



## CLUSTER

Human Settlement, Engineering, and Transport

## UNIT

Engineering

## DEPARTMENT

Roads Provision

### PROCUREMENT DOCUMENT

### INFRASTRUCTURE

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

Contract No: **1R-23757**

Contract Title: **Flood Damage Remediation – Shallcross/Blundell Road and Bridge Construction, Ward 63**

Est. CIDB Grade/ Class: **8 CE**

### CLARIFICATION MEETING AND QUERIES

Clarification Meeting: **Compulsory Clarification Meeting**

Meeting Location, Date, Time: **Room 213, 2nd floor, ETA Building, 30 Archie Gumede Pl, Durban.  
On 22 June 2023 at 14h00**

Queries can be addressed to: **Mohammed Nakhoda**  
Tel: 031 322 2809  
The Employer's Agent's eMail: [mohammed.nakhoda@durban.gov.za](mailto:mohammed.nakhoda@durban.gov.za)  
Representative email queries to be sent by 06 July 2023 and consolidated question and answers to be uploaded on 13 July 2023

### TENDER SUBMISSION

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

Closing Date/ Time: **Friday, 21 July 2023** at **11h00**

**FACSIMILE, eMAIL, or POSTED TENDERS WILL NOT BE ACCEPTED**

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Head: **Roads Provision**

Date of Issue: **15/06/2023**

Document Version 24/02/2023(a)

#### 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 to construct the Shallcross/Blundell road and bridge over the Umhlatuzana River.

Subject	Description	Tender Data Ref.
<b>Employer</b>	The Employer is the eThekweni Municipality as represented by: Deputy Head: <b>Roads Provision</b>	F.1.1.1
<b>Tender Documents</b>	Documents can only be obtained in electronic format, issued by the eThekweni Municipality. Documentation can be downloaded from the <b>National Treasury's eTenders website</b> or the <b>eThekweni Municipality's Website</b> . The <u>entire document</u> should be printed (on A4 paper) and suitably bound by the tenderer.	F.1.2
<b>Eligibility</b>	It is <u>estimated</u> that tenderers should have a CIDB contractor grading designation of <b>8 CE</b> (or higher). The CIDB provisions in relation to a Contractor's Potentially Emerging (PE) status <u>do not</u> apply.	F.2.1.1
<b>Clarification Meeting</b>	<b>Room 213, 2nd floor, ETA Building, 30 Archie Gumede Pl, Durban.</b> <b>On 22 June 2023 at 14h00</b>	F.2.7
<b>Seek Clarification</b>	Queries relating to these documents are to be addressed to the Employer's Agent's Representative whose contact details are: <b>Mohammed Nakhooda</b> <b>Tel: 031 322 2809</b> <b>eMail: mohammed.nakhooda@durban.gov.za</b> <b>email queries to be sent by 06 July 2023 and consolidated question and answers to be uploaded on 13 July 2023</b>	F.2.8
<b>Submitting a Tender Offer</b>	Tender offers shall be delivered to: <b>The Tender Box in the foyer of the Municipal Building</b> <b>166 KE Masinga Road, Durban</b>	F.2.13
<b>Closing Time</b>	Tender offers shall be delivered on or before <b>Friday, 21 July 2023</b> at or before <b>11h00</b> .	F.2.15
<b>Evaluation of Tender Offers</b>	<b>The 90/10</b> Price Preference Point System, as specified in the PPPFA Regulations 2022 will be applied in the evaluation of tenders. Refer to Clause F.3.11 of the Tender Data for the <b>Specific Goal(S)</b> for the awarding of Preference Points, and other related evaluation requirements.	F.3.11
Requirements for sealing, addressing, delivery, opening and assessment of tenders are further stated in the Tender Data		

**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 F of the CIDB Standard for Uniformity in Construction Procurement (July 2015) as published in Government Gazette No 38960, Board Notice 136 of 2015 of 10 July 2015.

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.

**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.

**F.1: GENERAL**

**F.1.1 The employer:** The Employer for this Contract is the eThekweni Municipality as represented by: Deputy Head: **Roads Provision**

**F.1.2 Tender documents:** The Tender Documents issued by the Employer comprise:

- 1) This procurement document.
- 2) "General Conditions of Contract for Construction Works – 3<sup>rd</sup> Edition 2015" issued by the South African Institution of Civil Engineering (GCC 2015). This document is obtainable separately, and Tenderers shall obtain their own copies.
- 3) "City of Durban Technical Specifications" hereinafter referred to as the Standard Engineering Specifications. This document is obtainable separately, and Tenderers shall obtain their own copies of the applicable Sections.
- 4) Drawings, 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 current (as at advertising date) Supply Chain Management Policy.
  - The Preferential Procurement Policy Framework Act No 5 of 2000, and the Preferential Procurement Policy Framework Act Regulations (2022).
  - 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.
  - Any other eThekweni Policy documents referenced in the Tender Documents.



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

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

The entire downloaded document should be printed on white A4 paper (single-sided) and suitably bound by the tenderer.

**F.1.4 Communication and employer's agent:** The Employer's Agent's is:

**Linga Govender (Pr. Eng, FA Arb)**

**Tel: 031 311 7643**

**eMail: [Linga.govender@durban.gov.za](mailto:Linga.govender@durban.gov.za)**

The Tenderer's contact details, as indicated in the Contract Data: Clause C1.2.2.2 "Data to Be Provided by Contractor", shall be deemed as the only valid contact details for the Tenderer for use in communications between the Employer's Agent and the Tenderer.

## F.2: TENDERER'S OBLIGATIONS

**F.2.1 Eligibility: General**

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

- (a) the Tenderer does not comply with the legal requirements as stated in the Employer's current SCM Policy.
- (b) the Tenderer cannot provide proof that he is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in the contract.
- (c) In the event of a Compulsory Clarification Meeting:
  - i) the Tenderer fails to attend the Compulsory Clarification Meeting.
  - ii) the Tenderer fails to have form "Certificate of Attendance at Clarification Meeting / Site Inspection" (in T2.2) signed by the Employer's Agent or his representative.
- (d) in the case of JV submissions, two or more JV entities have common directors / shareholders or common entities tendering for the same works.
- (e) at the time of closing of tenders, the Tenderer is not registered on the National Treasury Central Supplier Database (CSD) as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture.
- (f) The tenderer has not submitted, with this tender, a valid Letter of Good Standing from the Compensation Commissioner as proof of being registered and in good standing with the compensation fund. Reference is to be made to Returnable Document T2.2.13.
- (g) The tender fails to complete and sign the Declaration of Municipal Fees in T2.2: "Returnable Documents" and submits the required documentation. Reference is to be made to Returnable Document T2.2.12.

In the event of the Tenderer not being registered on the eThekwini Municipality's Central Supplier Database, the tenderer must register on the internet at [www.durban.gov.za](http://www.durban.gov.za) by following these links:

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

The following are to be noted:

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

#### F.2.1.1 Eligibility: CIDB

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

Joint ventures are eligible to submit tenders provided that:

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

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.

#### F.2.1.2 Eligibility: Tenderer's Experience

Only those tenderers that can demonstrate experience, by the submission of the specified returnable document in T2.2 (duplicated for each experience submission), and supply the associated documentation/ information, in works of a similar nature, within the past 7 years, will be eligible to have their tenders evaluated in terms of Clause F.3.11.

Tenderers may submit experience gained as Sub-Contractors or Main Contractors.

**Returnable form T2.2.16: “Eligibility: Experience of Tenderer” is to be duplicated for each experience submission, as may be required.**

Contact details of the Client or Main Contractor (if experience was gained as a sub-contractor), is required to be provided on the above-mentioned form. The contact details may be used by the Employer to verify the information, pertaining to the experience submission, as provided by the Tenderer. Should the Employer's reasonable attempts to make contact with the Client or Main Contractor, to verify the information provided, fail (for whatever reason), that specific experience submission will be considered invalid.

Where works are still in progress the value of completed work as detailed on the most recent payment to the Contractor / Sub-Contractor is to be used in the experience submission.

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 requirement, as stipulated in **Table 2**, is satisfied, and that the required documentation/ information is provided.

The documentation/ information that is required is specified on **Table 1**: “Documentation / Information Requirements” (which includes the Notes below the table), and the experience requirement is as stated on **Table 2**: “Tenderer's Experience Requirement”.

**Table 1: Documentation / Information Requirements**

Note: an “X” in this table indicates that the associated documentation must be provided, if applicable.	Proof of Sub-Contract Agreement	Letter of Award OR Form of Offer & Acceptance	Most recent Payment Certificate OR Invoice with Quantities summary	Final Payment Certificate OR Invoice with Quantities summary	Completion Certificate	<b>NB</b> Scope of Work
	<b>Note 1</b>	<b>Note 2</b>	<b>Note 3</b>	<b>Note 4</b>	<b>Note 5</b>	<b>Note 6</b>
Works as Sub-Contractor						
Current Contracts	X		X			X
Completed Contracts	X			X	X	X
Works as Main Contractor						
Current Contracts		X	X			X
Completed Contracts		X		X	X	X
<b>Failure to submit the returnable form in T2.2, and provide the above supporting documentation/ information, for each submission of experience, will invalidate that experience submission</b>						

**Table 1: NOTES**

Note 1	Must include the names of the parties, the managing entity's name, the effective dates, and the signature(s) page, all pertaining to the agreement.
Note 2	Issued by the Client / Employer.
Note 3	Proof of the most recent payment received from the Main Contractor or Client/ Employer, OR most recent submitted INVOICE, with a summary breakdown of quantities.
Note 4	Proof of the final payment received from the Main Contractor or Client/ Employer, OR most recent submitted INVOICE, with a summary breakdown of quantities.
Note 5	Issued by the Client/ Employer.
Note 6	<p><b>NB: Without this information the experience submission cannot be considered.</b></p> <ul style="list-style-type: none"> <li>This submission must indicate how the works carried out, either as a Sub-Contractor or a Main Contractor, is similar (see Table 2: Tenderer's Experience Requirement) to the Scope-of-Work of this specific tender.</li> <li>If executed as a Sub-Contractor, the Scope-of-Work should be indicative of only the works carried out by the Sub-Contractor, and not the overall Scope-of-Work of the main contract.</li> <li>If executed as a Main Contractor, the overall contract Scope-of-Work is to be provided.</li> <li>The description of the Scope-of-Work is to be inserted into the returnable form in T2.2, or if available as a hard copy (max. 2 pages) attached to the form with the other relevant, associated, supporting documentation.</li> </ul>

**Table 2A: Tenderer's Experience Requirement****Provision of Roads and Ancillary Works**

- Projects of a similar nature that will be considered will be one, or a combination of, the following types of projects: new road construction, road widening/upgrades, intersection improvements, gravel to surfaced road upgrades, access road upgrades, major parking areas, and provision of interim roadway related services to informal settlements.
- Each project must consist of at least **three** of the following elements: bulk earthworks, roadway layer-works, asphalt roadway surfacing, kerbing / channelling, sidewalk / walkway construction, traffic calming measures, stormwater drainage, retaining structures, dealing with underground services (watermains, sewers, electricity / communication infrastructure).
- Projects that are excluded are road rehabilitation projects, road maintenance projects, and the construction of gravel roads.

**Table 2B: Tenderer's Experience Requirement****Provision of Structures**

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

- Reinforced or prestressed concrete road bridges.

**Experience Requirement: Contract(s) with works of a similar nature, within the past 7 years**

A minimum of **2 contracts**, each with a value of **60%** of the tender value submitted for this tender.

Each submission must have a combination of **Table 2A** and **Table 2B** experience.

**or**

Should the tenderer only have experience in either Table 2A or Table 2B only, the following shall apply:

- Experience for **Table 2A** and **Table 2B** must be submitted for the tender,
- Should a subcontractor be used for either (Table 2A or Table 2B) experience, The Subcontractors experience must be submitted (for either table 2A or table 2B) as per the below.
- A minimum of **2 contracts for Table 2A**, each with a value of **60%** of the tender value submitted for this tender, **And** a minimum of **2 contracts for Table 2B**, each with a value of **40%** of the tender value shall be submitted for this tender.

**Note:** The failure to complete the relevant returnable form in T2.2 for each submission of experience AND supply the associated, relevant, documentation (as specified on Table 1) will invalidate the experience submission.

#### F.2.2.2 The cost of the tender documents: Replace this paragraph with the following:

"Documents are to be obtained, free of charge, in electronic format, from the **National Treasury's eTenders website** or the **eThekwini Municipality's Website**. The entire electronically downloaded document shall be printed on white A4 paper (single-sided) and suitably bound by the tenderer.

**F.2.6 Acknowledge addenda:** Add the following paragraphs to the clause:

“Addenda will be published, in electronic format, on the National Treasury’s eTenders website (see F.2.2.2 above). Tenderers are to ensure that the eTenders 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 may result in the tender submission being made non-responsive.”

**F.2.7 Clarification meeting:**

**Room 213, 2nd floor, ETA Building, 30 Archie Gumede Pl, Durban.**  
**On 22 June 2023 at 14h00**

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.

**F.2.12 Alternative tender offers:** No alternative tender offers will be considered.**F.2.13 Submitting a tender offer:** Submissions must be submitted on official submission documentation issued (either in hard copy or in electronic format) by the eThekweni Municipality.

Identification details to be shown on each tender offer package are:

- Contract No. : **1R-23757**
- Contract Title : **Flood Damage Remediation – Shallcross/Blundell Road and Bridge Construction, Ward 63**

The Employer’s address for delivery of tender offers is:

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

Tenderers are to include, with their “hard copy” submission, a memory-stick containing an electronically scanned (300 dpi resolution) Public Document Format (PDF) copy of their complete bid submission. This PDF file should be named using the contract number and the Tenderer’s name, eg. “**XX-xxxx – Tenderers Name.PDF**”. The memory-stick must be securely fixed to the paper submission.

Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

**F.2.15 Closing time:** The closing time for delivery of tender offers is:

- Date : **Friday, 21 July 2023**
- Time : **11h00**

**F.2.16 Tender offer validity:** The Tender Offer validity period is 120 Days from the closing date for submission of tenders.**F.2.23 Certificates:** Refer to **T2.1** 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, at the back of their tender submission document, a printout of the required documents/ certificates.**

The Form of Offer (C1.1.1), Data to be provided by the Contractor (C1.2.2.2), and the Bill of Quantities (C2.2) are also required to be completed in full.

#### **CIDB Registration**

Refer also to returnable form in T2.2: “Eligibility: 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://registers.cidb.org.za/PublicContractors/ContractorSearch> ).

The Joint Venture Grading Designation Calculator should be used when submitting as a Joint Venture ( <https://registers.cidb.org.za/PublicContractors/JVGradingDesignationCalc> ).

The date of obtaining the above printout(s) is to be indicated on the printout. Registration with the CIDB must be reflected as “Active” at time of tender closing.

#### **Tax Clearance**

Refer also to returnable form in T2.2: “Tax Compliance Status PIN/ Tax Clearance Certificate”.

SARS has introduced a new Tax Compliance Status System. Tenderers must submit a **Tax Compliance Status PIN** (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer’s real-time compliance status. This TCS PIN is to be entered on Returnable Document T2.2.1: “Compulsory Enterprise Questionnaire”. Separate Tax Clearance Certificates / TCS PINs are required for each entity in a Joint Venture.

**Failure to comply will make the tender non-responsive.**

#### **Central Supplier Database (CSD)**

Refer also to returnable form in T2.2: “Eligibility: CSD Registration Report”.

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

Separate CSD Registration Reports are required for each entity in a Joint Venture.

#### **Compensation Commissioner**

Refer also to returnable form in T2.2: “Eligibility: Registration with Compensation Commissioner”.

The tenderer 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.

**Failure to comply will make the tender non-responsive.**

### **F.3: THE EMPLOYER'S UNDERTAKINGS**

**F.3.1.1 Respond to requests from the tenderer:** Replace the words “five working days” with “three working days”.

**F.3.2 Issue addenda:** Add the following paragraph: “Addenda will be published, in electronic format, on the same platform(s) as the Tender Notification (refer to F.1.2).”

**F.3.4 Opening of Tender Submissions:** Tenders will be opened immediately after the closing time for tenders. The public reading of tenders will take place in the SCM Boardroom, 6<sup>th</sup> Floor, Engineering Unit Building, 166 KE Masinga Road, Durban.

**F.3.11 Evaluation of Tender Offers:****Eligibility**

Tenders will be checked for compliance with the ELIGIBILITY requirements, as specified in T1.2.2 Clause F.2.1. Tenderers not in compliance will be deemed non-responsive.

**Preference Point System**

The procedure for the evaluation of responsive tenders is **PRICE AND PREFERENCE** in accordance with the Employer's current SCM Policy, the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (2022).

**Price Points**

The **90/10** preference points system will be applied. The Formula used to calculate the **Price Points (max. 90)** will be according to that specified Regulation 5.1.

**Preference Points**

Refer also to T2.2: "MBD 6.1: Preference Points Claim".

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

- **Ownership Goal**  
Goal Weighting: 80%

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**.

<b>Ownership Categories</b>	<b>Criteria</b>	<b>80/20</b>	<b>90/10</b>
<b>Race: Black (w1)</b>	Equals 0%	n/a	0
	Between 0% and 51%	n/a	2.4
	Greater or equal to 51% and less than 100%	n/a	4.8
	Equals 100%	n/a	6
<b>Gender: Female (w2)</b>	Equals 0%	n/a	0
	Between 0% and 51%	n/a	0.8
	Greater or equal to 51% and less than 100%	n/a	1.6
	Equals 100%	n/a	2
<b>Maximum Ownership Goal Points:</b>		<b>n/a</b>	<b>8</b>

The **Weightings** of the **Ownership Categories** will be:

- w1 = 75%, w2=25%, w3=0% (where: w1 + w2 + w3 = 100%)

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

- 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 enterprises located in a specific municipal area**

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. The **wards** are shown in the Part C4: "Site Information" of this procurement document.

