

DEPARTMENT (Cluster)

TECHNICAL SERVICES

DIRECTORATE (Unit)

Human Settlements

DIVISION

PROJECTS

PROCUREMENT DOCUMENT : Infrastructure (SAICE GCC)

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

Contract No: 32065 1H

PROVISION OF ENGINEERING SERVICES AND 127 TOP

**Contract Title: STRUCTURES WITH VIP'S FOR LOW COST HOUSING
PROJECT IN ETAFULENI PHASE 3, WARD 3**

Estimated CIDB: Grade: 7 Class: GB

CLARIFICATION MEETING AND QUERIES

Clarification Meeting: Compulsory Clarification Meeting.

Meeting Location: Will be held at Phoenix Offices, 26 February 2026 at 17 Doveside Place,
Date, Time: Canehaven Drive at 10h00. Consolidated answers to questions will be uploaded 12 March 2026

Queries can be addressed to: Name: Musa Ngubane

The Employer's Agent's: Tel: 031 322 0420

Representative: eMail: Musa.Ngubane@durban.gov.za

TENDER SUBMISSION

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

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

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

JDE Queries

Lindo Dlamini: Tel: 031-322-7133 / 031-322-7153

Contact:

Email: supplier.selfservice@durban.gov.za

Closing Date/ Time: Friday, 20 March 2026 at 11h00

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

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Director / Head: PROJECTS

Date of Issue: 13/02/2026

Document Version 01/07/2025

Tenderer Name.....

FOR OFFICIAL USE ONLY

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

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PART T1: TENDERING PROCEDURES

T1.1.1: TENDER NOTICE AND INVITATION TO TENDER

Tenders are hereby invited for the works of **PROVISION OF ENGINEERING SERVICES AND 127 TOP STRUCTURES WITH VIP'S FOR LOW COST HOUSING PROJECT IN EТАFULENI PHASE 3, WARD 3**

Subject	Description	Tender Data
Employer	The Employer is the eThekwini Municipality as represented by: Deputy Director / Head: PROJECTS	C.1.1.1
Tender Documents	Documentation is to be downloaded from the National Treasury's eTenders website or the eThekwini Municipality Website : <ul style="list-style-type: none"> • https://www.etenders.gov.za/ • https://www.durban.gov.za/pages/business/procurement 	C.1.2
CIDB Eligibility	It is <u>estimated</u> that Tenderers should have a CIDB contractor grading designation of 7 GB (or higher).	C.2.1.2
Clarification Meeting	Will be held at Phoenix Offices, 26 February 2026 at 17 Doveside Place, Canehaven Drive at 10h00. Consolidated answers to questions will be uploaded 12 March 2026	C.2.7
Seek Clarification	Queries relating to these documents are to be addressed to the Employer's Agent's Representative whose contact details are: Name: Musa Ngubane Tel: 031 322 0420 eMail: Musa.Ngubane@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 eThekwini Municipality JDE System (SSS Module) , is also to be made. Refer to Part T1.1.2 and Tender Data: C.2.13. Notwithstanding the electronic submission , a tender offer will only be deemed valid if the "hard copy" submission has been made.	C.2.13
Closing Time	The Tender Offer (hard copy) shall be delivered, and the electronic submission completed, both on or before Friday, 20 March 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	
CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts	Not Applicable
CIDB Standard for Developing Skills through Infrastructure Contracts	Not Applicable

T1.1.2: INFORMATION REGARDING THE ETHEKWINI JDE SYSTEM

This Part (T1.1.2) is for information purposes only.

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

1) General

eThekwini 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 **eThekwini Municipality Supplier Portal**, and the **eThekwini 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.

eThekwini 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.

eThekwini 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 any queries regarding the use of the **JDE System**:

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

4) Viewing of available tenders

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

5) Tender documentation

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

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

6) Submission of tender offers

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

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

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

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

7) Viewing the Tender opening schedule

Users on the **JDE System** will be able to view the **Tender Opening Schedule** for each closed Tender. The tender opening schedule will also be made available on the eThekini Municipal website at URL:

<https://www.durban.gov.za/pages/business/publication-of-received-bids>

T1.1.3: NOTES TO TENDERERS

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

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

eThekwini Supply Chain Management Policy (SCMP)

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

1) Section 14(4): ETM Supplier Database

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

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

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

The following is to be noted:

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

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

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

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

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

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

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

5) Section 21.2: Tender Validity

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

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

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

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

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

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

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

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

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

8) Section 49.1.2: Complaints and Objections (Appeals)

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

CIDB

Regulation 25(8)

9) It should be noted that this contract is not part of a **Targeted Development Programme (TDP)**. The CIDB provisions in relation to a Contractor's **Potentially Emerging (PE) status** do not apply.

Tenderers are referred to **CIDB Inform Practice Note #32: "Application of the Potentially Emerging (PE) Status"**.

B.U.I.L.D. Programme

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

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

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

PART T1: TENDERING PROCEDURES

T1.2: TENDER DATA

T1.2.1 STANDARD CONDITIONS OF TENDER

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

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

Annex C

Standard Conditions of Tender

C.1	General	<i>2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.</i>
C.1.1	Actions	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.1.1.1	The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.	C.1.2 Tender Documents The documents issued by the employer for the purpose of a tender offer are listed in the Tender Data .
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.1.3 Interpretation C.1.3.1 The Tender Data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender. C.1.3.2 These conditions of tender, the Tender Data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.
<i>Note:</i> 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.		

<p>C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:</p> <ul style="list-style-type: none"> a) conflict of interest means any situation in which: <ul style="list-style-type: none"> a. someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially; b. an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or c. incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee. b) comparative offer means the price after the factors of a non-firm price and all unconditional <i>discounts</i> 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; 	<p>3. no acceptable tenders are received;</p> <p>4. there is a material irregularity in the tender process.</p> <p>C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the <i>original</i> tender invitation was advertised.</p> <p>C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.</p> <p>C.1.6 Procurement procedures</p> <p>C.1.6.1 General</p> <p>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.</p> <p>C.1.6.2 Competitive negotiation procedure</p> <p>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.</p> <p>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.</p> <p>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</p>
<p>C.1.4 Communication and employer's agent</p> <p>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.</p>	
<p>C.1.5 Cancellation and Re-Invitation of Tenders</p> <p>C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-</p> <ol style="list-style-type: none"> 1. due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation; 2. funds are no longer available to cover the total envisaged expenditure; 	

distort competition or have a discriminatory effect.	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.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.2.2 Cost of tendering
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.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.1.6.3 Proposal procedure using the two stage-system	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.1.6.3.1 Option 1	C.2.3 Check documents Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.
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.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.1.6.3.2 Option 2	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.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.2.6 Acknowledge addenda Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the Tender Data , in order to take the addenda into account.
C.2 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	

<p>C.2.7 Clarification meeting</p> <p>Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the Tender Data.</p>	<p>tenderer. All signatories to the tender offer shall initial all such alterations.</p>
<p>C.2.8 Seek clarification</p> <p>Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the Tender Data.</p>	<p>C.2.12 Alternative tender offers</p> <p>C.2.12.1 Unless otherwise stated in the Tender Data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.</p>
<p>C.2.9 Insurance</p> <p>Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the Contract Data. The tenderer is advised to seek qualified advice regarding insurance.</p>	<p>C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the Tender Data or criteria otherwise acceptable to the employer.</p> <p>C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.</p>
<p>C.2.10 Pricing the tender offer</p> <p>C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the Tender Data.</p> <p>C.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.</p> <p>C.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the Contract Data.</p> <p>C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the Tender Data. The conditions of contract identified in the Contract Data may provide for part payment in other currencies.</p>	<p>C.2.13 Submitting a tender offer</p> <p>C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the Contract Data and described in the scope of works, unless stated otherwise in the Tender Data.</p> <p>C.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.</p> <p>C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the Tender Data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.</p>
<p>C.2.11 Alterations to documents</p> <p>Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the</p>	<p>C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the Tender Data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.</p>

<p>C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the Tender Data, as well as the tenderer's name and contact address.</p> <p>C.2.13.6 Where a two-envelope system is required in terms of the Tender Data, place and seal the returnable documents listed in the Tender Data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the Tender Data, as well as the tenderer's name and contact address.</p> <p>C.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the Tender Data.</p> <p>C.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.</p> <p>C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the Tender Data.</p> <p>C.2.14 Information and data to be completed in all respects</p> <p>Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.</p> <p>C.2.15 Closing time</p> <p>C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the Tender Data not later than the closing time stated in the Tender Data. Accept that proof of posting shall not be accepted as proof of delivery.</p> <p>C.2.15.2 Accept that, if the employer extends the closing time stated in the Tender Data for any reason,</p>	<p>the requirements of these conditions of tender apply equally to the extended deadline.</p> <p>C.2.16 Tender offer validity</p> <p>C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the Tender Data after the closing time stated in the Tender Data.</p> <p>C.2.16.2 If requested by the employer, consider extending the validity period stated in the Tender Data for an agreed additional period with or without any conditions attached to such extension.</p> <p>C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).</p> <p>C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".</p> <p>C.2.17 Clarification of tender offer after submission</p> <p>Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.</p> <p><i>Note: Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.</i></p> <p>C.2.18 Provide other material</p> <p>C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer,</p>
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<p>the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.</p> <p>Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.</p>	<p>notify all tenderers who collected tender documents.</p> <p>C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:</p> <ul style="list-style-type: none"> 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; the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.
<p>C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.</p>	
<p>C.2.19 Inspections, tests and analysis</p> <p>Provide access during working hours to premises for inspections, tests and analysis as provided for in the Tender Data.</p>	
<p>C.2.20 Submit securities, bonds and policies</p> <p>If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the Contract Data.</p>	
<p>C.2.21 Check final draft</p> <p>Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.</p>	
<p>C.2.22 Return of other tender documents</p> <p>If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the Tender Data.</p>	<p>C.3.2 Issue Addenda</p> <p>If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the 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.</p>
<p>C.2.23 Certificates</p> <p>Include in the tender submission or provide the employer with any certificates as stated in the Tender Data.</p>	<p>C.3.3 Return late tender offers</p> <p>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.</p>
<p>C.3 The employer's undertakings</p>	<p>C.3.4 Opening of tender submissions</p>
<p>C.3.1 Respond to requests from the tenderer</p>	
<p>C.3.1.1 Unless otherwise stated in the Tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and</p>	<p>C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the Tender Data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.</p>

<p>C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the Tender Data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.</p> <p>C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.</p>	<p>C.3.8 Test for responsiveness</p> <p>C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:</p> <ul style="list-style-type: none"> complies with the requirements of these Conditions of Tender, has been properly and fully completed and signed, and is responsive to the other requirements of the tender documents.
<p>C.3.5 Two-envelope system</p> <p>C.3.5.1 Where stated in the Tender Data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the Tender Data and announce the name of each tenderer whose technical proposal is opened.</p>	<p>C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:</p> <ul style="list-style-type: none"> (a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work, (b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or (c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.
<p>C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the Tender Data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.</p>	<p>Reject a non-responsive tender offer and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.</p>
<p>C.3.6 Non-disclosure</p> <p>Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.</p>	<p>C.3.9 Arithmetical errors, omissions and discrepancies</p>
<p>C.3.7 Grounds for rejection and disqualification</p> <p>Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.</p>	<p>C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.</p> <p>C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:</p> <ul style="list-style-type: none"> i the gross misplacement of the decimal point in any unit rate; ii omissions made in completing the pricing schedule or bills of quantities; or iii arithmetic errors in: <ul style="list-style-type: none"> • line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or • the summation of the prices.

C.3.9.3	Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.
C.3.9.4	Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows: 4.0 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. 5.0 Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.
C.3.10	Clarification of a tender offer Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.
C.3.11	Evaluation of tender offers The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project. Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

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

The activities associated with evaluating tender offers are as follows:

- Open and record tender offers received
- Determine whether or not tender offers are complete
- Determine whether or not tender offers are responsive
- Evaluate tender offers
- Determine if there are any grounds for disqualification
- Determine acceptability of preferred tenderer
- Prepare a tender evaluation report
- Confirm the recommendation contained in the tender evaluation report .

C.3.11.1 General	C.3.14 Prepare contract documents
<p>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.</p>	<p>C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:</p> <ol style="list-style-type: none"> 1 addenda issued during the tender period, 2 inclusion of some of the returnable documents and 3 other revisions agreed between the employer and the successful tenderer.
C.3.12 Insurance provided by the employer	<p>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.</p>
C.3.13 Acceptance of tender offer	<p>Accept the tender offer; if in the opinion of the employer, it does not present any risk and only if the tenderer:</p> <ol style="list-style-type: none"> 1.0 is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement; 2.0 can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract; 3.0 has the legal capacity to enter into the contract; 4.0 is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing; 5.0 complies with the legal requirements, if any, stated in the Tender Data; and 6.0 is able, in the opinion of the employer, to perform the contract free of conflicts of interest.
	<p>C.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.</p>
	<p>C.3.15 Complete adjudicator's contract</p>
	<p>Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.</p>
	<p>C.3.16 Registration of the award</p>
	<p>An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the ciddb Register of Projects.</p>
	<p>C.3.17 Provide copies of the contracts</p>
	<p>Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.</p>
	<p>C.3.18 Provide written reasons for actions taken</p>
	<p>Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.</p>

T1.2.2 TENDER DATA

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

C.1: GENERAL

C.1.1 The employer:

The Employer for this Contract is the **eThekwini Municipality** as represented by:
Deputy **Head: PROJECTS**

C.1.2 Tender documents:

The Tender Documents issued by the Employer comprise:

- 1) This procurement document.
- 2) The **Conditions of Contract** and associated **Contract Data** are identified in **Section C1.2.1**. Tenderers/ Contractors are required to obtain their own copies.
- 3) The **Specifications** identified in **Section C3.3.1**. Tenderers/ Contractors are required to obtain their own copies.
- 4) **Drawings**, if applicable, issued separately from this document, or bound in **Section C3.4** (as an Annexure).
- 5) In addition, Tenderers are advised, in their own interest, to obtain their own copies of the following acts, regulations, and standards referred to in this document as they are essential for the Tenderer to get acquainted with the basics of construction management, the implementation of preferential construction procurement policies, and the participation of targeted enterprise and labour.
 - The Employer's Supply Chain Management Policy (as at advertising date).
 - The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations (2014).
 - The Construction Industry Development Board Act No 38 of 2000 and the Regulations issued in terms of the Act (July 2013).
 - SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
 - **CIDB Standard for Developing Skills Through Infrastructure Contracts**, published in Gazette Notice No. 48491 of 28 April 2023.
 - **CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts**, published in Gazette Notice No. 36190 of 25 February 2013.
 - Any other eThekwini Policy documents referenced in the Tender Documents.

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

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

C.1.4 Communication and employer's agent:

The Employer's Agent's Representative is:

Name: Musa Ngubane
Tel: 031 322 0420
eMail: Musa.Ngubane@durban.gov.za

The Tenderer's contact details, as indicated on **Returnable Document T2.2.1: Compulsory Enterprise Questionnaire**, shall be deemed as the only valid contact details for the Tenderer for use in communications between the Employer's Agent and the Tenderer during tender evaluation.

C.1.6 Procurement procedures:

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

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

C.2: TENDERER'S OBLIGATIONS

C.2.1 Eligibility:

Entities may only submit one (1) tender offer, either as a single tendering entity or as a partner of a joint venture. Should a tendering entity submit more than one (1) tender, all submissions by that tendering entity, including submissions where the entity is a partner of a joint venture, will be deemed not to be eligible.

C.2.1.1 Eligibility: General

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

- (a) In the event of a Compulsory Clarification Meeting:
 - i) the Tenderer fails to attend the Compulsory Clarification Meeting, or
 - ii) the Tenderer fails to have **Returnable Document T2.2.2: Certificate of Attendance at Clarification Meeting / Site Inspection** signed by the Employer's Agent or their representative.
- (b) At the time of tender closing, the Tenderer is not registered on the **National Treasury Central Supplier Database (CSD)** and the **eThekwini Municipality Supplier Portal**. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture. Tenderers are to reference **Returnable Document T2.2.1: Compulsory Enterprise Questionnaire** (section 1.5) and **Returnable Document T2.2.12: "CSD Registration Report"**.
- (c) In the case of Joint Venture (JV) submissions, two or more JV entities have common directors/ shareholders or common entities tendering for the same works.
- (d) The following documentation is to be completed in full, signed, and returned with the tender submission. **Failure to comply will result in the tender offer being deemed non-responsive:**
 - T2.2.1: Compulsory Enterprise Questionnaire.
 - T2.2.5: MBD 4: Declaration of Interest.
 - **T2.2.6: MBD 5: Declaration for Procurement Above R10 Million.**
 - **T2.2.7: 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 with NHBRC Registration.

C.2.1.2 Eligibility: CIDB & Valid NHBRC Registration

Tenderers are to reference the provisions of **Tender Data: C.2.23: Certificates and Returnable Document: T2.2.13: Verification of CIDB Registration and Status** with respect to CIDB registration.

Only those Tenderers who are registered (as "Active") with the CIDB (at time of tender closing), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations, **for a 7 GB** 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 7 GB** class of construction work with a valid NHBRC registration 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 7 GB** class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

C.2.1.3 Eligibility: Tenderer's Experience

Tenderers are to complete and sign **Returnable Form T2.2.16: Eligibility: Experience of Tenderer**.

Only those Tenderers that can demonstrate experience and submit the associated documentation/information, in works of a similar nature, **within the past 5 years**, will be eligible to have their tenders evaluated in terms of Clause C.3.11.

- **Table 1:** The **Experience Requirement** is specified on this table.
- **Table 2:** The experience is to be **Similar in Nature** to that specified on this table. Tenderers are to note the exclusions (if any) stated on this table.
- **Table 3:** The **Documentation/ Information** that is required to be included in this submission is specified on this table (which includes the Notes below the table).
- Tenderers may submit experience gained as **Main Contractors ONLY**.
- **Guidance** on the completion of the **Experience Submission Form** is provided on the first page of **Returnable Form T2.2.16**.

Tenderers are to indicate the documentation that has been included in the tender submission, in support of each experience submission, in the shaded column on Page **57**.

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

Table 1: Experience Requirement

Contract(s), with works of a similar nature, within the past 5 years, where each value of completed work is at least 50% of the tender value submitted for this tender on the **Form of Offer (C1.1.1)**.

A minimum of **3 contracts**, with works of a similar nature, within the past 5 years, each with a value of 50% of the tender value submitted for this tender on the **Form of Offer (C1.1.1)**.

Table 2: Works of a Similar Nature

Human Settlements – Construction of houses (Top-structures)

Projects of a similar nature that will be considered will be one, or a combination of, the following types of projects:

- **New Housing Construction** which may either be a single or double storey typology, and also include construction of retaining walls, soil improvements and subsoil drainage.
- **Housing Rectification Projects** which include demolition of the existing structure, disconnection and reconnection of municipal services such as electricity and water for construction purposes
- **Educational facilities**, schools, libraries, early childhood development centres
- **Health facilities**, clinics & hospitals.
- **Recreational Facilities**, sports complexes, community centres, and aquatic facilities.

Projects that are excluded are:

- **Recreational Facilities**: we exclude only Public Parks and Gardens: (spaces to provide areas for relaxation, recreation, and socialization for walking trails, playgrounds, picnic areas, and sports fields, making them ideal for outdoor activities)
- **Community Spaces**: places of worship, public squares, cultural centres.
- Other exclusions: Housing maintenance projects, alteration or renovation of private residence.

Table 3: Documentation / Information Requirements

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

NOTES (for Table 3)

1. To include the names of the parties, the managing entity's name, the effective dates, and the signature(s) page, all pertaining to the agreement.
2. Issued by the Client / Employer.
3. Proof of the most recent payment received from the Main Contractor or Client/ Employer, OR the most recent submitted INVOICE. Whichever of these documents is submitted, a summary

breakdown of quantities is to accompany that document.

4. Proof of the final payment received from the Main Contractor or Client/ Employer, OR the most recent submitted INVOICE. Whichever of these documents is submitted, a summary breakdown of quantities is to accompany that document.
5. Issued by the Client/ Employer.
6. For work executed as a Main Contractor, the overall contract Scope-of-Work is to be indicated.

C.2.1.4 **Eligibility: Experience of Key Personnel**

Prospective tenderers will only be eligible to submit a tender if;

(d) The Contracts Manager:

1. Has a minimum of five (5) years' relevant construction related experience.
2. Relevant accredited diploma / degree in built environment with a minimum of NQF level 6.

(e) The Site Agent:

1. Must be full time on site for the duration of the contract
2. Has a minimum of five (5) years' relevant construction related experience
3. Relevant accredited diploma / degree in built environment with a minimum of NQF level 6.

(f) The Site Foreman:

1. Must be full time on site for the duration of the contract
2. Has a minimum of Ten (10) years in construction of infrastructure experience.

C.2.2.2 **The cost of the tender documents:**

Replace this paragraph with the following:

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

C.2.6 **Acknowledge addenda:**

Add the following paragraphs:

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

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

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

C.2.7 **Clarification meeting:**

Will be held at Phoenix Offices, 26 February 2026 at 17 Doveside Place, Canehaven Drive at 10h00. Consolidated answers to questions will be uploaded 12 March 2026

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

C.2.10.2 Pricing the tender offer:

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

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

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. : **32065 1H**
- Contract Title : **PROVISION OF ENGINEERING SERVICES AND 127 TOP STRUCTURES WITH VIP'S FOR LOW COST HOUSING PROJECT IN ETAFULENI PHASE 3, WARD 3**

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

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

The Tender documentation, issued by the eThekini 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 (Portable Document Format) document, at a resolution of 300 DPI (dots per inch). The PDF document is to be uploaded via the (Tender specific) upload option on the JDE System (SSS Module). Tenderers are responsible for resolving all access rights and submission queries on the JDE System before the tender closing date/ time (**Tender Data: C.2.15**).

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

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

Parts of each tender offer communicated on paper shall be submitted as an original, plus X copies.

C.2.15 Closing date and time:

The closing time is:

- Date : **Friday, 20 March 2026**
- Time : **11h00**

The **delivery of the hard copy AND** the completion of the requirements on the **JDE System (SSS Module)** are to be completed prior to the Tender **closing date and time** as stated above. Any Tender Offer submitted thereafter will not be considered.

C.2.16 Tender offer validity:

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

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

C.2.20 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.

SARS Tax Compliance Status – PIN Issued

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

Central Supplier Database (CSD)

Reference is to be made to **Returnable Document T2.2.12: CSD Registration Report**.

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

The date of the report, as indicated at the top right of each page, should be on or after the date of advertising of this tender.

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

CIDB Registration (if applicable)

Reference is to be made to **Returnable Document T2.2.13: Verification of CIDB Registration and Status**.

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

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

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

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

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

B-BBEE Status Level of Contribution Certificate

Tenderers are referred to **Returnable Document T2.2.6: MBD 6.1: Preference Points Claim** for the B-BBEE Certificate requirements. Notwithstanding the completion of Returnable Document T2.2.6, should no B-BBEE Status Level of Contribution Certificate be returned no points for Preferential Procurement will be deemed to have been claimed.

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

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

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

C.3: THE EMPLOYER'S UNDERTAKINGS

C.3.1.1 Respond to requests from the tenderer:

Replace the words "five working days" with "three working days".

C.3.2 Issue addenda:

Add the following paragraph:

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

C.3.4 Opening of Tender Submissions:

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

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

C.3.9 Arithmetical errors, omissions and discrepancies:

Add the following Clause:

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

C.3.11 Evaluation of Tender Offers:

Eligibility

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

Functionality

FUNCTIONALITY will not be used in the evaluation of tenders.

Preference Point System

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

The **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

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

80/20 Procurement System or 90/10 Procurement System

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

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**.

The Basket of Preference Goals (SCM Policy Section 52.7)

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

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

- **Ownership Goal**
Goal Weighting: **60%**

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

Ownership Categories	Criteria	90/10
Race: Black	Equals 0%	0
	Between 0% and 51%	1.2
	Greater or equal to 51% and less than 100%	2.1
	Equals 100%	3

Gender: Female	Equals 0%	0
Between 0% and 51%	1.2	
Greater or equal to 51% and less than 100%	2.1	
Equals 100%	3	

Maximum Ownership Goal Points:	6
Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the Tenderer's status)	
<ul style="list-style-type: none"> • Companies and Intellectual Property Commission registration document (CIPC) • CSD report. • B-BBEE Certificate of the tendering entity. • Consolidated BBBEE Certificate if the tendering entity is a Consortium, Joint Venture, or Trust (Issued by verification agency accredited by the South African Accreditation System). • Agreement for a Consortium, Joint Venture, or Trust. 	

- **RDP Goal: The promotion of South African owned enterprises**
Goal Weighting: **40%**

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

Location	90/10
Not in South Africa	0
South Africa	1.6
Kwa Zulu Natal	2.8
eThekweni Municipality	4
Maximum Goal Points:	4

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

- CSD report

C.3.13 Acceptance of tender offer:

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

- (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 eThekini Supply Chain Management Policy.

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

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

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

EThekini Metropolitan Municipality
Nedbank
Account Number: 110-782-1118
Reference Number: Use the Contract Number

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

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

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

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

T1.2.3.3 Code of Conduct and Local Labour

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

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

T1.2.3.4 Functionality Specification

Functionality Evaluation is not applicable to this tender.

PART T2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

T2.1.1 General

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

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

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

T2.1.2 Returnable Schedules, Forms and Certificates

Entity Specific

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T2.2.6	MBD 6.1: Preference Points Claim Form (SCM Policy Section 52.7)	37
T2.2.7	MBD 6.2: Declaration for Local Production and Content (if applicable)	39
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Technical or Functionality Evaluation

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T2.2.20	Preliminary Programme	57

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T2.2.24	Contractor's Health and Safety Plan	61

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

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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)		
2.1	Full Name	Identity No.	Personal income tax No. *
2.2			
2.3			
3.0	Particulars of companies and close corporations		
3.1	Company registration number, if applicable:		
3.2	Close corporation number, if applicable:		
3.3	Tax Reference number, if any:		
3.4	South African Revenue Service: Tax Compliance Status PIN:		
4.0	MBD 4, MBD 6, MBD 8, and MBD9 issued by National Treasury must be completed for each tender and be included as a tender requirement.		

Tenderers are to include, at the back of their tender submission, a printout of their SARS “Tax Compliance Status – PIN Issued” certificate.

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.2 CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING / SITE INSPECTION

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

This is to certify that:

(entity name):

of (address):

was represented by the person(s) named below at the Clarification Meeting for Contract **32065 1H** 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
YES
NO

3.8 Are you presently in the service of the state?

If yes, furnish particulars:

.....

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

YES	NO
-----	----

If yes, furnish particulars:

.....

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

YES	NO
-----	----

If yes, furnish particulars:

.....

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

YES	NO
-----	----

If yes, furnish particulars:

.....

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

YES	NO
-----	----

If yes, furnish particulars:

.....

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

YES	NO
-----	----

If yes, furnish particulars:

.....

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

YES	NO
-----	----

If yes, furnish particulars:

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

Full Name	Identity No.	State Employee No.	Personal income tax No.

Use additional pages if necessary

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

NAME (Block Capitals):

Date

SIGNATURE:

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

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

		Circle Applicable	
		YES	NO
1.0	Are you by law required to prepare annual financial statements for auditing?		
1.1	If YES, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.		
2.0	Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?	YES	NO
2.1	If NO, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.		
2.2	If YES, provide particulars.	<p>.....</p> <p>.....</p>	
3.0	Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?	YES	NO
3.1	If YES, provide particulars.		
	SEE Returnable Document T2.2.5		
4.0	Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic?	YES	NO
4.1	If YES, provide particulars.	<p>.....</p> <p>.....</p>	

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

<i>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.</i>
--

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.

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

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

4.2 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.

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

2.0 ADJUDICATION USING A POINT SYSTEM

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

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

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

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

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

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

3.0 POINTS AWARDED FOR PRICE

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

80/20 Procurement System

or

90/10 Procurement System

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

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

Where: Ps = Points scored for comparative price of bid under consideration

Pt = Comparative price of bid under consideration

Pmin = Comparative price of lowest acceptable bid

T2.2.6 MBD 6.1: PREFERENCE POINTS CLAIM

(SCMP 52.7: Basket of Preference Goals)

This form serves as a claim form for preference points according to **The Basket of Preference Goals**.
Reference is to be made to the Tender Data: C.3.11.

7.0 GENERAL CONDITIONS

- 1.1 The relevant **Preference Points System (90/10)** applicable to this bid is stated in the **Tender Data: C.3.11**.
- 3.2 Failure on the part of the Tenderer to submit the required proof or documentation, in terms of the requirements in the Tender Data for claiming specific goal preference points, will be interpreted that **Preference Points for Specific Goals** are not claimed.
- 3.3 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2.0 ADJUDICATION USING A POINT SYSTEM

- 2.1 The bidder obtaining the highest number of total points will be recommended for the award of the contract.
- 2.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.
- 2.3 Points scored will be rounded off to the nearest 2 decimal places.
- 2.4 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.
- 2.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.
- 2.6 Should two or more bids be equal in all respects the award shall be decided by the drawing of lots.

3.0 POINTS AWARDED FOR PRICE

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

80/20 Procurement System

or

90/10 Procurement System

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

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

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

4.0 POINTS ALLOCATED FOR THE BASKET OF PREFERENCE GOALS

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

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

90/10 Preference Points System The Specific Goals to be allocated points in terms of this tender and the	Maximum Number of points ALLOCATED	Tenderer's Number of points CLAIMED
Ownership Goal: Race (black)	3	
Ownership Goal: Gender (female)	3	
RDP Goal: The promotion of South African owned enterprises.	4	
Total CLAIMED Points (maximum 10)	10	

5.0 REMIDIES FOR THE SUBMISSION OF FALSE INFORMATION

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.8 MBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

- 4.0 In order to give effect to the above, the following questions must be completed and submitted with the bid.

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

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

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

4.1.1 If YES, provide particulars.

Circle Applicable	
YES	NO

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

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

4.2.1 If YES, provide particulars.

YES	NO

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

4.3.1 If YES, provide particulars.

YES	NO

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

YES	NO
-----	----

4.4.1 If YES, provide particulars.

.....

.....

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

YES	NO
-----	----

4.5.1 If YES, provide particulars.

.....

.....

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.9 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 *per se* prohibition meaning that it cannot be justified under any grounds.
- 3.0 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4.0 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid rigging.
- 5.0 In order to give effect to the above, the below **Certificate of Independent Bid Determination** must be completed and submitted with the bid.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid for: Contract **32065 1H**

PROVISION OF ENGINEERING SERVICES AND 127 TOP STRUCTURES WITH VIP'S FOR LOW COST HOUSING PROJECT IN ETAFULENI PHASE 3, WARD 3

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

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

I certify, on behalf of:

that:

(continued on next page)

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.10 DECLARATION OF MUNICIPAL FEES

Reference is to be made to the **Tender Data: C.2.23 and C.3.13(a)**.

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

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

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

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

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

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

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

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.11 CONTRACTOR'S HEALTH AND SAFETY DECLARATION

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

In terms of Clause 5(1)(h) of the 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):**

Circle Applicable	
Yes	No
Yes	No
Yes	No

- (a) From my own competent resources as detailed in 4(a) hereafter.
- (b) From my own resources still to be appointed or trained until competency is achieved, as detailed in 4(b) hereafter:
- (c) From outside sources by appointment of competent specialist Subcontractors as detailed in 4(c) hereafter:

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

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

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

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

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

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

Name of proposed subcontractor:

Qualifications or details of competency of the subcontractor:

- 5 I, the undersigned, hereby undertake, if this tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 7(1) of the Construction Regulations, which plan shall be subject to approval by the Client.
- 6 I, the undersigned, confirm that copies of this company's approved Health and Safety Plan, the Client's Safety Specifications as well as the 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.

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

CSD Registration Reports can be obtained from the National Treasury's CSD website at

<https://secure.csd.gov.za/Account/Login>.

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

Note: the printout will contain more than one page.

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.13 CIDB REGISTRATION AND STATUS

Reference is to be made to the **Tender Data: C.2.1.2, C.2.23, and C.3.13(c)**.

