



DEPARTMENT
ETHEKWINI WATER AND SANITATION
DIRECTORATE
eThekweni Sanitation Services
DIVISION
Water Operations

PROCUREMENT DOCUMENT : Infrastructure (GCC 2015)

Documents can be obtained, free of charge, in electronic format, from the National Treasury's eTenders website or the eThekweni Municipality website

Contract No: 37046-5W

Contract Title: Framework contracts to appoint a panel of contractors to undertake the implementation of new and upgrading of water infrastructure projects on behalf of Water and Sanitation Unit within the eThekweni Municipality as and when required, for a period of 36 months

Estimated CIDB: Grade: **5 or Higher** Class: **CE**

CLARIFICATION MEETING AND QUERIES

Clarification Meeting: There will be no clarification meeting. Bidders are requested to submit email queries related to the bid. All email queries are to be submitted to Tulani.Silwane@durban.gov.za by 2026/10/15. Email questions and answers will be consolidated and posted on the eTenders/Municipal website for the benefit of all tenderers by 2026/10/22

Meeting Location: There will be no clarification meeting.
Date, Time:

Queries can be addressed to: Name: Tulani Silwane
The Employer's Agent's: Tel: 031 311 8994
Representative: Email: Tulani.Silwane@durban.gov.za

TENDER SUBMISSION

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

Closing Date/ Time: 30/10/2026 at 11h00

JDE Submission: An **electronic submission** is also to be made via the eThekweni Municipality **JDE System (ESP Module)**

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

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

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Director: Water Operations

Date of Issue: 25/09/2026

Version: 01/12/2025

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PART T1: TENDERING PROCEDURES

T1.1.1: TENDER NOTICE AND INVITATION TO TENDER

Tenders are hereby invited for the works to undertake the eThekweni Municipality Area executing or implementation new and upgrading Water infrastructure projects. As part of transformation / developmental objectives the employer seeks to appoint 30 (thirty) contractors into three framework panel categories, namely: Category A: CIDB grading 5 to 6 CE, Category B: CIDB grading 7 to 8 CE and Category C: CIDB grading 9 CE to undertake water reticulation pipelines, relays and extensions, reservoir, hydrants tees, various valves chambers, kiosk and up-grading ageing water infrastructure projects timeously of all required diameters in all five regions of eThekweni Municipality, on an as and when required basis. The work under this contract will entail rates-based contracting and the tenderer will be also liable for purchasing of all required material as per Project Manager / Clerk of works guided by drawings of that project. The contractor will be entitled to appoint local contractors thus assisting in dealing with business forums and local contractors. Tenderers will be listed on the panel with a CIDB grading based on their initial rate offers, for the purpose of allocation of work.

Subject	Description	Tender Data
Employer	The Employer is the eThekweni Municipality as represented by: Deputy Director: Water Operations	C.1.1.1
Tender Documents	Documentation is to be downloaded from the National Treasury's eTenders website or the eThekweni Municipality Website : • 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 5 or Higher CE (or higher).	C.2.1.2
Meeting Type	There will be no clarification meeting. Bidders are requested to submit email queries related to the bid. All email queries are to be submitted to Tulani.Silwane@durban.gov.za by 2026/10/15. Email questions and answers will be consolidated and posted on the eTenders/Municipal website for the benefit of all tenderers by 2026/10/22	C.2.7
Meeting Details	There will be no clarification meeting.	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: Tulani Silwane Tel: 031 311 8994 Email: Tulani.Silwane@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 (ESP 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 30/10/2026 , at or before 11h00.	C.2.15
Evaluation of Tender Offers	The 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	
Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts	Applicable
Standard for Developing Skills through Infrastructure Contracts	Applicable

T1.1.2: NOTES TO TENDERERS

These “Notes to Tenderers” are intended to provide guidance regarding tendering obligations and requirements. Compliance requirements are stated in the relevant parts of the Tender Data: T1.2.

GENERAL

- 1) The words BID, TENDER, QUOTATION, and REQUEST FOR QUOTATION (RFQ) are interchangeable throughout this procurement document.
- 2) **JDE-ESP Module** refers to the eThekweni Supplier Portal module on the eThekweni Municipality JDE System. Refer to Part T1.1.2.

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

In the event of the Tenderer not being registered on the eThekweni 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 Database.

The following is to be noted:

- The information for registration as in the possession of the eThekweni 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** as stated in the **Tender Data**, unless the Municipality is notified, in writing, of anything to the contrary.

The eThekweni Municipality reserves the right to request confirmation from Tenderers of tender validity at any time during the twelve (12) month period.

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 the time of 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. 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, unless otherwise stated, 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. If applicable, Contractors are required to include these goals in the plans and pricing when they submit their tender bids.

T1.1.3: INFORMATION REGARDING THE ETHEKWINI JDE SYSTEM

This Part (T1.1.3) is for information purposes only.

Compliance requirements are stated in Part T1.2: Tender Data.

1) General

eThekweni Municipality Bids, Tenders and Quotations (hereafter referred to as Tenders) are going to be submitted using the JDE System.

This JDE System will be used for:

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

2) Registrations

To be granted access to the **JDE System** prospective service providers must be registered on the **National Treasury's Central Supplier Database (CSD)**, the **eThekweni Municipality Supplier Portal**, and the **eThekweni Municipality JDE System**.

National Treasury: Central Supplier Database

- Registration can be made on <https://secure.csd.gov.za> .
- Service Providers will be issued a "MAAA" number when registered.

eThekweni Municipality Supplier Portal

- Registration can be made on <https://www.durban.gov.za> by following these links:
>Business >Supply Chain Management (SCM) >Accredited Supplier & Contractor Database.

eThekweni Municipality JDE System

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

3) Assistance with using the JDE System

The following P&SCM Official(s) can be contacted in connection with the use of the **JDE System**:

General Queries:

- Lindo Dlamini Tel: 031 322 7153 or 031 322 7133
 Email: supplier.selfservice@durban.gov.za

Technical Queries:

- Jabulani Chauke Tel: 031 322 9535
 Email: Jabulani.Chauke@durban.gov.za

4) Viewing of available tenders

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

5) **Tender documentation**

By accessing the **JDE System** (using <https://ethekwinisupplierportal.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.

Should the **Tender Offer** be required in “hard copy” format, the submission is to be delivered 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 (Ethekeeni Supplier Portal (JDE-ESP) 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/>

<https://ethekwinisupplierportal.durban.gov.za>

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** (T1.2.2) 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.	2) <i>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.</i>
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.	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 <i>Tender Data</i> .
		C.1.3 Interpretation
		C.1.3.1 The <i>Tender Data</i> 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 <i>Tender Data</i> and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.
	<i>Note:</i> 1) <i>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.</i>	

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

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

C.1.4 Communication and employer's agent

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

C.1.5 Cancellation and Re-Invitation of Tenders

C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure;

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

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

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

C.1.6 Procurement procedures

C.1.6.1 General

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

C.1.6.2 Competitive negotiation procedure

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

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

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

distort competition or have a discriminatory effect. C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer. C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer. C.1.6.3 Proposal procedure using the two stage-system C.1.6.3.1 Option 1 Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the Tender Data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender. C.1.6.3.2 Option 2 C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents. C.1.6.3.2.2 The employer shall evaluate tenders received during the second stage, in terms of the method of evaluation stated in the Tender Data, and award the contract in terms of these conditions of tender. C.2 Tenderer's obligations C.2.1 Eligibility C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the Tender Data and the tenderer, or any of his principals, is not under any restriction to do business with employer. C.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the	tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders. C.2.2 Cost of tendering C.2.2.1 Accept that, unless otherwise stated in the Tender Data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements. C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents. C.2.3 Check documents Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission. C.2.4 Confidentiality and copyright of documents Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation. 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.
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C.2.7	Clarification meeting	necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.
	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.2.12 Alternative tender offers
C.2.8	Seek clarification	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.
	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.2.12.2 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.2.9	Insurance	C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.
	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.2.13 Submitting a tender offer
C.2.10	Pricing the 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.2.10.1	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.2.13.2 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.2.10.2	Show VAT payable by the employer separately as an addition to the tendered total of the prices.	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.2.10.3	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.2.13.4 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
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	

employer shall hold liable for the purpose of the tender offer.	C.2.15.2 Accept that, if the employer extends the closing time stated in the Tender Data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.
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.	C.2.16 Tender offer validity
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.	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.
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.	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.
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.	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).
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.	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".
C.2.14 Information and data to be completed in all respects 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.	C.2.17 Clarification of tender offer after submission Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.
C.2.15 Closing time 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.	<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>
	C.2.18 Provide other material

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.	up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.
C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.	C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence: a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements; b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.
C.2.19 Inspections, tests and analysis Provide access during working hours to premises for inspections, tests and analysis as provided for in the Tender Data.	C.3.2 Issue Addenda
C.2.20 Submit securities, bonds and policies If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the Contract Data.	If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.
C.2.21 Check final draft Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.	C.3.3 Return late tender offers
C.2.22 Return of other tender documents If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the Tender Data.	Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.
C.2.23 Certificates Include in the tender submission or provide the employer with any certificates as stated in the Tender Data.	C.3.4 Opening of tender submissions
C.3 The employer's undertakings	C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the Tender Data. Tender submissions for which
C.3.1 Respond to requests from the tenderer C.3.1.1 Unless otherwise stated in the Tender Data, respond to a request for clarification received	

	acceptable reasons for withdrawal have been submitted will not be opened.		tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.
C.3.4.2	Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the Tender Data , the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.	C.3.8	Test for responsiveness
C.3.4.3	Make available the record outlined in C.3.4.2 to all interested persons upon request.	C.3.8.1	Determine, after opening and before detailed evaluation, whether each tender offer properly received: a) complies with the requirements of these Conditions of Tender, b) has been properly and fully completed and signed, and c) is responsive to the other requirements of the tender documents.
C.3.5	Two-envelope system	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: a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work, b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified. 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.
C.3.5.1	Where stated in the Tender Data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the Tender Data and announce the name of each tenderer whose technical proposal is opened.	C.3.9	Arithmetical errors, omissions and discrepancies
C.3.5.2	Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the Tender Data , and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.	C.3.9.1	Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.
C.3.6	Non-disclosure	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: a) the gross misplacement of the decimal point in any unit rate; b) omissions made in completing the pricing schedule or bills of quantities; or c) arithmetic errors in:
	Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.		
C.3.7	Grounds for rejection and disqualification		
	Determine whether there has been any effort by a tenderer to influence the processing of		

- (i) line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
- (ii) the summation of the prices.

C.3.9.3 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:

- a) If bills of quantities or pricing schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the line-item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

C.3.10 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:

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) 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.	f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.
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.3.14 Prepare contract documents
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: a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement; b) 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; c) has the legal capacity to enter into the contract; d) 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; e) complies with the legal requirements, if any, stated in the Tender Data; and	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: a) addenda issued during the tender period, b) inclusion of some of the returnable documents and c) other revisions agreed between the employer and the successful tenderer. 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 **eThekweni Municipality** as represented by:
Deputy Director: Water Operations

C.1.2 Tender documents:

The Tender Documents issued by the Employer comprise:

- 1) The Procurement Document comprising of the PARTS as listed in the "INDEX" on page 1.
- 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 eThekweni Policy documents referenced in the Tender Documents

Electronically downloaded documentation is obtainable from the National Treasury's **eTenders Website** and/ or the **eThekweni Municipality Website** at URL:

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

Tenderers are to regularly check both web sites for the downloadable documentation.

C.1.4 Communication and employer's agent:

The Employer's Agent is:

Name: Tulani Silwane
Tel: 031-311-8994
eMail: Tulani.Silwane@durban.gov.za

The Employer's Agent's Representative is:

Name: Siyabonga Khuzwayo
Tel: 031-311-8994
eMail: Siyabonga1.Khuzwayo@durban.gov.za

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

C.1.6 Procurement procedures:

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

- **C.1.6.1: Proposal procedure using the two-stage system.**

C.1.6.2 Procurement procedures:

The Competitive negotiation procedure shall be applied.

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 "Certificate of Attendance at Clarification Meeting / Site Inspection"** signed by the Employer's Agent or their representative at the meeting.
- (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 "Compulsory Enterprise Questionnaire"** (section 1.5) and **Returnable Document "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 not 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.
 - T2.2.7: MBD 6.2: Declaration for Local Production and Content.
 - 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 “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, a minimum of 8 contract(s) with works of a similar nature, within the past 10 years, where combined value of completed work is at least 50% of the tender value submitted for this tender on the Form of Offer (C1.1.1), will be eligible to have their tenders evaluated in terms of Clause C.3.11.

Table 1: Tenderer's Experience Requirement

Implementation of New and Upgrading of Wate Infrastructure Projects (The Tender can submit a single project or multiple projects, illustrating their work experience) - Excavate in all materials for trenches, strip footings, septic tanks, soak away, etc., backfill, compact to density of 2 x DCP blows per 100mm and cart away surplus/unsuitable material for pipes up to and including 1100mm in diameter for depths up to and including 4.5m deep. - Handle, lay, bed and compact to 90% Mod AASHTO, joint, test & disinfect mPVC Class 12 pipes with spigot and socket ends to SABS 966, Pt 2 (1988) for sizes 75mm to 1100mm diameter. - Specials and Fittings in HDPE (Alprene or similar approved to PN 16). Extra over HDPE pipes to supply, deliver, lay, bed, joint, test and disinfect, 25mm to 110mm diameter. - Handle, lay, bed, joint, test and disinfect steel pipes to SABS ISO 4427: 1996 E, including pipe cut to length where required, (Gaskets, nuts, bolts, blank flanges and washers to be included) sizes 50mm to 1100mm diameter. - Installation of valves up to 1100mm diameter Supply and Install CI RSV gate valves to SABS 1123 Table 1600/3 and a cap top for key operation (include 15 Mpa concrete anchor block) - Construct valve chambers complete for valves up to 80mm in diameter as detailed on EWS standard drawing 60500 & 60501). - Reinstate road and other paved surfaces complete according to the drawings and eThekweni Engineering Standards. - Install Water Connections to all property meters, supplied by eThekweni, including all fittings and associated costs as per Standard Drawings.

Tenderers are to submit **one** of the following, in verification for each experience claimed:

- Copies of signed completion certificates for all projects;
- or,
- Written correspondence from previous Client on the Tenderers participation and contract details, per claimed project;
- or,
- Copies of final certificates for all projects, per claimed project

Note: **The failure to complete the relevant returnable form T2.2.16 for each submission of experience AND supply the associated, relevant, documentation (as specified on Table 1) will invalidate the experience submission.**

C.2.1.4 Eligibility: Tenderer Key Staff

Tenderers are to demonstrate Key Staff experience which meet the minimum criteria set out below, by the submission of the specified returnable document in T2.2 (duplicated for each experience submission) and supply the associated documentation/ information.

- Civil Engineering Professional
 - Have a tertiary qualification in civil engineering

- ii. Have an active registration as a Professional Engineer (Pr. Eng.) or Professional Technologist (Pr. Tech. Eng.) with the Engineering Council of South Africa (ECSA)
 - iii. Have a minimum of 10 years' civil experience post professional registration
- b. Civil Technician
 - i. Have a tertiary qualification in civil engineering
 - ii. Have an active registration as a Professional Technician (Pr. Techni. Eng.) with ECSA
 - iii. have a minimum of 5 years' civil experience post professional registration
- c. Quantity Surveyor
 - i. Have a tertiary qualification in quantity surveyor
 - ii. Have an active professional registration as a Professional Quantity Surveyor (Pr. QS.) with the SA Council for the Quantity Surveying Profession (SACQSP)
 - iii. Have minimum of 10 quantity survey years' experience post professional registration
- d. Clerk of Works
 - i. Have an active trade qualification: plumbing or building/civil
 - ii. Have a minimum of 5 years' experience as a Certified Artisan

Note: The failure to complete the relevant returnable form in T2.2 for each submission of Key Staff experience AND supply the associated, relevant, documentation (as specified in T2.2.17) will invalidate the experience submission.

C.2.1.5 Eligibility: Tenderer Plant and Equipment

Tenderers are to provide a list of the relevant plant and equipment which meet the minimum criteria set out below, by the submission of the specified returnable document in T2.2 (duplicated for each plant or equipment) and supply the associated documentation/ information.

- a. Tractor Loader Backhoe (TLB)
 - i. Have a minimum bucket capacity of 0.5 m³
 - ii. Vehicle is not older than 10 years
- b. Tipper Truck
 - i. Have a capacity of 10 tons
 - ii. Vehicle is not older than 10 years
- c. Bakkies
 - i. Have a capacity of 1 ton
 - ii. Vehicle is not older than 7 years

The failure to complete the relevant returnable form in T2.2 for each submission of Plant and Equipment AND supply the associated, relevant, documentation (as specified in T2.2.18) will invalidate the experience submission

Transportation of surplus soil

- a) It is essential that Tenderers submit logbook(s) of the vehicles owned by the Tenderers and intending to utilize in this contract. If the vehicle is still owned by the financial institution/bank a confirmation letter must be submitted. Submission of vehicle registration receipts instead of logbooks will not be considered
- b) Where a tenderer intends to hire, a signed letter issued by a registered vehicle/plant hire company (letter not older than one (1) month as at close of tender) must be submitted detailing the quantity, type and size of vehicle(s).
- c) Where a tenderer intends to hire vehicle/plant from a private individual, a confirmation letter must be accompanied by the logbook(s) registered in the individual's name. If the vehicle is still owned by the financial institution/bank a confirmation letter must be submitted. Reference must be made to Clause 9 of Section 7 (Scope and Specification of Required Work/Services) for the required vehicles.

- d) Failure to submit any of the above will result disqualification (e) For ease of reference, Tenderers are required to complete the Schedule of Vehicles on page 19 listing vehicles as per the attached documentation in SCT14.3.1(iv)(a) and/or SCT14.3.1(iv)(b) above.

C.2.2.2 The cost of the tender documents:

Replace this paragraph with the following:

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

C.2.5 Reference documents:

Tenderers are to obtain their own copies of:

- 1) The **Conditions of Contract** identified in Section C1.2.1.1.
Tenderers/ Contractors are required to obtain their own copies.
- 2) The **Specifications** identified in Section C3.3.1.
Tenderers/ Contractors are required to obtain their own copies.
- 3) The following acts, regulations, policies, and standards referred to in this document, including but not limited to:
 - The Employer’s Supply Chain Management Policy (as at advertising date).
 - The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations (2014).
 - The Construction Industry Development Board Act No 38 of 2000 and the Regulations issued in terms of the Act (July 2013 as amended).
 - The Preferential Procurement Policy Framework Act (PPPFA), and the PPPFA Regulations (November 2022).
 - The Amended Construction Sector Code (Government Gazette No.41287) applicable to B-BBEE compliance measurement.
 - SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
 - South African Road Traffic Signs Manual - Vol 2: Chapter 13: Roadworks Signing.
 - 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 eThekweni Policy documents referenced in the Tender Documents.

C.2.6 Acknowledge addenda:

Add the following paragraphs:

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

Clarification Meeting Type: **There will be no clarification meeting. Bidders are requested to submit email queries related to the bid. All email queries are to be submitted to Tulani.Silwane@durban.gov.za by 2026/10/15. Email questions and answers will be consolidated and posted on the eTenders/Municipal website for the benefit of all tenderers by 2026/10/22**

Bidders are requested to submit emailed queries related to the bid. All emailed queries are to be submitted to the **Employer's Agent's Representative** (refer to C.1.4) by 2026/08/19. Emailed questions and answers will be consolidated and posted on the eTenders/Municipal website for the benefit of all tenderers by 2026/08/22.

