his functions or duties according to the following Clauses of the General Conditions of Contract:

- 6.3: Council approval in order to authorise any expenditure in excess of the Tender Sum plus **15%** contingencies.

4.11.1 To carry out and complete the works, the Contractor shall employ a competent Site Agent and Foreman as part of the key staff. It is a requirement for the Contractor's Site Agent and Foreman to each have a minimum of 5 years relevant experience including experience on projects of a similar nature. The CV's of the Site Agent and the Foreman should be submitted to the Employer's Agent's Representative for acceptance by the Division (reference is made to Cl.5.3.1 of the Contract Data).

Note:

- i) "similar nature" implies projects that were of a value of at least 70% of this tender's value, and had a comparable Scope of Work in terms of technical requirements and operations.
- ii) "experience" implies experience on projects of a similar nature.
- iii) "accredited degree / diploma" implies a minimum 3-year qualification within the built environment, from a registered University or Institute of Technology.

5.3.1 The **documentation required** before commencement with Works execution are:

- 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)
- 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 is **28 Days**.

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 work force and plant 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 is **R 3200** (per Day).

5.14.1 The **requirements for achieving Practical Completion** will be determined by the Employer’s Agent (in consultation with the Contractor) and recorded in the minutes of the first Site Meeting / Handover Meeting. (Refer to 1.1.1.24 for a generic definition.) The requirements are to be regularly reviewed with respect to any variations to the Contract.

5.16.3 The **latent defect liability** period is **10 Years**.

6.2.1 **Security (Performance Guarantee):** Delete the word “selected” and replace it with “stated”.

The liability of the Performance Guarantee shall be as per the following table:

Value of Contract (incl. VAT)	Performance Guarantee Required
Less than or equal to R 1m	Nil
Greater than R 1m and less than or equal to R 10m	5% of the Contract Sum
Greater than R 10m	10% of the Contract Sum

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 = 0.28
• “P” is the • “Contractor’s Equipment Index”	P0151.1	Table 4	Plant and Equipment	b = 0.28
• “M” is the “Materials Index”	P0151.1	Table 6	Civil Engineering Material (excluding bitumen)	c = 0.38
• “F” is the “Fuel Index”	P0142.1	Table 1	Coke, petroleum, chemical, rubber and plastic products; Coal and petroleum products; Diesel	d = 0.06

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 **80%**.

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

6.10.3 **Retention Money:** Delete the word “selected”.

The percentage retention on the amounts due to the Contractor is 10%.

The limit of “retention money” is 5% of the Contract Sum.

Should the Contract Price exceed the Contract Sum then the limit of “retention money” is 5% of the Contract Price.

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 to be issued in joint names of Council and Contractor for the full value of the works (including VAT).

8.6.1.3 The limit of indemnity for **liability insurance: R 10,00,000.00.**

8.6.1.4 **Ground Support Insurance:**

- Minimum amount for any one occurrence, unlimited as to the number of occurrences, against any claim for damages or loss caused by vibration and / or removal of lateral support: **R 2,000,000.00.**
- Maximum first excess: **R 10,000.00.**

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

Third Party Insurance (Public Liability)

- Minimum amount for any one occurrence, unlimited as to the number of occurrences, for the period of the contract, inclusive of the maintenance period: **R 5,000,000.00**.
- Consequential loss to be covered by policy: **Yes / No**
- Liability section of policy to be extended to cover blasting: **Nil**
- Maximum excess per claim or series of claims arising out of any one occurrence: **R 20,000.00**.

Principal’s own surrounding Property Insurance

- Minimum amount for any one occurrence unlimited as to the number of occurrences against any claim for damage which may occur to the Council’s own surrounding property: **R 5,000,000.00**.
- Maximum first excess: **R 20,000.00**.

Insurance of Works

- Minimum amount for additional removal of debris (no damage): **R 100,000.00**.
- Minimum amount for temporary storage of materials off site, excluding Contractor’s own premises: **R 250,000.00**.
- Minimum amount for transit of materials to site: **R 100,000.00**.

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 ad-hoc adjudication, the determination of disputes shall be by arbitration.

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:

Fax:

The E-Mail address of the Contractor is:

.....

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:
 - Assisting in all respects relating to the recruitment of local labour.
 - Acting as a source of information for the community and councillors on issues related to the contract.
 - Keeping the Contractor advised on community issues and issues pertaining to local security.
 - Assisting in setting up any meetings or negotiations with affected parties.
 - Keeping a written record of any labour or community issue that may arise.
 - Any other duties that may be required by the Contractor.

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.

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 labour force is made up of local labour. For the purposes of this contract, “Local labour” will be deemed to be any **persons who reside within Ward 28**. The contractor will be required to provide proof of authenticity of local labour. Signed confirmation by the appointed CLO will suffice for this.

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

It is a condition of contract that the contractor must allow for a minimum of **30%** of the contract value (excluding PC Sum items and Fixed Cost allowances) to be subcontracted to contractors who are **>51%** owned by Black People. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

The penalty for not achieving the specified Sub-Contracting will be 0.5% of the contract value (excluding PC Sum items and Fixed Cost allowances) for every 1% of Sub-Contracting not achieved.

Notwithstanding the requirements of clause C1.2.3.7, the compliance with the 5% requirement for Indirect Targeting for Enterprise Development shall be included in the 30% minimum requirement of this clause.

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 this contract. 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

<p>Category A: Employed as Local Labour for this contract only Category B: Temporarily employed by the Contractor Category C: Permanently employed by the Contractor</p>

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.

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 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 (sum) under Part AA: Preliminaries, of the Bill of Quantities.

C1.2.3.5 PERFORMANCE MONITORING OF SERVICE PROVIDERS

[For contract awards over R10m] 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.

Key Performance Indicators (KPIs) are specified in the C3: Scope of Works, or will be discussed and agreed with the Contractor before commencement of the contract.

C1.2.3.6 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.

C1.2.3.7 CIDB B.U.I.L.D. PROGRAMME

a) CIDB Skills Standard

It will be a condition of contract that the Contractor shall, in the performance of the contract, achieve the **Contract Skills Development Goal (CSDG)** established in the below referenced standard:

- CIDB Standard for Developing Skills Through Infrastructure Contracts, published in Gazette Notice No. 48491 of 28 April 2023.

b) CIDB Indirect Targeting Standard

It will be a condition of contract that the Contractor shall, in the performance of the contract, achieve the **Sub-contracting** relating to the engagement of targeted enterprises as established in the below referenced standard:

- CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, published in Gazette Notice No. 36190 of 25 February 2013.

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 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 Clause 8 of each of the Standard Engineering Specifications 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 Engineering Specification.

Clause 8 of each Standard Engineering 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 Engineering Specification, or the Scope of the works, conflict with the Bill of Quantities, the requirements of the Standard Engineering 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 AA: Preliminaries
- Part AB: General Specifications
- Part AH: Occupational Health and Safety

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.

C2.2: BILL OF QUANTITIES

The Bill of Quantities follows and comprises of 19 pages.

PART C3: SCOPE OF WORK

	<u>PAGE</u>
C3.1 PROJECT DESCRIPTION AND SCOPE OF CONTRACT	84
C3.2 PROJECT SPECIFICATIONS	89
PS.1 Programme, Method of Work, and Accommodation of Traffic	
PS.2 Services	
PS.3 Watermains	
PS.4 Sewers	
PS.5 Stormwater	
PS.6 Electrical Plant	
PS.7 Telkom S.A. Limited / Neotel Plant	
PS.8 CCTV Plant	
PS.9 Management of the Environment	
PS.10 Occupational Health and Safety	
PS.11 Site Security	
PS.12 Performance Monitoring of Service Provider	
PS.13 CIDB Build Programme	
PS.14 Approved Tip	
PS.15 Survey	
PS.16 Testing	
PS.17 Quality Assurance	
PS.18 Management and Disposal of Water	
PS.19 Windblown Material	
PS.20 Water	
C3.3 STANDARD SPECIFICATIONS	108
C3.3.1 Listing of the Standard Specifications	
C3.3.2 Amendments to the Standard Specifications	
C3.4 PARTICULAR SPECIFICATIONS	167
C3.4.1 Part AH - OHS 1993 Safety Specification (2014)	
C3.4.2 Standard Environmental Management Plan for Civil Engineering Construction Works	
C3.5 CONTRACT AND STANDARD DRAWINGS	168
C3.5.1 Contract Drawings / Details	
C3.5.2 Standard Drawings	
C3.6 ANNEXURES	169

C3.1: PROJECT DESCRIPTION AND SCOPE OF CONTRACT

C3.1.1 Description of Works

Type of Works	Description of Works
Site Clearance	General clearance including the removal of trees, concrete slabs, concrete paver, clay pavers, kerb, and channel and fillet roadways including milling of the existing roadway.
Roads	<p>Widening or narrowing of the existing road by up to 500 mm with the associated road layer works. This includes:</p> <ul style="list-style-type: none"> • Excavation of material to spoil, rip and recompact of formation to 95% MOD AASHTO • 300 mm G7 compacted to 95% MOD AASHTO • 150 mm C3 cement stabilised layer • 110 mm Asphalt Base Layer • 50 mm Asphalt Wearing Course. <p>Raised road intersections and pedestrian crossings by milling of 20mm asphalt and replacing/raising by 120 mm asphalt wearing course.</p> <p>Construction of a new kerb line, including vehicular and pedestrian scoops with transition kerbs.</p> <p>Roadmaking including setting out and pre-marking for both roadways and parking.</p>
Paved Areas	<p>Construction of a new paved areas with both concrete and clay pavers, approximate total area = 20 000 m².</p> <p>Construction of new planter boxes.</p>
Drainage	<p>Alterations and extension of the existing stormwater drainage network. This will include:</p> <ul style="list-style-type: none"> • Laying of New pipes approximately 220 meters • Alteration of existing Manhole and catchpits. • Construction of new manholes and catchpits.
Services	<p>The installation of new service ducts across the roadway to accommodate internal and external service providers infrastructure.</p> <p>The raising or lowering of existing manholes and valve chambers for all affected infrastructure.</p>
Protection Works	<ul style="list-style-type: none"> • Erection of bollards.

C3.1.2 Works Flow Requirements

C3.1.2.1 Co-operation with other Service Providers

All interaction with various departments such as Water and Sanitation, Electricity, Telkom and Neotel are to run parallel to construction works should any of the above services be affected. All communications with both internal and external service providers are to be arranged through the Employer's Agent's Representative.

C3.1.2.2 Approvals

The contractor is to obtain approval in writing from the Employer's Agent prior to commencing any works that deviate from drawings and/or specifications, this includes all work that is in excess of the billed quantities in the BOQ.

C3.1.2.3 Quality Management

The successful tenderer shall implement specific quality control measures to ensure that the works are constructed as per the standard specifications, project specifications and construction drawings. The Quality Management Plan shall be attached to returnable form "Construction Approach, Methodology and Quality Control" and reference shall be made to site control testing, construction supervision, structured monitoring mechanisms such as checklists and other measures/processes that the tenderer deems to be significant. The Employer's Agent or his representative will continually assess the quality of works on site and instructions will be provided for non-compliance accordingly, these instructions are to be implemented timeously and diligently.

C3.1.2.4 Format of Communications

Each instruction, certificate, submission, proposal, record, acceptance, notification, reply and other communication which this contract requires is to be communicated in a form which can be read, copied and recorded. Writing is to be in the language of this contract, i.e. English.

The contractor is to only receive instructions from the Employer's Agent or the Employer's Agent's Representative. Should the contractor undertake any works from an instruction given to him by a third party, he will be solely responsible for any impacts thereof, including costs.

C3.1.2.5 Management Meetings

There will be a minimum of one (1) progress meeting per month. The contractor is to ensure that the Contracts Manager and Site Agent are present during this meeting. The CLO will be required to attend all progress meetings. This is over and above all meetings that the Contractor may deem necessary for the execution of the works.

C3.1.2.6 Daily Records

It is a requirement that a site diary with all relevant details be maintained on site. This diary must be signed off and agreed to by both the Employer's Agent or the Employer's Agent Representative and Contractor, on a daily basis. These site diaries must accompany the Contractor's monthly payment certificates and payment shall not be processed should this not be complied to.

A suitable format of the site diary will be made available to the successful tenderer, by the Client.

C3.1.2.7 Payment Certificates

Payment certificates will be compiled by the Employers Agent or his/her representative and the contractor from the 20th of each month. The completed payment certificates are to reach the Client by the 25th of each month. The following items are to accompany each payment certificate, but shall not be limited to the list below:

- a. Tax Invoice – Tax invoice number, Contract number, Project Description, correctly dated, to include both the Client's and contractor's Tax numbers, physical and postal addresses and to be addressed to Deputy Head, Development Engineering.
- b. Fully completed FTE's (Client to provide format)
- c. Summary of supporting agreed measurements for period of claim – to be signed off by both the Contractor and Employer's Agent or the Employer's Agent Representative.
- d. Updated cashflow reflecting Anticipated and Current expenditure together with mitigation measures if required.
- e. CLO monthly payslip or Proof of payment signed by the CLO.

C3.1.2.8 Property provided for the Contractor's use

Where possible, the Employer and/or Employer's Agent or his/her representative will initially identify a proposed location for the Contractor's camp site and storage yard, however, the responsibility lies on the Contractor to liaise with the CLO/Ward Councillor in order to locate a suitable site that is available for occupation. Strict adherence to PS.AB.2 "Site Facilities" is to be maintained at all times and the Contractor will be responsible for any transgressions in this regard.

C3.1.3 Description of Site and Access

The site is located in the Durban CBD along Dr. Pixley Ka Seme Street from the intersection of Samora Machel Street to the intersection of O.R. Tambo Parade. Refer C4.1" Locality Plan" for locality maps.

C3.1.4 Nature of Ground and Subsoil Conditions

The existing terrain of the site is a full developed Central Business District of Durban with extensive vehicular and pedestrian traffic. There are also numerous underground services that traverse the entire site. The water table is very high in the area because of the site's proximity to the ocean shoreline and the harbour.

C3.1.5 CIDB B.U.I.L.D. Programme (Employer's objectives)

Standard for Indirect Targeting for Enterprise Development

It will be a Condition of Contract that the Contractor shall, in the performance of the contract, achieve the **Sub-contracting** relating to the engagement of targeted enterprises as established in the below referenced standard:

- CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, published in Gazette Notice No. 36190 of 25 February 2013.
- a) The objective of the project is to provide for a minimum sub-contracting of 5% of the total project value and to develop targeted enterprises by the main or lead partner contractors.
 - b) The successful contractor shall:
 1. Subcontract a minimum of 5% of the total project value to targeted enterprises;

2. Develop the targeted enterprise/s in two development areas as specified in the Standard, and agreed by both the main contractor and the targeted enterprise/s;
 3. Perform needs analysis on the targeted enterprise to identify developmental goals;
 4. Provide internal mentorship support to improve the targeted enterprise/s performance;
 5. Develop a project specific enterprise development plan to improve the targeted enterprise/s performance in the identified developmental areas;
 6. Monitor and report the progress of the agreed development areas with the targeted enterprise/s; and
 7. Submit a project completion report to the Employer’s representative for each targeted enterprise.
- c) The development of the Targeted Enterprise shall be guided by the **CIDB Competence Standard for Contractors** (Gazette No. 41237, 10 November 2017). The table below outlines the minimum recognised qualifications to which development of targeted enterprises must be undertaken by the main contractor.

CIDB Grade	Minimum NQF Level	Recognised Qualifications
Business Management		
5 & 6	5	<ul style="list-style-type: none"> • National Occupational Qualification in Business Management NQF 5
2 to 4	2	<ul style="list-style-type: none"> • National Certificate: Construction Contracting NQF 2
Building and Construction Works Management		
5 & 6	5	<ul style="list-style-type: none"> • National Certificate: Management of Building Construction Processes NQF 5
2 to 4	3	<ul style="list-style-type: none"> • NCV 4: Civil Engineering and Building Construction, or • National Certificate: Supervision of Construction Processes
Civil Engineering Construction Works		
5 & 6	5	<ul style="list-style-type: none"> • National Certificate: Management of Civil Engineering Processes NQF 5, or • National Diploma: Civil Engineering and Building Diploma
2 to 4	3	<ul style="list-style-type: none"> • NCV 4: Civil Engineering and Building Construction or • National Certificate: Supervision of Construction Processes, or • Further Education and Training Certificate: Supervision of Construction Processes

C3.1.5.1. Payment for compliance with all the requirements of the CIDB B.U.I.L.D Programme shall be as follows

- a) **Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts**

A PC Sum. Item is included in the P&Gs of the Bill of Quantities.

- b) **Standard for Developing Skills through Infrastructure Contracts**

A Sum. item is included in the P&Gs of the Bill of Quantities

C3.2: PROJECT SPECIFICATION

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.

C3.2.1 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 and SANS 1921-2**.

PS.1.1 Preliminary Programme

The Contractor shall include with his tender a preliminary programme on the prescribed form (**see T2.2: Preliminary Programme**) to be completed by all Tenderers. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

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

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse **weather conditions** (**refer to Clause 5.12.2.2**) and special non-working days (**refer to Clause 5.1.1.1**) as specified in the in the Contract Data.

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

It is essential that the construction programme, which shall conform in all respects to **Clause 5.6 of the General Conditions of Contract**, be furnished within the time stated in the Contract Data (**refer to Clause 5.3.1/2**).

Time, cost, and quality are to be considered the essence of this Contract. Accordingly, it shall be deemed that the contract program, detailing each activity/item and duration is submitted by **the Contractor**, and approved by the Employer's Agent, shall be the basis of monitoring progress on the project. The contractual programme shall be prepared electronically using **"Microsoft Projects"** and both hard copies as well as an electronic copies, of the base programme as well as every revision, shall be submitted to the Employer's Agent. The program is to include construction activities/items, long lead procurement schedules, information required schedules, sub-contractor appointment schedules, and information schedules, etc., as applicable.

