



**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 [eThekwin Municipality's website](#).

**Contract No:** 30608-1R

**Contract Title:** Upgrading of 109437 Street and Surrounding Roads in Umlazi DD of Ward 84

**Est. CIDB Grade/ Class:** 3 CE or Higher

**CLARIFICATION MEETING AND QUERIES**

**Clarification Meeting:** Compulsory Clarification Meeting

**Meeting Location, Date, Time:** The intersection of 109437 Street and 109419 Street on 05/12/2024 on at 11am.

**Queries can be addressed to:** Name: Brenden Isereepersad  
**The Employer's Agent's:** Tel: 031 311 7973  
**Representative:** eMail: [brenden.isereepersad@durban.gov.za](mailto:brenden.isereepersad@durban.gov.za). Consolidated questions and answers to be uploaded on the 13 January 2025.

**TENDER SUBMISSION**

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

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

Bidders are required to also make an electronic submission via SSS. Bidders must ensure that the hard copy and electronic submission are the same, failing which the submission will be deemed invalid. Bidders are responsible for resolving all access rights and submission queries before the tender closing date.

- SSS Queries Contact: Lindo Dlamini: Tel: 031-3227133/031-3227153 email: [supplier.selfservice@durban.gov.za](mailto:supplier.selfservice@durban.gov.za).

**Closing Date/ Time:** Friday, 17 January 2025 at 11h00

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

**Issued by:**

**ETHEKWINI MUNICIPALITY**

**Deputy Head:** Roads Provision

**Date of Issue:** 22/11/2024

Document Version 22/10/2024 (RP)

**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 upgrade 109437 street and surrounding roads, located in the Umlazi area, Section DD of Ward 84, from existing gravel roads to asphalt surfaced roads with related ancillary works which forms part of the Scope of Works.

Subject	Description	Tender Data
<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>	Documentation is to be downloaded the <b>National Treasury's eTenders website</b> or the <b>eThekweni Municipality Website</b> : <ul style="list-style-type: none"> <li>• <a href="https://www.etenders.gov.za/">https://www.etenders.gov.za/</a></li> <li>• <a href="https://www.durban.gov.za/pages/business/procurement">https://www.durban.gov.za/pages/business/procurement</a></li> </ul>	F.1.2
<b>CIDB Eligibility</b>	It is <u>estimated</u> that tenderers should have a CIDB contractor grading designation of <b>3 CE or Higher</b> .	F.2.1.1
<b>Clarification Meeting</b>	<b>The intersection of 109437 Street and 109419 Street on 05/12/2024 on at 11am.</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>Name: Brenden Isereepersad</b> <b>Tel: 031 311 7973</b> <b>eMail: brenden.isereepersad@durban.gov.za</b>	F.2.8
<b>Submitting a Tender Offer</b>	The Tender Offer shall be delivered to: <b>The Tender Box in the foyer of the Municipal Building, 166 KE Masinga Road, Durban</b>  Bidders are required to also make an electronic submission via SSS. Bidders must ensure that the hard copy and electronic submission are the same, failing which the submission will be deemed invalid. Bidders are responsible for resolving all access rights and submission queries before the tender closing date.  • SSS Queries Contact: Lindo Dlamini: Tel: 031-3227133/031-3227153 email: <a href="mailto:supplier.selfservice@durban.gov.za">supplier.selfservice@durban.gov.za</a> .	F.2.13
<b>Closing Time</b>	The Tender Offer ("hard copy") shall be delivered, and the electronic submission completed, both on or before <b>Friday, 17 January 2025</b> at or before <b>11h00</b> .	F.2.15
<b>Evaluation of Tender Offers</b>	<b>The 80/20</b> Price Preference Point System, as specified in the SCM Policy 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 stated in the Tender Data

## **T1.1.2: INFORMATION REGARDING THE ETHEKWINI JDE SYSTEM**

This Section (T1.1.2) is for information purposes only. Compliance requirements are stated in **Part T1.2: Tender Data**.

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

This JDE System will be used for:

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

### **Registrations**

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

#### **National Treasury: Central Supplier Database**

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

#### **eThekwini Municipality Supplier Portal**

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

#### **eThekwini Municipality JDE System**

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

### **Assistance with using the JDE System**

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

- Lindo Dlamini      Tel:            031 322 7153 or 031 322 7133  
                             Email:        [supplier.selfservice@durban.gov.za](mailto:supplier.selfservice@durban.gov.za)

### **Viewing of available tenders**

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

### **Tender documentation**

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

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

**Submission of tender offers**

**Tender Offers** are to be delivered, in “hard copy” format, to the Delivery Location as stated in the Tender Data F.2.13.

In addition to the above, **Tender Offers are also to be SUBMITTED ELECTRONICALLY** (uploaded) on the eThekwini Municipality JDE System (Supplier Self Service (JDE-SSS) Module).

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

Reference is to be made to **Clause F.2.13 of the Tender Data** that specifies compliance requirements.

**Viewing the Tender opening schedule**

Users on the **JDE System** will be able to view the **Tender Opening Schedule** for each closed Tender.

The tender opening schedule will also be made available on the eThekwini Municipal website at URL:

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

### **T1.1.3: NOTES TO TENDERERS**

These Notes are intended to provide guidance to tenderers regarding tendering obligations and requirements. Compliance requirements are stated in the relevant parts of the Tender Data.

#### **eThekwini Supply Chain Management Policy (SCMP)**

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

##### **1) Clause 14(4): ETM Supplier Database**

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

In the event of the Tenderer not being registered on the eThekwini Municipality's 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 is to be noted:

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

##### **2) Clause 21(1)(d)(i): Audited Financial Statements**

Audited Financial Statements (prepared for auditing) are required to be submitted if the value of the tender offer exceeds R10 million (incl VAT).

##### **3) Clause 21(1)(d)(iii): Contracts Awarded during the past 5 Years**

Tenderers are to include with their submission a listing of any contracts awarded to the tenderer during the past 5 years, including particulars of any material non-compliance or dispute concerning the execution of the contracts. Tenderers are referred to **Returnable Form T2.2.3**.

##### **4) Clause 21(1)(d)(ii), Clause 28(1)(c) and Clause 29(10): Municipal Fees**

Tenderers are to be referred to **Returnable Form T2.2.12**: "Declaration of Municipal Fees", to certify that they have no undisputed commitments for municipal services towards a municipality. Prior to an award, a Tenderer's municipal rates and taxes cannot be in arrears. Should a Tenderer be in arrears with respect to municipal services and has formalised an agreement with the respective municipality to offset the arrears, the agreement must be in place at time of tender closing.