In the event of a Compulsory Clarification Meeting the Tenderer's representative(s) must be able to clearly convey the discussions at the meeting to the person(s) responsible for compiling the entity's tender offer.

If an attendance register is applicable, Tenderers must sign the attendance register and provide the name of the tendering entity.

Tenderers are referred to Clause C.2.1.1(a).

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. : 37046-5W
- Contract Title : Framework contracts to appoint a panel of contractors to undertake the implementation of new and upgrading of water infrastructure projects on behalf of Water and Sanitation Unit within the eThekweni Municipality as and when required, for a period of 36 months

Tender Offers are also to be **SUBMITTED ELECTRONICALLY** (uploaded) on the eThekweni Municipality **JDE System** (eThekweni Supplier Portal (ESP Module)). For information pertaining to the JDE System, Tenderers are referred to information in **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 (ESP 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.

C.2.15 Closing date and time:

The closing time is:

- **Date : Friday, 30 October 2026**
- **Time : 11h00**

The **delivery of the hard copy AND** the completion of the requirements on the **JDE System (ESP 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** (original validity period) from the closing date for submission of tenders.

In terms of the SCM Policy (C1.21.2) 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.

The eThekweni Municipality reserves the right to request confirmation from Tenderers of tender validity at any time during the twelve (12) month period.

C.2.20 Submit securities, bonds, policies:

The Tenderer is required to submit with their tender offer a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in T2.2 of this procurement document.

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.

1) **SARS Tax Compliance Status – PIN Issued**

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

2) **Central Supplier Database (CSD)**

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

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

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

3) **CIDB Registration** (if applicable)

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

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

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>)

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>)

Failure to comply with 1), 2), and 3) above will result in the tender offer being deemed non-responsive.

4) **B-BBEE Status Level of Contribution Certificate**

Tenderers are referred to **Returnable Document “MBD 6.1: Preference Points Claim”** for the B-BBEE Certificate requirements. Notwithstanding the completion of **Returnable Document “MBD 6.1: Preference Points Claim”**, should a B-BBEE Status Level of Contribution Certificate not 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 (Built Environment Professionals (BEP) and Contractors). 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, or a BEP with a total annual revenue of less than R1.8 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.2.25 **APPOINTMENTS OF SERVICE PROVIDERS**

The municipality intends to appoint more than one service provider to the panel but not exceeding Thirty (30) for all eThekweni municipality Regions.

C.2.26 **NEGOTIATIONS WITH PREFERRED BIDDERS**

The Municipality reserves the right to invoke regulation 24 of the MFMA if required.

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:

“Addenda will be published on the National Treasury’s **eTenders-Website** and/ or the **eThekweni 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 eThekweni Municipal website at URL: <https://www.durban.gov.za/pages/business/publication-of-received-bids>

C.3.9 Arithmetical errors, omissions and discrepancies:

“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.”

Any interactions between the Tenderer and the Employer in terms of this clause will be conducted through the Employer’s Agent (or Representative) as identified in **Tender Data C.1.4**.

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.

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 **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.

Price Points

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

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

90/10 Procurement System

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

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

Preference Points

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

Broad-Based Black Economic Empowerment (SCM Policy Section 52.5)

The provisions of the SCM Policy: **Section 52.5: Broad-Based Black Economic Empowerment** shall apply. Reference is to be made to **Returnable Form: MBD 6.1: Preference Points Claim**.

Preference Points will be derived from points claimed for their B-BBEE Status Level of Contributor, as indicated on their B-BBEE Status Level Verification Certificates, on **Returnable Form: T2.2.6: MBD 6.1**, in accordance with the table below.

90/10 Preference Points System (maximum Preference Points: 10)				
B-BBEE Level Contributor	Preference Points		B-BBEE Level Contributor	Preference Points
1	10		5	4
2	9		6	3
3	7		7	2
4	6		8	1
Non-Compliant: 0				

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:

- (a) The Tenderer's municipal rates and taxes are not in arrears, or they have made arrangements to meet outstanding municipal fee obligations.
- (b) The Tenderer's tax compliance status has been verified, or they have made arrangements to meet outstanding tax obligations.
- (c) If applicable, the Tenderer is **registered**, and **"Active"**, with the **Construction Industry Development Board** in an appropriate contractor grading designation.
- (d) 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.
- (e) The Tenderer has not:
 - i) Abused the Employer's Supply Chain Management System; or
 - ii) 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 eThekweni Supply Chain Management Policy.

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

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

Any objection will only be processed upon receipt of a non-refundable administration fee of **R6 131.00** (including VAT), as stipulated in the Municipality's current SCM Policy. An objection will only be considered upon receipt of proof of payment of this fee which must be paid into the following bank account as a real-time payment:

EThekweni Metropolitan Municipality
First National Bank (FNB)
Account Number: 631-6574-6331
Reference Number: **37046-5W**

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	34
T2.2.2	Certificate of Attendance at Clarification Meeting/ Site Inspection	35
T2.2.3	MBD 4: Declaration of Interest	36
T2.2.4	MBD 5: Declaration for Procurement Above R10 Million	Error! Bookmark not defined.
T2.2.5	Contracts Awarded by Organs of State in the past 5 years	40
T2.2.6	MBD 6.1: Preference Points Claim Form (SCM Policy Section 52.5)	41
T2.2.6	MBD 6.1: Preference Points Claim Form (SCM Policy Section 52.7)	47
T2.2.7	MBD 6.2: Declaration for Local Production and Content (if applicable)	47
T2.2.8	MBD 8: Declaration of Bidder's Past SCM Practices	48
T2.2.9	MBD 9: Certificate of Independent Bid Determination	50
T2.2.10	Declaration of Municipal Fees	53
T2.2.11	Contractor's Health and Safety Declaration	54
T2.2.12	CSD Registration Report	56
T2.2.13	CIDB Registration and Status	57
T2.2.14	Joint Venture Agreements (if applicable)	58
T2.2.15	Record of Addenda to Tender Documents	59
T2.2.16	Experience of Tenderer	60

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

C1.1.1	Form of Offer	76
C1.2.2.2	Data to be Provided by Contractor	79

C2.2	Bill of Quantities	88
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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 <u>must be completed for each tender and be included as a tender requirement.</u>		

*** Tenderers are to include, at the back of their tender submission, a printout of their SARS "Tax Compliance Status – PIN Issued" certificate, failing which the tender submission will be deemed non-responsive.**

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 **37046-5W** 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.

Circle Applicable

3.8 Are you presently in the service of the state?

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			

Failure to complete this form in full, sign, and return with the tender submission will result in the tender offer being deemed non-responsive.

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

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. The audited annual financial statements are to be included at the back of the tender submission.		
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. 	YES	NO
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 "Contracts Awarded by Organs of State in the Past 5 Years"	YES	NO
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. 	YES	NO

Failure to complete this form in full, sign, and return with the tender submission will result in the tender offer being deemed non-responsive.

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.5 CONTRACTS AWARDED BY ORGANS OF STATE IN THE PAST 5 YEARS

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.6 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

- 1.1 The relevant **Preference Points System (90/10)** applicable to this bid is stated in the **Tender Data: C.3.11**.
- 1.2 Failure on the part of a bidder to fill in and/ or sign this form, and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS), or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA), or sworn affidavits in the case of Exempted Micro Enterprises or Qualifying Small Enterprises, together with the bid, will be interpreted to mean that preference points for **B-BBEE Status Level Of Contribution** are not claimed.
- 1.3 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim regarding 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 90 points is allocated for price on the following basis:

90/10 Procurement System

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

Where:

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

4.0 POINTS ALLOCATED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

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

90/10 Preference Points System	
B-BBEE Level Contributor	Preference Points
1	10
2	9
3	7
4	6
5	4
6	3
7	2
8	1
Non-Compliant	0

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

percentages) must be used and rounded off to the nearest status level.

4.14 Gazetted Sector Codes supersede Generic Codes.

5.0 SUB-CONTRACTING

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

6.0 BID DECLARATION

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

B-BBEE Status Level of Contribution	Tenderer's Preference Points Claim (maximum of 10 points)

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

Tenderers are to include, at the back of their tender submission, their B-BBEE Status Level of Contribution Certificate, or sworn affidavits, failing which no Preference Points will be deemed to have been claimed.

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:

T2.2.7 MBD 6.2: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Municipal Bidding Document (MBD 6.2) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

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

1.0 GENERAL CONDITIONS

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

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

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

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) on the date of advertisement of the bid as indicated in paragraph 3.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.thedti.gov.za/industrial development/ip.jsp](http://www.thedti.gov.za/industrial%20development/ip.jsp) at no cost.

- 1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;

2.0 THE STIPULATED MINIMUM THRESHOLD(S)

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

Description of services, works or goods	Stipulated Minimum Threshold
Pipe (HDPE) – 15mm Ø to 160mm Ø of 1 m length	75 %
Pipe (mPVC) – 75mm Ø to 500mm Ø of 1 m length	75 %
Pipe (Steel) – 75mm Ø to 700mm Ø of 1 m length	75 %
Pipe (mPVC) – 600mm Ø to 1100mm Ø of 1 m length	75 %
Specials and fittings in SG Iron	75 %
Specials and fittings in mPVC	75 %
Specials and fittings in HDPE	75 %

3. Does any portion of the goods or services offered have any imported content?

YES ☐ NO ☒ (Tick applicable box)

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

The relevant rates of exchange information is accessible on www.resbank.co.za

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

Currency	Rates of Exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

4. CHALLENGES IN MEETING THE STIPULATED MINIMUM THRESHOLD

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

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

IN RESPECT OF BID NO. 37046-5W

ISSUED BY: (Procurement Authority / Name of Institution): ETHEKWINI MUNICIPALITY

- 1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
- 2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on <https://www.thedtic.gov.za/sectors-and-services-2/industrial-development/industrial-procurement/>. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, (full names),

do hereby declare, in my capacity as

of(name of bidder entity), the following:

- a) The facts contained herein are within my own personal knowledge.
- b) I have satisfied myself that the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
- c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 2 above)	%
Local content %, as calculated in terms of SATS 1286:2011	%

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.

The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

- (a) I accept that the Procurement Authority/ Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (b) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority/ Institution imposing any or all of the remedies as provided for in the Policy.

SIGNATURE: _____ **DATE:** _____

WITNESS No. 1 _____ **DATE:** _____

WITNESS No. 2 _____ **DATE:** _____

PROFORMA ANNEXURE C

WITS-KEMBELLS

Annex C

Local Content Declaration - Summary Schedule

WITS-KEMBELLS

WITS-KEMBELLS

Tender No.	Tender description	Tender amount (R)	Tender status	Tender value (R)	Tender value (R)	Tender value (R)	Tender value (R)	Tender value (R)	Tender value (R)
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

WITS-KEMBELLS

WITS-KEMBELLS

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?

Circle Applicable	
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.

.....

.....

Failure to complete this form in full, sign, and return with the tender submission will result in the tender offer being deemed non-responsive.

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

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:
- take all reasonable steps to prevent such abuse;
 - reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4.0 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid rigging.
- 5.0 In order to give effect to the above, the below **Certificate of Independent Bid Determination** must be completed and submitted with the bid.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid for: Contract **37046-5W**

1760141 Framework contracts to appoint a panel of contractors to undertake the implantation of new and upgrading of water infrastructure projects on behalf of Water and Sanitation Unit within the eThekweni Municipality for a period of 36 months

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.

Failure to complete this form in full, sign, and return with the tender submission will result in the tender offer being deemed non-responsive.

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.

Failure to complete this form in full, sign, and return the required documents with the tender submission will result in the tender offer being deemed non-responsive.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **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 OHSA 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 OHSA 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 OHSA 1993 Construction Regulations 2014.
- 2 I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
- 3 I propose to achieve compliance with the Regulations by one of the following **(Tenderers are to Circle Applicable - Yes or No)**:

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

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

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

Circle Applicable	
Yes	No
Yes	No
Yes	No

- 4 Details of resources I propose:

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

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

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

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

- (i) By whom will training be provided?
- (ii) When will training be undertaken?
- (iii) Positions to be filled by persons to be trained or hired:

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

Name of proposed subcontractor:

Qualifications or details of competency of the subcontractor:

- 5 I, the undersigned, hereby undertake, if this tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 7(1) of the Construction Regulations, which plan shall be subject to approval by the Client.
- 6 I, the undersigned, confirm that copies of this company's approved Health and Safety Plan, the Client's Safety Specifications as well as the OHSA 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Principal Contractor's personnel, the Client's personnel, the Employer's Agent, visitors, and officials and inspectors of the Department of Labour.
- 7 I, the undersigned, hereby confirm that adequate provision has been made in the tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2014, and that I will be liable for any penalties that may be applied by the Client in terms of the said Regulations (Regulation 33) for failure on the Principal Contractor's part to comply with the provisions of the Act and the Regulations.
- 8 I, the undersigned, agree that failure to complete and execute this declaration to the satisfaction of the Client will mean that this company is unable to comply with the requirements of the OHSA 1993 Construction Regulations (2014) and accept that this tender will be prejudiced and may be rejected at the discretion of the Client.

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.12 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.

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

The following is an example of the printout obtained from the above website.

Note: the printout will contain more than one page.

CENTRAL SUPPLIER DATABASE FOR GOVERNMENT

Report Date:

Report Ran By:

CSD REGISTRATION REPORT

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

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

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

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.

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

Tenderers are to include, at the back of their tender submission, a printout of their CIDB Registration and Status. The date of obtaining the CIDB Registration and Status printout is to be indicated on the printout and should be on or after the date of advertising of this tender.

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

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **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: **37046-5W** 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 verifiable experience, 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:
 - Copies of signed completion certificates for all projects;
or,
 - Written correspondence from previous Client on the Tenderers participation and contract details, per claimed project;
or,
 - Copies of final certificates for all projects, per claimed project
 - The documentation / information that may be used for verification of the experience submission is specified on Table 3: “Documentation/ information requirements” (which includes the Notes below the table). The non-submission of this Documentation/ Information may jeopardise the verification of the experience submission and render the submission invalid.
- Tenderers must 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**.

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

Contract Details

- Provide the **Contract Reference Number** and **Contract Title**.
- Indicate if this contract has been completed or is still in progress.
- Provide **Contract Dates**.
- Provide **Contract Values** - 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. 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 (only1)
- 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	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	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?		Steel, Mpvc, HDPE Pipe laying and Backfilling of trenches according to specification with required depths, and correct material	
Relays and extension Steel, Mpvc, HDPE Pipe, Asbestos Cement (AC) water pipe replacement		New and upgrading of water infrastructure, and backfilling of various water pipe sizes ranging from 50mm to 1100mm diameter Including backfilling	
Water Reticulation Pipes installations projects / water schemes in urban or semi-developed areas			
OTHER: provide a description of the type of project			

Which Works Element(s) were included in the project?		Steel, Mpvc, HDPE Pipe laying and backfilling underground services	
New and upgrading of water infrastructure, burst pipes and proving of services		Compaction test using Dynamic Cone Penetrometer	
Installation Water Pipe Hydrant tees, Bends, Valve, Chambers		Tie-in different sizes of new Steel, Mpvc and HDPE pipes using various repairing pipes required / available	
Excavation, Backfilling, and compaction for water pipes projects		Relay different types of new and upgrading pipes including (Steel, Mpvc, HDPE CI/ Poly-cop etc and anchoring to suit reinstate according to specifications	
Compaction and reinstatement of backfilled trenches			
OTHER: List works elements included in project			

Confirmation of documentation submitted is to be recorded on **Page 62.**

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 **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	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	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?		Steel, Mpv, HDPE Pipe laying and backfilling underground services	
Relays and extension Steel, Mpv, HDPE Pipe, Asbestos Cement (AC) water pipe replacement		Compaction test using Dynamic Cone Penetrometer	
Water Reticulation Pipes installations projects / water schemes in urban or semi-developed areas		Tie-in different sizes of new Steel, Mpv and HDPE +pipes using various repairing pipes required / available	
OTHER: provide a description of the type of project			

Which Works Element(s) were included in the project?		Steel, Mpv, HDPE Pipe laying and backfilling underground services.	
New and upgrading of water infrastructure, burst pipes and proving of services		Compaction test using Dynamic Cone Penetrometer	
Installation Water Pipe Hydrant tees, Bends, Valve, Chambers		Tie-in different sizes of new Steel, Mpv and HDPE pipes using various repairing pipes required / available.	
Excavation, Backfilling, and compaction for water pipes.		Relay different types of new and upgrading pipes including (Steel, Mpv, HDPE CI/ Poly-cop etc and anchoring to suit reinstate according to specifications	
Compaction and reinstatement of backfilled trenches			
OTHER: List works elements included in project			

Confirmation of documentation submitted is to be recorded on **Page 62.**

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:

T2.2.17 ELIGIBILITY: TENDERER KEY PERSONNEL

Reference is to be made to Clause C.2.1.4 of the Tender Data.

Personnel Schedule				
Key Resource	Name and Surname	Qualification	Years of Experience	Period of Engagement (estimate weeks)
Civil Engineering Professional				
Civil Technician				
Geotechnical Professional				
Quantity Surveyor				
Clerk of Works				

Each Claimed Tenderer Key Personnel relevant documentation must be attached behind the relevant personnel C.V. – NOWHERE ELSE

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:

Reference is to be made to Clause C.2.1.4 of the Tender Data.

This form is to be copied and used for each submission of key staff, as may be required.

Failure to include documentary evidence of claimed qualifications for the required key staff will render the tender submission non-responsive. Attach Civil Engineer Professional documentary evidence to the next page

Civil Engineer Professional			
Full Name and Surname		Age	
Tertiary Institution Attended			
Relevant Qualification/s		Year Obtained	
Professional Institution Registered With		Registration No	
Key Staff Experience: Employment History			
<i>(To be listed in chronological order with reference to relevant experience only)</i>			
Employment Period (mm/yy to mm/yy)	Name of Employer	Details of Key Staff Experience	

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:

Civil Engineer Professional

Documentary evidence of claimed qualifications are to be attached here

Failure to include documentary evidence of claimed qualifications for the required key staff will render the tender submission non-responsive. Attach Civil Technician documentary evidence to the next page

Civil Technician			
Full Name and Surname		Age	
Tertiary Institution Attended			
Relevant Qualification/s		Year Obtained	
Professional Institution Registered With		Registration No	
Key Staff Experience: Employment History			
<i>(To be listed in chronological order with reference to relevant experience only)</i>			
Employment Period (mm/yy to mm/yy)	Name of Employer	Details of Key Staff Experience	

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:

Civil Technician

Documentary evidence of claimed qualifications are to be attached here

Failure to include documentary evidence of claimed qualifications for the required key staff will render the tender submission non-responsive. Attach Quantity Surveyor documentary evidence to the next page.

Quantity Surveyor			
Full Name and Surname		Age	
Tertiary Institution Attended			
Relevant Qualification/s		Year Obtained	
Professional Institution Registered With		Registration No	
Key Staff Experience: Employment History			
<i>(To be listed in chronological order with reference to relevant experience only)</i>			
Employment Period (mm/yy to mm/yy)	Name of Employer	Details of Key Staff Experience	

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:

Quantity Surveyor

Documentary evidence of claimed qualifications are to be attached here

Failure to include documentary evidence of claimed qualifications for the required key staff will render the tender submission non-responsive. Attach Clerk of Works documentary evidence to the page

Clerk of Works			
Full Name and Surname		Age	
Tertiary Institution Attended			
Relevant Qualification/s			
Registration No		Year Obtained	
Key Staff Experience: Employment History			
<i>(To be listed in chronological order with reference to relevant experience only)</i>			
Employment Period (mm/yy to mm/yy)	Name of Employer	Details of Key Staff Experience	

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: _____

Clerk of Works

Documentary evidence of claimed qualifications are to be attached here

T2.2.18 ELIGIBILITY: PLANT AND EQUIPMENT

Reference is to be made to Clause C.2.1.5 of the Tender Data.