The **Tender Data: C.2.1.1: Eligibility**, requires a Tenderer to be registered, as "Active", with the CIDB (at time of tender closing), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

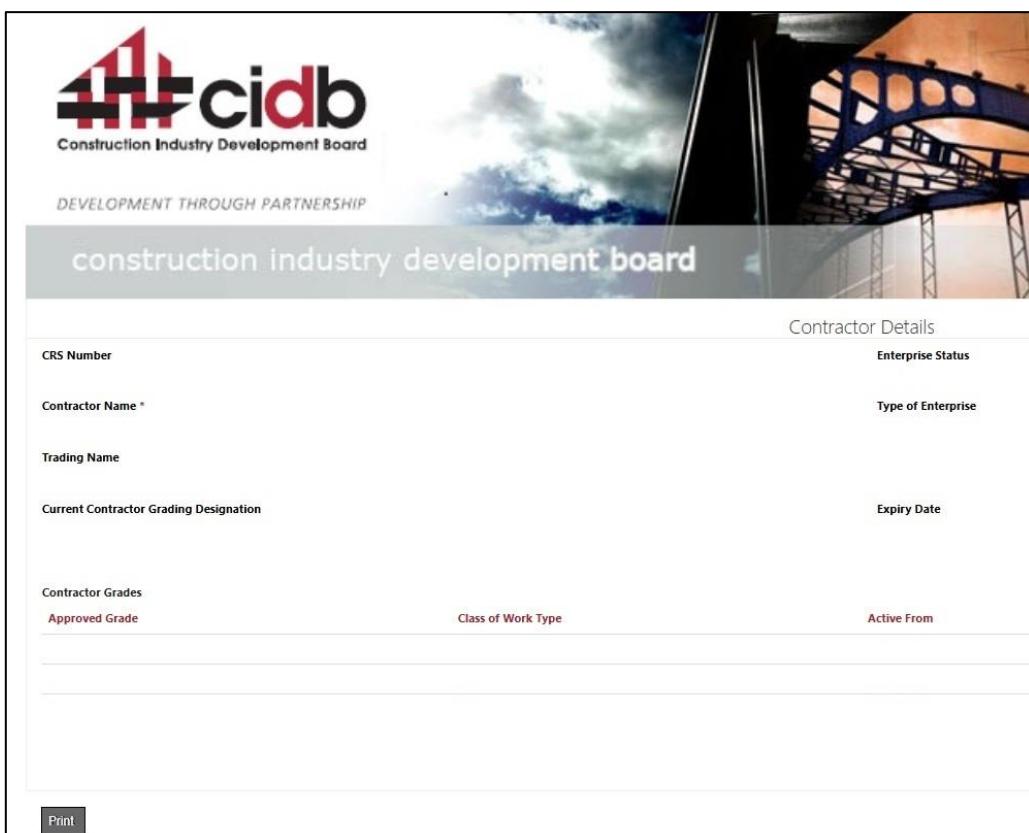
The required class of construction work is specified in the **Tender Data: C.2.1.2**.

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

CIDB Registrations can be obtained from the CIDB website at:

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

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



The screenshot shows a web-based form for contractor registration. The header features the CIDB logo and the tagline "DEVELOPMENT THROUGH PARTNERSHIP". The form is titled "construction industry development board". It contains several input fields and dropdown menus. At the bottom left is a "Print" button.

Contractor Details	
CRS Number	Enterprise Status
Contractor Name *	Type of Enterprise
Trading Name	
Current Contractor Grading Designation	Expiry Date
Contractor Grades	
Approved Grade	Class of Work Type
	Active From

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.14 JOINT VENTURES AGREEMENTS

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

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

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

INTENT TO FORM A JOINT VENTURE

Should our submission for CONTRACT: **32065 1H** 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:

 MAAA

CIDB #:

Represented by (name):

Signature:

Partner/ Member 2

Entity Name:

Ownership Interest in JV %:

CSD Registration:

 MAAA

CIDB #:

Represented by (name):

Signature:

Partner/ Member 3

Entity Name:

Ownership Interest in JV %:

CSD Registration:

 MAAA

CIDB #:

Represented by (name):

Signature:

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

T2.2.15 RECORD OF ADDENDA TO TENDER DOCUMENTS

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

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

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.16 ELIGIBILITY: EXPERIENCE OF TENDERER

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

Only those Tenderers that can demonstrate experience and submit the associated documentation/ information, in works of a similar nature, within the past 5 years, will be eligible to have their tenders evaluated in terms of **Tender Data: C.3.11**.

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

It is the responsibility of the Tenderer to ensure that the experience submissions comply with the requirements as stated in the Tender Data: C.2.1.3.

Guidance to Tenderers: Experience Submission Form

Client / Employer Details

- Provide details for whom the works were carried out (works owner).
- Provide **Contact details of the Client or Main Contractor** (if experience was gained as a sub-contractor) is required to be provided.

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

Contract Details

- Provide the **Contract Reference Number** and **Contract Title**.
- Indicate if this contract has been completed or is still in progress.
- Provide **Contract Dates**.
- Provide **Contract Values** - Where works are still in progress, provide the value of works that have been completed as detailed on the most recent payment to the Contractor / Sub-Contractor. If the works are complete, provide the Final Value of the sub-contract or Final Contract Price.

Scope of Works

- Indicate the **Works Type(s)** that best describe the works included in the project.
Select the most applicable option (only 1).
- Indicate the **Works Elements(s)** that were included in the project.
Select any elements that were included in the contract.

Joint Ventures

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

(T2.2.16 is continued on the next page)

Confirmation of submission of Information/ Documentation

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

		If submitted, mark with an "X"
SUBMISSION #1	Experience Submission Form (completed and signed) 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) 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) 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:	<input checked="" type="checkbox"/> Sub-Contractor:	Main Contractor:										
Client/ Employer OR Main Contractor's Details <small>Should the Employer's reasonable attempts to make contact, to verify the information provided, fail (for whatever reason) this experience submission WILL be considered invalid.</small>	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):

Contract Scope-of-Work (Description of Works components)	If available in hard copy, the Scope-of-Work can be attached. Only include the Scope-of-Work (contract description). <u>The Specification is not required.</u>				

In addition to the Scope-of-Work (entered above or attached) the following documentation / information is required to be attached to the back of this form.					
Contractor Type and Contract Status	Proof of Sub-Contract Agreement	Letter of Award OR Form of Offer & Acceptance	Most recent Payment Certificate, OR most recent INVOICE, with Quantities summary	Final Payment Certificate, OR most recent INVOICE, with Quantities summary	Completion Certificate
Current Contract as Sub-Contractor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Completed Contract as Sub-Contractor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Current Contract as Main Contractor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Completed Contract as Main Contractor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Failure to submit this returnable form, and provide the above supporting documentation/ information, for each submission of experience, will invalidate that experience submission					

Confirmation of documentation submitted is to be recorded on Page 57.

<i>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.</i>					
--	--	--	--	--	--

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:	<input checked="" type="checkbox"/> Sub-Contractor:	Main Contractor:	
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Client/ Employer OR Main Contractor's Details Should the Employer's reasonable attempts to make contact, to verify the information provided, fail (for whatever reason) this experience submission WILL be considered invalid.	Entity Name:											
	Contact Name:											
	Contact Tel:				-				-			
	Contact Cell:				-				-			
	Contact email / other:											
Enter the Client/ Employer's details, OR, if the works was done as a sub-contractor, enter the Main Contractor's Details												

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

Contract Scope-of-Work (Description of Works components)	If available in hard copy, the Scope-of-Work can be attached. Only include the Scope-of-Work (contract description). <u>The Specification is not required.</u>				
---	---	--	--	--	--

In addition to the Scope-of-Work (entered above or attached) the following documentation / information is required to be attached to the back of this form.

Contractor Type and Contract Status	Proof of Sub-Contract Agreement	Letter of Award OR Form of Offer & Acceptance	Most recent Payment Certificate, OR most recent INVOICE, with Quantities summary	Final Payment Certificate, OR most recent INVOICE, with Quantities summary	Completion Certificate
Current Contract as Sub-Contractor					
Completed Contract as Sub-Contractor					
Current Contract as Main Contractor		X	X		
Completed Contract as Main Contractor		X		X	X

Failure to submit this returnable form, and provide the above supporting documentation/ information, for each submission of experience, will invalidate that experience submission

Confirmation of documentation submitted is to be recorded on Page 517.

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 PROPOSED ORGANISATION and STAFFING

The Tenderer should propose the structure and composition of their team i.e. the main disciplines involved, the key staff member / expert responsible for each discipline, and the proposed technical and support staff and site staff.

The roles and responsibilities of each key staff member / expert should be set out as job descriptions. In the case of an association / joint venture / consortium, it should, indicate how the duties and responsibilities are to be shared.

The Tenderer must attach their organization and staffing proposals to this page. (this is to include both the on-site and off-site staffing resources used for this project)

In addition to any lists, this information should also be shown in an organogram format (flow chart) clearly indicating the staff hierarchy and reporting lines, again for on- and off-site resources.

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:

T2.2.18 KEY PERSONNEL

The Tenderer shall list below the personnel which he intends to utilize on the Works, including key personnel (Contract's Manager, Site Agent, and Foremen) which may have to be brought in from outside if not available locally.

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

Note: CVs of key personnel may be requested during the contract period.

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:**

T2.2.19 EXPERIENCE OF KEY PERSONNEL

The experience of assigned staff member in relation to the Scope of Work will be evaluated from three different points of view:

- 1) General experience (total duration of professional activity), level of education and training and positions held of each discipline specific team leader.
- 2) The education, training, skills and experience of the Assigned Staff in the specific sector, field, subject, etc which is directly linked to the scope of work.
- 3) The key staff members' / experts' knowledge of issues which the Tenderer considers pertinent to the project e.g. local conditions, affected communities, legislation, techniques etc.

A CV of the contract manager, site agent(s) and general foreman of not more than 2 pages should be attached to this schedule:

Each CV should be structured under the following headings:

- a) Personal particulars
 - name
 - date and place of birth
 - place (s) of tertiary education and dates associated therewith
 - professional awards
- b) Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations)
- c) Skills
- d) Name of current employer and position in enterprise
- e) Overview of post-graduate / diploma experience (year, organization and position)
- f) Outline of recent assignments / experience that has a bearing on the scope of work

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:

T2.2.20 PRELIMINARY PROGRAMME

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

Note: The programme must be based on the completion time as specified in the Contract Data.

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:

T2.2.21 CONSTRUCTION APPROACH, METHODOLOGY, AND QUALITY CONTROL

Construction Approach and Methodology

The construction approach and methodology must respond to the Scope of Work and outline the proposed approach to undertake the work showing a detailed programme including health and safety aspects, the use of plant and resources for this Project.

Quality Control

The quality control statement must discuss what tests and control measures are to be employed on site to attain the specified results and is to cover the program associated activities.

The Tenderer must attach their Construction Methodology and Quality Control information to this page.

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:

T2.2.22 SCHEDULE OF PROPOSED SUBCONTRACTORS

The following firms have been identified as possible subcontractors for work in this contract.

NAME AND ADDRESS OF PROPOSED SUBCONTRACTORS	NATURE AND EXTENT OF WORK TO BE SUBCONTRACTED	PREVIOUS EXPERIENCE WITH SUBCONTRACTOR

Attach additional pages if more space is required

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:

T2.2.23 PLANT and EQUIPMENT

The following are lists of major items of relevant equipment that I / we presently own or lease and will have available for this contract 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	YEAR OF MANUFACTURE

Attach additional pages if more space is required

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

DESCRIPTION (type, size, capacity etc)	QUANTITY	HOW ACQUIRED	
		HIRE/ BUY	SOURCE

Attach additional pages if more space is required

The Tenderer undertakes to bring onto site without additional cost to the Employer any additional plant not listed but which may be necessary to complete the contract within the specified contract period.

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:

T2.2.24 CONTRACTOR'S HEALTH AND SAFETY PLAN

At tender stage only a brief overview (**to be attached to this page**) of the Tenderers perception on the safety requirements for this contract will be adequate.

Only the successful Tenderer **shall submit separately** the Contractor's Health and Safety Plan as required in terms of Regulation 7 of the Occupational Health and Safety Act 1993 Construction Regulations 2014.

The detailed safety plan will take into consideration the site specific risks as mentioned under **C.3: Project Specification**. A generic plan will not be acceptable.

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:

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: **1H-32065**

Contract Title: **PROVISION OF ENGINEERING SERVICES AND 127 TOP STRUCTURES WITH VIP'S FOR LOW COST HOUSING PROJECT IN EТАFULENI PHASE 3, WARD 3**

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

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

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

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Signature
Name (*in capitals*)
Capacity
Name and Address of
Organisation
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Witness Signature
Witness Name
Date

FOR THE EMPLOYER

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

C1.2: CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

C1.2.1.1 GENERAL CONDITIONS OF CONTRACT

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

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

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

C1.2.2 CONTRACT DATA

C1.2.2.1 DATA TO BE PROVIDED BY THE EMPLOYER

1.1.1.13 The **Defects Liability Period**, from the date of the Certificate of Completion, is **1 Year**

1.1.1.14 The **time for achieving Practical Completion**, from the Commencement Date is **156 Weeks**. The period as stated in 5.3.2, and the 7 days referred to in 5.3.3, are included in the above time for achieving Practical Completion. The special non-working days as stated in 5.8.1 are excluded from the above time for achieving Practical Completion.

1.1.1.15 The Employer is the eThekini Municipality as represented by:
Deputy Head: **PROJECTS**

1.2.1.2 The address of the Employer is: **Deputy Director**
Physical: **20th Floor Embassy Building, 199 Anton Lembede Street, Durban, 4001**
Postal: **P O Box 3858, Durban, 4000**
Telephone: **031 311 3489**
Fax: **N/A**
E-Mail: **Oscar.Kunene@durban.gov.za**

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

1.2.1.2 The address of the Employer' Agent is: **Pearl Ndwalane**
Physical: **Shell House Building, 221 Anton Lembede Street, Durban, 4001**
Postal: **P O Box 3858, Durban, 4000**
Telephone: **031 311 3329**
Fax: **N/A**
E-Mail: **Nqobile.Hadebe@durban.gov.za**

1.1.1.26 The **Pricing Strategy** is by **Fixed Price (Lump Sum) 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 authorize 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 minimum 3-year qualification within the built environment, from a registered University or Institute of Technology.

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

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

5.3.2 The **time to submit the documentation** required before commencement with Works 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."

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

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

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

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

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

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

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

5.13.1 The **penalty for delay** in failing to complete the Works is **R 1000** (per Day).

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

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

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

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

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

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

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

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

6.8.2 Contract Price Adjustment Factor: THIS IS A FIXED PRICE CONTRACT: ESCALATION IS NOT APPLICABLE TO THE RATES OF THIS TENDER: All tenderers to ensure that the rates tendered are applicable for the full 36 months construction period of the **contract**. However, in the event of the contract overrunning the contract period due to circumstances beyond the contractor's control, then the employer at his sole discretion, will consider escalation of the tender rates with the base month being the last month of the 36-month period.

ONLY in this instance as described above will the following escalation clauses as set out below become period:

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
<ul style="list-style-type: none"> • “L” is the “Labour Index” • “P” is the “Contractor’s Equipment Index” • “M” is the “Materials Index” • “F” is the “Fuel Index” 	P0141	Table A Geographic Indices; CPI per Province; Kwa-Zulu Natal	a = 0.28
	P0151.1	Table 4 Plant and Equipment	b = 0.28
	P0151.1	Table 6 Civil Engineering Material (excluding bitumen)	c = 0.38
	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: **State %**

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

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

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

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

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

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

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

8.6.1.2 **SASRIA Coupon Policy** for Special Risks to be issued in joint names of Council and Contractor for the full value of the works (including VAT).

8.6.1.3 The limit of indemnity for **liability insurance**: **R 10 000 000.00**.

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 1 000 000.00**.
- 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: **R 20 000.00**.

Principal's own surrounding Property Insurance

- Minimum amount for any one occurrence unlimited as to the number of occurrences against any claim for damage which may occur to the Council's own surrounding property: **R 1 000 000.00**.
- Maximum first excess: **R 10 000.00**.

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."

10.5.1 **Dispute resolution** shall be by standing adjudication.

C1.2.2.2 DATA TO BE PROVIDED BY CONTRACTOR

1.1.1.9 The legal name of Contractor is:

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

1.2.1.2 The Physical address of the Contractor is:

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

The Postal address of the Contractor is:

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

The contact numbers of the Contractor are:

Telephone:

Fax:

The E-Mail address of the Contractor is:

.....

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

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

C1.2.3 ADDITIONAL CONDITIONS OF CONTRACT

C1.2.3.1 COMMUNITY LIAISON OFFICER

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

- The hours of work and the wage rate of the CLO (200% of the Civil Engineering Industry minimum wage).
- The duration of the appointment.
- The duties to be undertaken by the CLO which could include:
 - Assisting in all respects relating to the recruitment of local labour.
 - Acting as a source of information for the community and councillors on issues related to the contract.
 - Keeping the Contractor advised on community issues and issues pertaining to local security.
 - Assisting in setting up any meetings or negotiations with affected parties.
 - Keeping a written record of any labour or community issue that may arise.
 - Any other duties that may be required by the Contractor.

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

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

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

C1.2.3.2 EMPLOYMENT OF LOCAL LABOUR

It is a condition of contract that the contractor will be required to employ local labour as specified in eThekini Council Policy “The use of CLOs and Local Labour”. The contractor will be required to ensure that a minimum of 50% of the labour force is made up of local labour. For the purposes of this contract, “Local labour” will be deemed to be any **persons who reside within Ward 3**. 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 SUBCONTRACTING

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

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

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

- Number of days worked during the month;
- Daily wage rate;
- Number of training days during the month.

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

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

C1.2.3.5 PERFORMANCE MONITORING OF SERVICE PROVIDERS

[For contract awards over R10m] The Contractor shall be subjected to "Performance Monitoring" assessments in terms of the applicable Section (S.53) of the Employer's Supply Chain Management Policy.

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

C1.2.3.6 EXCEPTED RISKS (Clause 8.3)

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

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

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

a) CIDB Skills Standard

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

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

b) CIDB Indirect Targeting Standard

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

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

C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS

C2.1.1 GENERAL

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

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

Measurement and payment shall be in accordance with the relevant provisions of **Clause 8 of each of the Standard Engineering Specifications** referred to in the Scope of Work. The Preliminary and General items shall be measured in accordance with the provisions of C2.1.8.

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

Clause 8 of each Standard Engineering Specification, read together with the relevant clauses of the Scope of the works, set out what ancillary or associated work and activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standard Engineering Specification, or the Scope of the works, conflict with the Bill of Quantities, the requirements of the Standard Engineering Specification or Scope of the work, as applicable, shall prevail.

C2.1.3 QUANTITIES REFLECTED IN THE SCHEDULE

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

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Specifications and Project Specifications and the Drawings. Unless otherwise stated, items are measured

net in accordance with the Drawings, and no allowance has been made for waste.

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

C2.1.5 MONTHLY PAYMENTS

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

C2.1.4 PROVISIONAL SUMS / PRIME COST SUMS

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

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

C2.1.6 PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to

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

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

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

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

C2.1.7 "RATE ONLY" ITEMS

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

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

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

Tenderer shall however note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

C2.1.8 PRELIMINARY AND GENERAL

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

- Part AA: Preliminaries
- Part AB: General Specifications
- Part AH: Occupational Health and Safety

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

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

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

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

C2.2: BILL OF QUANTITIES

The Bill of Quantities follows and comprises of 23 pages. The pages are numbered BoQ 83 to BoQ 105

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
1	SABS 1200A & AB PSA	SECTION 1: PRELIMINARY & GENERAL FIXED CHARGE ITEMS				
1.1	8.3.1	All Contractual requirement for execution of contract	Sum	1		
1.2	8.3.2	Establishment of Facilities on Site				
1.2.1	8.3.2.1	<u>Facilities for Engineer</u>				
1.2.1.1	PSAB 1	a) Office (1 no. Portahomes) : To be suitable for site meeting room including furnishing Table & chairs as specified)	Sum	1		
1.2.1.2		b) Ablution units - min of 2 no. (including 25mm dia. Water connection to suitable Jojo Tank) and 2 shaded carports	Sum	1		
1.2.1.3	PSAB2	c) Project Nameboards	No	2		
1.2.1.4		d) Survey equipment & assistants	Sum	1		
1.2.1.5		e) Rain gauge	No	1		
1.2.2	8.3.2.2	<u>Facilities for Contractor</u>				
1.2.2.1	8.3.2.2	a) Office and storage sheds	Sum	1		
2.2.2.2		b) Ablution and latrine facilities	Sum	1		
1.2.2.3		c) Tools & Equipment	Sum	1		
1.2.2.4		d) Water supplies, electricity & communication	Sum	1		
1.2.2.5		e) Dealing with water	Sum	1		
1.2.2.6		f) Access	Sum	1		
CARRIED FORWARD						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
BROUGHT FORWARD						
	8.3.3	Any Other fixed obligations: Specify below				
1.2.2.7		a)	Sum	1		
1.2.2.8		b)	Sum	1		
1.2.2.9		c)	Sum	1		
1.2.2.10	C4.4 B.14.1	Initial Health & Safety Act obligations	Sum	1		
1.2.2.11	C4.4 B.14.3	Submission of Health and Safety File	Sum	1		
1.2.2.12	8.3.4	Removal of site establishment on completion of construction and general clean up of site	Sum	1		
TOTAL SECTION 1 CARRIED TO PART 1 SUMMARY: FIXED TIME RELATED P&G						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
BROUGHT FORWARD						
2.2.2.7		a)	Sum	1		
2.2.2.8		b)	Sum	1		
2.2.2.9		c)	Sum	1		
2.2.2.10	C4.4 B.14.2	Health & Safety Act, time related obligations	Sum	1		
2.2.2.11	8.4.3	Supervision for the duration of the contract	Sum	1		
2.2.2.12	8.4.4	Company and head office overhead costs for the duration of the contract	Sum	1		
Allow for the following additional items which require to be priced separately						
2.2.2.13	8.5	a) Compliance with all provisions and aspects of the Environmental Management Plan	Sum	1		
2.2.2.14	8.5	b) Community liaison officer	Prov. Sum	1		R952 500.00
2.2.2.15		c) Appointment of Employers Environmental officer	Prov. Sum	1		
2.2.2.16	8.5	Contractors markup on Prov Items items 2.2.2.15 ,2.2.2.17, 2.2.2.19 & 2.2.2.20 total of R2 542 100 .00	%	2 542 100.00		
TOTAL SECTION 2 CARRIED TO PART 1 SUMMARY						

SUMMARY - PART 1 - PRELIMINARY AND GENERAL			
<u>SECTION</u>	<u>DESCRIPTION</u>	Page No	<u>AMOUNT</u>
Section 1	Preliminary and General Fixed Charge Items		R
Section 2	Preliminary and General Time Related Items		R
CARRIED TO FINAL SUMMARY PAGE C2.6			R

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
PART 2						
	SANS1200 GCC 2015	SECTION 1: SITE CLEARANCE				
1	8.2.1 PSC 1, PSC 2, PSC 5	General clearance and grubbing where directed As below	m ²			
1.1		Below Platform footprint	m ²	16978		
1.2		Below road footprint	m ²	15473		
1.3		Stormwater trenches (Outside of road profile) Included in excavation	m ²	0		
2	B.8.4	Removal of large trees of girth between 1m and 2.5 m only on instruction of engineer and Eco	no	20		
3	B.8.5	Removal of wire mesh fence and store on site for re-use (Prov Item)	m	35		
4		Removal of informal structures to be disposed off site (of approximately 30m ²)	no	10		
5		Relocation of Electricity Poles	PROV. Sum	Sum		100,000.00
TOTAL SECTION 1 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		SECTION 2: ROADWORKS EARTHWORKS				
1	8.2	Excavate topsoil to nominal depth 150mm and stockpile	m ²	15473		
2	8.3.4 PSDM 3	Excavate soft/intermediate material and fill (including benching on steep slopes and graded to fall)	m ³	1800		
3	8.3.4 PSDM 2	Excavate soft/intermediate material and spoil on site at approved tip site, within 1km free haul (material to be spread and shaped.)	m ³	2500		
		Extra Over items 2 & 3 for:				
5	8.3.4	2) Excavation in hard material using suitable 30t plant .	m ³	200		
6	8.3.4	3) Hard rock excavation by blasting (Provisional)	m ³	100		
8	8.3.5/5.2.4.2/ PSDM 13	Compact fill material to 93% Mod. A.A.S.H.T.O. Using impact rollers.	m ³	750		
9	DA.8.3	Excavate unsuitable material below embankments or formation and spoil on site as directed by Engineer	m ³	250		
10	8.3.3 PSDM 11	Import dump rock for road bed	m ³	100		
11	8.3.3	Spread and compact dump rock fill material	m ³	100		
12	8.3.4	Import clean coarse Umgeni sand from contractors off- site source inclusive of haulage and royalties	m ³	100		
13	8.3.5/5.2.4.2/ PSDM 13	Compact coarse Umgeni sand	m ³	100		
14	PSDM 1.2	Trimming of embankments (cut & fill)	m ²	5,000		
15		G9 quality material from stockpile on site compacted to 93% Mod A.A.S.H.T.O, measured in fill	m ³	2,000		
					CARRIED FORWARD	

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
BROUGHT FORWARD						
16	8.3.5/5.2.4.2/ PSDM 13	Form, scarify and compact formation to 95% Mod A.A.S.H.T.O.	m ²	15 500		
17		Allow a PROV. sum for Engineers acceptance Testing (Geotech testing of material and compaction)	PROV. Sum	1	R 75,000.00	
18		Allow for additional survey required by Engineer	PROV. Sum	1	R 100,000.00	
EARTHWORKS TO PLATFORMS, FOUNDATIONS RAFT FOR HOUSES (ALL ITEMS PROVISIONAL)						
19	8.2	Excavate topsoil (100mm) and stockpile on site Approx. area 17000m ²	m ³	1700		
20	8.3.4 3 PSDM	<i>Excavation for raft foundations and apron slabs And Vip Measured in top structure bill (see section 3 Top structures)</i>				
21		Excavate unsuitable material below platform to a depth of 0.80m, and spoil as directed by Geotech/Engineer.	m ³	1500		
22	PSDM 1.2	Backfill undercut areas with suitable selected material from stockpile or as directed by Engineer	m ³	1000		
22	PSDM 1.2	Import suitable G7 quality material for platforms from commercial sources (prov item)	m ³	500		
23	8.3.5/5.2.4.2/ PSDM 13	Form, scarify and compact formation to receive fill under platform, compact to 95% Mod A.A.S.H.T.O.	m ²	8300		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
1	SANS 1200 ME & PSDM 8.3.5 4	GRADED CRUSHED STONE TO ROADS Import G2 gravel material from commercial Sources inclusive of haulage and royalties place/compact in 150mm layers to 98 % mod Aashto .	m ³	150		
2	8.3.5 4	Import G5 gravel material from commercial sources inclusive of haulage and royalties place /Compact in 150mm layers to 98% Mod Aashto	m ³	1500		
3	8.3.5 PSDM 4	Import G7 Fill material from commercial sources inclusive of haulage and royalties place /Compact in 150mm layers to 95% Mod Aashto	m ³	1200		
4	SANS 1200 MF	Imported material for C4 layer 150mm thick from commercial sources inclusive of haulage and royalties. Compact to 95% Mod Aashto	m ³	150		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		CONCRETE WORK				
1	C.8.1	Grade 25/19 concrete in Geolock wall base	m ³	15		
2	C.8.1	Grade 25/15 concrete in Vee drains (area 0.125m ²)	m ³	351		
3	C.8.2	High tensile steel fabric reinforcement ref: 245 in Vee drains and shutes	m ²	2860		
4	C.8.2	Grade 25/19 concrete in concrete shutes	m ²	10		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
1	EB.8.2 PS.EB.2	ROAD ASPHALT Prime coat at 0.7l/m ²	m ²	960		
2	8.5.4	9.5mm continuously graded wearing course of 40mm compacted thickness. Mix 'D'. Bitumen content of 5% (15% wastage allowed in measure)	t	110		
3	ED.8.3	Transverse joints	m	10		
4	ED.8.3	Longitudinal joints	m	20		
6	AA.ED	Saw cut existing road edge	m	20		
7	8.5.3	Tack coat at 0.3 l/m ²	m ²	960		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
1	8.2.1	KERBING AND CHANNELLING Mountable kerb and channel as per detail	m	240		
2	8.2.1	Extra over item 1 for curves of radius less than 25m	m	75		
3	8.2.1	Type A barrier kerb and channel (figure 6)	m	250		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		STEEL GUARDRAILS & CONC. MEDIAN BARRIERS				
1	8.2.1	Straight steel guard rails (including fittings)	m	20		
2	8.2.3	End wings (including fittings)	no	10		
3	EH.8.2.C	Precast concrete posts	no	20		
4	AA.EH.1	Precast concrete bollards as per drawing no 38580 (Type A)	no	0		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		PROTECTION WORKS				
1	8.2	Topsoiling from stockpile to embankments 100mm thick	m ²	5000		
2	F.8.3	Grass sodding	m ²	50		
3	F.8.3	Grass planting	m ²	50		
4	F.8.3	Hydroseeding	m ²	5000		
5		Surface preparation for gabions	m ²	50		
6	8.2.2 2.1.2 PSDK	Gabion boxes : 1000 mm depth	m ³	100		
7	8.2.2 2.1.2 PSDK	Reno Mattresses 300 depth	m ²	120		
8	8.2.4 2.2 PSDK	Supply and lay Bidum U24 or similar approved geofabric	m ²	100		
9	F.8.4	Stone pitching - 150mm deep	m ²	50		
10	PSGA 2	Concrete chutes down embankment complete as per detail including shuttering - width 1.00m - Type 2 (Concrete and reinf. Measured elsewhere)	m	50		
11	PSGA 2	Catchwater channel in concrete lining - width 0.75m complete as per detail - (including excavation spoil, formwork and shuttering)	m	25		
12	PSGA 2	Catchwater trapezoidal channel with concrete lining - width 2.0m complete as per detail - Type 1 (including excavation spoil, formwork and shuttering)	m	1405		
13		Allow PROV. Sum of R100 000.00 for improvements	PROV. Sum	1		R 100,000.00
14	8.3.2	Excavate in all materials, trim, backfill, compact and dispose of surplus within site for retaining walls	m ³	250		
15		Construct foundation to dry stack wall using class 25/19 concrete as per drawing (excavation measured elsewhere)	m ³	30		
CARRIED FORWARD						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
BROUGHT FORWARD						
16		Design and Construct dry stack retaining wall not greater than 2 high including backfill between banks compacted to 95% Mod AASHTO Using dry G400 STD blocks or similar approved	m ²	100		
17		Design and Construct dry stack retaining wall not greater than 3 high including backfill between cut bank and blocks compacted to 95% Mod AASHTO Using dry G400 STD blocks or similar approved	m ²	150		
18	8.2.4 2.2	PSDK Supply and lay geofabric (Kaymat U14 or equivalent)	m ²	1,500		
19		Concrete infill to top row of blocks	m ³	10		
20		Stabilised backfill material as directed by Engineer	m ³	100		
21	PG.8.1.2	Subsoil drain, 110mm PVC slotted pipe inclusive of bidum and 19mm stone as per detail	m	100		
22		Supply and install precast steps	no	500		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		REINSTATEMENT				
1	S.8.2, S.5.1.2	Temporary road reinstatement (150mm 4% cement stabilised crushed stone)	m ²	50		
2	S.8.2, S.5.1.2	Grade crushed stone	m ³	5		
3	S.8.2	Permanent road reinstatement, Type 1 150mm base 50mm wearing course	m ²	25		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
1	8.3.6	ROAD SIGNS Supply and erect traffic road signs: area < 2m ²	m ²	5		
2	TA.8.3	Excavate and backfill for road sign supports	m ³	5		
3	TA.8.4	Grade 20/19 concrete to road sign footings	m ³	5		
4	TA.8.2	Supply and erect hot dipped galvanised steel support	no	6		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		ROADMARKINGS				
1	8.4.1 (a)	Paint broken and unbroken white line 300mm wide using non-reflectionised paint	m	150		
2	8.4.1 (a)	Paint broken and unbroken white lines 100mm wide using non-reflectionised paint	m	150		
3	8.4.1 (a)	Paint broken and unbroken yellow lines 100mm wide	m	150		
4	8.4.1 (c)	White Characters and Symbols inclusive of premarking	m ²	10		
5	AA.TB.2	Removal of existing road marking	m ²	5		
TOTAL SECTION 2 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		SECTION 3: STORMWATER DRAINAGE EARTHWORKS FOR PIPE TRENCHES				
		Excavate in soft/intermediate materials for trenches 450 diameter stormwater pipes, backfill and and dispose of surplus/unsuitable material for depth: Clear and grub included.				
1	8.3.2 PSDB 2 PSDB3	a) Over 0.0m and not exceeding 1.0m	m ³	10		
2	8.3.2 PSDB 2 PSDB3	b) Over 1.0m and not exceeding 2.0m	m ³	800		
3	8.3.2 PSDB 2 PSDB3	c) Over 2.0m and not exceeding 3.0m	m ³	470		
4		d) Over 3.0m but not exceeding 4.0m	m ³	127		
5		e) Over 4.0m but not exceeding 5.0m	m ³	60		
8		Extra over items 1-6 for excavation in trench in hard material by non explosive methods. (Provisional)	m ³	100		
9		Extra over items 1-6 for excavation in trench in rock by blasting.(Provisional)	m ³	100		
10	8.3.2	Provision of selected granular material for bedding of pipe trenches from commercial or off-site source	m ³	150		
11	8.3.2 5 PSDB	Provision of selected backfill material for pipe trenches from designated borrow/stockpile area	m ³	150		
CARRIED FORWARD						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
BROUGHT FORWARD						
12	8.2 PSLB2.2	Placing and compacting of Class C bedding for 450 mm diameter pipe	m	620		
TOTAL SECTION 3 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		NON PRESSURE PIPELINES AND PROV. CULVERTS: STORMWATER				
		Supply and lay concrete spigot and socket pipes with rubber seats on Class C bedding:				
1	PG.8.2	450mm diameter concrete Class 75D pipe	m	200		
2	PG.8.2	450mm diameter concrete Class 100D pipe	m	450		
5	PG.8.12	Grade 15/26 concrete encasement to shallow pipes (Provisional)	m ³	5		
6	PG.8.5	Grade 15/26 concrete anchor blocks	m ³	10		
7	PG.8.1.2	100mm slotted PVC sub-soil drain in 300x300 crushed stone surround complete to detail including shade cloth	m	50		
TOTAL SECTION 3 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		MANHOLES AND APPURTENANT DRAINAGEWORKS				
		Standard inlet type S1. for depth:				
1	8.2.8	a) Over 0,0 and not exceeding 1,0 m	no	16		
2	8.2.8	b) Over 1,0 and not exceeding 2,0 m	no	4		
3	8.2.8	c) Over 2,0 and not exceeding 3,0 m	no	2		
		Manhole type A with heavy duty concrete for depth:				
4	8.2.8	a) Over 1,0 and not exceeding 2.0 m	no	4		
5	8.2.8	b) Over 2.0m and not exceeding 3.0m	no	4		
6	8.2.8					
10	8.2.8	Extra over items 21 & 22 for supply of heavy duty cast iron manhole cover and frame	no	4		
11	8.2.8	Brick headwall structure to 450 diam pipe complete as per drawing no. 385786	no	8		
13	8.2.8	19mm stone bedding as directed by Engineer	m ³	10		
TOTAL SECTION 3 CARRIED TO PART 2 SUMMARY						

Item	Payment Ref.	Description	Unit	Qty	Rate	Amount
		PRESSURE PIPELINES (Non steel pipes) (MPVC Water pipes)				
1	8.2.1	Supply and lay with joints 110mm diameter M.P.V.C. Pipe (class 16)	m	500		
2	8.2.1	Supply and install 45 deg. Bend on 110mm diameter U.P.V.C. Pipe	no	50		
3	8.2.1	Supply and install 90 deg. Bend on 110mm diameter U.P.V.C. Pipe	no	50		
4	8.2.1	Supply and install 75mm x 110mm dia junction	no	50		
			no	50		
5	8.2.1	Supply and lay with joints 75mm diameter M.P.V.C. Pipe (Class 16)	m	500		
6	8.2.1	Supply and install 45deg bend on 75mm diameter UPVC pipe	no	50		
7	8.2.1	Supply and install 90deg bend on 75mm diameter Upvc pipe	no	50		
8	8.2.1	Provisional sum for the any additional items required to construct water reticulation as per EWS drawings :	sum	1	R250 000.00	R250 000.00
TOTAL SECTION 4 CARRIED TO PART 2 SUMMARY						

Etafuleni Phase 3 - PROVISION OF ENGINEERING SERVICES AND 127
TOPSTRUCTURES AND VIPs FOR LOW COST HOUSING

PART 2 SUMMARY - CONSTRUCTION OF INFRASTRUCTURE			
SECTION	DESCRIPTION	Page No	AMOUNT
<u>Section 1</u>	<u>Site Clearance</u> Site Clearance	00	
<u>Section 2</u>	<u>Roadworks:</u> Earthworks Graded Crushed Stone Concrete Works Road Asphalt Kerbing and Channelling Steel Guardrails and Conc Median Barriers Protection Works Reinstatement Road Signs Road Markings	00	
<u>Section 3</u>	<u>Stormwater Drainage:</u> Earthworks for Pipe Trenches Non Pressure Pipelines and PROV. Culverts Manholes and Appurtenant Drainage Works	00	
<u>Section 4</u>	<u>Water (Provisional)</u> Pressure Pipelines	00	
SUBTOTAL			
ADD 10% CONTINGENCY			
CARRIED TO FINAL SUMMARY C2.6			

PART 3

TOP-STRUCTURE BILL OF QUANTITIES

Scope of works includes construction of 127 platforms.