##### **5) Clause 28(1)(d), Clause 28(1)(h) and Clause 29(10): Certifications and Registrations**

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

The Tenderer's Tax Compliance Status, CIDB Registration and Status, and B-BBEE Level Status (if required), will be confirmed using the National Treasury Central Supplier Database (CSD). Tenderers are referred to **Returnable Form T2.2.1**.

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

**6) Clause 28(1)(e): Joint Ventures (JV)**

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

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

As proof that a JV has been formalised, or that the parties to the JV agree to formalise the JV should they be successful in being recommended for the award of this tender, Tenderers are referred to **Returnable Form T2.2.10**.

**CIDB Regulation 25(8)**

- 7) It should be noted that this contract is not part of a **Targeted Development Programme (TDP)**. The CIDB provisions in relation to a Contractor's **Potentially Emerging (PE) status** do not apply. Tenderers are referred to **CIDB Inform Practice Note #32**: "Application of the Potentially Emerging (PE) Status".

**Test for Responsiveness**

- 8) In this regard, Tenderers are referred to **Clause F.3.8** of 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 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 **eThekweni 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 is:

Name: [Andrew De Souza](#)  
 Tel: [031 311 7623](#)  
 eMail: [Andrew.desouza@durban.gov.za](mailto:Andrew.desouza@durban.gov.za)

The Employer's Agent's Representative is:

Name: [Brenden Isereepersad](#)  
 Tel: [031 311 7973](#)  
 eMail: [brenden.isereepersad@durban.gov.za](mailto:brenden.isereepersad@durban.gov.za)

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

## F.2: TENDERER'S OBLIGATIONS

### F.2.1.1 Eligibility: General

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

- In the event of a Compulsory Clarification Meeting:
  - the Tenderer fails to attend the Compulsory Clarification Meeting.
  - the Tenderer fails to have **Returnable Document T2.2.2: "Certificate of Attendance at Clarification Meeting / Site Inspection"** signed by the Employer's Agent or his representative.
- at the time of tender closing, 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.
- in the case of Joint Venture (JV) submissions, two or more JV entities have common directors / shareholders or common entities tendering for the same works.

### F.2.1.2 Eligibility: CIDB

Tenderers are to reference the provisions of **Clause F.2.23: "Certificates"** and **Returnable Document T2.2.15: "Verification of CIDB Registration and Status"** with respect to CIDB registration.

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

#### F.2.1.3 Eligibility: Tenderer’s Experience

Tenderers are to complete and sign **Returnable Form T2.2.16: “Eligibility: Experience of Tenderer”** (5 pages).

Only those tenderers that can demonstrate experience and submit the associated documentation/information, in works of a similar nature, within the past 10 years, will be eligible to have their tenders evaluated in terms of Clause F.3.11.

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

Tenderers are to indicate the documentation that has been included in the tender submission, in support of each experience submission, in the shaded column on page 41.

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

**Table 1: Experience Requirement**

A minimum of 2 contracts, with works of a similar nature, within the past 10 years, each with a value of 50% of the tender value submitted for this tender on the **Form of Offer (C1.1.1)**.

Table 2: Works of a Similar Nature	
Provision of Roads and Ancillary Works	
<ul style="list-style-type: none"> <li>Projects of a similar nature that will be considered will be one, or a combination of, the following types of projects: <ul style="list-style-type: none"> <li>new road construction</li> <li>road widening/upgrades</li> <li>provision of interim roadway related services to informal settlements</li> <li>intersection improvements</li> <li>gravel to surfaced road upgrades</li> <li>access road upgrades</li> <li>major parking areas</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>Each project must consist of <u>at least two</u> of the following elements: <ul style="list-style-type: none"> <li>bulk earthworks</li> <li>roadway layer-works</li> <li>asphalt roadway surfacing</li> <li>kerbing / channelling</li> <li>sidewalk / walkway construction</li> <li>stormwater drainage</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>Projects that will be <u>excluded</u> are: <ul style="list-style-type: none"> <li>road rehabilitation projects</li> <li>the construction of gravel roads</li> <li>road maintenance projects</li> </ul> </li> </ul>	

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

**NOTES** (for Table 3)

- To include the names of the parties, the managing entity's name, the effective dates, and the signature(s) page, all pertaining to the agreement.
- Issued by the Client / Employer.
- 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.
- Proof of the final payment received from the Main Contractor or Client/ Employer, OR most recent submitted INVOICE, with a summary breakdown of quantities.
- Issued by the Client/ Employer.
- If executed as a Sub-Contractor, the Scope-of-Work should be indicative of only the works carried

out by the Sub-Contractor, and not the overall Scope-of-Work of the main contract.  
If executed as a Main Contractor, the overall contract Scope-of-Work is to be indicated.

**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 should 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 on the **eThekwini Municipality website** as stated in Clause F.1.2. Tenderers are to ensure that this website is consulted for any published addenda pertaining to this tender up to three days before the tender closing time as stated in the Tender Data.”

“Acknowledgement of receipt of the addenda will be by the return of the relevant completed, dated, and signed portion of the addenda, to the physical or email address as specified on the addenda. Failure of the tenderer to comply with the requirements of the addenda will result in the tender submission being made non-responsive.”

**F.2.7 Clarification meeting:**

**The intersection of 109437 Street and 109419 Street on 05/12/2024 on at 11am.**

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:**

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

**Tender Offers** are to be delivered, in “hard copy” format, to **delivery address:**  
**the Tender Box in the foyer of the Municipal Building, 166 KE Masinga Road, Durban**

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

- Contract No. : **30608-1R**
- Contract Title : **Upgrading of 109437 Street and Surrounding Roads in Umlazi DD of Ward 84**
  - **Bidders are required to also make an** electronic submission via SSS. Bidders must ensure that the hard copy and electronic submission are the same, failing which the submission will be deemed invalid. Bidders are responsible for resolving all access rights and submission queries before the tender closing date.
  - **SSS Queries Contact: Lindo Dlamini:** Tel: 031-3227133/031-3227153 email: [supplier.selfservice@durban.gov.za](mailto:supplier.selfservice@durban.gov.za)

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

The Tender documentation, issued electronically by the eThekwini Municipality, is to be printed in its

entirety. Printing should be done on white A4 paper, with printing on only one side of the paper. (It is suggested that the Tender documentation is not stapled, or punched for filing, prior to scanning, as this could affect the scanning process.)