The preliminary programme to be submitted with the tender shall be used as basis for this programme. The programme shall include, but not be limited to, the following details:

A work breakdown structure that identifies all major activities.

- ii) Scheduled start and end dates for each activity.
- iii) Linkages between activities that clearly identify sequence, floats and critical path.
- iv) Intended working hours and resource allocations (plant and labour).
- v) Monthly cashflow projections.
- vi) Key dates in respect of information required or due delivery.

The Process to be adopted in finalizing the program shall be as follows:

- The Employer's Agent shall evaluate the program to ensure the completeness of the work programmed, accuracy of the durations, relevance and completeness of the logic, dates on which information is requested, times allowed for long lead items and subcontractor appointment dates.
- Any shortcomings and/or further requirements shall be clearly indicated in a program assessment report and issued to the contractor for correction and additions.
- The contractor shall affect amendments to the program based on above and the final contract program shall be signed-off by the Project Team and shall be deemed to be the baseline / target contract program. This program, and the progress therein, (and relevant authorised revisions), will form the basis of adjudication of all clauses relating to time as specified in the contract document. The submission of the program and the dates therein shall not excuse or relieve the contractor or its parties from completing the project within the timeframe specified in the contract documents.
- The contractor shall update the contract/project program at any time when the works, that have been developed, do not correspond to that originally programmed, after discussion and approval of the Employer's Agent. It shall be deemed that the contractor has, when updating or developing the program, consulted with the relevant project team members as well as the relevant nominated subcontractors regarding procurement period, specifications and sequencing required.

The process to be adopted for the Progress Review of the Programme shall be as follows:

- The Employer's Agent and the Contractor shall conduct a progress review on a predetermined monthly interval. The progress for each activity/item of the works shall be evaluated, agreed upon and recorded in a monthly report.
- The progress review shall incorporate procurement of long lead items, information release, allocation of resources and sub-contractor appointments etc.
- The following information shall be recorded for each activity/item:
 - Actual start dates of the planned activities/items (if started),
 - Actual finish dates of the planned activity/item (if completed),
 - Estimated remaining durations of the planned activities/items that are still in progress,
 - Suspend and resume dates if a planned activity/item is suspended, and
 - Log text of delays incurred to planned activities/items.
- The Contractor shall highlight any slippage of construction activities on the critical path and provide a report, which shall describe the cause of slippage and actions intended to be taken to recover the activity, to the initially scheduled Contract Programme finish date, within the shortest reasonable time. No compensation for recovery shall be provided unless a

valid claim has been approved by the Employer's Agent.

The result after the progress update must be closely evaluated and the relevance and accuracy of the results must be checked. Slippage of construction activities that have no effect on the critical path shall be so recorded and must be highlighted as soon as they become critical.

The Contractor is not permitted to make any changes to the Contract Program without written agreement by the Employer's Agent.

No separate payment mechanism has been made available for the provision of the programme in the required format and as specified above. The contractor shall include all costs related to the provision of the programme in the existing payment items under Preliminary and General.

It is stressed that the existing road network in the CBD carries very heavy traffic flow, especially during the morning and evening peak traffic periods. Since the works will take place on the existing travelled way, for the construction of the central median and for road widenings, it is anticipated that vehicular traffic will affect the pace of construction works to a great degree. Safety will be a prime concern for the duration of the contract and adequate safety measures will need to be implemented. The Contractor must give due consideration to the abovementioned construction environment in the programming of the works, especially with respect to production rates and resource allocation, in order to achieve practical completion within the duration specified.

The Tenderer's attention is drawn to the fact that a number of factors will affect the programming of and method of carrying out the works. The more important of these are:

- (1) In general, at least four (4) weeks notice is required by all the Municipal Departmental organisations as well as the relevant private service organisations before the respective work teams can be deployed on site.
- (2) It should be anticipated that roadworks may be delayed/disrupted in areas where Major Services are being relocated by the various service organisations. **The Contractor is to consider allowing a total period of six (6) months for the relocation of services. Please note that the abovementioned period is a summation of discontinuous periods that total to six (6) months.**
- (3) Attention must be paid to the accommodation of pedestrians and vehicular traffic during the entire period of the contract. Adequately safe pedestrian accommodation must be provided for the full duration of the contract.
- (4) During the entire construction period a continuous flow traffic must be always maintained and only one lane may be shut or disrupted at a time.
- (5) Temporary road closures will be restricted between the following hours; 08h30 to 16h00 and reinstatement to full width must be complete within these specified times on the same day.
- (6) The Contractor shall allow for all signs, barricades, delineators, and temporary road markings under the applicable items in the Bill of Quantities.

- (7) The main existing services affected by the proposed roadworks include underground cables and lighting of eThekweni Electricity, Water Mains, Wastewater Mains, CCTV cables and Optic Fibre cables belonging to Telkom SA Limited, Neotel and Dark Fibre Africa (DFA). Tenderers shall refer to Clause PS.3, PS.4, PS.5, PS.6, PS.7 and PS.8 when considering the programme of works and include for the proving of these services in programming of construction works.
- (8) Vehicular access to private property is to be maintained. Interruption of access must be minimal and, in some cases, discussed ahead of time with the affected property owner/occupant.
- (9) Some activities might need to be undertaken outside of normal working hours due to restrictions during normal working hours. In addition, major works to intersection such as milling and new asphalt placing which require closure of intersections MUST be undertaken at night (between the hours of 18h00 and 04h00) to prevent major disruption to vehicular/traffic movement. The contractor shall provide adequate (minimum 2 days) notice to the Employer's Agent when these items are to be undertaken. The working area must be cleared of all obstructions/material and made good for free movement of traffic by 04h00 at all times.

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 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.

PS.1.3.3 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.

The Traffic Safety Officer shall be approved by the Employer's Agent. If found incompetent, the Employer's Agent shall instruct the Contractor to remove and replace him with a competent person.

The traffic safety officer shall always have a direct line of communication with the police and traffic officers responsible for the area within limits of the contract. The traffic safety officer shall, be responsible for removal of broken-down vehicles and obstructions off the roadway and implementing actions requested by the traffic authorities with regards to the work to be carried out, ensure that the temporary traffic lights are functioning properly, ensure that all obstructions related to the Contractor's activities are removed before nightfall every day and ensure that the road is safe for night traffic.

In the event of an accident the traffic officer shall record, in a written report, the details of the accident, record the position of all temporary road signs, barricades, delineators, flagmen and any other devices used for traffic accommodation. In addition, the report shall include a neat dimensional sketch, photographs, identifiable permanent features, and any other relevant information.

PS.1.3.4 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 this, and no claims for extra payment due to inconvenience as a result of the modus operandi will be considered.

PS.1.3.5 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.1.3.6 Temporary Reinstatement

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 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.1.3.7 Penalties

(a) Fixed penalty per occurrence

A fixed penalty of **R2 000.00 per occurrence** shall be deducted for each occurrence of non-compliance with any of the requirements of SANS 1921-2: 2004.

(b) Time related penalty

In addition to the above, a time-related penalty, **of R500.00 per hour**, shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within reasonable time after the Employer's Agent has given an instruction to this effect. The Employer's Agent's instruction shall state the time in hours for re-instatement of the defects. Should the contractor fail to adhere to the instruction, the time-related penalty will be applied from the time the instruction was given.

Furthermore, in the event of non-compliance with any of the requirements of SANS 1921-2: 2004, or the Employer's Agents (or his Agents) instructions, the Contractor shall indemnify the Employer and the Employer's Agent against any liability, claim, loss, expense, or legal proceedings whatsoever, arising from any traffic related incident on site.

PS.2 SERVICES

This Clause is to be read in conjunction with the provisions and obligations as contained in SANS 1921-1 and SANS 1921-2.

PS.2.1 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.

PS.2.2 Proving Underground Services

This clause must be read in conjunction with Clause DB.5.1.2, the requirements of which shall be extended to cover all earthworks operations whether for trenching or bulk earthworks, in the vicinity of underground services.

It is stressed that 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 work covered by Clause DB.8.19.

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 DB.8.19 - Proving Existing Services.

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.

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. 311-1111 during office hours, or by contacting Control on Telephone No. 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 two 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.

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.2.3 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. Generally, 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.

Any delay resulting from the removal, relocation, realignment, replacement and protection of a service shall not be the subject of a potential claim, unless the contractor can demonstrate that every effort has been made to timeously request and/or apply for the removal, relocation and/or protection of the said service and that no other work is available to be undertaken by the resources programmed to undertake the portion of work in question. In addition, the contractor shall be deemed to have employed the services of the service provider as a subcontractor for purposes of removing and/or replacing the relevant service.

Services 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 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.2.4 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

No watermains will be installed or constructed under this Contract. However, the Tenderer's attention is drawn to the following points regarding the existing watermains. Extreme care must be taken/exercised when using vibratory compaction equipment in the vicinity of watermains since excessive vibration may easily damage the watermains/water pipelines and cause leaks to occur.

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 clause PH.6.5. 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 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 watermain or electrical cables be damaged during construction of the road.

PS.4 SEWERS

The contractor is to note that existing sewer pipes traverse the site of the works and special care is to be taken in close proximity to these mains and connections. Any existing mains and connections shall be proved on site by the contractor prior to any construction work commencing in the vicinity of the sewers. In some sections alterations to existing manholes are required depending on the widening and or reduction of the road width, existing manholes may have to be lowered or raised.

PS.4.1 Blockage of Foul Water Sewers

The Contractor shall be responsible for ensuring that 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

The stormwater drainage to be installed under this contract is to be integrated into the existing drainage system. Thus, some modification / changes to existing manholes and catchpits will be required. It is anticipated that existing stormwater manholes/catchpits will have to be raised or lowered, and in certain cases repositioned, to suit realigned road and sidewalk levels. The contractor shall take due care when working in the vicinity of any existing stormwater infrastructure.

PS.5.1 Blockage Stormwater Sewers

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

Various types of electrical cables including high voltage, low voltage, street lighting and domestic connection cables are affected by the contract. The laying, relocation and jointing of all cables will be carried out by eThekwini 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 eThekwini Electricity throughout the contract.

PS.6.2 Street Lighting

The existing lighting will be removed in stages and replaced in the centre median / intersection corners. Relocation will take place during this contract and be executed by eThekwini Electricity or their agents. It is a requirement that the street lighting be operational at all times.

PS.6.3 MV / LV Cables

The actual cable work associated with this relocation and / or replacement of these cables will be carried out by eThekwini Electricity and it is stressed that the **two-week** period referred to in Clause PS.2 is the minimum period required to enable eThekwini 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 who will arrange for the work to be carried out at no cost to the Contractor.

PS.7 TELKOM S.A. LIMITED / NEOTEL PLANT AND OTHER TELECOMMUNICATIONS SERVICES

No work to Telkom / Neotel and other telecommunications companies Plant is envisaged, but the tenderers attention is drawn to the fact that Telkom / Neotel/ Dark Fibre Africa copper cables and fibre optic cables are existing in the contract area. Areas where existing Telkom, Neotel and Dark Fibre Africa fibre lines will be affected, are shown on the services drawings. These need to be proved and documented first, in order to avoid damage during excavations.

PS.8 CCTV PLANT

No work to CCTV Plant is envisaged, but the Tenderers attention is drawn to the fact that CCTV cables and fibre optic cables are existing in the contract area. Extreme care must therefore be exercised when working near these services once their approximate positions become known. The Contractor is advised to timeously advise the relevant stakeholders if any services are encountered prior to proceeding with any works.

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.

PS.9.2 Fires

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

PS.9.3 Environmental Management Plan

In addition to the above, all requirements according to the Environmental Management Plan as detailed in **C3.4: Particular Specifications**, will be adhered to.

PS.10 OCCUPATIONAL HEALTH AND SAFETY

PS.10.1 General Statement

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

- (1) The contract area is a busy area of the CBD with exceptionally high volumes of both pedestrian and vehicular traffic.
- (2) The contractor should note the proximity to the EThekweni City Hall and the Durban International Convention Centre (I.C.C) to the project area, there are high ranking officials and dignitaries who frequent these two facilities who have high security protocols, these should be taken into consideration
- (3) The area is also bounded by commercial, residential and office properties, there's also several community areas.
- (4) The works will require machinery and plant of varying size.
- (5) 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 site area is fully surfaced and hence run-off accumulates rapidly, this run-off from the site will have to be well managed (see PS.4.1 and PS.5.1).
- (7) Dust, including cement dust will need to be controlled.
- (8) The excavation of trenches for existing and new services will be required at numerous locations on site.

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 OHS Act 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 Health and Safety Specifications and Plans to be submitted at tender stage

PS.10.2.1 Employer's Health and Safety Specification

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

PS.10.2.2 Tenderer's Health and Safety Plan

At tender stage only a brief overview of the Tenderer's perception on the safety requirements for

this contract will be adequate. This will be attached to T2.2: Contractor's Health and Safety Plan.

Only the successful Tenderer shall submit a separate 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 Cost of compliance with the OHS Act 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.10.4 APPLICATION FOR WORK PERMIT

Based on the magnitude and duration of the project, a work permit application is required from the Department of Labour prior to commencement of works.

The unit of measure shall be Provisional Sum (PC Sum) for payment of the cost of the application.

PS.11 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 security rate in the rate area, together with the allowable 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, Part AB of the Bill of Quantities**.

PS.12 PERFORMANCE MONITORING OF SERVICE PROVIDERS

The performance of service providers that have been selected to provide assistance in the provision of a municipal service, otherwise than in circumstances where Chapter 8 of the Municipal Systems Act applies, is required, by Section 116 of the Municipal Finance Management Act, to be monitored and reported on (see Cl.53 of the SCM Policy).

Appropriate key performance indicators (KPIs) for the contract must be set by the Municipality as a yardstick for measuring performance.

The following KPIs will be applicable to this contract:

- (a) Sub-Contracting
- (b) Time – Achieving monthly targets as per approved programme
- (c) Conformance to Instructions issued
- (d) Implementation of the Environmental Management Programme (EMPr)
- (e) Day to day project completion ratio – Actual versus baseline
- (f) Adherence to specification
- (g) Quality of workmanship
- (h) Implementation of the Health and Safety Plan
- (i) Addressing of Labourer concerns.

PS.13 CIDB BUILD PROGRAMME

a) CIDB Skills Standard

It will be a condition of contract that the Contractor shall, in the performance of the contract, achieve the **Contract Skills Development Goal** (CSDG) established in the below referenced standard:

- CIDB Standard for Developing Skills Through Infrastructure Contracts, published in Gazette Notice No. 48491 of 28 April 2023.

b) CIDB Indirect Targeting Standard

It will be a condition of contract that the Contractor shall, in the performance of the contract, achieve the **Sub-Contracting** relating to the engagement of targeted enterprises as established in the below referenced standard:

- CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, published in Gazette Notice No. 36190 of 25 February 2013.

PS.14 APPROVED TIP

The approved tip is the Municipal refuse dump/Landfill at Bisasar Road, Springfield. The Contractor will be permitted to dump material at this site, free of charge, provided the following requirements are fulfilled :-

- The Contractor shall obtain a completed authorisation form from the Development Engineering Department for this purpose, beforehand.
- Each truck from the contract site shall present a completed authorisation form upon arrival at the tip site.
- The Contractor shall obtain a new authorisation form for each day he intends to dispose of material at the tip site.

Should the Contractor fail to comply with these requirements, charges to dump material may be levied, for which the Contractor shall not be reimbursed.

The Contractor may only use other land as a tip site with the PRIOR WRITTEN PERMISSION of both the landowner and the Employer's Agent. The Contractor may be required to provide proof as to where material is being dumped. Weigh bridge slips will be the only acceptable proof in the case of the Municipal tip site.

PS.15 SURVEY

The Contractor's attention is drawn to the requirements of the relevant clause of the General Conditions of Contract, and he shall also comply with all legal provisions regarding surveying and setting out work.

PS.15.1 Existing Manhole and valve co-ordination

The tenderer shall note the sum item 1.AB.7 in the Bill of Quantities covering the survey co-ordination of all existing manholes, catchpits, valves and cable duct markers within the contract area. The Contractor shall provide the Employer's Agent with a list of co-ordinates and scaled plan of these services within two (2) weeks of commencement of the works, A base plan will be provided by this Department for this purpose.

PS.15.2 Submission of As-Built data

The tenderer shall note the sum items 1.AB. 20 covering the submission of As Built data.

The contractor shall provide the Employer's Agent with :-

- A list of surveyed co-ordinates of cable duct markers and water main valve covers constructed or modified during the course of the contract.
- A list of surveyed invert and cover levels and co-ordinates of all catchpits and manholes constructed or modified during the course of the contract.
- As Built records of materials testing results.

General:

- Notwithstanding the above, the Contractor is to supply to the Employer's Agent all other information necessary, to clearly indicate changes/modifications to the construction drawings during the contract period that will be required by the Employer's Agent so that they can produce the "For Record" drawings.
- Each surveyed point shall be suitably coded and identifiable by the Employer's Agent and shall be supplied on a Flash Drive, in an Ascii file with the following format:-
- Code[SPACE]XCo-ordinate[SPACE]YCoordinate[SPACE]Level[SPACE]Description
- The above information is to be given to an accuracy of three decimal places and is to be surveyed by a suitably qualified person.

In addition to the above, all 'as built' information must be provided on a drawing in AutoCAD and DXF format together with a hard (paper) copy format showing the modifications undertaken during the contract period.