Goal Weighting 20%		
Location	80/20	90/10
Not within eThekweni Municipality	n/a	0
Within eThekweni Municipality	n/a	0.5
Within the Wards 16,17,18,24,29,65, or 71	n/a	1
Within the Ward 63	n/a	2
Maximum RDP Goal Points:	n/a	2

**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
- Utilities

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

- The tenderer submits a **valid Tax Clearance Certificate OR Tax Compliance Status PIN**, issued by the TCS System of the South African Revenue Services, or has made arrangements to meet outstanding tax obligations.
- The tenderer is **registered, and "Active", with the Construction Industry Development Board**, at time of tender closing, in an appropriate contractor grading designation.
- The tenderer or any of its directors/shareholders is **not listed on the Register of Tender Defaulters** in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.
- The tenderer has not:
  - Abused the Employer's Supply Chain Management System; or
  - Failed to perform on any previous contract and has been given a written notice to this effect.
- The tenderer has completed the **Compulsory Enterprise Questionnaire** and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.
- The tenderer is **registered and in good standing with the compensation fund or with a licensed compensation insurer**.
- 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.

Notwithstanding clause F.1.1.3 of the Standard Conditions of Tender the Municipality reserves the right to award or not award the tender based on the municipalities available budget.

**F.3.15 Complete adjudicator's contract:** Refer to the **General Conditions of Contract** and the **Contract Data**.



**F.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 to include, with their “hard copy” submission, a memory-stick containing an electronically scanned (300 dpi resolution) Public Document Format (PDF) copy of their complete bid submission. This PDF file should be named using the contract number and the Tenderer’s name, eg. “**XX-xxxx – Tenderers Name.PDF**”. The memory-stick must be securely fixed to the paper submission.

**T1.2.3 ADDITIONAL CONDITIONS OF TENDER****T1.2.3.1 Appeals**

In terms of Regulation 49 of the Municipal Supply Chain Management Regulations persons aggrieved by decisions or actions taken by the Municipality, may lodge an appeal within 14 days of the decision or action, in writing to the Municipality. All appeals (clearly setting out the reasons for the appeal) and queries with regard to the decision of award are to be directed to:

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

**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 that are available on web address: <ftp://ftp.durban.gov.za/cesu/StdContractDocs/>:

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

**T1.2.3.4 Targeted Procurement**

Targeted Procurement provisions are not applicable to this tender.

**T1.2.3.5 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 as required.

The Tenderer is required to complete each and every Schedule and Form listed below to the best of their ability as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer. Failure of a Tenderer to complete the Schedules and Forms to the satisfaction of the Employer will inevitably prejudice the tender and may lead to rejection on the grounds that the tender is non-responsive.

**T2.1.2 Returnable Schedules, Forms and Certificates****Entity Specific**

T2.2.1	Compulsory Enterprise Questionnaire.....	16
T2.2.2	Certificate of Attendance at Clarification Meeting.....	18
T2.2.3	Tax Compliance Status PIN / Tax Clearance Certificate .....	19
T2.2.4	Contractor's Health and Safety Declaration.....	20
T2.2.5	MBD 4: Declaration of Interest .....	22
T2.2.6	MBD 5: Declaration for Procurement Above R10 Million.....	24
T2.2.7	MBD 6.1: Preference Points Claim Form ITO the Preferential Regulations .....	25
T2.2.8	MBD 8: Declaration of Bidder's Past SCM Practices .....	28
T2.2.9	MBD 9: Certificate of Independent Bid Determination .....	30
T2.2.10	Joint Venture Agreements (if applicable) .....	33
T2.2.11	Record of Addenda to Tender Documents (if applicable).....	34

**Eligibility**

T2.2.12	Eligibility: Declaration of Municipal Fees .....	35
T2.2.13	Eligibility: Registration with Compensation Commissioner .....	36
T2.2.14	Eligibility: CSD Registration Report .....	37
T2.2.15	Eligibility: Verification of CIDB Registration and Status .....	38
T2.2.16	Eligibility: Experience of Tenderer .....	39

**T2.2     RETURNABLE SCHEDULES, FORMS, AND CERTIFICATES**

The returnable schedules, forms, and certificates, as listed in T2.1.2, can be found on pages 16 to 34.

**NOTE**

The **Form of Offer** (C1.1.1), The **Data to be Provided by Contractor** (C1.2.2.2), and the **Bill of Quantities** (C2.2) are also required to be completed by the tenderer.

**T2.2.1 COMPULSORY ENTERPRISE QUESTIONNAIRE**

Ref	Description	Complete or Circle Applicable
1.1	Name of enterprise	
1.2	Name of enterprise's representative	
1.3	ID Number of enterprise's representative	
1.4	Position enterprise's representative occupies in the enterprise	
1.5	National Treasury Central Supplier Database Registration number	<b>MAAA</b>
1.6	eThekwini Supplier Database: Reference number (PR), if any:	<b>PR</b>
1.7	VAT registration number, if any:	
1.8	CIDB registration number, if any:	
1.9	Department of Labour: Registration number	
1.10	Department of Labour: Letter of Good Standing Certificate number	
2.0	<b>Particulars of sole proprietors and partners in partnerships (attach separate pages if more than 4 partners)</b>	
	<b>Full Name</b>	<b>Identity No.</b>
		<b>Personal income tax No. *</b>
2.1		
2.2		
2.3		
2.4		
3.0	<b>Particulars of companies and close corporations</b>	
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 Record in the service of the state** (Insert on a separate page if necessary)

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

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

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

**5.0 Record of spouses, children and parents in the service of the state** (Insert on a separate page if necessary)

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

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

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

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 tenderers 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 Clauses F.2.1(c) and F.2.7 of the Tender Data.

This is to certify that:

(tenderer name):

of (address):

was represented by the person(s) named below at the Clarification Meeting held for all tenderers, the details of which are stated in the Tender Data (F.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: M.Nakhooda

Signature: .....

Date: .....

**T2.2.3 TAX COMPLIANCE STATUS PIN / TAX CLEARANCE CERTIFICATE**

Reference is to be made to Clauses F.2.23 and F.3.13(a) of the Tender Data.

SARS has introduced a new Tax Compliance Status System. Tenderers can submit a Tax Compliance Status PIN (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status.

Separate Tax Clearance Certificates / TCS PINs are required for each entity in a Joint Venture.

The TCS PIN(s) are to be entered under item 3.4 on form **T2.1.2.1: Compulsory Enterprise Questionnaire**.

**Tenderers are to include, at the back of their tender submission document, a printout of their Tax Compliance Status PIN (TCS PIN) OR an original Tax Clearance Certificate.**

**Failure to include the required document will make the tender submission non-responsive.**

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

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**



**T2.2.4 CONTRACTOR'S HEALTH AND SAFETY DECLARATION**

If Functionality is applicable as part of tender evaluation, reference is to be made to Clause F3.11.9 of the of the Conditions of Tender.

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

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

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

**Declaration by Tenderer**

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

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

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

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

Circle Applicable	
Yes	NO
Yes	NO
YES	NO

- 4 Details of resources I propose:

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

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

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

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

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


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

Name of proposed subcontractor:

Qualifications or details of competency of the subcontractor:


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

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

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**

**T2.2.5 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**<sup>1</sup>.
- 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	Complete T2.1.2.1 Item 1.1
Name of enterprise’s representative	Complete T2.1.2.1 Item 1.2
3.2 ID Number of enterprise’s representative	Complete T2.1.2.1 Item 1.3
3.3 Position enterprise’s representative occupies in the enterprise	Complete T2.1.2.1 Item 1.4
3.4 Company Registration number	Complete T2.1.2.1 Item 3.1 or 3.2
3.5 Tax Reference number	Complete T2.1.2.1 Item 3.3
3.6 VAT registration number	Complete T2.1.2.1 Item 1.7
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.	
<div> <div>Circle Applicable</div> <div> <div>YES</div> <div>NO</div> </div> </div>	
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?	
If yes, furnish particulars: .....	

<p>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?</p> <p>If yes, furnish particulars: .....</p> <p>.....</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">YES</td> <td style="width: 50%; padding: 5px;">NO</td> </tr> </table>	YES	NO
YES	NO		
<p>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?</p> <p>If yes, furnish particulars: .....</p> <p>.....</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">YES</td> <td style="width: 50%; padding: 5px;">NO</td> </tr> </table>	YES	NO
YES	NO		
<p>3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?</p> <p>If yes, furnish particulars: .....</p> <p>.....</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">YES</td> <td style="width: 50%; padding: 5px;">NO</td> </tr> </table>	YES	NO
YES	NO		
<p>3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?</p> <p>If yes, furnish particulars: .....</p> <p>.....</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">YES</td> <td style="width: 50%; padding: 5px;">NO</td> </tr> </table>	YES	NO
YES	NO		
<p>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?</p> <p>If yes, furnish particulars: .....</p> <p>.....</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;">YES</td> <td style="width: 50%; padding: 5px;">NO</td> </tr> </table>	YES	NO
YES	NO		

- 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:** .....

**T2.2.6 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
<p>1.0 Are you by law required to prepare annual financial statements for auditing?</p> <p>1.1 <b>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.</b></p>	
<p>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?</p> <p>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.</p> <p>2.2 If YES, provide particulars.</p> <p>.....</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?</p> <p>3.1 If YES, provide particulars.</p> <p>.....</p> <p>.....</p>	
<p>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?</p> <p>4.1 If YES, provide particulars.</p> <p>.....</p> <p>.....</p>	

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

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

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**

**T2.2.7 MBD 6.1: PREFERENCE POINTS CLAIM**  
**In terms of THE PREFERENTIAL PROCUREMENT REGULATIONS (2022)****Reference is to be made to Clause F.3.11 of the Tender Data.**

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

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

**1.0 GENERAL CONDITIONS**

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

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

1.2 The applicable preference point system for this tender is the 90/10 preference point system.

1.3 Preference Points for this tender shall be awarded for:

- **Price and Specific Goals:** Either 80 or 90 (price) and 20 or 10 (specific goals), in terms of 1.2 above.
- The total Preference Points, for Price and Specific Goals, is 100.

1.4 Failure on the part of the tenderer to submit the required proof or documentation, in terms of the requirements in the Conditions of Tender for claiming specific goal preference points, will be interpreted that preference points for specific goals are not claimed.

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

**2.0 DEFINITIONS**

2.1 “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation.

2.2 “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts.

2.3 “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.

2.4 “**tender for income-generating contracts**” means a written offer in the form determined by Municipality in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the Municipality and a third party that produces revenue for the Municipality, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions.

2.5 “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

### 3.0 FORMULA FOR CALCULATION OF PREFERENCE PRICE POINTS

#### 3.1 PROCUREMENT OF GOODS AND SERVICES

**POINTS AWARDED FOR PRICE:** A maximum of 80 or 90 points is allocated for price on the following basis:

##### 80 / 20 Points System

OR

##### 90 / 10 Points System

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

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

Where:

P<sub>s</sub> = Points scored for price of tender under consideration

P<sub>t</sub> = Price of tender under consideration

P<sub>min</sub> = Price of lowest acceptable tender

#### 4.0 POINTS AWARDED FOR SPECIFIC GOALS

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

**TABLE 1:** Specific Goals for the tender and maximum points for each goal are indicated per the table below.

**Tenderers are to reference the Tender Data in F.3.11 for guidance on completing this claim form.**

**Tenderers are to indicate their points claim for each of the Specific Goals in the shaded blocks.**

The Specific Goals to be allocated points in terms of this tender	Maximum Number of points ALLOCATED (80/20 system)	Maximum Number of points ALLOCATED (90/10 system)	Number of points CLAIMED (80/20 system). Tenderer to complete	Number of points CLAIMED (90/10 system)
<b>Ownership Goal:</b> Race (black)	n/a	8	n/a	
<b>Ownership Goal:</b> Gender (female)	n/a	2	n/a	
<b>Ownership Goal:</b> Disabilities	n/a	-	n/a	
<b>RDP Goal:</b> The promotion of enterprises located in a specific municipal area	n/a	2	n/a	
<b>Total CLAIMED Points (10 Maximum)</b>			n/a	

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, certify that the points claimed, based on the specific goals as specified in the tender, qualifies the tendering entity for the preference(s) shown.

I acknowledge that:

- 1) The information furnished is true and correct.
- 2) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
- 3) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct.
- 4) If the specific goals have been claimed or obtained on a fraudulent basis, or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have:
  - (a) disqualify the person from the tendering process.
  - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct.
  - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation.
  - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
  - (e) forward the matter for criminal prosecution, if deemed necessary.

**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](http://www.treasury.gov.za)) and can be accessed by clicking on its link at the bottom of the home page.

Circle Applicable	
YES	NO

- 4.1.1 If YES, provide particulars.

.....

.....

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

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

YES	NO
-----	----

- 4.2.1 If YES, provide particulars.

.....

.....

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

YES	NO
-----	----

- 4.3.1 If YES, provide particulars.

.....

.....

4.4

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

YES

NO

4.4.1

If YES, provide particulars.

4.5

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

YES

NO

4.5.1

If YES, provide particulars.

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

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

NAME (Block Capitals):

Date

SIGNATURE:

**T2.2.9 MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION****NOTES**

- <sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.
- <sup>2</sup> 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.
- <sup>3</sup> 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**<sup>1</sup> 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**).<sup>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3.0 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
- a. take all reasonable steps to prevent such abuse;
  - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
  - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4.0 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of **bid rigging**.
- 5.0 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid.

**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

-----  
(Bid Number and Description)

in response to the invitation for the bid made by:

-----  
(Name of Municipality / Municipal Entity)

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

I certify, on behalf of:

-----  
(Name of Bidder)

that:

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 consortium<sup>3</sup> 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 JOINT VENTURES AGREEMENTS**

Joint Venture agreement and Power of Attorney Agreements to be attached here (if applicable).

**T2.2.11 RECORD OF ADDENDA TO TENDER DOCUMENTS**

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:**

**T2.2.12 ELIGIBILITY: DECLARATION OF MUNICIPAL FEES**

Reference is to be made to Clause F.2.1(f)(ii) of the Tender Data.

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												

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.

**Tenderers are to include, at the back of their tender submission document, a printout of the above account's and or agreements signed with the municipality.**

**Failure to include the required document will make the tender submission non-responsive.**

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

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**



**T2.2.13 ELIGIBILITY: REGISTRATION WITH COMPENSATION COMMISSIONER**

Reference is to be made to Clause F.2.1(f)(i) of the Tender Data.

The Occupational Injuries and Diseases Act (130 of 1993 as amended) (the Act) refers. A summary of the pertinent Clauses are listed below. The act is to be referenced for the full text of the clauses.

**Clause 80: Employer to register with commissioner and furnish him with particulars**

The Act requires that an employer carrying out business in the Republic to register with the Compensation Commissioner. Any person who fails to comply with the provisions of this clause is guilty of an offence.

**Clause 82: Employer to furnish returns of earnings**

The Act requires an employer to furnish the commissioner with a return showing:

- The amount of earnings paid by him to his employees.
- Any further information as may be prescribed or as the commissioner may require.

Any employer who fails to comply with the provisions of this clause is guilty of an offence.

**Clause 86: Assessment to be paid by an employer to commissioner**

The Act states that an employer will receive notices of assessment from the commissioner. The employer must pay the commissioner the assessment amount on the notices.

**Clause 89: Mandators and contractors**

The Act requires a contractor (a person with a contract with a mandator) to register as an employer in accordance with the provisions of the Act and pay the necessary assessments. Failing registration or payment of assessments, the mandator is required to pay the assessments in respect of the employees of the contractor. The mandator is allowed to recover the assessment amounts paid from the contractor.

The Department of labour issues contractors with a **Letter of Good Standing** if the contractor has complied with the requirement(s) of the Act and is in “good standing” with the Compensation Fund. Employers can check the validity of such Letters of Good Standing on the internet (<https://cfonline.labour.gov.za/VerifyLOGS> ).

**Tenderers are to include, at the back of their tender submission document, a printout of their most recent Letter of Good Standing from the Department of Labour.**

**Failure to include the required document will make the tender submission non-responsive.**

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

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**

**T2.2.14 ELIGIBILITY: CSD REGISTRATION REPORT**


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

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

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

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

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

 <b>CENTRAL SUPPLIER DATABASE</b> FOR GOVERNMENT	Report Date:	
	Report Ran By:	
<b>CSD REGISTRATION REPORT</b>		
<b>SUPPLIER IDENTIFICATION</b>		
Supplier number		Have Bank Account
Is supplier active?		Total annual turnover
Supplier type		Financial year start date
Supplier sub-type		Registration date
Legal name		Created by
Trading name		Created date
Identification type		Edit by
Government breakdown		Edit date
Business status		Restricted Supplier
Country of origin		Restriction Last Verification Date
South African company/CC registration number		

**Tenderers are to include, at the back of their tender submission document, a printout of their (full) 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:**

**T2.2.15 ELIGIBILITY: VERIFICATION OF CIDB REGISTRATION AND STATUS**

Reference is to be made to Clause F.2.1.1 and F.2.23 of the Tender Data.

The Conditions of Tender, **Clause F.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 Clause F.2.1.1.

CIDB Registrations can be obtained from the CIDB website at <https://registers.cidb.org.za/PublicContractors/ContractorSearch>. The date of obtaining the printout is to be indicated on the printout.

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

Home

Contractor Detail Print

Contractor Detail

CRS Number: Type of Enterprise:

Contractor Name: Registration Date:

Trading Name: Expiry Date:

Status:

Contractor Grades

Grade:

Back

Copyright © cidb 2011. All rights reserved  
Website technical enquires: contact

01/01/2017

**Tenderers are to include, at the back of their tender submission document, a printout of their registration with the CIDB.**

*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:**

**T2.2.16 ELIGIBILITY: EXPERIENCE OF TENDERER**

Reference is to be made to Clause F.2.1.2 of the Tender Data.