After completion and signature (using **BLACK INK**), the entire Tender document is to be scanned to a single PDF (**P**ortable **D**ocument **F**ormat) document, at a resolution of 300 DPI (dots per inch). The PDF document is to be uploaded via the (Tender specific) upload option on the JDE System (SSS Module).

Bidders must ensure that the hard copy and electronic submission are the same, failing which the submission will be deemed invalid.

Bidders are responsible for resolving all access rights and submission queries on the JDE System before the tender closing date/ time (F.2.15).

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

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

**F.2.15 Closing time:** The closing time is:

- Date : **Friday, 17 January 2025**
- Time : **11h00**

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

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

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

#### **Compensation Commissioner**

Reference is to be made to **Returnable Document T2.2.13: “Registration with Compensation Commissioner”**.

If required to be registered in terms of the Occupational Injuries and Diseases Act (130 of 1993 as amended), 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.

Should the Tenderer’s **Letter of Good Standing** be expired at time of tender closing, but an application for renewal has been made, the Tenderer is to include the expired **Letter of Good Standing AND** proof of application for renewal.

Separate **Letters of Good Standing** are required for each party to a Joint Venture.

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

Reference is to be made to **Returnable Document T2.2.14: “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> ).

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

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

### **CIDB Registration**

Reference is to be made to **Returnable Document T2.2.15: “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> ).

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

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

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

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

## **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 on the **eThekweni Municipality Website** (refer to **Clause 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.

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

### **\F.3.8 Test for Responsiveness**

Add the following:

F.3.8.3 “Unless otherwise stated in the tender documentation, the following will be deemed as non-material deviations or omissions, applicable to the documents listed below:

- non-submission of required documentation (including attachments).
- the submission of expired versions of required documentation.
- the submission of incomplete, or unsigned, returnable documentation.”

“The above is applicable to the following returnable documents:

- T2.2.1: Compulsory Enterprise Questionnaire
- T2.2.3: Contracts Awarded by Organs of State in the past 5 years
- T2.2.4: Contractor's Health and Safety Declaration
- T2.2.5: MBD 4: Declaration of Interest

- T2.2.6: MBD 5: Declaration for Procurement Above R10 Million
- T2.2.8: MBD 8: Declaration of Bidder's Past SCM Practices
- T2.2.9: MBD 9: Certificate of Independent Bid Determination
- T2.2.10: Joint Venture Agreements (if applicable)
- T2.2.12: Declaration of Municipal Fees
- T2.2.13: Registration with Compensation Commissioner
- T2.2.14: CSD Registration Report
- T2.2.15: Verification of CIDB Registration and Status"

F.3.8.4 "Should the Employer require the rectification of the non-conforming, non-material, deviation(s) and/ or omission(s), the Tenderer will be requested to address such rectification, within a specified time period, prior to the award of the contract. Failure to provide the rectified documentation within the specified time period will result in the tender offer being deemed non-responsive."

F.3.8.5 "It must be emphasised that any request for the rectification of deviations or omissions cannot:

- detrimentally affect the scope, quality, or performance of the works identified in the Scope of the Work,
- significantly change the Employer's or the Tenderer's risks and responsibilities under the contract,
- affect the competitive position of other tenderers presenting responsive tenders, if the deviation or omission was rectified."

### F.3.11 Evaluation of Tender Offers:

#### Eligibility

Tenders will be checked for compliance with the ELIGIBILITY requirements, as specified in **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 **80/20** preference points system will be applied. The Formula used to calculate the **Price Points (max. 80)** will be according to that specified Regulation 4.1.

#### Preference Points

Reference is also to be made to T2.2.7: "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**.

Ownership Categories	Criteria	80/20
<b>Race:</b> Black (w1)	Equals 0%	0
	Between 0% and 51%	4
	Greater or equal to 51% and less than 100%	8
	Equals 100%	12
<b>Gender:</b> Female (w2)	Equals 0%	0
	Between 0% and 51%	1.33
	Greater or equal to 51% and less than 100%	2.66
	Equals 100%	4
<b>Maximum Goal Points:</b>		16

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

- w1 = 75%, w2=25% (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 South African owned enterprises**

Goal Weighting: 20%

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

Location	80/20
Not in South Africa	0
South Africa	1
Kwa Zulu Natal	2
eThekweni Municipality	4
Maximum Goal Points:	4

<b>Proof of claim as declared on MBD 6.1</b> (1 or more of the following will be used in verifying the tenderer’s status) <ul style="list-style-type: none"><li>• CSD report</li></ul>
--

**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:

- (a) The Tenderer's municipal rates and taxes are not in arrears, or they have made arrangements to meet outstanding municipal fee obligations.



- (b) The Tenderer's tax compliance status has been verified, or they have made arrangements to meet outstanding tax obligations.
- (c) The Tenderer is **registered**, and **"Active"**, with the **Construction Industry Development Board** in an appropriate contractor grading designation.
- (d) If required to be so registered, the Tenderer is **registered and is in good standing with the compensation fund or with a licensed compensation insurer**, as applicable to the requirements of The Occupational Injuries and Diseases Act.
- (e) The Tenderer or any of its directors/ shareholders are **not listed on the Register of Tender Defaulters** in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.
- (f) The Tenderer has not:
  - i) Abused the Employer's Supply Chain Management System; or
  - ii) Failed to perform on any previous contract and has been given a written notice to this effect.
- (g) The tenderer has completed **Returnable Document T2.2.1: "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.
- (h) The Employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the **necessary competencies and resources to carry out the work safely**.

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

The municipality has a firm intention to proceed with the work, subject to funding being identified. Notwithstanding 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 referred to the requirements as stated in Clause F.2.13 of the Tender Data.