Tender Plant and Equipment					
Tractor Loader Backhoe (TBL)					
Bucket Size	m ³		The Year of Manufacture		
Number Plate			Vehicle Age	years	
Is the vehicle road-worthy	Yes	No	Is the vehicle licensed	Yes	No
Tipper Truck					
Capacity	ton		The Year of Manufacture		
Number Plate			Vehicle Age	years	
Is the vehicle road-worthy	Yes	No	Is the vehicle licensed	Yes	No
Bakkie:					
Capacity	ton		The Year of Manufacture		
Number Plate			Vehicle Age	years	
Is the vehicle road-worthy	Yes	No	Is the vehicle licensed	Yes	No

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

NAME (Block Capitals):

Date

SIGNATURE:

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

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

DESCRIPTION (type, size, capacity etc)	QUANTITY REQUIRED	REGISTRATION PLATE	YEAR OF MANUFACTURE	Is Vehicle Road-worthy (Y / N)
12 Ton (4 x 4) Truck including drop-side with mounted crane (10 Ton) lifting capacity as well driver and 2 assistants	4			
Truck-tractor (30 ton) with low bed with driver and 2 assistants	4			
Tractor Loader Backhoe (TLB)	4			
Excavator (20T)	1			
Saw-cutter / Tar Cutter (10mm to 450mm Blade)	2			
Saw-cutter / Tar Cutter (Up to 600mm Blade)	1			
Motor rammers (Wackers)	10			
Electric Breaker	10			
Generator	10			
Plate compactor	1			
Flood Lights	8			
Bomag Roller 90	2			
Dynamic Cone Penetrometer (DCP)	2			

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: **37046-5W**

Contract Title: Framework contracts to appoint a panel of contractors to undertake the implementation of new and upgrading of water infrastructure projects on behalf of Water and Sanitation Unit within the eThekweni Municipality as and when required, for a period of 36 months

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*) : :

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.1.3: SCHEDULE OF DEVIATIONS

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

1. **Subject** :
- Details** :
- :
2. **Subject** :
- Details** :
- :
3. **Subject** :
- Details** :
- :

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

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

FOR THE TENDERER

FOR THE EMPLOYER

.....	Signature	
.....	Name (<i>in capitals</i>)	
.....	Capacity	
.....	Name and Address of	
.....	Organisation	
.....		
.....		
.....	Witness Signature	
.....	Witness Name	
.....	Date	

C1.2: CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

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..**

1.1.1.15 The Employer is the eThekweni Municipality as represented by:
Deputy Head: **Ethekweni Water Directorate**

1.2.1.2 The address of the Employer is:
Physical: Ethekweni Water and Sanitation, 3 Prior Road, Durban, 4001
Postal: Water and Sanitation Unit Building, P.O. Box 1038, Durban, 4000
Telephone: 031 311 8960
E-Mail: Richard.Mngoma@durban.co.za

1.1.1.16 The **name of the Employer's Agent** is

1.2.1.2 The address of the Employer' Agent is:
Physical: Ethekweni Water and Sanitation, 3 Prior Road, Durban, 4001
Postal: Water and Sanitation Unit Building, P.O. Box 1038, Durban, 4000
Telephone: 031 311 8994
E-Mail: Tulani.Silwane@durban.gov.za

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 3 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 4-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)
- Sub-Contracting (CPG) Implementation Plan (if applicable)
- If required to be registered, in terms of the Occupational Injuries and Diseases Act (130 of 1993 as amended), the Contractor is to supply proof of being registered and in good standing with the compensation fund by submitting a valid Letter of Good Standing from the Compensation Commissioner. Should the Contractor’s Letter of Good Standing be expired, but an application for renewal has been made, the Contractor is to submit the expired Letter of Good Standing AND proof of an application for renewal.

5.3.2 The **time to submit the documentation** required before commencement with Works is **14 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.”

5.4.2 The access and possession of Site shall not be exclusive to the Contractor but as set out in the Site Information.

5.8.1 The **non-working days** **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 5000.00** (per Day), Works will be rate base.

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 **1 Year**.

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.

6.10.1.5 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

6.8.2 **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 25 000 000.00**.

- 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 50,000,000.00.**
- Consequential loss to be covered by policy: **Yes**
- 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: **50 000.00.**

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: **Nil.**
- Maximum first excess: **Nil.**

Insurance of Works

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

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:

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.....
.....

1.2.1.2 The Physical address of the Contractor is:

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

The Postal address of the Contractor is:

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

The contact numbers of the Contractor are:

Telephone:

Fax:

The E-Mail address of the Contractor is:

.....

C1.2.3 ADDITIONAL CONDITIONS OF CONTRACT

C1.2.3.1 COMMUNITY LIAISON OFFICER

Selection of a community liaison officers (CLO) for the projects will be based on the affected residency or ward in different regions. The CLO from Ward Councillor(s) in whose ward(s) where 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 Institutional Social Development facilitator (ISD) through the expression of interest database, will undertake liaison responsibility of small, medium, and large projects interventions as and when required, depending on the scope of work and the magnitude of the project. The Main Contractor will be required to enter a written contract with the ISD in region and subsequent CLOs where required in respective wards under the ISD to specify the following

- 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 within Wards 1, 2, 5, 6, 7, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24, 63, 72, 91, 92 and 103**. 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 CONTRACTOR PARTICIPATION GOAL (CPG)

It is a condition of contract that the Managing 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 **BLACK OWNED COMPANIES** (these Sub-Contractors are known as CPG Partners). The sub-contracting companies must be procured locally (within the relevant Ward/s)

at the location of the work/s to be undertaken. The Sub-Contracting companies must have the minimum relevant CIDB grading and qualification for the work/s required. It is a condition of contract that the Main Contractor must prove that the Sub-Contractor has the minimum CIDB grading and qualification for the work assigned to the Sub-Contractor by the Main Contractor. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

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

C1.2.3.4 FTE (Full Time Equivalent) EMPLOYMENT INFORMATION

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

Category A: Employed as Local Labour for this contract only Category B: Temporarily employed by the Contractor Category C: Permanently employed by the Contractor
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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 Indirect Targeting Standard

It will be a condition of contract that the Contractor shall, in the performance of the contract, achieve the **Sub-contract Participation** 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.

C1.2.3.7.1. SUB-CONTRACTING PARTICIPATION – SPECIFICATION

The co-departments seeks to deliver seamless approach for appointment of Panel of Managing Contractors to manage works through provisions of excavation and plumbing repair services, backfilling services for underground water services infrastructure, including the final road reinstatement and removal of spoil off-sites to disposal sites within the eThekweni Municipality area, for a period of thirty-six months (36 months).

The Managing Contractors must ensure the equitable distribution of work amongst the available nominated sub-contractor/s listed on PLC database and on CIDB grading 1, 2, 3 & 4 appointments. It is the condition of contract that the Managing Contractors produces an equitable work distribution report on a quarterly basis. The report at minimum must include the following information:

- Statics (works completed, incomplete, redirected, durations, locations, infrastructure size and composition, etc.)
- Trend Analysis (frequencies, hot spots, types of repairs, etc.)
- Recommendations
- Summary of the expenditure analysis
- Summary of the Sub-contracting distribution for work and cumulative cost

NOTE: A comprehensive training and mentoring program / methodology must be adhered to

It is a condition of the contract that the panel of managing contractors supplies the information related to the employment of the sub-contractors on this contract to the employer

The Panel of Managing contractors shall be fully responsible for the management of all subs – contractors appointed.

C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS

GCC2015 and the STANDARD ENGINEERING SPECIFICATIONS ARE USED

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.

C2.1.6 PRICING OF THE BILL OF QUANTITIES

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

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

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

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

C2.1.7 "RATE ONLY" ITEMS

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

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

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

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

C2.1.8 PRELIMINARY AND GENERAL

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

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

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

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

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

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

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

C2.2: BILL OF QUANTITIES

The Bill of Quantities follows and comprises of 35 pages. The pages are numbered BoQ 91 to BoQ 125.

SECTION 8: BILL OF QUANTITIES / SCHEDULE OF RATES / ACTIVITIES

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
1	<u>SECTION 1: PRELIMINARY & GENERAL</u>								
	Fixed Charge Items								
1.1	Contractual requirements	Sum	1						
	General Safety, Safety Plan, Monitoring and Review								
1.2	The sum shall include all costs necessary in complying with the Occupational Health and Safety Act (1998 as amended) and the Construction Regulation 2014 and the eThekwin Health and Safety requirements	Sum	1						
1.3	Compliance with Environmental Management Plan (Note: Access plan to be developed in conjunction with the ECO and allowed for in rates)	Sum	1						
1.4	a) Compliance with Environmental Management Specification	Sum	1						
1.5	b) Compliance with Occupational Health and Safety requirements (Act 83 of 1994 and Construction Regulations)	Sum	1						
1.6	c) Compliance with Broad Based Black Economic Empowerment requirements	Sum	1						
	Establishment of facilities on site:								

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
	Facilities for the Engineer (SABS 1200AB								
1.7	All other fixed charges including contractual requirements	Sum	1						
1.8	Furnished Office and latrine facilities for Engineers Representative	Sum	1						
1.9	2 No Project Name boards	Sum	1						
1.10	Survey equipment and materials	Sum	1						
1.11	Fencing, Hoarding, etc. around Site establishment	Sum	1						
1.12	Construction plant	Sum	1						
	Facilities for the Contractor								
1.13	Offices, storage sheds, fencing, etc.	Sum	1						
1.14	Ablution and latrine facilities	Sum	1						
1.15	Water supplies, electric power and communications, dealing with water and access	Sum	1						
1.16	Tools and equipment	Sum	1						
1.17	Construction plant	Sum	1						
1.18	All other fixed charges including contractual requirements	Sum	1						
1.19	Remove all site establishment on completion including equipment store	Sum	1						
	Time Related Items								
1.20	Contractual requirements	Weeks	156						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
	Operate and maintain facilities on site:								
	Facilities for the Engineer (SABS 1200AB								
1.20	Furnished Office and latrine facilities for Engineers Representative	Weeks	156						
1.21	Ablution and latrine facilities	Weeks	156						
1.22	Supervision for duration of construction	Weeks	156						
1.23	Supervision for duration of construction (Project Manager/Technician	Weeks	156						
1.24	Survey equipment and materials	Weeks	156						
1.25	Facilities for the Contractor for the duration of the contract								
1.26	Offices, storage sheds, fencing, etc.	Weeks	156						
1.27	Ablution and latrine facilities	Weeks	156						
1.28	Supervision for duration of construction	Weeks	156						
1.29	Water supplies, electric power and communications, dealing with water and access								
1.30	Tools and Equipment	Weeks	156						
1.31	Construction Plant	Weeks	156						
1.32	Supervision for duration of construction	Weeks	156						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
1.34	Company and Head Office overhead costs	Weeks	156						
1.35	Other time charge related obligations	Weeks	156						
	Temporary Works								
1.36	Dealing with traffic, barricading of open excavation and works, including all roadworks signage and flagmen as per the eThekweni Transport Authority requirements	Sum	1						
1.37	Allow for keeping excavations free of water by hand or machinery	Sum	1						
	Other time related charges:								
1.38	a) Compliance with Environmental Management Specification	Weeks	156						
1.39	b) Compliance with Occupational Health and Safety requirements (Act 83 of 1994 and Construction Regulations)	Weeks	156						
1.40	c) Compliance with Based Black Economic Empowerment requirements	Weeks	156						
1.41	a) Armed security	Weeks/ Guard	156						
1.42	b) Un-armed security	Weeks/ Guard	156						
	Sums stated provisionally by the Engineer								
1.43	Relocation of existing services where required	Prov. Sums	1	R 133285	00				

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
1.44	Allow for repairs to damaged / unknown services which could not have been reasonably foreseen or prevented by the contractor	Prov. Sums		R 79708	75				
1.45	Laboratory testing additional to specification as ordered by the Engineer	Prov. Sums	1	R 79708	00				
1.46	Allow for the employment of the Community Liaison Officer	Prov. Sums	1	R 74800	00				
1.47	Allow traffic Control, road signage and first aid box	Prov. Sums	1	R 74800	00				
1.48	Allow for geotechnical investigation as ordered by the Engineer	Prov. Sums	1	R 214775.00	00				
1.49	Allow for the demolishing and/or the relocation of existing dwellings or structures as ordered by the Engineer	Prov. Sums	1	R 61318	00				
1.50	Allow for as-built survey to include line and invert levels as ordered by the Engineer	Prov. Sums	1	R 82325	00				
1.51	Allow for additional welding teams and associated machinery as project requires and ordered by Engineer	Prov. Sums	1	R 173677	00				
1.52	Allow for Surveyor for invert levels etc. as project requires and ordered by Engineer	Prov. Sums	1	R 72462	50				
1.53	Allow for X ray of pipes as project requires and ordered by Engineer	Prov. Sums	1	R 72462	50				
1.54	Allow for decommissioning, strip, remove & cart away existing pipe as required ordered by Engineer	Prov. Sums	1	R 192376	25				
1.55	Allow for shutdown labour teams for specific project as required by Engineer	Prov. Sums	1	R 135575	00				

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
1.56	Allow extensive use of welding labour teams for specific project as required by Engineer	Prov. Sums	1	R 102467	50				
1.57	Contractor's handling fee for items 1.43 to 1.56	%		R 1249743					
	Other contractual requirements								
	Time related item: Development Sub-Contractor Allocated Site – Participation Goals								
	All time items and contractual requirements (including but not limited to offices, storage sheds, fencing, water supplies, electric power, supervision and management, signs, compliance with environmental specifications and regulations, compliance with BBBEE requirements)								
	Time Related Items: Standing time for delays approved by Supervisor and Project Manager								
1.58	Time related item: Standing time local labour (all approved delays) Skilled Labour	Man-days	100						
1.59	Time related item: Standing time local labour (all approved delays) Semi-Skilled Labour	Man-days	100						
1.60	Time related item: Standing time local labour (all approved delays) Un-Skilled Labour	Man-days	100						
1.61	Time related item: Standing time site specific equipment local labour (approved delays and proven rain days only, site specific equipment only)	Man-days	1						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
1.62	Allow a provisional sum for taking and submitting progress photographs during the Contract	Prov. Sums							
2	<u>SECTION 2: SITE CLEARANCE</u>								
2.1	Excavate in all materials by hand to expose existing services	m3	2 000						
	Site Clearance (for all services								
2.2	Clear and grub vegetation 2m width along pipe route incl. trees of girth up to 1m. Cart material away and dispose of at an approved landfill site.	m2	6 600						
2.3	Remove topsoil to a nominal depth of 150mm, stockpile and maintain.	m2	6 600						
2.4	Remove trees with girth greater than 1m but less than 2m and cart away to an approved landfill site	m2	55						
2.5	Remove trees with girth greater than 2m but less than 3m and cart away to an approved landfill site	m2	40						
2.6	Remove rubble and cart away to an approved landfill site	m2	165						
2.7	Saw cut existing premix, remove asphalt and cart away to an approved dumpsite	m2	72						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
	SECTION 3: EARTHWORKS (FOR ALL WORKS)								
3	Excavation								
	Hand excavation in soft material for proving of existing services, as instructed by the Engineer								
3.1	a) in roadways	m ³	240						
3.2	b) in all other areas	m ³	240						
	Excavate in all materials for trenches, strip footings, septic tanks, soak away, etc., backfill, compact to density of 2 x DCP blows per 100mm and cart away surplus/unsuitable material for pipes up to and including 300mm in diameter for depths: Rates to include tunnelling under fences								
	Rates to include for shoring where required								
	Rates to include for crossing and adjoining services with due care and attention								
	Note: Foundations shall be cast against sides of strip footing and septic tank excavation. Rate shall include for accurate trimming of excavations)								
3.3.	1.0m up to and including 2.0m [25mm] for House connection	m	783						
3.4	1.0m up to and including 2.0m [50mm]	m	6171						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
3.5	1.0m up to and including 2.0m [75mm]	m	3300						
3.6	1.0m up to and including 2.0m [110mm]	m	5242						
3.7	1.0m up to and including 2.0m [160mm]	m	2620						
3.8	1.0m up to and including 2.0m [200mm]	m	2063						
3.9	1.0m up to and including 2.0m [250mm]	m	2156						
3.10	1.0m up to and including 2.0m [300mm]	m	4060						
3.11	1.0m up to and including 2.0m [400mm]	m	4397						
3.12	1.0m up to and including 2.0m [450mm]	m	2765						
3.13	1.0m up to and including 2.0m [500mm]	m	1200						
3.14	1.0m up to and including 2.0m [600mm]	m	1650						
3.15	1.0m up to and including 2.0m [700mm]	m	1650						
3.16	1.0m up to and including 2.0m [800mm]	m	1650						
3.17	1.0m up to and including 2.0m [1100mm]	m	1650						
3.18	Excavate in all materials for valve and meter chambers, and other minor structures outside the limits of the trench excavation, backfill, compact and cart away surplus/unsuitable materials.	m3	2010						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
	Note: Foundations shall be cast against sides of excavation. Rate shall include for accurate trimming of excavations)								
3.19	Cut to fill and compact to 93% Mod AASHTO under platform	m3	5935						
3.20	Cut to fill and compact to 98% Mod AASHTO under platform	m3	4950						
3.21	Extra over Items excavation and carting away of unsuitable and contaminated material from trench bottom and disposal at an approved landfill, as instructed by Engineer	m3	330						
3.22	Extra over Items 3.3 to 3.8 for backfill stabilised with 3% cement as instructed by Engineer	m3	2002						
3.23	Extra over Items 3.3 to 3.8 for restricted excavation	m3	504						
3.24	Extra over Items 3.3 to 3.8 for excavation in intermediate material	m3	504						
3.25	in hard material	m3	504						
3.26	in soft material	m3	504						
	Surface Bed Preparation for Aprons								
3.27	Import, place and compact 150mm G2 layer to 98% MOD AASHTO under apron surface bed	m3	330						
	Importing of materials (commercial sources)								

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
3.28	a) Extra over Items 3.9 and 3.10 for the importing of G2 material as instructed by the Engineer (< 10km)	m3	100						
3.29	b) Extra over Items 3.9 and 3.10 for the importing of G2 material as instructed by the Engineer (>10km)	m3	100						
3.30	c) Extra over Items 3.9 and 3.10 for the importing of G7 material as instructed by the Engineer (< 10km)	m3	110						
3.31	d) Extra over Items 3.9 and 3.10 for the importing of G7 material as instructed by the Engineer (>10km)	m3	110						
	Existing Services that intersect a pipe trench								
3.32	a) Communication / Electric cable (HT) & (LT)	Sum	1						
3.33	b) Pipes up to 200mm diameter	Sum	1						
3.34	c) Pipe or culvert greater than 200mm diameter	Sum	1						
	Existing Services that adjoin a pipe trench:								
3.34	a) Communication/Electric cable (HT) & (LT)	Sum	1						
3.36	b) Pipes up to 200mm diameter	Sum	1						
3.37	c) Pipe or culvert greater than 200mm diameter	Sum	1						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
	Pipe Bedding								
	Provision of bedding from trench excavations:								
3.38	a) Selected granular material	Sum	1						
3.39	b) Selected fill material	Sum	1						
	Provision from commercial or off-site sources:								
3.40	a) Selected granular material	m3	7806						
3.41	b) Selected fill material	m3	8306						
3.42	Particular Items								
	Shoring of trench as instructed by Supervisor	m3	100						
3.43	Supply and install 110mm diameter Kaytech flo-drain or equivalent complete with geofabric lining and 19mm stone to manufactures specification	m3	993						
	Horizontal directional drilling by Specialist								
3.44	Horizontal directional drilling inclusive of 200mm diameter Class 16 HDPE sleeve for lengths up to 20m	Sum	1						
3.45	Contractors mark-up on 3.44	%							