Construction of 127 single storey units

(Rural specification ie no plumbing or sanitary fixtures in units)

Full Electrification of Unit if applicable

Installation of Ceilings, cornices with Trapdoor and Insulation

Construction of 127 Vips for Units (Complete as per detail)

Construction of Plinth and supply and installation of JoJo tank complete with gutters downpipes
and fittings (As per detail)

Etafuleni Phase 3 - PROVISION OF ENGINEERING SERVICES AND 127
TOPSTRUCTURES AND VIPs FOR LOW COST HOUSING

Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	Sans 1200 C & D	<p><u>SECTION 1</u></p> <p><u>EARTHWORKS</u></p> <p><u>PLATFORMS 10.675m x 9m in size (127 no.)</u></p> <p>Construct new earthwork platforms for raft foundations complete -by excavating in all materials and placing in fill (98% mod Ashto compaction) inclusive of benching in slopes steeper than 1:6 platform graded to fall 1:1.5 cut banks and 1:1.5 fill banks</p> <p><i>Inclusive of the following</i></p> <p><i>b) removal of minor rubble/Boulders from earthworks</i></p> <p><i>c) removal of trees of all girths</i></p> <p>Spread excess material on site . Material from clear and grubbing spoiled in suitable area on site.</p> <p><i>Excluding the following (measured under earthworks)</i></p> <p>a) Clear and grub</p> <p>b) Removal of topsoil</p>				
TOTAL SECTION 1 CARRIED TO PART 3 SUMMARY						

Etafuleni Phase 3 - PROVISION OF ENGINEERING SERVICES AND 127
TOPSTRUCTURES AND VIPs FOR LOW COST HOUSING

Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
2	Page 4	<p>SECTION 2</p> <p>RAFT FOUNDATIONS-EXCAVATIONS</p> <p>NOTES :</p> <p>i) The Bills of Quantities in this Section has been prepared in accordance with the Sixth Edition of the 'Standard System of Measuring Builders Work' issued by the Association of South African Quantity Surveyors.</p> <p>ii) Tenderers are referred to the 'Model Preambles for Trades (68) Edition' as published by the Association of South African Quantity Surveyors for the full description and specifications of the items included in this Section of the Bills of Quantities.</p> <p>EARTHWORKS</p> <p>SUPPLEMENTARY PREAMBLES</p> <p>Nature of ground</p> <p>EXCAVATION , FILLING ETC</p> <p>Excavation in all materials not exceeding 1m deep including backfilling and compacting holes, over excavations etc. To 98% mod AASHTO to create 250mm wide trenches for raft beams. Excess material spread on site.</p> <p>Spread material on site</p> <p>a) Type 1 (4m³ per raft)</p>				
2.1			m ³	570		
2.2		<p>As above :</p> <p>680mm deep x 680mm square holes for mass concrete pads under raft beam excavations (50 No. scheduled) Prov Item</p>	m ³	10.8		
2.3		<p>Surface preparation concrete surround slab (1m wide apron slab).</p> <p>Excavation and compaction of ground surface under slabs including scarifying for a depth of 150mm, breaking down oversized material adding suitable fill where necessary and compacting to 95% Mod AASHTO density .</p>	m ³	1695		
2.4		<p>SOIL POISONING</p> <p>Soil insecticide (127 Units) with certificate</p> <p>Under floors, etc including forming and poisoning shallow furrows against foundation walls, etc filling in furrows and ramming (may not be required).</p> <p>Provisional Sum</p>	m ²	7712		
TOTAL SECTION 1 CARRIED TO PART 3 SUMMARY						

Etafuleni Phase 3 - PROVISION OF ENGINEERING SERVICES AND 127
TOPSTRUCTURES AND VIPs FOR LOW COST HOUSING

Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
3	Page 6	<p>SECTION 3</p> <p>CONCRETE, FORMWORK AND REINFORCEMENT –RAFT FOUNDATIONS</p> <p>Mass Concrete pads under raft foundations 680mm square x 680mm deep. (50 No. Pad scheduled) 10Mpa concrete</p>				
3.1		Reinforced concrete cast against excavated surfaces and formwork 25MPa/19mm concrete for raft foundations	N/A	762		
3.2		Reinforced concrete cast against excavated surfaces and formwork 25MPa/19mm concrete for Apron slabs	m ³	130		
3.3		<p>CONCRETE SUNDRIES</p> <p>Finishing top surfaces of concrete raft smooth with a power float finish.</p> <p>Raft Surface , slabs, etc</p>	m ²	5080		
		ROUGH FORMWORK (DEGREE OF ACCURACY II)				
3.4		Rough formwork to raft foundation sides				
3.4.1		Edges, risers, ends and reveals not exceeding 150mm. (6.675m x 6m)	m	3220		
2.3.2		Edges, risers, ends and reveals not exceeding 100mm for Apron slab	m	1695		
		REINFORCEMENT				
2.4.1		<p>Mild steel reinforcement to structural concrete work</p> <p>Bars of various diameters for raft foundation</p>	t	8		
2.4.1.1		<p>High tensile steel reinforcement to structural concrete work</p> <p>Bars of various diameters for raft foundation</p>	t	20		
2.4.1.2		High tensile steel reinforcement for openings around blockwork (As per NHBRC req.)	t	5.5		
						CARRIED FORWARD

Etafuleni Phase 3 - PROVISION OF ENGINEERING SERVICES AND 127
TOPSTRUCTURES AND VIPs FOR LOW COST HOUSING

Item	Payment Ref	Description	UNIT	QUANTITY	RATE	AMOUNT
BROUGHT FORWARD						
2.9	Page 6	Fabric reinforcement Type 193 fabric reinforcement in raft concrete surface beds .	m ²	5080		
2.9.1						
2.9.2		Type 156 fabric reinforcement in Apron slab concrete surface beds	m ²	1695		
2.9.3		CONCRETE SUNDRIES Making and testing 150mmx 150mm concrete strength test cubes for acceptance testing on instruction by the engineer (Prov. Sum)	No	100		
TOTAL SECTION 2 CARRIED TO PART 4 SUMMARY						

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Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
3	Page 14	<u>SECTION 3</u>				
3.1		WATERPROOFING DAMPROOFING OF FLOORS				
3.2		One layer of 250 micron "Consol Plastics Gunplas USB Green" waterproof sheeting sealed at laps with "Gunplas Pressure Sensitive Tape" or similar approved. Under raft foundations including bottom and sides of raft beams (68m ²)	m ²	8636		
TOTAL SECTION 3 CARRIED TO PART 3 SUMMARY						

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TOPSTRUCTURES AND VIPs FOR LOW COST HOUSING

Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
4	Page 11	<p>SECTION 4</p> <p>MASONRY :BLOCKWORK</p> <p>BLOCKWORK : DESCRIPTIONS</p> <p>Blockwork shall comply with SANS 0145 "Concrete Masonry Construction</p> <p>Blocks shall comply with SANS 1215 and shall bear the SABS mark</p> <p>All blocks must be saw cut and not broken with a trowel and prices must include for this</p> <p>All blocks are to have a minimum compressive strength of 7 Mpa for double storey units and 3.5 Mpa single storey units : Laid in class 2 mortar.</p> <p>Samples of Blocks requested by the engineer for testing will comprise of a minimum of 30 units for every 30 000 delivered.</p>				
4.2		M150 Blockwork in "Corobrik Corocrete Coroblok" or equal . SABS approved 3.5Mpa concrete masonry blocks laid in Class 1 cement mortar inclusive of Narrow widths	m3	127000		
4.3		M100 Blocks for Shower	m3	254		
4.4	4.4.1	<p>Blockwork Sundries</p> <p>10Mpa Concrete for filling of blocks around openings</p>	m3	127		
SUB TOTAL CARRIED FORWARD						

Etafuleni Phase 3 - PROVISION OF ENGINEERING SERVICES AND 127
TOPSTRUCTURES AND VIPs FOR LOW COST HOUSING

Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
4.4.2	Page 11	<p style="text-align: center;">BROUGHT FORWARD</p> <p><u>SECTION 4</u></p> <p>Galvanized Blockwork Reinforcement (Blockforce) 100mm wide Blockforce reinforcement built into blockwork every second course</p>	m	41910		
4.4.3		<p>Precast Concrete Lintels</p> <p>Prestressed Prefabricated concrete lintels for M150 block :</p> <p>a) Not exceeding 1m b) Not exceeding 1.4m</p>	No. No.	127 1016		
4.4.4		<p>Galvanised Hoop Iron ties :</p> <p>30 x 1.6mm wall ties 500mm long with both ends built into block work for intersecting walls.</p>	m ³	5334		
4.4.5		30 x 1.6mm roof ties 1.5m long built 600mm into blockwork and looped over truss.	No	2032		
4.4.6		One layer of 375 micron "Consol Plastics Brikgrip DPC" embossed damp proof course built into blockwork under window cills	m	1016		
TOTAL SECTION 4 CARRIED TO PART 3 SUMMARY						

Etafuleni Phase 3 - PROVISION OF ENGINEERING SERVICES AND 127
TOPSTRUCTURES AND VIPs FOR LOW COST HOUSING

Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
5		<u>SECTION 5</u> ROOF COVERING TILES 420mm x 332 "Marley" or double roman concrete tile laid on 400 micron under tile membrane with 150mm laps. Fixed with two rows of storm clips. Nailed to 38x38 battens at 320mm centers. Roof pitch 17.5 degs				
5.1			m2	6985		
5.2		Apex ridge tile to match existing tiles including soaker underlay . Bedded in 1:3 cement mortar.	m	900		
5.3		All shop drawings to be submitted to the engineer for approval. Design manufacture , supply and hoist into place suitable timber roof trusses complete with wall plates , roof bracing , design for live wind and live loads and tile loads . including paint protection to exposed eaves. 6.675m x6m	No.	127		
TOTAL SECTION 5 CARRIED TO PART 3 SUMMARY						

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Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
6	Page 17	SECTION 6 CARPENTRY AND JOINERY EAVES : Everite FC 77 or equally approved pressed fibre cement 225mm x 10mm Fascia board including galvanized H profile joining strip	m	1695		
6.1		200mm x 80mm Barge boards including galvanized H joining strips .	m	2032		
6.2		Doors Hollow core flush door with commercial veneer on both sides suitable for painting or varnishing hung on steel frames. (internal)	No.	381		
6.3		44mm framed ledged and braced batten Hardwood 813mm x 2032mm doors. External door Saligna or Meranti. Supplied with two coats of Varnish or paint according to manufacturer's recommendations	No	254		
TOTAL SECTION 6 CARRIED TO PART 3 SUMMARY						

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Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
7	Page 23	SECTION 7 IRONMONGERY				
7.1		LOCKS : Two level mortice lockset with chrome plated finish. Striking plated include(Internal doors). (SABS approved)	No	381		
7.2		Three lever Mortice lockset with chrome plated finish Striking plate include(external doors)	No	254		
TOTAL SECTION 7 CARRIED TO PART 3 SUMMARY						

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Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
8	Page 25	SECTION 8 METAL WORK GALVANISED PRESSSED STEEL DOORFRAMES/WINDOW FRAMES : Durowin or Equally approved double rebated 1.2mm thick steel doorframe with adjustable striking plate and steel hinges , rubber buffers to lock jambs and fixing lugs welded on. For M150 block wall				
8.1			No	635		
6.2		Durowin or equally approved standard residential windows : a) NE 1 533mm x 654mm b) NC2 1022mm x 949mm c) NC1 533mm x 949mm	No No No	127 254 127		
TOTAL SECTION 8 CARRIED TO PART 3 SUMMARY						

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Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
9	Page 29	SECTION 9 PLASTER /BAGWASH FINISHES				
9.1		PLASTER : 10mm plaster to all external walls , inclusive of surface preparation ,touch ups and narrow widths . Final plaster finish to be smooth , free of all blemish.	m2	10160		
9.2		One Coat cement bagwash to all internal walls inclusive of narrow widths touch ups etc. Final surface to be suitable to receive a coat of paint at a later date.	m2	15240		
TOTAL SECTION 9 CARRIED TO PART 3 SUMMARY						

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Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
10	Page 29	<p><u>SECTION 10</u></p> <p>GLAZING</p> <p>GLAZING :</p> <p>Glazing to all steel windows inclusive of back putty and putty.</p> <p>4mm Clear Float glass :</p> <p>a) Panes exceeding 0.5m² but not exceeding 2.0m²</p> <p>4mm Obscure glass:</p> <p>a) Panes exceeding 0.1m² but not exceeding 0.5m² (Ne1)</p>				
10.1			m2	311		
TOTAL SECTION 9 CARRIED TO PART 3 SUMMARY						

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Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
11	Page 42	<p><u>SECTION 11</u></p> <p>PAINTWORK</p> <p>Exterior Painting One coat "Alkali" resistant primer to prepared plastered surfaces .One undercoat and two final coat approved PVA exterior emulsion paint (in accordance with sans 1091) various colors (TBA)</p>	m2	9525		
TOTAL SECTION 11 CARRIED TO PART 3 SUMMARY						

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Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
12	Page 32	<p>SECTION 12</p> <p>PLUMBING</p> <p>Supply all components fittings fixtures etc. And construct complete Vip with urine diversion as per the attached detail . Price to include for excavation, backfilling making good and spreading of surplus material</p> <p>Supply all components fittings fixtures etc. And construct complete JoJO tank stand with 2500 liter tank per the attached detail . Price to include for excavation, backfilling making good and spreading of surplus material</p>	No	127		
12.1			No	127		
12.2						

TOTAL SECTION 12 CARRIED TO PART 3 SUMMARY

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Item	Payment Ref	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
13	Page 42	<u>SECTION 11</u> PAINTWORK Supply and install complete : Ceilings 6.5mm gypsum ceiling board with timber brandering edge cornices, jointing tape and skimming etc. To include for a suitable trap door final painting etc. (6.m x 6.75m). Inclusive of 50mm insulation in ceiling above brandering.	No	127		
13.1						
13.2		Supply and install complete electrical reticulation to units as shown with all fitting and fixtures. To be fully functional on completion.	No	127		

TOTAL SECTION 11 CARRIED TO PART 3 SUMMARY

PART 3 SUMMARY

SECTION	DESCRIPTION	Page No	AMOUNT
Section 1	RAFT FOUNDATION -EXCAVATIONS		R
Section 2	CONCRETE FORMWORK AND REINFORCING		R
Section 3	WATERPROOFING		R
Section 4	MASONRY		R
Section 5	ROOF COVERING		R
Section 6	CARPENTRY AND JOINERY		R
Section 7	IRON MONGERY		R
Section 8	METAL WORK		R
Section 9	PLASTERING/BAGWASH AND FINISHES		R
Section 10	GLAZING		R
Section 11	PAINTWORK		R
Section 12	PLUMBING (Vips) AND JOJO TANKS		R
Section 13	MISALLANEous ITEMS		R
TOTAL TO BE CARRIED FORWARD TO FINAL SUMMARY:			R

SIGNED ON BEHALF OF TENDERER: _____

FINAL SUMMARY								
SECTION	DESCRIPTION	PAGE NO	AMOUNT					
<u>Part 1</u>	<u>Preliminary and General</u>							
<u>Part 2</u>	<u>Civil Infrastructure</u>							
<u>Part 3</u>	<u>Top Structures</u>							
<hr/>								
SUBTOTAL (A)								
Particular Spec. PI 10.2	ADD % Mark-up on the Value of Work Carried out by SUBCONTRACTING Contractors	UNIT	QUANTITY	RATE	TOTAL			
	SUBCONTRACTING VALUE of 30% OF THE TENDED SUM OF PARTS 2 AND 3	%						
<hr/>								
SUBTOTAL								
<hr/>								
15% VAT								
<hr/>								
TOTAL CARRIED TO FORM OF TENDER								

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C3.1: PROJECT DESCRIPTION AND SCOPE OF CONTRACT

C3.1.1 Description of Works

The works will take place within the proposed township of Etafuleni Phase 3 which is a Greenfields project. Owing to the urgency of this project , the project will be carried out with the construction of the platforms and units concurrently with the proposed services as soon as access becomes available to the sites -ie earthworks for roadworks substantially completed.

The proposed development is a Low-Cost Housing Project that will comprise the construction of water (Subject to approval by EWS) , Vips, stormwater (including Jojo tanks) and road infrastructure, together with the construction of 127 low cost housing. A portion of the works as stipulated withing the SUBCONTRACTING section of the document which will be ceded to locally sourced Sub-Contractors. The two roads intersection the provincial main road ie MR93 will be premixed and have kerb and channels up to a distance of approximately 70m before transitioning to a gravel road.

The project consists of a total of 127 sites which are located within ward 3 of the Inanda area. Access is off the provincial main road MR93 .The project is located within the Inanda area within EThekwin and is aimed at providing homes for people displaced by the recent storm events that affected the communities living near the Inanda dam area. The project may be presented with some challenges such as threat of land invasions , poor geotechnical conditions, resulting in large undercuts in the roads and the use of specialized dump-rock / ground improvements and large volumes of rock outcrops resulting in the use of blasting and specialized excavation equipment.

The Works are comprised of 3 different Parts under the following headings:

Part 1: Preliminary & General Items

Part 2: Internal Infrastructure

Part 3: Top-structures (Including the foundations) /Vips/jojo tanks

Part 1: Preliminary & General Items and Internal Infrastructure

- Site Establishment and Contractual Requirements
- Implementation of the Contractor's Health and safety plan
- Compliance with the Environmental Management Plan
- Accommodating other contractors and service providers on the site

Part 2: Internal Infrastructure

- Clearing and grubbing of the site for all pipe services, roads and earthworks to platforms
- The construction of clear and grub and earthworks for roads and clear and grub for platforms to residential units. (*Earthworks for platforms are measured under top structure*)
- The construction of two asphalt surfaced Main collector roads (chainage 0 to 70m with kerb and channel) intersecting the Existing MR93 road the remaining gravel internal roads with Vee drains. Crossings in the form of precast Dog bone drains over the vee drains will be provided to allow light vehicle access to the sites.
- Construction of dry stack retaining walls and gabion headwalls where applicable.
- Stormwater drainage consisting of kerb and channel / Vee drains , stormwater inlets, manholes, excavation of trenches, and laying of stormwater pipes and outlet structures.
- Outlet structures will have 300mm reno mattress protection where applicable.

- In addition, if required the contractor may have to construct the Water reticulation, which includes the excavation of trenches, laying of water pipes, erf connections including the water meter, manifolds, installation of valves and fire hydrants and cutting into existing water pipes. (Materials if supplied by eThekweni municipality may require collection from the nearest depot).
- The installation of sub soil drains (as per the detail) where required.
- The construction of Geolock 400 drystack walls.
- Road line marking and signage on the premix portion of the road.
- Construction of foundations and slabs for 127 Low-Cost residential units by main-contractor.
- All units are founded on Reinforced concrete raft foundations. Construction of block work on the completed raft foundations will only be permitted after the NHBRC inspectors have inspected and approved the completed works. The main contractor is to ensure that documented proof of the necessary approvals accompanies all certificates for payment.

Part 3: Top Structures :

Construction of 127 Low-Cost residential units Urban specification.

- Construction of foundations and slabs for 127 Low-Cost residential units by main-contractor.
- All units are founded on Reinforced concrete raft foundations. Construction of block work on the completed raft foundations will only be permitted after the NHBRC inspectors have inspected and approved the completed works. The main contractor is to ensure that documented proof of the necessary approvals accompanies all certificates for payment.

All Sub-Contractors and will be supervised and monitored by the Main-Contractor.

- The Top Structure component consists of the housing typology as depicted on the attached drawings (a portion will be ceded to locally sourced Sub-Contractors) will be managed and monitored by the Main-Contractor who will be registered with NHBRC.
- Typology is a single storey free standing unit of approximately 40m² in area.
- M150 Concrete block strengths are as follows:
- Single storey : 3.5 Mpa crushing strength
- Contractor may be required to collect 180l municipal water tanks from nearest depot and install as per the relevant detail.
- Apron slab to be constructed only after all underground services to the unit have been installed. (if applicable)

C3.1.2 Description of Site and Access

The site etafuleni phase 3 is located in ward 3 of the Inanda area . North of Durban, within eThekweni Municipality, KwaZulu-Natal.

Vehicular access to the site is via existing premixed provincial main MR93, leading to the site from the Verulam /Gopalall Hurbans Road intersection .

refer to: Locality Sketch (if Applicable)

C3.1.3 Nature of Ground and Subsoil Conditions

In terms of topography, the site displays undulatory terrain with variable landforms and slope aspects. Gradients are generally moderately steep to steep slopes near drainage lines and associated valleys. Landforms include hillsides, valley heads and valley bottoms.

No unstable areas were identified within the development areas, however indiscriminate development of the site with no benching of fills, poor fill bed prep and poorly compacted embankments and can lead to instability of slopes

Two well defined prominent drainage lines rain bisect the site. Hydrophytic vegetation were observed within the site indicating the potential for perched water tables requiring subsoil drainage.

The site is predominantly a Greenfields project. However this does not precluded the existence of possible informal structures within the project/site footprint or close proximity of the project boundaries. Stormwater controls have been formalised along the Provincial Premix roads MR 98 and MR93, which border the site, and no stormwater from the development will be permitted to discharge onto these roads or road reserved.

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 **Subcontracting** (SUBCONTRACTING) 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 Subcontracting (SUBCONTRACTING) 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 goal
 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
Business Management		
5 & 6	5	<ul style="list-style-type: none"> • National Occupational Qualification in Business Management NQF 5
2 to 4	2	<ul style="list-style-type: none"> • National Certificate: Construction Contracting NQF 2
Building and Construction Works Management		
5 & 6	5	<ul style="list-style-type: none"> • National Certificate: Management of Building Construction Processes NQF 5
2 to 4	3	<ul style="list-style-type: none"> • NCV 4: Civil Engineering and Building Construction, or • National Certificate: Supervision of Construction Processes
Civil Engineering Construction Works		
5 & 6	5	<ul style="list-style-type: none"> • National Certificate: Management of Civil Engineering Processes NQF 5, or • National Diploma: Civil Engineering and Building Diploma
2 to 4	3	<ul style="list-style-type: none"> • NCV 4: Civil Engineering and Building Construction or • National Certificate: Supervision of Construction Processes, or • Further Education and Training Certificate: Supervision of Construction Processes

C3.2: PROJECT SPECIFICATION

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 extended to the public at all times.

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

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

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

PS.1.3.3 Traffic Safety Officer

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

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.

[If you think necessary, draw special attention to major services.]

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 eThekini 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 eThekini 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 eThekini 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.4: Sewers;**
- **PS.5: Stormwater;**
- **PS.6: Electrical Cables / Lighting;**
- **PS.7: Telkom / Neotel;**
- **PS.8: CCTV;**

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

PS.2.4 Accommodation of Services

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

PS.3 WATERMAINS

PS.3.1 General

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

[Note: It is important to briefly describe the work envisaged and the time required for this work where other organisations are involved. Particular attention should be paid to tie-ins to the existing live mains which normally have to be done by the Water Supply Branch even if the installation of the new main is included in the contract.]

PS.3.2 Water Main Valve Access

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

Whatever method the Contractor chooses to use for this work, the cost of raising the valves from existing level to ultimate level shall be paid only once, irrespective of the number of times the valve is uncovered. Spacer rings required for the height adjustment of valve covers shall be supplied by the ETHEKWINI 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

This section includes the supply and installation of the sewer reticulation, including manholes.

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

This section includes the supply and installation of the stormwater reticulation and manholes. This section also includes the installation of subsoil drainage.

PS.5.1 Blockage Stormwater Sewers

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

PS.6 ELECTRICAL PLANT

PS.6.1 General

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

PS.6.2 Street Lighting

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

PS.6.3 MV / LV Cables

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 eThekwini Electricity and it is stressed that the **two** week period referred to in Clause PS.2 is the minimum period required to enable eThekwini Electricity to be on site timeously.

PS.6.4 Relocation of Existing Services

Should it be necessary to adjust the line, level and / or position of any service not catered for in the contract to enable the construction to proceed the Contractor shall on no account effect such adjustment himself but shall notify the 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 OHSA 1993 Construction Regulations 2014 issued on 7 February 2014 by the Department of Labour.

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

PS.10.2 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.

PS.11 SITE SECURITY

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

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

The Contractor is to take note of the prevailing security rate in the rate area, together with the allowable PSIRA rates for security when pricing this item.

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

Payment for this item shall be made under Section 1, Part AB of the Bill of Quantities.

PS.12 PERFORMANCE MONITORING OF SERVICE PROVIDERS

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

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

The following KPIs will be applicable to this contract:

- (a) Service site – access road, water, sanitation and stormwater
- (b) House/Unit – slab, wall plate, roof and finishes

PS.13 CIDB BUILD PROGRAMME

a) CIDB Skills Standard

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

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

The

b) CIDB Indirect Targeting Standard

It will be a condition of contract that the Contractor shall, in the performance of the contract, achieve the **Subcontracting (SUBCONTRACTING)** 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.

In no uncertain terms

PS.13 Topstructures

The Tender Data contained in this section is applicable only to the constructing of the top structures and shall have precedence in the interpretation of, or any ambiguity or inconsistency between it and the Standard Conditions of Tender mentioned elsewhere in the document.

PS.13.1 **Tender documents applicable to construction of topstructures:**

The Standard Tender Documents issued by the Employer as listed on the INDEX page of the tender document.

Top Structure Drawings, accompanying the Tender Document.

Contract Price Adjustment Formula as stated in the CONTRACT DATA, shall be applicable to this section of the contract.

Preliminaries: The “ASAQS (ASSOCIATION OF SOUTH AFRICAN QUANTITY SURVEYORS) PRELIMINARIES, NOVEMBER 67,” as amended in the SPECIAL CONDITIONS OF CONTRACT, shall be applicable to this contract.

Trade Preambles: The “Model Preambles for Trades – 68”, as recommended by The Association of South African Quantity Surveyors shall apply to this section of the contract and is obtainable from the Association of South African Quantity Surveyors or Building Industries Federation South Africa (BIFSA).

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 part of the tender 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 participation of targeted enterprise and labour.

- The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations 63 (Government Gazette No 25207 of 18 July 63, Notice No R1010).
- The Construction Industry Development Board Act No 38 of 68 and the Regulations in terms of the CIDB Act 38/68, Government Notice No 692 of 9 June 64.
- The Preferential Procurement Policy Framework Act No 5 of 68, and the Preferential Procurement Policy Framework Act Regulations (2017).

PS.13.2 Sub-Contracting of the Top Structure Contract:

Prospective tenderers are to take note that they will be required to sub-contract the **the works**, i.e. Civil and Top structure part, to appropriately graded CIDB CE/GB or CEPE/GBPE sub-contractors with valid CIDB/NHBRC registration from within the ward area of the project. To assist the main contractors in achieving this requirement, the employer will endeavour to provide prospective tenderers with a list of suitable eligible subcontractors from within the project ward area during the execution phase of this project. In the event of there not being any suitable contractors within the project ward area or immediate surrounding areas, the appointed contractor shall be permitted to source suitable qualifying (CIDB and NHBRC registrations) sub-contractors from within the eThekini Municipality boundary. It will remain the sole responsibility of the main contractor to Plan, manage and monitor the work undertaken by the subcontractors under their control until practical completion is achieved on the top structures.