**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](mailto: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.

## **PART T2: RETURNABLE DOCUMENTS**

### **T2.1 LIST OF RETURNABLE DOCUMENTS**

#### **T2.1.1 General**

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

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

#### **T2.1.2 Returnable Schedules, Forms and Certificates**

##### **Entity Specific**

T2.2.1	Compulsory Enterprise Questionnaire	20
T2.2.2	Certificate of Attendance at Clarification Meeting/ Site Inspection	21
T2.2.3	Contracts Awarded by Organs of State in the past 5 years	22
T2.2.4	Contractor's Health and Safety Declaration	23
T2.2.5	MBD 4: Declaration of Interest	25
T2.2.7	MBD 6.1: Preference Points Claim Form ITO the Preferential Regulations	27
T2.2.8	MBD 8: Declaration of Bidder's Past SCM Practices	29
T2.2.9	MBD 9: Certificate of Independent Bid Determination	31
T2.2.10	Joint Venture Agreements (if applicable)	34
T2.2.11	Record of Addenda to Tender Documents (if applicable)	35
T2.2.12	Declaration of Municipal Fees	36
T2.2.13	Registration with Compensation Commissioner	37
T2.2.14	CSD Registration Report	38
T2.2.15	Verification of CIDB Registration and Status	39
T2.2.16	Experience of Tenderer	40

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

The returnable schedules, forms, and certificates, as listed in T2.1.2, can be found on pages [20](#) to [35](#).

### **NOTE**

The following forms in the **Contract Part** of the Documentation are also required to be completed by the tenderer:

- C1.1.1:     **Form of Offer,**
- C1.2.2.2:   **Data to be Provided by Contractor, and**
- C2.2:       **Bill of Quantities.**

**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	Email address of representative		
1.4	Contact numbers of representative	Tel:	Cell:
1.5	National Treasury Central Supplier Database Registration number	MAAA	
1.6	VAT registration number, if any:		
1.7	CIDB registration number, if any:		
1.8	Department of Labour: Registration number		
1.9	Department of Labour: Letter of Good Standing Certificate number		

**2.0 Particulars of sole proprietors and partners in partnerships (attach separate pages if more than 4 partners)**

	Full Name	Identity No.	Personal income tax No. *
2.1			
2.2			
2.3			

**3.0 Particulars of companies and close corporations**

3.1	Company registration number, if applicable:	
3.2	Close corporation number, if applicable:	
3.3	Tax Reference number, if any:	
3.4	South African Revenue Service: Tax Compliance Status PIN:	

**4.0** **MBD 4, MBD 6, MBD 8, and MBD9** issued by National Treasury must be completed for each tender and be included as a tender requirement.

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.2.1.1(a) and F.2.7 of the Tender Data.

This is to certify that:

(entity 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: .....

Signature: .....

Date: .....

**T2.2.3 CONTRACTS AWARDED BY ORGANS OF STATE IN THE PAST 5 YEARS**

Tenderers are to provide details of Works undertaken for the Government or Public Sector entities/ Organs of State in the past 5 Years, including particulars of any material non-compliance or dispute concerning the execution of such contract.

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

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

**NAME (Block Capitals):** \_\_\_\_\_

**Date**

**SIGNATURE:** \_\_\_\_\_

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

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

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

**Declaration by Tenderer**

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

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

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

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

Circle Applicable	
Yes	NO
Yes	NO
YES	NO

- 4 Details of resources I propose:

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

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

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS



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

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


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

- Name of proposed subcontractor:  
Qualifications or details of competency of the subcontractor:


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

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

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**

**T2.2.5 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

Name of enterprise’s representative

3.2 ID Number of enterprise’s representative

3.3 Position enterprise’s representative occupies in the enterprise

3.4 Company Registration number

3.5 Tax Reference number

3.6 VAT registration number

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

3.8 Are you presently in the service of the state?

If yes, furnish particulars: .....

.....

Circle Applicable

YES

NO

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

YES

NO

If yes, furnish particulars: .....

.....

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

YES

NO

If yes, furnish particulars: .....

.....

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

YES

NO

If yes, furnish particulars: .....

.....

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

YES

NO

If yes, furnish particulars: .....

.....

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

YES

NO

If yes, furnish particulars: .....

.....

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

YES

NO

If yes, furnish particulars: .....

.....

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

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

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

NAME (Block Capitals):

Date

.....

SIGNATURE:

.....

.....

## **T2.2.7 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).
- 1.2 The applicable preference point system for this tender is the 80/20 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:

<u><b>80 / 20 Points System</b></u>	<b>OR</b>	<u><b>90 / 10 Points System</b></u>
$P_s = 80 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right)$		$P_s = 90 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right)$

Where:  $P_s$  = Points scored for price of tender under consideration,  $P_t$  = Price of tender under consideration,  
 $P_{min}$  = 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:
- 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
  - 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 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)	Number of points CLAIMED (80/20 system)
<b>Ownership Goal:</b> Race (black)	12	
<b>Ownership Goal:</b> Gender (female)	4	
<b>RDP Goal:</b> The promotion of South African owned enterprises.	4	
	20	

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:

- The information furnished is true and correct.
- The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
- 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.
- 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:
  - disqualify the person from the tendering process.
  - recover costs, losses or damages it has incurred or suffered as a result of that person's conduct.
  - 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.
  - 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
  - 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**

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

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

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

**INTENT TO FORM A JOINT VENTURE**

Should our submission for CONTRACT: 30608-1R be successful, a Joint Venture will be established by the parties as listed below, as an unincorporated association, with the purposes of securing and executing the Contract, for the benefit of the Members.

**Proposed Joint Venture**

Joint Venture Title (name):

Represented by (name):  Tel:

**Lead Partner/ Member 1**

Entity Name:

Ownership Interest in JV %:  CSD Registration:

CIDB #:

Represented by (name): \_\_\_\_\_ Signature: \_\_\_\_\_

**Partner/ Member 2**

Entity Name:

Ownership Interest in JV %:  CSD Registration:

CIDB #:

Represented by (name): \_\_\_\_\_ Signature: \_\_\_\_\_

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

**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 DECLARATION OF MUNICIPAL FEES**

Reference is to be made to **Clauses F.2.23 and F.3.13(a)** 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												

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

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

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

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

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

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**

**T2.2.13 REGISTRATION WITH COMPENSATION COMMISSIONER**

Reference is to be made to **Clauses F.2.23 and F.3.13(d)** 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 the 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 the 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://cfoonline.labour.gov.za/VerifyLOGS> ).