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
3.46	Horizontal directional drilling inclusive of 200mm diameter Class 16 HDPE sleeve for lengths up to 20m	Sum	1						
3.47	Contractors mark-up on 3.46	%							
	Reinstatement								
	Extra over for additional comp active effort in areas subjected to loads from traffic as follows								
3.48	a) Sidewalks, driveways and median trenches including disposal of additional surplus material, to 3 DCP blows per 100mm	m3	204						
3.49	b) Road trenches including disposal of additional surplus material, to 5 DCP blows per 100mm	m3	204						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4	<u>SECTION 4: WATER PIPELINES</u>								
	mPVC Pipelines								
	Supply, handle, lay, bed and compact to 90% Mod AASHTO, joint, test & disinfect mPVC Class 12 pipe with spigot and socket ends to SABS 966, Pt 2 (1988):								
4.1	a) 75mm diameter	m	3300						
4.2	b) 110mm diameter	m	2511						
4.3	c) 160mm diameter	m	4814						
4.4	d) 200mm diameter	m	1788						
4.5	e) 250mm diameter	m	2872						
4.6	f) 300mm diameter	m	4846						
4.7	g) 400mm diameter	m	3669						
4.8	h) 450mm diameter	m	1265						
4.9	d) 500mm diameter	m	1788						
4.10	e) 600mm diameter	m	924						
4.11	f) 700mm diameter	m	1703						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.12	g) 800mm diameter	m	1386						
4.13	h) 1100mm diameter	m	2145						
	Specials and Fittings in mPVC								
	Extra-over mPVC to supply, lay, bed, test and disinfect specials complete with couplings								
4.14	a) 90° Bends, 75mm diameter	No	57						
4.15	b) 45° Bends, 75mm diameter	No	55						
4.16	c) 22½° Bends, 75mm diameter	No	52						
4.17	d) End cap, 75mm diameter	No	21						
4.18	e) 90° Bends, 110mm diameter	No	42						
4.19	f) 45° Bends, 110mm diameter	No	44						
4.20	g) 22½° Bends, 110mm diameter	No	28						
4.21	h) End cap, 110mm diameter	No	34						
4.22	i) 90° Bends, 160mm diameter	No	33						
4.23	j) 45° Bends, 160mm diameter	No	42						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.24	k) 22½° Bends, 160mm diameter	No	45						
4.25	l) End cap,160mm diameter	No	34						
4.26	m) 90° Bends, 200mm diameter	No	21						
4.27	n) 45° Bends, 200mm diameter	No	34						
4.28	o) 22½° Bends, 200mm diameter	No	34						
4.29	p) End cap,200mm diameter	No	34						
4.30	q) 90° Bends, 250mm diameter	No	21						
4.31	r) 45° Bends, 250mm diameter	No	35						
4.32	s) 22½° Bends, 250mm diameter	No	34						
4.33	t) End cap,250mm diameter	No	14						
4.34	u) 90° Bends, 300mm diameter	No	21						
4.35	v) 45° Bends, 300mm diameter	No	45						
4.36	w) 22½° Bends, 300mm diameter	No	35						
4.37	x) End cap,300mm diameter	No	34						
4.38	y) 90° Bends, 400mm diameter	No	21						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.39	y) 45° Bends, 400mm diameter	No	28						
4.50	y) 22½° Bends, 400mm diameter	No	28						
4.51	d1) End cap,400mm diameter	No	28						
4.52	z) 90° Bends, 450mm diameter	No	28						
4.53	z) 45° Bends, 450mm diameter	No	28						
4.54	e1) 90° Bends, 500mm diameter	No	28						
4.55	f1) 45° Bends, 500mm diameter	No	28						
4.56	g1) 22½° Bends, 500mm diameter	No	28						
4.57	h1) End cap,500mm diameter	No	42						
4.58	i1) 90° Bends, 600mm diameter	No	42						
4.59	j1) 45° Bends, 600mm diameter	No	42						
4.60	k1) 22½° Bends, 600mm diameter	No	42						
4.61	l1) End cap,600mm diameter	No	42						
4.62	m1) 90° Bends, 700mm diameter	No	55						
4.62	n1) 45° Bends, 700mm diameter	No	55						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.63	o1) 22½° Bends, 700mm diameter	No	70						
4.64	p1) End cap,700mm diameter	No	83						
4.65	q1) 90° Bends, 800mm diameter	No	83						
4.66	r1) 45° Bends, 800mm diameter	No	83						
4.67	s1) 22½° Bends, 800mm diameter	No	70						
4.68	t1) End cap,800mm diameter	No	70						
4.69	u1) 90° Bends, 1100mm diameter	No	70						
4.70	v1) 45° Bends, 1100mm diameter	No	70						
4.71	w1) 22½° Bends, 1100mm diameter	No	55						
4.72	x1) End cap,1100mm diameter	No	42						
	Pipe Specials and Fittings								
	RILSAN lined and coated steel fittings, supply, lay, bed, test and disinfect specials complete with and including all flanges, gaskets, washers, bolts and associated costs.:								
	<u>Flanged Reducers:</u>								

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.73	a) 600 x 400mm Flanged reducers/tapers	No	20						
4.74	b) 450 x 375mm Flanged reducers/tapers	No	20						
4.75	c) 450 x 225mm Flanged reducers/tapers	No	20						
4.76	d) 450 x 150mm Flanged reducers/tapers	No	20						
4.77	e) 400 x 300mm Flanged reducers/tapers	No	77						
4.78	f) 400 x 200mm Flanged reducers/tapers	No	30						
4.79	g) 400 x 150mm Flanged reducers/tapers	No	20						
4.80	h) 400 x 100mm Flanged reducers/tapers	No	20						
4.81	i) 400 x 75mm Flanged reducers/tapers	No	50						
4.82	j) 400 x 50mm Flanged reducers/tapers	No	20						
4.83	k) 300 x 250mm Flanged reducers/tapers	No	77						
4.84	l) 300 x 200mm Flanged reducers/tapers	No	77						
4.85	m) 300 x 150mm Flanged reducers/tapers	No	81						
4.86	n) 300 x 100mm Flanged reducers/tapers	No	79						
4.87	o) 300 x 75mm Flanged reducers/tapers	No	84						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.88	p) 250 x 200mm Flanged reducers/tapers	No	83						
4.89	q) 250 x 150mm Flanged reducers/tapers	No	83						
4.90	r) 250 x 100mm Flanged reducers/tapers	No	83						
4.91	s) 250 x 75mm Flanged reducers/tapers	No	83						
4.92	t) 200 x 150mm Flanged reducers/tapers	No	83						
4.93	u) 200 x 160mm Flanged reducers/tapers	No	20						
4.94	v) 200 x 100mm Flanged reducers/tapers	No	248						
4.95	w) 200 x 75mm Flanged reducers/tapers	No	248						
4.96	x) 160 x 100mm Flanged reducers/tapers	No	30						
4.97	y) 160 x 50mm Flanged reducers/tapers	No	30						
4.98	z) 150 x 100mm Flanged reducers/tapers	No	1430						
4.99	aa) 150 x 75mm Flanged reducers/tapers	No	2260						
4.100	bb) 100 x 75mm Flanged reducers/tapers	No	4125						
4.101	cc) 100 x 50mm Flanged reducers/tapers	No	20						
4.102	dd) 75 x 50mm Flanged reducers/tapers	No	152						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
	<u>Tees:</u>								
4.103	a) 50 x 50mm diameter Standard Tee	No	83						
4.104	b) 75 x 75mm diameter Standard Tee	No	77						
4.105	c) 100 x 100mm diameter Standard Tee	No	85						
4.106	d) 150 x 150mm diameter Standard Tee	No	83						
4.107	160 x 160mm diameter Standard Tee	No	20						
4.108	e) 200 x 200mm diameter Standard Tee	No	77						
4.109	f) 250 x 250mm diameter Standard Tee	No	83						
4.110	g) 300 x 300mm diameter Standard Tee	No	92						
4.111	400 x 400mm diameter Standard Tee	No	30						
	HDPE Pipes								
	Supply, deliver, handle, lay, bed, joint, test and disinfect to SABS ISO 4427: 1996 E:								
4.112	a) PN 12.5, 15mm diameter	m	97						
4.113	b) PN 12.5, 25mm diameter	m	138						
4.114	c) PN 12.5, 50mm diameter	m	1709						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.115	d) PN 12.5, 75mm diameter	m	55						
4.116	e) PN 12.5, 110mm diameter	m	97						
4.117	f) PN 12.5, 160mm diameter	m	138						
	Specials and Fittings in HDPE (Alprene or similar approved to PN 16) Extra over HDPE pipes to supply, deliver, lay, bed, joint, test and disinfect (extra over item):								
	<u>Couplings (HDPE):</u>								
4.118	a) 25 x 1"mm diameter Male adaptor	No	248						
4.119	b) 25 x 1"mm diameter Female adaptor	No	248						
4.120	c) 50mm to 2" Plasson Female Adaptor	No	330						
4.121	d) 50mm to 2" Plasson Male Adaptor	No	330						
4.122	e) 54mmØ C/C Coupling	No	413						
4.123	f) 110mmØ Plasson Coupling	No	413						
4.124	g) 50mmØ Plastic Coupling	No	330						
4.125	h) 25mmØ Plastic Coupling	No	248						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.126	i) 22mm Plasson Straight Coupling	No	248						
4.127	j) 16mmØ Plastic Coupling	No	138						
	<u>90° Elbows (HDPE):</u>								
4.128	a) 25mm	No	60						
4.129	b) 50mm	No	60						
4.130	c) 50mm C/SCR Male Elbow PN16	No	60						
4.131	d) 100mm x 90° Plasson Elbow PN16	No	60						
4.132	e) 50mm x 90° Plasson Elbow PN16	No	30						
4.133	f) 75mm x 90° Plasson Elbow PN16	No	40						
	<u>HDPE Equal Tees:</u>								
4.134	a) 25mm	No	34						
4.135	b) 50mm	No	34						
	Steel Pipes								
	Supply, deliver, handle, lay, bed, joint, test and disinfect to SABS ISO 4427: 1996 E:								
4.136	a) 250mm diameter	m	1300						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.137	b) 400mm diameter	m	1205						
	Specials and Fittings in Steel								
	Supply, deliver, handle, install, joint, test and disinfect. Include pipes cut to length where required. (Gaskets, nuts, bolts and washers to be included) Note: Unless otherwise specified, all steel pipes and specials in this section shall be to Rilsan coated. All flanges to SABS 1123 Table 1600/3 unless otherwise specified. Include for "Denso-wrapping" any bolted connections in accordance with PSL.								
4.138	a) 75mm diameter	m	127						
4.139	b) 110mm diameter	m	83						
4.140	c) 160mm diameter	m	66						
4.141	d) 200mm diameter	m	50						
4.142	e) 250mm diameter	m	73						
4.143	f) 300mm diameter	m	50						
4.144	g) 400mm diameter	m	1285						
4.145	h) 500mm diameter	m	55						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.146	i) 700mm diameter	m	55						
	<u>Steel Saddle plate custom made to suit</u>								
4.147	75mm diameter up to 800mm diameter steel pipes	Sum	1						
4.148	75mm diameter up to 500mm diameter steel pipes	Sum	1						
4.149	75mm diameter up to 11 2.00mm diameter steel pipes	Sum	1						
	<u>Steel Blank Flanges, drilled to SABS 1123: 1977. Table 1600/3:</u>								
4.150	a) 75mm diameter	No	165						
4.151	b) 100mm diameter	No	220						
4.152	c) 150mm diameter	No	220						
4.153	d) 200mm diameter	No	220						
4.154	e) 250mm diameter	No	165						
4.155	f) 300mm diameter	No	138						
4.156	g) 400mm diameter	No	138						
	Specials and Fittings in SG Iron (Socketed)								

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
	Supply, deliver, handle, install, joint, test and disinfect. Include pipes cut to length where required. (Gaskets, nuts, bolts and washers to be included)								
4.157	a) 80 x 80mm diameter	No	60						
4.158	b) 110 x 110mm diameter	No	50						
4.159	c) 160 x 160mm diameter	No	40						
4.160	d) 200 x 200mm diameter	No	50						
4.161	e) 250 x 250mm diameter	No	45						
4.162	f) 300 x 300mm diameter	No	60						
	Valve Installations								
	Valves up to 400mm diameter Supply and Install CI RSV gate valves to SABS 1123 Table 1600/3 and a cap top for key operation for the following diameters (include 15 Mpa concrete anchor block). <u>Double flanged Resilient Seal Valves:</u>								
4.163	a) 50mm diameter (Class 16)	No	60						
4.164	b) 80mm diameter (Class 16)	No	60						
4.165	c) 100mm diameter (Class 16)	No	40						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.166	d) 110mm diameter (Class 16)	No	20						
4.167	e) 150mm diameter (Class 16)	No	40						
4.168	f) 160mm diameter (Class 16)	No	50						
4.169	g) 200mm diameter (Class 16)	No	30						
4.170	h) 250mm diameter (Class 16)	No	40						
4.171	i) 300mm diameter (Class 16)	No	50						
4.172	j) 400mm diameter (Class 16)	No	60						
	<u>Air Valves</u>								
4.173	25mmØ Air Valve PN16	No	40						
4.174	50mmØ Air Valve PN16	No	40						
4.175	100mmØ Air Valve PN16	No	40						
4.176	200mmØ Air Valve PN16	No	40						
	<u>Gate Valves</u>								
4.177	50mm Gate Flanged Valve C/C PN 16	No	40						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.178	80mm Gate Flanged Valve PN 16	No	40						
4.179	100mm Gate Flanged Valve PN 16	No	40						
4.180	150mm Gate Flanged Valve PN 16	No	40						
4.181	200mm Gate Flanged Valve PN 16	No	40						
4.182	250mm Gate Flanged Valve PN 16	No	40						
4.183	300mm Gate Flanged Valve PN 16	No	40						
	<u>Pressure Reducing Valves</u>								
4.184	15mmØ PRV Valve PN16	No	40						
4.185	25mmØ PRV Valve PN16	No	40						
4.186	50mmØ PRV Valve PN16	No	40						
4.187	75mmØ PRV Valve PN16	No	40						
4.188	100mmØ Upper PRV Valve PN16	No	40						
4.189	100mmØ Lower PRV Valve PN16	No	40						
4.140	100mmØ Hydraulic Control Valve PN16 GE Clayton	No	40						
	Valve Chambers								

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.141	Supply all materials and construct valve chamber complete for valves up to 80mm in dia. as detailed on EWS standard drawing 60500 & 60501)	No	50						
4.142	Supply all materials and construct scour valve chamber complete for ball valves up to 50mm in dia. as detailed on EWS Standard Drawing 60500	No	50						
4.143	Supply all materials and construct butterfly valve chamber complete for ball valves up to 50mm in dia. as detailed on EWS Standard Drawing	No	50						
	Hydrants								
	Supply and install Hydrant complete with all fittings supplied by EThekwini								
4.144	Standard fire Hydrant with a 75 x 80mm Hydrant Tee	No	62						
4.145	Standard fire Hydrant with a 110 x 80mm Hydrant Tee	No	50						
4.146	Standard fire Hydrant with a 160 x 80mm Hydrant Tee	No	50						
4.147	Standard Fire Hydrant tee with 200 x 80mm Hydrant Tee	No	20						
4.148	Standard Fire Hydrant tee with 250 x 80mm Hydrant Tee	No	70						
4.149	Standard Fire Hydrant tee with 300 x 80mm Hydrant Tee	No	50						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
	Connections to Existing Water Mains								
	Provide all plant and labour necessary to connect to the existing municipal water main. The rate is to include isolating the pipeline, removal of section of existing mains, scouring and sanitising on completion and refilling the line (fittings, thrust blocks etc. measured elsewhere) for:								
4.150	a) 75mm diameter	No	344						
4.151	b) 110mm diameter	No	275						
4.152	c) 160mm diameter	No	207						
4.153	d) 200mm diameter	No	138						
4.154	e) 250mm diameter	No	69						
4.155	f) 300mm diameter	No	424						
	Anchor/Thrust Blocks								
	Construct anchor/thrust blocks to EWS Standard Drawing no. 39 for tees, bends and end caps:								
	<u>For Tees, bends and end caps:</u>								
4.156	a) 75mm diameter - 400mm diameter	No	512						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
4.157	<u>For Reducers:</u> b) 75mm diameter - 400mm diameter	No	320						
	Marker Posts								
	Supply and Install pre-cast concrete marker posts as detailed on EWS Standard Drg. No. 27.								
4.158	a) Route marker	No	350						
	<u>Paint and stencil markers, supplied by EThekweni as per</u>								
4.159	Standard Drawing #22, #32, #61	No	350						
	Valve Marker	No	225						
4.161	Hydrant	No	150						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
5	<u>SECTION 5: SUNDARY ITEMS</u>								
	<u>Reinstate road and other paved surfaces complete according to the drawings and eThekwin Engineering Standards</u>								
5.1	a) all layer works and asphalt up to 50mm thick	m2	5253						
5.2	b) all layer works and asphalt up to 80mm thick	m2	5003						
5.3	c) all layer works and asphalt up to 100mm thick	m2	4928						
	<u>Tar cutting</u>								
5.4	Asphalt 50mm up to 100 thick	m	19904						
	<u>Pressure Testing</u>	m	29528						
5.5	Pressure testing mPVC, HDPE and steel pipes								
	Gabions and pitching (erosion protection)								
5.6	Supply and install 3.0 x 2.0 x 0.17 Reno mattress (2.5mm galvanised wire) erosion protection complete with grade A1 Bidum geofabric membrane (or similar approved) in all areas as instructed by Engineer	m3	180						
5.7	Provisional cost for transport for Item 6.4 above	item	1						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
6	<u>SECTION 6: WATER METER INSTALLATION</u>								
	Valve Installation								
6.1	Supply and install 50mm ø RSV as detailed on EWS Standard Drg. No. 52833 rev. A	No	100						
6.2	50mm dia. ball-o-stop	No	100						
6.3	<u>Valve Chamber</u> Supply all materials and construct isolation valve chamber complete as detailed on EWS Standard Drg. No. 52833 rev. A	No	100						
	<u>House Connections</u>								
	Supply and install Water Connections to all property meter, supplied by eThekweni, including all fittings and associated costs as per Standard Drawing # 72056 Rev 1								
6.4	a) 50mm x 25mm plastic saddle	No	80						
6.5	b) 75 x 25mm Water Connection	No	50						
6.6	c) 100mm x 25mm Plastic Saddles	No	50						
6.7	d) 150 x 25mm Water Connection	No	60						
6.8	e) 250 x 25mm Water Connection	No	60						
6.9	f) 450 x 25mm Water Connection	No	29						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
6.10	f) 300 x 25mm Water Connection	No	110						
	Bulk Meters								
	<u>Take delivery of flow meters (ex Metro Stores), handle, lay, bed, joint and disinfect the following (rates to include for all jointing material and electro galvanised bolts, nuts and washers)</u>								
6.11	a) 50mm dia. Meinecke Cosmos WPD water meter	No	100						
6.12	b) Supply and install 50mm ø Dirt Box as per EWS Standard dwg no. 52653 rev.1	No	100						
	Steel Pipes and Specials								
	Supply, deliver, handle, install, joint, test and disinfect. Include pipes cut to length where required. (Gaskets, nuts, bolts and washers to be included).								
	Rates to include: Rilsan coating to steel pipes and specials, flanges to SABS 1123 Table 1600/3 unless otherwise specified, "denso-wrapping" of bolted connections in accordance with PSL.								
6.13	Supply and install 50mm dia. Spool piece	No	110						
	Miscellaneous								
6.14	Supply and construct concrete bollards to protect bulk meter installation as per EWS Std. drawing no. 52833 rev. A	No	110						

Item	Description / Item Code	Unit of Measure	Estimated Quantity Required	Price excluding VAT		VAT		Price including VAT	
				R	c	R	c	R	c
	FINAL SUMMARY								
1	SECTION 1								
2	SECTION 2								
3	SECTION 3								
4	SECTION 4								
5	SECTION 5								
6	SECTION 6								

PART C3: SCOPE OF WORK

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C3.1: PROJECT DESCRIPTION AND SCOPE OF CONTRACT

C3.1.1 Description of Works

The scope of works for this contract involves purchasing of material, excavation, laying or installation new and upgrading pipelines, trench backfilling, removal and disposal of spoil, reinstatement of common roads categories and water infrastructure within the eThekweni Municipality Area comprises of five regions (North, South, Central, and Inner & Outer West Region) with various wards ranging from 1 to 110. The Water Department are committed to deliver best service standards where water infrastructure projects are well maintained within reasonable time.