Suitable checks on the accuracy of the information provided may be carried out by the Employer's Agent and should any of the information provided be found to be inaccurate or untrue, the Employer reserves the right to withhold payment or to employ the services of an engineering surveyor to re-survey all the works listed above, at the Contractor's expense. The Employer shall request a minimum of three quotations from three independent engineering surveyors of his choice, and the lowest quotation will be appointed, and the cost thereof will be deducted from monies owing to the Contractor.

The 'as built' Data shall be the responsibility of the Contractor and shall be paid for under the item 'Survey for, and preparation of, "as built" drawings' in the Contractors Preliminary and General Costs.

The unit of measurement shall be the (sum) and the rate shall include for all components outlined in this specification. The Contractor must also forward to the Employer's Agent, a material "as built" spreadsheet in a format that is acceptable by the Client.

The completion certificate shall not be issued unless the above information in totality, has been forwarded to the Employer's Agent.

PS.15.3 Method of Setting out

The Contractor shall submit to the Employer's Agent the method of setting-out he proposes to employ and shall ensure that setting out is based on control points provided on the construction drawings or as instructed by the Employer's Agent. To ensure beyond all doubt that the complex elements of the road, such as traffic intersections, structures and other important features are located truly and correctly, the Contractor shall check all setting-out by a second method approved by the Employer's Agent and the City Engineers Survey Department. The Employer's Agent may at any time request the Contractor to submit proof that his setting out has been satisfactorily checked.

PS.15.4 Accuracy

Accurate control of line and level shall be provided by the Contractor at all stages of construction. In respect of the road itself, control shall be at 20 m intervals or closer intervals as may be directed, by the Employer's Agent, for horizontal and vertical curves. Wherever necessary, but particularly on completion of the fill and the base, the Contractor shall re-establish stake-line pegs at sufficiently close intervals to determine accurately the position of the edges of the base, surfacing and especially kerbing, guardrails and other road elements permanently visible.

The setting-out of work will not be measured and paid for directly, and compensation for the work involved in setting out will be deemed to be included in the rates tendered for all items in the Bill of Quantities for which setting out is required.

PS.15.5 Additional Survey as Requested by the Employer's Agent

The Employer's Agent may request from the Contractor, additional survey and layout plan in areas where more site information is required. The unit of measure for this activity as per item 1.AB. 8 and 9 shall be PC. Sum for cost of the services of a Land Surveyor and profit percentage respectively.

PS.16 TESTING

The tenderer's attention is drawn to clause AB.21 which states that the Contractor is responsible for site control testing to confirm that all related work is in accordance with the specification.

The Contractor shall arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the Employer's Agent. The Contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the Employer's Agent.

The cost of this testing is covered under item 1.AB.21 in the Bill of Quantities. If the results of the control testing are in order the Employer's Agent may authorize the Contractor to proceed without further testing.

Acceptance testing is undertaken by the Development Engineering Department at the discretion of the Employer's Agent after reviewing the results of the control testing. Should the acceptance testing indicate that the work is not to specification, the cost of any retests by the Employer's Agent shall be to the Contractor's account. The cost has been determined at **R1000** per set of tests and shall be deducted from any payments due to the Contractor.

PS.17 QUALITY ASSURANCE (QA) (*Read with SANS 1921 – 1: 2004 clause 4.4*)

The Contractor will be solely responsible for the production of work that complies with the relevant specifications and drawings 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 contractor shall implement a quality assurance system in accordance with ISO 9002 and appoint a quality manager who shall ensure that members of the contractor's staff comply with the requirements of the quality system. The quality system and the methods used to implement it shall be described in a quality plan produced by the contractor.

The quality manager shall be resident on site full time. No construction activities shall take place on site before the Employer's Agent approves the quality plan.

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

The Employer's Agent will audit the Contractor's 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 foreman or surveyor.

The contractor shall make allowance in the rate/s tendered under Preliminary and General to ensure the implementation and maintenance of an appropriate QA system, for the full duration of the contract.

PS.18 MANAGEMENT AND DISPOSAL OF WATER (*Read with SANS 1921 - 1 : 2004 clause 4.6*)

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

PS.19 WINDBLOWN MATERIAL

The Contractor shall ensure that dust or other windblown material from the site does not affect adjoining properties and shall make allowance in the rate/s tendered under Preliminary and General for sweeping, sprinkling with water, application of chemical dust suppressants providing dust fences or other measures necessary to fulfill this requirement.

PS.20 WATER

The Contractor himself shall make arrangements for procuring, transporting, storing, distributing and applying the water needed for construction of the Works and for all Site Offices and Workshops. He shall undertake all arrangements including pipelines and meters for connecting to local,

municipal, water mains and the provision of pumps, storage tanks and water conveyance where necessary, payment for all fees and water charges and the satisfactory removal of all such arrangements and provisions on completion of the Works.

Water for use on site other than municipal, shall be subject to the required permit from the Department of Water Affairs (DWA). This shall include such extraction points as rivers, streams, and boreholes.

No direct payment will be made for providing water, the cost of which shall be included in the rates tendered for the various items of work for which water is needed. Only clean water, free from undesirable concentrations of deleterious salts and other materials, shall be used. Water supplied to all the offices, laboratories and houses shall be wholesome and potable to the satisfaction of the Medical Officers in the area. All water sources used shall be approved by the Employer's Agent. In discharging and diverting water the Contractor shall avoid flooding or damaging other Works or services, causing erosion and polluting water courses.

PS.21 ARIAL PHOTOGRAPHS

A provisional sum has been included under section 1 Part AB of the Bill of Quantities for photographs to be taken at the discretion of the Employer's Agent.

The contractor is required to supply one framed coloured A2 photograph of the entire completed project of photographic Paper upon practical completion of the entire project and a full set of digital copies of all arial photographs taken.

PS.22 PROTECTION OF DWELLINGS, BUSSINESES AND PRIVATE PROPERTY.

The contractor will be required to work within restricted areas in between existing private properties. All necessary precautions must be taken by the contractor to prevent damage to the properties and their surroundings. Should the contractor cause any damage due to the construction of the works, the cost to rectify the damage shall be to the contractor. The contractor must also carry the appropriate insurances to cover loss of private property and lives.

- Special attention is drawn to the use of compaction/vibrating equipment. The contractor must take extra precaution to ensure that the use of construction equipment does not cause direct or indirect damage to structures/buildings in the vicinity of the construction area. Any damages caused shall be to the contractor's account.
- The cost to rectify any errors/damages to structures/buildings, which occurs as a result of negligence of any sort by the contractor or any of his sub-contractors or any persons in the employ of the contractor will be the responsibility of the contractor.
- The contractor shall take all necessary precautions not to damage any plant, structure or property be that of the eThekweni Municipality or that of any third party for the duration of the contract. The contractor shall be held liable for any damages he causes, wilfully or un-wilfully, either that of eThekweni Municipality or that of any other third party.

PS.23 ARIAL PHOTOGRAPHS

The contractor is responsible for the removal of all vegetation, rubble, excavated material and all other unwanted material associated with works to spoil at an approved tip site. The contractor's attention is drawn to the fact that charges are levied at the Municipal Refuse Tip for the dumping of certain types of waste material. The contractor shall therefore make due allowance in the relevant rates for removal to tip to include for such charges.

The unit of measurement shall be Ton (t).

C3.3: STANDARD SPECIFICATIONS

C3.3.1 The Specifications on which this contract is based are the eThekiwini Municipality's (City of Durban) Standard Engineering Specifications (hereafter referred to as the Standard Engineering Specifications). This document is obtainable separately, and Tenderers shall obtain their own copies of the applicable Sections.

Part	Description	Date of Issue	
AB	General Specifications	July	1992
B	Site Clearance	March	1990
C	Concrete Work	February	1987
DA	Earthworks: Bulk	January	1985
DB	Earthworks for Pipe Trenches	July	1992
EB	Graded Crushed Stone	December	1988
EC	Cement Treated Graded Crushed Stone	December	1988
ED	Road Asphalt	July	1992
EF	Kerbs and Haunches	July	1992
EG	Sidewalks, Footpaths and Median Areas	July	1992
EH	Steel Guardrails & Conc. Median Barriers	July	1992
EL	Dumprock Subgrade Improvement	July	1992
PB	Pavement Layers of Gravel Material	July	1992
PG	Non-Pressure Pipelines and Pc Culverts	July	1992
PH	Manholes and Appurtenant Drainage Works	July	1992
S	Reinstatement	March	1993
TA	Road Signs	October	1989
TB	Road Markings	October	1989

C3.3.2 AMENDMENTS TO THE STANDARD SPECIFICATIONS

INTRODUCTION

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

The number of each clause and each payment item in this part of the project specifications consists of the prefix **PS** followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new clause or payment item, which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by PS, but followed by a new number which follows on the last clause or item number used in the relevant section of the standard specifications.

PS AB	General Specifications
PS B	Site Clearance
PS DA	Earthworks: Bulk
PS DB	Earthworks for Pipe Trenches
PS EB	Graded Crushed Stone
PS ED	Road Asphalt
PS EF	Kerbs and Haunches
PS EG	Sidewalks, Footpaths and Median Areas
PS EH	Steel Guardrails & Conc. Median Barriers
PS EL	Dumprock Subgrade Improvement
PS PG	Non-Pressure Pipelines and Pc Culverts
PS PH	Manholes and Appurtenant Drainage Works
PS TA	Road Signs
PS TB	Road Markings

C3.2.2.2 AMENDMENTS TO THE ETHEKWINI MUNICIPALITY’S (CITY OF DURBAN) STANDARD ENGINEERING SPECIFICATIONS

PS AB GENERAL SPECIFICATIONS

PS.AB.2	SITE FACILITIES	110
PS.AB.2.1	TEMPORARY OFFICES FOR EMPLOYER’S AGENT AND STAFF	110
PS.AB.4	CONTRACTOR’S CAMP SITE AND DEPOT	110
PS.AB.5	NOTICE BOARD	111
PS.AB.7	ROAD DEVIATIONS AND TRAFFIC CONTROL	111
PS.AB.8	ACCOMMODATION OF EMPLOYEES	112
PS.AB.9	POWER SUPPLY, WATER AND OTHER SERVICES	113
PS.AB.10	PROGRESS PHOTOGRAPHS	113
PS.AB.11	SUPPLY OF PLANT, MATERIALS AND LABOUR	113

PS.AB.2 SITE FACILITIES

PS.AB.2.1 Temporary Offices for Employer’s Agent and Staff

The Contractor shall provide, within the Contractor’s campsite area, two (2) Type 1 prefabricated offices for the exclusive use of the Employer’s Agent and / or his staff. At least one Type 1 office shall be furnished with a microwave oven, of capacity not less than 28 litres, and a refrigerator of capacity not less than 200 litres.

Further to the above, two (2) Car ports shall be so constructed, as to protect vehicles parked in them at all times against the direct rays of the sun and from hail, for the exclusive use of the Employer’s Agent and / or his staff. The car ports shall be at least 20 m² in area and the floors shall consist of a layer of broken stone to alleviate dusty and muddy conditions. The car ports shall be constructed, within the Contractor’s campsite area adjacent to the Employer’s Agent’s Offices as approved and instructed by the Employer’s Agent.

The Contractor will be required to provide maintenance / cleaning to the Employer’s Agent’s offices and car ports. Pay items in Part AB in the Bill of Quantities have been provided to cover the provision and maintenance of the above.

PS.AB.4 Contractor’s Camp Site and Depot

The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and labourers. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.

(a) Contractor’s Camp Site / Store Yard

The recommended position of the camp site/store yard and stockpile areas will be pointed out by the Employer’s Agent. However the Contractor may, if he prefers to have any of the above at another location of the work site is elsewhere provided that he first obtains 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.

In addition to the requirements of Clause AB.4 the following conditions shall also apply :

- (i) None of the existing roads shall be damaged in any way.
- (ii) No waterborne sewerage facilities or potable water connection are available on the site. The Contractor shall make his own arrangements in this regard.
- (iii) No electrical facilities exist on site.
- (iv) 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. Particular attention should be directed to these requirements and written clearances from the relevant Departments or other owners will be required.

PS.AB.5 NOTICE BOARD

The typical notice board layout is given in Part C3.4.1. The following requirements shall apply with regards to the notice board. Two (2) notice boards are required for this contract.

The wording in the space for "Name of Contract" shall be:

**CONTRACT NO. 3V - 34652
INNER CITY CORRIDORS OF EXCELLENCE, CORRIDOR 2 – UPGRADE OD DR. PIXLEY KA SEME STREET FROM SAMORA MACHEL STREET TO O.R. TAMBO PARADE. (WARD 28).**

The words to follow "Designed" shall be:

DEVELOPMENT ENGINEERING DIVISION

The M.T.A.B. Section of the Notice Board is not required.

Any other notices, signs and barricades (required in terms of Clause 8.1 of the General Conditions of Contract) as well as advertisements may only be erected where approved by the Employer's Agent. The Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his tendered rates.

The Employer's Agent shall have the right to have any sign, notice or advertisement moved to another location, or to have it removed from the Site of the Works, should it in any way prove to be unsatisfactory, inconvenient or dangerous to the general public.

PS.AB.7 ROAD DEVIATIONS AND TRAFFIC CONTROL

- (a) Allowance has been made in the Bill of Quantities for those deviations listed below only. Costs of any additional deviations required by the Contractor shall be included in the rates tendered.

It shall be assumed that if no deviations are listed then no deviations will be measured as part of this contract.

- (b) Deviations required by the **Contractor** shall comply with the requirements of Clause AB.7. Details/Drawings shall be submitted to the Employer's Agent for approval at least four (4) weeks in advance of the date on which it is anticipated that work on the deviation will commence.

During the construction period a continuous flow of traffic must be constantly maintained.

Deviations and temporary works to accommodate traffic shall be constructed with minimum disruption to traffic.

Temporary lane closures will be restricted between the following hours; 08h30 to 16h00 and reinstatement to full width must be complete within these specified times on the same day.

Only one lane may be closed at any given time, closure of multiple lanes will not be permitted.

- (c) On deviations provided in terms of (b) 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.

- (d) Unless indicated otherwise over the entire length and for the duration of the contract, traffic is required to be accommodated in both directions at all times.

The Contractor shall ensure that a minimum road width of 4m in either direction is available for traffic at all times.

- (e) At all times road signs and markings shall comply with the requirements of SANS 1200 MM and / or The South African Road Traffic Signs Manual - Volume 2 : Roadworks Signing.

PS.AB.8 Accommodation of Employees

No employees except for security guards will be allowed to sleep or be accommodated on the site in urban areas.

No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.

No informal housing or squatting will be allowed.

The Contractor shall provide the necessary ablution facilities at his camp site and the site of the works for the use of his employees. Chemical toilets only will be allowed where temporary facilities have to be provided.

PS.AB.9 Power Supply, Water and other Services

The Contractor shall make his own arrangements concerning the supply of electrical power, water and all other services. 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, or in the Contractor's preliminary and general items as the case may be.

(a) Water for Works

The Contractor shall allow in his Establishment rates for the securing of a suitable water supply, the payment of any connection fee and for any water charges for the duration of the contract.

(b) Power Supply for Works

The power supply authority is eThekweni Electricity Service Unit. The Contractor will be responsible for arranging for whatever temporary supplies may be required and he will be required to bear all costs involved and to pay the ruling tariffs applicable to such supplies.

PS.AB.10 PROGRESS PHOTOGRAPHS

A PC Sum has been included under Section 1, Part AB for the photographs to be taken at the discretion of the Employer's Agent.

PS.AB.11 SUPPLY OF PLANT, MATERIAL AND LABOUR

Except where otherwise specified the Contractor shall 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 all requirements for the construction, completion and where specified, maintenance of the works. All costs related to the abovementioned supply of plant labour and material shall be deemed to be included in the rates tendered.

PS.B SITE CLEARANCE

<u>INDEX</u>	<u>PAGE</u>
PS.B.8.2 GENERAL CLEARANCE AND GRUBBING IN ROAD RESERVE.....	114
PS.B.8.7 REMOVAL OF STREET SIGNS AND POSTS	114
PS.B.8.9 REMOVAL OF BRICKWORK	114
PS.B.8.14 REMOVAL OF ABANDONED ROADWAYS.....	114
PS.B.8.18 REMOVAL OF EXCESS SCARIFIED MATERIAL TO SPOIL.....	114
PS.B.8.20.1 SEAL ENDS OF PIPES WITH GRADE 15/26 CONCRETE	114
PS.B.8.20.2 SEAL ENDS OF PIPES WITH 230 mm BRICKWORK.....	114
PS.B.8.21 REMOVAL OF CONCRETE INLET COVERS AND FRAMES	115
PS.B.8.23 DEMOLITION OF MANHOLES AND INLETS	115
PS.B.8.24 REMOVAL OF CONCRETE BLOCK PAVING AND STORE FOR RE-USE.....	115
PS.B.8.25 REMOVAL OF CAST IRON COVERS AND FRAMES.....	115
PS.B.8.26 CLEANING OF EXISTING STORMWATER MANHOLES AND INLETS.....	116
PS.B.8.27 HIGH-PRESSURE WATER JETTING OF STORMWATER DRAINAGE SYSTEM.....	116
PS.B.8.27.1 CLEANING, CLEARING AND FLUSHING OF EXISTING STORMWATER PIPES.....	116
PS.B.8.27.2 ESTABLISHMENT AND DE-ESTABLISHMENT OF HIGH-PRESSURE JETTING	116
TEAM AND EQUIPMENT	
PS.B.8.29 RELOCATION OF STAINLESS-STEEL MEMBERS TO BUS SHELTER.....	116

PS.B.8.2 GENERAL CLEARANCE AND GRUBBING IN ROAD RESERVE

Notwithstanding clause B.8.2. the rate shall include the removal of material on hardened areas.

PS.B.8.7 REMOVAL OF STREET/TRAFFIC SIGNS AND POSTS

Notwithstanding clause B.8.7. the rate shall include for the option of;

- transporting to a municipal depot for storage.