**If required to be registered in terms of the Occupational Injuries and Diseases Act, Tenderers are to include, at the back of their tender submission, a printout of their most recent Letter of Good Standing from the Department of Labour, and if application for renewal has been made, proof of such application.**

*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 CSD REGISTRATION REPORT**


Reference is to be made to **Clauses F.2.1.1(b) 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	<b>Report Date:</b>
	<input type="text"/>
	<b>Report Ran By:</b>
	<input type="text"/>

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

**Tenderers are to include, at the back of their tender submission, 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 VERIFICATION OF CIDB REGISTRATION AND STATUS**

Reference is to be made to **Clauses F.2.1.2, F.2.23, and F.3.13(c)** 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.2.1.2** of the Tender Data.

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

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[Website technical enquires contact](#)

01/01/2017

**Tenderers are to include, at the back of their tender submission, 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 F.2.1.3 of the Tender Data.

Only those Tenderers that can demonstrate experience and submit the associated documentation/ information, in works of a similar nature, within the past 10 years, will be eligible to have their tenders evaluated in terms of Clause F.3.11.

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

**It is the responsibility of the tenderer to ensure that the experience submissions comply with the requirements as stated in F.2.1.3 of the Tender Data.**

**Guidance to Tenderers: Experience Submission Form****Client / Employer Details**

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

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

**Contract Details**

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

**Scope of Works**

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

**Joint Ventures**

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

(T2.2.16 is continued on the next page)

**Confirmation of submission of Information/ Documentation**

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

		If submitted, mark with an "X"
<b>SUBMISSION #1</b>	Experience Submission Form (completed and signed)	
	Proof of Sub-Contract Agreement (if experience was gained as a sub-contractor)	
	Letter of Award OR Form of Offer & Acceptance	
	Most recent Payment Certificate, OR most recent INVOICE, with Quantities summary	
	Final Payment Certificate, OR most recent INVOICE, with Quantities summary	
	Completion Certificate	
<b>SUBMISSION #2</b>	Experience Submission Form (completed and signed)	
	Proof of Sub-Contract Agreement (if experience was gained as a sub-contractor)	
	Letter of Award OR Form of Offer & Acceptance	
	Most recent Payment Certificate, OR most recent INVOICE, with Quantities summary	
	Final Payment Certificate, OR most recent INVOICE, with Quantities summary	
	Completion Certificate	

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

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

**NAME (Block Capitals):** \_\_\_\_\_

**Date**

**SIGNATURE:** \_\_\_\_\_

**EXPERIENCE SUBMISSION No: 1**

An Individual copy of this form must be filled out and submitted for every past project being claimed as experience.

Reference is to be made to **Clause F.2.1.3** of the Tender Data.

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

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

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

<b>Contract Details</b>	Contract (Reference) Number:														
	Contract Title:														
	Has this Contract been completed?	Y	N	Commencement Date:		d	d	m	m	2	0	y	y		
Completion Date (if applicable):				d	d	m	m	2	0	y	y				
Tendered Value (Contract Sum) OR Sub-Contract Value:		<b>R</b>	Final Contract Price OR Final Value of Sub-Contract:		<b>R</b>										

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

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

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

Confirmation of documentation submitted is to be recorded on Page 41.

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

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**

**EXPERIENCE SUBMISSION No: 2**

An Individual copy of this form must be filled out and submitted for every past project being claimed as experience.

Reference is to be made to **Clause F.2.1.3** of the Tender Data.

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

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

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

<b>Contract Details</b>	Contract (Reference) Number:														
	Contract Title:														
	Has this Contract been completed?	Y	N	Commencement Date:		d	d	m	m	2	0	y	y		
Completion Date (if applicable):				d	d	m	m	2	0	y	y				
Tendered Value (Contract Sum) OR Sub-Contract Value:		<b>R</b>	Final Contract Price OR Final Value of Sub-Contract:		<b>R</b>										

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

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

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

Confirmation of documentation submitted is to be recorded on Page 41.

*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-30608**

Contract Title: **Upgrading of 109437 Street and Surrounding Roads in Umlazi DD of Ward 84**

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.

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

**FOR THE TENDERER**

**FOR THE EMPLOYER**

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

## C1.2: CONTRACT DATA

### C1.2.1 CONDITIONS OF CONTRACT

#### C1.2.1.1 GENERAL CONDITIONS OF CONTRACT

The Conditions of Contract are the **General Conditions of Contract for Construction Works (2015 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).

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 **20 weeks**. The period as stated in 5.3.2, and the 7 days referred to in 5.3.3, are included in the above time for achieving Practical Completion. The special non-working days as stated in 5.8.1 are excluded from the above time for achieving Practical Completion.
- 1.1.1.15 The Employer is the 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: 031-311-7326 (t)  
Fax: 031-311-7321 (f)  
E-Mail: sandile.masondo@durban.gov.za
- 1.1.1.16 The **name of the Employer's Agent** is Andrew De Souza
- 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 7623 (t)  
Fax: 031 311 7321 (f)  
E-Mail: Andrew.Desouza@durban.gov.za
- 1.1.1.26 The **Pricing Strategy** is by **Re-measurement Contract**.
- 3.2.3 The Employer's Agent shall obtain the **specific approval of the Employer** before executing any of his functions or duties according to the following Clauses of the General Conditions of Contract:
- 6.3: Council approval in order to authorise any expenditure in excess of the Tender Sum plus **15% contingencies**.
- 4.11.1 To carry out and complete the works, the Contractor shall employ a competent Site Agent and Foreman as part of the key staff. It is a requirement for the Contractor's Site Agent and Foreman



to each have a minimum of 3 years relevant experience including experience on projects of a similar nature. The CV's of the Site Agent and the Foreman should be submitted to the Employer's Agent's Representative for acceptance by the 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

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

5.3.3 Add the following paragraph:

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

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

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

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

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

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

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

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

5.13.1 The **penalty for delay** in failing to complete the Works is **R 2500** (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:

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

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

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

- The proportion not subject to adjustment: **x = 0.10**.
- The base month will be the month prior to the month in which tenders close.
- The Index for, **Plant, Materials, and Fuel** shall be based on **2023 = 100**.
- The Index for **Labour** shall be based on **2021 = 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 10,000,000.00**.