The works will be carried out in work-packages in regions under various wards within the Municipality area (under heavy traffic conditions) where necessary as requested by the Engineer therefore the appointed main contractor from the panel of contractors shall ensure that traffic is well managed on site at all times. Road is barricaded as per the traffic standards, and all workers are wearing required full PPE to always remain visible and safe on site. All work done shall be in accordance with the eThekweni Municipality's Standard Engineering Specifications and shall be subject to and in conformity with the Council's Bylaws.

The contractor is to ensure allocation of sufficient resources to meet requirements of issued works as per the approved JDE job number per site on work-packages. As form part of Portfolio of evident for each fault or repairs done – Before work is done Photos must be captured, showing GPS co-ordinate of the reported fault for backfilling and subsequent potential reinstatement required then once job is complete another Photos must capture, showing GPS co-ordinate, date and time of all works done. All evident gathered must be submitted with JDE reference job number attended.

The core functions of WCB is to ensure that the construction of basic level of water services is of high quality and reliable to all urban and rural communities within eThekweni Municipality as proposed and planned by various sectors of the Municipality. This is achieved by executing and completing new water reticulation pipelines and up-grading of ageing water infrastructure projects timeously.

The awarded main contractor from the panel of contractors to adhere to all Asbestos Regulations when handling of different types of recovered Asbestos Cement (AC) pipes material during relaying. Managing and handling of spoil must be done following proper procedure to disposing spoil material of Asbestos material to certified designated sites.

The scope of works comprises of the following:

- Preparations of work as requested by the Engineer,
- General clearance and grubbing for the pipeline
- Capture photos "Before work is done" showing GPS Co-ordinate of the fault area, date and time – using GPS Map Camera Application on smartphones or similar application
- Conventional open trench excavation within the road reserve and
- Saw cutting of existing road surfaces.
- Collection of pipes and various other materials.
- Fabrication of various vertical, horizontal and compound bends.
- Preparation of pipe bedding, laying and welding of pipe lengths, backfilling and compaction

with approved selected excavated material and compact according to eThekweni Municipality specification

- Installation of line valves, scour valves and air valves and construction of associated reinforced concrete chambers
- Construction of a multiple road crossings by using pipe jacking method for DOT roads.
- Tie-ins to existing water infrastructure.
- General ground re-instatement along the pipeline route and road surfaces
- Such other work as may be deemed necessary by the engineer for the completion of the project.
- Surface repairs and trench reinstatement on roads and sidewalks, including holding measures
- Layer works forming the new asphalt on the road & sidewalk
- Kerb and channel for sidewalk
- Placing, Laying & Compacting 100mm thick G2 crusher stone (28mm), Compacted to 93% Mod AASHTO
- Removal of all rubble associated with the works to an approved dump site or reuse where allowable as requested by the Engineer
- Cleaning of the site on completion of each work order
- Testing of pipeline under static and hydraulic after repairs
- Capture photos "After work is done" showing GPS Co-ordinate of the fault area, date and time – using GPS Map Camera Application on smartphones
- Quality Check Completion of Roads reinstatement on surface reinstated

Therefore, this document is aimed in obtaining the main contractor, from the panel of contractors that will be liable for managing and purchasing of all material to be used according to eThekweni Municipality specification per region, and also appointments of local contractors thus assisting in dealing with business forums then transferring skills to local contractors while uplifting the community.

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% Black owned. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved. The penalty for not achieving the specified CPG will be 0.5% of the contract value (excluding PC Sum items and Fixed Cost allowances) for every 1% of CPG not achieved.

ISD scope of works comprises of the following:

- Identification of all relevant stakeholders to the project.
- Formation of a Project Steering Committee (PSC).
- Contribute to collective project risk identification and mitigation.
- Attend project team meetings.
- Attend PSC meetings.
- In conjunction with EWS community liaison personnel, interface between project team and community stakeholders.
- Manage community stakeholder interests.
- Provide ongoing ISD support to the Project Team.

C3.1.2 Description of Site and Access

Site location: Within any Ward in the eThekweni Municipality

The proposed pipeline route traverses' verges located within residential area, Asphalt Roadways (Main Arterial Roads, and Roads Sidewalk within Residential Areas)

The contractor shall be responsible for the maintenance and reinstatement of damage caused by him or his agent/deliveries to vehicular access tracks and rights of way.

The council and the property owners shall be indemnified against any damages or claims arising from use of any tracks and rights of way by the contractor or his agents

C3.1.3 Nature of Ground and Subsoil Conditions

Intermediate to Hard Material
Water Table 1,5m

C3.1.4 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 **Contract Participation Goal (CPG)** 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 contract participation goal (CPG) 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). Table 2. 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
Building and Construction Works Management		
5 & 6	5	National Certificate: Management of Building Construction Processes NQF 5
2 to 4	3	- NCV 4: Civil Engineering and Building Construction, or - National Certificate: Supervision of Construction Processes
Civil Engineering Construction Works		
5 & 6	5	- National Certificate: Management of Civil Engineering Processes NQF 5, or - National Diploma: Civil Engineering and Building Diploma
2 to 4	3	- 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 Scope of Work

eThekweni Municipality (Water and Sanitation Unit: Sanitation Operations Department) requires the Panel of Contractors to undertake the Municipality's new and upgrading water infrastructure projects, which will be as and when required. The type and volume of work required and expected, necessitates the Contractor to ensure that their staff are competent in dealing with work for various pipe composition and pipe fittings, various pipe size and pipe fittings, various pipe depth range (inclusive of shoring as per regulation and infrastructure conditional assessment, in one, more or a combination of the works listed below; in addition, take into account various avoidable and unavoidable constraints (confined spaces, private property, protests, traffic, site conditions, services, theft, vandalism and Acts of God).

The type of work required and expected (includes but not limited to), for sanitation works are:

- Relays and extension of water mains reticulation from 15mm diameter up to 1100mm HDPE pipes,
- Relays and extension of water mains reticulation from 50mm diameter up to 1100mm MpvC pipes.
- Relays and extension of water mains reticulation from 150mm diameter up to 1100mm Stainless Steel pipes
- Installation Special fittings HDPE pipes,)
- Installation Special fittings MpvC pipes
- Installation Special fittings Steel pipes,)
- Earthworks for Pipe Trenches
- Installation of shoring and site safety
- Import of selected material and/or the disposal of spoil and/or damage infrastructure

The work required to be undertaken as follows:

- All jobs will be created by eThekweni Municipality's, Water and Sanitation Unit, Water Operations staff
- All jobs can only be authorized by the relevant eThekweni Municipality's, Water and Sanitation Unit, Water Operation's: within the Municipality
- The Contractor will undertake the job upon receipt of an email from the relevant eThekweni Municipality's, Water and Sanitation Unit, Water Operation's: within the Municipality
Upon receipt of the job information the Contractor will:
 - Go to job site
 - Engage with the local stakeholders (inclusive of local Sub-Contractors)
- The Contractor will scope the work to be performed after the job site visit. The Contractor will scope and cost the work to be performed after the job site visit.
- The contractor is expected to utilize surrounding contractors from CIDB 1 to CIDB 4 to undertake minor work at the relevant CIDB grading value.
- The Contractor and/or Sub-Contractor will complete the job
- After job is completed the Contractor will send the invoice to the relevant eThekweni Municipality's, Water and Sanitation Unit, Water Operation's Department. The invoice will include the following minimum info:
 - Order number
 - Job initiation photo (was received from the Area Engineer)
 - Fault completion photo, which must include the GPS co-ordinates and date
 - Name of the Sub-Contractor/s
 - CIDB grading of Sub-Contractor/s
 - Qualification of Sub-Contractor/s

- Value to be paid to the Sub-Contractor/s, after invoice approval
 - Plant and/or Equipment utilized
 - Details of work done or material on site
 - Municipality Representative for the Work
- Upon receipt of the invoice the relevant eThekweni Municipality's, Water and Sanitation Unit, Water Operation's Department. The Clerk of Works will verify the completion of the job and the details within the invoice.
- The relevant Senior Technician of eThekweni Municipality's, Water and Sanitation Unit, Water Operation's Department, will then send the verified invoice for payment authorization to the eThekweni Municipality's, Water and Sanitation Unit, Water Operation's: Senior Manager.

Post the initial work assessment, the Contractor will have his/her key staff (civil engineer, civil technician, geotechnical engineering, clerk of works, quantity surveyor) undertake site visits and assessments (before, during and post work completion), create the specification, designs, drawings, timelines and financial implications of the work and monitor and assess the work undertaken by the CPG Partner/s. The Contractor will distribute the work to the CPG Partner/s (if required), with the specification, designs, drawings, cost and timeline with milestones. The Contractor will undertake regular site visits and assessments, to ensure the work is completed as per the specification, standards and safety factors. The Contractor shall maintain a digital photographic record of work undertaken, which are to be taken "before, during and after", such that's, each photo is clearly referenced by consistent file naming, in accordance with the sanitation infrastructure and the dates and time(s) of works. All photographs contain location specific metadata (GPS location). These photographic records shall be stored and if a digital copy is required will be delivered as and when required.

The Contractor must produce a Quarterly Report, that must contain:

- Statics (works completed, incomplete, redirected, durations, locations, infrastructure size and composition, etc.)
- Analysis (frequencies, hot spots, types of repairs, etc.)
- Recommendations
- Summary of the expenditure analysis
- Summary of the CPG distribution for work and cost
- Summary of the contingency utilization

The Contractor will create and manage a comprehensive register of documents that will be generated throughout the Contract including all documents and all reports. The Contractor shall institute the quality control system and provide suitably qualified and experienced staff, transport, and equipment to ensure adequate supervision and positive control of the works at all times. The Contractor will create and submit a progress report, to the Employer to assist with the ease of communication, information processing and data handling; such that, the Contractor handles all the documentation that is used and produces in relation to this contract in a suitable document control system that ensures that all documents are appropriately recorded, filed, and transmitted. The Contractor submits all documentation in accordance with the Employer document control procedure, as may be instructed from time to time, including the completion of any standard forms or templates as may be required by the Employer. All documentation prepared for and during this contract shall become the property of the Employer at the completion of the contract. The Contractor will assess the amount due and submits to the Employer for payment. The Contractor applies for payment with the submission of a claim on completion of the work. He prepares at his own cost a detailed schedule of work undertaken up to the chosen date (successful Contractor to

discuss with Employer) and submits this to the Employer, including details of the Bill of Quantities, rates, percentage and actual quantities of services provided, as may be relevant, along with any supporting or back-up documentation as may be requested by the Employer from time to time.

The Contractor shall at his own cost a detailed invoice of all work undertaken and submit this to the Employer. The Contractor shall submit to the Employer certified schedules for each section of work, along with any supporting or back-up documentation as may be requested by the Employer from time to time. These submissions must be made in the formats prescribed by the Employer, which may vary from time to time. Any failure to submit the required claim information by the agreed date will result in the assessment by the Employer being held until the correct submission of the required information. These assessments shall not be regarded as late, and interest shall not be applicable. The invoice must correspond to the Employers assessment (Central Area Manager, will have his own assessment of the work undertaken by his representative, who will take photographs which contain location specific metadata - GPS location) of the amount due to the Contractor as stated in the invoice.

It is the responsibility of the Contractor to continuously ensure that the financial authority for the give financial year is not exceeded.

Following approval or correction of any wrongly assessed amount by the Contractor (i.e., the Employer's assessment), the Employer will notify the Contractor of the amount to be paid and issue a payment certificate accordingly. The Contractor will submit an invoice matching the payment certificate amount and date, which includes the following information, which may be varied from time to time by the Employer:

- Name and address of the Contractor
- Contract number and title
- Contractor's VAT registration number
- Employer's VAT registration number 488 0193 505
- Total of each item in the Bill of Quantities which the Contractor has completed
- Other amounts to be paid to the Managing Contractor
- VAT and total including VAT
- With all amounts corresponding to the assessment certificate issued by the Employer

Any form of collusion, corruption or bribery between the Contractor, Sub-Contractors and eThekweni staff will immediately result in the Contractor being disqualified and the contract be deemed null and void.

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).

The preliminary programme to be submitted with the tender shall be used as basis for this programme.

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:

[Detail any factors which may affect the programming of the project]

- (1) Time required for service relocations.
- (2) Time allowances to be made for the ordering of special items.

- (3) Notification required by service organisations.
- (4) Any special sequence in which work must be carried out. Must certain areas of work be finished before work commences on others?
- (5) If delays are anticipated with service relocations the contractor should be asked to allow time.
- (6) Is work required out of normal hours? (eg. to accesses).
- (7) Vehicular access to private property is to be maintained.
- (8) Traffic restrictions.

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

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 always extended to the public.

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 following the Occupational Health and Safety Act 1993 and the Construction Regulations 2014.

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

PS.2 SERVICES

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 to be included in the work covered by Clause DA.8.3.

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.

Services affected by the contract are described as follows:

- PS.3: Watermains.
- PS.5: Sewers.
- PS.6: 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

Tenderer's attention is drawn to the following points regarding the watermains to be installed as part of this contract.

PS.3.2 Water Main Valve Access

Due to the dangerous situation occurring when water main valves are covered over, the Contractor shall always maintain access to all water main valves. 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 eThekweni Water Services Directorate. 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

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

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 eThekweni Electricity's work gangs, or agents appointed by them, whilst the excavation and backfilling forms part of this contract. Close liaison will therefore be necessary with eThekweni Electricity throughout the contract.

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 eThekweni Electricity or their agents. It is a requirement that the street lighting be operational at all times.

PS.6.3 MV / LV Cables

Certain MV / LV cables are to be replaced within the contract area (see drg xxxxxxxxA0). The actual cable work associated with this relocation and / or replacement of these cables will be carried out by eThekweni Electricity and it is stressed that the **two** week period referred to in Clause PS.2 is the minimum period required to enable eThekweni Electricity to be on site timeously.

PS.6.4 Relocation of Existing Services

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

PS.7 TELKOM S.A. LIMITED / NEOTEL PLANT

[No work to Telkom / Neotel Plant is envisaged, but the Tenderers attention is drawn to the fact that Telkom / Neotel copper cables and fibre optic cables are existing in the contract area.]

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.]

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 Engineer.

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:

Describe issues relating to OH&S and the Regulations

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 OHSA Construction Regulations

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

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

ITE FACILITIES AVAILABLE

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.11.1 Contractor's camp site and depot *(Read with SANS 1921 - 1 : 2004 clause 4.14)*

The Contractor's office for this contract shall be as required to fulfil his obligations under the Contract. The Contractor is responsible to provide a suitable site for his camp.

(a) Contractor's camp site/store yard

The Contractor shall make his own arrangements for a depot site, for the establishment of his offices, workshops, stores, sheds, repair yards and all other facilities required by the Contractor for the execution of the Works adjacent to the site. The Contractor shall provide on the depot site all his office accommodation and all associated facilities required for the adequate supervision, control and execution of the Works.

The area occupied shall be neatly fenced off to denote its limit. The Contractor shall be responsible for the proper upkeep and control and security of the area for the duration of the Contract and all structures and buildings shall be kept in good repair.

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 SANS 1200 A clause 8.3.2.2 the following conditions shall also apply:-

- (i) None of the existing roads shall be damaged in any way.
- (ii) 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 Engineer; Director: Real Estate and/or Director of Parks, Recreation and Beaches Department; or other owner. Particular attention should be directed to these requirements and written clearances from the relevant Departments or other owners will be required.

(b) Notice Board

The typical notice board layout is given in Section C4.3 The following requirements shall apply with regards to the notice board:

- (i) The wording in the space for "Name of Contract" shall be: 36623-5W: **Error! Reference source not found.**
- (ii) The words to follow "Designed" shall be:

ETHEKWINI WATER AND SANITATION, WATER OPERATION: ENGINEERING UNIT

- (iii) The notice board shall be of sufficient size to accommodate the eThekweni Municipality

Logo.

PS11.2 Accommodation of Employees

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

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

No informal housing or squatting will be allowed.

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

PS 11.3 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 Services 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.

CONSTRUCTION AND MANAGEMENT REQUIREMENTS

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) Every invoice must be accompanied by a complete work package, as described in the Scope of Works.
- (b) Four (4) quarterly reports must be submitted every year, as described in the Scope of Works for the duration of the project.

PS 12.1 General

The Contractor is referred to SANS 1921: 2004 parts 1, 2, 3 and 5: Construction and Management Requirements for Works Contracts. These specifications shall be applicable to the contract under consideration and the Contractor shall comply with all requirements relevant to the project.

Certain aspects however require further attention as described hereafter.

PS 12.2 Quality Assurance (QA) *(Read with SANS 1921 – 1: 2004 clause 4.4)*

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

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

PS 12.3 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.

The possibility of flooding shall be borne in mind by the Contractor when drawing up his tender and he shall effect relevant insurance as the Council will accept no responsibility whatsoever for any loss or damage from such flooding including any loss or damage to the temporary or the permanent works.

PS 12.4 Disposal of spoil or surplus material *(Read with SANS 1921 - 1 : 2004 clause 4.10)*

The Contractor shall dispose all surplus and unsuitable material in legal spoil areas of his own choice. He shall be responsible for all arrangements necessary to obtain such spoil sites.

A municipal landfill site for building rubble exists within the Verulam (Bissar Road landfill site) area which could be utilised for disposal of demolished concrete and other rubble.

PS 12.5 Testing *(Read with SANS 1921 – 1 : 2004 clause 4.11)*

PS-12.5.1 Process control

The Contractor shall arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the Engineer.