PS.13.3 Practical Completion for Top-Structures

On achievement of practical completion of the top structures, the contractor is required to hand over manuals etc. related to the works as listed in the table below to achieve final completion:
(N/A denotes not applicable to project)

1) Soil poisoning certificate	2) Test cube results for foundations
3) Signed Inspection sheets	4) TR1 certificate for trusses supplied
5) Electrical certificate.	6) D1 form for NHBRC

PS.14 Employment of Local Labour

The Sub contractors will be required to employ local labour as specified in the Relevant project Specifications - "The Use of CLOs and Local Labour" of this Contract document. The contractor will be required to ensure that a minimum of 50% of the labour force on the top structure is made up of local labour. For the purposes of this contract, "Local labour" will be deemed to be any persons who reside within the ward areas of the project. 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 main contractor and sub-contractor will remain responsible for providing proper supervision of all labour, and will be responsible for the quality of work produced

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	Waterbound Macadam Base
PS EL	Dumprock 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 P.C 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

1. PSA

General

Clause	525 A Clause No.	Action required
PSA 1	3 add:	<p><u>Ordering of material</u> The quantities set out in the Bills of Quantities have been determined from calculations based on data available at the time and should therefore be considered to be only approximate quantities. The liability shall rest entirely and solely with the Contractor to determine before ordering, the required types and quantities of the various materials required for the completion of the Works in accordance with the Specifications and the Drawings issued to the Contractor for construction purposes.</p> <p>Any reliance placed by the Contractor on the estimated quantities stated in the Bills of Quantities issued for tendering purposes, or measurements made by the Contractor from the drawings issued for tendering purposes, shall be entirely at the Contractor's risk, and the Employer accepts no liability whatever in respect of materials ordered by the Contractor on the basis of Tender Documents.</p>
PSA 2	3.1 add :	<p><u>Quality and Samples.</u></p> <p>The Contractor shall, deliver to an approved testing laboratory, samples of materials to be used in the Works.</p>
PSA 3	4.2 add :	<p><u>Contractor's facilities:</u> Contractor shall provide sheds for storage of materials and offices for his own use as required.</p> <p>No housing facilities are available for the Contractor's employees, and the Contractor shall make his own arrangements to house his employees and to transport them to Site. Housing facilities are to be in compliance with the requirements of the Labour Division, Department of Interior, KwaZulu Natal Provincial Government.</p>
PSA 4	4.2 add :	<p><u>Water Supplies:</u> All water for the Work shall be of adequate quality and ample quantity for the purposes required. The Contractor shall make his own arrangements and be solely responsible for the supply, cartage and storage of water required for the construction of the Works. Where the Employer controls existing water supplies and make these available to the Contractor, the Contractor shall arrange this with the Employer and pay the charges stated by the Employer.</p>
PSA 5	4.2 add :	<p><u>Light and power supply:</u> The Contractor shall make his own arrangements and be solely responsible for the supply of such electricity and power and pay all charges in connection therewith.</p>
PSA 6	4 add :	<p><u>Plant:</u> The Contractor shall supply plant and equipment in sound working condition and of adequate capacity to complete the works well within the stipulated time limit. In addition he shall have available adequate standby plant to maintain planned outputs.</p>

PSA 7	5.2 add :	<p><u>Accommodation of traffic</u></p> <p>Where the work borders on or intersects existing roads and where the works affect the operation and / or safety of road-users, the Contractor shall erect adequate traffic signs that conform to the requirements of the latest edition of the S.A. Road Traffic Signs Manual, maintain and keep them in good order.</p> <p>The Contractor shall take the necessary care at all times in all his operations and use of his equipment to protect the public and to facilitate the movement of traffic – Clause 5.1 SANS 1200 D has reference.</p> <p>The Contractor will be required to submit to the Engineer for approval a layout plan indicating traffic accommodation for the works for each set up. Approval of each set up by the Engineer will not in any way preclude the Contractor from his responsibilities regarding traffic accommodation. The Contractor must employ a full time traffic and safety officer for the duration of the contract. The officer will be responsible for all safety and traffic accommodation related matters.</p> <p><u>Access to and within the Site:</u></p> <p>The Contractor shall ensure that there is sufficient access to and within the site at all times to allow residents access to their dwellings. In this regard, the Contractor must ensure that other service providers and Contractors are able to obtain access to their services during all times. Indiscriminate closures of areas will not be permitted. The Contractor must obtain written approval from the Engineer for each new access created within the site, and closures of existing accesses.</p>
PSA 8	6.2	The Contractor shall construct each of the various parts of the works to degree II accuracy, except where otherwise specified.

2. PSAB Engineer's Office

Clause	525 AB Sub-Clause No.	Action required
PSAB 1	3.2 amend/add	<p>In addition to the Office/Boardroom requested in the document for Engineers use, however should the need arise for alterations or additions to this office and associated facilities during the duration of the Contract, it will be communicated to the contractor, to price and undertake .</p> <p>A provisional sum has been allowed for this under Section 1: P&G – Fixed Charge Items (sub-item 1.2.1.2) of the bill of quantities.</p> <p>Any costs falling outside the monthly costs, which are covered under the Time Related Items, will be recovered from this Provisional Sum.</p> <p>The Contractor is at liberty to select the design and specification that he deems most suitable for any alterations or additions required, which is subject to the acceptance by the Engineer, and upon the Engineer's written instruction, the Contractor shall supply and install.</p> <p>The Engineer, reserves the right to accept or decline any part or all of the design and/or specification presented by the Contractor, and to source the same elsewhere. In the event that the Engineer elects alternative supplier/s, payment will be made from the above-mentioned Provisional Sum and the maximum mark-up payable to the Contractor for the sums paid to alternative suppliers, shall be five percent (5%).</p> <p>The Contractor shall maintain and insure at his own cost, all the facilities of the Engineer, for the full Contract Duration.</p>
PSAB 1 Continued	3.2 amend/add	<p>Electricity and lighting:</p> <p>The Contractor shall pay for the monthly supply and consumption cost for the Contract Duration. The ownership of the installation transfers to the Employer, at the end of the Contract.</p>
PSAB 1	3.2 add/amend	<p>Access, parking and security</p> <p>The parking area and offices are to be guarded 24 hours a day, seven days a week.</p> <p>The Contractor shall pay the monthly security and maintenance costs for the Contract Duration. The ownership of the installation transfers to the Employer, at the end of the Contract.</p> <p>Storage Facility:</p> <p>The Contractor shall provide, for the Engineer, a lockable, weatherproof container (18m²), for storage of tools and equipment, for the duration of the Contract, located in the Engineers yard. (not required)</p> <p>Security Hut:</p> <p>1 No. 2m x 1.2m security hut, with stable door and window. Hut to be weather proof, with flooring and outside lights and 1m roof overhang at the door.</p> <p>The Contractor shall pay for the full installation cost. The ownership of the installation transfers to the Employer, at the end of the Contract.</p>
PSAB 1	3.2 add/amend	<p>Printing:</p> <p>Expected duty cycle for 300 colour prints and 525 black prints per month. Single day cycle up to 200 prints.</p> <p>The Contractor shall pay the monthly running costs through the Time Related Item. (not required)</p> <p>Stationary:</p> <p>1500 sheets 80gram paper per month, of acceptable quality for the printer.</p> <p>Colour and black printing cartridges for printer, for duration of the Contract.</p> <p>The Contractor shall pay the monthly costs through the Time Related Item. (Not required)</p>

		<p>Testing, Measuring and Safety Equipment: 1 x DCP testers complete, including 2 additional shafts and spare cones (Dick King Lab Supplies or equivalent). 3 x 30 meter Stanley glass fiber tape measure. 5 x 5 meter Stanley retractable steel tape measure. 3 x 3 meter boning rods with adjustable cross bar. 1 x Geologists Hammer. 4 x zip front reflective sleeveless safety jackets for Municipal/Engineers staff when on site . 4 x Yellow hardhats for Municipal/Engineers staff. 4 x gum boots for Municipal/Engineers staff. The Contractor shall pay for the full supply cost. The ownership of the equipment transfers to the Employer, at the end of the Contract.</p>
PSAB 1	3.2 add/amend	<p>Materials, equipment and workmanship supplied in terms of this specification, must be in good working order, and as new. Sub-standard goods will not be accepted by the Engineer.</p> <p>The Contractor shall maintain and insure all the Engineers Facilities for the duration of the Contract.</p>
PSAB 1 continued	3.2 amend/add	<p><u>Laboratory facilities:</u> No laboratory for use by the Engineer will be required. However, the Contractor shall provide and maintain his own equipment to do all the soil and density tests required to enable him to fulfil his obligations in terms of the Specifications in this regard. The Contractor shall make available and maintain (including valid calibration certificate) for the Engineer, a Troxler Nuclear Density Meter for the duration of the roadworks and platform construction. The Troxler must be supplied with a suitably qualified operator. An item has been allowed for in Section 1 of the Bill of Quantities to cover the costs of supplying the Troxler, operator and maintaining the Troxler for the duration of the roadworks and platform operations.</p> <p>The cost of other acceptance tests required to be done by the Employer's Representative shall be paid for from the Provisional Sum allowed in the Bills of Quantities for this purpose.</p>
PSAB 2	4.1 add :	<p><u>Survey Equipment and Facilities</u></p> <p>The Contractor shall provide for the exclusive use of the Engineer, all necessary survey equipment including the following :</p> <p>(a) 1 No. dumpy level of modern type with horizontal circle for angular measurement.</p> <p>(b) 1 No. new measuring wheel</p> <p>(c) 1 x 50 m fiber glass tape measure, (on request by the Engineer).</p> <p>(d) 1 x 50 m steel tape measure, (on request by the Engineer).</p> <p>(e) 1 x 5.0 m meter leveling staff.</p> <p>(f) 3 x 3.0 m ranging rods, (on request by the Engineer).</p> <p>(g) Steel and wooden pegs with hammer as necessary.</p> <p>All instruments and equipment shall be in proper adjustment and calibrated, and shall be maintained so for the duration of the Contract. They shall be insured by the Contractor against loss, theft or damage. The Contractor shall provide the Engineer with a full time, intelligent, adult attendant whose duties will include to assist in survey work, measurement of the Works, etc. (monthly cost to be the same as that of the CLO).</p>
PSAB 2 Continued	4.1 add :	<p>The Contractor is to pay for all costs of employment for this assistant. An item has been allowed for in Section 1 of the Bills of Quantities to cover the costs of supplying the above survey equipment, person and maintaining the equipment for the duration of the contract.</p>
PSAB 3	8.4.2.1 add :	<p><u>Measurement and Payment for Survey Facilities</u></p> <p>Provide and maintain survey equipment : Unit : Lump Sum</p> <p>The rate shall cover all charges inclusive of insurance for the provision and maintenance of the survey equipment, as per PSAB2.</p>

PSAB 4	8.4.2.1 add :	<p><u>Measurement and Payment for Nuclear Density Meter</u> Provide and maintain Nuclear Density Meter : Unit: Lump Sum</p> <p>The rate shall cover all charges for the provision and maintenance of the Nuclear Density Meter, inclusive of insurance, and to supply a suitably qualified operator for the duration of the roadworks and platform operations.</p>
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3. PSC Site Clearance

Clause	525 C Clause No.	Action required
PSC 1	3.1 add :	<u>Disposal of Materials</u> Disposal areas shall be located by the Contractor who shall obtain the necessary approvals in terms of the relevant governing legislation. The Contractor shall provide the Engineer with certificates of safe disposal, as required by legislation.
PSC 2	5.1 add :	To control and limit erosion the areas to be cleared must be kept to a minimum but be such as not to affect the quality of the work and hamper the efficient execution of the Contract. As a general guide the following will apply: Roads and Platforms: 500 mm wider than the bank cut and fill toe lines. Pipelines: 0,5m meter on either side of the pipe centre line, plus an additional meter on one side for stockpiling backfill material. Borrow areas: Limited to the extent of the working areas.
PSC 3	5.3 add:	Clearing shall also include the dismantling and demolition of existing informal structures on site as directed by the Engineer as per payment item PSC 10. It shall also include removal of all building rubble and safe disposal of any household rubbish and litter by means of manual raking or other effective methods and safe disposal thereof.
PSC 4	5.8 add:	Where necessary for the proper execution of the works, and where instructed by the Engineer, the Contractor shall break existing miscellaneous items of concrete encountered on site (including reinforced concrete) and dispose. (this measurement item is for miscellaneous concrete over and above that specified in PSC 6). The existing items of concrete are to be broken to a size suitable for handling, loading and disposal. All reinforcement encountered shall be cut to suitable lengths and disposed of.
PSC 5	8.2.1 amend:	Clearing and grubbing for pipelines (other than sewer, see PSDB 8.2) will be measured to the nearest 0,1 Ha and will not be measured separately.
PSC 6	8.2.11 add:	Breaking and disposal of existing concrete: The unit of measurement shall be the cubic meter of existing concrete prior to breaking, which is broken and disposed of.
PSC 7	8.2.9 replace:	No overhaul will be paid for any spoil and/or disposable materials and the Contractor shall allow for all haulage costs in his tendered rates. The Contractor will only be allowed to spoil material on site if such permission is granted by the Engineer in writing.
PSC 8	5.9 add:	Where necessary for the proper execution of the works, and where instructed by the Employer's Representative, the Contractor shall break existing miscellaneous premix items encountered on Site and dispose of these at a dumpsite approved by the Engineer (this includes saw cutting to remove the premix). The existing premix items are to be broken to a size suitable for handling, loading and transportation to the dump. Where the premix exceeds 150mm in thickness, the rate for concrete shall apply, as per PSC 6
PSC 9	8.2.12 add:	Breaking and disposal of existing premix: The unit of measurement shall be the square meter of existing premix prior to breaking, which is broken and disposed of. The rate shall also include all saw cuts regardless of depth.

PSC 10	8.2.13 add:	Dismantle, demolish and disposal of existing informal structures, including the concrete foundation structure: The unit of measurement shall be the square meter (footprint area) of the existing structures prior to dismantling/demolition, regardless of the material make-up of the structure. In the case of existing VIPs, this shall also include the removal and disposal of wet pits and the backfilling of these with material from suitable excavations on site.
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4. PSD Earthworks

Clause	525 D Clause No.	Action required
PSD 1	3.1.1. add:	<p>Classification of material other than "soft excavation" shall be agreed upon before excavation of the material to be classified may be commenced.</p> <p>The Contractor shall immediately inform the Engineer if and when the nature of the material being excavated changes to such an extent that a new classification for further excavation is warranted. Failure on the part of the Contractor to advise the Employer's Agent thereof in good time shall entitle the Engineer to classify, at his discretion, such excavation as may have been executed in material of a different nature.</p>
PSD 2	3.1.2 amend:	<p>No restricted excavation shall be payable. Restricted excavation is included under bulk excavation rates.</p>
PSD 3	3.1.2(b) replace:	<p>Intermediate excavation shall be measured as soft excavation (this also applies to SANS 1200 DB: Earthworks Pipe Trenches).</p> <p>Classification of materials for purposes of excavation shall only be:</p> <ul style="list-style-type: none"> a) Soft excavation c) Hard rock excavation d) Boulder excavation Class A e) Boulder excavation Class B
PSD 4	3.1.2(c) replace:	<p>All hard rock excavation is to be regarded as restricted excavation. No additional payment shall be made for excavation in restricted circumstances.</p>
PSD 5	3.3.1 add:	<p>Top soil shall be removed to a depth as instructed by the Engineer on site from those areas on which construction is to take place. The Contractor shall obtain instruction from the Engineer on the treatment of topsoil, prior to construction. The rate is to include for the removal of litter prior to stripping and stockpiling. Suitable selected top soil shall be stockpiled at intervals of 500 m for re-use at a later stage. Unsuitable topsoil shall be disposed of off-site. All stockpiles and/or dumping sites shall be neatly leveled off.</p>
PSD 6	3.3.1 add:	<p>The approval of a borrow area for a certain purpose does not necessarily mean that all material within that area is suitable for the specified purpose. What it does mean, is that the borrow area contains some suitable material. The onus is on the Contractor to ensure that only material that is indeed suitable, is removed and used for the specified purpose.</p> <p>Where the Contractor is required to select material from excavations for a specific purpose, the above provisions relating to borrow areas shall apply mutatis mutandis to excavations.</p> <p>The Contractor shall not waste or contaminate material that has been selected for a specific purpose.</p>

PSD 7	5.1.1.3 add :	<p><u>Explosives</u></p> <p>Explosives are to be used only with the written permission of the Engineer. Care is to be taken that no damage is done to existing works and precautions are to be taken to prevent blasted material being thrown about. The size of charges is to be the minimum necessary.</p> <p>The Contractor will be responsible for all costs incurred in obtaining the necessary permits and displaying all the compulsory warning notices and abiding by the provisions of the OH&S act and that of the explosives inspector.</p> <p>Any damage caused to buildings, other existing works, or to the surrounding rock formation will be the responsibility of the Contractor.</p> <p>Furthermore, the Engineer may, at any time, disallow the further use of explosives. In this instance, the Contractor shall, without additional cost to the Employer, complete the excavation using other approved methods of excavation.</p>
PSD 8	5.1.2.5 add:	<p>Repairs to damaged services shall be immediately affected by the Contractor at his own expense. If any repair work shall in the opinion of the Engineer be urgently necessary for health, security or any other reasons whatsoever, and the Contractor is unable or unwilling at once to do such work, the Employer may by his own or other workmen do such work or repairs as the Engineer may consider necessary. All costs and charges so properly incurred by the Employer shall be deducted by the Employer from any monies due or which may become due to the Contractor.</p>
PSD 9	5.2.2.2 add :	<p>A borrow pit for selected materials shall be located by the Contractor who shall submit the necessary test results for approval by the Engineer.</p> <p>The Contractor shall remove overburden at the borrow-pit. Overburden shall be stockpiled and on completion of Works, all excess boulders, unsuitable material, etc shall be spread evenly over the floor of the quarry and then covered with the overburden and neatly finished off. All stones greater than 2/3 (two-thirds) of the specified layer thickness shall be bladed to the side, removed and dumped in designated spoil areas.</p>
PSD 10	5.2.2.3 add:	<p>The Contractor shall make and maintain his own access roads to the borrow pit over the shortest practical routes. No separate or additional payment shall be made for the Construction of temporary access roads.</p> <p>On completion the temporary roads shall be reinstated and finished off as for the borrow pit above.</p>
PSD 11	5.2.3 add:	<p>Surplus and unsuitable material shall be dumped at off-site spoil areas located by the Contractor who shall obtain the necessary approvals. The spoil areas shall be neatly leveled off. At the discretion of the Engineer and written instruction, some spoil areas may be located within the project area.</p>
PSD 12	5.2.5.1 add:	<p>The compaction densities shall be as indicated on the Drawings for the different sections of the Works.</p> <p>Notwithstanding any of the provisions of this sub-clause in 525D, the free haul distance applicable to this Section will be:</p>
		<p>For borrow to fill : All haul will be free haul.</p> <p>For cut to fill : All haul will be free haul.</p> <p>For cut to spoil : All haul will be free haul.</p>

PSD 13		<u>Old Work</u> Any old foundations or other obstructions that may be encountered are to be grubbed up if disused and ends of old drains stopped up. Unless disused, existing works must be suitably supported and suitable precautions taken against undermining and collapse.
PSD 14	5.2.3.1 modify	“Each layer shall be compacted at OMC to a density of at least 93% of modified AASHTO density”.

5. PSDB Earthworks (Pipe Trenches)

Clause	525 DB Clause No.	Action required
PSDB 1	4.2 add : 5.1.2 add :	<p>Shoring and Dewatering</p> <p>Any work destroyed or damaged due to inadequate precautions being taken against rain, flood, seepage or ingress of water of any kind, shall be repaired to the satisfaction of the Engineer. The Contractor shall be responsible for the entire cost of any remedial works necessary.</p> <p>Furthermore, whenever there exists, in the opinion of the Engineer, any reasonable danger that backfilled trenches or other work may be damaged by flood waters, he may order whatever measure he considers necessary, inter alia:</p> <ol style="list-style-type: none"> 1. Earth or rock cross walls in trenches. 2. Temporary works to deviate existing water courses. 3. Acceleration of the Contractor's programme to minimise risk. <p>No provision has been made for separate payment for any shoring, dewatering or anti-erosion measures. The unit rate for excavation shall cover all costs involved in keeping the excavation safe and free from water.</p>
PSDB 2		<p>Fences that intersect or adjoin a trench</p> <p>The costs of tunneling, protecting, maintaining and repairs necessitated by damage caused to existing fences by the Contractor must be included in the tendered rates for excavation measured under Sub-Clause 8.3.2.</p>
PSDB 3	5 add :	<p>Construction</p> <p>The Contractor's attention is drawn to the fact that certain pipelines are to be laid in developed areas and therefore rates are to allow for working in restrictive conditions.</p> <p>No extension of time or additional payment for any inconvenience, extra costs or delays arising due to the above will be allowed or paid to the Contractor.</p>
PSDB 4	5.1.4 add :	<p>Where no specific item is scheduled to cover an activity or to compensate for any inconvenience or delay, all costs involved must be built in to the tendered rates for excavation, measured under sub-clause 8.3.2 of SANS 1200 DB.</p>
PSDB 4		<p>Existing services that intersect or adjoin a trench</p> <p>The works involved in locating and exposing existing water pipes, sewers, stormwater pipes, concrete lined channels and drain box culverts, electric cables, ducts, kerbs, channels and various pipes and services that intersect a trench will not be measured separately. The costs of exposing these services, tunneling, protecting, maintaining and repairs necessitated by damage caused by the Contractor must be included in the tendered rates for excavation measured under sub-clause 8.3.2.</p>
PSDB 5	5.6.3 add : 5.6.4 add :	<p>Disposal of excavation material</p> <p>Disposal areas shall be located by the Contractor who shall obtain the necessary approvals in terms of the relevant governing legislation. The Contractor shall provide the Engineer with certificates of safe disposal, as required by legislation.</p>

PSDB 6		<u>Backfill Materials:</u>
PSDB 6.1	5.6.5 add :	<p><u>Deficiency of Backfill Material</u> : All haulage will be freehaul for imported backfill materials. The Contractor shall make his own arrangements with commercial sources.</p> <p>No payment will be made for additional backfill material in the trenches due to over break, etc. The Contractor must allow for such costs in the tendered rates for excavation measured under sub-clause 8.3.2.</p>
PSDB 7	5.7 add :	The compaction densities shall be as shown on the Drawings. Maximum thickness of compacted layers shall not exceed 150 mm under road crossings and not more than 250 mm elsewhere. Selected fill material shall be used under road crossings. There will be no additional payment for compaction in road reserves on roads constructed by the Contractor.
PSDB 8	8.1.2 add :	<u>Measurement and Payment</u>
PSDB 8.1	8.1.2 add :	<u>Pipe Trench Depths</u> : Notwithstanding the terms of Sub-Clause 8.1.2, the trench depth shall be measured in 0,5 m intervals as the depth from finished level to the invert of the pipe, plus one wall thickness of the pipe to be laid in the trench, plus 75 mm to allow for bedding materials.
PSDB 8.2	8.3.2 add :	Clear and grubbing of the sewer line before excavation must be included in the rate for excavation as per 8.3.2 (a).
PSDB 8.3	8.3.2 add :	Payment for excavation will be as follows: 50% of the rate tendered for excavation items upon completion of the excavation, a further 30% upon completion of the backfilling and compaction, and the remaining 20% upon the completion of the reinstatement, disposal of any surplus and unsuitable material, and testing and disinfecting of the pipeline (if applicable).
PSDB 8.4	8.3.3.4 replace:	No overhaul will be paid for any spoil material within the site and the Contractor shall allow for all haulage costs in his tendered rates.
PSDB 8.5	8.3.6.1 add :	<u>Finishing</u> : In addition to the provisions of this Sub-Clause, the rate shall include the protection, or the removal and reinstatement of any kerbs, channeling, traffic islands etc. that may be necessary.

6. PSDK Gabions and Pitching

Clause	525 DK Clause No.	Action required
PSDK 1	3.1.2.2 add:	All gabion baskets and gabion mattresses must be galvanized or plastic coated (if specified) .
PSDK 2	3.2.1.2. add:	Type of pitching required: Heavy
PSDK 3	8.2.1. add:	The unit of measurement for cavities filled with rock and/or concrete shall be cubic meter (m ³) measured in place after completion of filling.
PSDK 4	8.2.2. add:	Surface preparation including excavation and backfilling for gabion baskets shall not be measured separately but shall be deemed to be included in the price tendered for the construction of gabions.
PSDK 5	8.2.5. add:	No separate items will be scheduled for different slopes. Price to include for all slopes from 1:1.5 grade and flatter.

7. PSDM Earthworks (Roads, Subgrade)

Clause	525 DM Clause No.	Action required
PSDM 1	5.1.2 add :	<p><u>Accommodation of Traffic</u> Facilities for the accommodation of traffic during the construction of a road must be provided to all built-up erven by the Contractor. No additional payment will be made for these facilities, and the cost thereof will be regarded as being included in the tendered rates for earthworks, and those costs already allowed for under PSA 7 of this project specification.</p>
PSDM 2	5.2.2.2 add :	<p><u>Dimensions of Cuts</u> Irrespective of whether cuttings occur in soft, intermediate, boulder or hard rock excavation, no payment will be made for over break and the Contractor shall be required to backfill all cuts below the designated level with suitable material which has a CBR of at least 15 at 95% Mod AASHTO at the Contractor's own expense and to shape and compact this backfilled material to 95% Mod AASHTO density.</p> <p>The provisions of Sub-Clause 8.3.3(b) and 8.3.9 will therefore not apply.</p>
PSDM 3	5.2.3.2(a) add :	<p><u>Disposal areas</u> for surplus materials shall be located by the Contractor who shall obtain the necessary approvals in terms of the relevant governing legislation. The Contractor shall provide the Engineer with certificates of safe disposal, as required by legislation.</p> <p><u>Removal of unsuitable ground:</u> Removal of unsuitable ground will be paid for under a separate item in the bill of quantities. Replacement of unsuitable ground will be paid for undercut/borrow to fill.</p>
PSDM 4	3.1 add :	<p><u>Materials - Classes of Excavation</u> The excavation of materials will be classified as per clause PSD 1, 2 and 3 of the project specification.</p>
PSDM 5	3.3 add :	<p><u>Source of Supply</u> The Contractor shall be responsible for locating a suitable source of material and for the selecting, excavating, blasting, loading, storing, hauling, transporting, spreading, watering, compacting, final grading and testing of all gravel subgrade and subbase layers.</p>
PSDM 6	5.2.3.3 add: 5.2.4.2(f)	Compaction densities will be as follows: General fill 93% and Roadbed - 95% of Modified AASHTO density and as indicated on the drawings.
PSDM 7	5.2.8 add:	<p>The free haul distance applicable is:</p> <p>For cut/borrow to fill: All haul will be free haul.</p> <p>For cut to spoil: All haul will be free haul.</p>

PSDM 8	7.2 add :	Process Control The testing frequency for process control shall be not less than the applicable frequency set out below:				
		1	2	3	4	
		TEST	POSITION IN LAYER	TESTING FREQUENCY		
				Area to which one Test is applied, Max	Number of Tests per Lot, Min	
		Relative compaction at OMC	(a) Ordinary fill (b) Top 300 mm of fill and roadbed (c) Layerworks	100 m ² 100 m ² 100 m ²	4 4 4	
<i>Note: A minimum of 2 No. MDD and OMC test and 1 No. CBR/UCS per road.</i>						
A provisional item has been provided in the Bills of Quantities for any density testing that is carried out by the Engineer. This amount does not include for any testing which the Contractor is required to carry out. Any independent testing which the Contractor must carry out as required by the Specifications is to be at his own expense and will be regarded to be included in his tendered rates and sums. The retesting of any sections due to the failure of the tested material will be for the Contractor's expense.						
Written application for the testing of any section of road which the Contractor considers ready for testing must be made timeously by the Contractor.						
A copy of all process control test results are to be forwarded to the Engineer.						

8. PSGA Concrete (Small Works)

Clause	525 GA Clause No.	Action required
PSGA 1 PSGA 1.1	2.3 add:	<p><u>General Supervision</u> During the whole or any time that the placing of concrete is being carried out, the concreting operation shall be under the direct supervision of a suitably qualified person acceptable to the Engineer.</p>
PSGA 1.2		<p><u>Records</u> The Contractor shall maintain written records and provide the following information:</p> <ul style="list-style-type: none"> (a) Provide at his own cost a mix design, from an approved authority or laboratory and submit to the Engineer for approval, (b) date on which each section was constructed and time taken to place, (c) daily weather conditions, and (d) nature of samples and dates on which they were taken. (e) a record of the batch mix materials quantities and total batch output
PSGA 2	3.2 add :	<p><u>Cement:</u></p>
PSGA 2.1	3.2.1 add :	<p><u>Applicable Specifications</u> Unless special cement is specified for a particular application, the cement shall be Portland cement or rapid-hardening Portland cement and shall comply with the requirements of SABS 471.</p>
PSGA 2.2	3.2.2 add :	<p><u>Storage of Cement</u> Cement which is stored on Site shall be kept under cover that provides adequate protection against moisture and other factors which may promote deterioration.</p> <p>When the cement is supplied in 50 kg bags, the bags shall be closely and neatly stacked to a height not exceeding 12 bags and arranged so that they can be used in the order in which they were delivered to the Site.</p> <p>Storage of cement in bulk in silos or similar containers shall be permitted, provided that the cement drawn for use is measured by mass and not by volume.</p> <p>Cement shall not be kept in storage for longer than 6 weeks without the Engineer's permission.</p>
PSGA 3		<p><u>Admixtures</u> Admixtures may only be used in the concrete mix subject to the conditions of Sub-Clause 3.5.1 of SANS 1200 G being complied with.</p>
PSGA 4	4.4.2 add:	<p>All surfaces regularly visible including benching of manholes shall have a smooth steel trowel finish.</p>

PSGA 5	5.1.3 add :	<p><u>Cover</u> The minimum cover of concrete over reinforcement shall be as shown on the drawings. Where this is not indicated, the minimum cover shall not be less than 40 mm in normal cases.</p> <p>For concrete surfaces in contact with the ground and with water, the minimum cover shall be 50 mm.</p>
PSGA 6	5.2.1 add :	Formwork finishes shall be as designated under 5.2.1(b) : Smooth
PSGA 7		<p><u>Strength of Concrete</u> The required strength of the concrete and the maximum normal size of coarse aggregate shall be as indicated on the drawings.</p>
PSGA 8		<p><u>Ready Mix Concrete</u> The use of ready mix concrete will be permitted. The quality control will be carried out on site as for site mixed concrete.</p>
PSGA 9		<p><u>Concrete Surfaces</u> Except where otherwise specified or detailed, surfaces of concrete shall be screeded to a plane uniform surface.</p>
PSGA 10		<p><u>Pipes and Conduits embedded in Concrete</u> Except with the written approval of the Engineer, no pipes other than those shown on the drawings shall be embedded in concrete, and the approval of the Engineer for the position of all services to be embedded shall be obtained before concreting commences. The clear space between pipes of any kind embedded in reinforced concrete and the clear space between such pipes and reinforcement, shall not at any point be less than:</p> <p>(a) 40 mm, or (b) 5 mm plus the maximum size of coarse aggregate, whichever is the greater.</p>
PSGA 11	5.4.8 add :	<p><u>Unformed Concrete Surfaces</u></p>
PSGA 11.1		<p><u>Wood Floated Finish</u> Where wood floating is specified or scheduled, the surface shall first be given a finish as specified in Sub-Clause 5.4.8.1 and, after the concrete has hardened sufficiently, it shall be floated to a uniform surface free of trowel marks. The screeded surface shall be wood floated, either by hand or machine, only sufficiently to produce a uniform surface free from screed marks.</p>
PSGA 11.2		<p><u>Steel-Floated Finish</u> Where steel floating is specified or scheduled, the surface shall be treated as specified in PSGA 10 except that, when the moisture film has disappeared, the screeded surface shall be steel-trowelled under firm pressure to produce a dense, smooth, uniform surface free from trowel marks.</p>
PSGA 11.3		<p><u>Power-Floated Finish</u> Where power floating is specified or scheduled, the surface shall be treated as specified in PSGA 10, except that the screeded surface shall be power floated to produce a high quality dense, smooth, uniform surface free from trowel marks.</p>

PSGA 12	8.1 add :	In some instances the works will be scheduled in their entirety, such as small structures. In these instances the rates tendered shall allow for all the necessary provision of all materials, formwork, jointing, mixing, testing, placing, compacting, striking-off, finishing, repairing, labour and plant required to construct the work as scheduled and shown on the Project Drawings.
PSGA 13	5.5.1.5	The exposure condition (Table 5) is severe.
PSGA 14	8.9 add: 8.9.1	<u>Scheduled Items</u> Construct headwalls all inclusive as per the detail drawing Construct headwall to suit (pipe size indicated). The unit of measurement for the construction of headwalls in their entirety shall be by number.....No.

9. PSGE Precast Concrete (Structural)

Clause	525 GE Clause No.	Action required
PSGE 1	8.2.1 and 8.2.2	The rate tendered under 8.2.1 shall also include for 8.2.2 that is the erection of the precast units.

10. PSLB Bedding (Pipes)

Clause	525 LB Clause No.	Action required
PSLB 1	3.1 and 3.4.1 add:	Selected granular material for Class C bed shall be suitable material obtained from a commercial source.
PSLB 2	3.2 replace:	The selected fill material shall be a material with a PI not exceeding 9 and that is free from vegetation and from lumps and stones of diameter exceeding 20 mm.
PSLB 3	3.3 add:	uPVC pipes are flexible pipes for the purposes of this sub-clause.
PSLB 4	5.3 add:	Compaction of backfill material shall be as shown on the drawings.
PSLB 5	8.1.1	Selected granular material from excavations for the purpose of Class C bed shall not be measured separately, but shall be deemed to have been included in the price for the operation of bedding.
PSLB 6	8.2.1	Selected fill material imported from a commercial source to form Class B and C beds, shall be measured and paid for as an extra over and above to Class C bed formed from excavated materials.
PSLB 7		<u>Measurement and payment</u>
PSLB 7.1	8.1.3 add :	Notwithstanding the provisions of Sub-Clause 8.1.3, the volume of bedding materials shall be computed from:
	(a)	The dimensions of the trench as shown on the drawings and the actual dimensions of the pipe.
	(b)	The depth of bedding and selected fill blanket as specified.
	(c)	The volume of the void formed by the pipe shall be subtracted from these computations.
	(d)	No payment will be made for any bedding material required to backfill over break beyond the widths or depths specified.
PSLB 7.2	8.2.5 replace:	No overhaul will be paid for any spoil material and the Contractor shall allow for all haulage costs in his tendered rates.