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

Where options are provided ( ), only one (1) selected option should be clearly marked with an "X".

Tenderer's CIDB Grade:	1*	2*	3*	4*	5*	6*	7*	8*	9*	Experience as a:	Sub-Contractor*	Main Contractor*
<b>Client / Employer:</b>	Entity Name:											
	Contact Name:											
	Contact Tel:											
	Contact Cell:											
	Contact email / other:											
<b>Client OR Main Contractor's Details</b> <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:											
<b>Contract Details</b>	Contract Number:											
	Contract Title:											
	Has this Contract been completed?									Y*	N*	
Tendered Value (Contract Sum) OR Sub-Contract Value:	<b>R</b>									Final Contract Price OR Final Value of Sub-Contract: <b>R</b>		

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	X		X		
Completed Contract as Sub-Contractor	X			X	X
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					

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

NAME (Block Capitals):

Date

SIGNATURE:

**PART C1: AGREEMENT AND CONTRACT DATA****C1.1: FORM OF OFFER AND ACCEPTANCE****C1.1.1: OFFER**

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

Contract No: **1R-23757**

Contract Title: **Flood damage remediation – Shallcross/Blundell Road and Bridge Construction**

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

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

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

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

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

**For the Tenderer:**

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

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

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

**Capacity** (of Signatory) : .....

**Address** : .....

: .....

**Telephone** : .....

**Witness:**

**Signature** : ..... **Date** : .....

**Name** (in capitals) : .....

**Notes:**

**\* Indicates what information is mandatory.**

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

**C1.1: FORM OF OFFER AND ACCEPTANCE****C1.1.2: FORM OF ACCEPTANCE****This Form will be completed by the Employer**

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

The terms of the contract are contained in:

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

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

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

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

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

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

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

**Capacity** (*of Signatory*) : .....

**Name of Employer** (*organisation*) : .....

**Address** : .....

: .....

**Witness:**

**Signature** : ..... **Date** : .....

**Name**(*in capitals*) : .....

**C1.1: FORM OF OFFER AND ACCEPTANCE**  
**C1.1.3: SCHEDULE OF DEVIATIONS**

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

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

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

**FOR THE TENDERER**

**FOR THE EMPLOYER**

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

**C1.2: CONTRACT DATA****C1.2.1 CONDITIONS OF CONTRACT****C1.2.1.1 GENERAL CONDITIONS OF CONTRACT**

The Conditions of Contract are the **General Conditions of Contract for Construction Works (2015 3<sup>rd</sup> 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](mailto: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 **14 months**. The period as stated in 5.3.2, and **the 37 days referred to in 5.3.3, are included** in the above time for achieving Practical Completion. The special non-working days as stated in 5.8.1 are also **included** in the above time for achieving Practical Completion.

1.1.1.15 The Employer is the eThekweni Municipality as represented by:  
Deputy Head: **Roads Provision**

1.2.1.2 The address of the Employer is:  
Physical: Engineering Unit, 166 K.E. Masinga Road, DURBAN, 4001  
Postal: Engineering Unit, P O Box 680, DURBAN, 4000  
Telephone: 031-311-7642 (t)  
Fax: N/A (f)  
E-Mail: [Sandile.Masondo@durban.gov.za](mailto:Sandile.Masondo@durban.gov.za)

1.1.1.16 The **name of the Employer's Agent** is: Linga Govender (PrEng, F A Arb)

1.2.1.2 The address of the Employer' Agent is:  
Physical: Engineering Unit, 166 K.E. Masinga Road, DURBAN, 4001  
Postal: Engineering Unit, P O Box 680, DURBAN, 4000  
Telephone: 031 311 7643 (t)  
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1.1.1.26 The **Pricing Strategy** is by **Re-measurement Contract**.

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

- 6.3 : Council approval in order to authorise any expenditure in excess of the Tender Sum.  
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 Department (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)
- CPG Implementation Plan
- Risk Identification,
- Risk Management Plan
- ECO Appointment,
- Traffic Safety Officer Appointment
- OHS Officer

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

5.3.3 Add the following paragraph:

"If a construction work permit, in terms of Clause 3(1) of the Construction Regulations (2014), is applicable, the instruction to commence carrying out of the works may only be issued once the construction work permit has been obtained by the Employer's Agent. If a construction work permit is applicable, the contractor shall allow for a minimum period of **37 days**, after the submission (or re-submission) of the documentation referred to in Clause 5.3.1., for the issuing of the construction work permit."

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

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

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

- All statutory holidays as declared by National or Regional Government.
- The Regional/Local Election voting day scheduled, (1 day).
- 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 14000**(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:

<b>Value of Contract (incl. VAT)</b>	<b>Performance Guarantee Required</b>
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:
- **20%** of the gross remuneration of workmen and foremen actually engaged in the daywork;
  - **20%** on the net cost of materials actually used in the completed work.

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

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

- The proportion not subject to adjustment: **x = 0.10**.
- The base month will be the month prior to the month in which tenders close.
- The Index for Labour, Plant, and Materials shall be based on **December 2021 = 100**.
- The Index for Fuel shall be based on **December 2020 = 100**.

	STATS SA Statistical Release	Table	Description	Coefficient
• “L” is the “Labour Index”	P0141	Table A	Geographic Indices; CPI per Province; Kwa-Zulu Natal	<b>a = 0.28</b>
• “P” is the • “Contractor’s Equipment Index”	P0151.1	Table 4	Plant and Equipment	<b>b = 0.28</b>
• “M” is the “Materials Index”	P0151.1	Table 6	Civil Engineering Material (excluding bitumen)	<b>c = 0.38</b>
• “F” is the “Fuel Index”	P0142.1	Table 1	Coke, petroleum, chemical, rubber and plastic products; Coal and petroleum products; Diesel	<b>d = 0.06</b>

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 “Shell Whole Sale List Selling Price for Penetration Grade Bitumen”, seven (7) days prior to the closing date of tenders.

6.10.1.5 The **percentage advance** on materials not yet built into the Permanent Works is **80%**.

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

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

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

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

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

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

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

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

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

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

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**.
- Maximum first excess: **R 10,000**.

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

**Third Party Insurance (Public Liability)**

- Minimum amount for any one occurrence, unlimited as to the number of occurrences, for the period of the contract, inclusive of the maintenance period: **R 5,000,000**.
- Consequential loss to be covered by policy: **Yes**
- Liability section of policy to be extended to cover blasting: R 5,000,000.00.
- Maximum excess per claim or series of claims arising out of any one occurrence: **R10,000**.

**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: **R1,000,000**.
- Maximum first excess: **R 5,000**.

**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:

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

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

10.7.1 Failing ad-hoc adjudication, the determination of dispute(s) shall be by arbitration.

C1.2.2.2 DATA TO BE PROVIDED BY CONTRACTOR

1.1.1.9 The legal name of Contractor is:

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

1.2.1.2 The Physical address of the Contractor is:

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

The Postal address of the Contractor is:

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

The contact numbers of the Contractor are:

Telephone: .....

Fax: .....

The E-Mail address of the Contractor is:

.....

**C1.2.3 ADDITIONAL CONDITIONS OF CONTRACT****C1.2.3.1 COMMUNITY LIAISON OFFICER**

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

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

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

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

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

**C1.2.3.2 EMPLOYMENT OF LOCAL LABOUR**

It is a condition of contract that the contractor will be required to employ local labour as specified in eThekweni Council Policy “The use of CLOs and Local Labour”. The contractor will be required to ensure that a minimum of 50% of the labour force is made up of local labour. For the purposes of this contract, “Local labour” will be deemed to be any **persons who reside within Ward 63**. 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 CONTRACTOR PARTICIPATION GOAL (CPG)**

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% PPG** (Priority Population Group) owned. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

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

**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

<b>Level 1</b> Unknown	<b>Level 2</b> No Schooling	<b>Level 3</b> Grade 1-3	<b>Level 4</b> Grade 4	<b>Level 5</b> Grade 5-6
<b>Level 6</b> Grade 7-8	<b>Level 7</b> Grade 9	<b>Level 8</b> Grade 10-11	<b>Level 9</b> Grade 12	<b>Level 10</b> Post Matric

- Category of Employment

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

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 approval of an "Excepted risks" by the Employers Agent and in written instruction to de-establish is issued to the Contractor.

## **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 F.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 Part C 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.

Part C 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 102: General Requirements and Provisions
- Part 103: Contractors Site Establishment
- Part 104: Facilities for Engineer
- Part 105: Accommodation of Traffic

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

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

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

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

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

Payment of Value Related items in this section will be made throughout the contract period, the amount per month being calculated using the percentage of the works done and tendered price. The final monthly increment will only be paid upon the issue of a completion certificate. The adjusted lump sum will be the full settlement of any difference in value-related general obligations resulting from an increased or decreased value of the work.

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

The Bill of Quantities follows and comprises of 55 pages.

The pages are numbered as follows:

- Final Summary, pages 2
- Sectional Summary, pages 11
- Bill of Quantities, pages 42

**PART C3: SCOPE OF WORK**

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### **C3.1: PROJECT DESCRIPTION AND SCOPE OF CONTRACT**

#### **C3.1.1 Description of Works**

Shallcross/Blundell Road is situated in the south of Durban, in Queensburgh area. The road connects Shallcross to Queensburgh. The road is a 2 lane road which crosses over the Umhlatuzana River via a low level culvert crossing. During the 2019 and 2022 floods the river washed away the roads infrastructure and damaged the culvert. This contract aims to remove the low level crossing and replace it with a new bridge structure to span over the Umhlatuzana River.

The work entails but is not limited to the following :

The construction of a new bridge over the Umhlatuzana River, roads, sidewalks, stormwater drainage systems, retaining walls, ducts, landscaping, street lighting, ancillary works and all other road works items forms part of this contract.

#### **Roadworks**

The construction of new roads Including but not limited to, earthworks, layerworks, kerbing, lane marking and signages. This project comprises of the following roads (refer to plan and typical cross sections):

- Shallcross/Blundell Road, chainage 30 to 470.
- Water Treatment Plant (WTP) road, chainage 15 to 145.
- Temporary road: Temporary road works will be required to construct the new roads.

#### **Bridges**

- The construction of a new 90m long Blundell Road Bridge crossing over the Umhlatuzana River, comprising of 4 spans made up of 2 no. of 20 m end spans and 2 no. centre spans of 25 m.
- The bridge has a 40 m straight section and a 50 m curved section
- The deck shall be poured/cast in 4 construction stages or concrete pours during the night at low temperatures when the formwork is relatively cool. The abutments shall also be poured during the night or early mornings (subject to relatively low volume concrete pours) at low temperatures when the formwork is relatively cool. Due to the relatively thick deck and abutment sections, the aim is to keep to the design ambient temperatures and reduce as much stress and strain in the concrete elements by limiting the heat of hydration and several other factors.
- The Contractor shall ensure all provisions for the night pours or early mornings are in order.
- The proposed bridge structure will comprise a solid slab reinforced concrete bridge deck of 14.5 m constant width over the full length. The bridge is fully monolithic (concrete integral bridge). The deck has haunches at each of the 3 wall piers.
- The bridge has 3 wall piers in the riverbed which are monolithic and flare out laterally near the deck soffit. At both abutments, reinforced concrete wall abutments support the deck slab. The abutments are fully fixed to the deck and these deck stages which fix the deck to the abutments shall be cast last, as per stage sequence shown on drawings.
- Concrete foundations in the riverbed shall be placed on leveled out the sandstone in the riverbed and shall include dowels in the base.
- The 14.5 m wide deck will consist of barriers, handrails and sidewalks on either side of the deck. The sidewalk is to accommodate a multitude of services such as a watermain, electrical cables, street lighting cables and telecom cables.
- The wall abutments shall be founded on rock and/ or founded on mass concrete which shall be placed on sound rock material. The abutments comprise independent counterfort

retaining walls on one abutment, and the other abutment comprises independent retaining walls without counterforts.

- The contractor shall carefully study the proposed construction sequence drawing, as each of the 4 no. deck construction stages shall be securely propped at the centre of the deck for a specific distance, props which shall be part of and inclusive of falsework & formwork and shall remain even after full concrete strength is attained. All props shall only be released when full deck is monolithically connected to all the piers and abutments.
- Extensive embankment protection to the abutments is required at the front of the abutments and this shall involve working in the river.
- The bridge shall be monitored via several different sensors and monitoring devices which will be attached, installed and embedded in the bridge during construction by a specialist nominated subcontractor. The aim is to better understand integral bridge behaviour and develop guidelines for the industry.
- The Contractor shall make full provisions in his/her programme and assist the specialist subcontractor during the installation of the monitoring devices. Detailed instrumentation layout drawings shall be provided at construction stage.
- The bridge has a special aesthetic waved pattern fence/ cage at the edges for pedestrians on both sides. The bridge also has a high quality, polished finish of precast concrete curved copings at the bridge deck and wingwall edges.

### **Demolition**

- Removal and disposal of existing reinforced concrete box culvert structure of +-30 m, including barriers and a base slab, as directed by Engineer. Demolished structure is to be broken up and the reinforcing steel separated out and disposed of, after which the remaining concrete is to be placed on site as fill material.

### **Retaining Wall**

- Retaining walls Gabions and Dry stack (interlocking) walls of height upto 3.0m.

### **Stormwater**

A new stormwater system will be laid under this scope of works. The stormwater system will comprise of concrete pipes ranging in size from 375mm diameter to 750mm diameter. There will be various types and sizes of new catchpits, manholes and headwalls.

### **Sewer**

A sewer servitude runs across the road at approx. Ch30-230 with a 160mm diameter pipe. Relocation of this pipe is required and protection of the existing and new pipe will be required throughout the construction.

Should traffic accommodation be carried out over the sewer line area the relocation of this pipe must take the traffic accommodation into consideration. The Employers Agent should be informed of the traffic accommodation plans and its impacts on this pipe.

### **Sidewalks and Medians**

Sidewalks will be of a 2.0m width unless otherwise specified on the drawings. The majority of sidewalks and medians will be constructed using asphalt. Verges, grassed or not, will be of 1.0m in width unless otherwise specified in the drawings. The sidewalks over the bridge will be of 2.0m width and constructed using concrete.

### **Kerbs**

The kerbing will comprise of the following:

- Type A, Figure 6 Barrier Kerbs including channels and fillets,
- Figure 12 edge restraint kerbs at the back of the sidewalks.

**Umhlatusana River**

The Contractor is required to work within the river area for road works, temporary works, complete bridge construction, embankment protections, river clearing and other works. The contractor is to ensure he allows for works within the river course, and any river diversions required during the construction.

**Ancillary works**

Other works includes, but is not limited to:

- Removal of rubble and other waste products to an approved dump site.
- Removal of existing street lighting and design and installation of new street lighting.
- Removal of existing road and fixtures.
- Relaying and protection of sewer lines.
- Relocation of services, telecommunication and electrical.
- Removal of concrete pipes, ( stormwater pipes, drainage pipes, sleeves)
- Traffic accommodation and pedestrian accommodation.
- Construction of deviation roads.
- Landscaping.
- Construction / installation of concrete barriers and guardrails
- Installation of service ducts, manholes, poles and other services infrastructure.
- Lateral support systems.
- Gabions, reno mattresses and geosynthetic construction and installation.
- Re-instatement of property boundary walls, fences, driveways, vegetations etc.

**Notes:**

- Access to all roads and private properties must be maintained throughout the contract.
- The Contractor will be working under live traffic throughout the duration of the contract. It shall be his responsibility to ensure adequate traffic deviations and calming measures are in place to ensure safe working conditions.
- Some of the works are along steep banks.
- The site lies under High Voltage electrical cables between pylons. The contractor is required to ensure minimum clearances to powerlines and pylons are maintained at all times.
- The Contractor will be working within a river course, throughout the duration of the contract which may go into rainy seasons, it shall be his responsibility to ensure that adequate measures are in place to ensure safe working conditions.
- The contractor shall be responsible for all river diversions to carry out the works.

**C3.1.2 Description of Site and Access**

The site is located in the south of Durban, in Shallcross. Access to the site may be from Shallcross, Chatsworth and Queensburgh.

Refer to Item C4.1: Locality Sketch

**C3.1.3 Nature of Ground and Subsoil Conditions**

There are 2 boreholes available in the area. The bedrock is Sandstone, with up to 3.5m of boulders and cobbles above bedrock.

Refer to Item C4.2 and 4.3.

### **C3.2: PROJECT SPECIFICATION**

#### **PREAMBLE**

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

#### **C3.2.1 GENERAL**

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

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

##### **PS.1.1 Preliminary Programme**

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

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

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

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

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

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

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

- a. Relocation of Services: The notice period required for the relocation of services is a minimum of **eight weeks** from date of proving and providing of notice. 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 Employers Agent.
- b. All pavement designs to be done and submitted at-least one month before the pavement is to be laid.
  - c. Existing electrical Poles will need to be relocated prior to the bridge construction. Allow for relocation as per PS.2.
  - d. Methodology for all structures to be done and submitted to the Engineer at-least **2 week** before the works commence.
  - e. The road would need to be opened at all times. The contractor is required to carefully plan his traffic accommodation in order to carry out the works. If any traffic deviations are planned approval of traffic management plan must be acquired from the eThekweni Transport Authority **2 weeks** prior to the deviation.
  - f. Working within the river course for the construction of the road and bridge, and for the demolition of the existing road and culvert.
  - g. It is anticipated that the construction of the bridge will not affect existing traffic, except for working space that may be required for Wing/Abutment walls. the contractor is to ensure adequate measures are taken to either deviate traffic as required or ensure safe and stable banks/working area.
  - h. The construction of the new roadway will require diversion of the existing traffic. The new road construction may require construction in stages/phases/sequences. The Contractor is required to plan his construction stages/phases/sequences to complete the road construction.