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

PS 12.5.2 Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control. However, before accepting any work, the Engineer may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be covered by a provisional sum provided in the schedule of quantities, but tests that failed to confirm compliance with the specifications, will be for the account of the Contractor.

PS-12.6 Survey beacons (Read with SANS 1921 - 1 : 2004 clause 4.15)

The Contractor shall take special precautions to protect all permanent survey beacons or pegs such as benchmarks, stand boundary pegs and trigonometrical beacons, regardless whether such beacons or pegs were placed before or during the execution of the Contract. If any such beacons or pegs have been disturbed by the Contractor or his employees, the Contractor shall have them replaced by a registered land surveyor at his own cost.

PS-12.7 Overhaul

No payment will be made for overhaul on this contract unless provision is made therefore in specific items.

PS-12.8 Security

The Contractor shall provide security watchmen and all measures necessary to secure the works for the contract as he deems fit. The cost thereof will be deemed to be included in the rates tendered. The Contractor must ensure that all his employees as well as the employees of his subcontractors are able to identify themselves as members of the construction team.

No employees, other than those required for security purposes may be housed on the site and the Contractor must make his own arrangements for the housing of staff.

PS-13 SITE FACILITIES REQUIRED

PS-13.1 Temporary offices

The Contractor shall make provision in his site establishment for one lockable air conditioned 20m² furnished office and sanitary facilities for the sole use of the Engineer and his site personnel. All necessary insurance shall be provided for, for all the above equipment.

PS.13.2 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.

Specify requirements.

b) CIDB Indirect Targeting Standard

It will be a condition of contract that the Contractor shall, in the performance of the contract, achieve the **Contract Participation Goal (CPG)** 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 TEMPORARY WORK

The Contractor shall carry out such temporary work, including the necessary access and construction roads, shoring of trenches and excavations etc., as he may require to enable the permanent work to be constructed. He shall allow for the cost of all temporary works, including their removal, in his rates.

PS-15 CONTRACTOR'S PLANT

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

PS-16 BARRICADING OF EXCAVATIONS

All excavations in road reserves and in any other areas in close proximity to pedestrian and vehicular traffic are to be barricaded to the satisfaction of the Engineer. All costs arising from these requirements are to be included in the tendered rates.

PS-17 WORK WITHIN ROAD RESERVES

Generally the pipeline is to be laid within road reserves with (mainly Inca Road) located across the road hardening. In certain areas along the route, steep banks run parallel to the pipe trench. The Contractor is to ensure that boundary fences are protected from loose sliding excavated materials. Any damage to such fences or any other property will be to the Contractor's account.

The Contractor will only be allowed to close half the width of the road at any one time and must carry out work in the following sequences:

- Step 1: Working area to be barricaded as per specifications.
- Step 2: Existing services to be proved and protected. Chainage and levels of all services to be provided to the Engineer.
- Step 3: Excavate and bed pipe trench.
- Step 4: Lay pipe and have joints X-rayed or tested.
- Step 5: Backfill trench and carry out compaction tests before road reinstated.

The work within the road reserve shall generally be carried out in a manner which will create as little disturbance to residents and through traffic as possible, and the length of trench left open shall not exceed 100m.

Only when the above work has been carried out and approved by the Engineer will the Contractor be allowed to re-open the road to traffic and close the next section of road. The Contractor shall allow in his rates for this limitation on the rate of progress of construction.

PS-18 WORK IN A RESTRICTED/CONFINED AREA

Due to the presence of buildings, structures and certain underground and overhead services which exist on the site, the Contractor may experience difficulty in working in a confined or restricted space. Tenderers are to take cognisance of this fact and allow for the difficulty of working in a restricted space in the rates. No additional payment will be made for this requirement.

PS-19 WORKING HOURS

The Contractor is referred to the requirements of Clause 41 of the General Conditions of Contract. Work shall only be carried out within the normal working hours as defined in that clause (i.e. 07h30 to 17h00 on Mondays to Fridays). No work shall be permitted to be carried out on any weekends or public holidays, which shall include public holidays not considered as paid holidays for the Civil Engineering Industry unless authorised by the Engineer.

PS-20 TESTING

The Engineer will require that hydraulic testing of the pipeline as specified in PSL-7.3 be undertaken for all the pipelines laid under this Contract. The Contractor shall allow in his general pipe laying rates for all inspections and tests and for the supply of all necessary equipment that may be required for these tests and/or inspections by the Engineer.

PS-21 ACCESS TO PRIVATE PROPERTY

The Contractor shall keep the occupants of affected properties advised at all times prior to disrupting access to, or egress from their properties.

Vehicular and pedestrian access may not be denied to occupants of affected properties unless prior approval has been obtained in writing from the occupants concerned and the Engineer.

The Contractor must make allowance in his rates for all necessary bridging of excavations in order to permit uninterrupted access at all times.

PS-22 FINISHING AND TIDYING AND SITE MAINTENANCE

During the progress of the work and upon its completion, the site of the works shall be kept and left in a clean and orderly condition. The Contractor shall always store materials and equipment for which he is responsible in an orderly manner and shall keep the site free from debris and obstruction.

Progressive and systematic finishing and tidying will form an essential part of this Contract. On no account must spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of others, and in the event of this occurring, the Employer shall have the right to withhold payment for as long as may be necessary in respect of the relevant Works in the areas(s) concerned without thereby prejudicing the rights of others to institute claims against the Contractor on the ground of unnecessary obstruction.

Finishing and tidying must not be deferred to the end of the Contract. The works will not be certified as practically complete, until the whole of the works including all finishing and tidying, has been fully completed to the satisfaction of the Engineer.

All finishing and tidying shall be carried out to the best advantage of the project as a whole and in the closest co-operation with other Contractors.

PS-23 DRAWINGS AND SPECIFICATIONS TO BE PROVIDED

The Contractor shall be entitled to receive free of charge, the following: -

- (a) THREE (3) paper copies of each drawing; and
- (b) ONE (1) paper copy of the signed Contract Document.

PS-24 LENGTH OF TRENCHES

No trench may be left open over weekends. The cost of backfilling any trenches before the shut-down period and the re-opening thereof after the shut-down period shall be for the Contractor's account. Unless otherwise permitted in writing by the Engineer, no more than 100m of trench shall be opened in advance of pipe laying operations

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
DC	Earthworks for Concrete Lined Canals		
DD	Earthworks for Structures		
EA	Lime Stabilisation		
EB	Graded Crushed Stone	December	1988
EC	Cement Treated Graded Crushed Stone	December	1988
ED	Road Asphalt	July	1992
EE	Pre-coated Stone Chippings		
EF	Kerbs and Haunches	July	1992
EG	Sidewalks, Footpaths and Median Areas	July	1992
EH	Steel Guardrails & Conc. Median Barriers		
EJ	Concrete Interlocking Block Surfaces		
EK	Waterbound Macadam Base		
EL	Dumprock Subgrade Improvement		
EM	Concrete Surface to Roads		
EN	Slurry Sealing		
EP	Single Seal Surface Treatment		
F	Protection Works	July	1992
G	Pre-stressing		
H	Reinforced Earth		
J	Piling		
K	Bearings		
L	Structural Work		
PB	Pavement Layers of Gravel Material		
PC	Stabilisation of Gravel Base		
PD	Surface Treatment: Modified Binder		
PE	Pressure Pipelines: Steel		
PF	Pressure Pipelines: Other Than Steel		
PG	Non-Pressure Pipelines and Pc Culverts	July	1992
PH	Manholes and Appurtenant Drainage Works	July	1992
PJ	Pipe Jacking		
PG	Lateral Support Systems		
PS	Pump Stations: Sewage		
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 C	Concrete Work
PS DA	Earthworks: Bulk
PS DB	Earthworks for Pipe Trenches
PS DC	Earthworks for Concrete Lined Canals
PS DD	Earthworks for Structures
PS EA	Lime Stabilisation
PS EB	Graded Crushed Stone
PS EC	Cement Treated Graded Crushed Stone
PS ED	Road Asphalt
PS EE	Pre-coated Stone Chippings
PS EF	Kerbs and Haunches
PS EG	Sidewalks, Footpaths and Median Areas
PS EH	Steel Guardrails & Conc. Median Barriers
PS EJ	Concrete Interlocking Block Surfaces
PS EK	Water bound Macadam Base
PS EL	Dump rock Subgrade Improvement
PS EM	Concrete Surface to Roads
PS EN	Slurry Sealing
PS EP	Single Seal Surface Treatment
PS F	Protection Works
PS G	Pre-stressing
PS H	Reinforced Earth
PS J	Piling
PS K	Bearings
PS L	Structural Work
PS PB	Pavement Layers of Gravel Material

PS PC	Stabilisation of Gravel Base
PS PD	Surface Treatment: Modified Binder
PS PE	Pressure Pipelines: Steel
PS PF	Pressure Pipelines: other than Steel
PS PG	Non-Pressure Pipelines and Pc Culverts
PS PH	Manholes and Appurtenant Drainage Works
PS PJ	Pipe Jacking
PS PG	Lateral Support Systems
PS PS	Pump Stations: Sewage
PS S	Reinstatement
PS TA	Road Signs
PS TB	Road Markings

PSA GENERAL (SABS 1200 A – 1986)

PSA 3 MATERIALS

PSA 3.1 Quality

Where there is a standardisation mark for any material, all such material supplied shall bear the official standardisation mark.

Alternative materials or equipment proposed by the Contractor shall be tested. The test, as well as the materials or equipment, shall be approved by the Engineer prior to any such materials or equipment being built into the works and all costs involved in testing shall be deemed to be included in the rates tendered.

PSA 3.3 Applicable Standards for Cement

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

PSA 3.4 Ordering of Material

The quantities set out in the Schedule of Quantities have been carefully determined from calculations based on data available at the time and should therefore be considered to be only approximate quantities. The Contractor shall, before ordering materials of any kind, check with the Engineer whether or not the scope of work for which the materials are required is likely to change substantially. No liability or responsibility whatsoever shall be attached to the Employer for materials ordered by the Contractor except when ordered in accordance with the confirmation issued by the Engineer in writing.

PSA 4 PLANT

PSA 4.2 Contractor's Office Stores and Services

The Contractor's camp shall be kept clean at all times and all surplus or rejected material shall be removed from site.

PSA 4.2.1 Site Diary

The site diary, in triplicate format, which will be supplied by the Contractor, must be filled in on a daily basis and submitted to the Engineer or Engineer's representative on a daily basis. No claims will be considered without the site diary's schedules properly completed and submitted.

PSA 5 CONSTRUCTION

PSA 5.1 Survey

PSA 5.1.1 Setting out of the Works

The Contractor will be responsible for the setting out of the works from the survey control provided by the Employer. It is the Contractor's responsibility to confirm the accuracy of the control prior to setting of the works.

PSA 5.1.3 As-Built Data

The Contractor shall submit the following "As-Built" data to the Engineer to enable the Engineer to complete the required record drawings before a Certificate of Completion will be issued:-

The Contractor is required to tabulate this information in an electronic format that can be accessed on Microsoft Excel 2007 or higher. Authorisation by the Engineer for the payment of the Certificate

of Completion shall be withheld until all the above mentioned As-Built information has been provided to his satisfaction.

PSA 5.4 Protection of Overhead and Underground Services

The Contractor is reminded of his obligations in terms of Clause 4 of the Conditions of Contract and Special Conditions of Contract is to prove the actual position of all services on site before any work commences in the vicinity of the services. The Contractor is further required to measure accurately the chainage and level at which these services occur and to report this information to the Engineer for comparison with the contract drawings prior to work commencing in the vicinity of the services.

The drawings illustrate the positions of services as accurately as has been possible to ascertain from existing records. However, it is possible that there are services existing which are not reflected on the Contract drawings which might have an effect on the works. Therefore, the Contractor must take cognisance of the above possibility and provide sufficient flexibility within his programme of works to accommodate any alterations that might be necessary.

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 adjustments, without the prior consent of the Engineer.

Buried electrical and telephone cables shall be exposed using hand tools initially before allowing the uncontrolled use of picks and other implements, or before using machines to excavate. Supporting or diverting cables must be done by, or in consultation with, officials of the Electricity Service Unit, Eskom or Telkom respectively.

When cables are not in the positions shown on the drawings and cannot be found after proving trenches have been put down, assistance may be obtained by calling an official from the appropriate authority during office hours.

Existing services including water mains, sewer pipes, stormwater pipes and drains, electricity and telephone lines, cables, poles and conduits shall be protected, supported, maintained in service and restored to the condition in which found by the Contractor at his expense, or where necessary by the appropriate authority at the Contractor's expense.

Provided that where it is necessary to relocate such existing services, such relocation shall be arranged by and carried out at the Employer's expense.

PSA 5.8 Ground Access to Works

Where necessary the Contractor will make provision for temporary gates, ramps and roads to obtain access to the site. Where it involves these activities, the Contractor will obtain the necessary approvals from the landowners to do so.

On completion of operations the Contractor shall restore the ground surface, wherever it may have been disturbed, to its original condition by filling in ruts with material similar to the material within the rut and levelling the ground and, where necessary, planting grass and shrubs as may be required. Any boundary fence which have been removed or damaged by these operations and activities shall be repaired and/or replaced at the Contractor's expense.

PSA 8 MEASUREMENT AND PAYMENT

PSA 8.2.2 Time Related Items

An extension of time granted will not necessarily or automatically entitle the Contractor to additional payments of time related items. Additional payments for specific time related items after the granting of an extension of time must be motivated and substantiated by the Contractor and shall be subject to approval by the Engineer.

PSA 8.5.2 Additional Earthworks and Density Testing.....Unit: Provisional Sum

The provisional sum provided for additional authority tests shall cover the cost of acceptance control tests, carried out by a commercial laboratory, specifically ordered by the Engineer.

The Contractor will still be required to carry out his own process control testing.

PSA 8.7 Dayworks

Dayworks are covered in a separate particular Specification and are therefore measured in that section.

PSC SITE CLEARANCE (SANS 1200C – 1998)

PSC 3 MATERIALS

PSC 3.1 Disposal of Materials

“All materials, other than that suitable for re-use in the Works, shall be disposed of at an approved tip. No burning of vegetation will be permitted.

The free haul distance for this contract is unlimited. Contractors are to note that **no** overhaul will be paid.

The site is situated in a residential area and the Contractor shall ensure that all road are to be kept clean, free of debris and residents are have access to their properties at all times for the duration of the contract.

PSC 8 MEASUREMENT AND PAYMENT

PSC 8.2 Scheduled Items

PSC 8.2.1 Clear and Grub

“The area designated by the Engineer to be cleared and grubbed will be measured in metres or to the nearest metre.”

PSC 8.2.10 Topsoil

“The topsoil, where approved by the Engineer, shall be conserved for later use by stockpiling clear of the working area,”

PSDB EARTHWORKS (PIPE TRENCHES) (SANS 1200 D-1989)

PSDB EARTHWORKS (Pipe Trenches)

PSDB 3 MATERIALS

PSDB 3.1 Classification for excavation purposes

For the purpose of measurement and payment excavated material will be classified under two headings;

(a) Soft

This shall be material that can be removed without the use of explosives or systematic drilling, wedging or splitting

(b) Hard

This shall be rock which can only be removed by the use of explosives. The Engineer's decision as to the classification of the excavated materials shall be final.

PSDB 3.5 Backfill Materials

- (c) The Contractor shall take positive steps to avoid burying or contaminating material which would be suitable for use as backfill as described in a) and b)
- (d) Where scheduled or directed by the Engineer, backfill shall be stabilised with 5% cement by mass. The backfill material shall have a plasticity index not exceeding 10 and all material must pass through a sieve of aperture size not exceeding that specified in SANS 1200 LB, sub-clause 3.2.

The dry materials shall first be mixed in a cement mixer; where after sufficient water shall be added to produce the stiffest consistency available for placing and compacting with vibrators.

PSDB 3.6 Materials for Reinstatement of Roads and Paved Areas

"Material used in the reinstatement of roadways shall fall into the following categories: -

- a) Foundation material recovered from the excavation of trenches across existing roadways, which, if so instructed by the Engineer, shall be set aside and re-used as subbase material.
- b) New material, which shall conform to the requirements of: -
 - Clause 3.2.1 of SANS 1200 ME for the subbase
 - Clauses 3.2 and 3.3 of SANS 1200 MF for the basecourse
 - Clause 3.2.2 of SANS 1200 ME for the gravel wearing course
 - Clause 3 of SABS 1200 MH for the asphalt surfacing"
- c) The edges of existing surfaces shall be trimmed to a depth of at least 100mm with an approved mechanical cutter to obtain even regular and straight joints and then painted with a primer. The permanent reinstatement shall comply of the following:

CATEGORY	TYPE OF ROAD	ASPHALT LAYER	CRUSHER RUN LAYER	TRENCH BACKFILL MATERIAL
A	Arterials, CBD Streets and Industrial Roads	240mm Mix A in 3 layers of 80mm each	150mm	CBR 7 or more
B	Residential Bus Route and Collector Roads	160mm Mix A in 2 layers of 80mm each	150mm	CBR 7 or more
C	Residential Roads	80mm Mix A	150mm	CBR 4 or more
D	Parking Areas and Access Roads	50mm Mix A	150mm	CBR 4 or more
E	Footpaths	25mm Mix A	75mm	CBR 4 or more

PSDB 3.7 SELECTION

Contractors are advised that the stockpiling of stock piling of excavated material suitable for use as backfilling alongside trench excavations is strictly prohibited. Once excavated this material is to be removed and stockpiled in a suitable area as agreed with by the Engineer. All other excavated material unsuitable for re-use, either as backfill or for the formation of embankments shall be disposed of at the spoil site. No overhaul will be paid.

PSDB 5 CONSTRUCTION

PSDB-5.1 Precautions

PSDB 5.1.4 Existing Services that intersect or Adjoin Trenches

In all cases where underground power or telephone cables, watermains or other services are shown on the drawings, either crossing or adjacent to the pipe, or where from site observations it can reasonably be accepted that such services are likely to exist where excavations are to take place, the Contractor shall, without instructions from the Engineer, carefully excavate by hand, to expose and prove position of such prior to the commencement of the main trenching operations in the area. The cost of this pilot trenching shall be included under payment clause D 8.3.8 – Excavation and Backfilling in All Materials. However, here any buried service is not located by the excavation of pilot trenches in the expected position the Contractor shall immediately report such a circumstance to the Engineer who will decide what further searching or other necessary action is to be carried out and instruct the Contractor accordingly. The cost of this additional searching shall be to the Employer's cost and will be paid for under item D 8.3.8- Proving Existing Services.

Should any service be damaged by the Contractor in carrying out the works and should it be found that the procedure 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.

The trench width required for proving of services need only be of sufficient width to enable the service to be exposed.

PSDB-5.1.5 Trench Excavations

"The precautions for excavations as specified in Clause 5.1.1 of SANS 1200 D, 1200 DA, shall also apply to all trench excavations.

The Contractor shall take all the steps necessary to ensure that no person is required or allowed to work in a trench or any other unsupported overhanging excavation which is more than 1,5 m deep, and any excavation which has not been adequately supported, shored or braced if there is any danger whatsoever of the sides of the excavation collapsing. The support, shoring or bracing to be designed and constructed by the Contractor, shall be strong and sturdy enough to support the sides of the excavation in question."

PSDB 5.4 Excavation

General

Excavation shall be undertaken in whatever material is encountered and to such levels and widths as are indicated on the drawings, in the specification and as instructed by the Engineer. Trench excavation shall be undertaken in narrow trenching conditions with vertical sides necessitating the use of shoring and open battered trench excavation will not be permitted unless otherwise stated in Project Specification.