11. PSLC Cable ducts

Clause	525 LC Clause No.	Action required
PSLC 1	3.2.2 add:	Material for use in bedding for telephone and electrical ducts shall be selected granular material with PI not exceeding 9 and free from vegetation, lumps and stones of diameter exceeding 20 mm.
PSLC 2	3.3 add:	Compaction of backfill material shall be as indicated for trenches and shown on the drawings.
PSLC 3	3.4 add:	<p>Behind the kerb directly above the ducts on both ends of the crossing, concrete block markers Class 20/19 (300 mm x 300 mm x 200 mm deep) on which the letters PO (for Post Office ducts) and DE (for electricity ducts) and the number of ducts at each location are embossed into the concrete, shall be provided. The top of the markers shall be level with the back of kerbs and the draw wires shall be firmly embedded into the concrete blocks. Sufficient slack should be allowed for on the draw wires.</p>
PSLC 5		<p>In addition, a solid line and the same wording as above shall be painted (white road marking paint) in 100 mm high lettering on the kerbs at one end of the installed ducts, above the position of the ducts.</p> <p>The ducts shall extend a distance of at least 1,0 m beyond the back face of the kerb and road hardening on the other side.</p>
		<ol style="list-style-type: none"> 1. The cut at the ends of each pipe shall be perpendicular to the length of the pipe and bevelled such that electric cables being drawn through them will not be damaged. 2. Pipe joints shall be tight and dependable, being easy to make. Spigot and socket joints will be acceptable. 3. Pipes shall be seamless and manufactured with an adapter socket on one end, the other being left plain. The socket end shall be of a size suitable for accepting a plain ended pipe, the resulting joint having sheer strength approximately that of the pipe. 4. Rubber sealing rings which will prevent the ingress of fine soil, etc., shall be supplied with each joint. 5. Pipes to be supplied shall comply with S.A.B.S. 791-1975, where applicable, and shall be made of rigid PVC or other suitable polymer, to the approval of the City Electrical Engineer. Alternatives must have characteristics similar to rigid PVC in chemical and physical stability and preferably higher impact resistance.

12. PSLD Sewers

Clause	525 LD Clause No.	Action required
PSLD 1	3.5.2 add :	<p><u>Precast concrete sections</u> Precast concrete manhole rings and cover slabs shall be manufactured from dolomitic aggregate.</p>
PSLD 2	4.2 add :	<p><u>Setting out</u> The minimum requirement to ensure that pipes are laid accurately to gradient and line will be by use of top line and sideline. Sufficient pegs must be provided to support the lines to obviate sag.</p>
PSLD 3	5.9.1 add :	<p><u>Connecting sewers</u> The Contractor must verify with the Engineer or his representatives the position and the required depth of all the sewer connections on any length of sewer between manholes prior to laying that particular length of sewer.</p>
PSLD 4	Clause 7 add :	<p><u>Testing</u> After the pipes have been laid and tested by the Contractor, they will again be tested for grade, direction, line and appearance of inner surface, depth and water tightness, in the presence of the Engineer or his Representative.</p>
		<p>The Contractor shall provide and keep in good repair all necessary testing apparatus, expanding plugs, stoppers, air bags, etc of such sizes as may be necessary to fit openings together with any materials or labour that may be required for the complete and proper testing of the sewers. Each sewer length between adjacent manholes will be tested twice.</p> <p>The first test on each sewer length will be carried out once the pipes have been bedded.</p> <p>The second test on each sewer length will be carried out once the bedding operation has been completed i.e., the 300 mm of selected fill blanket above the top of the sewers has been placed and compacted. The tests and acceptance / rejection criteria detailed in Clause 7.2 will be applicable.</p> <p>Where a gradient steeper than 1:20 between manholes occur, a water test to determine the acceptability of the sewers laid, will be conducted.</p>
PSLD 5	5.6.2.3 add :	<p><u>Benching</u> All benching and sloping surfaces shall be formed in Class 19 / 20 concrete with a "fondu" or similar approved topping and finished smooth and true with a steel trowel.</p> <p>The sides of all channels are to be carried vertically until level with the top of the outlet pipe, and then rounded with a 50 mm radius nose on to the slope of 1:3 to the walls of the manhole.</p>

PSLD 6		<p><u>Testing of manholes</u></p> <p>Once the manhole has been completed it will be thoroughly inspected by the Engineer's Representative. Should the jointing between the pipe sections not be to the satisfaction of the Engineer's Representative or if there is any honeycombing in a cast in-situ concrete manhole, or should he have any doubts, whatsoever, about the manhole he may instruct the Contractor to carry out the following tests on the manhole; the ends of the sewers entering the manhole must be plugged and the manhole filled with water to whatever depth may be directed.</p>
PSLD 7	8.2.11 add :	<p><u>Connections into existing sewers</u></p> <p>Where connections into existing sewer pipes, manholes or chambers are scheduled, the extra over rate in the Schedule of Quantities is to allow for the excavation, cutting of the existing pipes or side of the manholes involved, extra brickwork, benching, reaming, trimming, making good, dealing with or interrupting sewage flow, supply and installation of fittings, the construction of a ramp or backdrop (if required) and any work necessary to complete the new connection. The rate shall allow for any costs arising from liaising with the officers of the Municipality and for carrying out the work outside normal working hours if necessary.</p>
PSLD 8		<p><u>Standard drawings</u></p> <p>Certain drawings referred to in SANS 1200 LD have been revised. The revised drawings will be found in the project drawings. Where the standard drawings are referred to in SANS 1200 LD, the corresponding revised detail shall apply to this Contract.</p>
PSLD 9		<p><u>Ramps and drop inlets</u></p> <p>Where instructed by the Engineer ramps and drop inlets must be constructed as shown on the detail drawings. Where ramps are in solid ground, the concrete protection underneath or around the pipe may not be required and may be omitted at the discretion of the Engineer.</p>
PSLD 10	8.2.3 add : 8.2.4 add : 8.2.5 add :	<p><u>Manholes, inspection chambers, etc.</u></p> <p>The depths of manholes, inspection chambers, etc, for payment purposes will be measured at the centre of the manhole from the invert of the channel fitting to the top of the manhole cover.</p>
PSLD 11	8.2.6 add :	<p><u>Ramp and drop connections to main sewer</u></p> <p>In addition to the requirement of Sub-Clause 8.2.6, where ramp and drop connections out of main sewer are detailed, the rate is to include for the additional pipe, bends, junctions, etc.</p>
PSLD 12	8.2.6 add :	<p><u>Erf Connections</u></p> <p>The unit pieces for Erf connections shall be measured in accordance with sub-clause 8.2.6 of SANS 1200 LD except that the provision of all pipes, specials, benching at manholes and plug stoppers required to complete the connection and excavations are also to be included in the tendered rates. Length of Erf connections measured from centre line of main sewer up to end cap at boundary. The extra over-items for hard excavation shall apply.</p>

13. PSLE Stormwater drainage

Clause	525 LE Clause No.	Action required
PSLE 1	5.8 add:	<p>Subsurface drains:</p> <p>(a) <u>Synthetic-fibre filter fabric</u> Where shown on the drawings or directed by the Engineer, in filter blankets and other applications, synthetic-fibre fabrics shall be procured, furnished and installed as specified and shown on the drawings. Filter fabric shall not be exposed to direct sunlight for prolonged periods and shall be protected from mechanical damage during installation and construction.</p> <p>(b) <u>Laying of pipes</u> A layer of permeable material of the class and thickness shown on the drawings shall be placed on the bottom of the trench and be lightly tamped and finished to the required gradient. Pipes of the type and size required shall be firmly bedded on the permeable material, true to level and grade, and shall be coupled where required. Thereafter the trench shall be backfilled with further permeable material to such level above the pipes as shown on the drawings or as directed by the Engineer. The permeable material shall be lightly compacted and finished to the required level. Further layers of permeable material shall then be placed, lightly compacted and finished to an even surface, as directed by the Engineer.</p> <p>The remainder of the trench, if any, shall be backfilled with approved impermeable material and as required by the Engineer, in layers not exceeding 100 mm and compacted to at least the same density as the surrounding material. The trench must be specially protected against the ingress of water until the impermeable layer has been completed.</p> <p>Permeable material must be placed in layers of not more than 300 mm thickness at a time and be lightly compacted. The total thickness of each type of permeable material must be carefully controlled, and when placing the thinner layers suitable spacers must be used. When placing successive layers the lower layer must not be walked upon and as far as possible must not be disturbed. Care shall be taken to prevent the contamination of permeable material during construction of the subsurface drains and all permeable material contaminated by soil or silt shall be removed and replaced by the Contractor at his own expense.</p>
		<p>Where spigot and socket pipes are used, the socket end shall be laid upgrade with the spigot fully entered into the adjacent socket. Where plain butt-joint pipes are used, they shall be laid firmly together to prevent infiltration of backfill material. Perforated and slotted pipes shall be joined by couplers. Perforated pipes shall be laid with the perforations as instructed. The higher end of subsurface drain pipes shall be sealed off with a loose concrete cap of Class 20 MPa/19 mm concrete, as directed by the Engineer and the lower end of the pipe shall be built into a concrete head wall providing a positive outlet or connected to stormwater pipes or culverts.</p>

PSLE 2	8.2.14 add:	<p>Any section of a subsurface drain constructed from pipes without perforations or slots shall be backfilled with impermeable material as described in the foregoing. Where suitable the excavated material may be used for backfilling.</p> <p><u>Scheduled items</u></p> <p><u>Class 20 MPa/19 mm concrete outlet structures for subsurface drains (Including formwork)</u></p> <p>The tendered rate shall include full compensation for supplying all material, the provision and erection of formwork and the mixing, placing and transporting of concrete. The unit for measurement shall be the m³.</p> <p><u>Permeable material in subsurface drains</u></p> <p>(a) Filter sand obtained from commercial sources Unit: m³</p> <p>The approved permeable material will be measured in place in the drains and calculated from dimensions on drawings.</p> <p>The tendered rate shall include full compensation for procuring, furnishing and transporting from approved borrow areas or commercial sources and placing the material as specified.</p> <p>For payment purposes a distinction shall be made between the different classes of permeable material.</p> <p><u>Pipes in subsurface drains (Type and size stated)</u> Unit: m</p> <p>Pipes shall be measured in place along their centre lines, including the length of fittings.</p> <p>The tendered rate shall include full compensation for procuring, furnishing, laying, jointing and testing the pipes as specified.</p>
PSLE 3	3.1.d add :	<p><u>Culvert units and pipes</u></p> <p>The cutting of pipes on site to form skewed ends or to reduce their length will be allowed. The pipe shall then be cut by grinder to protrude at least 50mm but not more than 100mm beyond the structure and the exposed end treated with Sika Top Seal – 107ZA cementitious slurry or similar approved, all to the satisfaction of the Engineer.</p>
PSLE 4	3.4.1 add :	<p>Bricks for stormwater structures shall be either burnt clay engineering bricks with compressive strength 14 MPa to SABS 227 or concrete bricks with minimal compressive strength 14 MPa to SABS 1215.</p>
PSLE 5	5.2.2 add :	<p><u>Pipe culvert</u></p> <p>Stormwater pipes will be laid on a Class C bedding as detailed on drawing LB-1 of SANS 1200 LB.</p>
PSLE 6	5.2.2 add :	<p>All stormwater pipes shall be concrete spigot and socket pipes with rubber rings to the manufacturer's specifications.</p>
PSLE 7	8.2.4 add :	<p>Cutting of ends of pipes shall not be measured separately but deemed included in the rate for supply and laying of pipes.</p>
PSLE 8	8.2.8 add :	<p>Excavation and backfilling for manholes, catch pits, junction boxes, headwalls and the like shall not be measured separately, but shall be deemed to be included in the price tendered for the construction of such manhole, catch pit, junction box, headwall, etc.</p>

PSLE 9		Where connection into existing stormwater pipes, manholes, headwalls or culverts are scheduled, the extra over rate in the schedule of quantities is to allow for the excavation, cutting of the existing pipes or sides of inlet or culvert involved, extra brickwork, concrete, benching, reaming, trimming, making good, dealing with or interrupting water flow and any work necessary to complete the new connection. The rate shall allow for any costs arising from liaising with the officers of the Local Authority and for carrying out the work outside normal working hours if necessary.
PSLE 10		The rate for cast-in-situ access drains shall include for all materials, labour, plant and any additional items required as per the detail drawings.

14. PSM Roads General

Clause	525 M Clause No.	Action required																											
PSM 1	6.3 add :	<p><u>Frequency of checks</u></p> <p>For the purpose of tolerance control the Contractor shall make sufficient checks at least to the applicable frequency set out in Columns 2 or 3 of the table below whichever is the greater :</p> <table border="1"> <thead> <tr> <th>1</th> <th>2</th> <th>3</th> </tr> <tr> <th>OPERATING CONSTRUCTION TOLERANCES BEING CHECKED</th> <th colspan="2">FREQUENCY OF CHECKS</th> </tr> <tr> <th></th> <th>AREA OR LENGTH TO WHICH ONE MEASUREMENT IS APPLIED, MAX</th> <th>NUMBER OF MEASUREMENTS PER LOT, MIN.</th> </tr> </thead> <tbody> <tr> <td>Grade (Surface levels)</td> <td>20 m</td> <td>3 points per cross-section</td> </tr> <tr> <td>Width of section</td> <td>20 m</td> <td>-</td> </tr> <tr> <td><u>Thickness of :</u> (a) Selected layer (b) Subbase</td> <td>20 m 20 m</td> <td>4 4</td> </tr> <tr> <td>Cross-section</td> <td>20 m</td> <td>-</td> </tr> <tr> <td>Smoothness</td> <td>40 m</td> <td>-</td> </tr> <tr> <td>Cut and fill slopes</td> <td>20 m</td> <td>-</td> </tr> </tbody> </table>	1	2	3	OPERATING CONSTRUCTION TOLERANCES BEING CHECKED	FREQUENCY OF CHECKS			AREA OR LENGTH TO WHICH ONE MEASUREMENT IS APPLIED, MAX	NUMBER OF MEASUREMENTS PER LOT, MIN.	Grade (Surface levels)	20 m	3 points per cross-section	Width of section	20 m	-	<u>Thickness of :</u> (a) Selected layer (b) Subbase	20 m 20 m	4 4	Cross-section	20 m	-	Smoothness	40 m	-	Cut and fill slopes	20 m	-
1	2	3																											
OPERATING CONSTRUCTION TOLERANCES BEING CHECKED	FREQUENCY OF CHECKS																												
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Cross-section	20 m	-																											
Smoothness	40 m	-																											
Cut and fill slopes	20 m	-																											

15. PSMF Base

Clause	525 MF Clause No.	Action required
PSMF 1	3 add:	Graded crushed stone shall be of G4 quality derived from tillite material.
PSMF 2	4.3 and 5.9 add:	There shall be no overhaul applicable i.e. all haul shall be free haul.
PSMF 3	5.4.4.2 add:	The base shall be compacted to a density of at least 100% Mod AASHTO density.

16. PSMH Asphalt Base and Surfacing

Clause	525 MH Clause No.	Action required
PSMH 1	1.1 add :	The surfacing shall consist of a continuously graded medium asphalt layer (Mix "A" asphalt). The thickness will be as specified on the drawings for the different road types.
PSMH 2	3.4.2 add : 6.2.4 add :	The bituminous binder shall be a 60/70 penetration grade bitumen at nominal content of 5,0 % ± 0,3 %. No tar binders shall be used.
PSMH 3	3.5.8 add :	The grading shall conform to Table 2 - Continuously graded – medium grade.
PSMH 4	5.5.1 add : 5.5.7 add : 7 add :	The Contractor shall submit for approval to the Engineer the mix design he proposes to use together with samples of the applicable material at least eight (10) working days prior to commencement of works.
PSMH 5	5.8 add :	The compacted densities shall be at least 96% of the Marshall density.
PSMH 6	6.3.6 add :	The degree of accuracy shall be Degree II.
PSMH 7	8.5.4 add : 5.9 add :	The price of the asphalt shall include for all the required joints. Feathered transverse joints shall be formed by cutting a 75 mm wide by 50 mm key into the existing surface. The new wearing course shall be tapered over a distance of at least one (1) metre to tie in at the key.
PSMH 8	3.1 add:	The prime coat shall be of type MSP-1 or similar applied at a nominal rate of 0,8 litre/m ² .
PSMH 9	8.5.4 add:	The unit rate shall be the m ² of compacted asphalt at the required thickness and not tons and no payment will be made for wastage.
PSMH10		The rate for the asphalt surfacing for the sidewalks is to include for soil poisoning with an approved poison.

17. PSMM Ancillary Roadworks

Clause	525 MM Clause No.	Action required
PSMM 1	3.1.1 add: 5.1.2.1 add:	Guard rails to be: Armco Flex-beam Standard W – sections 2,8 mm thick, galvanised (or similar and approved) erected in accordance with manufacturer's specification.
PSMM 2	3.1.2.1 add:	Timber to be used: Eucalyptus in accordance with SABS 754.
PSMM 3	3.2.2 add:	Grade steel to be used: Gr 43. All steel to be galvanised. Post shall be 62 mm galv. tubing to BS 1387.
PSMM 4	3.2.5 add:	No composite or particle boards shall be used.
PSMM 5	5.2.4.1 add:	Supports shall be installed in holes at least 800 mm deep and backfilled with 1:12 cement: Soil mixture as specified.
PSMM 6	8.3 add:	Payment shall be per unit supplied and erected inclusive of all materials, labour, etc. necessary to complete the sign.
PSMM 7	Add 8.2.8	Traffic bollardUnit: No The rate shall cover the cost of all the materials necessary to complete the bollard including all concrete, and ancillaries, the cost of setting out, excavating and erecting the bollard in the correct position, backfilling and any other items to complete the installation as per the detail drawing.

18. PSMK Kerbing and channelling

Clause	525 MK Clause No.	Action required
PSMK 1	3.2.1 add:	Mountable kerbs shall be Figure 6 to SANS 927:2013.
PSMK 2	5.2 add: and 8.2.1 add:	Precast concrete kerbs shall be laid and bedded on a 15 mm mortar bed on a concrete base with a Class 19/15 concrete haunch for the full length of the kerb. The unit rate for precast kerbing on a concrete base shall cover the cost of supply of materials, labour, jointing etc. complete as per the detail drawing.
	8.2.1 amend 8.2.2 amend	No separate item shall be scheduled for curved kerbing or curved kerbing and channeling. An extra over the straight kerbing item shall be scheduled which shall cover all the additional cost associated with providing the required radii as detailed in 3.2.
PSMK 3	8.1.1 add :	The channel in front of kerb inlets will not be measured separately, but will form part of the inlet and shall be included in the price for the inlet.
PSMK 4	5 add:	<u>Concrete Access Ways</u> The Contractor will be required to construct concrete stormwater controlled access ways as per the detail drawing. An extra over item for precast concrete stairs and adjacent channel will be allowed for in the Bills of quantities
	8.2.8 add :	The unit of measurement shall be per meter of access way measured on the slope. The rate shall include all labour, plant and materials required to construct the access way as per the detail drawing.
PSMK 5	5.6 add :	<u>Concrete Lined Open Drains</u> The construction of the concrete lined open drains shall be complete including all surface preparation, concrete, mesh, shuttering, floating and jointing.
	8.2.8 add :	The unit of measurement shall be as set out in the Bills of Quantities.
PSMK 6	5 add :	<u>Backfilling Eroded Areas</u> : The Contractor will be required to backfill and compact eroded 'dongas' as instructed by the Engineer on site. This will include stripping the eroded area, spoiling all debris and backfilling and compacting the area in lifts of 300 mm where necessary. Backfill material will be obtained from other excavations on site within 0,5 km. The unit of measurement shall be per cubic meter of backfill material compacted in place to complete backfilling of the eroded area as described above, including all labour, plant and material costs.

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)

PA TRIMMING OF THE SITE

PA 1 DESCRIPTION

The work described in this Section consists of clearing and removing, from the site, after completion of construction, all surplus material, rubbish and temporary works, the trimming and finishing-off of the site and the works and the restoration of damaged property all to the satisfaction of the Engineer.

PA 2 ROADS

Roads shall be cleared of all stones, earth, debris, rubbish and litter and all temporary barricades, etc. shall be removed after the necessary approval has been obtained from the Engineer for their opening to traffic. Streets shall be left in a clean and tidy condition.

PA 3 TEMPORARY ROADS AND DETOURS

All construction roads and detours falling within and outside road reserves shall be scarified to a depth of at least 150 mm and be levelled-off with the original ground surface. All surplus material from excavations, loose stones, rubbish, debris and litter shall be removed and all unevenness such as temporary embankments, trenches, holes, etc. shall be trimmed and shaped level with the surrounding ground.

PA 4 PLATFORMS AND SURROUNDING AREAS

Platforms and surrounding areas shall be trimmed and shaped to the required grade and cross-sections by means of self-propelled graders, supplemented by handwork to produce smooth surfaces and slopes and uniform cross-sections. Care shall be taken not to damage the completed surfacing, kerbing, catch pits, junction boxes or other structures when executing this work. Damages of any kind shall be duly corrected at the Contractor's own expense.

Under no circumstances shall graders be allowed to run on finished bituminous surfacing when shaping sidewalks or shoulders. Dragging, pushing or scraping material along or across finished bituminous surfacing will not be permitted.

PA 5 ENTRANCE TO PROPERTIES AND SIDE SLOPES

Access roads and entrances as well as the slopes of fills and excavations shall be trimmed and shaped to produce smooth surfaces and uniform cross-sections. All intersecting slopes shall be neatly rounded.

All surfaced driveways to erven as well as boundary fences, walls and other structures which may have been damaged or interfered with in the course of the construction work, shall be carefully restored to their original condition. Where road levels have been raised or lowered access roads shall be accordingly rebuilt to the same standard as existed before commencement of construction work.

PA 6 PIPELINES

The Contractor shall trim the routes of stormwater, sewer and water pipelines, to a neat and workmanlike condition. All remaining un-used concrete, surplus stone, soil, sand and cement together with all rubbish and waste materials shall be removed from the site. The surfaces of compacted backfilling shall be neatly trimmed and shaped to not more than 100 mm or less than 50 mm above the surrounding ground surface.

PA 7 EARTH FILL AND BACKFILLING

In the event of a subsidence, caving-in or settlement of earth fill or backfilling occurring prior to the elapse of the maintenance period but after the site has been trimmed, the Contractor shall repair at his own expense such defects without delay by partly excavating as directed by the Engineer and backfilling and compaction as originally specified.

PA 8 DISPOSAL

Disposal of all surplus and waste material which has to be removed from the Site in accordance with the provisions contained in this Section shall be undertaken and carried out as specified under Clause PSC of the Specification.

PA 9 MEASUREMENT AND PAYMENT

A lump sum shall be tendered for trimming of the site. Payment shall only be effected after issuing of the practical completion certificate for each phase and under no circumstances will part payments be made while construction work is still in progress.

PB GRASSING AND PLANTING TREES

PB 1 DESCRIPTION

This section covers the topsoiling and preparing areas for grassing on cut and fill slopes as directed by the Engineer, fertilising, grass planting and other work necessary for the improvement of the bank appearance including the planting of trees.

PB 2 MATERIALS

PB 2.1 Fertiliser

The fertiliser to be used shall be one or more of the following types as determined by actual tests of the soil in which the grass is to be planted:

- (i) Lime
- (ii) Super phosphate
- (iii) Limestone Ammonium Nitrate

PB 2.2 Grass cuttings

Grass cuttings shall be kikuyu or cynodon.

PB 2.3 Grass seed

The grass seed shall comply with the requirements of the Government Seed Act, No. 20 of 1961.

PB 2.4 Trees

Trees shall be any of the following types as directed by the Engineer on site:

Bridelia micrantha
Calodendrum capense
Celtis Africana
Deinbollia oblongifolia
Erythrina sp.
Mimusops obovata
Rauvolfia caffra
Trema orientalis

Trees shall be supplied in height increments of 1m as specified in Section 15 of the Bill of Quantities of this Volume of the Tender Document. Tree heights will be the height determined once planted, and the required height in the bill shall be the minimum height of the tree once planted.

PB 3 TOPSOIL

Topsoil shall consist of fertile, friable soil of loamy character and the areas from which it has been removed shall have been covered by natural vegetation normal to the region. Topsoil shall not be taken from swampy areas unless authorised by the Engineer.

Topsoil shall be obtained wherever suitable material exists either from areas where cuts and fills are to be constructed or at borrow pits from areas to be cleared. Suitable topsoil shall be stockpiled when clearing is done for construction of the formation or borrow pits as described. The Engineer shall indicate where topsoil is to be removed. If the Contractor fails to stockpile the topsoil indicated, he shall obtain suitable topsoil from other sources at his own cost.

In the event that not enough suitable topsoil is obtainable from the abovementioned areas, the Contractor shall obtain topsoil from other sources approved by the Engineer.

PB 4 SHAPING OF AREAS

Areas to be grass planted shall be shaped to conform to the contours or cross sections shown or as directed by the Engineer.

Shaping of any areas requiring grass shall be done in such a way that after cultivation and application of any required topsoil the finished surface of the areas will be approximately 25 mm below the top of adjacent kerbing, channelling or pavement.

PB 5 PREPARING AREAS FOR GRASSING

All cuts, fills and landscaped areas which are to be grassed, shall be prepared as follows:

PB 5.1 Areas not requiring topsoil

Where the areas to be grassed consist of organically suitable material, they shall be scarified by hand raking to a minimum depth of 50 mm. All loose stones larger than 30 mm on areas to be mowed by machine and all stones larger than 75 mm on other areas shall be removed from these areas.

PB 5.2 Areas requiring topsoil

Where areas to be grassed consist of organically unsuitable material, the surface shall be roughened sufficiently to ensure a proper bond between topsoil and slope face.

Topsoil shall be placed on the prepared areas and trimmed to a uniform thickness which shall nowhere after grassing and watering be less than 75 mm.

The topsoil shall be scarified by means of hand raking and all stones removed as specified for areas not requiring topsoil in Clause PB 5.1 above.

PB 5.3 Fertilising

The Contractor shall have the top 75 mm of the prepared surfaces tested to determine the amount and type of fertiliser required for establishing proper growth conditions for the grass. The fertiliser shall be evenly applied over all surfaces where grass cuttings are to be planted, and shall then be thoroughly mixed with the soil to a depth of 75 mm manually. Where hydro seeding is to be performed, the fertiliser may be mixed with the cellulose pulp and water used in hydro seeding.

PB 5.4 General

Preparation of areas for grassing shall not be performed until all work requiring road building equipment has been completed. Only equipment required for preparation of the areas, application of fertiliser and spreading of topsoil shall be allowed to operate on the areas to be grassed.

Grassing and hydro seeding shall be undertaken in the months from September to December even though it might fall in the maintenance period. No additional payment will be made for re-establishment or any other costs. The Contractor shall allow for same in the rate tendered.

PB 6 GRASSING

PB 6.1 Hydro seeding

The type and mixture of seeds to be used shall be:

Errogrotris Teff (Tef)	4 kg per ha
Cynodon Dactylon	3 kg per ha
Paspalum Distichum (Buffalo Quick)	6 kg per ha
Chloris Guyana (Rhodes grass)	6 kg per ha
Dactyli Glomerata (Cockfoot)	3 kg per ha
Digitaria Smutsii (Smutsfinger)	6 kg per ha

The Contractor shall be solely responsible for establishing an acceptable grass cover and any approval by the Engineer of another seed or seed mixture proposed for use shall not relieve the Contractor from his responsibility.

Cellulose pulp shall be added to the hydro seeding mix at a rate of 25 kg of pulp per kilolitre of water used.

The following shall be mixed with the seed and sprayed in a slurry form:

4m³ compost per Ha.

4m³ mulch per Ha.

Apply 2:3:2 + Zn Fertiliser at a rate of 525 kg per Ha.

Apply molasses at 400 kg per Ha.

PB 6.2 Planting of grass cuttings

The areas to be planted shall be thoroughly watered for a period of 12 or 24 hours before planting to ensure that soil will be uniformly wet over a depth of at least 100 mm.

An approved variety of kweek grass cuttings shall be evenly planted by hand at a rate of at least 40 grain bags of cuttings per hectare. Only fresh cuttings shall be used.

When the area planted has dried out sufficiently and after the grass has taken, areas which are later to be mowed shall be rolled with a minimum of 2 passes of a steel roller of not less than 850kg mass.

PB 6.3 Maintenance of grass

The Contractor shall be responsible for ensuring that an acceptable grass cover as defined hereinafter is established. The Contractor shall water the areas planted or hydro seeded whenever he considers it necessary and shall control the weeds by means of pulling, cutting or any other methods approved by the Engineer. Any bare patches where the grass has not taken or where the grass may have been damaged or died up to the end of the maintenance period, shall be re-cultivated and planted, seeded or hydro seeded by the Contractor at his own expense.

The Contractor shall further mow the grass on all areas with a cross slope of 1 in 4 or flatter whenever instructed by the Engineer to do so up to the end of the maintenance period at intervals not exceeding 6 weeks.

PB 6.4 Acceptable grass covers

An acceptable grass cover shall mean that no less than 90% of the areas planted or hydro seeded shall be covered with grass, and there shall be no bare patches of more than 0.125m² maximum area.

PB 7 MEASUREMENT AND PAYMENT

PB 7.1 The unit of measurement for scarifying shall be the hectare of surface scarified and cleared of stones as specified in Clause PB 5. Only areas scarified on written instructions of the Engineer shall be measured.

The tendered price for each hectare scarified shall include for carrying out the work as specified including the removal of any over-size stones and levelling off and smoothing out the surface.

PB 7.2 The unit of measurement for provision and application of topsoil shall be the cubic metre of topsoil, measured in situ after the topsoil has been applied. The quantity shall be calculated from the nett area of the surface of the areas topsoiled, and the average thickness of the topsoil measured after the grass has been planted or the area hydro seeded. Any topsoil placed in excess of that ordered will not be measured.

The tendered price for each cubic metre of topsoil shall include for excavating the topsoil, any royalties that may be payable, transport (except overhaul), placing the topsoil and spreading it to the specified thickness and levelling off and smoothing the surface.

Payment shall distinguish between topsoil obtained from designated areas within the work area reserve or from borrow pit areas and topsoil supplied by the Contractor from other sources if sufficient topsoil is not available from the abovementioned areas.

PB 7.3 Stockpiling of topsoil will be measured in cubic metres as defined above in situ on the grassed areas. Stockpiling will only be measured provided the Engineer's prior approval in writing has been obtained to stockpile the topsoil.

The tendered price for each cubic metre of stock piled topsoil shall include for the extra work and expense involved in stockpiling the material rather than taking it directly from the place of excavation to the point of final use.

PB 7.4 The unit of measurement for fertilisers ordered and applied shall be the tonne of each type of fertiliser used.

The tendered price for each tonne or fraction thereof of fertilisers shall include for furnishing, spreading and mixing the fertilisers into the layer of scarified soil or topsoil.

PB 7.5 The unit of measurement for planting of grass shall be the hectare of established grass having an acceptable grass cover.

The tendered price for each hectare of grass established by means of planted cuttings shall include for furnishing the cuttings, planting, weeding, watering, replacing if necessary and any other work that may be required to establish the grass.

The provision of seed shall be measured per kilogram of seed actually sown.

The unit of measurement for hydro seeding shall be the hectare of established grass having an acceptable cover.

The tendered price for each hectare of grass established by hydro seeding shall include for mixing the seed, furnishing cellulose pulp, water, etc., hydro seeding, watering, weeding, re-seeding if necessary and all other work that may be required to establish the grass.

Upon completion of planting or hydro seeding, an interim payment of 50% of the value of the work done shall be made. Thereafter no further payments shall be made until the grass has been established and has an acceptable cover.

PB 7.6 The unit of measurement for the mowing of grass shall be the hectare measured each time the grass has been cut on instruction of the Engineer.

The tendered price shall include for all plant, equipment and labour required for each cutting of the grass and disposal of grass cuttings, i.e. payment will be made every time the grass has been cut on instruction of the Engineer.

PB 7.7 The unit of Measurement for the planting of trees will include all costs associated with the supply and planting of the trees, including the use of fertilisers required to ensure healthy growth of the planted trees.

Once the Contractor has supplied and planted the trees, he will be paid 75% of the rate, and the remaining 25% will be paid after a period of 90 days. The planted trees will be inspected and

approved by the Environmental Consultant after a period of 90 days. Any trees not meeting the approval of the Environmental Consultant must be removed and replaced by the Contractor at his own cost.

Replacement trees will be re-inspected after a further period of 90 days. This process will continue until all of the trees planted by the Contractor have been approved by the Environmental Consultant.

Various types of trees will be measured in the Bill of Quantities, and will be categorised by height. The height, being the required height of the tree, immediately after planting.

The Contractor will also be required to water and maintain the trees until the trees have been approved by the Environmental Consultant.

PC CONSTRUCTION OF WATER MAINS

PC 1 SCOPE OF CONTRACT

This contract involves the laying of approximately 8 000m of varying diameters of pipework to the Ntuzuma Unit D Housing Project – Phases 2 & 3. This work shall include all earthworks, supply, delivery and installation of mPVC pipes (6m lengths), collection from the Springfield Stores, earthworks and installation of 50mm P.P. pipe, 22 mm water connections and installation of all valves, hydrant assemblies and pressure testing of the main.