PS.B.8.9 REMOVAL OF BRICKWORK

The cross reference to Clause B.8.18 in Clause B.8.9 shall be amended to refer to Clause B.8.21.

PS.B.8.14 REMOVAL OF ABANDONED ROADWAYS

The Tenderer's attention is drawn to the fact that the measurement of abandoned roadway is based on the types of materials as listed under Clause B.5.6 and not the full depth of the in-situ road layers.

PS.B.8.18 REMOVAL OF EXCESS SCARIFIED MATERIAL TO SPOIL

Notwithstanding clause B.8.18, scarify existing hardened areas. After the scarifying of roads/hardened areas, the Employer's Agent may instruct the Contractor to spoil a certain amount of the scarified material.

The unit of measurement shall be the cubic metre (m³) measured loose by means of tally loads. The rate shall include for loading the material and transporting to an approved tip.

PS.B.8.20.1 SEAL ENDS OF PIPES WITH GRADE 15/26 CONCRETE

The unit of measurement shall be the cubic metre (m³) and the rate shall include for all the materials, labour and plant necessary to seal the ends of pipes as directed on site by the Employer's Agent.

PS.B.8.20.2 SEAL ENDS OF PIPES WITH 230 mm BRICKWORK

All brickwork shall conform to the relevant clauses in part "F", Departmental Specification for Protection Works.

The unit of measurement shall be the square metre (m²) and the rate shall include for all the materials, labour and plant necessary to seal the ends of the pipes as directed on site by the Employer's Agent.

PS.B.8.21 REMOVAL OF CONCRETE INLET COVERS AND FRAMES

The unit of measurement shall be number (No.) and the rate shall include for the labour and plant necessary for the careful removal of the concrete inlet covers, Type S1/S2/S3, and frames of all types, loading and either :

- (a) storing on site for re-use, or;
- (b) transporting to the approved tip and dumping.

PS.B.8.23 DEMOLITION OF MANHOLES AND INLETS

The unit of measurement shall be number (No.) and the rate shall include for the labour, plant and material necessary for :

- (a) breaking down brickwork, benching and concrete base;
- (b) sealing the incoming and outgoing pipes with concrete;
- (c) backfilling with clean, coarse sand and compacting to 95% MOD AASHTO;
- (d) storing manhole covers/cover slabs on site for re-use or spoiling to tip.

PS.B.8.24 REMOVAL OF CONCRETE BLOCK / BRICK PAVING AND TRANSPORT TO MUNICIPAL DEPOT OR STORAGE ON SITE

The unit of measurement shall be square metre (m²) and the rate shall include for the labour and plant necessary for the careful removal of the concrete block paving from the sidewalk / island area, removal of any mortar, cleaning and transporting to municipal depot (within a distance of 20km) or storage on site (stockpile) or disposal at tip.

The rate shall include for the demolition of the concrete median and associated works; and the disposal of the demolished concrete and waste material to the approved dump site.

PS.B.8.25 REMOVAL OF CAST IRON COVERS AND FRAMES

The unit of measurement shall be number (No.) and the rate shall include for the labour and plant necessary for the careful removal of the cast iron cover and frame, Type solid or grit, and frames of all types, loading and upon approval by the Employer's Agent either :

- (a) storing on site for re-use, or;
- (b) transporting to the approved tip and dumping.

PS.B.8.26 CLEANING OF EXISTING STORMWATER MANHOLES AND INLETS

The unit of measurement shall be number (No.), and the rate shall include for the removal of silt, debris, and foreign material from existing stormwater manholes and inlets; disposal of waste at an approved spoil site; flushing of drainage connections if required; and all labour, tools, and plant necessary to restore the functionality of the stormwater system.

PS.B.8.27 HIGH-PRESSURE WATER JETTING OF STORMWATER DRAINAGE SYSTEM

The tendered rate shall include full compensation for all labour, equipment and plant as well as for all work and incidentals required to complete the work as specified including spoilage of all material resultant of the activity. The contractor shall provide a working programme for the activity to the Employer's Agent for approval prior to any work commencing.

PS.B.8.27.1 CLEANING, CLEARING AND FLUSHING OF EXISTING STORMWATER PIPES

The unit of measurement shall be linear metre (m), and the rate shall include for the removal of silt, debris, and foreign material from existing stormwater pipes; flushing of the pipe using suitable equipment; disposal of waste at an approved spoil site; and all labour, tools, and plant necessary to restore the hydraulic functionality of the pipeline.

PS.B.8.27.2 ESTABLISHMENT AND DE-ESTABLISHMENT OF HIGH-PRESSURE JETTING TEAM AND EQUIPMENT

The tendered rate shall include full compensation for the establishment and de-establishment of equipment, plant, and labour required to complete the work as specified. Establishment of the jetting team and equipment shall be at the discretion of the Employer's Agent and shall only proceed upon written approval issued via a site instruction. De-establishment shall include the removal of all associated resources from site and reinstatement of any affected areas.

PS.B.8.29 RELOCATION OF STAINLESS-STEEL POLES AT BUS SHELTER

The unit of measure shall be number (No.), and the rate shall include the following;

- A. The careful removal/cutting/detachment of the horizontal bus shelter poles,
- B. The making good of the remaining vertical bus shelter poles
- C. The attachment of the horizontal bus shelter poles to the new position (welding/attaching to new vertical poles as directed)

PS.DA EARTHWORKS : BULK

<u>INDEX</u>	<u>PAGE</u>
PS.DA.2 INTERPRETATIONS	117
PS.DA.5.5 FORMATION.....	117
PS.DA.6 TOLERANCES	117
PS.DA.8.3 EXCAVATION OF MATERIAL FROM SITE	118
PS.DA.8.7.1 STOCKPILE HANDLING	118
PS.DA.8.7.2 STOCKPILE AREAS.....	118
PS.DA.8.9 MEASUREMENT AND PAYMENT.....	118
PS.DA.8.10 OVERHAUL.....	118
PS.DA.8.11 GEOFABRIC BLANKET.....	118
PS.DA.8.12 RESTRICTED EXCAVATION	119

PS.DA.2 INTERPRETATIONS

The following shall be added to the list of definitions.

Top of earthworks: The top of earthworks shall be defined as the underside of the subbase or selected subgrade layers under roads, the base under sidewalks and the underside of the topsoil layer under verges and embankments.

PS.DA.5.5 FORMATION

Formation shall be defined as the surface to the underside of the 300mm C3 payer or the 150 mm G7 layer (where applicable) specified in the pavement design as processed to the tolerances as defined in DA.5.5.

PS.DA.6 TOLERANCES

Clause DA.6 shall be amended to read as follows:

The allowable tolerances shall be:

- (a) the design angle ± 2 degrees for the angle of the cut or fill slope;
- (b) not less than the design width, nor more than 300 mm greater than the design width for the transverse horizontal embankment width at any level; and
- (c) the layer thickness ± 20 mm for topsoil;
- (d) For the formation, the Contractor will be required to place level pegs longitudinally at 10 m intervals on the road construction contract and elevation tolerances shall be taken on a section of the works. (When a portion of the works is less than 500 m² one tolerance reading per 10 m² shall be taken).

In any section the average of the elevations taken shall be such that the average thickness of the succeeding layer or layers above the formation shall be not less than that specified/nor greater than that specified plus 20 mm.

The standard deviation of the differences between the actual and design levels shall not be greater than 10 mm

PS.DA.8.3 EXCAVATION OF MATERIAL FROM SITE

- (a) Further to [Clauses DA.8.1 and DA.8.3](#) Tenderer's are to note that the measurement of excavation of material on site is based on the cut volumes in place before excavation between the original ground levels after stripping of topsoil and the top of earthworks calculated from cross sections as described in [Clause DA.8](#). No allowance will be made for bulking or shrinkage and it shall be assumed that 1 cubic metre of excavated material from the site shall form 1 cubic metre of compacted fill.
- (b) The Contractor's attention is drawn to the presence of watermains and various other services in the road reserve area. The Contractor shall limit the size and type of construction plant used in this area so as not to damage these existing services. Any damage to the existing services due to the size and type of construction plant used will be to the Contractor's account. Furthermore, it is stressed that existing services must be proved, as described in PS.2, prior to the commencement of construction works in any specific area.

No additional payment will be made for compliance with this clause and Tenderer's shall include in the relevant rate for all extra plant, labour and materials required to work in these areas.

PS.DA.8.7.1 STOCKPILE HANDLING

Tenderers are to note that no stockpile handling will be payable on this contract. The tenderer shall include in the bulk earthworks rates, any costs that he would incur in the stockpiling and subsequent re-handling of material stockpiled on site.

PS.DA.8.7.2 STOCKPILE AREAS

Stockpile areas must be approved by the Employer's Agent or his/her representative prior to use.

PS.DA.8.9 MEASUREMENT AND PAYMENT (FORMATION)

Notwithstanding clause DA.8.9, The Tenderers shall make full allowance in the Formation rate for areas of formation in cut or where the fill layer thickness is less than 150 mm as no separate payment will be made for these conditions.

PS.DA.8.10 OVERHAUL

Notwithstanding the requirements of [Clause DA.8.10](#) no additional payment shall be made for overhaul.

PS.DA.8.11 GEOFABRIC BLANKET

The geofabric shall comply with Clause PG.3.8 of Part PG: Non-Pressure Pipelines and Precast Concrete Culverts.

One layer of grade 2 filter fabric shall be placed where indicated on the drawings or instructed by the Employer's Agent . The material shall be placed, in accordance with the instructions, in strips with a

minimum overlap of 300mm at the joints and shall be properly fastened to prevent any movement or slipping while the dumprock is being placed.

The unit of measurement shall be the square meter of area covered with filter fabric placed in position (m2).

The tendered rate shall include full compensation for supplying the filter fabric (materials), labour, equipment, cutting, and waste, placing, joining, overlapping and securing / installing the material in position.

PS.DA.8.12 RESTRICTED EXCAVATION

The nature of the roadworks is such that the greater part of the excavation shall be considered to be in semi-restricted conditions. No additional payment shall be made for such excavation and the Tenderer shall therefore make due allowance in the rates for Bulk Earthworks for any additional work or hand excavation.

PS.DB EARTHWORKS FOR PIPE TRENCHES

<u>INDEX</u>	<u>PAGE</u>
PS.DB.3 BEDDING AND BACKFILL MATERIALS.....	120
PS.DB.3.4 GENERAL	120
PS.DB.3.6 STORMWATER PIPES	120
PS.DB.5.5.1 EXCAVATION AND BACKFILLING - EXISTING SERVICES	120
PS.DB.8.5.2 EXCAVATION, BACKFILLING AND REINSTATEMENT OF TRENCHES	121
PS.DB.8.5.3 EXCAVATION FOR SERVICES TO LAID BY OTHERS	121
PD.DB.8.17 OVEHAUL.....	122
PS.DB.8.18 COMPACTION OF TRENCHES.....	122
PS.DB 8.22 RESTRICTED EXCAVATION.....	122
PS.DB.8.24 BACKFILLING OF SERVICE TRENCHES	122
PS.DB.8.25 GEOFABRIC BLANKET.....	122

PS.DB.3 BEDDING AND BACKFILL MATERIALS

PS.DB.3.4 General

- 1) The measurement for bedding shall be the total through length along the centre of the pipeline measured HORIZONTALLY with deductions made for line valve chambers.
- 2) Bedding material required for the backfill of bell holes will be paid for by the Council.
- 3) The unit of measurement for bedding shall be the Linear Metre (m), and the rate shall include for the placing and compacting of the bedding material up to the underside of the backfill for the various pipe diameters.
- 4) Separate items have been included in the Bill of Quantities for the provision of bedding material from a Contractor's commercial source.
- 5) Backfill materials shall comply with [Clause DB.3.4](#). An item has been allowed in the Bill of Quantities for the importation of backfill material where so ordered by the Employer's Agent.
- 6) The Contractor shall allow for haulage in the rate for provision of imported bedding and backfill. No overhaul will be paid for these items.

PS.DB.3.6 Stormwater Pipes

- 1) All bedding to stormwater pipes on this Contractor shall be either Type "B" or Type "C" as is specified in Part DB of the Departmental Technical Specification.

PS.DB.8.5.1 EXCAVATION AND BACKFILLING - EXISTING SERVICES

Notwithstanding clause DB 8.5, the Tenderer's attention is drawn to the presence of existing services in the area. The Contractor may not be authorized 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.

PS.DB.8.5.2 EXCAVATION, BACKFILLING AND REINSTATEMENT OF TRENCHES

Further to and notwithstanding the requirements of the Departmental Specification, Part DB, 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 possible 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 Contractors 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 as defined in specification Clause DB.6.1 - 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.

PS.DB.8.5.3 EXCAVATION FOR SERVICES TO BE LAID BY OTHERS

Where indicated, the Contractor shall be required to excavate a trench for the installation of services by others. (Depth and width of trench shall be confirmed on site). The trench bottom shall be trimmed to comply with the tolerances specified under [Clause DB.6.3](#), after which it shall be taken over by the service organization. After installation of the services the trench shall be backfilled as part of the bedding operation to approximately 300 mm above the service.

Thereafter the Contractor shall continue the backfilling utilizing suitable material from the trench excavation, in 150 mm layers which shall be compacted to 95% Mod. A.A.S.H.T.O. density.

The unit of measurement shall be the cubic metre (m³) and the rate shall cover the work described under [Clause DB.8.1](#).

PS.DB.8.17 OVERHAUL

Notwithstanding the requirements of [Clauses DB.8.1 and DB.8.17](#) no additional payment shall be made for haulage.

PS.DB.8.18 COMPACTION OF TRENCHES

Further to [Clause DB.8.18](#), Tenderers are to note that in all cases the compaction of the trench bottom and the trench backfill shall be to 95% Mod. A.A.S.H.T.O. An extra-over item has not been included in the Bill of Quantities and tenderers shall include for these costs under the relevant excavate and backfill items.

PS.DB.8.22 RESTRICTED EXCAVATION

The nature of the trench excavations are such that a percentage of the excavation shall be considered to be in semi-restricted conditions. No additional payment shall be made for such excavation and the Tenderer shall therefore make due allowance in the rates for any additional work or hand excavation.

PS.DB.8.24 BACKFILLING OF SERVICE TRENCHES

As part of the bedding operation, services laid or relocated by others will be backfilled by them to approximately 300 mm above the service. The backfill shall then be continued by the Contractor up to the original level. The backfilling shall be carried out using suitable material from the trench excavation, in 150 mm layers which shall be compacted to 95% Mod. A.A.S.H.T.O. density.

The unit of measurement shall be the cubic metre (m³) and the rate shall include for all material, plant and labour required to select, place and compact the material as specified.

PS.DB.8.25 GEOFABRIC BLANKET

The geofabric to stone bedding must comply with [Clause PG.3.8](#) of Part PG : Non-Pressure Pipelines and Precast Concrete Culverts.

The unit of measurement shall be the square metre (m²). The rate shall include for its supply, laying, joining, cutting and waste.

PS.EB GRADED CRUSHED STONE

<u>INDEX</u>	<u>PAGE</u>
PS.EB.3.1 SUB-BASE	123
PS.EB.3.2 PRIMING	123

PS.EB.3.1 SUB-BASE

- (a) Details of the source of the supply of the sub-base material are required by the Employer’s Agent before roadworks commence.

A Certificate of Acceptance for this layer will only be issued by the Employer’s Agent when levels and densities are correct.

- (b) No additional payment shall be made for restricted conditions, and the Tenderer shall therefore make due allowance in the rate for the graded crushed stone layer for any additional work (including hand work) required to place, spread, process and compact the layer in restricted conditions.

PS.EB.3.2 PRIMING

After the issue of the Certificate of Acceptance referred to in [PS.EB.3.1](#), the sub-base shall then be primed with an Inverted Emulsion Primer conforming to S.A.B.S. 1260 of 1979 and applied at the rate of 0,6 l/m².

PS.EC CEMENT TREATED GRADED CRUSHED STONE BASE

<u>INDEX</u>	<u>PAGE</u>
PS.EC.1 STABILISED LAYERWORKS	124
PS.EC.2 Interpretations	124
PS.EC.3 Materials	124
PS.EC 5 Construction	125
PS.EC.7 Testing.....	126
PS.EC.8 Measurement and Payment	127

PS.EC CEMENT TREATED GRADED CRUSHED STONE BASE

Unless otherwise stated in the project specification, the requirements of Part EC shall also apply to the stabilised sub-base layers, and shall cover the stabilisation of both crushed stone and natural gravel materials, and the use of both cement and lime as stabilising agent.

PS.EC.1 STABILISED LAYERWORKS

The standard Departmental Specification Part EC has been amended with respect to the following items for the purposes of this contract:-

PS.EC.2 INTERPRETATIONS

Clause EC.2.2 Supporting Specifications is to be amended as follows:-

Replace SABS 471 and SABS 626 with SABS ENV 197-1.

PS.EC.3 MATERIALS

Clause EC.3.1 Cementing Agent is to be replaced by the following:-

Stabilising agent

Cement used as stabilising agent shall conform to SABS ENV 197-1 and shall be classified as CEM III/A 32.5.

Clause EC.3.2 Graded Crushed Stone is to be replaced by the following:-

Graded Crushed Stone and Natural Gravel

Graded crushed stone shall conform to the requirements of a G4 material as described in TRH 14:1985. In addition, the material to be stabilised shall not include any shale or weathered dolerite. The following additional requirements shall also be met:-

Before stabilising :-

Quality – Crushed stone	At least G4
pH (of fines passing 0.425 mm sieve)	Min.: 6

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 Engineer may allow. In the event of deficiencies in the trial layer, the Engineer 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.