Control of the dimensions of the excavations shall be by means of boning rods and sight rails, an acceptable base beam device or other approved method. If the first method is used the Contractor shall erect sight rails over the centre of each horizontal or vertical bend and along the length of the excavation with a maximum distance of 30m apart and with a minimum number of 3 for any one length of excavation being undertaken. The centre line of the pipeline shall be denoted on each sight rail both back and front by a single vertical line and either side of the centre line painted with contrasting colours.

The Contractor shall place a reference peg alongside each sight rail, take the levels and give their values to the Engineer.

Unless otherwise approved by the Engineer the excavation of trenches shall commence from the lower reaches of the trench system and proceed uphill. The total length of open trench in advance

of the backfilled trench shall be restricted to a maximum of 200m.

Should the Contractor excavate to a greater depth than specified he shall, at his own expense, replace the excess material so removed with selected fill compacted to 93% Mod. AASHTO density, or grade 10/26 concrete if the use of selected fill is not practical.

Where site conditions permit, all materials excavated and required for backfilling shall be removed and neatly stacked where possible along the higher side of the trench, care being taken to restrict the area so occupied so as to cause the minimum of obstruction. Care shall be taken to protect existing structures such as walls, fences, gateways and also hedges, trees, gardens, etc., from damage by material so stacked.

PSDB 5.4.1 Blasting Restrictions

a) General

Blasting shall not be carried out without the prior consent of the Engineer. This consent will not be given where in the opinion of the Engineer, blasting may give rise to unnecessary risk or damage to surrounding property when other means of excavation are available to the Contractor. Where consent to blasting is given, such consent shall in no way relieve the Contractor of any of his liabilities

under the contract. The Contractor shall notify the Engineer 24 hours in advance of any blasting to be carried out on site.

b) Blasting Near Dwellings/Installations/Services

Prior to any blasting being carried out, representatives of both the Employer and the Contractor shall thoroughly inspect each private property surrounding the site of the works for any structural defects. All defects shall be photographed by the Employer's photographer and brought to the property owner's attention in writing.

The Contractor is to submit to the Engineer for approval a professional report on the proposed method of blasting to be adopted for the works.

Prior to blasting commencing on site the Contractor is required to get written approval from all the service providers whom services are in close proximity to the blast area.

During the initial blasting on site the Engineer shall arrange for a survey to be carried out in order to monitor the magnitude of the blast vibrations and to establish the most vibration sensitive point on the perimeter of the site. Should it be required, the Contractor shall modify the adopted method of blasting as instructed by the Engineer.

For every blast carried out on site the Contractor shall provide three vibro recorders and a peak particle velocity meter. Calibration certificates are to be supplied to the Engineer prior to commencing blasting on site. The Engineer shall arrange for random checking of the calibration of such instruments.

The Contractor shall keep full records of every blast on site, e.g. number, depth and size of holes, amount and type of explosive used per hole, number of blasts at any one time, magnitude of recorded vibrations etc., a copy of which is to be forwarded to the Engineer.

All blast surfaces are to be covered with mats and/or a suitable thickness of soft cover material all to the satisfaction of the Engineer.

For every blast carried out on site, the Contractor shall cover the cordtex etc., with soft sandy material to dampen the noise levels of the blast all to the satisfaction of the Engineer.

The maximum allowable peak particle velocity measured at any point 10m from the nearest structure to the blast shall not exceed 25mm/sec.

The Contractor shall include for all costs in complying with the above requirements/ conditions in the tendered rates for excavation.

Notwithstanding any of the requirements of the Specifications the Contractor will be required to carry out a sufficient number of test blasts (minimum 3), each comprising of a maximum number of 9 holes charged with small charges, in order to ascertain the attenuation effects of the in-situ material and to satisfy both himself and the Engineer that the proposed methods of blasting will not damage any existing services and/or dwellings and structures.

All persons occupying property in the vicinity shall be informed in writing at least 24 hours before the first blast and shall be informed of them warning procedures to be employed. In addition, before any blasting is carried out, the Contractor shall notify the Durban City Police in writing of proposed operations, the warning procedures to be employed, and the anticipated duration of the blasting operations.

Immediately prior to blasting, all approaches to the area shall be guarded by personnel carrying red warning flags.

PSDB 5.5 Trench bottom

When the trench bottom is unsuitable due to waterlogged conditions, at the instruction of the Engineer, the Contractor shall excavate for and lay a 150mm thick layer of imported single sized stone (19mm size unless otherwise instructed by the Engineer) with a geo- textile fabric filter surround ("Bidim" Grade A4 or similar approved) shall be constructed under the bedding layer specified for the pipes.

PSDB 5.6.3 Disposal of soft material

PSDB 5.6.3 Disposal of Soft Excavation Material

Material which the Engineer considers to be unsuitable for the bottom of the trench shall be excavated to depths as instructed and disposed of as surplus material. Surplus and/or unsuitable excavated material must be disposed of at the closest municipal dumpsite. The resultant space shall be refilled, as ordered, with approved material and compacted to a 93% Mod. AASHTO density.

PSDB-5.6.4 Disposal of intermediate and hard rock material

Surplus and/or unsuitable excavated material must be disposed of at the closest municipal dumpsite.

PSDB-5.6.8 Transport for Earthworks for Trenches

For this Contract all haul will be regarded as free-haul and the cost of transportation of all materials will be deemed to be included in the rates and prices tendered in the schedule of quantities.

No overhaul will be payable on this Contract.

PSDB 5.7 Compaction

The unit rate for excavation and backfilling in all materials shall include for compacting backfill to 93% Mod. AASHTO density. Each trench shall be backfilled in layers not exceeding 300mm in thickness.

PSDB 5.7.2 Areas Subject to Traffic Loads

Backfill material shall be compacted to at least 98% Mod. AASHTO + 0.5 S (S = standard deviation). This compaction is only required where the trench is subject to vehicular traffic. Where the trench is not subject to vehicular traffic, compaction shall be to 93% Mod. AASHTO. The additional compactive effort required to meet this requirement is measured under a separate item in the Schedule of Quantities.

Backfill materials such as cohesion-less sand (Umgeni sand or similar, which is easily eroded) is

not permitted.

Bedding materials such as Umgeni sand or similar approved non-cohesive materials shall be compacted to 100% Mod. AASHTO by full saturation or similar methods approved by the Engineer, it being noted that the Contractor shall take all necessary precautions, at his own cost, to prevent the pipes from floating. Compaction of bedding materials to 100 % Mod. AASHTO is required for the entire contract. All costs for providing the water required for the saturation of the material shall be included in the tendered rates.

Backfill materials for the road crossings shall be unspecified base crushed stone which the Contractor will be required to obtain from a commercial source. Compaction of the material shall be to at least 96 % Mod. AASHTO + 0.5 S. In addition, the backfill material shall be stabilised by the addition of 2 pockets of cement per cubic metre of backfill.

In areas where normal compaction is ineffective and/or subsoil seepage is evident, 300mm of the unsuitable material must be replaced with 300mm of approved granular material as directed by the Engineer.

PSDB 5.7.3

Should any subsidence take place in any trench after filling and should the Contractor fail to attend to such settlement within 4 hours of being instructed to do so by the Engineer, then the Employer may take whatever steps are necessary such as erection of barricades, importing fill material, etc., at the Contractor's expense and without relieving him of any of his responsibilities under this contract.

PSDB 7.1 TESTING

Notwithstanding the contents of Clause 7.1, the Contractor shall bear the cost of all quality control tests regardless of whether the tests indicate acceptable compaction or not.

The following are the minimum frequencies for the process control tests to be executed by the CONTRACTOR at his own expense:

- Pipe bedding: one density test on each 25 m of pipe trench.
- Normal trench backfilling: one density test on every second layer for every 25 m of pipe trench.
- Backfilling in areas subject to vehicle loads: one test on each layer of 100 mm at each road crossing.

The positions of this minimum number of density tests shall be determined randomly by the Contractor and shall be clearly documented with the results. The results of the tests shall be submitted to the Engineer and shall prove to the Engineer that the work as a whole was done satisfactorily.

The Engineer could order additional tests, over and above the minimum tests. Payment for these tests will be made under Item 1.3.3 if the tests indicate that the density is as specified. If any tests fail, the cost of such tests shall be for the account of the Contractor.

PSDB-8 MEASUREMENT AND PAYMENT

PSDB-8.1 Basic Principles

Disposal of surplus and/or unsuitable material will be as specified in PSDB-5.6.3 and PSDB-5.6.4. No additional payment other than the tendered scheduled rates will be made for such disposal of material.

PSDB-8.3 Scheduled Items

PSDB-8.3.3 Excavation Ancillaries

PSDB-8.3.3.4 Overhaul

Delete this Clause and item as well as all references to restricted free-haul as overhaul is not applicable to this Contract.

PS DB-8.3.5 a) Services that intersect a trench

The unit refers to one service, but services that are so grouped that can be contained within a 1m² area within the trench will be measured as one unit

PSDB-8.3.5 b) Services that adjoin a trench

All existing pipelines that trenches are to be excavated above shall be regarded as a service that adjoins the trench."

PSL MEDIUM PRESSURE PIPELINES (SABS 1200 L-1983)

PSL 3 MATERIALS

The Contractor shall supply and install all pipes and fittings for the works except material which will be supplied by the Employer.

All butterfly, isolating, scour and air valves shall be supplied by the Employer at the Employer's stores in Springfield.

All valves, including matching flanges where supplied by the Employer shall be laid/installed by the Contractor on site.

All mPVC pipes shall be Class 12 in accordance with SANS 966-2:2006.

All above ground pipe shall be API Schedule 40 steel pipes. All steel pipes shall be coated internally and externally with "Rilsan" with a minimum Dry Film Thickness of 300 microns.

All flanges on flanged couplings shall be drilled in accordance with Table 16 of BS4504.

All bends shall be minimum radius bends unless otherwise specified or indicated on drawings. The specials shall comply with the requirements of SANS Specification 719 unless otherwise specified and shall be manufactured with API schedule 40 pipes. Where specials have to be attached by welding the diameters of the specials shall exactly match those of the pipes supplied.

Except for the matching flanges supplied by the Employer in respect of the valves, the Contractor shall supply all other flanges on pipes and specials, suitable for the welding of the pipes and specials in accordance with Table 16 of BS 4504.

Bolts and Nuts shall be in accordance with SABS 1700 unless otherwise approved by the Engineer and shall project two threads beyond the run-out of the nuts. All bolts and nuts and washers shall be hot dip galvanised.

Electrolytic or other special corrosion protection methods are not required.

PSL 3.8 Jointing Material

Where flexible couplings are called for they shall be the double flanged and sleeve type, manufactured from rolled steel, and fitted with rubber rings suitable for jointing plain-ended pipes. They shall be of the slip-on type coupling and couplings comprising bolt over arrangements shall not be acceptable.

The rubber jointing rings shall be manufactured from first grade natural rubber to B.S. 2494 Class D. All bolts and nuts shall comply with SABS 135 or SABS. 136. Each sleeve shall be fitted with a centre register unless stated otherwise in the Project Specification.

Each coupling shall permit a repeated movement of 10 mm to cater for thermal expansion and contraction of the pipe, and allow for the following angular deflections:

up to and including 50 mm diameter;

over 50 mm up to and including 75 mm diameter;
over 100 mm up to and including 150 mm diameter;
over 200 mm up to and including 250 mm diameter;
over 300 mm up to and including 350 mm diameter;
over 400 mm up to and including 450 mm diameter;
over 500 mm up to and including 550 mm diameter;
over 600 mm up to and including 650 mm diameter;
over 700 mm up to and including 750 mm diameter;
over 800 mm up to and including 850 mm diameter;
over 900 mm up to and including 950 mm diameter;
over 1000 mm up to and including 1 200 mm diameter;
over 1200 mm diameter.

Gaskets shall be manufactured from “Klinger 200” or other approved material which complies with the requirements for Grade B of B.S. 2815.

All gaskets shall be 3 mm thick and cut so that the annular section is completely within the bolt circle, i.e. ring gaskets with no boltholes.

All gaskets shall be purpose made. Hand cutting and trimming of gaskets on site will not be acceptable.

Care should be taken to ensure that all gaskets are packed properly and are not damaged by bending. For larger sizes the gaskets shall be suitably supported by wooden frames during transit and while in store.

Any item of pipework that is found to have flanges that are incorrectly drilled shall be rejected. Reaming of bolt holes to oversize dimensions in order to make a particular piece fit shall not be permitted.

PSL 3.9 Corrosion Protection

PSL 3.9.2.3 Repairs to Coatings and Linings

FBMDPE, fusion-bonded epoxy coated and solvent free liquid epoxy lined or cement-mortar lined pipe shall be repaired as specified in this clause.

A. External Repairs

1. Detection of Defects in FBMDPE and Epoxy Coating by Holiday Tests

Each pipe length shall first be placed on suitable dunnage adjacent to the trench. The Contractor shall then arrange for Holiday tests to be undertaken on the accessible portion of the pipe coating surface by the non-destructive testing firm appointed in terms of this contract document or the Engineer's representative, whichever is applicable. It shall be a requirement of this contract that the Holiday testing device utilised by calibrated and approved by the Engineer prior to the conducting of any Holiday tests.

2. Surface Preparation

a) Defects in epoxy coating detected by holiday testing

At each pinhole detected by the Holiday test, the surrounding area shall be abraded to 25 mm beyond the defective area. It is noted that any cluster of pinholes within a radius of 25 mm shall be regarded as one defect. The abrasion shall be carried out with clean emery paper of 80 to 100 mesh so as to provide a suitably rough surface profile without causing the removal of excessive amounts of coating material.

Damage to FBMDPE and epoxy coating caused by welding, damage at joints and bends and damage at scour and air valve tees, crotch plates and buried valves.

i) All damaged and blistered FBMDPE and epoxy coating caused by welding shall be removed back to sound epoxy coating by mechanical grinding or other approved means.

ii) The exposed steel surface shall be power or hand wire brushed to remove dirt, scale, rust and

other foreign matter to a surface equivalent to a Class 2 finish. Weld spatter shall be removed by chipping or grinding to a smooth surface flush with the surrounding steel. Welds shall have a smooth contour free from sharp edges, protrusions and undercut. Sharp edges and protrusions shall be removed by grinding to a smooth radius of curvature of not less than 3 mm.

iii) The surrounding sound FBMDPE and epoxy surface shall be abraded to a distance of 50 mm beyond the defective area. The abrasion shall be carried out with clean emery paper of profile without causing the removal of excessive amounts of protective material.

3. Cleaning of Area to be Repaired

Grease and oil shall be removed with a non-volatile solvent (eg "Aquasolve", "Arc Nr.261 Safety Solvent Cleaner" or similar approved). The surface shall then be cleaned with potable water and allowed to dry completely.

4. Methods of Repair to be Carried Out

a) Defects in epoxy coating detected by Holiday tests

- i) The roughened area of coating and the defect shall be repaired by the application of a two part solventless epoxy repair kit (eg "Cupon Hycote 151", "Arc 982" or similar approved) to a minimum dry film thickness of 300, microns. The epoxy repair material shall be applied in accordance with the manufacturer's instructions and allowed to dry for 24 hours.
- ii) 24 Hours after the application of the epoxy repair material described above, the pipes may be placed in the trench and rotated so that the underside of the pipe, which was not Holiday tested at the side of the trench, may be tested.
- iii) The pipe coating any defects detected on the now uppermost surface of the pipe shall be prepared in accordance with the requirements of A.2(a) and A.3 above.
- iv) The prepared surface shall then be primed and patched (or wrapped in the case of the coating reinstatement of joints) with Denso Ultraflex System, or similar approved. The following criteria shall be strictly in accordance with the manufacturer's instructions:
 - surface preparation
 - application of the primer
 - application of the tape
 - recommended minimum overlap width (where applicable)
 - capping of overlap joints (where applicable).

Notwithstanding the above, the tape cover strip shall overlap the sound FBMDPE and epoxy coating by at least 50 mm (in the case of patches) and 100 mm (in the case of joint wraps) and shall be applied in layers if necessary to form a final cover patch or strip at least 2,5 mm thick. The tape repair for FBMDPE defects shall be continuously, spirally wrapped around the complete circumference of the pipe with a minimum overlap of 25 mm.

The dielectric resistance of the tape cover strip shall not be less than that of the FBMDPE (10 000 V) or fusion-bonded epoxy coating (3 500 V).

b) Defects in FBMDPE coating detected by Holiday tests

Where the repair area is less than 650 mm², the application of a hot spatula shall be used to repair the defect, provided there is a residual layer of polyethylene still adhering strongly to the steel surface.

c) Defects in FBMDPE coating other than those detected by Holiday tests

Any single repair area less than 0.1m² shall be carried out in accordance with A.4.b above. The number of repairs shall be limited to three per pipe or fitting. The length of such repair shall not exceed the nominal pipe diameter in the circumferential direction, nor twice the nominal pipe diameter in the longitudinal direction.

d) Patch Repairs to Pipes Damaged by Welding

Patch repairs to pipes damaged by welding shall be carried out in accordance with the requirements of A.4.a(iv), A.4.a(v) and A.4.a(vi) above.

e) Patch Repairs to Pipes that will be Exposed to Ultra-Violet Light

i) Repairs shall be carried out in accordance with the requirements of A.4.a(i) above with due allowance being made for the 24-hour curing period.

ii) The pipe surface shall then be coated with two coats of “ABE Silvakote” or similar approved bitumen base aluminium paint applied with brush or roller to a final minimum dry film thickness of 80 micrometers. The over coating time shall be as per the manufacturer’s instructions.

f) Joint repairs (including bends) on pipes that are to be buried

i) Repairs shall be carried out in accordance with the requirements of A.4.a(iv), A.4.a(v) and A.4.a(vi) above.

ii) No air-gap will be permitted between the tape and steel surface and tape width and application tension shall be such as to ensure that the tape “dresses down” over steel surface irregularities. This applies particularly on bell-end pipes.

iii) Gusseted bends requiring two or more welded joints shall be fully externally wrapped extending 150 mm outside the two outermost welded joints.

g) Scour and air valve tees and crotch plates

i) Scour and air valve tees and crotch plates that are to be buried shall be protected in accordance with the requirements of A.4.a(i) above with due allowance being made for the 24-hour curing period.

ii) Exposed specials in chambers including valves, flanges, crotch plates, flexible couplings etc shall be protected by the application of “Cupon Hycote 151”, “Arc 982” or similar approved epoxy coating to a minimum dry film thickness of 300 microns. Surface preparation and application shall be strictly in accordance with the manufacturer’s instructions.

iii) When coating valves, care shall be taken to prevent the epoxy coating covering the descriptive name plates and flow direction indicators on the valves by masking off these plates.

h) Buried Valves

Buried valves or other appurtenances with intricate shapes will be inappropriate for wrapping with a tape system. Such items shall be protected by the application of a zinc-rich epoxy primer such as “Berger Master”, “Zinc Anode 304” followed by two coats of a pitch extended epoxy resin coating such as “Fosroc Nitocote ET550”, “Epilux 5 Coal Tar Epoxy” or similar approved to a minimum dry film thickness of 250 microns.

Alternatively, a petrolatum system “Denso” type or similar approved may be employed and then wrapped in polythene sheeting to the approval of the Engineer.