PC 2 MATERIALS SUPPLIED BY THE CONTRACTOR

The Contractor's attention is drawn to the fact that all pipe specials and fittings supplied are to be of such material and manufacture that they are capable of passing the pressure test described in Clause PC 16 of this Specification.

Once the materials are delivered to site, the Engineer is to be notified in order that arrangements may be made for the inspection of the materials prior to installation. No materials are to be utilised until they have been approved by the Engineer in writing. Such written acceptance shall not prejudice the right of the Engineer to reject such materials should they be shown to be defective when subjected to test.

In addition the Contractor shall make allowances in his laying rates for the following:

- a) Application of corrosion protection to all valves, specials and fittings (including jointing materials) prior to the incorporation of such in the works (Clause PF.3.10.2).
- b) Provision of all bolts, nuts, gaskets ("Klinger" ring gaskets or similar approved) etc. for all flanged joints.

The Contractor is to note that all 22mm diameter fittings are to be manufactured from dezincification resistant brass.

PC 3 MAINTENANCE PERIOD

The period of maintenance for all water reticulation shall be 12 months and shall be calculated from the date of completion of the works as certified by the Engineer.

One certificate of completion will be issued for each phase of the Works and it should be noted that there will be no partial handover of water mains to the City Council. The water mains may be handed over phase by phase.

Once the water reticulation pipework has been handed over to the City Council any repairs to the pipework deemed necessary will generally be undertaken by the Council. Should such repairs be found to be the result of poor workmanship by the Contractor then the cost of the repairs will be invoiced to the Contractor.

Where any repairs to the pipework will not affect consumers, e.g. leaking fire hydrant, the Engineer may decide to instruct the Contractor to affect such repairs, in which case the repairs must be completed within the period specified by the Engineer.

PC 4 SUPPORTING SPECIFICATIONS

The construction of the water mains and all work associated therewith shall be carried out in compliance with the following Durban Corporation Standard Departmental Specifications:

Part	Description	Date of Approval
DB	Earthworks for Pipe Trenches	December 1988
PF	Pressure Pipe Lines: other than steel	July 1983

(Refer to Appendix F on the attached CD)

PC 5 SERVICES

It is possible that other services may be installed prior to the laying of the water reticulation. The Contractor must therefore take cognisance of this possibility and provide sufficient flexibility within his programme of works to accommodate any alterations that may be necessary.

The Contractor shall, furthermore, acquaint himself with the layout of all services and, in cases where they are laid before the water main, shall adequately mark their position on site.

A hand work rate per cubic metre for excavation shall be provided in the Schedule of Quantities for proving services when the Engineer is unsure of their location and the position and size of the excavation will be determined by him.

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

PC 6 RESTRICTION ON THE USE OF PLANT AND ON THE CONSTRUCTION OF THE WATER MAINS

The Contractor may find it impractical to use mechanical plant for excavation or any other particular construction activity on some portions of the work, due to construction caused by difficult access or the presence of services shown on tender drawings, and the Contractor will be deemed to have satisfied himself as to the particular requirements in this aspect of any portion of the work when entering rates against the appropriate items in the Schedule of Quantities. No claim for extra payment based on the inability to use plant in such circumstances will be accepted.

PC 7 RESTRICTION ON COMPACTIVE EQUIPMENT

The Contractor is to note that where existing water mains traverse the site of the works, 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 water mains.

Under no circumstances will heavy road making equipment, other heavy plant or vibratory compaction equipment be permitted to operate within 800mm 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 800mm 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 Schedule of Quantities and in the programming of the works. No claim for additional payment based on the inability to use plant as the result of the requirements of this clause will be accepted. The

Contractor will be held liable for any costs should the water main be damaged during construction of the road.

PC 8 CLASSIFICATION OF EXCAVATED MATERIAL

For the purpose of measurement and payment excavated material shall be classified as either hard rock or soft. Intermediate/hard material shall be classified as soft.:

Rock:

Rock shall be held to be undercomposed boulders exceeding 0.2 m³ in volume and solid rock occurring in bulk, banks or ledges, the excavation of which would normally necessitate the use of explosives and shall have a total rating in excess of 75, as defined in the table in Clause DB.3.1.3. In addition, when tested with a Type L Schmidt hammer, the rock shall have a rebound value above 30, when tested vertically downwards. All other material falling outside of this category shall be classified as soft.

PC 9 PIPE BEDDING

The bedding for all water mains shall be Class C. Some of the material excavated from the pipe trenches may be suitable for use as bedding material. An item has been allowed in the Bills of Quantities for the provision of bedding material from a commercial or off - site source. Notwithstanding the requirements of Clause DB.8.9, no overhaul shall be measured for selecting bedding materials from scheduled excavations on site or designated borrow areas.

PC 10 COMMON BACKFILL

It is anticipated that, with the exception of material classified as rock, the material to be excavated from the pipe trenches will in most instances satisfy the requirements of Clause DB.3.4. No overhaul shall be measured for selecting backfill materials from the scheduled excavations on the site. Should material need to be imported for backfilling purposes then this material shall comply with Part DB.

Payment for the excavation and backfilling of materials shall therefore also include the following:

- a) selecting suitable backfill material from the excavated materials;
- b) loading, haulage and deposition of the material on the work-site to suit the Contractor's method of working; and
- c) allowing for bulking and shrinkage of material and wastage.
- d) disposal of surplus material as per PC 20

PC 11 COVER TO WATER MAIN

Cover to the top of the asbestos cement pipe is to be in the range 0,9m to 1,1m over the entire site. At the road crossings, no water mains are to be laid until the roadworks are far enough advanced to provide a minimum of 800mm cover to top of pipe. Under no circumstances may heavy road compaction equipment be employed above the water main unless this condition has been met. The Contractor is to take cognisance of this fact insofar as his water main programme is concerned and is to make allowance for such in his rates. Cover to the water connection pipework and all 50mm diameter pipework shall be in the range of 0,5m to 0,6m.

PC 12 POLYPROPYLENE AND POLYETHYLENE PIPES AND FITTINGS

Notwithstanding Clause PF.3.3.5 of Part PF: Pressure Pipelines: Other than Steel, the use of polypropylene fittings will be accepted provided that:

- a) The fittings shall be fabricated from pipes with a working pressure rating of 1525 kPa or higher i.e. Class 16 or higher pipe;

- b) The fittings shall be capable of withstanding a test pressure of 1800 kPa for a minimum period of 2 hours without showing evidence of leaks, deformation, sweating or other modes of failure; and
- c) The fittings have the same O.D. as asbestos cement pipes and may be joined to asbestos cement pipes using conventional A.C. couplings or cast iron clips. With reference to Clause PC.2, prior to approving the use of polypropylene pipe fittings, the Engineer will require that the Contractor submits written confirmation from his proposed supplier that such materials conform to the above requirements.

All 22mm diameter polypropylene pipe and 50mm diameter P.P pipes shall be supplied by the Council. The 100mm diameter mPVC pipes shall be supplied by the Contractor. Notwithstanding the requirements of Clauses DB.6.2 and DB.8.3.3, these pipes shall be laid in trenches 400mm wide and 525mm deep measured from finished road or verge levels, whichever is applicable. Pipe bedding shall be Class C.

Payment for the construction of the 50mm diameter water mains will be made under the relevant items in the Schedule of Quantities for each activity involved e.g. excavation, collection from the Springfield Water Store and laying of the pipe, bedding, etc.

A "Speedfit" isolating valve and end cap is to be provided by the Council for the Contractor to install at the end of the water connection to facilitate the bleeding of air from the pipeline connection during filling. The isolating valve and end cap is to be removed upon the successful completion of the hydraulic test and shall be replaced with a 22mm diameter fast fuse cap. The valve and end cap are to be returned to the Council on completion of the pressure test. The Contractor will be charged for any isolating valve and end cap that is not returned to the Water Stores in good working order.

PC 13 HYDRANT ASSEMBLIES

(a) Standard Hydrants

The position of all hydrant assemblies is shown on the drawing. Standard hydrant assembly details are shown on standard drawings.

Separate items have been included in the Schedule of Quantities for the collection from Springfield Water Store of materials and the installation thereof.

The hydrant assembly will include the hydrant valve, (supplied by the Council) but not the hydrant tee which will be measured separately. Payment for the collection from Springfield Water Store of the hydrant assembly materials shall include the following:

- i) Collection of all components as follows: valve, duckfoot bends, standard hydrants, all jointing materials and specials such as flanged clips, clamps, triangular hydrant valve sheath, etc., Number 5 water valve cover and concrete spacer rings above the valve spindle.
- ii) Delivery to site and storage as necessary.

Payment for the installation of each hydrant assembly shall include the following:

- a) Excavation, selecting or importing of backfill material, backfilling and compacting including additional compaction within road reserves;
- b) Preparation of trench bottom, supply, placing and compacting of bedding materials;
- c) Laying and jointing of all hydrants to final verge level, valves, specials and fittings necessary to make the hydrant assembly complete including anchor blocks behind the duckfoot bend as detailed;
- d) Application of Corrosion Protection to all cast iron fittings in accordance with Part PF;
- e) Installation of precast concrete spacer rings and No. 5 water valve cover over hydrant valve;

- f) Painting of standard hydrant and No. 5 cover with primer and two coats of an approved yellow enamel paint;
- g) Stencilling in black paint on the hydrant on the face opposite the hydrant valve and in characters not smaller than 80mm in height, the distance of the valve from the hydrant;
- h) Supply and installation of "Klinger" ring gaskets to hydrant points.

The testing of the hydrant assemblies shall be conducted concurrent with the testing of the pipeline and the cost for testing the hydrant assemblies should therefore be included under the relevant item for testing of the pipeline. Hydrant tees are to be cement lined.

PC 14 WATER CONNECTION PIPEWORK

All water connections shall be positioned 1m from the left hand side property boundary facing the property from the road. Typical details showing the fittings to be used in each water connection are shown on the drawings.

PC 15 WATER FOR TESTING

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

A water connection shall be provided by the Council from the existing reticulation pipework.

The Contractor shall, at his own cost, provide a suitable 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.

PC 16 TESTING OF PIPELINE

Testing of the pipeline shall be in accordance with Clause PF.7. All reticulation pipework laid shall be tested simultaneously. The Engineer's approval shall be obtained prior to the commencement of acceptance testing of any length of pipework.

Although the Contractor may elect to test shorter sections of the pipework for his own benefit, no such intermediate tests will replace the final acceptance test of the pipework, and all costs associated with such intermediate tests will be to the Contractor's account.

The Contractor will be required to apply for a temporary water connection to connect into the new water mains from the existing reticulation, and this connection will be kept alive (thus maintaining the new pipework under pressure) for the duration of the road works and any major earthworks which are to be carried out on site. The Contractor may use this connection for the provision of water to various parts of the site for construction purposes. Notwithstanding the successful completion of intermediate pressure tests as described above, should any bursts or leaks occur on the new reticulation, these shall be made good by the Contractor at his cost. Every effort shall be made to ensure that the repair procedure of such leaks does not allow the ingress of foul water or sludge into the new pipework.

Connections from the new reticulation to existing shall be facilitated by end caps or spade-pieces at valves, as detailed on the construction drawings. When all roadworks and earthworks are complete, the temporary water connection shall be disconnected and the new reticulation shall be pressure tested for hand-over. The successful passing of this final test will indicate acceptance of the new pipework. The new reticulation will then be tied into the existing by the Council.

The test pressure shall be 1250 Kpa measured at the lowest point in the pipeline. Hydrant and water connection valves are to be left in the open position so that the hydrant and water connection assemblies are pressurised to the test pressure at the same time. (N.B. The cost of testing all hydrants and water connection pipework shall be included in the rate for hydraulic testing of pipeline and for payment purposes measurement will be based on the length of water reticulation pipework only, i.e. the lengths of the water connection pipework and hydrant will not be measured). The minimum duration of the test shall be 1 hour. During this time the pressure may be allowed to fall to a minimum of 1000 Kpa, whereupon it must be immediately increased to 1250 Kpa. A record is to be kept of the volume of water pumped into the pipeline in each instance.

The Contractor shall ensure that the test takes place during normal working hours i.e. from 07:30 to 17:00.

It will be necessary for the Contractor to install a cast iron saddle and ferrule at all high points in the water main to facilitate the bleeding of air from the pipeline during filling. The ferrule is to be removed upon the successful completion of the hydraulic test and shall be replaced with a brass cap which can be screwed into the saddle.

An item has been included in the Bills of Quantities for this work.

PC 17 STERILISATION OF PIPELINE

Notwithstanding the requirements of Clause PF.5.8, the sterilisation of pipeline with Calcium Hypochlorite does not form part of this contract. However, the pipeline is still to be flushed in accordance with Clause PF.5.8 and it should be noted that flushing will generally only be possible with the aid of a volume pump. The cost of this should be allowed for in the rates.

PC 18 VALVE COVERS AND MARKER POSTS

All valve covers shall be orientated so that they open in the direction of flow as shown on Drawing No. 38584, and shall be painted yellow.

A valve marker post shall be installed in the verge adjacent to each isolating valve in such a way that:

- a) it will not obstruct pedestrian traffic; and
- b) it will be clearly visible from the road.

Each marker post shall be primed and painted with 3 coats of approved yellow enamel paint. On the surface of the marker post facing the gate valve the Contractor shall stencil the letter "V" and the distance in meters between the valve and the marker post. All markings shall be in black characters 80mm high.

An item has been included in the Bills of Quantities for the supply, installation and painting of the valve marker posts.

PC 19 TIE-IN TO EXISTING PIPEWORK

The Council will install a closed valve on the existing reticulation pipework at the points where the new water main will tie-in. The Contractor will be responsible for completing the tie-in of the new water main to the existing water main on successful completion of the hydraulic test.

Excavation, backfilling, compaction, reinstatement of road surfaces and laying of pipe (where applicable) will be measured under the relevant items in the Bills of Quantities.

PC 20 DISPOSAL OF SURPLUS MATERIALS

Disposal areas shall be located by the Contractor who shall obtain the necessary approvals in terms of the relevant governing legislation. The Contractor shall provide the Engineer with certificates of safe disposal, as required by legislation.

PC 21 OVERHAUL

No overhaul will be paid for any materials supplied to site or any material spoiled off site and the Contractor shall allow for all haulage costs in his tendered rates.

PC 22 BILLS OF QUANTITIES

(a) Item Description

Description in the Bills of Quantities are not necessarily full and complete and must be read in conjunction with other documents forming part of the tender. Should the description of any item in the schedule conflict with any requirements for measurement or payment given in a technical specification, the requirement of the specification shall prevail.

(b) Pricing of Items

For measurement purposes, the description of the work covered by each item in the Bills of Quantities is generally included in each section of the specification. Notwithstanding this and unless stated to the contrary, all rates and prices inserted in the Schedule of Quantities are to be considered as the full and inclusive rates and prices for the finished work covered by the respective items and shall include all labour, materials, temporary work, plant overhead charges and profit, and matters directly related thereto.

All items are measured net in accordance with the drawings and no allowance is made for waste or for the excavation and filling of additional working space. All thickness specified are those of consolidated materials.

Each item shall be priced independently regardless of its relation to the total quantities and the Contractor shall have no claim in respect of any such price due to the Engineer omitting or varying any other item in the Bills of Quantities.

(c) Reference Clauses

Clause numbers refer, where applicable, to either the conditions of contract or to technical specifications but the absence of a Clause reference shall not exonerate the Contractor from relating a measured item to the relative Clause in either the conditions of contract or the technical specification.

PD RETAINING WALLS

PD 1 DESCRIPTION

This section covers the supply and erection of Loffelstein retaining blocks or similar approved. The work shall include casting of concrete foundations, excavation, backfilling behind retaining walls, all in accordance with relevant sections of SANS 1200 (DA-1998 & GE-1984) and the Engineer's approval.

PD 2 EXCAVATION AND BACKFILL

Topsoil to a nominal depth of 150mm should be removed and stockpiled for use to backfill behind the retaining walls. All backfill is to be compacted to 93% MOD. AASHTO density. The Contractor shall supply the Engineer with results of compaction tests and percentages of stabilisation tests on backfill.

Backfill is to be benched into virgin soil.

PD 3 CONCRETE (STRUCTURAL)

The Contractor is to supply and erect retaining walls of standard heights ranging from 1,00m up to 3,00m as directed by the Engineer. The Engineer is to approve founding conditions prior to casting of concrete. The bottom course of the blocks shall be set in wet concrete. Base concrete to be 25MPA @ 28 days.

PD 4 STORMWATER

The stormwater behind the top of wall must be managed in such a way as to obviate scour behind and over topping of the wall.

PD 5 WEEP-HOLES

170 x 170 x 13,2mm stone weep-holes to be provided at 1,5m centres horizontally and vertically.

PD 6 MEASUREMENT AND PAYMENT

The rate shall cover the cost of excavation, spreading and backfilling, disposal of surplus material, labour, supply of materials, including reinforcement, compacting, curing, delivering the blocks to and stacking on the site, fixing blocks into position, lifting gear and supports necessary to keep units stable until the permanent support system is able to stabilise the blocks (including all details complete as per the detail drawings. No items are measured separately). No additional costs will be entertained to complete the walls as per the detail drawings.

The unit of measurement for erecting the retaining walls shall be the square metre (height indicated).

PE FOUNDATION SLABS**PE 1 SCOPE OF WORKS**

This specification covers the construction of the foundation slabs. It must be noted however that the measurement and payment for the bulk earthworks for the platforms are measured and paid for under separate sections (Sections 13 and 17 of the Bills of Quantities).

PE 2 FOUNDATION SPECIFICATIONS FOR HOUSING UNITS A, B, C & D

All materials to comply with the relevant SABS/SANS codes, and certificates must be provided for ALL materials being delivered to site. Non SABS/SANS materials will not be permitted. All defective material will be condemned and instructed to be removed from site.

1	<u>Earthworks</u>
1.1	Bulk Earthworks for the platforms are specified and measured under Section 13 of the Bills of Quantities
1.2	Earthworks for foundations to conform to SANS 1200 DA and PSD of Project Specifications. As such, all material excavated for foundation slabs will be measured as either soft or hard. No material will be classified as intermediate. In addition, no compensation will be given for restricted excavation as per PSD.
1.3	Area below surface bed to be compacted to 93% Mod AASHTO Density
1.4	Soil poisoning to be applied to the area below the housing unit in accordance with SANS 10124. The contractor to provide a certificate from the supplier for each housing unit
1.5	Trimming and shaping the platform will fall under Section 6 of the Bills of Quantities
2	<u>Concrete, Formwork and Reinforcing</u>
2.1	All concrete formwork and reinforcing as per structural drawing details (Drawing No's 08KC05-201 to 203) and complying with SANS 1200G
2.2	Raft surface to have a power float finish
2.3	All spacers to be plastic type or 25MPa blocks with steel ties. Steel for surface bed slab to be held in position using steel stools on spacers as described above.
2.4	Contractor to take 3 No. concrete cubes for each batch of concrete. 1 No. cube to be crushed at 7 days, and the other 2 No. at 28 days. Test results from the supplier will NOT suffice. Testing to be carried out by an independent laboratory.

PE 3 MEASUREMENT AND PAYMENT FOR FOUNDATION SLABS

Measurement and payment for the construction of the foundation slabs will be per number of completed slabs for the various types of "top structures".

This will include all excavations for the slabs (only hard rock removal will be paid for separately under Section 13 of the Bills of Quantities), all plant, labour, and materials necessary to complete the slabs, company overheads, profit, testing etc.

NOTE: NO PAYMENT SHALL BE MADE UNTIL ALL TESTS, SABS CERTIFICATES AND TEST RESULTS HAVE BEEN RECEIVED AND APPROVED BY THE ENGINEER IN WRITING.

PF TOP STRUCTURE CONSTRUCTION

PF 1 FINISHING SCHEDULES FOR ALL UNITS

Finishing schedules are to be read in conjunction with the Tender Drawings contained in Appendix D of this Tender Document and the Model Preambles for Trades 2008 (contractor is to obtain their own copy of this document and ensure that a copy is on site at all times).

All materials to comply with the relevant SABS/SANS codes, and certificates must be provided for ALL materials being delivered to site. Non SABS/SANS materials will not be permitted. All defective material will be condemned and instructed to be removed from site.

FINISHING SCHEDULES FOR HOUSING UNITS A, B, C & D

1	<u>Earthworks</u>
1.1	Bulk Earthworks for the platforms are measured in the “services bills”
1.2	Earthworks for foundations to conform to SANS 1200 DA. Extra over rates have been allowed for in the provisional sums for “hard rock” and “soft rock” as defined in the Model Preambles for Trades 2008.
1.3	Area below surface bed to be compacted to 93% Mod AASHTO Density
1.4	Soil poisoning to be applied to the area below the housing unit in accordance with SANS 10124. The contractor to provide a certificate from the supplier for each housing unit
1.5	Trimming and shaping the platform will fall under Section 15 of the Bills of Quantities
2	<u>Concrete, Formwork and Reinforcing</u>
2.1	All concrete formwork and reinforcing as per structural drawing details (Drawing No's 08KC05-201 to 203) and complying with SANS 1200G
2.2	Raft surface to have a power float finish
2.3	All spacers to be plastic type or 25MPa blocks with steel ties. Steel for surface bed slab to be held in position using steel stools on spacers as described above.
2.4	Contractor to take 3 No. concrete cubes for each batch of concrete. 1 No. cube to be crushed at 7 days, and the other 2 No. at 28 days. Test results from the supplier will NOT suffice. Testing to be carried out by an independent laboratory.
3	<u>Precast Concrete</u>
3.1	Concrete air-vents to be installed above each window (contractor to submit sample for approval)
3.2	Pre-cast concrete sills to be installed below all windows (contractor to submit sample for approval)
4	<u>Masonry</u>
4.1	External walls to be 140mm 4Mpa concrete blocks to SABS 1215
4.2	Internal walls to be 90mm 4Mpa concrete blocks to SABS 1215

4.3	Brickforce to suit 140mm wall to be manufactured from hard drawn steel wire conforming to BS 785 and shall consist of two 2.8mm diameter main wires with 2.5mm diameter cross wires at 300mm centres welded at intersections or standard NHBRC brickforce every 3 rd course (75mm gauge)
4.4	Building sand for plaster and mortar is to comply with SABS 1090.
4.5	Mortar shall be Class II
4.6	Cement to be Portland blast furnace cement and to comply with SABS 626. Cement is to be kept free from moisture at all times.

5	<u>Waterproofing</u>
5.1	DPC to walls (375 microns thick plastic) 150mm wide to be installed under all external walls with a minimum of 150mm lap except at junctions and comers to comply with SABS 952 (Type B)
5.2	Damp proof membrane below foundations and slab to be 250 microns water proof sheeting to comply with SABS 952 (Type C)
5.3	Shower and cement brick lip to be sealed using an approved Cemflex sealant both sides and top of the cement bricks as well as 200mm high on the unit walls within the shower

6	<u>Roof Coverings, etc.</u>
6.1	Polypropylene (400 microns thick plastic) undertile membrane to be installed below the roof tiles.
6.2	Concrete roof tiles (green in colour) to SANS 542. Concrete roof tiles to be fitted with approved storm clips
6.3	Nutec barge boards (80x200x9mm) required on all units.
6.4	Nutec fascias (225x9mm) required on all units.

7	<u>Carpentry and Joinery</u>
7.1	External doors to be SA Hardwood frame and ledge
7.2	Internal doors to be Masonite Hollow Core flush
7.3	Timber roof trusses to be designed to manufacturers specifications including TR1 and TR2 certificates. Shop drawings to be submitted to the Engineer for approval before manufacturing. The design, manufacture and transportation of the roof trusses shall comply with SANS 1900, SANS 10160, and SANS 10163.

8	<u>Ironmongery</u>
8.1	External doors to be fitted with a 3 leaver Union lock-set complying with SANS 4
8.2	Internal doors to be fitted with a 2 leaver union lock-set complying with SANS 4

9	<u>Ceilings, Partitions and Flooring</u>
9.1	Gypsum plasterboard ceilings to be installed in each unit, to comply with SANS 266.
9.2	Gypsum cove cornice to be installed in each unit, to comply with SANS 622.

10	<u>Metalwork</u>
10.1	All door frames (both external and internal) to be steel to comply with SABS 1129. Doorframes are to be 1.2mm thick red oxide primed after fabrication in accordance with SABS 909. Frames are to suit door size 813 x 2032mm and fitted with two 100mm steel hinges and adjustable strike plate.
10.2	All window frames to be steel to comply with SABS 1129. Window frames are to be 1.2mm thick red oxide primed after fabrication in accordance with SABS 909.

<u>11</u>	<u>Plastering</u>
11.1	All external walls to be plastered
11.2	Plaster shall be Class II
<u>12</u>	<u>Plumbing and Drainage</u>
12.1	Full plumbing to all bathroom and kitchen fittings.
12.2	To include all external pipe work including inspection eyes and vent pipes.
12.3	Connecting into existing sewer mains (include rodding eye)
12.4	Full plumbing connected to water meter. No geyser but 22 mm dia polycop pipe with stop-end provided for above toilet for future geyser.
12.5	White ceramic pan and close coupled cistern, on brackets.
12.6	Hand wash basin to by SANS approved white ceramic
12.7	Shower rose and chrome plated steel arm.
12.8	Rendered shower floor to slope towards outlet, with gulley and grating.
12.9	1.2m stainless steel kitchen sink with single drain board installed to SANS 242
12.10	Plumbers certificate upon completion.
	<ul style="list-style-type: none"> ➤ uPVC Piping and fittings to comply with SABS 791 and SABS 967. ➤ Polypropylene pressure piping to comply with SABS 1315. ➤ Polyethylene pressure piping to comply with SABS 533. ➤ Taps and stop taps shall comply with SABS 226 Class 2. ➤ Pans to comply with SABS 497. ➤ Cisterns to comply with SABS 821 and to include fixing bolts.
12.11	All sewer pipelines, sanitary fittings and water supply pipes shall be tested by the contractor in the presence of the Engineer's Representative.
12.12	UPVC half round gutters to all units fixed with falls to outlets on brackets as supplied by the manufacturer, screwed or bolted to fascias, to comply with SANS 11.
12.13	75mm UPVC downpipes to all units fixed to walls with patented UPVC clips and holderbats as supplied by the manufacturer of the pipes, to comply with SANS 11.
<u>13</u>	<u>Glazing</u>
13.1	3mm clear glass to all windows with 4mm obscure glass to toilet window.
<u>14</u>	<u>Paintwork</u>
14.1	Steel door and window frames to be primed and painted with 2 coats white enamel.
14.2	SA Hardwood frame and ledge external doors to be painted with 2 coats clear exterior varnish.
14.3	Hollow core flush panel doors internally, primed and painted with 2 coats white enamel.
14.4	External walls to be painted with 1 x undercoat/primer and 2 x coats of emulsion paint to SANS 1586 (colours to be confirmed).
<u>15</u>	<u>External Works</u>
15.1	Each site to be cleared of all rubble and platform trimmed to allow at least a 100mm show around the housing unit and shaped to allow stormwater to flow away from the housing unit.
15.2	Platform to have at least 1m space around the housing unit at a slope of 1:100 away from the structure

15.3	Electrical supply and internal fix will be done by others.
15.4	Lot numbers to be painted onto the front wall of each unit, after the second coat of paint has been applied and given sufficient time to dry. A stencil is to be used when painting the numbers and the numbers are to be 150mm in height.

PF 2 VARIATIONS IN THE NUMBER OF UNITS PER UNIT TYPE

The tenderer must take note that there may be minor variations to the number of units for each house type to those numbers indicated in the Bills of Quantities for the construction of the "top structures". The tenderers must take note of this possible occurrence, and make allowance for this in the Preliminary & General section in the Bills of Quantities if they feel that there may be a cost implication.

PF 3 MEASUREMENT AND PAYMENT

The price for each 'top structure" unit type is to include for the following:

- The construction of units Type A, B, C &D complete including all finishes as per the relevant drawings.
- The completed structures will be subject to the normal 12 month defects liability period.
- The sewer must be taken to the boundary and connected to the mains.
- The water line will need to be taken to the boundary and connected to the meter.
- The assistance with the obtaining of the D4 and handover letter from the beneficiary.
- The obtaining of the Occupation Certificate.
- Once the top structure is completed, the platforms are to be trimmed to falls and ensure storm water flows away from the top structure.
- Cleaning of the site on completion of each top structure.

Payment shall be as follows:

% payments will be made on completed milestones as indicated overleaf:

• Superstructure	30% of full house price
• Roof	25% of full house price
• Plumbing	15% of full house price
• Finishes and clean up	30% of full house price

Retention will be as stipulated in the Contract Data.

NOTE: NO PAYMENT SHALL BE MADE FOR EACH STAGE UNTIL ALL TESTS, SABS CERTIFICATES AND TEST RESULTS HAVE BEEN RECEIVED AND APPROVED BY THE ENGINEER IN WRITING.

PG CONSTRUCTION OF TEMPORARY ACCOMMODATION

PG 1 SCOPE OF WORKS

There is a possibility that three different sized temporary accommodation units will be provided. The temporary accommodation is to be built in accordance with the following design and specifications:

HOUSE DIMENSIONS

20m² quad unit

The footprint size of the house is 5400mm x 3750mm

The houses will be built in groups of 4 with a size of 10800mm x 7500mm overall

30m² double unit – mono roof

The footprint size of the house is 4200mm x 7387mm

The houses will be built in groups of 2 with a size of 4200mm x 14775mm overall

30m² double unit – dual pitch roof

The footprint size of the house is 4200mm x 7422mm

The houses will be built in groups of 2 with a size of 8400mm x 7422mm overall

FLOOR

The floor will be a 75mm, 15 Mpa wood floated slab, with a show of 150mm.

WALLS

The walls will be made up of partition units as follows:

- 9mm fibre cement flat sheets 525mm x 900mm fixed to a C-channel frame on the external face
- The front of the house is 2100mm high
- The rear of the house is 2400mm high
- The sides of the house slope between the front and back
- All joints in partitions to be sealed with an acrylic sealer
- External faces of the walls to be painted with an external quality PVA paint
- A waterproofing membrane to be applied along the joint between the slab and the walls

ROOF

The roof is 0.4mm thick IBR galvanised sheeting

The centre is supported by a 100mm x 50mm x 2mm lipped channel primed with a grey primer
IBR sendor closures to be fitted between the roof sheets and the top of the wall. Cranked roof sheets are to be used for the quad (4) format.

WINDOWS

Primed metal windows fitted with clear glass to the front and sides of the house (as per the plan).

DOORS

House to be fitted with a frame and ledged Hardwood door primed with a wood sealer.

30m² unit to have an internal masonite hollow core door.

Two galvanised 150mm pad bolts to be fitted, one on the external face and one internally.

One padlock supplied per house.

TEMPORARY ABLUTIONS

Temporary ablutions will comprise containers, converted to toilet facilities that consist of 3 toilets, 3 showers and 3 wash hand basins per container. These containers will be connected to the municipally water and sewer mains

STANDPIPES

A standpipe will comprise a 525mm diameter concrete manhole ring with standpipe encased in a 75mm diameter pipe filled with concrete with a concrete floor shaped towards a centre gulley connected to the sewerage reticulation. One standpipe will be positioned outside each ablution container

PG 2 MATERIALS

NOTE: All materials to comply with the relevant SABS specification

CEMENT

Cement to be Portland blast furnace cement and to comply with SABS 626. Mix is to be kept free from moisture at all times.

READY BLEND (IF APPLICABLE)

Ready Blend to be 19mm stone and to comply with SANS 1200G. Stone to comply with SABS 1083 and sand to comply with SABS 1090.

BUILDING SAND

Building sand for plaster and mortar is to comply with SABS 1090.

CONCRETE BLOCKS 140mm and 90mm

Concrete masonry units to be M140 and M90 with a minimum crushing strength of 4 MPA and to comply with SABS 1215.

TIMBER : RAFTERS AND PURLINS:- (IF APPLICABLE)

Timber shall be in accordance with SABS 563. Jointing will only be permitted where the required length is unobtainable. The minimum number of joints will be permitted and joints are to be finger jointed complying with SABS 096.

STEEL WINDOWS

Steel Windows to comply with SABS 727 and to be residential open out windows from relevant sections (F7, FX7, F4B and T6). Windows to be red oxide primed after fabrication in accordance with SABS 909. Glazing has been measured elsewhere. All fittings to be solid brass.

GLASS COMPLETE FOR WINDOW

Glass to comply with CKS Specification 55. Glass to be 3mm thick float glass to suit opening size for windows described.

PUTTY

Putty to comply with SABS 680. Putty is to be Type 11 to suit steel sashes.

ROOF SHEETS:- (IF APPLICABLE)

Roof sheets to be 0.4mm thick galvanised steel with 10.5 corrugations per width coated on both sides with a minimum of 275g zinc per m² all in accordance with SABS 934.

Alternate sheet to be Nutec fibre cement Big Six profile sheets manufactured from a combination of Portland cement, silica and organic fibres.