### **Traffic Accommodation**

The Contractor is responsible for traffic accommodation. The following traffic accommodations plans have been allowed for:

- Ch 70-200 and Ch 350-end:
  - o The road will be constructed in single lane layer at a time.
  - o This may be done as follows:
    - Traffic will be reduced to a single lane during offpeak periods. The next lane will be constructed 1 layer at a time.
    - Example:
      - All traffic diverted onto left lane, right lane construction of 1 layer.
      - Thereafter the traffic diverted onto right lane (on new layer), Left Lane construction of 1 layer.
      - Continued until all layers complete.
    - Additional works may be required to tie back into existing road during deviation.
- Items in the BOQ for construction of traffic accommodation Layerworks shall only be used as directed by the Engineer or for deviations approved by the Engineer.

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.

### **Bridge Works**

This below table only stipulates the minimum timeframes for specific bridge work construction activities that the Contractor shall plan in his/her stages/phases/sequences to complete the bridge construction. The Contractor shall include any missing activities in the programme and plan accordingly. Table serves only as a guideline and the Client, Employer or Employers Agent shall not be held responsible.

Bridge Element	Description	Time Frame
Full Piers & Abutment Walls	A minimum of 7 days that the pier and abutment formwork shall be in place for each pier and abutment element and then only stripped after 7 days. Irrespective of concrete strength or other methods of curing	Minimum 7 days
Deck Falsework & Formwork	Full staging (falsework & formwork) to remain for minimum of 21 days for each stage. Irrespective if full concrete strength is gained before 21 days. Note that props part of falsework & formwork shall not be removed.	Minimum 21 days
Deck Propping of spans	Props (part falsework and formwork) for middle 5m (& full width) of each span to remain in place after 21 days if and when other formwork & falsework is removed. The 5m & full width of middle propping to remain till entire bridge deck is monolithically connected to all piers and abutments and full concrete strength achieved.	Till deck monolithically connected to all piers and abutments
Deck Curing	Curing – approved curing method for top of deck as approved by the Employers Agent	Minimum curing of top deck surface 7 days – starts as soon as deck floated
Bridge Furniture (barriers, copings, handrails, parapets, services, asphalt)	May be constructed and / or installed 21 days after casting the stage	Minimum 21 days

#### Construction Stage Programme for Deck

Construction sequence shall follow the Construction Stage 1 to Construction Stage 4 sequence as indicated on drawings. **There shall be a maximum of 21-day turnaround between deck stage concrete pours. To achieve this, it is expected that 2 sets of falsework & formwork etc will be required to be installed concurrently, the contractor shall ensure this is accommodated for in the pricing.**

All construction joints shall be thoroughly scabbled to the satisfaction of the engineer and kept moist min. 24 hours prior to next casting.

**NOTE:** Certain concrete pours (deck & abutment) shall take place during the night at low temperatures when the formwork is relatively cool. The Contractor shall ensure all provisions for the night pour are in order.

**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”**.”

A suggested traffic accommodation layout maybe provided by the Employers Agent. The layout provided is merely a guideline for the contractor. Should the contractor amend the Employers Agent’s suggested traffic accommodation plan or the Contractor elect to use his own traffic accommodation layout, then the new plan shall be approved by the Employers Agent prior to the commencement of the works. Should the contractor use the Employers Agent’s suggested traffic accommodation plan, then the Contractor shall accept full ownership and responsibility for the accommodation of traffic layout.

**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.

The Contractor shall programme in his works the traffic accommodation required to carry out the construction of the works and to include the protection of any services in doing so.

**PS.1.3.3 Traffic Safety Officer**

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.1.4 Penalties for Non-Compliance of Traffic Accommodation Clauses**

For every road and traffic rule violation by the Contractor and his Sub-Contractor's, Suppliers and labourers (including local labour), he shall be charged a penalty for that offence. The engineer will raise the charge. A fixed cost of R2000/event shall be applicable for every event of non-compliance. A Time related cost of R1000/hour shall be applicable for delay caused by the above-mentioned noncompliance. The measurement of time shall be from when the Level of Service in vehicular capacity has reduced due to the act of non-compliance to the time that the Level of Service is restored to before the incident had occurred.

**PS.2 SERVICES**

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

**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.

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

The Contractor will comply with the conditions for dealing with existing services as attached in **C3.4**, Particular Specifications, and approach the relevant authorities for additional information where applicable.

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

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

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

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

**PS.2.2 Proving Underground Services**

This clause must be read in conjunction with **COTO Ch2**, 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 in the BOQ..

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

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

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

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

Proving of services shall be completed at least eight weeks in advance of the actual programmed date for commencing work in the area. The position of these services located must be co-ordinated and levelled by the Contractor, and the information given in writing to the Employer's Agent's Representative.

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, Liquid Telekom (Neotel), Dark Fibre Africa, Dimension Data, Light Fibre, Link Africa and Other Service Providers;
- 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 **eight 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.**

The contractor shall prove the position of water lines and ensure they are not damaged during construction. The proving of these water lines shall be included in the tenderer's rates. There is a known water pipe that is approximately 10m away from the WTP road.

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

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

#### **PS.3.2 Water Main Valve Access**

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

Whatever method the Contractor chooses to use for this work, the cost of raising the valves from

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

### **PS.3.3      Restriction on Compactive Equipment**

The Contractor is to note that existing watermain 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 watermain.

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**

Tenderer's attention is drawn to the fact that there are known existing sewer lines within the site. The Contractor shall be responsible for ensuring that sewer pipes are not damaged during construction and if a need to relocate or modify sewer pipes/manholes is identified, the Contractor shall notify eThekweni Municipality.

Approximately 150m of sewer line will be relocated as part of this contract. The pipe is expected to be 160mm in diameter. The relocation of any sewer lines required shall be as per the eThekweni Sanitation Department Specifications, refer to wet services drawing.

#### **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**

Existing stormwater services are affected by the relocation and installation of new pipes where indicated on the drawings.

Stormwater drainage will be in the form of minor and major works.



The works will comprise of the following:

- Construction of varying sizes of concrete pipes ranging in size from 375mm diameter to 750mm diameter,
- Subsoil drains, either conventional subsoils or newer methods,
- Catchpits and manholes of varying configurations,
- Catchpits with adjusted cover dimensions to suite site conditions.
- Concrete and natural V-drains.
- Extending existing pipes
- Realigning existing manholes and catchpits

#### **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**

The Contractor's attention is drawn to the existing underground, surface and overhead cables, the Contractor has a responsibility to ensure there is no damage to these infrastructures.

##### **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 along the road as instructed by the Engineer. 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.

The Contractor shall prepare an expression of interest at the commencement of the contract to all approved / accredited Street lighting providers (list to be provided by eThekwini Electricity) for Professional Services to carry out Design of the street lighting. This expression of interest shall be submitted to the Employers Agent / Client for approval. On approval by the Employers Agent / Client, the Professional Service provider shall undertake the necessary investigation and provide detailed design and drawings of the street lighting. The drawings shall be submitted to eThekwini Electricity for approvals.

The Contractor shall prepare another expression of interest to all approved / accredited Street lighting providers (list to be provided by eThekwini Electricity) to carry out the installation/removal of street lighting. This expression of interest shall be submitted to the Employers Agent / Client for approval. On approval by the Employers Agent / Client, the Professional Service provider shall undertake the necessary investigation and provide detailed design and drawings of the street lighting. The drawings shall be submitted to eThekwini Electricity for approvals. An allowance has

been made in the BOQ for the design and installation of street lighting and a separate item has been allowed for the handling costs by the main Contractor.

### **PS.6.3 MV / LV Cables**

Certain MV / LV cables are to be replaced within the contract area (see drawings). 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 eight 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.6.5 Overhead Cables**

The contractors attention is brought to overhead electrical cables supported by Pylons near the site.

The new works run directly under these High Voltage overhead cables. The level of the road is approximately 142.00MSL, with the lowest point of the cables being 153.00 MSL. The Contractor is required to ensure all machinery and equipment is used safely and all works maintain a clearance to the powerlines of at least 7m.

The contractor is required to check the levels of the overhead cables and submit to the Engineer eight weeks prior to construction commences below the lines.

### **PS.7 TELKOM, LIQUID TELEKOM (NEOTEL), DARK FIBRE AFRICA, DIMENSION DATA, LIGHT FIBRE, LINK AFRICA AND OTHER SERVICE PROVIDERS**

The Contractor shall pay special attention to the following :

The tenderers attention is drawn to the fact that copper cables and fibre optic cables are existing in the contract area. The Contractor shall notify the Engineer and service providers at least eight weeks in advance for any relocations that's required.

### **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:

- i) The contract area has high volumes of both pedestrian and vehicular traffic,
- ii) The works will require machinery and plant of varying size,
- iii) The works will be done at heights (+/- 9m above ground level), in deep trenches and near live services.
- iv) The asphalt used will be delivered to site at a high temperature, which, after processing, remains hot for some time,
- v) The construction is in a water courses,
- vi) The manual moving of heavy pre-cast products will be required,
- vii) The area is bound by business/residential/private properties,
- viii) The gradient of the site is fairly steep in some areas. Plant and machinery need to be well controlled.
- ix) Stormwater run-off from the site will have to be well managed,
- x) There are numerous services which the Contractor will either have to protect or relocate,
- xi) Pylons and cables,
- xii) Working within the river

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 tenderers 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, Employers Agent and his team 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.10.4** Due care shall be taken during the construction. This construction is taking place within a flowing river and the Contractor shall ensure that he prices the tender to take this into consideration. He must employ appropriate temporary diversion measures to ensure that he can carry out the works whilst mitigating damage to the stream. Sufficient water flow must be maintained at all times throughout construction to sustain downstream aquatic life during construction. The diversion structure should not constrict stream flow so as to avoid backups due to fluctuations in water depth or flow volume. Temporary berms or dams should be installed upstream and downstream to block stream flow from interfering with the construction site. The temporary stream diversion should take into account the length of time the diversion will be in use. If high flows or flood hazards are anticipated during the operation of the diversion, capacity should be increased to prevent failure and erosion of the diversion practice.

**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.

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

**PS.13 Community and Public Relations**

During the course of the contract, the Employer / Employers Agent may need to engage with the community and other interested and affected parties. The engagement may be in the form of electronic media, pamphlet distribution or meetings. All costs relating to this aspect will be paid for through the relevant item in the BOQ. An item has also been allowed for in the BOQ for the contractor's administration cost in this regard. It is a percentage of the cost of the Community and Public Relations item.

**PS.14 CONTAMINATION OF MATERIALS**

The contractor is to ensure that contamination/mixing of different materials are prevented during excavation/handling or processing to ensure maximum reuse of suitable material (engineered fill of G9 or better quality). Should the Engineer become aware of suitable material from excavation being contaminated and that sufficient care has not been taken to prevent such contamination, he shall have recourse to request testing on such materials. If the contractor has been negligent in preventing such contamination, spoiling of such materials shall be to his account and he shall have no recourse for any payment.

**PS.15 TESTING**

The Contractor is to include in his unit rates for the cost of classification testing of all materials delivered to site intended for use in the layerworks and for all density of all materials delivered to site intended for use in the layerworks as per the pavement design illustrated on the contract drawings.

The Contractors is to provide results of all control testing to the Employers Agent. If the Employers Agent is satisfied with the results, the Contractor will then be given the approval by the Employers Agent's representative to proceed with the next stage of construction.

The Contractor is to also include in his unit rates for the cost of classification testing and density tests of all materials excavated from site intended for use in the bulk earthworks. The Contractors is to provide the test results of all these materials to the Employers Agent. If the Employers Agent is satisfied with the results, the Contractor will then be given the go ahead by the Employers Agent's representative to proceed with the next stage of construction.

Random acceptance testing will be undertaken by the Roads Provision Department, Pavement and Geotechnical Engineering Branch.

**PS.16 TESTING REQUESTED BY EMPLOYERS AGENT**

At the discretion of the Employers Agent, he may request the Contractor to undertake additional control testing of which payment shall be made in the Bill of Quantities.

**PS.17 SUBMISSION OF AS-BUILT DATA**

The contractor shall supply the Employers Agent with an electronic copy and hard copy of:

- (a) A list of surveyed co-ordinates of all work carried out.
- (b) The survey must include:
  - All new works carried out: kerb line including channel, road edge, road markings, edge of sidewalks, trees, access points, services (existing and new), different hatching to indicate different types of surfacing.
  - A list of co-ordinates of different services which are newly installed, relocated or existing.
  - A coordinated list of all catchpits, manholes and headwalls, gabion and reno-mattresses structures newly constructed, modified or existing.
  - A list of surveyed co-ordinates of all retaining walls, dwellings, fencing and services within the vicinity of the works.
- (c) Materials As-Built records captured as per the eThekweni Municipality Materials As-Built record template
- (d) Hard copies in A0 paper, and  
a coordinated soft copy of the survey in .dxf/.dwg/.dr4 format.

The contractor must also give the Employers Agent a materials as-built spreadsheet in the format approved by the Senior Manager of the Pavement and Geotechnical Laboratory – City Engineers.

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

An allowance has been made for the payment for this item in the BOQ.

**PS.18 ADJUDICATION**

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

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

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

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

**PS.19 ROAD DEVIATIONS AND TRAFFIC CONTROL**

- (a) Allowance have been made in the Bill of Quantities for the construction of deviation roads as depicted in [annexures C3.6](#). Costs of any other deviations required by the Contractor shall be included in the rates tendered.
- (b) Deviations required by the Contractor shall comply with the requirements of COTO 1.5. Details shall be submitted to the Employers Agent for approval at least [four weeks](#) in advance of date on which it is anticipated that work on the deviation will commence.
- (c) On deviations provided in terms of (b) above the Contractor shall ensure at all times and during all weather conditions that all temporary surfaces that are intended to carry traffic are in fact trafficable with regard to reasonable standards of safety and comfort. No additional payment shall be made to the Contractor for compliance with this clause.
- (d) Unless indicated otherwise over the entire length and for the duration of the contract, traffic is required to be accommodated in both directions at all times. The Contractor shall ensure that the full width of the road, or a width of road approved by the Employers Agent, is available for traffic during the peak traffic periods (i.e. 07:00 - 09:00 and 16:00 to 18:00).
- (e) At all times signposting shall be detailed in the part of this document : "Safety in Road Construction".

**PS.20 PROGRESS PHOTOGRAPHS**

A provisional sum has been included in the BOQ for digital photographs and aerial photographs to be taken. The photographs shall be taken monthly across the entire site, including aerial photos, at the discretion of the Employers Agent.

- The digital and aerial photographs shall be taken monthly across the entire site, or at the discretion of the Employers Agent. This may include the use of a drone to capture images. The Employer's Agent shall provide the specifications of the drone to be used.

**PS.21 SUPPLY OF PLANT, MATERIAL AND LABOUR**

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



**PS.22 BARRIERS FOR ACCOMMODATION OF TRAFFIC**

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

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

**PS.23 ALLOWANCE FOR PROFESSIONAL SERVICES**

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

**PS.24 ALLOWANCE FOR GEOTECHNICAL ENGINEER FOR INVESTIGATIONS AND TESTING, DESIGN, DETAIL, SUPERVISION AND STABILITY CERTIFICATE.**

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

Geotechnical investigations and testings shall be carried out at the beginning of the contract to ensure that the site from a geotechnical perspective will be safe and stable during and after the construction.

Bridges: Boreholes and other investigations are required prior to construction. These shall be carried out at the beginning of the contract.

Other works: The Employer's Agent may instruct the Contractor to carry out any other geotechnical investigations as required.

The contractor will let out the Expression of Interest detailing the above-mentioned. The Employer's Agent will provide all the necessary information, Or the Construction drawings may be used for the Contractor to compile for Expression of Interest. On receipt of the quotations, the contractor shall submit them to the Employer's Agent who shall undertake an evaluation and provide a recommendation of the most responsive tenderer for acceptance by the contractor. On acceptance, the contractor shall appoint the most responsive Tenderer. **It is mandatory that the geotechnical investigation commence immediately on commencement of the contract between the contractor and the Employer.**

The drawings, investigation reports and all information in this regard shall be issued to the Employers Agent at least **four weeks** before the programmed commencement of the works.

**PS.25 ADDITIONAL SURVEY**

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

**PS.26 SURVEY OF EXISTING SERVICES**

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

**PS.27 ALLOWANCE FOR LABORATORY ACCEPTANCE TESTING.**

During the Contract the Employers Agent will require acceptance testing for all earthworks, roadworks, structural works, concrete works etc.

The contractor will let out the Expression of Interest detailing the above-mentioned. The Employer's Agent will provide all the necessary information. On receipt of the quotations, the contractor shall submit them to the Employer's Agent who shall undertake an evaluation and provide a recommendation of the most responsive tenderer for acceptance by the contractor. On acceptance, the contractor shall appoint the most responsive Tenderer.

As additional item is included in the BOQ to cover the contractors handling costs for this item.

The Control Testing done by the contractor is **not** covered by this item. The Contractors control testing shall be included in the BOQ items as specified in COTO.

**PS.28 INCIDENTAL EXPENSE.**

An item has been allowed for in the BOQ for Incidental Expense.

This amount may be used for a possible circumstance(s) and/or future event(s) related to the works but which could not be reasonably predicted at time of tender.

This item will be used at the discretion of the Employer's Agent in consultation with the Employer.

**C3.3: STANDARD SPECIFICATIONS**

- C3.3.1** The Specifications on which this contract is based are the [COTO \(Committee of Transport Officials\) Standard Specifications for Road and Bridge Works for South African Road Authorities](#). This document is obtainable separately, and Tenderers shall obtain their own copies of the applicable Sections.