PS.EC.7 TESTING

Paragraph 1 of Part (a) shall be replaced with the following:-

The Contractor is to provide a mix design confirming the suitability of the stabiliser type and content, using the materials he intends using, and proving compliance with the requirements of clauses EC 3.2 and PS.EC.1.2.

The final cement content to be used shall be subject to the Engineer's approval.

Part (b) shall be replaced by the following:-

The acceptance testing required for each days production is as follows:-

- (a) Test for the uniformity of application of the stabiliser as detailed in PS.EC.1.2.:
Test 10 samples selected using a stratified random sampling process.
- (b) UCS Tests as detailed in PS.EC1.2:
Test one set of 3 x 150mm dia. cylinders, to determine U.C.S strengths.
- (c) ITS Tests as detailed in PS.EC1.2.
Test one set of 3 x 150mm dia. cylinders to determine I.T.S. strengths.

The uniformity of application of the stabiliser shall be ascertained by retrieving a minimum of 10 samples selected using the stratified random sampling process over the extent of the works and establishing the stabiliser content of the samples. The samples shall be retrieved immediately before compaction (after the stabiliser has been mixed with the parent material). Not more than 10% of the test results shall fall below the specified stabiliser content and the coefficient of variation of the stabiliser content should be less than 30%.

In order for the Engineer to arrange the necessary acceptance testing each day it will be necessary for the Contractor to complete the mixing and processing of the layer for each days work, prior to compacting the layer by 14:00 of that day.

If the mixing and processing is not complete by 14:00 then it will be the responsibility of the Contractor to arrange the necessary testing with a reputable soils laboratory approved by the Engineer and all costs associated with this testing will be to the account of the Contractor.

Sampling and Sample Preparation

Sampling of the stabilised material is to be in accordance with TMH 5, while the method of sample

preparation shall be in accordance with D.O.T. Manual 5, with the following variations:

A single sample shall be retrieved for the ITS, UCS and Mod.AASHTO tests. The material sampled shall be passed through a 37,5mm sieve and all material retained shall be discarded.

The moisture content of the sampled material shall be determined. However, because the UCS and ITS cylinder sample preparation will be completed before the results of the Mod.AASHTO test become available, the moisture content of the samples for these tests shall be adjusted to the OMC obtained from a previous Mod.AASHTO test done on the material.

Not more than 2 hours shall be allowed to lapse between the start of stabiliser distribution and mixing-in of the stabiliser on site, and the completion of compacting the 150mm dia. cylinder samples in the ITS and UCS moulds. The time at the start of mixing and at the completion of compacting the material in the moulds shall be recorded and submitted together with the test results.

The cylinder samples shall be cured for 7 days at ambient temperature, but at a temperature not less than 20° C, nor greater than 30° C.

PS.EC.8 **MEASUREMENT AND PAYMENT**

Clause EC.8.1: Cement Treated Graded Crushed Stone to be amended as follows:

In the 4th line delete “cement”.

At the end of the last line add the following clause, “but excluding the cost of supplying the stabilising agent.”

The following items are to be included under Part EC.8 measurement and payment:-

EC.7.2 Stabilising Agent

The unit of measurement for the stabilising agent shall be the ton (t) of stabilising agent based on the quantity determined in accordance with the authorised rate of application, or actually incorporated within the layer concerned, whichever is the lesser. The rate shall include full compensation for providing the stabilising agent at the works, irrespective of the rate of application, and any difference in the time required for mixing and compaction of the various stabilising agents.

EC.7.3 Conditional Payment for Strength of Layer Achieved

The following conditional and reduced payment for UCS and ITS strengths achieved shall be applied to all pay items applicable to the stabilised layer to which the test results apply.:

<u>Test</u>	<u>Test Result</u>	<u>Payment</u> (As % of Full Payment)
UCS:	UCS ≥ 1.5MPa	100%
	1.3MPa ≤ UCS <1.5MPa	70% - 100% Linear Scale
	UCS < 1.3 Mpa	0%, Layer rejected, to be restabilised or replaced at Engineers discretion

ITS:	$200 \text{ kPa} \leq \text{ITS} < 250 \text{ kPa}$	70% - 100% Linear Scale
	$\text{ITS} < 200\text{kPa}$	0%, Layer rejected, to be restabilised or replaced at Engineers discretion.

When the UCS and ITS test results achieved are less than the minimum values of 1.5MPa and 250kPa respectively, then the criteria giving the lowest payment shall be used to calculate the reduced payment applicable.

PS.ED ROAD ASPHALT

	<u>INDEX</u>	<u>PAGE</u>
PS.ED.3	MATERIALS	129
PS.ED.5.1	HOT/WARM ASPHALT MIXES AND DESIGN	134
PS.ED.5.2	LAYING OF ASPHALT	142
PS.ED.5.6	LONGITUDINAL AND TRANSVERSE JOINTS.....	143
PS.ED.6	ASPHALT PRODUCTION.....	143
PS.ED.8.3	SAW CUT TO LONGITUDINAL AND TRANSVERSE JOINTS	147
PS.ED.8.5	PATCHING OF EXISTING SURFACE.....	147
PS,ED.8.6	PLANING OF EXISTING ASPHALT ROAD SURFACE.....	148
PS.ED.8.7	CRACK SEALING AND SEALANT	149

PS.ED3. MATERIALS

3.1 Bituminous Binder

Binder selection shall be guided by both the asphalt mix requirements outlined in section 4 and the South African PG Binder Classification System.

Straight run bituminous binders shall conform to SANS 4001-BT1 and shall be selected from penetration grades 10/20, 15/25, 35/50 or 50/70.

Modified binders shall be selected from A-E1, A-E2, A-P1 A-H1 or A-H2 and shall comply with the requirements of Tables 7 and 9 respectively from the Sabita Technical Guideline TG1.

The binder penetration grade, the type of modifier used (as applicable) and the SA PG Binder Classification shall be indicated in the mix design report.

3.2 Aggregates

3.2.1 Coarse Aggregate

Coarse aggregate shall comprise single sized, clean, unweathered material and shall be free from organic matter and other deleterious substances. The aggregate shall conform to the requirements of Table 2 “Aggregate Quality Requirements”. The grading and dust content of the aggregate shall comply with the requirements of Table 4302/8 of the COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998).

3.2.2 Fine Aggregate

Fine aggregate shall consist of the mineral matter passing the 5,00 mm sieve and retained on the 0,075 mm sieve and shall consist predominantly of freshly crushed aggregate or clean, natural hard sand. Fine aggregate shall conform to the requirements of Table 2 “Aggregate Quality Requirements”. Material derived from the mechanical crushing or milling of rock shall be well graded between 5.0mm and 0.075mm. The grading and dust content of material derived from the natural disintegration of rock shall comply with the requirements of SANS 1083 Table 1 (Column 2).

The use of natural sands is limited or prohibited in certain asphalt mixes. These limitations are quantified under section 3.2.5 “Aggregate Blends”.

3.2.3 Filler

Filler shall comprise the material predominantly passing the 0.075 mm sieve and shall consist of either inert material (crushed rock fines) or an approved active filler or a combination thereof.

Active filler shall consist of either milled blast furnace slag, hydrated lime, Portland cement, fly-ash or a combination of these materials. Active fillers shall conform to the relevant SANS specification for the particular material. Filler shall also conform to the requirements of Table 2 “Aggregate Quality Requirements”.

The permissible active filler content in any asphalt mix shall be no more than 2% by mass of mix aggregates.

3.2.4 Reclaimed Asphalt

Fragments of asphalt obtained from the road or from stockpiles of discarded asphalt may be used in the manufacture of asphalt mixes. Reclaimed asphalt (RA) shall be characterized and processed in accordance with the recommendations set out in TRH 21 “Hot mix recycled asphalt”.

The RA content of asphalt mixes shall be limited as noted in Table 3.

Mix Type	Maximum RA Content
Sand Skeleton Mixes	50%
SMA	0%
EME	20%

Table 3 Permissible RA Content

3.2.5 Aggregate Blends

Aggregates shall be blended in such a manner so as to produce an asphalt mix conforming to the requirements of each particular mix type and nominal maximum particle size. The required aggregate blending will be achieved through the mix design process.

3.2.5.1 Sand Skeleton Mixes

Aggregate gradings are required for 3 nominal maximum particle size (NMPS) mixes (ie. 10mm, 14mm and 20mm). The aggregate grading for these mixes shall be guided by the control points in Table 4.

Sieve Size (mm)	Percent Passing					
	Nominal Maximum Particle Size (NMPS)					
	10mm		14mm		20mm	
	Min.	Min.	Min.	Max.	Min.	Max.
37.5						
28					100	
20			100		80	100
14	100		80	100		85
10	80	100		85		
7.1		85				
5						
2	32	67	28	58	23	49
1						
0.6						
0.3						
0.15						
0.075	2	10	2	10	2	8

Table 4 Sand Skeleton Asphalt Mix Grading Control Points

A maximum of 10% natural sand (by mass of mix aggregates) may be used in sand skeleton mix types Sa-H, Sa-V and Sa-E.

The reclaimed asphalt (RA) content of sand skeleton mixes shall be limited to 50% maximum as noted in Table 3.

3.2.5.2 Stone Mastic Asphalt (SMA) Mixes

Stone Mastic Asphalt is a stone skeleton mix type. The aggregate grading for SMA mixes shall be guided by the requirement that the stone skeleton coarse aggregate structure is not dilated by the mastic in the voids of the stone skeleton structure.

The use of “natural” sand shall not be permitted in SMA mixes.

The use of reclaimed asphalt (RA) shall not be permitted in SMA mixes.

SMA grading blends are required for two SMA NMPS mixes :-

- 10mm
- 14mm

3.2.5.1.1 Enrobé à Module Élevé (EME) Mixes

EME aggregate gradings shall be guided by the requirements outlined in Sabita Manual 33 “Interim design procedure for high modulus asphalt”.

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% maximum as noted in Table 3.

EME grading blends are required for two EME NMPS mixes :-

- 14mm
- 20mm

1.1. Warm Mix Asphalt Technologies/Additives

Warm Mix Asphalt (WMA) technologies/additives shall conform to the appropriate requirements outlined in SABITA Manual 32 “Best practice guideline for warm mix asphalt” and shall be approved prior to use. The contractor shall provide the Roads Provision Department with the name and type of technology/additive to be used together with any other technical information pertinent to its use in the asphalt mix.

Aggregate Property		Coarse Aggregate		Fine Aggregate (Crushed Rock)	Fine Aggregate (Natural Sand) ¹	Combined Total Fine Aggregate	Inert Filler	Active Filler
Parent Material		Clean unweathered crushed rock		Clean unweathered crushed rock	Clean natural fines not obtained from crushed parent rock	-	Unweathered rock dust	Approved commercial non-plastic material
		Sand Skeleton Mixes (Sa, EME)	Stone Skeleton Mixes (SMA)					
Grading		COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998) Table 4302/8		Well graded between 5.0mm and 0.075mm sieves	SANS 1083 Table 1 (Column 2)	Passing 5.0mm sieve	P _{0.075} > 75%	P _{0.075} > 75%
ACV (%) (max.)		25	21	25 (Parent rock)	-	-	-	-
10% FACT (Dry) (Min.)		160 kN	210 kN	-	-	-	-	-
10%FACT (Wet) (Min.)		75% of 10% FACT (Dry) Value	75% of 10% FACT (Dry) Value	-	-	-	-	-
Flakiness Index (Max.)	20mm & 14mm Aggregate	25		-	-	-	-	-
	10mm & 7.1mm Aggregate	30		-	-	-	-	-
	SMA Mixes	20		-	-	-	-	-
Polished Stone Value (Min.)		50		-	-	-	-	-
Water Absorption (%) (Max.)		1.0		1.5	1.5	1.5	-	-
Sand Equivalent (%) (Min.)		-		40	River	Pit	50	-
					80	50		
Methylene Blue Adsorption Value (Max.)		-		0.7	0.7	0.7	-	-
Permissible Content (% by Mass of Mix Aggregates)		-		-	0 - 10	-	-	0 – 2

1. Natural sand is not permitted in SMA mixes.

Table 2 Aggregate Quality Requirements

PS.ED.5 HOT/WARM MIX ASPHALT MIXES AND DESIGN

5.1 Asphalt Mix Requirements

There are a total of 15 mixes required:-

- 9 sand skeleton mixes (i.e. continuously graded mixes)
- 4 SMA (stone skeleton) mixes
- 2 EME mixes

The required asphalt mixes are depicted in Table 5. However, traffic condition risk profiles require additional higher levels of design for particular mixes (Table 6).

Sand Skeleton Mixes (Sa)		Nominal Maximum Particle Size		
Traffic Condition Category		10.0	14.0	20.0
S	Standard Conditions	Sa-S10	Sa-S14	
H	Heavy Conditions	Sa-H10	Sa-H14	Sa-H20
V	Very Heavy Conditions		Sa-V14	Sa-V20
E	Extreme Conditions		Sa-E14	Sa-E20
Design Level	Mix Types			
Level I	Sa-S10, Sa-S14			
Level II	Sa-H10, Sa-H14, Sa-H20, Sa-V14, Sa-V20			
Level III	Sa-E14, Sa-E20			

Stone Mastic Asphalt (SMA)		Nominal Maximum Particle Size		
Traffic Condition Category		10.0	14.0	20.0
S	Standard Conditions			
H	Heavy Conditions			
V	Very Heavy Conditions	SMA-V10	SMA-V14	
E	Extreme Conditions	SMA-E10	SMA-E14	

Enrobé à Module Élevé (EME)		Nominal Maximum Particle Size		
Traffic Condition Category		10.0	14.0	20.0
S	Standard Conditions			
H	Heavy Conditions			
V	Very Heavy Conditions			
E	Extreme Conditions		EME-E14	EME-E20

Table 5 Asphalt Mix Requirements

Traffic Volume (million E80's)	Traffic Condition Category		
	Traffic Speed (km/h)		
	< 20	20 - 70	> 70
< 3	H	S	S
3 to 10	V	H	H
10 to 30	E	V	V
> 30	E	E	E

Table 6 Traffic Condition Risk Profiles

The typical use of various mix types and mix NMPS is portrayed in Table 7.

Asphalt Mix Use			Mix Type
Mix Nominal Maximum Particle Size (NMPS)			
10.0	14.0	20.0	
Patching/ Handwork	X	X	Sa
Wearing Course (Paved)	X	X	Sa, SMA
X	Base Course (Paved)		Sa, EME

Table 7 Typical Mix Use

5.2 Asphalt Mix Design

Asphalt mix designs are required for every mix supplied. Mix designs for each mix type are to be conducted in accordance with the guidelines noted in Table 8.

Sand Skeleton Mixes	Sabita Manual 35	Design and use of asphalt in road pavements
Stone Mastic Asphalt (SMA)	Sabita Manual 35	Design and use of asphalt in road pavements (Appendix B)
Enrobé à Module Élevé (EME)	Sabita Manual 33	Interim design procedure for high modulus asphalt

Table 8 Asphalt Mix Design Guideline Documents

The mix design process shall consist of a laboratory design, a plant trial and (if required) a paved trial. Once satisfied that the laboratory design and plant and paved trials meet the specified mix requirements, the contractor is to document the final mix parameters (i.e. the Job Mix Formula (JMF)). These parameters will be used for production quality control and acceptance purposes (see Table 9).

Grading
Voids in the Mix (@ design compaction)
Binder Content

Table 9 Mix Parameters for the Job
Mix Formula

The contractor shall also include the following “mix characteristics” as a part of his mix design submission :-

- A unique identification number for every mix design
- The binder storage constraints (e.g. maximum storage times, etc.)
- The type of modifier used and the modified binder characteristics to TG1 (if applicable)
- Binder classification in terms of the SA PG Binder Classification System
- Whether the asphalt mix is using a Warm Mix Asphalt technology/additive. The contractor shall comment on any modifications to the “standard” mix design process consequential to the use of the Warm Mix Asphalt technology/additive.
- The maximum mix temperature in the truck at the exit from the plant (in line with industry norms)
- The 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.

5.2.1 Sand Skeleton Mixes

Designs of sand skeleton asphalt mixes are to be conducted in accordance with the guidelines set out in Sabita Manual 35 “Design and use of asphalt in road pavements”. Designs are to be conducted in accordance with the appropriate level (i.e. I, II and III) as indicated in Table 5.

5.2.1.1 Level I Design

The Level I design is aimed primarily at verification of the mix volumetrics. However, a Level I design is a pre-requisite for the Level II and III designs.

Asphalt mixes shall achieve the volumetric criteria noted in Table 11 at the compaction effort noted in Table 10 (or Tables 14 or 17 as applicable) with a design air void content of 4%.

Traffic Condition Category	Marshall	Gyratory
	SANS 3001 AS1	AASHTO T 312
	No. Blows	N _{design}
Standard (S)	75+45	75

Table 10 Volumetric Compaction Requirements (Level I)

	NMPS		
	10	14	20
VMA (min.)	15	14	13
VFB	65 - 75	65 - 75	65 - 75

Table 11 Mix Design Requirements (Level I)

Asphalt mixes designed at Level I shall meet the requirements for the empirical performance tests noted in Table 12.

Test	Requirement	Test Method
Modified Lottman (TSR)	0.8 min.	ASTM D 4867 M
Indirect tensile strength (@ 25°C)	900 kPa - 1 650 kPa	ASTM D 6931-07
Dynamic creep (@ 40°C)	10 MPa min.	CSIR RMT 004
Water permeability	0.1mm/s - 4 mm/s	EN 12697-19
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

Table 12 Empirical Performance Tests (Level I)

5.2.1.1.2 Particular Mix Requirements – Mix Sa-S10

Mix Sa-S10 is to be utilized for lightly trafficked residential streets and patching (handwork). Due attention should be paid to the recommendations of Sabita Manual 27 “Guidelines for thin hot mix asphalt wearing courses on residential streets “ in the design of mix “Sa-S10”. The additional mix characteristics noted in Table 13 are also required.