4mm GALVANISED WIRE

Wire mesh to be hot dipped galvanised in accordance with SABS 763.

BRICKFORCE (140mm WALL)

Brickforce to suit 140mm wall to be manufactured from hard drawn steel and shall consist of two 2.8mm diameter main wires with 2.5mm diameter cross wires at 300mm centres welded at intersections, or standard NHBRC brick force.

NAILS 75mm

Nails to be 75mm long galvanised wire nail

ROOF SCREWS:- (IF APPLICABLE)

Roof screws are to be galvanised 5.6mm diameter, 2.2mm pitch, 17 point drive screws

BB SALIGNA DOOR (F+L): SIZE 813 x 2 032mm:-

Doors to be manufactured from wrot SAP complying with Softwood joinery timber SABS 1359, comprising S.A.P. frame with double top and bottom rails, hinge blocks and lock blocks covered on both sides with finger jointed tongued and grooved v-jointed boarding with weather and boil proof adhesive.

FENCING

Galvanised wire mesh fencing shall comply with SABS 1373. Posts and stays shall comply with CKS 451.

PLUMBING MATERIALS

- UPVC Piping and fittings to comply with SABS 791 and SABS 967.
- Polypropylene pressure piping to comply with SABS 1315.
- Polyethylene pressure piping to comply with SABS 533.
- Copper piping to comply with SABS 460.
- Compression fittings for copper piping to comply with SABS 1067.
- Taps and stop taps shall comply with SABS 226 Class 2.
- Pans to comply with SABS 497.
- Cisterns to comply with SABS 821 and to include fixing bolts.

MORTICE LOCK: 2 LEVER

Lock furniture, etc., to comply with SABS 4. Mortice lock to be chrome plated two lever zinc alloy lockset as Solid ART 390/311 or other approved.

DAMP PROOF MEMBRANE

Damp proof membrane to be 250 microns Type C waterproof sheeting and is to comply with SABS 952.

STEEL DOOR FRAME (140mm BLOCKWORK)

Steel door frames to comply with SABS 1129. Door frames are to be treated with 1.2mm thick red oxide primed after fabrication in accordance with SABS 909. Frames are to suit door size 813 x 2032mm fitted with two 100mm steel hinges and adjustable strike plate. Butt hinges to be steel butts with loose pins welded to frames.

LINTOLS

Precast prestressed concrete lintols are to be manufactured from 35 MPA concrete with 13mm stone suitable reinforced with stressed high tensile wire with a tensile strength of at least 1350 MPA. Exposed faces of lintols to be finished smooth from the mould.

ROOF KIT :- (IF APPLICABLE)

Roof covering to be cement roof tiles on truss system, braced and supported to min.17.5 deg. to max 26 deg. Pitch inclusive of ridging tiles battens, tilting battens and approved underlay, if required, all to an engineers design specification. Roof kits to be similar to that available from Lafarge or Dezzo Roofing.

NB: Successful supplier to supply design certification and specification prior to award of quotation.

PG 3 MEASUREMENT AND PAYMENT

A provisional sum has been allowed in the bills of quantities for the construction of temporary accommodation. The number of units to be constructed and their location will only be determined once on site. The contractor will be required to obtain three quotations from approved suppliers/contractors to supply and erect the temporary accommodation.

Provision has also been made for the tenderer to tender a mark up on this item to cover all costs associated with the provision of the temporary accommodation. This mark up / handling fee is to cover all costs associated with obtaining quotations, procuring the supplier/contractor, insurances, supervision of the construction, all overheads and profits.

No additional costs will be entertained.

PH TRAINING LOCAL LABOUR AND EMEs / QSEs

CONTENTS:

- PH1. SCOPE : TRAINING OF LOCAL LABOUR AND EMEs / QSEs
- PH2. BASIC METHOD REQUIREMENT : TRAINING OF LOCAL LABOUR AND EMEs / QSEs
- PH3. MEASUREMENT AND PAYMENT

OBJECTIVE

As part of the eThekwini Municipality's objectives to develop its communities, provision has been made in the Bills of Quantities to carry out skills audits and provide accredited training to local labour and EMEs/QSEs. This specification sets out the basic methods for carrying out skills audits and facilitating accredited training during the duration of the contract.

PH1. SCOPE : TRAINING OF LOCAL LABOUR AND EMEs

The Contractor shall be responsible for providing diverse accredited training (2 to 3 day course on site) to various groups, including Local Labour, EME/QSE personnel and eThekwini Municipality's operating and maintenance personnel. The Contractor shall develop and facilitate initial training sessions for all persons as approved by the Employer's Agent, as well as training sessions at specified intervals to revive and supplement the initial training. An accredited trainer shall present all training sessions.

This specification includes all requirements and methods to be employed, for the training of the Local Labour and EMEs / QSEs, as well as the measurement and payment.

PH2. BASIC METHOD REQUIREMENT : TRAINING OF LOCAL LABOUR AND EMEs

The Contractor shall be responsible for conducting a complete investigation of the groups that need to be trained in order to compile an approved training plan.

The investigation shall cover at least the following aspects:

- (a) Assess likelihood of conformance to task-specific requirements (*status quo*) of capabilities in terms of a formal skills audit.
- (b) Identify minimum pre-qualification criteria in terms of existing knowledge and skill levels in relation to reaching target requirements.
- (c) Evaluate personnel in terms of pre-qualification criteria and tasks to be performed (skills profile).
- (d) Identify training needs.
- (e) Identify the appropriate accredited training courses in terms of task-specific activities and identified training needs. The Contractor is to ensure that the identified course content is as per the activities listed in C3.1.3.

The Contractor shall identify an accredited training service provider to assist in the above skills audit and to help finalise the compilation of a training plan setting out the proposed courses. Once the training plan and proposed courses have been approved by the Employer's Agent, the Contractor shall liaise with the accredited service provider to establish a date and appropriate training venue that would be conducive to learning and to perform training. On-site training is preferred.

The training shall be reviewed within one month after initial training to determine its effectiveness. Further regular training sessions shall be scheduled according to the effectiveness of initial training. Further training material may be introduced to enhance the initial training material identified.

The Contractor will be responsible for recording all training sessions and shall keep an attendance register.

PH3. MEASUREMENT AND PAYMENT

Item	Unit
PH3.1.1 Conducting of skills audit and the development of a training plan	Provisional Sum

A provisional sum is allowed for the conducting of a skills audit of the Local Labour, as well as the compilation of a training plan.

The provisional sum shall include full compensation for identification of pre-qualification criteria and training needs, staff assessment and evaluation prior to training, all technical research, identification of accredited training courses, and all other actions necessary for commencement of official training sessions in accordance with the specification.

Any expenditure under this item requires the written prior approval of the Employer's Agent and Employer.

PH3.1.2 Overheads, charges and profit on item PH3.1.1	%
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Item	Unit
PH3.1.3 Presenting accredited training course for Local Labour/EME/QSEs	Provisional Sum

The provisional sum shall include full compensation for presenting the courses, including lectures, demonstrations, on-site training and hands-on development.

The provisional sum shall also include full compensation for the Contractor's time, appointment of the accredited trainer for the course, and for all material expenses such as paper hand-outs and slides for the whole group of trainees, the number of which shall be determined during development of the training course.

Any expenditure under this item requires the written prior approval of the Employer's Agent and Employer.

PH3.1.4 Overheads, charges and profit on item PH3.1.3	%
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PH3.1.5 Provision of training venue	Provisional Sum
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The provisional sum shall include full compensation for hiring a suitable training venue and all other proven direct costs associated with hiring of the venue.

Any expenditure under this item requires the written prior approval of the Employer's Agent and Employer.

PH3.1.6 Overheads, charges and profit on item F3.1.5	%
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PI EMPLOYMENT AND MANAGEMENT OF EME / QSEs

PI1. DEFINITIONS

For the purposes of the Scope of Works, the definitions given in the General Conditions of Contract for Construction Works (2015), the Standard Specifications and the Scope of Works, together with the following additional definitions shall apply:

- a) **“Contract”** shall have the meaning assigned thereto in Clause 1.1.1.7 of the General Conditions of Contract for Construction Works (2015).
- b) **“Contractor”** shall have the meaning assigned thereto in Clause 1.1.1.9 of the General Conditions of Contract for Construction Works (2015).
- c) **“Main Contract”**: shall mean the contract entered into between the Employer, who is the eThekwini Municipality and the Contractor.
- d) **“EME/QSE Committee”**: The EME/QSE Committee shall be selected after award of the Main Contract, and its members shall consist of:
 - The Contractor, or his/her representative
 - The Employers Agent/s, or his representative/s
 - The Community Liaison Officer
- e) **“EME/QSE’s Subcontract”** shall mean the contract entered into between the Contractor and any EME/QSE **subcontractor**.
- f) **“EME/QSE Work Package”** shall mean that portion of the Works which shall be set aside for construction by an EME/QSE.
- g) **“EME”** means an exempted micro enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act. For the purposes of this Contract EMEs must be at least 51% owned by black people.
- h) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act. For the purposes of this Contract EMEs must be at least 51% owned by black people.

PI2 RESOURCES STANDARDS

EME/QSE tenders will be evaluated in terms of the eThekwini Municipality's Supply Chain Management Policy and terms and conditions of the main contract unless otherwise specified in this specification.

PI3 SUB-CONTRACTING (30% EME/QSE PARTICIPATION GOAL)

PI3.1 Scope of mandatory subcontract works

It is an express condition of this Contract that a minimum of 30% of the value of the works must be let out to Exempt Micro Enterprises (EMEs) or Qualifying Small Enterprises (QSEs) which are at least 51% owned by black people (sub-clause 9.(1) (b)) and who are registered on the eThekwini Municipality's database to meet the requirements of the “stipulated minimum threshold” (sub-clause 8.1 (b)). Further, this work is to be subcontracted to EMEs / QSEs registered in the appropriate CE grading for the value of the subcontracted works tendered.

In the subcontract agreement, the successful tenderer is to clearly state the scope of the work to be subcontracted identified by the successful tenderer. The sub-contract agreement must be in the form published by SAFCEC and in line with the terms and conditions of the main contract. A copy of the sub-contract agreement must be submitted to the Employer's Agent prior to finalising the agreement with the sub-contractor. Any unfair sub-contracting practices will not be permitted.

Packages will be negotiated with the EMEs/QSEs and any variance in the tendered rates and EME/QSE rates, both positive and negative will be accommodated under a provisional item included in the Preliminary and General Section of the Bills of Quantities.

Provision for an additional Lump Sum item will also be made in the Preliminary and General Sections for the tenderer to price for the management of EMEs/QSEs.

Provision for an item is also made in the Summary of the BOQ for the mark up on the value of works carried out by EMEs/QSEs under this provision. This item will cover all other costs and profits on the value of this work. No other additional costs will be entertained as a result of these requirements. In addition, should EMEs/QSEs carry out any works measured under provisional/prime costs sums where the Contractor has had the opportunity to tender a mark-up on these provisional / prime cost sums, the Contractor will not be eligible to claim the mark up on the provisional /prime cost sum. He will however be entitled to the mark up tendered for works carried out by EMEs/QSEs.

a) EME/QSEs (General):

This section provides the specifications that relate to the Contractor's implementation of the policies and initiatives of the Government, community participation, and employment of EME/QSEs. These specifications should be read in conjunction with the various statutes and legislation that relate to small businesses and Broad-Based Black Economic Empowerment.

In this regard all tenders will be considered with specific reference to applicable legislation in force from time to time and which are specifically applicable to organs of state for example the following:-

- (i) The Constitution of the Republic of South Africa, 1996;
- (ii) Public Finance Management Act, 1999 (Act No 1 of 1999);
- (iii) Municipal Finance Management Act, 2003 (Act No 56 of 2003);
- (iv) Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000);
- (v) Broad-Based Black Economic Empowerment Act, 2003 (Act No 53 of 2003);
- (vi) Construction Industry Development Board Act, 2000 (Act No 38 of 2000) and Regulations; and
- (vii) National Small Business Amendment Act, 2003 (Act No 26 of 2003);
- (viii) PPPFA Regulations of 2017

EME/QSEs: a separate and distinct business entity, including cooperative enterprises and non-governmental organisations, managed by one owner or more, including its branches or subsidiaries, if any, and is registered with the South African Revenue Service, and which can be classified as a micro enterprise by satisfying the size variation criteria according to the type of enterprise in the table below;

TABLE PI3: EME/QSE SUPPLIERS AND OTHER SERVICE PROVIDERS *

Size	Total Full-time Equivalent of Paid Employees	Total Annual Turnover	Total Gross Asset Value (fixed property excluded)	CIDB Grading
	less than	less than	less than	
Medium	200	R26 m	R5 m	7
Small	50	R6 m	R1 m	5 & 6
Micro	5	R0.2 m	R0.1 m	1 to 4

* In terms of the National Small Business Amendment Act, 2003 (Act No 26 of 2003)

It is the Employers objective that a minimum of 30 % of the contract value be subcontracted to EME/QSEs in the relevant 1 to 4 CIBD grading.

It should be noted that only one work package may be subcontracted to one specific Subcontractor where possible.

It shall remain the Contractor's responsibility to ensure that this target percentage is attained, irrespective of the difference in rates between what the main contractor tendered and the award rates and resulting amounts as tendered by the EME/QSEs.

No additional mark-up or costs will be payable to the Contractor for EME/QSE work described above other than the tendered mark-up rate as entered by the Contractor in the BOQ.

PI3.2 Overhead Charges, Profit, etc. on EME/QSE sub-contract works

The percentage tendered shall cover all costs including but not limited to administration, overheads, finance costs, transportation, risk and profit on the value of the work awarded as reserved for EME/QSE subcontract packages in order to achieve the required 30% EME/QSE participation goal as stipulated in the Contract Data. Management of the EME/QSEs during the contract will be paid under a separate item.

PI3.3 Preferred EME/QSEs

Packages will be negotiated with the EME/QSEs in conjunction with the Contractor, Employer's Agent/s and Employer.

EME/QSEs must be registered on the eThekini Municipality's database at the time of calling for EME/QSE work packages.

Enterprises shall comply with the following:

- Business shall be registered within the eThekini Municipality boundaries,
- Must be registered with the CIDB, to a relevant class i.e. CE, and /or the NHBRC
- Must have a current valid Tax Clearance Certificate.

PI3.4 Subcontracting procedures

a) General:

A list of EME/QSEs will be provided to the contractor by the eThekini Municipality after the award of the contract. Only EME/QSEs registered on the eThekini Municipality database will be considered.

The Employer, Employers Agent/s together with the Contractor shall evaluate the tenders received in accordance with the provisions of the Standard Conditions of Tender contained in SANS 10845-3 and Tender Data of the main contract. The evaluation and adjudication panel shall comprise of equal representatives from the Employer, Employers Agent/s, the CLO (as an observer), and the Contractor. The Employer requires the EME/QSE Committee to form the Evaluation Panel.

The Contractor with assistance from the Employer's Agent will draw up procurement documents for the EME/QSEs to price. A closing date and the venue to submit will be announced. The main Contractor will be required to evaluate the rates submitted and present them to the EME/QSE committee for approval. Rates are to be agreed by the EME/QSE committee.

Any rates balancing exercise will be carried out between the Main Contractor and recommended EME/QSE will be subject to the approval of the EME/QSE committee. Any variations in the final agreed rates and rates tendered by the Main Contractor will be accommodated in the Provisional Sum provided in the Bills of Quantities for such occurrences.

All subcontractors shall be appointed by the Contractor and the contents and requirements of Clause 4.4 of the Conditions of Contract shall apply in full.

The Contractor shall without delay award and enter into contract with the successful tendering subcontractor based on their accepted tender submission. Deviations from the tender document shall not be accepted by the Employer and the latest and applicable SAFCEC General Conditions of Subcontract Agreement shall be used.

Subcontractors shall comply in full, to all aspects of the Conditions of Contract and the Contractor's attention is drawn to the contents of Clause 4.4 of the Conditions of Contract.

The Contractor shall remain responsible for providing the subcontracted portion of the works as if the work had not been subcontracted.

Claims for extension of time due to delays caused by EME/QSEs will not be entertained; the Main Contractor is to programme in his work factoring in the use of EME/QSEs (reference sub-clause 5.6.2.4 of GCC 2015 for Contractor's time risks). Non performance of EME/QSEs shall be dealt with in terms of Clause 10 in the SAFCEC sub contractor agreement.

A five percent (5%) excluding VAT of the sub contract value will be deducted as retention on EME/QSEs contracts with half to be released on issue of the completion certificate for the EME/QSE work package.

The Main Contractor shall not permit the EME/QSE sub contractor to further sub-contract any portion of the work package without express written permission of the EME/QSE Committee. This also applies to the Main Contractor carrying out such work as a sub-contractor to the EME/QSE sub-contractor. This will not be permitted.

b) Subcontract agreements with the Subcontractors :

The Contractor will be required to submit a copy of the signed subcontract agreements for all EME/QSE work packages which will include the scope of works for each subcontractor, as well as agreed rates.

This must be submitted prior to any work being undertaken in the relevant EME/QSE work package.

It must be further noted, that the subcontractor must be registered with the Construction Industry Development Board, in the relevant category, in accordance with the estimated value of the work package, as well as being registered on the eThekwini Municipality Supplier Database.

All the Conditions of Tender and Tender Data, as they have applied to the Main Contract, shall apply where relevant, to the various subcontracts.

The Contract Data in the associated subcontract documents shall be based on the latest SAFCEC General Conditions of Subcontract, with minimal project specific variations and amendments that do not constitute a material change (where practically possible).

Notwithstanding, the Specific Provisions and Conditions of the subcontracts must however allow for the following amendments and variations to the Standard General Conditions of Subcontract:

- Clause 5: Subcontract Sureties – The Subcontract shall be drafted to allow the omission and requirement for sureties and performance bonds.
- Clause 6: Insurances – The Subcontract shall be drafted to allow the omission of insurances and to specify that such responsibility remain with the Contractor.
- Clause 10: Penalty for Delay – The Subcontract shall be drafted to specify that the Contractor shall issue and give written notice and warning to the Subcontractor prior to any penalties being deducted. Penalty amounts will be agreed by the EME/QSE Committee in consideration of the penalties for the Main Contract

- Clause 12: Valuations and Payments – The Subcontract shall be drafted to allow the Subcontractor to submit bi-weekly statements.
- Clause 12: Valuations and Payments – The Subcontract shall be drafted to specify that the Contractor shall pay the Subcontractor by the 7th working day after submitting the payment certificate for the EME/QSE work package or within two working days of the Contractor receiving his payment for such work, whichever is the sooner.
- Clause 12: Valuations and Payments – The Subcontract shall be drafted to allow the Contractor to deduct retention only from the Subcontractor's penultimate statement.

The subsequent Conditions of Subcontract Agreement shall be in accordance with the Conditions of Contract for Construction Works (2015). The Subcontract shall also specify:

- (i) the terms and conditions relating to the recruitment, employment and remuneration of workers engaged on the subcontract works; and
- (ii) details of any training to be provided to the temporary workforce.

The Contractor shall at all times remain responsible for providing the subcontracted portion of the Works as if the work had not been subcontracted under normal sub-contract conditions.

PI3.5 Attendance on Subcontractors / Subcontracts

The Contractor shall, in addition to the requirements of Clause 4.4 of the Conditions of Contract guide, assist and mentor all the EME/QSE subcontractors through all stages of the works packages.

The Contractor shall closely manage and supervise all EME/QSEs and shall manage, guide and assist each EME/QSE in all aspects of management, execution and completion of his subcontract.

The above shall include *inter alia*, but is not limited to, the following:

- (i) Planning and programming of the Works.
- (ii) The sourcing, ordering, acquiring, assist with hiring all the necessary Construction Equipment, Materials, tools and accidentals necessary and required for the successful execution and completion of the Permanent as well as the Temporary Works.
- (iii) Labour relations and employment.
- (iv) Monthly measurements, costing and invoicing.
- (v) General safety, occupational health and safety matters.
- (vi) Functions of civil engineering infrastructure, structures, services and systems.
- (vii) Interpreting and understanding the contract and subcontract.
- (viii) Construction and maintenance methods and procedures.
- (ix) Communication.
- (x) Cash-flow control, submitting invoices and payment certificates.
- (xi) Planning, programming, scheduling, critical path control and acceleration.
- (xii) Maintenance planning.
- (xiii) Material procurement and control.
- (xiv) Risk limitation and management.
- (xv) Quality assurance and procedures.
- (xvi) Compliances with all applicable laws, regulations, statutory provisions and agreements.
- (xvii) General Conditions of Contract and Contract Data.
- (xviii) Contractual claims, if situations arise that entitle a contractor to claims in terms of the Conditions of Contract.
- (xix) Profit and loss.
- (xx) Replacement and running costs of Construction Equipment.

The extent and level of management, mentorship, supervision, guidance and assistance to be provided by the Contractor shall be in commensuration with the expertise of the relevant subcontractor and should be so directed as to enable the subcontractors to achieve the successful execution and completion of the respective Sub-contracts.

The Contractor shall be required to appoint an EME/QSE Construction Manager whose sole responsibility will be to assist EME/QSEs as and when required in terms of this specification. The EME/QSE Construction Manager's duties are specified in Clause PI3.6 below. The EME/QSE Construction Manager must be a full-time employee of the company with a minimum of five (5) years' experience training and mentoring EME/QSE/SMME contractors and is registered with SACPCMP as PrC Mentor or with ECSA as PrEng, PrTechEng or PrPrTechni Eng and has a NQF 5 certificate. The EME/QSE Manager must be full time on site for the duration of the contract and will not be permitted to fulfil any other function on site.

PI3.6 Assistance to the EME Subcontractors

The Contractor shall, in addition to the requirements of Clause 4.4 of the General Conditions of Contract for Construction Works (2015), guide, assist and mentor all eligible potential EME/QSEs wishing to submit tenders, in the proper completion and submission of their particular tenders, including advice and guidance on how to establish rates.

The EME/QSE Manager will manage the EME/QSEs and report on progress to the EME/QSE Committee. The assistance rendered by the Construction Manager, shall inter alia:

- a) Be given at a level and to the extent which is commensurate with the expertise and resources of the EME/QSEs,
- b) Be given in a manner which is neither prescriptive, dictatorial, nor coercive towards the EME/QSEs;
- c) Not be utilised by the Contractor to manipulate the rates and prices submitted, to his advantage, and
- d) Be given in a manner which does not unfairly prejudice or favour any particular EME/QSEs.

The EME/QSE Manager will work with and manage the EME/QSE Subcontractors throughout the Contract.

The EME/QSE manager shall be a dedicated resource whose only responsibility is to manage the EME/QSE subcontractors and as such shall not be the site agent or any other person employed on the contract for other purposes.

The Contractor's attention is further directed to Clause C3.5: Management under the Scope of Work.

PI3.7 Procedure for Engaging EME/QSEs on the Project

The conditions of subcontract shall stipulate that the tenderer must be registered with the Construction Industry Development Board, in the relevant category, according to the estimated value of the Work Package.

The Contractor, with assistance from the Employers Agent/s, must undertake the following tasks in appointing EME/QSEs:

- Obtain a list of EME/QSEs from the eThekwini Municipality Project Manager;
- Together with the EME/QSE Committee, adjudicate and award the tenders;
- Sign a subcontract agreement for each Work Package with the successful EME/QSE subcontractor using the SAFCEC format ;
- Assist, manage and monitor the EME/QSE subcontractors with their work output and quality;

- Issue, subject to the approval of the Employer, a Certification of Completion for each EME/QSE subcontractor work package.

The Contractor shall ensure that EME/QSEs are appointed timeously, so as not to delay the Construction Programme of the Main Contractor in any way. The above tasks are more fully described below.

PI4 TENDER PROCESS FOR APPOINTING EME'S

PI4.1 Supply Chain Management Policy

The Contractor shall procure the services of EME'S/QSEs by following a process similar to that of the Municipality's Supply Chain Management Policy, so as to ensure fairness and equity. Tenders, of which the estimated value is below R 200 000, may be procured by obtaining three quotes. However, for work packages whose estimated value exceeds R 200 000, tenders shall be invited from names of EME/QSE that will be provided by the eThekwini Municipality Project Manager. A list of companies will be given to the Main Contractor and he will invite at least 6 No. companies to submit tenders. A Contractor will be given names in a principle of 50% more than the required number to choose from.

The Contractor shall invite tenders and shall be responsible for the issuing of the subcontract tender documents to prospective tenderers. The Employer's Agent will monitor and approve this process.

The Contractor shall adjudicate the tenders with the assistance of the EME/QSE Committee and shall enter into a subcontract agreement with the successful EME/QSE.

All conditions of tender, as they applied to the Main Contractor on this Contract, shall apply where relevant, to the tenders for EME/QSE subcontracts.

PI4.2 Conditions of Tender

The conditions of contract of the subcontract agreement shall be in accordance with the General Conditions of Contract for Construction Works (2015).

The contract will also specify:

- The terms and conditions relating to the recruitment, employment and remuneration of workers engaged on the contract works;
- Details of any training to be provided to the temporary workforce;
- Detail of accepted rates;
- Payment terms which should be 7 days after issuing of an invoice on labour only contracts and where the Main Contractor is supplying material and plant. No early settlement discount will be permitted to be charged.

PI4.3 Assistance to the Tenderers

(a) The Contractor shall be responsible for ensuring that prospective EME/QSE tenderers fully comprehend the following:

- Implications of the liabilities and responsibilities inherent in the subcontract into which the tenderer proposes entering;
- implications of the tendered rates;
- scope and extent of the works included in the subcontract;
- proper procedures for the submission of the tender;
- procedures and basis on which tenders will be adjudicated and the subcontract awarded.

PI4.4 Adjudication

- a) The Contractor shall receive all tenders at a location identified by him, with all sealed tender submissions being placed in a proper tender box for this purpose.
- b) All tenders received shall be evaluated by the Employer's Agent and the person (EME/QSE Manager) mandated to act and sign on behalf of the Main Contractor.
- c) The EME/QSE Committee shall have the right to interview any tenderer for the purpose of:
 - Clarifying any aspect of the tender;
 - Verifying the eligibility of the tenderer;
 - Querying abnormally high or low rates and prices, and
 - Clarifying rates and prices which are not in balance with other tendered rates and prices.
- d) The correction of obvious errors shall be carried out in accordance with the requirements of the CIDB Conditions of Tender.
- e) Adjudication of the tenders received will be made by the EME/QSE Committee. The Contractor shall be prepared to explain the process of adjudication to all tenderers and motivate his method of award, as may be necessary. All unsuccessful and successful tenderers needs to be notified in writing.

PI4.5 Award of Tenders

The Contractor must award the work to the successful EME/QSE tenderer where after a subcontract agreement will be signed between the Contractor and the successful EME/QSE tenderer using the latest available SAFCEC sub-contract agreement format.

PI5 CONTRACTOR'S OBLIGATIONS TO SUBCONTRACTED EME/QSEs

PI5.1 Dispute Avoidance and Resolution Procedures

The Contractor shall at all times:

- (a) Apply the terms and conditions of the subcontract fairly and justly, taking due cognizance of the level of sophistication and experience of the particular EME/QSE concerned.
- (b) Closely manage and supervise all EME/QSEs and wherever possible, give reasonable warning to EME/QSEs when any breach of the terms of the subcontract has occurred or appears likely to occur. The Contractor shall whenever possible, give the EME/QSEs reasonable opportunity remedy any such breach or to avoid such breach and shall render all reasonable assistance to the EME/QSEs in this regard.

When taking any disciplinary actions or imposing any penalties as are provided for in the subcontract, the Contractor shall explain fully to the EME/QSEs that such actions are provided for in the subcontract.

If any dispute should arise between the Contractor and an EME/QSE such dispute shall be resolved in accordance with the provisions of the subcontract.

PI6 QUALITY OF WORK AND PERFORMANCE OF THE EME/QSE SUBCONTRACTOR

PI6.1 Quality

The Contractor shall be fully liable for the quality of work carried out by the EME/QSEs as if this work is carried out by the Main Contractor. All works are to be carried out in accordance with the standard and project specifications and Construction Drawings provided in the Contract Document and issued by the Employer's Agent.

PI6.2 Performance

If the EME/QSE Subcontractor, in the opinion of the Employer's Agent, fails to comply with the criteria as listed below, the Employer's Agent shall issue a written warning to the Main Contractor, stating all the areas of non-compliance. A copy of the letter of warning shall be forwarded to the Employer. The criteria may include, but are not limited to, the following:

- (a) Acceptable standard of works as set out in the specifications in the subcontract.
- (b) Progress in accordance with the time provisions in the subcontract.
- (c) Punctual and full payment of the workforce and suppliers.
- (d) Site safety
- (e) Accommodation of traffic

The EME/QSE Subcontractor shall have 7 days from the date of receipt of the letter of warning by the Contractor to address and rectify the issues raised by the Employer's Agent, with the exception of points (d) and (e), for which the reaction time shall be immediate. Failure to do so will be sufficient grounds for the Contractor to terminate the subcontract, provided that the EME/QSE Committee is satisfied that the Contractor has made every effort to correct the performance by the EME/QSE Subcontractor.

PI7 ISSUING OF COMPLETION CERTIFICATE

The Contractor shall, within 7 days of the completion of each subcontract completed in accordance with the provisions of this specification, issue free of charge to the EME/QSE, a Certificate of Completion. The format, layout and appearance of certificates issued shall be agreed by the EME/QSE Committee, provided always that they shall be respectable and presentable in accordance with the general standards of normal business practice. All certificates issued shall be co-signed by the Employer's Agent, EME/QSE Manager and Construction Manager.

The Certificate of Completion shall provide the following information:

MAIN CONTRACT DATA:

- (i) Contract title;
- (ii) Contractor's full name and address;
- (iii) Employers Agent name and address;
- (iv) Employer's name.

SUBCONTRACT DATA:

- (i) EME/QSE name and address;
- (ii) Scope or extent of the subcontract works;
- (iii) Value of the subcontract works;
- (iv) Duration of the subcontract;
- (v) Date of completion of the subcontract;
- (vi) Description of the training undergone by the EME/QSE

PI8 CONTRACTOR'S LIABILITY

No provision or requirement set out in this specification shall be deemed to relieve the Contractor of any liability or obligation under the contract, and in accordance with the provisions of Clause 4.4 of the General Conditions of Contract for Construction Works (2015), the Contractor shall be fully liable for the acts, defaults and neglects of any EME/QSEs, his agents or employees, as fully as if they were the acts, defaults and neglects of the Contractor, his agents or employees.

PI9 MEASUREMENT AND PAYMENT FOR EME/QSE WORKS

Under the work packages determined by the EME/QSE Committee for EME/QSEs, the EME/QSEs shall be responsible for all labour, plant, equipment, tools, materials and any other incidentals that may be required to carry out the works in accordance with the specifications.

In cases where the EME/QSE is unable to provide all of the above then the Main Contractor is to provide plant, equipment, tools, material and other items needed by the EME/QSE in order to implement his work and such contracts will be regarded as labour only sub-contracts.

The Main Contractor shall supervise and manage the EME/QSE work at all times in order to ensure compliance with the specifications and drawings.

Measurement of EME/QSE works for work packages must be reviewed by the EME/QSE Manager, and approved by the Employer's Agent after approval by the Construction Manager. EME/QSEs will be permitted to invoice bi-monthly. All invoices from EME/QSEs must be submitted together with the Contractor's payment certificates.

The Main Contractor shall pay EME/QSEs 14 days after issue of an Invoice by the EME/QSE or within two working days after receiving payment from the Employer (whichever comes first). The Main Contractor will not be permitted to charge EME/QSEs handling costs i.e. bank charges, early payment discounts etc. These costs must be included in the mark-up tendered by the Main Contractor on the value of works carried out by EME/QSEs. Payment of EME/QSEs may not be delayed pending payment of the contractor by the Employer.

PI10 MEASUREMENT AND PAYMENT FOR FULFILLING THE REQUIREMENTS OF THIS SPECIFICATION

PI10.1 Mark-up on the Value of Work Carried out by EME/QSEs

Provision for a line in the summary page of the Bills of Quantities has been made for tenderers to tender a percentage mark-up on the value of EME/QSE works to be undertaken under this Contract. The percentage tendered must cover all costs as indicated in PI1 to PI9 of this specification other than the cost for the EME/QSE Manager and variation of rates between those tendered by the Main Contractor and EME/QSEs for each works package. This must also cover any lost earnings or commercial opportunities arising out of meeting the requirements of this specification.

In addition, should EMEs/QSEs carry out any works measured under provisional/prime costs sums where the Contractor has had the opportunity to tender a mark-up on these provisional / prime cost sums, the Contractor will not be eligible to claim the mark up on the provisional /prime cost sum. He will however be entitled to the mark up tendered for works carried out by EMEs/QSEs

No other costs will be entertained.

PI10.2 Mark-up on the Value of Work Carried out by EME/QSEs %

PI10.3 Provisional Sum for the Variation in Rates

A provisional sum line item has been provided in the Bills of Quantities in Section 2 to accommodate the positive or negative variation in rates tendered by the Main Contractor and subsequent rates for the same items tendered by the EME/QSEs for the various EME/QSE work packages determined post tender. This provision is a straight replacement provision for the variation in value of the works as a result of the variation in rates for the specific items where the rates vary. The provisional sum will be accessed via a single variation order for each EME/QSE work package.