**8.6.1.4 Ground Support Insurance:**

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

**8.6.1.5** Furthermore, the insurance cover effected by the Contractor shall meet the following requirements:**Third Party Insurance (Public Liability)**

- Minimum amount for any one occurrence, unlimited as to the number of occurrences, for the period of the contract, inclusive of the maintenance period: **R 2,000,000.00.**
- Consequential loss to be covered by policy: **Yes**
- Liability section of policy to be extended to cover blasting: **Nil**
- Maximum excess per claim or series of claims arising out of any one occurrence: **R20,000.00.**

**Principal's own surrounding Property Insurance**

- Minimum amount for any one occurrence unlimited as to the number of occurrences against any claim for damage which may occur to the Council's own surrounding property: **R500,000.00.**
- Maximum first excess: **R 10,000.00.**

**Insurance of Works**

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

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

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

<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."

**10.8.1** Failing ad-hoc adjudication, the determination of disputes shall be by court proceedings.

**C1.2.2.2 DATA TO BE PROVIDED BY CONTRACTOR**

1.1.1.9 The legal name of Contractor is:

.....

.....

.....

.....

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(s) 84**. 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 **10%** of the contract value (excluding PC Sum items and Fixed Cost allowances) to be subcontracted to contractors who are **>51% BLACK OWNED**. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

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

**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**

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

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

**C1.2.3.6 EXCEPTED RISKS (Clause 8.3)**

The contents of Clause 8.3.2 (Claim for excepted risks) are deleted and replaced with the following:

The Contractor shall take all reasonable actions to avoid or overcome any delays to Practical Completion caused by or arising from the excepted risks listed in Clause 8.3.1. The costs of any such actions are borne by the Contractor and the Contractor shall not be entitled to make a claim for additional costs incurred as a result thereof, regardless of the number, frequency or duration of such excepted risks.

If, in carrying out the Works, despite the Contractor having taken such reasonable actions, any of the excepted risks listed in Clause 8.3.1, other than pertaining to the damage or physical loss referred to in Clause 8.2.2.2, causes the Contractor to suffer delay to Practical Completion, the Contractor shall be entitled to make a claim for an extension of time in accordance with Clause 10.1. Notwithstanding anything contained elsewhere in the Contract, the Contractor shall not be entitled to make a claim for additional costs incurred as a result of any of the excepted risks listed in Clause 8.3.1, regardless of the number, frequency or duration of such excepted risks.

Should the Contractor wish to mitigate the additional costs it is incurring as a result of any of the excepted risks listed in Clause 8.3.1, the costs of any such mitigation are borne by the Contractor and the Contractor shall not be entitled to make a claim for additional costs incurred as a result thereof, regardless of the number, frequency or duration of such excepted risks.



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

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

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

### **C2.1.3 QUANTITIES REFLECTED IN THE SCHEDULE**

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

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

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

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

### **C2.1.5 MONTHLY PAYMENTS**

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

### **C2.1.4 PROVISIONAL SUMS / PRIME COST SUMS**

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

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

### **C2.1.6 PRICING OF THE BILL OF QUANTITIES**

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under

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

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

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

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

#### **C2.1.7 "RATE ONLY" ITEMS**

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

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

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

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

#### **C2.1.8 PRELIMINARY AND GENERAL**

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

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

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

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

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

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

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

The Bill of Quantities follows and comprises of 15 pages.

**PART C3: SCOPE OF WORK**

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

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

The Contract entails the upgrading of approximately 560m of existing gravel sections of Street 109437 and surrounding access roads to asphalt paved surfaced road with layerworks as per the pavement design. The roads will be constructed to a 4.5m road widths with, Fig.12 edge restraints, concrete lined v-drains, retaining structures and stormwater drainage as well as other related ancillary works which forms part of the Scope of Works are also included as part of this tender

- (a) Earthworks:
  - Excavation for the layer works required for the proposed road upgrade.
  - Undercutting the formation for subgrade improvement layers, if required.
- (b) Roadworks:
  - Import, process and compact a 150mm thick G9 subgrade improvement layer (where instructed by the Employer's Agent).
  - Import, process and compact of a 150 mm thick G7 layer to 95% Mod. A.A.S.H.T.O.
  - Import, process and compact of a 125 mm thick G5 layer to 95% Mod. A.A.S.H.T.O.
  - Import, process and compact of a 125 mm thick G2 layer to 98% Mod. A.A.S.H.T.O.
  - Supply and lay 40mm compacted thickness Sa-S14, asphalt wearing course compacted to 93% RICE density.
  - Excavate for kerb and channel / fillet in existing asphalt layers (where instructed by the Employer's Agent).
  - Supply and lay Fig.6 kerbing and concrete channel / fillet (where instructed by the Employer's Agent).
  - Import, process and compact dump rock material.
  - Construction of concrete lined v-drains.
  - Installation of road traffic signs painting of road markings.
- (c) Structures:
  - Excavation for earth retaining systems.
  - Construction of Terrace Block type or approved similar for retaining structures.
- (d) Drainage:
  - Excavation of trenches and the laying of stormwater pipes.
  - Construction of stormwater inlets and manholes.
  - Construction of subsoil drains (where instructed by the Employer's Agent).
- (e) Services:
  - Installation of cable ducts for future use and concrete encasement of existing cable ducts.
- (f) Protection Works:
  - Importing, process and compaction of approved topsoil.
  - Supply and laying of approved grassing.

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

Str 109437 and surrounding roads are located in Umlazi-DD of Ward 84.  
(refer to item C4.1 : Locality Sketches)

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

Refer to Item C4.2 : Conditions on Site.

## **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 Part 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:

- (1) Time required for service relocations. In general, at least four (4) weeks' notice is required by all the Municipal Departmental service organisations before the respective work teams can be deployed on site.
- (2) Time allowances to be made for the ordering of special items.

- (3) Notification required by service organisations.
- (4) Any special sequence in which work must be carried out. Must certain areas of work be finished before work commences on others?
- (5) If delays are anticipated with service relocations the contractor should be asked to allow time.
- (6) Is work required out of normal hours? (eg. to accesses).
- (7) Vehicular access to private property and to the local business properties are to be maintained at all times unless prior written permission to close the access has been obtained, by the Contractor, from the property owner / occupier, and approved of by the Engineer.
- (8) Traffic restrictions.
- (9) Attention must be paid to the accommodation of pedestrians and traffic during the period of the contract. Adequate safe pedestrian accommodation must be provided for the full duration of the contract.
- (10) The Contractor shall allow for all signs, barricades, delineators, and temporary road markings under the applicable items in the Bill of Quantities.
- (11) The main services affected by the proposed roadworks include overhead and underground cables and lighting of Metro Electricity, as well as underground watermains of Metro Water, stormwater pipes and sewer pipes. Tenderers shall refer to Clause PS.4, PS.5, PS.6 and PS.7 when considering the programme of works.
- (12) In general, at least ten (10) days is required for test results to be made available for material classification testing done on material delivered to site intended to be used in the layerworks.
- (13) The main services affected by the proposed roadworks include underground cables and lighting of the Ethekwini Electricity Department, the possibility of Ethekwini Municipality's CCTV as well as underground stormwater and sewer lines belonging to Ethekwini Municipality. Tenderers shall refer to Clauses PS.2 to PS.8 when considering the programme of works.