	NMPS
	10
Filler/Binder Ratio (Max.)	1.3
Binder Film Thickness (Min.)	7.5

Table 13 Mix Design Requirements

5.2.1.2 Level II Design

The compaction requirements for the Level I design as a precursor to the Level II performance design shall be as noted in Table 14. The design air void content shall be 4%.

Traffic Condition Category	Marshall	Gyratory
	SANS 3001 AS1	AASHTO T 312
	No. Blows	N _{design}
Heavy (H) & Very Heavy (V)	-	100

Table 14 Volumetrics Compaction Requirements (Level II)

In addition to meeting the mix requirements outlined in the Level I design, the mix design at Level II shall meet the performance characteristics noted in Tables 15 and 16.

Property	Test conditions	Specification	Test method
Workability	Superpave gyratory compactor - air voids after 25 gyrations (max.)	7%	ASTM D 6925
Durability	Modified Lottman test conditions (min.)	0.8	ASTM D 4867M
Stiffness/ (dynamic modulus)	Dynamic modulus @ 20°C Loading frequencies of 0.1, 0.5, 1, 5, 10, 25 Hz	Report	AASHTO TP 79
Permanent deformation	HWTT at relevant number of passes	See Table 16	AASHTO T 324
Fatigue	Four-point beam fatigue test @ 10°C, 10Hz to 50% stiffness reduction Strain levels 200, 400, 600µε	Report	AASHTO T 321

Table 15 Performance Tests (Level II)

Temperature Zone	6mm Rut	Stripping Point
	No. of Passes (Min.)	
PG 58 Zone	16 000	10 000
PG 64 Zone	20 000	10 000

Table 16 Hamburg Wheel Tracking Test Specifications

5.2.1.3 Level III Design

The compaction requirements for the Level I design as a precursor to the Level III performance design shall be as noted in Table 17. The design air void content shall be 4%.

Traffic Condition Category	Marshall	Gyratory
	SANS 3001 AS1	AASHTO T 312
	No. Blows	N _{design}
Extreme (E)	-	125

Table 17 Volumetrics Compaction Requirements (Level III)

In addition to meeting the mix requirements outlined in the Level I design, the mix design at Level III shall meet the performance characteristics noted in Tables 15 and 16 with the additional test temperatures for Stiffness and Fatigue as indicated in Table 18.

Property	Test conditions	Specification	Test method
Stiffness (dynamic modulus)	Dynamic modulus @ -5, 5, 20, 40, 55°C Loading frequencies of 0.1, 0.5, 1, 5, 10, 25 Hz	Report	AASHTO TP 79
Fatigue	Four-point beam fatigue test @ 5, 10 and 20°C, 10Hz to 50% stiffness reduction Strain levels 200, 400, 600µε	Report	AASHTO T 321

Table 18 Additional Temperatures for Stiffness and Fatigue Tests (Level III)

5.2.2 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 required 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 mix after compaction on site thereby ensuring coarse aggregate interlock. Coarse aggregate for both NMPS will be defined as all material retained on the 5mm sieve.

The stability of the fine aggregate mortar will require enhancement with either cellulose fibre or through modification of the binder or both.

The compacted mix should form an impervious surfacing meeting the water permeability and air permeability requirements noted in Table 12.

The SMA mix shall also conform to the requirements in Table 19.

Design Air Void Content (%)	4.0
Bitumen Content (Min.)	6.0
Voids in Mineral Aggregate (VMA) (Min.)	17
Modified Lottman (TSR) (Min.)	0.7
Schellenberg Drainage Test (%) (Max.)	0.3
VCA _{mix} ¹ (%)	< VCA _{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.

Table 19 SMA Mix Specifications

SMA type “V”

and “E” mixes shall be subjected to and shall conform with the performance test requirements noted in Table 15. SMA type “E” mixes shall be subjected to the additional temperature test requirements noted in Table 18.

The SMA-E10 and SMA-E14 mixes shall conform to the Dynamic Modulus and Fatigue testing requirements noted in Table 20 (EME Performance Criteria).

A mix design is required for each SMA mix. The mix design document should clearly document the process followed to meet the desired SMA characteristics.

5.2.3 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 required for two NMPS:-

- 14mm
- 20mm

Performance criteria should conform to the requirements for a Class 2 EME as depicted in Table 20.

Property	Test	Method	Requirement (Class 2)
Workability ¹	Gyratory compactor (angle 1.25°), air voids after 45 gyrations	ASTM D6926	≤ 6%

Durability	Modified Lottmann, TSR	ASTM D4867	≥ 0.80
Resistance to permanent deformation	RSST-CH, 55°C, 5000 reps	ASTM T320	≤ 1.1% strain
Dynamic Modulus	Dynamic modulus at 10 Hz, 15°C	ASTM TP62	> 16 GPa
Fatigue	Beam fatigue test at 10 Hz, 10°C, to 50% stiffness reduction Strain levels 200, 400, 600µε	ASTM T321	≥ 1x10 ⁶ reps @ 260 µε

Table 20 EME Performance Criteria

EME type “E” mixes shall further be subjected to and shall conform with the performance test requirements for Stiffness (dynamic modulus), Permanent Deformation and Fatigue noted in Table 15 with the additional temperature test requirements noted in Table 18.

A mix design is required for each EME mix. The mix design document should clearly document the process followed to meet the desired EME characteristics.

5.2.4 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 “Interim design procedure for high modulus asphalt” or standard industry practice shall be brought to the attention of the Roads Provision Department and shall be documented in the mix design report.

5.2.5 Mix Design Approval

No mixes may be supplied without approval of the mix design by the Senior Manager : Pavement & Geotechnical Engineering, Roads Provision Department.

The contractor shall label every mix design with a unique identification number to facilitate traceability of mixes using the mix design.

5.2.5.1 Mix Design Approval Process

The contractor 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 contractor shall also supply samples of raw materials. The minimum sample sizes shall be 50 kg for each aggregate type/size and 5 litres of bitumen/binder. The contractor shall also supply any other relevant information as may be requested.

Once satisfied with the content of the mix design, the Senior Manager : Pavement & Geotechnical Engineering (or his nominee) will give signed approval for the mix.

5.2.6 **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 at least the following characteristics:-

- Binder compliance with SANS 4001-BT1
- Modified binder compliance with TG1
- Binder classification in terms of the SA PG Binder Classification System
- Aggregate and filler compliance with Table 2
- Aggregate BRD, ARD and water absorption
- Mix BRD (@ N_{design}) and MTRD
- Particular mix type characteristics
 - Sand skeleton mixes
 - Level I design mix volumetric and performance characteristics
 - All requirements in Tables 11, 12 and 13 (as applicable) at the appropriate compaction (Table 10 for Level I designs and Table 14 for Level II and III designs.
 - Level II design mix performance characteristics (Table 15)
 - Workability
 - Durability
 - Level III design mix performance characteristics (Table 15)
 - Workability
 - Durability
 - SMA mixes
 - All requirements in Table 19
 - SMA mix performance characteristics (Table 15)
 - Durability
 - EME mixes
 - Mix performance characteristics (Table 20)
 - Workability
 - Durability

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 contractor shall undertake the appropriate performance test to prove compliance with the specification.

PS.ED.5.2 LAYING OF ASPHALT

- (a) The Contractor shall provide the Employer's Agent with the name of the asphalt Sub Contractor before asphalt is laid.

The asphalt shall be laid by an approved paving machine. Hand-laying shall be permitted at the Employer's Agent's discretion when the area involved is small. The asphalt shall not be laid if its temperature is below 140 °C.

The asphalt shall be rolled in accordance with the method described in chapter VI of the Asphalt Institute Paving Manual (MS-8). A final density of at least 93% Maximum Theoretical Relative Density (Rice S.G) of the mix is required.

An acceptance certificate for this layer will be issued by the Employer's Agent's inspector when all requirements have been met.

- (b) Further to Clause ED.8.1, the rate tendered shall include for all extra work required to lay and compact the asphalt base and make-up courses in restricted areas.

PS.ED.5.6 LONGITUDINAL AND TRANSVERSE JOINTS

Further to ED 5.6, Spreading shall be so arranged that longitudinal joints do not coincide with joints in lower layers of asphalt base. Joints shall be either at right angles or parallel to the centreline, and joints in the final layer of the surfacing shall, where possible, correspond with the lane markings. Joints in lower layers shall be offset not less than 150 mm on either side of the edges of the traffic lanes.

Any fresh mixture spread accidentally onto existing work at a joint shall be carefully removed by brooming it back with stiff brooms onto the uncompacted work, so as to avoid the formation of irregularities at the joint.

The unit of measurement shall be linear metre (m). The rate tendered shall cover the neat cutting of the joint, the cutting of the additional 150 mm step into the existing adjacent asphalt base layers and the removal of all the old asphalt to tip off site inclusive of haulage.

PS.ED 6 ASPHALT PRODUCTION

6.1 Mixing Plant

Asphalt shall be manufactured through a batch-mixing or drum-mixing plant (approved by the Roads Provision Department) such that the requirements of this specification can be met in full. 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.

All cold aggregates shall be stockpiled in a manner that precludes the possibility of aggregate contamination. At the very least aggregate stockpiles shall be physically separated on concrete slabs. Undue wetting/saturation of (particularly fine) aggregates shall also be prevented through covering (particularly fine) aggregate stockpiles with reinforced waterproof covers at all times when mixing is not in progress. Natural sand aggregates shall be pre-screened through a 13 mm screen before being fed into the cold feed hoppers.

Sufficient binder storage tanks shall be provided to ensure that adequate reserves are maintained for each binder type held without risk of contamination of binders. Binder storage tanks shall be heated in such a manner that the binder is not degraded during heating. The tanks shall also incorporate a circulating system for the binder.

The plant control panel shall enable the plant operator to have simultaneous view of the critical components of the plant inclusive of :-

- Binder storage temperature
- Cold hopper feed settings
- Hot aggregate bin masses (as appropriate)
- Binder feed rate
- Plant speed (as appropriate)
- Mixing temperature

The plant and its operation shall also conform to the requirements of the following legislation:-

- Occupational Health and Safety Act
- National Environmental Management : Air Quality Act

6.2 Quality Control

The quality of mix produced shall be monitored as directed in the contractor'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 bases through routine process control testing. The results of such testing shall be available for review by the Roads Provision Department at all times.

6.2.1 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 eThekweni Municipality'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 Contractor shall provide full rectification of any work undertaken with such asphalt mix or materials.

Where applicable, testing is to be conducted using the SANS 3001 series of test methods.

The plant laboratory should be SANAS accredited for the tests undertaken.

However, should the laboratory not be SANAS accredited, the Roads Provision Department will need to approve the laboratory for any test result to be considered valid.

In line with these processes, the QMS should include as a minimum per mix design, the material characterization tests included in Table 21.

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
	Bitumen 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	
	Voids Analysis (Bulk Relative Density and Maximum Theoretical Relative Density)	1 test per 200 tons of output or part thereof per day	

Table 21 Test Frequencies

6.2.2 Process Control

The mix 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 22.

		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		± 0.3	± 0.2	

Table 22 Mix Production Property Limits

All process control testing undertaken by the contractor shall be signed off by the responsible person identified in the QMS and shall be made available to the Development Engineering 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.

Should the test results not be provided as required or should the results fall outside the applicable specifications, the Development Engineering Department reserves the right to suspend any supply until the results are produced and the mix is accepted.

The Contractor 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 Development Engineering Department. The processes related to the rectification of such work shall be outlined in the QMS.

6.2.3 Acceptance Testing

After reviewing the results of the process control testing, the Development Engineering 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 Contractor as soon as they are available.

Should the acceptance tests indicate that the mix (or any part thereof) is not to specification, the cost of any re-test by the Council shall be to the Contractor's account and shall be deducted from any payments owed to the Contractor.

6.2.4 On Site Mix Problems

The contractor 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 contractor shall re-evaluate his mix design to correct such issues and re-submit his mix design for approval.

PS.ED.8.3 SAW CUT TO EXISTING ROAD EDGE AND LONGITUDINAL AND TRANSVERSE JOINTS

Notwithstanding clause ED 8.3, the longitudinal joint is to be formed by cutting into the existing road surface by a width of 150 mm to a depth of 50 mm where the new surface is to be tied longitudinally into the adjacent existing pavement. The position of the joint shall be indicated by the Employer's Agent on site. After cutting / milling the joint shall be swept of all loose material and painted with a tack coat.

The saw cut shall be cut with a diamond cutter to a neat uniform line 50 mm deep along the edge of or across the existing road where directed by the Employer's Agent. The equipment shall be capable of cutting the asphalt layers to the specified depth in one operation without fragmenting the material, and in straight lines within the required tolerances.

The unit of measurement for the saw cut shall be linear metre (m) and the rate shall cover the overall depth of cut.

PS.ED.8.5 PATCHING OF EXISTING SURFACE

Where existing roads are to be patched, or prior to resurfacing existing roads, those areas of the existing asphalt pavement which require patching will be marked by the Employer's Agent.

8.5.1 Construction

In the areas to be patched the in-situ asphalt surfacing shall be removed to a depth of 100 mm. The sides shall be cut vertically with the edges square. The exposed surface shall be swept of all loose material, a tack coat applied to the bottom and sides and then patched with asphalt base course. After compaction the surface of the patch shall be flush with the adjacent road surface.

8.5.2 Measurement and Payment

The unit of measurement shall be the square metre (m²) and the rate shall include for removal of the in-situ layers, trimming the sides, compaction, application of the tack coat, supply and laying of the asphalt, loading and haulage to the tip of excess material

PS.ED.8.6 PLANING OF EXISTING ASPHALT ROAD SURFACE

Where required, so as to achieve the correct design road levels, the existing road surface of roads around City Hall are to be planed to varying depths to allow correct placing of the asphalt overlay in order to tie into the new final road levels.

PS.ED.8.6.1 Method of Work

The areas to be planed and the depths of asphalt to be removed shall be indicated either on the drawings or as directed by the Employer's Agent. Where it is necessary to maintain traffic over the planed areas, the planing shall be programmed to take place immediately prior to the asphaltting operation.

The machine shall be of a design which will be suitable for planing the existing surfacing in order to remove any irregularities and to leave an even surface without tearing the underlying material. The milling machine shall be approved by the Employer's Agent at least two (2) weeks prior to the Establishment of the machine on site.

Before planing may start, the Contractor shall demonstrate to the Employer's Agent that the machine is capable of executing the work in accordance with the Project Specifications.

The material shall be transported to an approved, storage or spoil, site as directed by the Employer's Agent.

After planing, the area shall be swept of all loose material and a tack coat applied at a rate of 0,3 l/m² following which the replacement asphalt shall be laid. On no account shall traffic be permitted to run on the planed surface.

In areas where the existing road base is disturbed by the planing operation, the surface of the base shall be recompacted with static compactive equipment. These areas shall then be primed with MC 30 or MSP 1 applied at a rate of 0,6 l/m². Only after the curing period shall the asphalt be laid.

In certain instances, the Employer's Agent may direct that the disturbed road base be removed and replaced with graded crushed stone or cement treated graded crushed stone.

PS.ED.8.6.2 Measurement and Payment

(1) Planing

The unit of measurement shall be the cubic meter (m³). The rate is to include for the establishment/de-establishment of the rig on/off site and all movement of the rig to the required positions on site, planning/milling, sweeping, disposal of the planed/milled

material to an approved municipal storage/spoil as directed by the Employer's Agent, traffic accommodation and the neat cutting of the joint adjacent to the existing road surface.

In addition, allowance shall be made for working around manhole and valve covers.

(2) Recompacting of Road Bases

The unit of measurement shall be square metre (m²). The rate shall cover the plant, labour and material required to complete the operation as specified.

(3) Removal and Reinstatement of Road Base

Removal of road base shall be measured under abandoned roadways. Payment for the reinstatement of the road base shall be made under items 3.EB.1 or 3.EC.1.

PS.ED.8.7 CRACK SEALING AND SEALANT

Prior to resurfacing / overlay of the existing road, where demarcated by the Employer's Agent.

PS.ED.8.7.1 Preparation and Sealing

The cracks shall be cut and neatly trimmed with a mechanical chisel and cleaned to a depth of 6 mm or the depth of the crack whichever is greater. The road surface immediately adjacent to the cracks shall be cleaned with a stiff brush and compressed air and then dried prior to the application of the sealant. Traffic shall be permitted to ride on the sealed cracks only after the sealant has cooled.

PS.ED.8.7.2 Materials

The sealant shall be Natproplastic or similar. It shall be heated and applied in accordance with the manufacturer's recommendations and specification.

PS.ED.8.7.3 Measurement and Payment

(1) Cleaning of Cracks and Application of Sealant

The unit of measurement shall be the metre (m) of cracks cleaned and sealed.

The tendered rate shall include for all labour, transport, equipment and tools necessary to complete the work.

(2) Supply of Sealant

The unit of measurement shall be the kilogram (kg) of sealant actually consumed in filling the cracks. The tendered rate shall include for the supply, handling, heating and storage of the sealant.

PS.EF KERBS AND HAUNCHES

INDEX

PAGE

PS.EF.8.1	TYPE A BARRIER KERB AND CHANNEL.....	150
PS.EF.8.3	EXCAVATION / SCABBLING FOR KERB AND CHANNEL / FILLET IN CEMENT TREATED GRADED STONE (C3) LAYER	150
PS.EF.8.4	ADDITIONAL CONCRETE TO KERB FOUNDATION.....	150
PS.EF.8.5	EXCAVATION / SCABBLING FOR KERB AND CHANNEL / FILLET IN EXISTING ASPHALT LAYERS	150

PS.EF.8.1 TYPE A BARRIER KERB AND CHANNEL

Notwithstanding clause EF 8.1, the kerbing to be used for this contract shall be Type A Barrier kerb and channel/fillet, with a square 150 x 150mm haunching behind the kerb. This haunching requirement differs from the triangular haunching detail depicted on Standard Drawing number 38577.