A mark-up on this provisional sum is not applicable. Any additional costs that the Contractor deems that he may occur out of meeting the requirements of this aspect of the specification must be tendered in the Preliminary and General Items "Other Fixed Obligations" or "Other Time Related Obligations".

No other compensation will be entertained.

PI10.4 Provisional Sum for the Variation in Rates Sums

PI10.5 Management of EMEs/QSEs

The monthly fee shall include full compensation for all guidance, mentoring, non-accredited training, supervision, setting out and monitoring activities that may be deemed necessary to ensure the Works carried out by EMEs/QSEs are in accordance with all aspects of the Contract Document and within the agreed timeframes as per the relevant sub-contractor agreement as stipulated in this specification (this includes the full time employment of the EME/QSE Construction Manager).

No other costs will be entertained.

PI10.6 Management of EMEs/QSEs Month

C3.4.2 PLANT AND MATERIALS

C3.4.2.1 Plant and materials supplied by the employer

None

C3.4.2.2 Materials, samples and shop drawings

The Contractor shall, when so ordered, deliver to an approved testing laboratory, samples of materials to be used in the Works. No laboratory for use by the Engineer will be required. However, the Contractor shall provide and maintain his own equipment to do all the soil and density tests required to enable him to fulfil his obligations in terms of the specifications in this regard. The cost of other Acceptance Tests required to be done by the Engineer shall be paid for from the Provisional Sum allowed in the Bills of Quantities for this purpose.

Should the Contractor wish to utilise any materials other than those specified on the working drawings or specified in the standard specifications, project specifications or bill of quantities, the Contractor will be required to submit to the Engineer in writing requesting the use of the alternative material. This written request must be accompanied by sufficient information (test results, comparative tests, certificates etc.) to enable the Engineer to make an informed decision.

C3.4.3 CONSTRUCTION EQUIPMENT

C3.4.3.1 Requirements for equipment

The Contractor must ensure that plant and equipment as tendered in the Returnable Documents of the Tender Document are the minimum plant and equipment on site to carry out the works. In addition, the Contractor must ensure that all plant and equipment use on site are in good working order and are utilised for their intended purposes, and that the plant and equipment are insured against all eventualities.

C3.4.3.2 Equipment provided by the employer

None

C3.4.4 EXISTING SERVICES

C3.4.4.1 Known services

Certain of the Works to be constructed under this Contract are in close proximity to existing works, structures, and equipment. This will necessitate great care being taken by the Contractor when constructing the Works to be carried out under this Contract.

Certain Works forming part of this Contract will be carried out in the vicinity of existing services. Great care will have to be taken when working in proximity to these services. Information will be supplied to the Contractor by the Engineer indicating the approximate positions of these services and the Contractor will be expected to locate these by hand excavation before any excavation operations commence. Any problems encountered shall be immediately brought to the attention of the Engineer.

The Contractor shall take all necessary steps to ascertain the location of existing services before commencing any section of the Works and shall exercise the greatest care when working in the vicinity of such services. No more than three weeks and not less than one week before commencing his operations in any particular area, the Contractor shall request the latest available drawings showing the location of services already installed.

In addition, certain items of work require to be connected to existing works. The new work must therefore be coordinated and arranged in such a manner so as to cause minimum interference with the existing work and must also be carried out so as to match and blend in with the existing work.

No additional payment will be made for the care required or for any additional costs incurred by the Contractor when constructing in the proximity of existing works or survey pegs, etc., nor will payment be made for connecting any new works to existing works, except where specifically allowed for in the Bills of Quantities. The Contractor must therefore allow for all such costs in his tendered rates in the Bills of Quantities.

C3.4.4.2 Treatment of existing services

Where existing services are either indicated on drawings supplied to the Contractor or indicated on site, or in the course of excavation the Contractor shall lay bare any water mains, pipes, cables, telegraph cables or telephone poles, or any existing structures, these shall be severely shored, strutted or slung and sufficiently protected to ensure that no damage shall be done to them until filling has been placed around them. In the case of electric and communication cables, if these shall be exposed in the course of excavation, the Contractor shall not refill the excavation around such cables until the cables have been inspected and passed as intact by their respective owners. The costs of exposing these services, protecting, maintaining and repairs necessitated by damage caused by the Contractor must be included in the rates measured as specified in Sub-Clause 8.3.2(a) of SANS 1200 DB.

C3.4.4.3 Reinstatement of services and structure damaged during construction

The Contractor shall take all necessary steps to protect any existing works whatsoever against damage which may arise as a result of his operations on Site. The Contractor shall bear the cost of the repair of damage to any service, the possible existence of which could reasonably have been ascertained by him in good time.

Where the Contractor is responsible for damage for which repairs have to be carried out by an outside authority, the costs of these repairs will be recovered by means of a deduction from the Contractor's Payment Certificate. The Employer will attend to the payment of monies due to outside authorities.

C3.4.5 SITE ESTABLISHMENT

C3.4.5.1 Service and facilities provided by the employer

(i) Source of Water Supply

The Contractor may make application to the Municipality's Water Division for a clean water supply point, but shall bear all the costs for the installation of such supply point. Water used by the Contractor from the Employer's mains will be charged for at the tariffs ruling at the time of use.

The Contractor shall make himself thoroughly acquainted with the regulations relating to the use of water and shall take adequate measures to prevent the wastage of water.

The Employer accepts no responsibility for the shortage of water due to any cause whatsoever, nor additional costs incurred by the Contractor as a result of such shortage.

The Contractor shall take note that no direct payment will be made for any costs incurred for the provision of a water supply point nor for the cost of water drawn. Payment for the aforementioned shall be deemed to be covered by the rates and prices tendered and paid for the various items of work included under the Contract.

(ii) Source of Power Supply

The Contractor is to make his own arrangements with the Electricity Department for a supply of electricity, if required, and shall pay establishment and consumption costs at the tariffs ruling at the time.

(iii) Location of Camp and Materials storage area

The camp site and storage area will be indicated to tenderers at the site inspection for the contract.

The Contractor shall confine his camp and storage of materials to the areas designated. On completion of the construction works the surface of the areas utilised shall be re-instated.

C3.4.5.2 Facilities provided by the contractor

(i) Temporary Offices

The Engineer currently has an office and any additional requirements for this office is specified in clauses AB 3.2 and PSAB 1. Site meetings will be held in the Contractor's site office. These offices and associated facilities will require monthly servicing and maintenance.

(ii) Sanitary Facilities

The Contractor shall supply chemical toilets for use by his workmen. The number of toilets shall be based on one toilet per fifteen personnel on site. Under no circumstances will the Contractor's staff be allowed to use public toilet facilities.

(iii) Telephone Facilities

A site telephone will not be required by the Engineer, but the time-related tendered rate for the Contractors telephone shall include for local official calls by the Engineer or his Representative.

C3.4.5.3 Storage and laboratory facilities

Contractor shall provide sheds for storage of materials and offices for his own use as required. 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.

C3.4.5.4 Other facilities and services

The Contractor must arrange for his own services on site as stipulated in C3.4.5.1. No housing facilities are available for the Contractor's employees, and the Contractor shall make his own arrangements to house his employees and to transport them to Site. Housing facilities are to be in compliance with the requirements of the Department of Labour, Eastern Cape Provincial Government.

C3.4.5.5 Vehicles and equipment

None

C3.4.5.6 Advertising rights

None

C3.4.5.7 Notice boards

The contract nameboard will be as detailed in the tender drawings in Appendix D.

C3.4.6 SITE USAGE

None

C3.4.7 PERMITS AND WAY LEAVES

None

C3.4.8 ALTERATIONS, ADDITIONS, EXTENSIONS AND MODIFICATIONS TO EXISTING WORKS

The Contractor must take note that the roads to be constructed under this contract tie into existing surfaced roads. The Contractor will be required to survey these tie in points to satisfy himself that the tie in information contained in the Working Drawings ties in with the status on site. This survey work must be carried out during the initial stages of the contract to allow the Engineer sufficient time to make any amendments to the Working Drawings. No additional

payment will be made to carry out this survey, and the cost thereof is deemed to be included in the Contractor's individual rates for setting out of the works.

C3.4.9 INSPECTION OF ADJOINING PROPERTIES

The Contractor must take note that the Works are to be constructed within an existing built up area, with accesses to properties existing off the roads. The Contractor will be required to carry out a photographic record of the status of the existing accesses and boundary fences prior to commencing the works. On completion of the Works, the Contractor will be required to reinstate the accesses and boundary fences to a state at least equal to the status prior to construction. The Contractor must submit the photographic record to the Engineer prior to commencement of construction. No additional payment will be made to produce the record, and the cost thereof is deemed to be included in the Contractor's Preliminary and General Items.

C3.4.10 WATER FOR CONSTRUCTION PURPOSES

All water for the Work shall be of adequate quality and ample quantity for the purposes required. The Contractor shall make his own arrangements and be solely responsible for the supply, cartage and storage of water required for the construction of the Works. Where the Employer controls existing water supplies and make these available to the Contractor, the Contractor shall arrange this with the Employer and pay the charges stated by the Employer.

C3.4.11 SURVEY CONTROL AND SETTING OUT OF THE WORKS

C3.4.11.1 Setting out Information

The Contractor will be provided with the setting out control data which was used in the setting out of the works and the Contractor will be entirely responsible for the correct setting out of all services on the Contract.

C3.4.11.2 Reference Marks (See SANS 1200A - Clause 5.1.1)

The Contractor will have the responsibility of referencing each and every setting out peg on the Contract, in a position such that the reference pegs will not be disturbed by his operations on the site, and to safeguard and maintain such reference pegs until the completion of the Works. The Contractor shall provide the Engineer with a record of the position of the reference pegs and he shall assist the Engineer throughout the Contract in the checking of the setting out of the Works, using these reference pegs.

C3.4.11.3 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 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.

C3.5 : MANAGEMENT

C3.5.1 MANAGEMENT OF THE WORKS

C3.5.1.1 The following parts of SANS 1921 Construction works standards and associated specification data are applicable to the works:

SANS 1921-1:2004: General Engineering and construction works
SANS 1921-6:2004: HIV / Aids awareness

The abovementioned South African National Standards make several references to the Specification Data for data, provisions and variations that make these standards applicable to this contract. The Specification Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and these standards.

Each item of Specification Data given below is cross-referenced to the clause in the standard to which it mainly applies.

The associated Specification Data is as follows:

SANS 1921-1, Construction and management requirements for works contracts – Part 1: General engineering and construction works:

Clause No.	Specification data
<u>Essential Data:</u>	
4.1.7	There are no specific requirements for drawings, information and calculations for which the contractor is responsible.
4.2.1	The responsibility strategy assigned to the contractor for the works is A.
4.2.2	The Employers Agent is : TBA (in writing on commencement of project)
4.3.1	<p>The planning, programme and method statements are to comply with the following:</p> <p>The Contractor must programme his work in such a way as to achieve the final completion within the Time for Completion.</p> <p>The Employer's target for the overall time for completion of the Works is 36 (thirty six) months including all non-working days holidays.</p> <p>Fundamental aspects of the project are;</p> <ul style="list-style-type: none"> ❖ Monthly production requirements and the penalties for non-compliance ❖ Overall Practical Completion and Completion ❖ Overall project penalties ❖ Handover of as-built data and certificates during the project for each sub-phase and on completion of the overall works have all been extensively covered under the Contract Data and Section C3.1. <p>The Contractor shall, within 14 days of being awarded the contract, provide a detailed programme showing how he proposes to carry out the works in terms of the above requirements, clearly indicating in the programme the critical path, together with anticipated expenditure in a cash flow table and graph (including expenditure for SMME's, locally sourced sub-contractors and local labour) and Contract Risk Register.</p> <p>The programme shall detail separately the various construction activities involved with each of the elements of the contract and shall be subject to the approval of the Engineer.</p> <p>When drawing up his programme the Contractor shall take into consideration and make allowance for, inter alia:</p> <ol style="list-style-type: none"> a) All of the requirements indicated in the bullets of 4.3.1 above. b) Expected weather conditions and their effects, c) Known physical conditions or artificial obstructions, searching for, dealing with and carrying out alterations to the existing services, the accommodation and safeguarding of public access and traffic, the design, testing and approval of the concrete mixes, d) Dealing with the community, and managing the relocation and hand over of completed units to the beneficiaries, e) Dealing with water on site. <p>During the course of construction the programme shall be monitored monthly and the Contractor shall provide daily records of actual labour and plant returns.</p>
4.3.3	The notice period for inspection is 1 Day
4.7.3	N/A

4.9.3	N/A
4.12.2	The samples of materials, workmanship and finishes that the contractor is to provide and deliver to the employer are: All
4.12.2	The fabrication drawings that the contractor is to provide and deliver to the employer are: All temporary works as indicated in sub-clause 4.3.3 of the Contract Data
4.14.3	The office accommodation, equipment, accommodation for site meetings and other facilities for use by the employer and his agents are: As indicated in the Project Specifications
4.14.5	The Contractor is required to provide latrine and ablution facilities.
4.14.6	The requirements for the provision and erection of separate sign boards for consultants and subcontractors are: As indicated in the Project Specifications
4.17.1	<p>The requirements for the termination, diversion or maintenance of existing services are:</p> <p>Certain Works forming part of this Contract will be carried out in the vicinity of existing services. Great care will have to be taken when working in proximity to these services.</p> <p>Information will be supplied to the Contractor, by the Engineer, indicating the approximate positions of these services and the Contractor will be expected to locate these by hand excavation before any excavation operations commence.</p> <p>Any problems encountered shall be immediately brought to the attention of the Engineer.</p> <p>The Contractor shall take all necessary steps to ascertain the location of existing services before commencing any section of the works and shall exercise the greatest care when working in the vicinity of such services.</p> <p>No more than three weeks and not less than one week before commencing his operations in any particular area, the Contractor shall request the latest available drawings showing the location of services already installed.</p> <p>In addition, certain items of work require the connection to existing works. The new work must therefore be coordinated and arranged in such a manner so as to cause minimum interference with the existing work/service and must also be carried out so as to match and blend in with the existing work/service.</p>
4.17.3	<p>Services which are known to exist on the site are:</p> <p>Where existing services are either indicated on drawings supplied to the Contractor or indicated on site, or in the course of excavation the Contractor shall lay bare any water mains, acid mains, pipes, electrical cables, telegraph cables or telephone poles, or any existing structures, these shall be severely shored, strutted or slung and sufficiently protected to ensure that no damage shall be done to them until filling has been placed around them.</p> <p>In the case of electric and communication cables, if these shall be exposed in the course of excavation, the Contractor shall not refill the excavation around such cables until the cables have been inspected and passed as intact by their respective owners. The costs of exposing these services, protecting, maintaining and repairs necessitated by damage caused by the Contractor must be included in the rates measured as specified in Sub-Clause 8.3.2(a) of SANS 1200 DA.</p> <p>The Contractor shall take all necessary steps to protect any existing works whatsoever against damage which may arise as a result of his operations on Site. The Contractor shall bear the cost of the repair of damage to any service, the possible existence of which could reasonably have been ascertained by him in good time.</p> <p>Where the Contractor is responsible for damage, for which repairs have to be carried out by an outside authority, the costs of these repairs will be recovered</p>

	by means of a deduction from the Contractor's Payment Certificate. The Employer will attend to the payment of monies due to outside authorities
4.17.4	The requirements for detection apparatus are: None
4.18	The additional health and safety requirements are: The tenderer is referred to the Employer's General Health and Safety Specification contained in Appendix A.
4.22	The works to be undertaken by Nominated and Selected Subcontractors comprise: Refer to Section C3.3
Additional Clauses:	
4.18.1.4	<ol style="list-style-type: none"> 1) In terms of section 43 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993): Construction Regulations, 2014, the Employer shall not appoint a Contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfillment of all the applicable requirements of the Act and the Regulations. 2) The Contractor shall thus either employ his/her own competent resources, hire and/or train own resources until competency is achieved, or subcontract specialist competent resources in order to achieve compliance with the regulations. 3) The Contractor shall note and comply with all requirements as contained in the Employer's General Health and Safety Specification contained in Appendix A.
4.19.3	<ol style="list-style-type: none"> 1) The Contractor shall conduct all operational activities in an environmentally friendly manner and endeavor to rectify impacts on the environment caused by operational activities. 2) The Contractor shall conduct activities in a manner designed to avoid or minimise risk of harm to the environment and to human health and safety, including the effects of pollution, control of waste, litter, disturbance to ecosystems disturbance to cultural heritage sites and loss of biodiversity. 3) All applicable environmental legislation shall be complied with. 4) The Contractor shall comply with the requirements of the Employer's Environmental Management Plan contained in Appendix B.

C3.5.1.2 Particular or Generic specifications

- a) The following SANS 1200 standardised specifications for civil engineering construction are applicable:
 - i) SANS 1200 A : General
 - ii) SANS 1200 AB : Engineer's office
- b) The provisions of SANS 1200 A and SANS 525 AB take precedent over the provisions of any part of SANS 2001 that is applicable to the Contract. The variations and additions to these specifications are described in section C3.4.1.2 (applicable SANS 1200 standardised specifications)

C3.5.1.3 Software application for programming

In preparing the Construction Programme, the Contractor can either use Microsoft Excel, or Microsoft Projects.

C3.5.1.4 Methods and procedures

C3.5.1.4.1 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.

C3.5.1.4.2 Testing (Read with SANS 1921 – 1 : 2004 clause 4.11)

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.

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.

C3.5.1.4.3 "As built" Drawings

As the work progresses, the Contractor shall keep full records of all amendments to and deviations from the drawings as issued to the Contractor at the start of the contract and/or additional drawings and instructions issued during the contract. The true positions, invert levels and ground levels of all services shall be surveyed after construction and indicated on the drawings, for which purpose the Contractor shall receive a separate complete set of drawings at no cost, from the Engineer. The Contractor must provide as-built survey information in digital format (refer to Appendix F for detail of as-built requirement).

As-built drawings, quality certificates and test results will be required to be handed over to the Employer's Line Departments as detailed in the Contract Data.

The Completion Certificate for the overall works shall only be issued after the Engineer has received a properly completed set of "As Built" drawings from the Contractor. This set of drawings shall be approved and signed by the Contractor's Contracts Manager.

A separate measurement item has been allowed for under Section 1 of the Bill of Quantities to fulfil the requirements of this clause. No additional payment will be entertained as a result of this requirement.

C3.5.1.4.4 Security of Contractor's Site

The provision of security for the Contractor's Site Establishment shall be his own responsibility and no claims for additional security measures taken during the currency of the Contract will be considered. The Contractor is to provide 24 hour security over all statutory Public Holidays and the "Annual Shutdown Period" from around mid-December to mid-January of each year. Provision should be made for 2 No. site camps at different locations (1 x site offices and 1 x on-site camp).

C3.5.1.4.5 Information supplied by Employer

Certain information contained in these Contract Documents, or provided separately, is being offered in good faith. However, in the circumstances pertaining to the type of information supplied, no guarantee can be given that all the information is necessarily correct or representative. More specifically this applies to all material surveys and reports and similar information, the accuracy of which is necessarily subject to the limitation of testing, sampling, the natural variation of material or formations being investigated and the measure of confidence with which conclusions can be drawn from any investigations carried out. It also applies to the positions of existing services as indicated on the Tender Drawings.

C3.5.1.4.6 Finishing and Tidying

In view of the intense concentration of construction activities likely to be experienced during the Contract period, 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 area(s) concerned without thereby prejudicing the rights of others to institute claims against the Contractor on the ground of unnecessary obstruction.

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.

C3.5.1.4.7 Co-operation with other Authorities

In general, services by others will be relocated prior to work commencing or installed after the Contractor has substantially completed the work covered by this Contract. However, should it be deemed by the Engineer that it would be in the best interest of the Employer that the installation of services by others, in any sector, should be permitted to proceed, before the Contractor has substantially completed his own work under the Contract, he shall afford all reasonable facilities by way of access and working space to the parties responsible for the installation of these services.

It will be necessary also to install ducts under roads for the accommodation in the future of electrical and telephone service cables. The marking and positive identification of such ducts, in co-operation with the authorities concerned, is to be considered as one of the responsibilities of the Contractor.

C3.5.1.4.8 Quality plans and control

(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.

C3.5.1.5 Environment

C3.5.1.5.1 Management of the environment (Read with SANS 1921 - 1 : 2004 clause 4.19)

The Contractor shall pay special attention to the following :

(a) 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 Engineer may direct 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.

(b) 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.

Employees of his subcontractors are able to identify themselves as members of the construction team.

In addition to the above, the Contractor's attention is also drawn to Appendix B (refer to the attached CD) – Environmental Management Plan of this Tender Document.

C3.5.1.6 Accommodation of traffic on public roads occupied by the contractor

Where the Work borders on or join into existing roads and where the works affect the operation and / or safety of road-users, the Contractor shall erect adequate traffic signs that conform to the requirements of the latest edition of the S.A. Road Traffic Signs Manual, maintain and keep them in good order.

The operation of construction vehicles on existing roads shall be limited to traffic with an axle load not exceeding that allowed by the Road Traffic Ordnance of the authority concerned, or any amendment thereof.

If the Contractor use existing roads for the hauling of materials to or from site, he shall be held responsible to clear any spillage caused by his activities on or near the roads by whatever means necessary and immediately. No additional payment will be made for the clearance of spillage and all other relevant costs.

Where work is to be executed close to existing residential properties, the Contractor shall ensure that at all times pedestrian and vehicle access are provided for house owners to their properties. Where crossing of existing driveways are to be done, the Contractor must liaise with the relevant property owners regarding the time and period when such access will not be available. However, access shall be made available between 17:00 and 07:00 on weekdays and on Saturdays and Sundays.

C3.5.1.7 Other Contractors on site

Due to the fact that there "MAY" be other services proposed within the area, the following services operated by Government Departments may be required to work within the site during the construction period.

These services may affect the Works:

- a) Electricity underground cables and / or overhead lines
- b) Telephone underground cables and / or overhead lines
- c) Water Reticulation
- d) Stormwater lines
- e) Sewer Lines

C3.5.1.8 Testing, completion, commissioning, and correction of defects

In terms of the Contract Data, the Works are to be constructed using the General Conditions of Contract for Construction Works (2015) published by the South African Institution of Civil Engineering (SAICE). In terms of Clause 5.14.2, a Practical Completion Certificate will only be issued once all of the works are practically complete for their intended use. For the purposes of this project, no partial completion will be entertained.

Once Completion has been reached in terms of Clause 5.14.4, the works will be handed over to the eThekweni Municipality (EM). A Completion Certificate will only be issued once all of the snags listed in the Practical Completion Certificate (including all As-built Information in terms of C3.5.1.4.3 above).

In terms of the Contract Data, the Defects Liability Period is 12 months from the date of Completion of the Works in terms of Clause 5.14.4. Any defects which may be discovered during the Defects Liability Period or at the end of the Defects Liability Period will be remedied in terms of Clause 7.8 of GCC 2015.

C3.5.1.9 Recording of weather

Adverse Weather Conditions

The numbers of days per month on which work is expected not to be possible as a result of normal rainfall, for which the Contractor shall make provision, is given in the Contract Data (C.1.2) of this Tender Document, clause 5.12.2.2. The method whereby an extension of time due to abnormal rainfall will be determined is as follows:

1. Abnormal rainfall for each calendar month shall be the total working days in the month under consideration during which the Contractor is unable to proceed with his operations as specified under (2) below, less the number of days (from the Contract Data) representing normal rainfall for the month under consideration
2. The claim for extension of time shall be the sum of all the positive monthly totals for the Contract Period. Negative monthly totals shall be disregarded. A day shall be considered as lost when the Employer's Agent agrees that no work was done or was capable of being done on any item shown on the critical path of the updated construction programme. Items which are not shown on the critical path and have been affected by abnormal climatic conditions shall not be considered for extension of time. Annual holidays, Sundays and the special non-working days as listed in the Contract Data, shall be considered as non-working days.

C3.5.1.10 Format of communications

The Contract shall keep a triplicate Site Instruction Book and separate Site Diary on site. Site Instructions will be issued to the Contract by the Engineer or his designated representative. The Site Instruction Book is for the sole use of the Engineer, and the Contractor will not be permitted to communicate via this book. The Contractor will be required to complete the Site Diary for each and every day of the contract, from the commencement date through to the day that the Contractor de-establishes. The Contractor must record the following information in the Site Diary:

- Date
- Weather conditions
- Plant and labour on site
- Daily activities
- Information required
- Frustrations
- Requests for inspections

Under no circumstances will the Contractor be permitted to communicate directly with the Client. All correspondence for the contract must be directed through the Engineer.

C3.5.1.11 Key personnel

The Contractor will be required to submit Curriculum Vitae of all Key personnel for approval by the Engineer prior to commencing duties on site. Any changes to personnel must be approved by the Engineer.

In addition, the Contractor must provide the Engineer with a schedule of plant and labour on site. This schedule must be submitted to the Engineer at the beginning of each and every Site Meeting.

C3.5.1.12 Management meeting

Monthly Site Meetings will take place during the contract duration. The Contractor must ensure that his duly appointed responsible person attends the Site Meetings. Should the "responsible person" for the contract be unable to attend, then a nominate representative with equal authority must attend in place. This person must have the necessary authority to make any decision which could be made by the "responsible person".

The attendance of Site Meetings by Sub-Contractors will only be permitted by special written request by the Contractor, or specifically requested by the Engineer.

C3.5.1.13 Forms for contract administration

Standard forms for payment certificates and reporting will be issued to the Contractor during the course of the Contract. Failure to comply with reporting requirements of the Employer, will result in payment certificates not being processed until compliance is achieved.

C3.5.1.14 Electronic payments

Arrangements for electronic payment of payment certificates will be made between the Contractor and Employer during the Site Handover Meeting.

C3.5.1.15 Daily records

C3.5.1.15.1 Instructions by the Engineer

Site instructions by the Engineer, addressed to the Contractor at his works office on site will be numbered consecutively in a triplicate book supplied by the Contractor and will be deemed to have been received by the Contractor's representative unless a break in the sequence of numbers is brought to the notice of the Engineer in writing immediately.

C3.5.1.15.2 Site Diary

The Contractor must keep a triplicate site diary on site, which must record the daily site activities, plant, site supervision, rainfall, site visitors, etc. This diary must be filled in daily and signed by the Contractor's Representative. Failure on the Contractor's part to keep proper records will count heavily against him in assessing any claims, which may occur during the contract period.

C3.5.1.16 Bonds and guarantees

The Performance Guarantee shall be as stated in the Contract Data (C.1.2). 1 x copy of the guarantee is to be submitted to the Engineer. Once approved, the Engineer will then submit the guarantee to the Client for final approval.

C3.5.1.17 Payment certificates

The Contractor will be allowed to submit a payment certificate on a monthly basis in terms of GCC (2015), Clause 6.10.1. Measurements must be agreed with the Engineer's Representative by the 20th of each month, and the payment certificate submitted to the Engineer by the 25th of each month.

C3.5.1.18 Permits

Not applicable

C3.5.1.19 Proof of compliance with the law

In terms of the Contract Data, the governing law is the law of South Africa. Should it be necessary during the Construction or Defects Liability Period for the Contractor to prove that he is abiding by the applicable law in terms of the Contract Data, the Contractor will be required to submit in writing to the Engineer such proof.

C3.5.1.20 Insurance provided by the employer

None.

C3.5.1.21 Employment of Local Labour and CLO

C3.5.1.21.1 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” refer to Appendix C on the attached CD.

For the purposes of this contract, “Local labour” will be deemed to be any **persons who reside within Ward 3**. The contractor will be required to provide proof of authenticity of local labour. Signed confirmation by the appointed CLO will suffice for this.

The contractor will be required to ensure that all non-essential labour (unskilled and semi-skilled) be sourced locally unless specific approval is granted in writing by the Employer’s Agent .

The contractor will remain responsible for providing proper supervision of all labour, and will be responsible for the quality of work produced.

The Contractor will be responsible for liaising with the project Social Facilitator and Community Liaison Officer (CLO) regarding the selection and appointment of Local Labour. Appointment of Local Labour shall be carried out in terms of Government Gazette 18491 of 5 December 1997 as amended.

Employment contracts shall be entered into with all employees. Copies of these contracts shall be made available to the Social Facilitator on request. It is the Contractor’s responsibility to liaise with the necessary structures in sourcing and appointing labour.

No additional costs will be entertained as a result of the failure of the Contractor to follow necessary protocol and keep all stakeholders informed through the life cycle of the resource management process. Cost for sourcing, selecting, managing and payment of labour is included in the Contractor’s rates for various items of work.

Penalties for non-compliance of Local Labour Targets are included in sub-clause 5.13.6 of the Contract Data.

C3.5.1.21.2 Employment of CLOs

The Contractor will be required to employ a CLO as specified in Annexure C of this Contract Document. Payment to the CLO will be made by the Contractor at the rate specified in the Particular Specification and as allowed for in the Bills of Quantities.

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

- The hours of work and the wage rate of the CLO.
- 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 councilors 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 of 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.

C3.5.2 HEALTH AND SAFETY

C3.5.2 Health and safety requirements and procedures

a) In terms of the provisions of Section 37(2) of the Occupational Health and Safety Amendment Act, 1993 (Act 85 of 1993), hereinafter referred to as the Act, the following arrangements and procedures shall apply between the Contractor and the Employer to ensure compliance by the Contractor with the provisions of the Act:

- (i) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all relevant provisions of the Act and the Regulations promulgated in terms of the Act.
- (ii) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations on the Contractor will be fully complied with.
- (iii) The Contractor accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations and expressly absolves the Employer from himself being obliged to comply with any of the aforesaid duties, obligations and prohibitions, with the exception of such duties, obligations and prohibitions expressly assigned to the Employer in terms of the Act and its associated Regulations.
- (iv) The Contractor agrees that any duly authorised officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to monitor that the Contractor has conformed to his undertakings as described in paragraphs (i) and (ii) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or any appropriate records or safety plans held by the Contractor.
- (v) The Contractor shall be obliged to report forthwith to the Employer and Engineer any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract, and shall, on written demand, provide full details in writing, to the Employer and Engineer, of such investigation, complaint or criminal charge.
- (vi) The Contractor shall furthermore, in compliance with Constructional Regulations 2014 to the Act acquaint himself with the requirements of the Employer's health and safety specification as laid down in regulation 4(1)(a) of the Construction Regulation 2014, and prepare a suitably and sufficiently documented health and safety plan as contemplated in regulation 5(1) of the Construction Regulation 2014 for approval by the Employer or his assigned agent. The Contractor's health and safety plan and risk assessment shall be submitted for approval, to the Employer or his agent, within 14 days of the Commencement Date and shall be implemented and maintained from the commencement of the Works.

The Contractor shall at all times be responsible for full compliance with the approved plan as well as with the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.

- (vii) The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations 2014, to monitor that the Contractor is compliant in respect of his obligations. Failure by the Contractor to comply with the requirements of these Regulations shall entitle the Engineer, at the request of the Employer or his agent, to suspend all or any part of the Works, with no recourse whatsoever by the Contractor for any damages incurred as a result of such suspension, until such time that the Employer or his agents are satisfied that the issues in which the Contractor has been in default have been rectified.

(viii) The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the C3.3 : Construction, the Bill of Quantities, the Drawings, and in the Employers' health and safety specification (regulation 4(1) of the Construction Regulations 2014), which is attached as Appendix B.

Payment items are included in the Bill of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned regulations.

C3.5.2 Protection of the public

The Contractor shall at all times ensure that his operations do not endanger any member of the public.

Where the area is adjacent to a residential area the Contractor shall take special precautions to prevent public access to any danger areas on the Works, e.g. by temporary barricades and/or fencing.

C3.5.2 Traffic control on roads

Where the work borders on or join into existing roads and where the works affect the operation and / or safety of road-users, the Contractor shall erect adequate traffic signs that conform to the requirements of the latest edition of the S.A. Road Traffic Signs Manual, maintain and keep them in good order.

The Contractor shall take the necessary care at all times in all his operations and use of his equipment to protect the public and to facilitate the movement of traffic – Clause 5.1.1.1 SANS 1200 DA has reference.

The Contractor will be required to submit to the Engineer for approval a layout plan indicating traffic accommodation for the works for each set up. Approval of each set up by the Engineer will not in any way preclude the Contractor from his responsibilities regarding traffic accommodation. The Contractor must employ a full time traffic and safety officer for the duration of the contract. The officer will be responsible for all safety and traffic accommodation related matters.

C3.5: CONTRACT AND STANDARD DRAWINGS**C3.5.1 CONTRACT DRAWINGS / DETAILS**

Drawing No.	Drawing Title

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 or “There are no Annexures”

PART C4: SITE INFORMATION

C4.1 LOCALITY PLAN

Figure 1: Locality Map

Figure 2: Regional Map

C4.2 CONDITIONS ON SITE

Refer to geotechnical report.

C4.3 TEST RESULTS

There are no specific test results.