### 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.

<b>PS.C1.2</b>	<b>GENERAL REQUIREMENTS AND PROVISIONS</b>	
<b>PS.C1.2.1.1</b>	<b>Monitoring of compliance with and reporting on the EMP:</b>	
	In addition to the standard specification, all requirements according to the Environmental Management Plan as detailed in <a href="#">C3.4: Particular Specifications</a> , will be adhered to.	
<b>PS.C1.2.1.2</b>	<b>Dedicated Environmental Officer:</b>	
	<p>The Environmental Control Officer (ECO) shall conduct the following activities:</p> <ul style="list-style-type: none"> <li>• Brief the Contractor about the requirements of the Environmental Specification, Environmental Management Plan and any other relevant document, specification or Act as applicable.</li> <li>• Audit, monitor, report and keep a record of the performance of the Contractor / Project in terms of environmental compliance on a monthly basis.</li> <li>• Provide technical advice relating to environmental issues as required.</li> <li>• Attend monthly site meetings to report on the performance of the Contractor / Project</li> <li>• Conduct a close out audit and report on the Project once the construction camp has been cleared.</li> </ul>	
<b>PS.C1.2.2.3</b>	<b>Submission of a Scheme 2 Programme:</b>	
	<p>It is essential that the construction programme, which shall conform in all respects to <a href="#">Clause 5.6</a> of the General Conditions of Contract, be furnished within the time stated in the Contract Data (refer to <a href="#">Clause 5.3.1/2</a>).</p> <p>The preliminary programme to be submitted with the tender shall be used as basis for this programme.</p> <p>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:</p> <ul style="list-style-type: none"> <li>(a) Items mentioned in In addition to PS1,</li> <li>(b) All pavement designs to be done and submitted at-least one month before the pavement is to be laid.</li> <li>(c) A minimum of two lanes of traffic (one in each direction) is expected to flow at all times.</li> </ul> <p>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.</p>	
<b>PS.C1.2.2.5</b>	<b>Reviewing and Updating a Scheme 2 Programme every month:</b>	
	<p>The contractor shall update the programme every month and submit to the Engineer.</p> <p>The Contractor shall revise the programme when instructed to do so by the Engineer in accordance with the requirements of the Conditions of Contract or when the Contractor is aware that the programme no longer reflects the way in which the Contractor plans to execute the remaining work.</p> <p>Payment shall be made only upon the revised programme being accepted by the Employer's Agent, regardless of the number of iterations / revisions / corrections made before the programme was accepted by the Employer's Agent.</p>	
<b>PS.C1.2.3.7</b>	<b>Base and/or Surface Patching Using Hot Plant Mixed Asphalt :</b>	
	In addition, the rate shall include for saw-cutting the failed asphalt, application of a tack coat, supply and compact the asphalt to a level to suit to the existing road, including loading, hauling and disposal of the failed asphalt, all labour, plant, tools and equipment.	

<b>PS.C1.3</b>	<b>THE CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS</b>	
<b>PS.C1.3.1</b>	<b>The Contractor's General Obligations:</b>	
	<p>In addition to the Standard Specification, the Contractors General Obligations shall also include:</p> <ul style="list-style-type: none"> <li>• Training and supervision of local labour</li> <li>• Management of labour where labour enhance construction methods are specified</li> <li>• Compliance with, and application of the Compensation for Occupational Injuries and Diseases Act</li> <li>• The Contractor's camp site and store yard.</li> </ul> <p>Note: The Contractor's office for this contract shall be as required to fulfill his obligations under the Contract. The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and labourers.</p> <p><a href="#">The Employer has not made a site available to the contractor.</a> If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.</p> <p>However the Contractor may, if he prefers to, have a camp site at another location and must first obtain the written permission of the landowner, and subsequently the Engineer, to do so.</p> <p>Any clearing of the site that is necessary and the making good after de-establishment will be the responsibility of the Contractor.</p> <p>The following conditions shall also apply:</p> <ol style="list-style-type: none"> <li>None of the existing roads shall be damaged in any way.</li> <li>No waterborne sewerage facilities or potable water connection are available on the site. The Contractor shall make his own arrangements in this regard.</li> <li>No electrical facilities exist on site.</li> <li>It shall be the responsibility of the Contractor to make good any damage caused to the camp site area or any improvements on it, including services, and for reinstating it to its former condition when vacated. The standard of reinstatement must be to the satisfaction of the Engineer; Deputy Head: Real Estate and/or Deputy Head of Parks, Recreation and Beaches Department; or other owner. Particular attention should be directed to these requirements and written clearances from the relevant Departments or other owners will be required.</li> </ol> <p>No employees except for security guards will be allowed to sleep or be accommodated on the site in urban areas. No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.</p> <p>No informal housing or squatting will be allowed.</p> <p>Chemical toilets only will be allowed where temporary facilities have to be provided.</p>	
<b>PS.C1.3.2</b>	<b>Contract Sign Boards:</b>	
	<p>The typical notice board layout is given in <a href="#">section C3.6</a>.</p> <p>The tendered rate shall include full compensation for providing and erecting each sign board (two), including for timber poles, concrete bases if required, fixings, excavation and backfill, and for the later removal of the sign board, structures and fixings, and reinstating the area upon completion of the contract. The rate shall include for all labour, plant, tools, materials and equipment.</p>	

<b>PS.C1.4</b>	<b>FACILITIES FOR THE ENGINEER</b>	
	General: The offices and ablution facilities shall, unless otherwise agreed, be erected in close proximity to the Contractor's offices, and the entire area shall be fenced. Access to the area shall be controlled by security, posted at the gates. All reasonable precautions shall be taken by the Contractor to prevent unauthorised entry to the Engineer's offices.	
<b>PS.C1.4.1.1</b>	<b>Offices and Conference Room:</b> The Engineer's offices shall comprise of: - 4 No. (four) lockable, air-conditioned offices with area of 9 to 12m <sup>2</sup> , all fully furnished - 1 No. (one) of 18m <sup>2</sup> air-conditioned office to be used as a boardroom - 2 No. (two) sanitary facilities camp  - 1 No. (one) kitchen with cupboards, and hot and cold water, and - 4 No. (six) shaded carports for the sole use of the Engineer, his site personnel and the Employer.  The offices shall allow for a desk with 4 drawers, filing cabinet, drawing racks, 1 swivel chair and 2 padded chairs. All the necessary insurance shall to be provided for all the above equipment.  The contractor will be required to provide maintenance/cleaning to the Engineer's office.	
<b>PS.C1.4.1.2</b>	<b>Power supply, water and other services</b>	
	The Contractor shall make his own arrangements concerning the supply of electrical power, water and all other services. No direct payment will be made for the provision of electricity, water and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required, or in the Contractor's preliminary and general items as the case may be.  (a) Water for Works  The Contractor shall allow in his Establishment rates for the securing of a suitable water supply, the payment of any connection fee and for any water charges for the duration of the contract.  (b) Power Supply for Works  The Contractor shall allow in his Establishment rates for the securing a legal electrical connection, the payment of any connection fee and for any electrical charges for the duration of the contract.	
<b>PS.C.1.6</b>	<b>CLEARING AND GRUBBING</b>	
<b>PS.C1.6.4.1</b>	<b>Removal of buildings and structures</b>	
	<b>Removal of Stormwater manholes and inlet; covers and frames:</b> The unit of measurement shall be number (No.) and the rate shall include for the labour and plant necessary for the careful removal of the inlet covers and frames, loading and either: (a) storing on site for re-use, or; (b) transporting to the Municipal store or; (c) transporting to the approved tip and dumping.  <b>Demolition of brickwork of Manholes and inlets.</b> The unit of measurement shall be number (No.) and the rate shall include for the	

	<p>labour, plant and material necessary for:</p> <ul style="list-style-type: none"> <li>(a) breaking down brickwork to 1 m below formation level;</li> <li>(b) sealing the incoming and outgoing pipes with concrete;</li> <li>(c) backfilling with clean, coarse sand and compacting to 95% MDD;</li> <li>(d) storing manhole covers on site for re-use or spoiling to tip.</li> </ul> <p>Sealing concrete pipes, the concrete shall be paid for under a separate item.</p> <p><b>Removal of pipe culverts:</b> The unit of measure is metre (m). The rate shall cover labour and plant necessary for the removal of the existing pipe culverts, loading and spoiling at the approved spoil site.</p>	
<b>PS.C1.6.8.1</b>	<b>Establishment of a Temporary Nursery:</b>	
	<p>Horticulturist: A horticulturist shall be appointed to identify indigenous and/or valuable plants that can be transplanted temporarily to an area outside the footprint of the works as identified by the Engineer and horticulturist. On completion the Engineer and horticulturist will direct on transplanting.</p> <p>This Works encroaches onto Primary Grassland area on multiple portions of land. The Contractor, upon request of the Engineer, shall establish a nursery to house the protected grass. The nursery shall be large enough to accommodate the grass until a suitable site is identified for it to be finally planted.</p> <p>The total area of affected vegetation in 40 000m<sup>2</sup>. However, the Contractor shall sequence his works so that only a small portion of vegetation is ever affected at any given time. The size of the Contractors nursery shall depend on the area of protected vegetation he plans to affect at any given point.</p> <p>The unit of measurement for item C1.6.8.1 shall be the sum. The contract rate shall include full compensation for the land to be occupied, clearing and levelling the nursery site, installing fencing, shade netting and wind breaks, for providing plant containers where necessary and for installing a water supply system.</p>	
<b>PS.C1.6.8.2</b>	<b>Removal, Storage and Maintenance of Grass:</b>	
	<p>The unit of measurement shall be the square meter (m<sup>2</sup>) of grass removed from site and replanted/stored and maintained in the temporary nursery. The contract rate shall include full compensation for all work necessary for carefully removing the grass with their root systems intact and for correctly replanting, storing, watering and maintaining them in a temporary nursery until they are removed for replanting at the final site. This shall also include full compensation for all loading, off-loading and hauling, regardless of the location of the temporary nursery.</p>	
<b>PS.C1.6.8.3</b>	<b>Final Removal, Planting and Maintenance of Grass</b>	
	<p>The unit of measurement shall be the square meter (m<sup>2</sup>) of grass removed from nursery and replanted and maintained in the final site. The contract rate shall include full compensation for all work necessary for carefully removing the grass with their root systems intact and for correctly replanting, watering and maintaining them in the final site until they are able to survive without the aid of the Contractor. This shall also include full compensation for all loading, off-loading and hauling, regardless of the location of the temporary nursery.</p>	
<b>PS.C1.7</b>	<b>LOADING AND HAULING</b>	
	<p>The Contractor shall make his own arrangements for the provision of a suitable approved dumping site off the site for the disposal of material obtained from excavations, demolition, clearing and grubbing, and rock cuttings. The rates in the Bill of Quantities are to include all costs of fees payable to cover the disposal of waste material at the dumping site.</p>	
<b>PS.C2.1</b>	<b>GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES</b>	
<b>PS.C2.1.1.1</b>	<b>Contractor's Obligations:</b>	



	<p>Before any work commences, the Contractor shall contact all private owners or public authorities controlling services so that they may, either protect, move or relocate any service as required, or confirm that all such work has been completed.</p> <p>Payment will not be made for any inconvenience caused to the Contractor in regard to any services crossing the site or any authority working on or relocating any such services, nor will any delays caused by such work or relocation be accepted as a basis for claiming an extension of time for completing the works.</p> <p>All known existing services and those services which require relocation and protection, are shown on the services plans. The Contractor's attention is drawn to the fact that such services information is based on information supplied by others, and the accuracy and completeness of this information has not been confirmed. The Contractor will therefore be required to proceed with extreme caution in order to avoid damage to existing services. Before commencing any work in the vicinity of services, the Contractor shall contact the relevant service authorities for assistance in locating the exact position of the services and where necessary the Contractor shall accurately locate the services by careful hand excavation.</p> <p>In general, the Engineer may call upon the Contractor to re-excavate trenches previously dug and backfilled by others where in the opinion of the Engineer such work is necessary to ensure the stability of any other works over such trenches. This in no way relieves the Contractor of his responsibilities in terms of the works.</p>	
<b>PS.C2.1.6</b>	<p><b>Trench Excavation:</b></p> <p>The Tenderer's attention is drawn to the presence of existing services in the area. The Contractor may find it impractical to use mechanical plant for excavation on some portions of the works due to conditions caused by the presence of these services.</p> <p>The Tenderer's attention is further drawn to the fact that his rates for excavation and backfilling must include for all costs associated with working around these existing services and their protection and accommodation, as no claim for extra payment will be accepted for increased working space or for the inability to use plant in any circumstances.</p> <p>The following requirements in respect of trench excavation, backfilling and reinstatement shall be adhered to:</p> <ol style="list-style-type: none"> <li>1) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling. It will be the Contractor's responsibility to use selective methods of excavation to ensure that this unsuitable material does not contaminate other materials suitable for reuse.</li> <li>2) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling in areas subject to traffic loading. An item has been included in the Bill of Quantities for the disposal of unsuitable material to tip and the Contractor's tendered rate for this item shall include for stockpiling if deemed necessary.</li> <li>3) Where the Contractor chooses to trench by open excavation e.g. battering sides of the trenches, this over-excavation shall not be backfilled with unsuitable excavated material but shall be backfilled with the same imported material as used for the pay-width of the trench. Payment for the imported backfill shall be limited to the pay-width of the trench only and the Contractor shall allow in his rates for any extra backfill material that may be required as a result of over-excavating</li> <li>4) Notwithstanding the method of trench excavation adopted by the</li> </ol>	

	<p>Contractor, the restriction on the maximum trench width must be strictly adhered to. Should the Contractor over-excavate the trench then he will be responsible for increasing the pipe strength and / or bedding class to be used, all to his cost.</p> <p>The measurements for excavation shall be the total through-length along the centre-line of a pipeline measured HORIZONTALLY with deductions for manholes. In addition, trench depth will be measured vertically on the centre-line of the pipeline from the existing ground level to the invert level.</p>	
	<b>Shoring of Trenches to Excavations:</b>	
	<p>The Contractor shall be responsible for the design and installation of all shoring where applicable, which must not only comply with all of the relevant safety regulations pertaining to the provision of safe working conditions in earthwork excavations but also will provide sufficient lateral support to minimise any damage to adjacent structures, services or road surfaces.</p> <p>In addition to the above all excavations in road reserves and adjacent to structures and where excavations are in excess of 1,0 m in depth shall be supported with close shoring and no open or intermittent shoring of any description will be permitted.</p> <p>The minimum requirements for shoring of these trench excavations shall be as follows:</p> <ol style="list-style-type: none"> <li>1) Either ribbed steel trench sheeting of suitable thickness with an edged return for interlocking or suitably sized timber poling boards or runners are to be used. Adequate sized walings at suitable intervals are to be provided. Struts shall consist of either adjustable tubular steel jacks or timber suitably sized for the load application.</li> <li>2) The shoring for the excavations shall be progressively installed as the excavation proceeds. Care being taken to ensure the soil is not removed within a minimum 300 mm of the toe of the runners.</li> <li>3) Installation of shoring after the trench has been excavated to a depth in excess of 1,5 m is not acceptable.</li> <li>4) Details of the proposed shoring must be supplied to the Engineer at least two weeks before the operation commences. During the backfilling, the sides of the trench including the road layers above any over-excavated sections are to be cut back to a point behind the over excavation.</li> <li>5) No separate item has been allowed for in the Bill of quantities and the Contractor shall allow in his excavation rates for shoring as necessary.</li> </ol> <p>The cutting back of the trench sides shall be to the Contractor's account.</p>	
<b>PS.C2.1.16</b>	<b>Subsurface Drains in Trench Bottoms:</b>	
	<p>The unit of measurement shall be the metre of subsoil drain constructed complete as specified or shown on the drawings.</p> <p>These shall be "Netlon" plastic subsoil pipes complying with SABS 791 as amended, or the new Flo Drain system.</p> <p>Hole Size : 5 ∇ 1 mm Diameter  Diameter of Pipe: 100 ∇ 10 mm.  Pipe Invert : 25% of the circumference of the pipe is to be free from slots or holes to form an invert to the pipe.</p> <p>The outfall end of each run of subsoil drain shall be built into the nearest inlet/manhole or headwall.</p>	

	<p>The stone aggregate used for the subsoil drain filter shall consist of 9,5 mm crushed stone conforming to the following grading:</p> <table><tr><td>Sieve size mm</td><td>132</td><td>95</td><td>67</td><td>475</td><td>236</td></tr><tr><td>% Passing</td><td>100</td><td>85 - 100</td><td>0 - 55</td><td>0 - 25</td><td>0 - 5</td></tr></table> <p>River sand for subsoil drain filter shall consist of clean river sand conforming to the following grading :</p> <table><tr><td>Sieve size mm</td><td>67</td><td>475</td><td>150</td><td>75</td></tr><tr><td>% Passing</td><td>100</td><td>90 -100</td><td>0 - 15</td><td>0 – 3</td></tr></table> <p>and having a Fineness Modulus of 2,0 - 3,5.</p> <p>The geofabric shall include for wrapping the geofabric around either the subsoil pipe, subsoil drain or stone bedding</p> <p>The tendered rate shall include full compensation for constructing the subsoil drain complete, including excavation by hand in soft material, the supply and installation of geotextiles and pipes and the supply and placing of any drainage aggregate. The rate shall be subject to an extra over-payment under item C2.1.7 and shall also be subject to additional payment under item C2.1.17 for the removal disposal of any surplus or unsuitable excavated material to spoil sites provided either by the Employer or the Contractor.</p>	Sieve size mm	132	95	67	475	236	% Passing	100	85 - 100	0 - 55	0 - 25	0 - 5	Sieve size mm	67	475	150	75	% Passing	100	90 -100	0 - 15	0 – 3	
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PS.C2.1.27.1	<p><b>Demolition of Existing Manholes, Access Chambers and Other Service Structures Consisting of: Unreinforced Concrete:</b></p> <p>Where partial demolition is required for extension work to existing structures, the contact face shall be cut to predetermined lines and levels, and any loose and fragmented material shall be removed. Where partial demolition is not required but extension work only, the contact surface shall be roughened and cleaned of all dirt and loose particles.</p> <p>Only hand operated breaking equipment shall be used for the demolition of concrete where extension work is required.</p> <p>The unit of measurement shall be the cubic meter of plain concrete demolished. The tendered rate shall include full compensation for all labour, plant and equipment (including any specialised equipment) required to demolish the existing concrete.</p> <p>The tendered rate shall include disposal of the product of the demolition to an approved borrow pit. The tendered rate shall also include for any river diversions, cofferdamming and/or any dewatering activities that is necessary for the demolition activities.</p> <p>The tendered rate shall also include full compensation for any necessary measures to ensure no debris contaminates or restricts the stream flow in rivers and for any debris that has fallen into rivers to be recovered.</p> <p>In the case of retaining structures (example of wing walls) and slabs, beams or bridge superstructures, the tendered rate shall include for any falsework access required to demolish the structure and the removal thereafter. The Contractor shall be entirely responsible for the foundation assessment, loading assessment, analysis, safe design, production of working drawings, construction and dismantling of the Falsework.</p>																							