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

### **PS.1.3 Requirements for Accommodation of Traffic**

#### **PS.1.3.1 General**

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

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

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



**PS.1.3.2 Basic Requirements**

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

The Contractor shall ensure that all road signs, barricades, delineators, flagmen and speed controls are effective and that courtesy is extended to the public at all times.

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

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

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

**PS.1.3.3 Traffic Safety Officer**

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

**PS.1.3.4 Payment**

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

**PS.1.3.5 Pedestrian movement**

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

**PS.1.3.6 Temporary Reinstatement**

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

- (a) if the permanent reinstatement of such road or way is to be carried out by the appropriate authority or by some person other than the contractor (or any subcontractor to him), the contractor shall at his own cost and independently of any requirement of or notice from the Engineer be responsible for the making good of any subsidence or shrinkage or other

defect, imperfection or fault in the temporary reinstatement of such road or way, and for the execution of any necessary repair or amendment thereof from whatever cause the necessity arises, until the end of the period of maintenance in respect of works beneath such road or way until the authority or other person as aforesaid shall have taken possession of the site for the purpose of carrying out permanent reinstatement (whichever is the earlier), and shall indemnify and save harmless that Council against and from any damage or injury to the Council or to third parties arising out of or in consequence of any neglect or failure of the Contractor to comply with the foregoing obligations or any of them and against and from all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

- (b) where the authority or person as aforesaid shall take possession of the site as aforesaid in sections or lengths, the responsibility of the contractor under paragraph (a) of this sub-clause shall cease in regard to any such section or length at the time possession thereof is so taken, but shall during the continuance of the said period of maintenance continue in regard to any length of which possession has not been taken and the indemnity given by the contractor under the said paragraph shall be construed and have effect accordingly.

## **PS.2 SERVICES**

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

### **PS.2.1 Existing Services**

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

### **PS.2.2 Proving Underground Services**

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

It is stressed that all services in a particular area must be proven before commencing work in that area.

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

The cost of the proving trenches is to be included in the work covered by Clause DA.8.3.

When a service is not located in its expected position the Contractor shall immediately report such circumstances to the Employer's Agent who will decide what further searching or other necessary action is to be carried out and shall instruct the Contractor accordingly. The cost of this additional searching shall be to the Council's cost and shall be paid for under DB.8.19 - Proving Existing Services.

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

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

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

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

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

### **PS.2.3 New Services and Relocation of Existing**

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

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

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

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

Services affected by the contract are described as follows:

- PS.4: Watermains;
- PS.5: Sewers;
- PS.6: Stormwater;
- PS.7: Electrical Cables / Lighting;
- PS.8: Telkom / Neotel;
- PS.9: CCTV;

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

**PS.2.4 Accommodation of Services**

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

**PS.3 WATERMAINS****PS.3.1 General**

Tenderer's attention is drawn to the following points regarding the watermains.

The Contractor is to note that existing water mains 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 water mains.

**PS.3.2 Water Main Valve Access**

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

Whatever method the Contractor chooses to use for this work, the cost of raising the valves from existing level to ultimate level shall be paid only once, irrespective of the number of times the valve is uncovered. Spacer rings required for the height adjustment of valve covers shall be supplied by the Water and Sanitation Unit. Tolerances on valve cover levels shall be as specified in clause PH.6.5. Before final setting in position of valve covers the Contractor shall liaise with the Employer's Agent regarding the direction in which covers shall be placed.

**PS.3.3 Restriction on Compactive Equipment**

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

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

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

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**PS.4 SEWERS**

It is not anticipated that any works involving sewer relocation will take place as part of this contract. The Tenderer's urgent attention is drawn to the possibility of existing sewer services which traverse the site of the works respectively 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 sewer mains

**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**

It is not anticipated that any works involving stormwater relocation will take place as part of this contract. The Tenderer's urgent attention is drawn to the possibility of existing stormwater systems which traverse the site of the works respectively and special care is to be taken in close proximity to these systems and connections. The existing system shall be proved on site by the Contractor prior to any construction work commencing in the vicinity of the stormwater system.

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

Tenderers are to read this clause in conjunction with Clauses PS.2.1

**PS.6.1 General**

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

**PS.6.2 Street Lighting**

If necessary, the existing lighting will be removed in stages and replaced at the discretion of eThekweni Electricity Department. Relocation will take place during this contract and be executed

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

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

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

### **PS.6.4 Relocation of Existing Services**

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

### **PS.7 TELKOM S.A. LIMITED / NEOTEL PLANT / FIBRE OPTICS SERVICE PROVIDERS**

No work to Telkom / Neotel / Fibre Optic Service Providers Plant is envisaged, but the tenderers attention is drawn to the fact that Telkom / Neotel / Fibre Optic Service Providers copper cables and fibre optic cables are existing in the contract area and possibly might have to be relocated.

### **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:

- (1) The area is bounded by residential / light industrial properties with moderate volumes of both pedestrian and vehicular traffic
- (2) The works will require machinery and plant of varying size.
- (3) The manual moving of heavy precast products will be required.
- (4) The gradient of the site is fairly steep. Plant and machinery need to be well controlled. Run-off from the site will have to be well managed.
- (5) The existence of underground and overhead electrical cables
- (6) The raw asphalt used will be delivered to site at a high temperature, which, after processing, remains hot for some time.

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

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

**PS.10.2 Health and Safety Specifications and Plans to be submitted at tender stage****PS.10.2.1 Employer's Health and Safety Specification**

The Employer's Health and Safety Specification is included in Part 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 Part 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 Part T2.2: Contractor's Health and Safety Plan.

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

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

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

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

A generic plan will not be acceptable.