B. Internal Repairs – Epoxy Lined Pipes

1. Detection of Defects in Epoxy Lining by Holiday tests

Each pipe length shall be first placed in position in the trench, welded to the preceding pipe and the lining at the joint reinstated (see B.2.b of this Clause). Once all work is complete in a particular length of pipe, the Contractor shall arrange for the testing of the pipe with a “wet sponge” detector set at 90 Volts in order to detect any electrical insulation defects.

2. Surface Preparation

a) Defects in epoxy lining detected by holiday testing

At each pinhole detected by the Holiday test, the surrounding area shall be abraded to 25 mm beyond

the defective area. It is to be noted that any cluster of pinholes within a radius of 25 mm shall be regarded as one defect. The abrasion shall be carried out with clean emery paper of 80 to 100 mesh so as to provide a suitably rough surface profile without causing the removal of excessive amounts of coating material.

- b) Epoxy lining damaged by construction operations, joint repairs (including bends), lining to scour and air valve tees, access openings, stubs and valve bypasses
- i) In order to avoid damage to the pipe lining occurring as a result of construction activities, all possible care shall be exercised during construction, the following procedures being required:

Wet sacking or rubber matting shall be placed on the pipe invert at areas where welding or flame cutting operations are in progress to prevent damage to coating from weld spatter or molten metal. This requirement shall be strictly enforced.

Foam shall be provided for the placing of tools etc on the internal pipe surface.

Soft-soled shoes shall be worn by all personnel working inside the pipe.

- ii) All damaged and blistered epoxy lining shall be removed back to sound epoxy by mechanical grinding or other approved means.

The exposed steel surface shall then be prepared in accordance with the requirements of section A.2.b(ii) and 1.2.b(iii) of the clause.

3. Cleaning of Area to be Repaired

Grease and oil shall be removed with a non-volatile solvent (eg "Aquasolve", "Arc Nr.261 Safety Solvent Cleaner" or similar approved). The surface shall then be cleaned with potable water and allowed to dry completely. To this end adequate ventilation shall be provided.

4. Methods to Repair to be Carried Out

- a) Defects in epoxy coating detected by Holiday tests
- i) The roughened area of lining and the defect shall then be repaired by the application of a solvent free epoxy repair material (such as "Copon Hycote 151", "Arc 982", "Arc 855", or similar approved) to a minimum dry thickness of 300 microns.

A "halo" of 1 to 2 mm of the abraded material shall be left uncovered around the repair.

The patch material shall be of a different colour to the pipe lining material.

- ii) In the application of the epoxy the following shall be strictly in compliance with the manufacturer's instructions:
 - Method of application (type of brush or roller.)
 - Over coating time
 - Temperature range for application
 - Mix proportions of activator to base. This shall be strictly enforced, and splitting of manufacturer-supplied packs shall be allowed only if subsequent bending is carried out strictly by mass to the correct proportions.
 - Method of mixing base and activator.
 - Number of coats to achieve the specified thickness.
 - Safety aspects eg eye and hand protection, ventilation, fire precautions, etc.
- iii) After the repair has been adequately cured, the repair and the surrounding 250 mm of epoxy lining shall be tested for electrical insulation defects. No defects will be permitted.
- b) Patch Repairs to Pipes Damaged by Construction Operations and Joint Repairs (including Bends)
- i) The roughened area of lining shall be repaired as described in B.4.a(i) above.

- ii) The requirements of Clauses B.4.a(ii) and (iii) above shall then be complied with.
- c) Lining to scour and air valve tees, access openings, stubs and valve bypasses
- i) The repair procedure shall be as described in B.4.a(i), (ii) and (iii) above.

The epoxy repair material shall be applied to overlap the existing sound cement mortar lining by 25 mm at access openings, valve bypasses and scour tees.

C. Internal Repairs – Cement-mortar Lined Pipes

1. The internal surface of the bellmouth is to be power or hand wire brushed from the pipe end to the cement mortar lining to remove dirt, scale, rust and other foreign matter.
 2. Any grease and oil shall be removed from the pipe surface with a non-volatile solvent (eg “Aquasolve”, “Arc Nr 261 Safety Solvent Cleaner” or similar approved). The surface shall then be cleaned with water and dried and a 50 mm wide x 20 mm thick band of “Epidermix 338” or similar approved shall be applied internally on the uncoated steel adjacent to the cement lining.
 3. The plain end of the adjoining pipe shall be pushed into the bellmouth in such a way that the Epidermix band is compressed and makes contact with the transverse face of the concrete lining of both pipes. The excess lining material which is squeezed into the pipe shall be removed by drawing a plug which is 5 mm smaller in diameter than the bore of the pipe, across the joint. The plug shall be so shaped as to apply a smooth even surface to the lining material at the joint.
- b) Pipes larger than 500 mm diameter
1. The exposed steel surface shall be power or hand wire brushed to remove dirt, scale, rust and other foreign matter. Burrs, weld spatter etc shall be filed away.
 2. Any grease and oil shall be removed from the pipe surface with a non-volatile solvent (eg “Aquasolve”, “Arc Nr 261 Safety Solvent Cleaner” or similar approved), flushed with potable water and completely dried.
 3. The joint shall then be made good with “Epidermix 338” or similar approved, neatly formed to meet the adjacent cement mortar.
 4. The requirements of Clause C (a).4 shall similarly apply to pipes larger than 500 mm diameter.

PSL5 CONSTRUCTION

PSL 5.1.2 Damage

Inspection at the Laying Site

All pipes, specials, valves and fittings shall be carefully examined by the Contractor for internal and external damage at the following stages:

- (a) on arrival at laying site;
- (b) prior to laying;
- (c) after laying;
- (d) prior to backfilling; and
- (e) during backfilling.

All damage or defects of any kind shall be repaired by the Contractor in accordance with Clause 3.9.2.3 and to the satisfaction of the Engineer immediately after detection at any of the above inspections. Where, in the

opinion of the Engineer, satisfactory repairs are practicable, the damaged materials shall be replaced by the Contractor at his own cost.

PSL 5.3 Setting Of Valves, Specials And Fittings

Valves and fittings shall be installed in accordance with the manufacturer's instructions. Where valves are supplied by the Employer at Municipal depots they shall be collected by the Contractor at such depots and transported to the laying site. Valves shall be enclosed in chambers in accordance with the drawings and specifications and shall be installed with their operating spindles vertical. The Contractor shall supply the insertions and bolts necessary for the installation of the valves.

Jet dispersers shall be of the cone and splitter type cast in iron or steel with heavy zinc galvanizing, to the Engineer's approval. Flanges and bolts shall be sealed in mastic after installation.

All air valves shall be set level.

All scour valves shall be installed in such a way that the spindle is vertical.

The Storage, Commissioning And Installation Of Butterfly Valves

Butterfly valves shall be stored, installed and commissioned so that the valve blade seal is protected at all times from oxidation, ozone attack and the ingress of dirt.

Storage

- i) It is preferable that the valve is stored in the vertical position.
- ii) The valve should be stored in the cracked position (i.e. not shut).
- iii) The valve should not be stored in the vicinity of electrical equipment.
- iv) The valve should be stored under cover and protected from temperature extremes.

Installation And Commissioning

- i) Prior to the installation of the valve, all dust and dirt should be washed off the valve, particularly the seal, seat and any tapped holes in the valve body.
- ii) The seals of all valves shall be checked for complete closure when the valve blade is in the fully closed position. (See seal adjustment below).
- iii) The valve must not be lifted by the hand lever, valve actuator or the handwheel.
- iv) The valve must not be used for lining up the pipework.
- v) The valve should be left in the fully open position after installation and prior to commissioning of the system.

Seal Adjustment

To adjust the seal, a 0,004" feeler gauge and an Allen key are required.

With the valve in the fully closed position, it should be possible only with difficulty to introduce the feeler gauge between the valve blade seal and the seat.

If, due to seal movement during storage the feeler gauge can easily pass between the seal and seat, then the clamp ring socket head cap screws in the vicinity of the gap should be finger tightened with the Allen key so as to push the seal out and close the gap.

Payment

All costs incurred for the seal adjustment as stipulated above shall be included in the respective rates for installation of the valves.

PSL 6 TOLERANCES

The tolerances for the line and level of pipelines shall be as follows:

- (a) Positions of bends: within 150 mm of the locations shown on the drawings or as agreed with the Engineer;
- (b) level of pipe invert: within 25 mm of the level shown on the drawings;
- (c) location of pipe centre in plan; within 25 mm of the location shown on the drawings through the sleeves and culverts and elsewhere within 75 mm of position shown on the drawings.

PSL 7 TESTING

PSL 7.3 Standard Hydraulic Pipe Test

PSL 7.3.1 Test Pressure and Time of Test

Replace L 7.3.1.1, 7.3.1.2, 7.3.1.3 and 7.3.1.4 with the following:

Static Test

When the pipeline is filled with water, all scours and hydrants shall be opened fully for one minute or until the water emerges clean.

Pressure Test

A suitable pump shall be connected to the pipeline at a mutually agreed point.

The pressure in the pipeline under test shall be raised slowly by means of the pump and measured by a pressure gauge connected to the pipeline.

PSL 7.3.1.2 The required test pressure for all steel pipework shall be 1800 kPa and for Class 12 mPVC pipeworks it shall be 1200 KPa measured at the lowest point of the pipeline(s)

The hydraulic testing of the pipelines is to be carried out in two stages:

- a) The pressure test as described above, is to be carried out with the pipeline fully blanked and all valves in the open position. All costs relating to this work inclusive of scouring, supplying and install blank flanges, spade pieces etc. are to be included in the rate for testing. The minimum duration of this test will be 8 for steel hours and 2 hours on non-steel pipelines.
- b) On successful completion of the pressure test as per (a) above, the Contractor is to remove all temporary blank flanges, spade pieces, etc. and pressurize the line to maximum working pressure against closed valves. Should any valve not be drop tight at this pressure the Contractor is to advise the Engineer in writing of all defects encountered. The duration of this test shall be 2 hours. (An item has been allowed for this work in the Schedule of Quantities).

All tests shall be carried out in the presence of the Engineer at such times and in such manner as he may direct.

The hydraulic testing of pipelines against closed valves shall not be allowed and provision shall therefore be made by the Contractor for the supply of all necessary bull-noses and blank flanges.

Water for testing shall be made available free of charge in the first instance but for the subsequent tests shall be charged to the Contractor's account.

A water connection will be provided by eThekweni Water for filling the pipeline for testing purposes.

The Contractor shall, at his own cost, provide a suitable means of conveying water from this connection to the mains to be tested, as well as a connection on the new pipeline in order that it may be filled. This connection

shall be capped or removed to the satisfaction of the Engineer upon completion of the hydraulic test. Payment of this shall be allowed for under the rates for the hydraulic testing of the pipeline.

For hydraulic testing of the pipes sections after installations, as per Clause 7.3 of SABS 1200L, each test section shall be chosen such that it is subjected to a test pressure not exceeding 600m water head at the lowest point and not less than 200m at the highest point. This pressure shall be obtained by continuous pumping so as to ensure a gradual increase of pressure until the specified value is obtained.

After the entire piping system has been laid and all parts thereof have been tested to the satisfaction of the Engineers or the Engineers Representative and backfilled, the pipe system will be put into operation and the Contractor shall inspect and commission the same in the presence of the Engineer/his representative, to ensure that all valves and other equipment are operating satisfactory and to check that all pipe supports, brackets and the like are capable of withstanding the loads imposed on them.

Any faults or defects which are detected during this inspection shall be repaired by the Contractor, or where necessary, the defective parts or materials shall be replaced by the Contractor, to the satisfaction of the Engineer, all at the Contractors expense.

All items of equipment not specifically mentioned in the Specifications, shall be inspected during the commissioning period for proper operation and to verify that these items comply with the requirements of the Specification.

PSL 8 MEASUREMENT AND PAYMENT

PSL 8.2 Scheduled Items

PSL 8.2.1 Supply, Lay and Bed Pipes Complete with Couplings

- i) taking delivery of the pipe at the Municipal depot, provision of craneage, transporting and lowering pipes into trench, cutting to closures and preparing ends for jointing, laying true to line and level on prepared trench bed and jointing, including the supply of joint sleeves where required;
- ii) bonding mechanical joints for electrical continuity;
- iii) completing both internal and external protection at joints and making good any damage to sheathing or lining, which has occurred after acceptance at the pipeyard; and
- iv) all other operations necessary to complete laying not separately scheduled.

PSL 8.2.2 Extra-over 8.2.1 for the Supplying, Laying, and Bedding of Specials Complete with Couplings

The Contractor will only receive payment for a scarfed bend if the pipe is cut to fabricate the scarf bend

PSL 8.2.3 Extra-over 8.2.1 for the Supplying, Fixing and Bedding of Valves

The unit rate for the installation of scour and air valves when supplied by the Employer shall include for taking delivery of the valve at the Municipal depot, provision of craneage, transporting to site and installing the valve as specified and shall allow for the supply of all nuts, bolts and gaskets as required.

PSL 8.2.11 Anchor blocks/Thrust blocks and pedestals

The tendered rates shall also include the wrapping of uPVC pipes and fittings with Densopol 80 or a similar approved material where the pipes and fittings come into contact with concrete.

PSL 8.2.16 Pipeline Marker Posts

Payment shall be per cost installed and shall include for the uplifting and transporting to site from the Municipal depot, handling, excavation, installation, backfilling and painting.

PSLB **BEDDING (PIPES)**

PSLB-3 **MATERIALS**

- 1) Notwithstanding Clause LB.3.1 only a clean sand containing no particles of diameter exceeding 10 mm, having a Plasticity Index (P.I.) not exceeding 10 and free from vegetation and lumps shall be used for bedding (cradle and fill blanket). It is anticipated that most of the bedding material will have to be provided from an off-site source. The bedding shall be constructed to the dimensions required for Class 'C' bedding.
- 2) Bedding materials such as Umgeni sand or similar approved non-cohesive materials shall be compacted to 100% Mod. AASHTO by full saturation or similar methods approved by the Engineer, it being noted that the Contractor shall take all necessary precautions, at his own cost, to prevent the pipes from floating. Compaction of bedding materials to 100 % Mod. AASHTO is required for the entire contract. All costs for providing the water required for the saturation of the material shall be included in the tendered rates.
- 3) The Contractor shall allow for haulage in the rate for provision of imported bedding and backfill. No overhaul will be paid for these items.
- 4) Contractors are advised that the choice, placement and compaction of bedding and backfill materials are critical to the satisfactory performance of thin-walled pipes. Therefore strict adherence to all specifications in this regard will be enforced.
- 5) Contractors are advised that the stockpiling of excavated materials alongside the trench shall not be permitted. During the excavation, material suitable for use as backfill shall be selected and carted to stockpile sites along the route of the pipeline and within the freehaul distance which shall be allocated to the Contractor by the Engineer. Material which is not suitable as backfill shall be transported directly to tip. During backfilling, the material from the stockpile sites shall be transported back to the works, placed and compacted. The operations of selecting backfill, carting to tip and bringing such material back to the trench shall be included in the rates for excavation and backfilling.
- 6) All topsoil suitable for re-use shall be transported directly to the stockpile area and placed separately from all other materials in order to avoid contamination.
- 7) The operations of selecting backfill, carting to the stockpile area and bringing such material back to the working site for re-use, shall be included in the rates for excavation and backfilling.
- 8) Contractors are to note that if excavated material is placed adjacent to the trench, the full reinstatement of damaged grassed areas shall be the responsibility of the Contractor and shall be fully allowed for in the relevant rates.

PSLB-3.4 **Selection**

PSLB-3.4.1 **Suitable material available from trench excavation**

Notwithstanding the requirements of this clause and Clause 3.7 of SANS 1200 DB regarding the use of selective methods of excavating, the Contractor shall use selective methods of excavating that will ensure that material that is suitable and may be required for bedding, is not buried or contaminated by unsuitable material.

PSLB-6 **TOLERANCES**

PSLB-6.1 **Moisture content and density**

Degree II accuracy shall be applicable.

PSLB-8 **MEASUREMENT AND PAYMENT**

PSLB-8.1 Principles

PS.LB.8.1.1 Supply of Bedding Materials Measured Separately

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.

PSLB-8.1.3 Volume of Bedding Materials

The volume of bedding material shall exclude the volume taken up by the pipe".

PSL PIPE JACKING

PSLG-2.1 SUPPORTING SPECIFICATIONS

In addition, the following Department of Transport standard specifications shall apply to this Contract:

General Conditions: Services in Road Reserve

Special Conditions: Installation on and through Structures

Special Conditions: Services Crossings

PSLG-5 CONSTRUCTION

PSLG-5.4 Backfilling of thrust and reception pits:

Unless otherwise specified thrust and reception pits shall be backfilled to 90% MOD AASHTO density in maximum 300mm thick layers.

No discriminate spoiling of material will be allowed. All surplus or unsuitable material shall be spoiled in areas identified by the Contractor and approved by the Engineer. No overhaul will be paid on this contract.

PSLG-8 MEASUREMENT AND PAYMENT

PSLG-8.2.9 Measurement and payment of grouting voids:

The cost of operating equipment and supplying materials will be apportioned by the Engineer depending on the quality of work produced and if good pipe jacking practice.

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 - OHSA 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

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
38574	Sewer Manholes: Ramp, Backdrop and Channelling Details	February	1990
38575	Sub-Soil Drain, Pipe Bedding and Pipe Protection Details	February	1990
38576	Headwall Details	February	1990
38577	Kerbing Details	February	1990
38578	Concrete Median Barriers	February	1990
38579	Vehicular and Pedestrian Scoops	February	1990
38580	Concrete Bollard and Steel Guard Rail	February	1990
38581	Retaining Wall, PC Steps, Staircase, Cable Ducts and Headwalls	February	1990
38582	Precast Concrete Fencing and Aluminium Gates	February	1990
38583	Wire Mesh Fence and Gate Details	February	1990
38584	Standard Hydrant Thrust Blocks and Trenches	February	1990
38585	Water Connections, Pipework and Fittings	February	1990
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 Insert as required

C4.2 CONDITIONS ON SITE

There are quite a number of conditions on site that may affect the drilling process which the tenderer shall equip him / herself before tendering for this job. There is no specific geotechnical information or other site information.

Services affected by the contract are described as follows:

- Water mains.
- Rocks.
- Sewers.
- Storm water.
- Electrical Cables / Lighting.
- Telkom / Neotel.
- 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 one-week period required will allow sufficient time for these conditions

C4.3 TEST RESULTS

C4.3.1 Air Test

a) Installed pipe or cable sleeve above the water table:

An approved air testing machine shall be used to raise the gauge pressure in the section of the installed pipe or cable sleeve under test first to 3.75 kPa. After a 2 minute stabilization period the pressure shall be reduced to 2.5 kPa. The machine shall then be switched off and the time taken for the pressure to drop from 2.5 kPa to 1.25 kPa shall be recorded. The time taken shall be at least the applicable of the following values:

Nominal diameter of pipe, mm	Minimum time (in minutes) taken for pressure to drop from 2.5 kPa to 1.25 kPa
100	2
150	3
200	4
250	4.5
300	6

b) Installed pipe or cable sleeve below the water table:

An approved air testing machine shall be used to raise the gauge pressure in the section of the installed pipe or cable sleeve under test to 2.5 kPa above the static water pressure. After this pressure has been attained and the machine stopped, any change in pressure shall be noted. There shall be no discernible loss for a period of at least 5 minutes.

C4.3.2 Proof of roundness and cleanliness

Two cable draw wires or lines shall be provided in the cable sleeve. One will be used to pull a testing cylinder through the sleeve in the presence of the Engineers representative to proof the roundness of the sleeve and that it is free of obstructions to install the cables.