	<p>The tendered rate shall include for safe retention of material behind the demolished retaining structure during demolishing activities and safe retention of material after the demolishing activity is complete.</p> <p>The contractor is to submit a detailed method statement for the pre and post demolition activity that is to be reviewed by the engineer for record and comment, prior to the construction activity.</p> <p>Approval by the Engineer of the contractor's proposals for falsework, retaining of banks shall not relieve the contractor of his responsibility for its stability or for any loss or damage arising out of design errors or the use of defective materials.</p>	
<b>PS.C2.1.27.2</b>	<b>Demolition of Existing Manholes, Access Chambers and Other Service Structures Consisting of: Reinforced Concrete:</b>	
	<p>Where partial demolition is required for extension work to existing structures, the contact face shall be cut to predetermined lines and levels, any loose and fragmented material shall be removed, and projecting steel cleaned and bent as directed by the engineer. Where partial demolition is not required but extension work only, the contact surface shall be roughened and cleaned of all dirt and loose particles.</p> <p>The contractor shall take great care to ensure that the reinforcement required to tie in any extension work is not cut off or damaged in the demolition process. Where reinforcement is cut off, or where in the opinion of the engineer, the reinforcement has been damaged to such an extent that it will not adequately perform its function, the contractor shall, at his own expense, install dowel bars of the same diameter as the bar cut off or damaged, to the satisfaction of the engineer.</p> <p>Only hand operated breaking equipment shall be used for the demolition of concrete where extension work is required.</p> <p>The unit of measurement shall be the cubic meter of plain or reinforced concrete demolished. The tendered rate shall include full compensation for all labour, plant and equipment (including any specialised equipment) required to demolish the existing concrete.</p> <p>The tendered rate shall include disposal of the product of the demolition to an approved borrow pit. The tendered rate shall also include for any river diversions, cofferdamming and/or any dewatering activities that is necessary for the demolition activities.</p> <p>The tendered rate shall also include full compensation for any necessary measures to ensure no debris contaminates or restricts the stream flow in rivers and for any debris that has fallen into rivers to be recovered.</p> <p>In the case of retaining structures (example of wing walls) and slabs, beams or bridge superstructures, the tendered rate shall include for any falsework access required to demolish the structure and the removal thereafter. The Contractor shall be entirely responsible for the foundation assessment, loading assessment, analysis, safe design, production of working drawings, construction and dismantling of the Falsework.</p> <p>The tendered rate shall include for safe retention of material behind the demolished retaining structure during demolishing activities and safe retention of material after the demolishing activity is complete.</p> <p>The contractor is to submit a detailed method statement for the pre and post demolition activity that is to be reviewed by the engineer for record and comment, prior to the construction activity.</p> <p>Approval by the Engineer of the contractor's proposals for falsework, retaining of banks shall not relieve the contractor of his responsibility for its stability or for any</p>	

	loss or damage arising out of design errors or the use of defective materials.	
<b>PS.C2.1.27.3</b>	<b>Demolition of Existing Manholes, Access Chambers and Other Service Structures Consisting of: Masonry:</b>	
	The rate shall include for the labour, plant and material necessary for: <ul style="list-style-type: none"> <li>(a) breaking down brickwork to 1 m below formation level;</li> <li>(b) sealing the incoming and outgoing pipes with concrete;</li> <li>(c) backfilling with clean, coarse sand and compacting to 95% MOD AASHTO;</li> <li>(d) storing manhole covers on site for re-use or spoiling to tip.</li> </ul>	
<b>PS.C2.2.1.1</b>	<b>Cable Ducts:</b>	
	The following ducts shall be used for this aspect of the project.  110mm or 160mm ribbed HDPE duct (Kabelflex or similar approved).  On completion of duct laying and backfilling, the ducts shall be proved by twice pulling through a cylindrical cleaning brush, once in each direction. The ducts shall then be proved by drawing through a wooden or Teflon mandrel 400mm long and 5mm less in diameter than the duct. The sub-contractor shall provide a method statement for carrying out of the duct proving	
<b>PS.C2.2.7.4</b>	<b>Brick Headwall to Ducts:</b>	
	Ducts shall have brick headwalls constructed at each end of the ducts, as shown on standard Drawing No. 38581. Bricks for these headwalls shall be selected good quality clay commons. Mortar shall conform to mix Class A as defined in the latest edition of the Standard Building Regulations.	
<b>PS.C3.2.3.2</b>	<b>Concrete Pipe Culverts:</b>	
	<p><i>A3.5.2 Culvert Material</i></p> <p><i>c) Prefabricated concrete pipe culvert units</i> – Replace “Ogee joints” with “Spigot and Socket pipes”</p> <p>Reinforced concrete pipes for stormwater shall -</p> <ul style="list-style-type: none"> <li>A. comply with S.A.B.S. 677 for S.C. type pipes without lifting holes;</li> <li>B. be manufactured with a spigot and socket type joint suitable for use with a rubber ring joint; and</li> <li>C. comply with the proof load requirements for the various classes of pipe as indicated on the contract drawings and/or in the schedule of quantities.</li> </ul> <p>The rubber ring joints shall comply with S.A.B.S. 974 - Part 1.</p> <p>Laying: All pipelaying and jointing shall be undertaken by experienced pipelayers who shall, when requested, produce proof of their capabilities to the satisfaction of the Engineer. The various types of pipes and culverts shall be handled and laid in accordance with the manufacturer's instructions. The Contractor shall provide the latest copy of the instructions and shall ensure that all pipe layers have a good working knowledge of the required procedures. Notwithstanding anything contained in the instructions, the Engineer's interpretation shall be final.</p> <p>Pipes and culverts shall be lowered gently and carefully into the trench without jarring or bumping by crane, derrick, or other approved lifting tackle and care shall be taken not to damage the items. The hand installation of pipes shall only be permitted when using U.P.V.C. or A.C. pipes up to a nominal diameter of 150 mm unless authorised by the Engineer.</p> <p>Control of the level and line of the pipeline, to ensure correct placing to designed line and level, shall be by side and top lines or other acceptable means approved by the Engineer.</p> <p>All internal surfaces of pipes and fittings shall be kept clean and free of foreign matter both during and after laying. The surfaces of all joints shall be thoroughly cleaned before the pipe or special is placed in its final position. No water shall be</p>	

	<p>allowed to come in contact with or run through any pipe before the joint has been completed and at no time shall muddy, clayey or dirty water be allowed to enter the pipe.</p> <p>Exposed ends of pipe and fittings in the trench shall be sealed by suitable end caps at all times when pipelaying is not actually in progress.</p> <p>Laying shall commence at the lower end of the trench and proceed upgrade. Pipes and fittings must be laid with their spigots or male end pointing in the direction of the flow. All pipes and culverts shall be laid in a straight line, both in the horizontal and vertical plane, between adjacent manholes or catchpits except where shown on the contract drawings or directed by the Engineer.</p> <p>Each pipe, fitting or culvert unit shall mate uniformly with the next to preserve an invert free from steps. Except with the prior consent of the Engineer, the laying of pipes and the bedding cradle, if specified, between any two consecutive manholes shall be checked by the Engineer's representative for line and level before the selected fill blanket is placed.</p> <p>Where pipes are required to be cut on site, only manufacturer's recommended special machines shall be used and the resultant pipe end must be clean and uniform.</p> <p>No pipes shall be left overnight or during rainy weather without sufficient backfilling between pipe couplings to prevent flotation. Where pipes are indicated on the contract drawings to be laid to a horizontally curved alignment the pipes must be fully jointed in a straight line and subsequently deflected with the previously laid pipe suitably anchored to prevent movement. Care must be taken to ensure the pipes are laid in a smooth curve with equal deflections at each joint.</p> <p>Jointing: All pipe joints and the operation of jointing shall be carried out strictly in accordance with the pipe suppliers instructions. In particular:</p> <ul style="list-style-type: none"> <li>A. all rubber rings and seals shall be carefully inspected after being placed in position and before the joint is closed to ensure that they have not suffered any cuts, tears or other damage and are not in any other way defective;</li> <li>B. care shall be taken to ensure that: <ul style="list-style-type: none"> <li>I. all jointing surfaces are cleaned immediately prior to jointing;</li> <li>II. the joint gaps in the bedding remain clear and the alignment of the pipe remains true;</li> <li>III. the full weight of the pipe does not rest on the rubber ring during jointing;</li> <li>IV. pipes with damaged jointing surfaces are not used in the pipe run between manholes but are set aside for building into manhole walls etc.;</li> </ul> </li> <li>C. pipes and fittings of different materials shall be jointed only with special adaptors recommended by the pipe manufacturer; and</li> <li>D. where a pipeline passes through a rigid structure and to prevent possible shear failure of the pipe, two flexible joints shall be positioned on each side of the structure. These shall be positioned 0,3 m and 0,8 m respectively from the nearside faces of the structures.</li> </ul> <p>Concrete Encasement of Pipes: The lower part of the encasement shall be constructed as for a class A bedding. Once the line has been tested and approved, the encasement of the pipes shall be completed, care being taken to ensure that the expansion joints in the upper part of the encasement coincide with that in the lower part. No backfilling over the concrete shall be commenced until the concrete has achieved a compressive strength of 15 MPa.</p> <p>Pay Trench Width: For payment purposes only, where measurement is specified by volume and a</p>	
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	<p>pipe is to be laid, the pay trench width shall be as indicated in the table below which is based on the excavation having vertical sides. Wherever the pay width is used to compute the measurement of volume in the following measurement and payment items provision shall be allowed in the rates for additional excavation necessary to either shore or batter back, the trench sides, if open battered trench excavations is permitted.</p> <table border="1"> <thead> <tr> <th colspan="2">Nominal Diameter (mm)</th><th>Trench Width (mm)</th></tr> <tr> <th>over</th><th>upto</th><th></th></tr> </thead> <tbody> <tr> <td>0</td><td>100</td><td>700</td></tr> <tr> <td>100</td><td>700</td><td>nominal internal diameter plus 600</td></tr> <tr> <td>700</td><td>1000</td><td>" plus 800</td></tr> <tr> <td>1000</td><td>2000</td><td>" plus 1 000</td></tr> <tr> <td>2000</td><td>-</td><td>" plus 1 200</td></tr> </tbody> </table> <p>Pipe laying shall also include: compaction of bedding, the laying, including curved alignment where specified, building pipes into manholes, catchpits and through rigid structures, all cutting and wastage of materials.</p>	Nominal Diameter (mm)		Trench Width (mm)	over	upto		0	100	700	100	700	nominal internal diameter plus 600	700	1000	" plus 800	1000	2000	" plus 1 000	2000	-	" plus 1 200	
Nominal Diameter (mm)		Trench Width (mm)																					
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2000	-	" plus 1 200																					
<b>PS.C3.2.15.2</b>	<b>Manholes:</b>																						
	<p>The tendered rate for these items shall be the number of complete manholes or inlet units (as shown on the drawings, including all concrete, blinding brickwork, covers, frames, grids and other accessories) that fall within the designated depth ranges listed. Standard drawings refer to drawing nos. <a href="#">38570</a>, <a href="#">38571</a>, <a href="#">38572</a>, <a href="#">38573</a> and <a href="#">38574</a>.</p> <p>The tendered rates shall include full compensation for the supply and installation of any precast elements as required to complete the manholes and catchpits, supplying, testing, loading, transporting and off-loading of all items, providing and placing, and installing, laying and jointing the prefabricated elements as specified, including cutting on the site, and waste. Where precast elements are installed on cast in situ concrete floors or walls or on brickwork walls, no additional payment shall be made for any additional costs arising from the change between cast in situ and precast work. No additional payments shall be made for working in depths greater than 1.0m (payment item C3.2.15.4 shall not apply). The rate shall further cover the cast-in-situ concrete, including the channel with serrations, mixing, laying, float finishing, setting out, all supervision, plant, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.</p> <p>Unit of Measure: Number (No.)</p> <p>Refer to COTO A3.2.</p>																						
	<b>Inlets:</b>																						
	<p>The tendered rate for these items shall be the number of complete manholes or inlet units (as shown on the drawings, including all concrete, blinding, brickwork, covers, frames, grids and other accessories) that fall within the designated depth ranges listed.</p> <p>Standard drawings refer to drawing nos. <a href="#">38570</a>, <a href="#">38571</a>, <a href="#">38572</a>, <a href="#">38573</a> and <a href="#">38574</a>.</p> <p>The tendered rates shall include full compensation for the supply and installation of any precast elements as required to complete the manholes and catchpits, supplying, testing, loading, transporting and off-loading of all items, providing and placing, and installing, laying and jointing the prefabricated elements as specified, including cutting on the site, and waste. Where precast elements are installed on cast in situ concrete floors or walls or on brickwork walls, no additional payment shall be made for any additional costs arising from the change between cast in</p>																						

	<p>situ and precast work. No additional payments shall be made for working in depths greater than 1.0m (payment item C3.2.15.4 shall not apply). The rate shall further cover the cast-in-situ concrete, including the channel with serrations, mixing, laying, float finishing, setting out, all supervision, plant, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.</p> <p>Unit of Measure: Number (No.)</p> <p>Refer to COTO A3.2.</p>	
<b>PS.C3.2.9</b>	<b>Headwalls:</b>	
	<p>The tendered rate for these items shall be the number of complete headwalls (as shown on the drawings, including all concrete, brickwork, and other accessories).</p> <p>Standard drawings refer to drawing no. <a href="#">38576</a>.</p> <p>The tendered rates shall include full compensation for the supply and installation of any precast elements as required to complete the headwalls, supplying, testing, loading, transporting and off-loading of all items, providing and placing, and installing, laying and jointing the prefabricated elements as specified, including cutting on the site, and waste. Where precast elements are installed on cast in situ concrete floors or walls or on brickwork walls, no additional payment shall be made for any additional costs arising from the change between cast in situ and precast work. The rate shall further cover the cast-in-situ concrete, energy dissipation blocks, mixing, laying, float finishing, setting out, all supervision, plant, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.</p> <p>All headwalls shall be cast in-situ unless otherwise stated. The use of prefabricated Units may be used subject to approved by the Engineer prior to use. Prefabricated units, drawings, specs and installation methodology shall be issued to the engineer minimum of 3 weeks prior to its programmed construction.</p> <p>Unit of Measure: Number (No.)</p> <p>Refer to COTO A3.2, A.2.7.11</p>	
<b>PS.C3.2.28</b>	<b>Removal of brickwork from manholes/inlets:</b>	
	<p>The unit of measurement is cubic metre (m<sup>3</sup>) net in place before demolition. The rate shall cover the complete demolition of the structure and associated works and disposal of the material to an approved tip. Backfilling of any resulting cavities shall be paid for separately.</p>	
<b>PS.C3.2.30</b>	<b>Raising or Lowering of Existing Manholes and Inlets</b>	
	<p>The unit of measurement shall be number (No.) measured in increments of 0,25 m in paved or unpaved areas.</p> <p>The tendered rate shall include for the removal of the existing adapter slab, cover and frame, storing on site for re-use, demolition of the manhole as necessary, provision of labour and materials for rebuilding the manhole to the designated new level and setting and cover and frame to the correct level. Extra Over items for the various types of cover and frame will be scheduled if new covers and frames are to be provided. The Extra Over rate should include for the supply of the new covers and frames and the removal from site of the old ones.</p>	
<b>PS.C3.3.2.1</b>	<b>Precast Concrete Kerbing and Cast In-situ Channeling:</b>	
	<p>The grade of concrete for all cast in-situ work shall be grade 20/13</p> <p>The sealer shall conform to B.S.4254 of 1967 - Two part polysulphide based</p>	