PS.EF.8.3 EXCAVATION / SCABBLING FOR KERB AND CHANNEL/FILLET IN CEMENT TREATED GRADED STONE (C3) LAYER AND /OR UNTREATED GRADED CRUSHED STONE LAYER

The unit of measurement shall be the cubic metre (m³). The rate shall include all the materials, labour and plant necessary to scabble the C3 Cement Treated and/or the untreated Graded Crushed Stone layer the width of the kerb base to be laid, the excavating, loading and transporting of surplus material to stockpile.

Over-excavation is likely to occur and this is to be made up in mortar (3 sand, 1 cement) Further to the above the rate tendered shall include for all additional mortar required to make up the over-excavated areas.

PS.EF.8.4 ADDITIONAL CONCRETE TO KERB FOUNDATION

The rates tendered for kerbs Type A and B shall be based on the minimum dimensions indicated on standard drawing 38577. Where the asphalt layers necessitate an increase in the kerb foundation thickness, the supply of this additional concrete shall be paid for separately. The unit of measurement shall be the cubic metre (m³) and shall cover the supply and placing of the concrete, compaction and any formwork that may be required.

PS.EF.8.5 EXCAVATION FOR KERB AND CHANNEL/FILLET IN EXISTING ASPHALT LAYERS

The unit of measurement shall be the cubic metre (m³). The rate shall include all the materials, labour and plant necessary to cut two parallel joints in the existing asphalt the width of the kerb base to be laid, the excavating, loading and transporting of surplus material to the approved tip. Saw cutting shall be measured separately.

PS.EG SIDEWALK/MEDIAN AREAS

INDEX

PAGE

PS.EG.3.5	MATERIALS	151
PS.EG.5.3	CONSTRUCTION	151
PS.EG.8.4	BRICK PAVING TO SIDEWALK AND MEDIAN	152
PS.EG.8.4.1	PAVING REINSTATEMENT TO THE ICC.....	152
PS.EG.8.4.2	CLAY BRICK PAVING.....	153
PS.EG.8.7	PRECAST KERBS AND PAVING SLABS.....	153
PS.EG.8.8	160 mm DIAMETER P.V.C. SIGN SLEEVE	153

PS.EG.3.5 Materials

The clay paving bricks shall comply with the requirements of SABS 227 or equivalent and have a minimum compressive strength of 35 Mpa.

Bricks shall be nominal size 220 x 108,5 x 50 mm, 220 x 220 x 50 mm and 108.5 x 108.5 x 50 mm and shall be approved wire cut paver as specified on the construction drawings and approved by the Employer's Agent. Bricks shall be selected for size to be within the range tolerance of 2.0 mm.

The clay paving bricks shall be burgundy and cederburg in colour. The burgundy pavers shall be used for the header course. The cederburg pavers shall be laid in a herring bone pattern in between the header course as per the drawings or as directed by the Employer's Agent

The surface texture and colour of all units shall be uniform.

PS.EG.5.3 Construction

Further to Clause E.G 5.3 Add the following:

(a) Sand for Bedding and Jointing

The blocks shall be laid in a pattern as specified on a bedding of 1:8 cement/clean coarse sand mix compacted thickness 25 mm, \pm 10mm.

Sand for Bedding shall be a free-draining coarse river sand free from clay, silt or any substances that may be deleterious to blocks. It is required that a trial section, as specified by the Employer's Agent, be constructed to ensure that a compacted thickness of 25mm \pm 10mm is achieved.

In addition to the grading, the sand shall conform to the following properties :

- % Passing the 0.075mm sieve to be less than (<) 1%
- Finus Modulus greater than (>) 2.5

Grading as follows :

Sieve Size	% Passing
9.52	100
4.75	95 - 100
2.36	80 - 100
1.18	50 - 85
0.6	25 - 60
0.3	10 - 30
0.15	5 - 15
0.075	0 - 10

Jointing Sand : shall be a fine river sand passing the 1.18mm sieve and shall contain 10 - 20% of material that passes the 0.075mm sieve..

(b) Edge Spaces

Edge spaces (at edge restraints / anchor beams) should be filled either by re-orienting blocks at the restraint and/or by trimming the blocks such that more than 25% of the full brick is used. The use of in-fill concrete should be avoided wherever possible. However, where unavoidable, the edge spaces shall be filled and sealed with a 30 / 9,5 (30MPa / 9,5mm stone) concrete mix and not the fine jointing sand used elsewhere.

(c) Application of Weedkiller

The formation to be surfaced shall be trimmed and compacted to the required tolerances and density and thereafter an approved weedkiller shall be applied in accordance with the manufacturer’s instructions. A second application is to be made immediately prior to the vacation of site by the Contractor.

PS.EG.8.4 BRICK PAVING TO SIDEWALKS AND CENTRE MEDIAN

Notwithstanding clause EG. 8.4, to facilitate pattern matching, dimensions and setting out, the paving has been designed on the basis of multiples of a brick module. Where necessary setting out shall be done from entrance levels to ensure that these levels are central to existing or proposed entrances.

Brick paver modules including joints are 230 x 115 mm.

Samples of all paving materials to be used shall be approved by the Employer’s Agent prior to the commencement of paving. The approved range of samples shall be retained on site by the Employer’s Agent and all pavers delivered to site shall be within the tolerance and colour range.

PS.EG.8.4.1 PAVING REINSTATEMENT TO ICC

The unit of measure shall be square meters(m2) of paving constructed. The rate shall include the sourcing of pavers from stockpile and/or sourced from the Employer, the sand/cement base layer, all plant and labour required for construction.

PS.EG.8.4.2 CLAY BRICK PAVING

The unit of measurement shall be square metres (m²) of paved area and metre (m) of header course.

he tendered rate shall include for supplying the clay brick paving and sand, placing the bedding layer, laying the bricks, cutting the bricks to fit edge restraints, compacting the pavement, filling gaps as specified, filling joints and removing excess sand and the supply and application of weed killer. The rate shall also include for all saw cutting (Intricate or normal).

PS.EG.8.7 PRECAST KERBS AND PAVING SLABS

Precast kerbs are required to form the sidewalk area. Tenderers shall note that the dimensions of these precast items may be non-standard. In all other respect, the manufacture, laying and measurements of these items are as set out in the Departmental specifications of Part EF - Kerbs and Haunches and Part EG - sidewalks.

In the case of kerbs, the cost of the in-situ concrete haunch including shuttering shall be included in the unit rate for kerbing.

PS.EG.8.8 160 mm DIAMETER P.V.C. SIGN SLEEVE

The 160 mm diameter P.V.C. sign sleeve shall be 700 mm deep and have 25 mm show above finished paved area. The unit of measure shall be number (No.) and the rate shall include for excavation, supply and placing of the sleeve and backfilling.

PS.EH STEEL GUARD RAILS AND CONCRETE MEDIAN BARRIERS

INDEX

PAGE

PS.EH.8.3 CONCRETE BOLLARDS.....154

PS.EH.8.3 CONCRETE BOLLARDS

Where required by the Employer’s Agent, precast concrete bollards with exposed aggregate finish shall be installed in accordance with the details on drawing No. 49521.

The unit of measurement shall be number (no.) and the rate shall include for the supply of the precast concrete bollards with exposed aggregate finish, excavation for the base, the disposal of surplus material to tip, setting in concrete, backfilling and the preparation and painting of the bollards.

PS.EL DUMPROCK SUBGRADE IMPROVEMENT

	<u>INDEX</u>	<u>PAGE</u>
PS.EL.3.	DUMPROCK.....	155

PS.EL.3 DUMPROCK

Dumprock as defined below is to be used as sub-grade improvement at the discretion of the Employer’s Agent after assessment of the prevailing ground conditions.

Clause EL.3 shall be amended to read as follows :

The dumprock shall consist of fresh to slightly weathered ungraded waste rock from mining activities, blasting or rock excavation. Shales, slates or other laminated mudrocks shall not be accepted.

Dumprock shall have a maximum size not more than two-thirds of the compacted thickness of the layer. The rock shall otherwise be ungraded 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.

Dry, G4 material shall then be applied in a blanket over the full width of the layer. With hand labour following the roller, the G4 material shall be rolled and broomed into the voids of the stone.

The Contractor shall note that the use of crusher dust will not be permitted.

PS.PG	NON-PRESSURE PIPELINES AND PRECAST CONCRETE CULVERTS	PAGE
	<u>INDEX</u>	
PS.PG.8.11.1	TELKOM / NEOTEL / DFA CABLE DUCTS.....	156
PS.PG.8.11.2	CONCRETE ENCASEMENT OF DUCTS UNDER CARRIAGEWAYS	156
PS.PG.8.11.3	CABLE DUCT MARKERS FOR ALL SERVICES	156
PS.PG.8.12.2	SUBSOIL PIPES	157
PS.PG.8.12.3	SUBSOIL DRAINS AND OUTLETS.....	157
PS.PG.8.12.4	STONE FOR SUBSOIL DRAIN FILTER	157
PS.PG.8.12.5	RIVER SAND BACKFILL FOR SUBSOIL DRAIN FILTER	157
PS.PG.8.12.6	GEOFABRIC BLANKET	158
PS.PG.8.12.7	CONNECTION OF SUB-SOIL DRAINS TO EXISTING STORMWATER SYSTEM.....	158
PS.PG.8.12.8	SUB-SOIL TERMINATION STUB	158
PS.PG.8.13	SAND / CEMENT BACKFILL TO DUCTS.....	158

PS.PG.8.11.1 TELKOM/NEOTEL/DARK FIBRE AFRICA (DFA) CABLE DUCTS

The position, depth and extent of the Telkom/Neotel/DFA ducts to be constructed / installed as part of this contract will be detailed in construction drawings. Construction details and dimensions are provided on the Standard Drawings, C3.4.2 of this contract document.

The Tenderer shall note that all new ducts required to be laid for the relocation of Telkom plant will be supplied free of charge by Telkom SA Limited and the ducts shall be collected from Telkom SA Limited’s Merebank yard, 1616 South Coast Road.

Separate items have been provided in the Bill of Quantities for excavation, sand bedding, backfill and 110/160mm mm dia. P.V.C. pipe.

The unit of measurement for 110 mm dia. P.V.C. ducts shall be the lineal metre (m) and the tendered rate shall include for the collection of the ducts from Telkom SA Ltd’s Merebank yard, laying of a single duct, and installation of the draw wire and placing of the Telkom tape and screen wire.

PS.PG.8.11.2 CONCRETE ENCASEMENT OF DUCTS UNDER CARRIAGEWAYS

Further to Clause PG.8.11.2 the Contractor shall note that concrete grade 20 / 26 shall be used for all duct encasement.

PS.PG.8.11.3 CABLE DUCT MARKERS FOR ALL SERVICES

Further to the fourth paragraph of Clause PG.5.2.3, and to Clause PG.8.11.3, the Tenderer shall note that the cable duct markers will not be delivered by the Council to site free of charge.

The Tenderer shall make allowance in the rates tendered for both the supply and installation of the cable duct markers; i.e. it will be expected of the Contractor to make suitable arrangements with a commercial supplier in advance of the cable duct markers being required on site.

PS.PG.8.12.2 SUBSOIL PIPES

The following clause shall replace Clause PG.3.5.

"These shall be "Netlon" plastic subsoil pipes (or similar approved) complying with SABS 791 as amended.

Hole Size :5 ± 1 mm Diameter
Diameter of Pipe :100 ± 10 mm.
Pipe Invert :25% of the circumference of the pipe is to be free from slots or holes to form an invert to the pipe."

PS.PG.8.12.3 SUB-SOIL DRAINS AND OUTLETS

Positions and type of subsoil drains have not been shown on the plans but will be indicated on site by the Employer's Agent.

Subsoil drains shall be as per the detail provided on standard drawing no. 38575, unless otherwise indicated by the Employer's Agent

Subsoil pipes shall be "Netlon" plastic pipes (or similar approved) conforming to SABS 791. The outfall end of each run of subsoil drain shall be built into the nearest inlet/manhole or headwall in accordance with Clause PG 5.5, or into a special outlet structure as detailed on the project drawings and measured under part PH.

PS.PG.8.12.4 STONE FOR SUBSOIL DRAIN FILTER

Further to the requirements of Clause PG.3.10, the stone aggregate used for the subsoil drain filter shall be washed clean of fines prior to installation.

PS.PG.8.12.5 RIVER SAND BACKFILL FOR SUBSOIL DRAIN FILTER

The following clause shall replace Clause PG.3.11.

"River sand for subsoil drain filter shall consist of clean river sand conforming to the following grading :-

Sieve size mm	67	475	150	75
% Passing	100	90 -100	0 - 15	0 – 3

and having a Fineness Modulus of 2,0 - 3,5."

PS.PG.8.12.6 GEOFABRIC BLANKET

The geofabric shall comply with Clause PG.3.8 and the rate tendered shall include for wrapping the geofabric around either the subsoil pipe, subsoil drain or stone bedding.

PS.PG.8.12.7 Connection of Subsoil Drains to Existing Stormwater System

Where subsoil pipes require to be built into an existing stormwater inlet/manhole or headwall, the unit of measurement shall be number (No.)

The rate tendered shall include for all labour and materials to construct the connection in accordance with Clause PG.5.5. and for trimming the geofabric at the connection.

PS.PG.8.12.8 Subsoil Termination Stub

The final 1 metre length of the subsoil drain before the manhole/catchpit shall be 100/110 mm diameter non-perforated U.P.V.C. pipe.

The unit of measurement shall be number (No.). The rate shall include for the supply and laying of the pipe, and for all work necessary to tie into the stormwater manhole/catchpit.

PS.PG.8.13 SAND / CEMENT MIX BACKFILL TO DUCTS

The rate shall be the cubic metre (m³) of backfill payable to trench width. The rate shall include for the supply of clean, coarse granular sand, including all haulage, the supply and mixing of cement to the sand in a 1 cement : 10 sand ratio and the placing and compacting of the backfill.

PS.PH MANHOLES AND APPURTENANT DRAINAGE WORKS

	<u>INDEX</u>	<u>PAGE</u>
PS.PH.3.1	BRICKS	159
PS.PH.8.2	MANHOLES AND INLETS	159
PS.PH.8.2.1	CONSTRUCTION OF MANHOLE OVER EXISTING STORMWATER PIPE.....	159
PS.PH.8.3	CONSTRUCTION OF INLET OVER EXISTING STORMWATER PIPE.....	160
PS.PH.8.7	ALTERATIONS TO EXISTING MANHOLES AND STORMWATER INLETS INCLUDING RAISING AND LOWERING THE COVERS	160
PS.PH.8.11	BREAK INTO EXISTING BRICK MANHOLE/INLET FOR STORMWATER PIPE	160
PS.PH.8.12	CONVERT EXISTING MANHOLES TO INLETS	161
PS.PH.8.13	CONVERT EXISTING INLETS TO MANHOLES	161
PS.PH.8.14	ABANDONED SEWER AND STORMWATER MANHOLES	161
PS.PH.8.15	REINFORCED CONCRETE SLAB FOR BLINDING M.H.'S.....	161
PS.PH.8.16	CONNECTIONS TO EXISTING SEWER MANHOLES	162
PS.PH.8.17	STANDARD 2,75 TELKOM MANHOLES	162

PS.PH. 3.1 BRICKS

Clause PH.3.1 first paragraph shall be replaced by the following :

"Burnt clay masonry units for foul-water and stormwater sewer manholes, stormwater inlets and inspection chambers shall be Non-Facing Extra (NFX) with a nominal compressive strength of 14 MPa to S.A.B.S. 227:1986.

PS.PH. 8.2 MANHOLES AND INLETS

Notwithstanding clause PH.8.2, tenderers are to note that manholes and inlets shall be measured according to type and varying depth only. The rate tendered for the manholes/inlets shall include for the different pipe sizes and benching configurations. The unit of measurement shall be number (No.).

The Contractor shall note that the rate for inlets shall include the cost of the graded channel in front of the inlet and / or splay and the cost of the transition kerb and channel upstream and downstream from each inlet. This will not form part of the payment for kerb and channel.

PS.PH.8.2.1 CONSTRUCTION OF MANHOLE OVER EXISTING STORMWATER PIPE

The unit of measurement shall be Number (No.).

Further to Clauses PH.8.2 the rate shall include for :

- (a) Breaking into the existing pipe.
- (b) Cutting and reinstating the ends of the existing pipe.
- (c) The restricted working around the existing pipe.
- (d) Disposal of any spoil etc., to the tip.

PS.PH.8.3 CONSTRUCTION OF INLETS OVER EXISTING STORMWATER PIPE

The unit of measurement shall be Number (No.).

Further to Clauses PH.8.3 the rate shall include for :

- (a) Breaking into the existing pipe.
- (b) Cutting and reinstating the ends of the existing pipe.
- (c) The restricted working around the existing pipe.
- (d) Disposal of any spoil etc., to the tip.

PS.PH.8.7 ALTERATIONS TO EXISTING MANHOLES AND STORMWATER INLETS INCLUDING RAISING AND LOWERING THE COVERS

Alterations to stormwater structures for this contract may be divided into two categories.

- (i) Where the cover is to be raised/lowered and set back/aligned less than 300 mm to suite the new road edge/central median/sidewalk.
- (ii) Where the cover is to be raised/lowered and set back/aligned a distance of more than 300 mm but less than 800 mm to suite the new road edge/central median/sidewalk.

In (i) above the Contractor shall be required to demolish a portion of the stormwater structure and corbel the brickwork to support the cover in its new position.

In (ii) above the Contractor shall be required to demolish a portion of the stormwater structure, cast an extension to the base, slab over as required and re-do the brickwork to support the cover in its new position. Details of this work are shown on Standard Drawing No. 38573.

Extra Over items for the various types of cover and frame will be scheduled if new covers and frames are to be provided.

The Extra Over rate should include for the supply of the new covers and frames and the removal from site of the old ones.

PS.PH.8.11 BREAK INTO EXISTING BRICK MANHOLE/INLET FOR STORMWATER PIPE

The unit of measurement shall be Number (No.). Separate items have not been scheduled for each diameter of pipe to be connected to a manhole. The unit rate for breaking into a brick manhole to connect a stormwater pipe shall include for all the materials, labour and plant necessary for:

- (a) The breaking into the existing manhole, including the demolition of the benching necessary to accommodate the pipe.
- (b) The building in of the stormwater pipe, including the re-shaping and making good of benching and the disposal of all resultant rubble to approved tip.

PS.PH.8.12 CONVERT EXISTING INLETS TO DIFFERENT TYPE INLETS

Where indicated, existing inlets shall be converted to different type of inlets as shown on Standard Drawing 49521. The unit of measurement shall be number (No.) and in addition to the plant, labour and materials required to alter the manhole, the rate shall include for :

- (a) removing the existing cover and frame to site for storage;
- (b) disposal of any spoil / rubble to tip,
- (c) raising/lowering of the inlet cover by 0-500 mm from the original level,
- (d) supply and setting of the new inlet covers to the new levels.

Separate items have been included in the Bill of Quantities to cover the different manhole and inlet types.

PS.PH.8.13 CONVERT EXISTING INLETS TO MANHOLES

Where indicated, existing inlets shall be converted to standard manholes as shown on Standard Drawing 49521. The unit of measurement shall be number (No.) and in addition to the plant, labour and materials required to alter the inlet, the rate shall include for :

- (a) Disposal of any spoil/rubble to tip,
- (b) raising/lowering of the manhole cover by 0-500 mm from the original level,
- (c) supply and setting of the new manhole covers and frames to the new levels.

Separate items have been included in the Bill of Quantities to cover the different manhole types.

PS.PH.8.14 ABANDONED SEWER AND STORMWATER MANHOLES

The existing manholes shall only be abandoned after the new sewer and stormwater infrastructure including all connections are completed and operational.

The manholes are to be broken down 1 m below the existing surface level and the void backfilled with suitable material after the incoming and outgoing sewers have been sealed with concrete. Items for this work have been included in the Bill of quantities.

PS.PH.8.15 REINFORCED CONCRETE SLAB FOR BLIND M.H.'S

The supply of the reinforced concrete slab 1 500 mm by 1 500 mm by 250 mm thick for blind manholes is inclusive of shuttering, grade 25 / 26 concrete, and reinforcement steel - Y12 at 250 mm centers both ways.

The unit of measurement shall be number (No.) and the tendered rate shall include for the supply of all labour, plant and materials required to construct the reinforced concrete slab and blind the manhole complete, in place, in accordance with Employer's Agents specification and instruction.

PS.PH.8.16 CONNECTIONS TO EXISTING SEWERS MANHOLES

Where new sewer pipes have to be connected to existing manholes, the existing manhole walls are to be broken out and the new sewer pipe built in at the correct line and level. The unit of measurement shall be (No.). The rate is to include for the supply of all labour, equipment and materials required for the breaking out of the manhole wall, any modification to the benching of the existing manhole, setting the new pipe to the correct level, making good the manhole wall and benching and the disposal of all unsuitable or surplus material, as well as flow diversions.

PS.PH.8.17 STANDARD 2,75 TELKOM MANHOLES

Details of the Telkom manholes to be constructed on this contract are provided in Part C3.5.1, “Annexures”, clause C3.5.2, “Standard Drawings” listed on this Procurement document.

The manhole covers and frames to be cast into the concrete roof slabs will be supplied free of charge and shall be collected from Telkom SA Limited’s Merebank yard, 1616 South Coast Road.

The unit of measurement shall be number (No.) and the tendered rate shall include for the collection of manhole covers and frames from Telkom SA Limited’s Merebank yard, supply of all labour, excavation, plant and materials required to construct the manhole complete, inclusive of building ducts through manhole walls.

PS.TA ROAD SIGNS

	<u>INDEX</u>	<u>PAGE</u>
PS.TA. 3.3	TEMPORARY ROAD SIGNS	163
PS.TA. 8	ROAD SIGN BOARDS	163
PS.TA. 8.1	RE-ERECT ROAD SIGNS	163

PS.TA. 3.3 TEMPORARY ROAD SIGNS

PS.TA. 3.3.1 Materials

All temporary signs shall be manufactured from Chromadek steel plate as detailed under Clause TA.3.3 and retroflective material as follows:

Black	semi-matt finish
Yellow background (with no red material)	Class I
Yellow background (if red material used)	Class II
Red	Class I

With the exception of signs R1, R2, R3, R1.5A and R1.5B, the temporary road signs shall be in accordance with the colour code for temporary road signs.

PS.TA. 3.3.2 Erection

The temporary road signs shall be erected in a manner such that the face of the sign is not defaced, obscured or deflected in any way.

Where necessary, for high visibility, the temporary signs shall be erected on 100 mm creosoted gum posts such that the underside of the sign is not less than 2,2 m above ground level. The post/s shall be supported in a drum/s which shall be ballasted and braced or stayed so that the sign cannot be blown over. In all other instances, the temporary signs shall be adequately secured to a drum.

PS.TA. 8 ROAD SIGN BOARDS

Further to Item TA.8.1, tenderers are to note that the signs measured under this item are the various type of standard regulatory signs (e.g. stop, yield, keep left etc.).

Notwithstanding the requirements of Clause TA.8.1 the unit of measure shall be number (No.).

PS.TA. 8.1 RE-ERECT ROAD SIGNS

The unit of measurement is number (No.) which shall consist of one pole and one sign.

The rate shall cover the cost of collecting the pole and sign from the site yard and planting of the pole in the PVC sign sleeve or ground, together with compacting the soil around the pole.

PS.TB ROAD MARKING

	<u>INDEX</u>	<u>PAGE</u>
PS.TB. 3.1	PLASTIC ROAD MARKING MATERIAL	164
PS.TB. 8.1.2	LETTERING, SYMBOLS AND TRAFFIC ISLAND MARKING	165
PS.TB. 8.3	ROAD STUDS	165
PS.TB. 8.4	TEMPORARY ROADMARKING	166
PS.TB. 8.5	SANDBLASTING	166

PS.TB. 3.1 PLASTIC ROAD MARKING MATERIAL

Further to Clause TB.3.1(c) the plastic road marking material shall comply with the requirements of Specification BS.3262, 1987 Part 3.

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.

Aggregate

The aggregate shall consist of white silica sand, crushed calcite calcined flint, quartz, or other approved aggregate.

Reflectorisation

The solid glass beads incorporated in the mixture shall comply with the Class A category of BS 6088 (1981), that is:

<u>Sieve %</u>	<u>Retained</u>
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%

Luminance

The luminance factor of white SPRAYPLASTIC shall be not less than 70.

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).

Low Temperature Impact Resistance

SPRAYPLASTIC shall pass the impact test when tested at -10 C (temperate grade) or -1 C (semi-tropical or tropical grades).

Abrasion resistance

The abrasive wear of SPRAYPLASTIC shall typically be less than 0,5 g per 100 revolutions.

PS.TB. 8.1.2 LETTERING, SYMBOLS AND TRAFFIC ISLAND MARKING

Notwithstanding the requirements of Clause TB.8.1.2, traffic island marking shall be measured under Clause TB.8.1.1 lines.

PS.TB. 8.3 ROAD STUDS

The road studs to the carriageway edges shall be red, while the lane demarcation studs shall be yellow approaching and white departing.

The unit of measurement shall be number (no) and the rate tendered shall include for the supply of the road studs and all materials and labour required to complete the work / operation to the satisfaction of the Employer's Agent.

The Contractor shall allow for all labour, materials, transport, plant and equipment for the supply and installation of **Lynx Aluminium Road Studs with anchor shanks** (or similar approved).

Road studs shall be of the type indicated and shall be fixed in the positions indicated and approved by the Employer's Agent.

The road shall be drilled, cleaned and the shank and road studs shall be fixed by means of an approved epoxy resin in accordance with the manufacturer's instructions, subject to such amendments to the method as may be required by the Employer's Agent. The studs shall be protected against impact until the adhesive has hardened.

(a) Dimensions

The height of the part of the road stud that is intended to protrude above the road surface shall be 15-25 mm.

(b) Colour

The chromaticity co-ordinates of the retro-reflected light of the road studs and the co-efficient of luminous intensity shall be in accordance with SABS 1442-1987.

(c) Conformity with S.A.R.T.S.M. and SABS

All studs shall be manufactured fully in conformity with the latest Roads Traffic Signs Manual (S.A.R.T.S.M.) and the South African Bureau of Standards (SABS - 1442-1987 and SABS 0157).

(d) Quality

All materials used in the manufacture of the road studs must comply with the integrated quality management system of the SABS 0157. Road Studs are to bear the standardisation mark or alternatively must meet the Acceptable Quality Level (AQL) as per SABS 1442 - 1987

(e) Application

The road shall be drilled, cleaned and the shank and road studs shall be fixed by means of an approved epoxy resin in accordance with the manufacturer's instructions, subject to such amendments to the method as may be required by the Employer's Agent. The stud must be correctly aligned. The studs shall be protected against impact until the adhesive has hardened.

PS.TB. 8.4 TEMPORARY ROADMARKING

An Item has been included in the Bill of quantities for the provision of temporary road marking using P.V.A. paint. The unit of measurement will be kilometre (km).

The rate shall include for procuring and furnishing all material and the necessary equipment, and for painting, protecting and maintenance as specified, including the setting-out and premarking of the lines.

PS.TB. 8.5 SANDBLASTING

Where directed, the Contractor shall remove existing lane lines and painted islands by sandblasting. The Contractor shall ensure that the method of sandblasting used will not damage the road surface permanently.

The Contractor shall take all necessary precautions to avoid damage to the public traffic during the removal of existing markings.

All loose material remaining on the road after obliteration of markings shall be suitably disposed of to avoid clogging the drainage systems.

The unit of measurement shall be the square metre (m²). The rate shall include for the successful removal of the paint on the road surface, the continual sweeping and removal of grit and the screening of the sand blasting apparatus to ensure that the dust from the operation does not become a hazard.

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)

C3.5: CONTRACT AND STANDARD DRAWINGS

C3.5.1 CONTRACT DRAWINGS / DETAILS

Dwg No.	Description	Date of Issue	
45921/1	Road Layout Plan and Details	December	2025
45921/2	Setting Out Details	December	2025
45921/3	Stormwater Details	December	2025
45921/4	Paving Layout and Landscaping Details	December	2025
45921/5	Road marking Layout Details	December	2025

C3.5.2 STANDARD DRAWINGS

The Standard Drawings to which these Standard Engineering Specifications refer are listed below.

Dwg No	Description	Date of Issue	
38570	Ring Manholes	February	1990
38571	Brick Manhole Details	February	1990
38572	Stormwater Inlet Details	February	1990
38573	Stormwater Inlet Special Details	February	1990
38575	Sub-Soil Drain, Pipe Bedding and Pipe Protection 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
38584	Standard Hydrant Thrust Blocks and Trenches	February	1990
38585	Water Connections, Pipework and Fittings	February	1990
38586	DP & TC Manholes - Rectangular	February	1990
38587	DP & TC Manholes - "L" Shaped	February	1990
38588	DP & TC Manholes - "T" Shaped	February	1990
38589	DP & TC Cable Ducts and Junction Box Details	February	1990
43120	Typical Details of Grid Inlets	February	1990

C3.6: ANNEXURES

C3.6.1 Typical Notice Board for Engineering Unit.

**HARDBOARD NOTICE BOARD FOR
MTAB SUBSIDISDE PROJECTS**

**DETAIL OF
SURROUND
SCALE 1:5**

NOTES:

- A. RAISED SURROUND PAINTED WHITE.
- B. WHITE LETTERING ROYAL BLUE BACKGROUND. REF BLUE 0-013.
- C. GREY BACKGROUND. REF GREY 8-089.
- D. WHITE DIVIDING LINES
- E. THE FACE TO BE TEMPERED HARDBOARD IN ONE PIECE. THE COLOUR NUMBERS REFER TO THOSE ON THE COLOUR CARDS OF BRITISH STANDARD 2660 OF 1955.

**NOTICE BOARD SIGNAGE DETAIL
SCALE 1:10**

NOTES:

- A. RAISED SURROUND PAINTED WHITE.
- B. WHITE LETTERING ROYAL BLUE BACKGROUND. REF BLUE 0-013.
- C. GREY BACKGROUND. REF GREY 8-089.
- D. WHITE DIVIDING LINES
- E. THE FACE TO BE TEMPERED HARDBOARD IN ONE PIECE. THE COLOUR NUMBERS REFER TO THOSE ON THE COLOUR CARDS OF BRITISH STANDARD 2660 OF 1955.

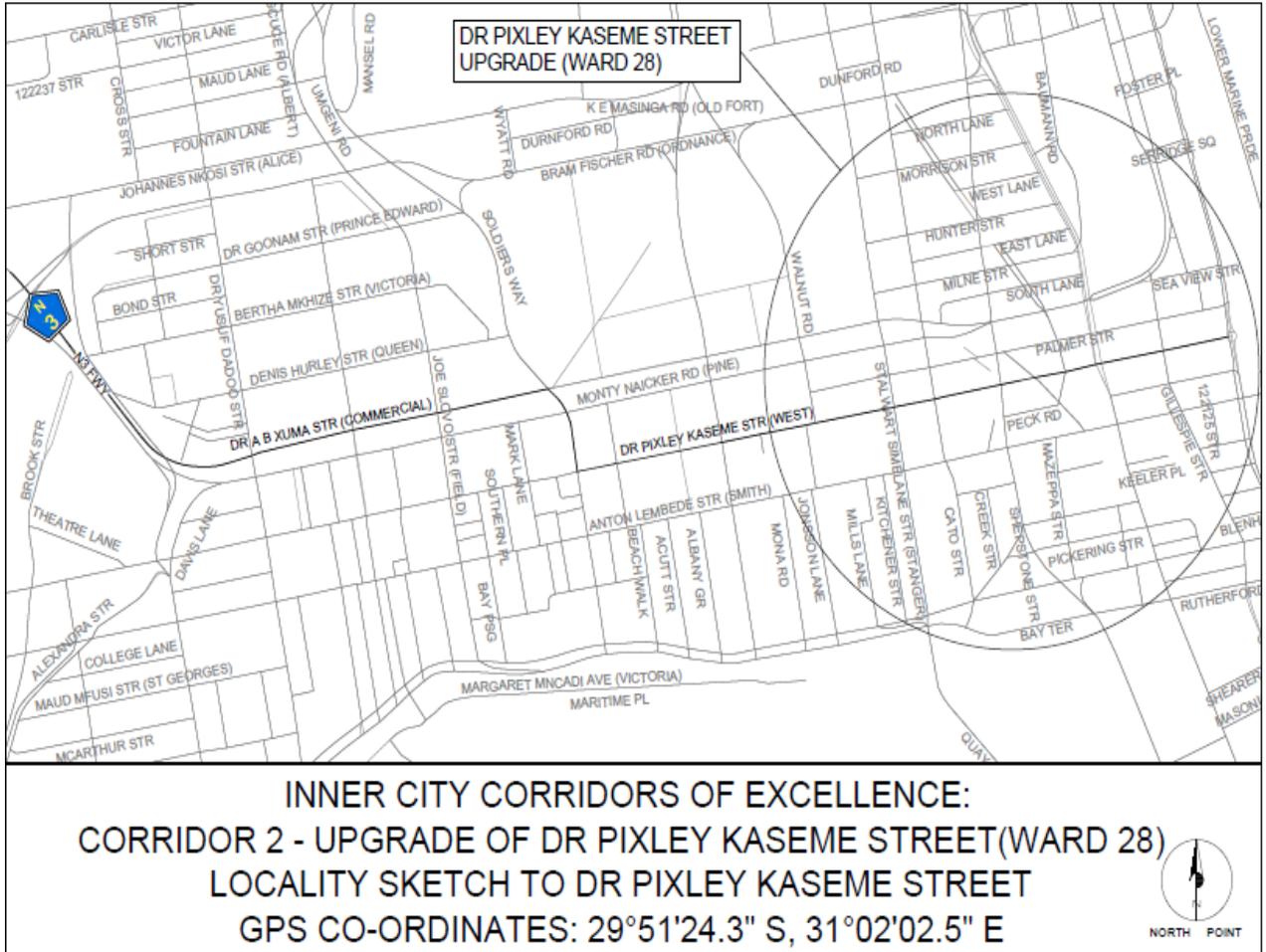
**NOTICE BOARD SIGNAGE DETAIL
SCALE 1:10**

NOTES:

- A. RAISED SURROUND PAINTED WHITE.
- B. WHITE LETTERING ROYAL BLUE BACKGROUND. REF BLUE 0-013.
- C. GREY BACKGROUND. REF GREY 8-089.
- D. WHITE DIVIDING LINES
- E. THE FACE TO BE TEMPERED HARDBOARD IN ONE PIECE. THE COLOUR NUMBERS REFER TO THOSE ON THE COLOUR CARDS OF BRITISH STANDARD 2660 OF 1955.

PART C4: SITE INFORMATION

C4.1 LOCALITY PLAN



C4.2 CONDITIONS ON SITE

There is no specific geotechnical information or other site information.

C4.3 TEST RESULTS

There are no specific test results.