	<p>sealants for the building industry, as amended.</p> <p>All kerbs shall be precast, supplied in 1 m lengths and shall conform to the requirements of S.A.B.S. 927 of 1969 - Precast concrete kerbs and channels as published in General Notice 463 dated 9 July 1982.</p> <p>If the curve radius is less than 25 m, but greater than 2 m, the maximum permissible length of kerb shall be 300 mm. Where the kerb radius is less than 2 m the kerb and channel shall be cast-in-situ.</p> <p>It is essential that moulds are manufactured and braced from a material which will not warp or distort after repeated use.</p> <p>Kerbs and in-situ channels shall be laid on a concrete foundation true to line and level to the dimensions shown on the contract drawings. The correct grade and line shall be maintained by use of an approved cord or line. The Contractor shall place sufficient pegs to ensure that the kerbs are laid on a true curve and NOT in a series of chords. Levels shall be adhered to strictly, particularly when graded channels are required between inlets. Kerbs shall be laid with a 13 mm gap and this joint shall be filled with cement mortar and the outside face of the joint shall be struck with a semi-circular jointer.</p> <p>In addition, suitable expansion joints 13 mm in width shall be provided at ± 18,0 m centres through kerb, channel and supporting concrete. This joint shall consist of a compressible material and polysulphide filler which shall match the colour of the concrete.</p> <p>Unless otherwise stated in the drawing, the interface between the channel/fillet and the road asphalt is the sett position, as such the kerbs and channels/fillets shall be constructed relative to the sett position and true to level. The precast items and cast-in-situ channels/fillets shall be protected from damage from the remaining road construction operations.</p> <p>For COTO item C3.3.2.1, the Kerb only shall be prefabricated, and all other components shall be cast in-situ (channels, backing, base etc.)</p> <p>The unit of measurement shall be the metre (m) and the rate shall cover the supply of all precast items, including transporting, loading, laying and jointing (including all expansion joints and sealer), cast-in-situ concrete foundation, including mixing, laying, float finishing, setting out of kerb and channel, all supervision, plant, testing, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.</p> <p>Unit of Measure: Meter (m)</p> <p>Standard drawings refer to drawing no. 38577</p>	
<b>PS.C4.2</b>	<b>Earthworks:</b>	
	<p>Tenderers are to note that all topsoil from site is to be excavated to stockpile for later use.</p> <p>The stockpile sites will be located along the cut areas of the proposed works. Cut material should ideally be moved directly to fill unless there are circumstance that prevent the contractor from doing so. Moving of material from cut to stockpile shall only be done with the approval of the Engineer. The exact location shall be pointed out by the Engineer. The unit of measurement shall be cubic meter (m<sup>3</sup>) and shall include for labour, plant, and material.</p> <p>The nature of the roadworks is such that a fair amount of the excavation shall be in concrete / asphalt / intermediate / hard and soft materials. Quantities for any concrete / asphalt requiring breaking up with the use of excavators / breakers shall be measured prior to excavation and agreed upon by the Engineer.</p>	

	No additional payment shall be made for restricted excavation and the Tenderer shall therefore make due allowance in the rates for any additional work or hand excavation.	
	<b>Excavation of Road Layers:</b>	
	Existing road layerworks, excluding the asphalt, shall be excavated as restricted excavation ensuring no contaminating between layers and either: <ul style="list-style-type: none"> <li>(a) storing on site for re-use, or;</li> <li>(b) transporting and off-loading to the Municipal Depot, either in Malacca in Durban North or the Phoenix Depot,</li> <li>(c) transporting to the Municipal depot in Verulam and off-loading or</li> <li>(d) spoiling at an approved tip site.</li> </ul> <p>The Contractor's rate for the removal of the layerworks, excluding the asphalt, shall include for the full operation, inclusive of haulage, and is to include for the restricted operation as well.</p>	
	<b>Excavation of Asphalt and Concrete in Road:</b>	
	The unit of measure is cubic meters (m <sup>3</sup> ). The rate shall cover labour and plant necessary for removal of abandoned roadways, sidewalk / median, concrete sidewalks, scoops, pedestrian and vehicular, interlocking blocks, asphalt paving and brick paving.	
<b>PS.C4.4.4.1</b>	<b>Cementitious Stabilising Agents:</b>	
	<p>The cement used shall conform to SABS ENV 197-1 and shall be classified as either CEM II/A-S 42.5 or CEM III/A 32.5 respectively</p> <p>Prior to the commencement of paving of the layer the Contractor shall construct a section of trial layer to demonstrate his capability of constructing the layer in accordance with the specifications. The trial layer shall be constructed with the same materials, mix proportions and equipment as the Contractor intends using for the main layer.</p> <p>A trial section of not less than 350 m<sup>2</sup> shall be submitted for approval. The Engineer shall also have the right to call for a new trial section at any stage of the contract when, in his opinion, changes by the Contractor in the approved equipment, materials, mix or plant warrant such a procedure.</p> <p>The Contractor may, unless advised of any deficiencies in the trial layer, proceed with the main layer from a time ten days after the completion of the trial section or such earlier time as the Engineer may allow. In the event of deficiencies in the trial layer, the Engineer may order the Contractor to construct further trial sections until a satisfactory section is achieved. The Contractor may then proceed with the main layer from a time ten days after the successful completion of the satisfactory trial section.</p> <p>An item has been provided in the BOQ for the trial layer section.</p>	
<b>PS. C5.1.1.2</b>	<b>Roadbed Construction</b>	
	<p>Any particle size greater than 100 mm within this layer shall be removed and replaced with suitable material. The whole of the roadbed, except where stabilised shall then be proof-rolled with a vehicle having a minimum wheel load of 20 kN in order to determine any soft spots.</p> <p>The Contractor is responsible for protecting the formation at all times. No construction traffic that is likely to cause damage shall be allowed on the formation. Preparation of the formation shall only be carried out after all services and ducts have been laid. Soft spots shall be removed and replaced with suitable material and compacted in accordance with the specification.</p>	
<b>PS.C9.1</b>	<b>Asphalt Layers:</b>	
	Smoothness Applicable to Wearing Course:	
	The smoothness of the pavement will be determined by using a profilograph and	

	<p>the surface finish shall be tested in accordance with the following specification.</p> <p>The profile index will be determined using a California type profilograph furnished and operated by the Engineer in the presence of the Contractor. The profilograph shall be moved longitudinally along the pavement at a speed no greater than 5 kph and shall record the surface profile at full scale vertically. The results of the profilograph test will be evaluated as described in the metricated version of Test No. Calif. 526-D.</p> <p>The Contractor shall furnish paving equipment and employ methods that produce a riding surface having a profile index of 300 mm per kilometer or less for category "A" Roads and 500 mm per kilometer or less for Category "B" Roads. The profile measurements will start 10 m and will terminate 20 m from each bridge approach pavement or existing pavement that is joined by the new pavement in the direction of placement.</p> <p>Two pavement profiles will be taken of each day's production and the Profile Index shall be defined as the average of the two profiles. The position the profiles are taken will be either on the centre line of each planned traffic lane, if two traffic lanes are paved, or in the wheel paths of the traffic lane (i.e. 1 m from each edge) if only one traffic lane is included in the paved width.</p> <p>A daily average profile index shall be determined for each day's paving and a profile index of each day's production shall be established as soon as possible. A day's paving is defined as a minimum of 0,1 km of pavement placed in a day. If less than 0,1 km is paved, the day's production will be grouped with the next day's production.</p> <p><b>Rectification:</b></p> <p>The full depth of the layer shall be removed and replaced with fresh material laid and compacted to specification.</p> <p>Where the surface level is too high or too low the area rectified shall be not less than one lane wide and at least 15 m long for wearing course.</p> <p>Where the number of surface irregularities exceeds the specified limits the area to be rectified shall be 100 m long and not less than one lane wide.</p>	
	<b>Construction:</b>	
	<p>In the areas to be patched the in-situ asphalt surfacing shall be removed to a depth of 100 mm. The sides shall be cut vertically with the edges square. The exposed surface shall be swept of all loose material, a tack coat applied to the bottom and sides and then patched with asphalt base course. After compaction the surface of the patch shall be flush with the adjacent road surface.</p>	
	<b>Laying of Asphalt:</b>	
	<p>The Contractor shall provide the Engineer with the name of the asphalt Sub-Contractor before asphalt is laid.</p> <p>The asphalt shall be laid by an approved paving machine. Hand-laying shall be permitted at the Engineer's discretion when the area involved is small. The asphalt shall not be laid if its temperature is below 140 °C.</p> <p>The asphalt shall be rolled in accordance with the method described in chapter VI of the Asphalt Institute Paving Manual (MS-8). A final density is required of at least 96% of the Marshall density of the mix.</p> <p>An acceptance certificate for this layer will be issued by the Engineer's inspector when all requirements have been met.</p> <p>The rate tendered shall include for all extra work required to lay and compact the asphalt base and make-up courses in restricted areas.</p>	

	<b>SIDEWALKS:</b> The rates tendered for paving on sidewalks is to include the approved weedkiller "Outpace 100 GR." The use of the weedkiller will be closely monitored on site, applied on formation and after the placing of the paving.																			
	<b>Tenderer's are to further take note of the Technical Specification for Asphalt Contained at the end of this section.</b>																			
<b>PS.C11.5.4.1</b>	<b>Existing Gates and fences</b> The Water Treatment plant (WTP) access may need to be removed and replaced during this contract. The gate shall be compatible with the below automation.  The contractor is to ensure that the WTP access has a lockable gates at all times.  A new gate shall be installed with automations, Centurion D20 or similar approved. Access control and intercom to the gate to be provided to the security hut +-30m away. Installation item to include supply of all necessary accessories, cable ducting, fixtures, security brackets, remotes, runners and installation..																			
<b>PS.C11.7.1</b>	<b>Road Markings:</b> The plastic road marking material shall also comply with the requirements of Specification BS.3262, 1987 Part 3.  A) The material shall consist of a light-coloured aggregate, pigment and extender, bound together with a thermoplastic resin, plasticised as necessary.  The approximate composition of the material as laid is dependent on the appropriate specification, but for example shall be: <table><tr><td>Aggregate</td><td>40 parts</td></tr><tr><td>Solid Glass Beads</td><td>20 parts</td></tr><tr><td>Pigment and Extender</td><td>20 parts</td></tr><tr><td>Binder</td><td>20 parts</td></tr></table> The proportioning of the various ingredients shall be such that the material, when in a molten state, can be sprayed readily onto the road surface to give an even line of good definition.  B) Aggregate: The aggregate shall consist of white silica sand, crushed calcite calcined flint, quartz, or other approved aggregate.  C) Reflectorisation: The solid glass beads incorporated in the mixture shall comply with the Class A category of BS 6088 (1981) that is: <table><tr><td>Sieve</td><td>% Retained</td></tr><tr><td>0,18 mm</td><td>0 - 3</td></tr><tr><td>0,850 mm</td><td>5 - 20</td></tr><tr><td>0,425 mm</td><td>65 - 95</td></tr><tr><td>Below 0,425 mm</td><td>0 - 10</td></tr></table> Minimum of spherical beads by number 70%  D) Luminance: The luminance factor of white SPRAYPLASTIC shall be not less than 70  E) Flow resistance: The percentage decrease in the height of the cone of SPRAYPLASTIC shall not be more than 25 after testing for 48 hours at 23 C (temperate	Aggregate	40 parts	Solid Glass Beads	20 parts	Pigment and Extender	20 parts	Binder	20 parts	Sieve	% Retained	0,18 mm	0 - 3	0,850 mm	5 - 20	0,425 mm	65 - 95	Below 0,425 mm	0 - 10	
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	<p>grade) or 40 C (semi-tropical or tropical grades).</p> <p>F) Low Temperature Impact Resistance: SPRAYPLASTIC shall pass the impact test when tested at -10 C (temperate grade) or -1 C (semi-tropical or tropical grades).</p> <p>G) Abrasion resistance: The abrasive wear of SPRAYPLASTIC shall typically be less than 0,5 g per 100 revolutions.</p> <p>Items have been included in the Bill of Quantities for the provision of temporary road marking using P.V.A. paint.</p>	
<b>PS.C11.7.2</b>	<b>Road Studs:</b>	
	<p>The <u>Temporary Road Studs</u> will be used for all temporary works, ie. deviations / detours. The unit of measurement shall be number (No.). The rate shall include for the supply, installation and removal of the markers. They shall be amber and red in colour.</p> <p>The <u>Permanent Road Studs</u> will be used in the permanent works. The unit of measurement shall be number (No.). The rate shall include for the supply and installation of the studs. They shall be white, yellow and red in colour.</p>	
<b>PS.C12.3.20</b>	<b>Dumprock:</b>	
	<p>The dumprock shall consist of fresh to slightly weathered upgraded waste rock from mining activities, blasting or rock excavation. Shales, slates or other laminated mudrocks shall not be accepted.</p> <p>Dumprock shall have a minimum size not more than two-thirds of the compacted thickness of the layer. The rock shall otherwise be upgraded but shall contain less than 10% passing the 37,5 mm sieve when spread on site. Dumprock shall have a minimum 10% FACT value of 100 kN when dry and 40 kN when tested drained after 24 hours soaking.</p> <p>Dumprock shall be spread and levelled such that when compacted it is at the specified thickness and levels. When the correct road profile has been attained the dumprock layer shall be rolled 5 passes of a 10/12 ton static three wheel steel roller or equivalent vibrating roller. Dry, fine material (13,2 mm down) with a Plastic Index of between 0 and 7 shall then be applied in a blanket over the full width of the layer. With hand labour following the roller, the fine material shall be rolled and broomed into the voids of the stone. This procedure shall be repeated until the stone layer will accept no further fines.</p> <p>Compaction of the layer shall continue until movement of the material under the compactor becomes negligible or for a maximum of 10 passes of the roller whichever occurs first.</p> <p>The completed dumprock layer shall be measured in cubic metre (m³). The rate shall cover the supply, loading, transporting, dumping, spreading of all materials and all processing of the layer and proof rolling, all as detailed.</p>	
	<b>Geofabrics:</b>	
	<p>The synthetic fibres of a geotextile blanket shall consist of at least 100% by mass of polypropylene, polyethylene or a polyester polymer and shall contain such additives as are necessary to render the filaments resistant to the effects of ultra-violet radiation in accordance with the following requirement: The geotextile shall retain 80% of its specified strength after an effective exposure period of 1500 hours to direct sunlight.</p> <p>The grade of geotextile shall conform to Table 1 of SABS 0221-1988:</p>	

TABLE 1 - GRADES OF GEOTEXTILES

1	2	3	4	5	6	7	8	9	10	11
Property	Grades									
	1	2	3	4	5	6	7	8	9	10
Thickness, mm . . . . .	Minimum value									
	as specified by manufacturer									
Mass per unit area, g/m <sup>2</sup> . . . . .	100	100	140	140	200	200	240	240	300	300
Penetration load, kN . . . . .	1.0	1.0	1.5	1.5	2.5	2.5	3.0	3.0	4.0	5.0
Tensile strength, kN/m . . . . .	6	6	10	10	13	13	18	18	25	30
Permeability, 1/s.m <sup>2</sup> . . . . .										
High flow . . . . .	200	-	170	-	130	-	80	-	40	-
Low flow . . . . .	-	25	-	20	-	15	-	10	-	5

**PS.C12.11****Geosynthetics:**

The Engineer's approval of the make and grade of the geosynthetic shall be obtained by the Contractor before any geosynthetic is ordered or used on the works.

The instruction from the Employer's Agent to use a certain geosynthetic shall require the Contractor to supply and install that geosynthetic or an approved equivalent by the Employer's Agent.

The unit of measurement shall be the square metre (m<sup>2</sup>). The rate shall include for the supply of the material, laying, joining, cutting and waste.

Refer to COTO A12.11 for all geosynthetics

**Geotextile:**

The synthetic fibres of a geotextile blanket shall consist of at least 100% by mass of polypropylene, polyethylene or a polyester polymer and shall contain such additives as are necessary to render the filaments resistant to the effects of ultraviolet radiation in accordance with the following requirement :

The geotextile shall retain 80% of its specified strength after an effective exposure period of 1500 hours to direct sunlight.

PROPERTIES		GRADES									
		1	2	3	4	5	6	7	8	9	10
		MINIMUM VALUE									
Thickness, mm		as specified by manufacturer									
Mass per unit area, g/m <sup>2</sup>		100	100	140	140	200	200	240	240	300	300
Penetration load, KN		1	1	1.5	1.5	2.5	2.5	3	3	4	5
Tensile strength, kN/m		6	6	10	10	13	13	18	18	25	30
Permeability 1/s.m <sup>2</sup>	High flow	200		170		130		80		40	
	Low flow		25		20		15		10		5

**PS.C12.11.1****Geosynthetics: Embankment protection**

The unit of measurement shall be the square metre (m<sup>2</sup>). The rate shall include

	for the supply of the material, laying, joining, cutting and waste.	



<b>PS.C13.1</b>	<b>FOUNDATIONS</b>	
<b>PS.C13.1.14.3</b>	<b>Foundation fill consisting of: Select, free-draining, granular material (friction angle between 35 and 45 degrees).</b>	
	<p>Backfill directly behind the abutment wall shall be a designed material with properties that are validated by testing.</p> <p>The purpose of this material is to accommodate the movement of the abutment wall and approach slab due to thermal expansion of the bridge concrete, without generating excessively high earth pressures against the abutment wall or deck.</p> <p>The material shall consist of a well-graded, free-draining selected granular fill with the only constituents being natural gravel, natural sand, crushed gravel, crushed rock, slag or crushed concrete. No constituents shall include any argillaceous (clay-forming) rock.</p> <p>The peak angle of internal friction of the material shall be between 35° and 45°, which shall be confirmed by laboratory testing. No material shall be placed behind the abutments until testing certificates have been provided to confirm the relevant properties of the granular fill material to the satisfaction of The Engineer.</p> <p>The abutments shall only be backfilled after the entire deck has been cast. This shall occur in layers of not more than 300mm at a time on each side of the abutment respectively, to maintain balance.</p>	
<b>PS.C13.2</b>	<b>FALSEWORK, FORMWORK AND CONCRETE FINISH</b>	
<b>PS.C13.2.11</b>	<b>Vertical formwork to provide imitation stonework patterned surface finish using flexible formliner inserts</b>	
	<p>The contractor shall supply and apply special forming materials to produce form surfaces with face design, texture, arrangement, and configuration as shown on drawings, and according to the manufacturer's specifications. Forms shall have a continuous horizontal pattern without any clear, straight vertical lines breaking up the pattern.</p> <p>Contractor shall make allowance for the provision of a full scale mockup using actual job specific materials, methods, and workmanship. The mockup shall incorporate all formwork accessories and a minimum one vertical and one horizontal formliner joint. The accepted mockup will be standard by which remaining work will be evaluated for technical and aesthetic merit. Accepted mockup is a prerequisite prior to use of the formliner.</p>	
<b>PS.C13.4</b>	<b>CONCRETE</b>	
<b>PS.C13.4.13.1</b>	<b>Complete demolition and disposal of existing structural concrete elements or parts of existing structures</b>	
	<p>The tendered rate shall include for full compensation for all labour, plant and equipment required to process the demolished product by separating the reinforcing steel from the concrete on site. Only the reinforcing steel shall be disposed of. The processed concrete without steel shall be stockpiled on site to be reused as backfill material in the same manner as excavated material, and all provisions of C13.1.7.1 shall apply to the processed concrete material. The tendered rates shall include full compensation for the stockpiling of material and the hauling of demolished or processed material for a haul distance of 1.0 km.</p>	
<b>PS.C13.8</b>	<b>ANCILLARY STRUCTURAL ELEMENTS</b>	
<b>PS.C13.8.18</b>	<b>Bridge instrumentation, data collection and structural performance monitoring</b>	
	<p>The bridge shall be monitored via several different sensors and monitoring devices which will be attached, installed and embedded in the bridge during construction by a specialist nominated subcontractor. The aim is to better understand integral bridge behaviour and develop guidelines for the industry.</p>	



	The Contractor shall make full provisions in his/her programme and assist the specialist subcontractor during the installation of the monitoring devices. Detailed instrumentation layout drawings shall be provided at construction stage.	
<b>PS.C13.8.19</b>	<b>Design, supply and installation of pedestrian security screen system with structural steel supports on bridge and approaches</b>	
	<p>The contractor shall provide a design according to the requirements shown on the drawings for a structural steel protection screen.</p> <p>The design, fabrication and installation of all work shall comply with SANS 10162-1 and the requirements of the Standard Specifications Part C13.9 and C13.10. Shop details shall be approved by the engineer prior to the fabrication of any items.</p> <p>The wire used in the mesh screen system is to have a minimum diameter of 3.96mm (horizontal and vertical wires). The mesh panels shall be manufactured from high tensile Galfan Class A coated wire in accordance with the standards in SANS 10244-2:2004 with the minimum tensile strength of 400MPa. Centre-to-centre wire aperture spacing shall be a maximum of 76.2mm x 50mm with a tolerance in construction of <math>\pm 2</math>mm. The total wire diameter (including the PVC coating system) shall be not less than 4.4mm, and not more than 4.6mm. The UV resistance of the PVC coating system shall comply with the standards of testing as described in ASTM G 53 and ASTM G 154. The PVC coating shall comply with EN 10245-1. A sample shall be provided to the engineer for approval prior to fabrication.</p> <p>The steel details of a proven attachment system for fixing the mesh to the supports shall be provided by the contractor. The detail shall be tamper-proof and able to distribute a 0.5kn/m load applied to the mesh surface to the frame support points. The corrosion protection system for the fixing will be equivalent to the mesh.</p> <p>The fencing supplier shall be an ISO accredited supplier and shall meet the standards of ISO 9001:2000.</p>	

### **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 - OSHA 1993 Safety Specification  
(26 Pages)

C3.4.2 Specific Environmental Management Plan for Civil Engineering Construction Works  
(24 Pages)

**C3.5: CONTRACT AND STANDARD DRAWINGS****C3.5.1 CONTRACT DRAWINGS / DETAILS**

Two Sets of drawings shall be made available to the tenderer.

**Civil Works:** It details all the Civil related works for this Contract.  
Drawing [No.49212](#).

**Structural Works:** It details all the Structural Works for the Contract.  
Drawing No.[49217](#)

**C3.5.2 STANDARD DRAWINGS**

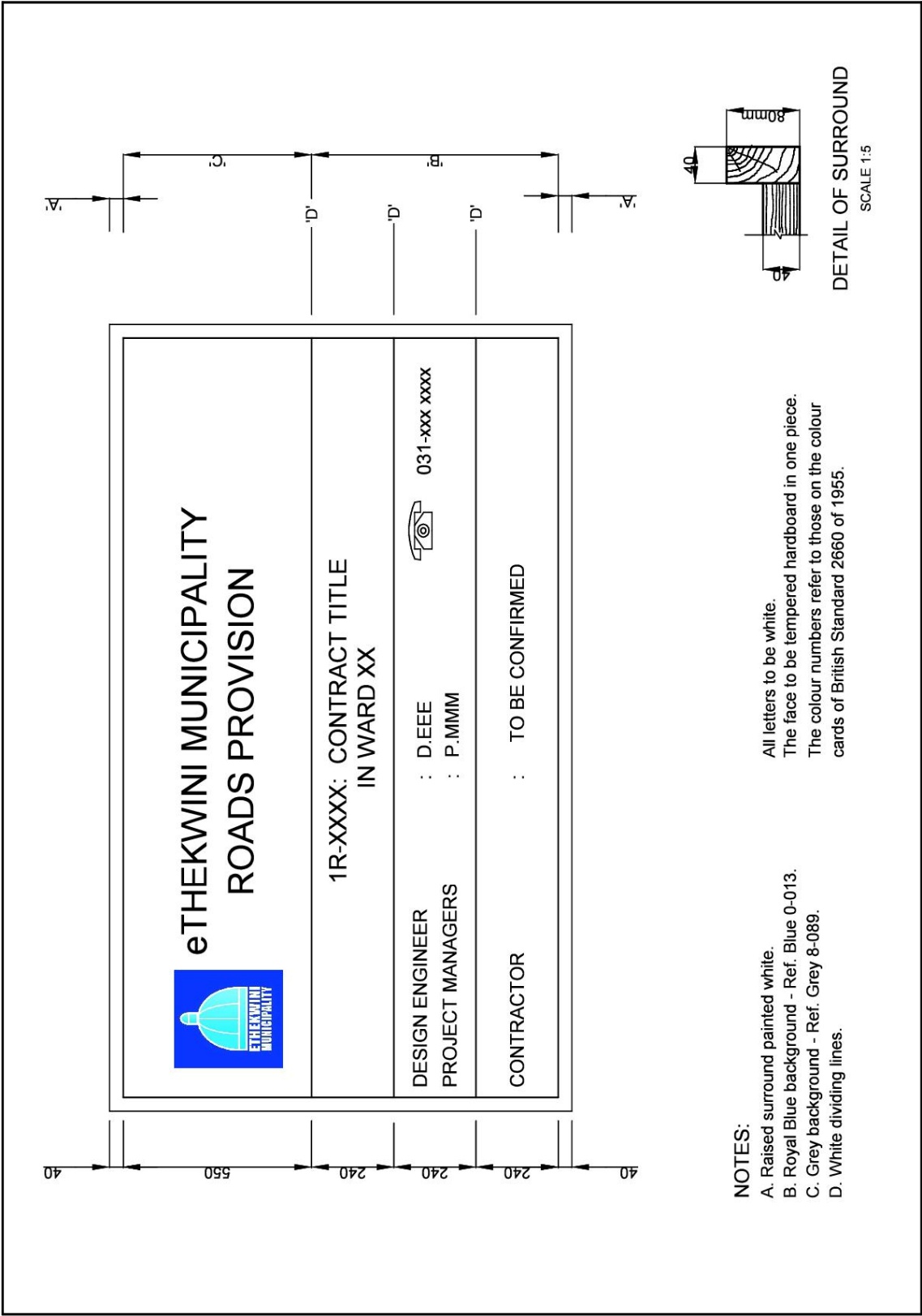
The Standard Drawings to which these Standard Engineering Specifications refer are listed below.

<b>Dwg No</b>	<b>Description</b>	<b>Date of Issue</b>	
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 Returnables Checklist.**

Tenderers Returnables Checklist		✓
<b>Company Specifics</b>		
1	Certificate of Attendance at Clarification Meeting	
2	Certificate of Authority	
<b>Entity Specific – (to submit a copy for each partner in a Joint Venture if applicable)</b>		
3	Compulsory Enterprise Questionnaire	
4	General Enterprise Information	
5	Tax Compliance Status PIN / Tax Clearance Certificate	
6	Contractor's Health and Safety Declaration	
7	MBD4 : Declaration of Interest	
8	MBD5 : Declaration For Procurement Above R10 Million (if applicable)	
9	MBD6.1 : Preference Points Claim Form ITO the Preferential Regulations	
10	MBD8 : Declaration of Bidder's Past SCM Practices	
11	MBD9 : Certificate of Independent Bid Determination	
12	Confirmations, Authorities, Certifications, Acknowledgements and Signatures	
<b>Eligibility</b>		
13	Declaration of Municipal Fees	
14	Registration with Compensation Commissioner	
15	CSD Registration Report	
16	Verification of CIDB registration and status	
17	Experience of Tenderer	
18	Letter of good standing	
<b>Contractual</b>		
19	Joint Venture Agreements (if applicable)	
20	Record of Addenda to Tender Documents	
21	Amendments, Qualifications and Alternatives	
22	Form of Offer	
23	Data to be provided by contractor (C1.2.2.2)	
24	Bill of Quantities	
<b>Additional Documents</b>		
25	Company financials (audited) Refer to MBD5	
26	Company registration	
27	Company registration certificate	
28	Letter of intent to provide surety	
29	BEE Status/Level, Refer to MBD6.1	

C3.6.2 Notice Board.



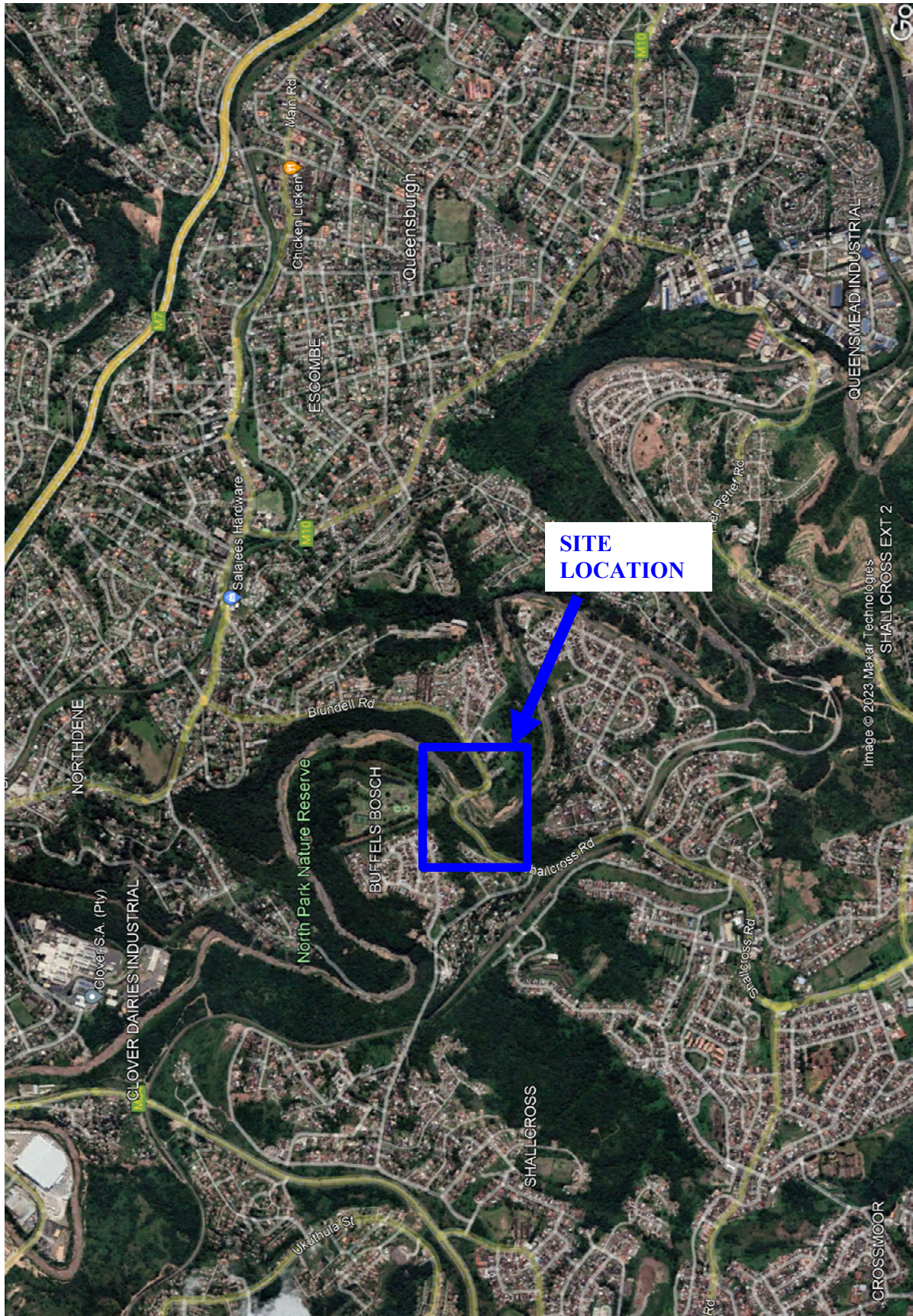
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**C3.6.3 BASELINE RISK ASSESSMENT.**

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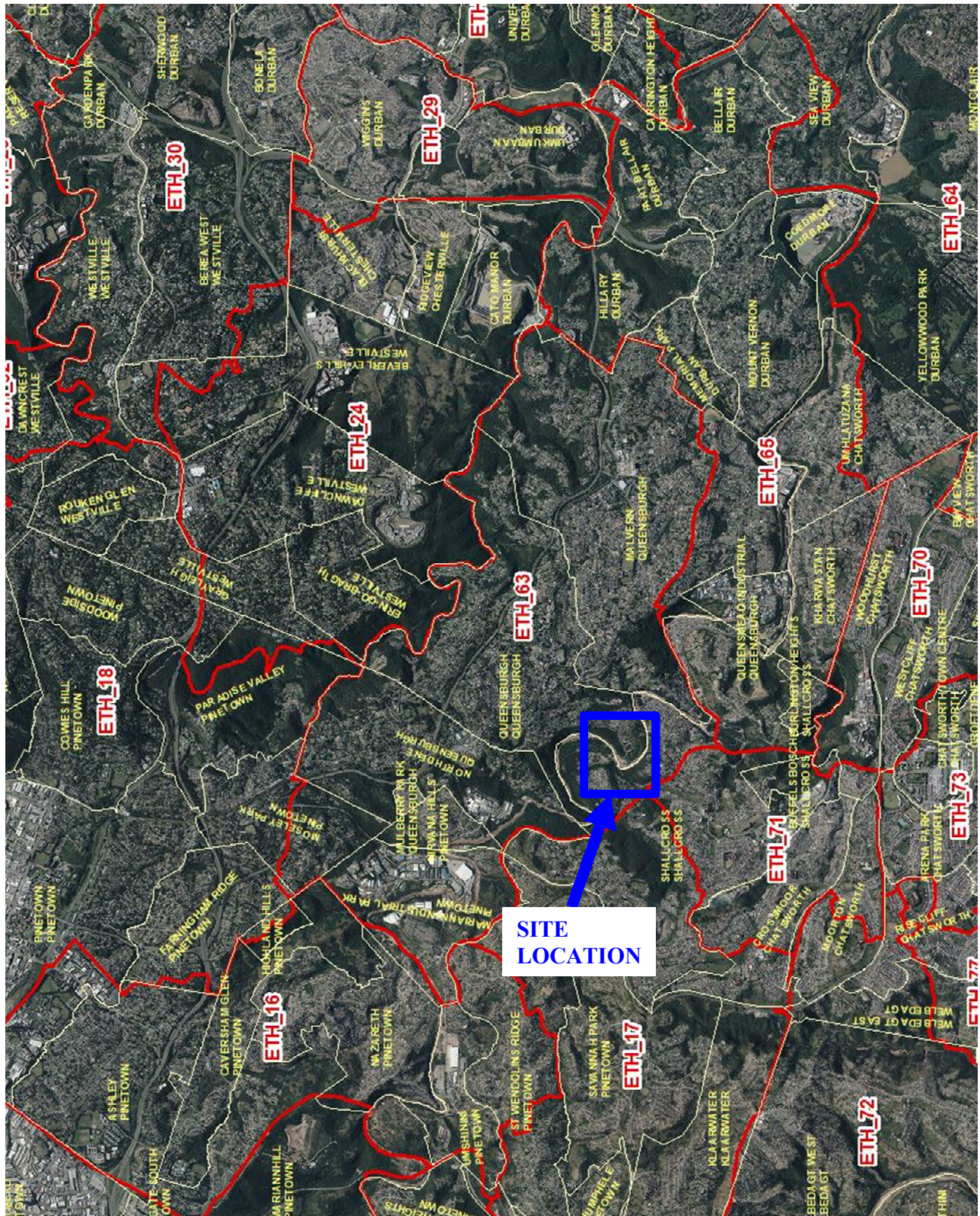
**C3.6.3 SITE SPECIFIC HEALTH AND SAFETY SPECIFICATION.**



**PART C4: SITE INFORMATION****C4.1 a) LOCALITY PLAN**



### b) WARDS MAP





## C4.2 CONDITIONS ON SITE



## C4.3 TEST RESULTS

### Borehole log ID 911

0-2.38m: Pink, purple fresh very hard PEBBLES, COBBLES, BOULDERS of sandstone, quartzite.

2.38-5.1m: Pale purple fresh very hard close to medium jointed SANDSTONE. Natal Group. Joints sub-horizontal to 45 deg.

### Borehole log ID 916

0-3.24m: Pink, purple fresh to weathered very hard to hard PEBBLES & cobbles & boulders of sandstone. Sandy silt layer 2.25-2.7m.

3.24-5.94m: Pale grey fresh very hard widely jointed SANDSTONE. Joints sub-horizontal & 30 deg.