### **PS.10.3 Cost of compliance with the OHSA Construction Regulations**

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

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

### **PS.11 AS BUILT DATA**

#### **PS.11.1 Submission of As-Built Data**

The Tenderer shall note the sum item 1.AB.4 covering the submission of as-built data. The Contractor shall supply the Engineer with:-

- A list of surveyed co-ordinates of cable duct markers and water main valve covers constructed or modified during the course of the contract.
- A list of surveyed invert and cover levels, and co-ordinates of all catch pits, headwalls and manholes constructed or modified during the course of the contract.



- Drawings and surveyed information in electronic format (PDF, DR4, DWG, DXF, TOT, ASCii, CSV) indicating road edge, kerbs, v – drains and retaining wall information.
- Material As-Built records of Material Testing results.

The completion certificate shall not be issued unless the above information has been forwarded to the Engineer.

## **PS. 12      APPROVED TIP**

The approved tip is the Municipal landfill site at Marianhill. The Contractor will be permitted to dump material at this dump, free of charge, provided that he fulfills the following requirements:

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

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

The Contractor may be required to provide proof as to where material is being dumped. Weighbridge slips will be the only acceptable proof in the case of the Municipal tip site.

## **PS. 13      TESTING**

Notwithstanding clause AB.6, The Contractor is to include in his rates for the cost of classification testing of all materials delivered to site intended for use in the layer works and for all density control testing of all layer works as per the pavement design illustrated on the contract drawings.

The Contractor is to provide results of all control testing to the Engineer. If satisfied, the Engineer will then give the Contractor written permission to proceed with the next stage of construction.

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

The Contractor is to include in his rates for testing of all concrete items in accordance with clause C.7 of the Durban Standard Engineering Specifications.

**C3.3: STANDARD SPECIFICATIONS**

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

<b>Part</b>	<b>Description</b>	<b>Date of Issue</b>	
AB	General Specifications	July	1992
B	Site Clearance	March	1990
C	Concrete Work	February	1987
DA	Earthworks: Bulk	January	1985
DB	Earthworks for Pipe Trenches	July	1992
DD	Earthworks for Structures		
EB	Graded Crushed Stone	December	1988
ED	Road Asphalt	July	1992
EF	Kerbs and Haunches	July	1992
EG	Sidewalks, Footpaths and Median Areas	July	1992
EH	Steel Guardrails & Conc. Median Barriers		
EL	Dumprock Subgrade Improvement		
EM	Concrete Surface to Roads		
F	Protection Works	July	1992
PG	Non Pressure Pipelines and Pc Culverts	July	1992
PH	Manholes and Appurtenant Drainage Works	July	1992
TA	Road Signs	October	1989
TB	Road Markings	October	1989

### C3.3.2 AMENDMENTS TO THE STANDARD SPECIFICATIONS

#### INTRODUCTION

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

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

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

**PS.AB PRELIMINARY AND GENERAL SPECIFICATION**

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**PS.AB.1 SITE FACILITIES****PS.AB.1.1 Temporary Offices for Engineer and Staff**

No offices are required for the Engineer and for the Engineer's staff.

**PS.AB.1.2 Contractor's Camp Site and Depot**

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

**(a) Contractor's Camp Site / Store Yard**

The recommended position of the camp site/store yard will be at the Contractor's discretion and one that suits him. However the Contractor may, if he prefers to have a camp site at another location of the work, site it elsewhere provided that he first obtains the written permission of the landowner, and subsequently the Engineer, to do so.

Any clearing of the site that is necessary and the making good after de-establishment will be the responsibility of the Contractor.

In addition to the requirements of SABS 1200A Clause 8.3.2.2 the following conditions shall also apply :

- (i) None of the existing roads shall be damaged in any way.
- (ii) No waterborne sewerage facilities or potable water connection are available on the site. The Contractor shall make his own arrangements in this regard.
- (iii) No electrical facilities exist on site.
- (iv) It shall be the responsibility of the Contractor to make good any damage caused to the camp site area or any improvements on it, including services, and for reinstating it to its former condition when vacated. The standard of reinstatement must be to the satisfaction of the Engineer; Director : Real Estate and/or Director of Parks, Recreation and Beaches Department; or other owner. Particular attention should be directed to these requirements and written clearances from the relevant Departments or other owners will be required.

**PS.AB.1.3 Accommodation of Employees**

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

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

No informal housing or squatting will be allowed.

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

**PS.AB.1.4 Power Supply, Water and other Services**

The Contractor shall make his own arrangements concerning the supply of electrical power, water and all other services. No direct payment will be made for the provision of electricity, water and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required, or in the Contractor's preliminary and general items as the case may be.

(a) Water for Works

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

(b) Power Supply for Works

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

**PS.AB.2 SERVICES CONNECTION FEE**

Should the Contractor require either additional connection or an increased power supply any additional costs shall be to the Contractor's account.

**PS.AB.3 TELEPHONE**

Should the Contractor require telephones, allowance for the cost should be made under the relevant items in Part AB - Preliminary and General of the Bill of Quantities.

**PS.AB.4 ROAD DEVIATIONS AND TRAFFIC CONTROL**

- (a) Allowance has been made in the Bill of Quantities for deviations under the relevant items in Part AB – Preliminary and General of the Bill of Quantities. Costs of any additional deviations required by the Contractor shall be included in the rates tendered and at the Contractors own cost.

It shall be assumed that if no deviations are listed then no deviations will be measured as part

of this contract.

DEVIATION DESCRIPTION	CLASS

- (b) Deviations required by the Contractor shall comply with the requirements of Clause AB.7. Details shall be submitted to the Engineer for approval at least two 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.
- (e) At all times signposting shall be detailed in the part of this document: "Safety in Road Construction".

#### **PS.AB.5 PROGRESS PHOTOGRAPHS**

A provisional sum has been included under in the Bill of Quantities for the photographs to be taken at the discretion of the Engineer.

#### **PS.AB.6 NOTICE BOARD**

The typical notice board layout is given in Part C3.4. The following requirements shall apply with regards to the notice board.

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

**PS.B SITE CLEARANCE**

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**PS.B.1 REMOVAL OF ROADWAY TO TIP**

The unit of measurement shall be square metre (m<sup>2</sup>) and the rate shall include for the materials, labour and plant necessary for the careful removal of the asphalt/concrete roadway together with layerworks, removing debris, loading, transportation and spoiling at the approved tip.

**PS.B.2 REMOVAL OF EXISTING SIDEWALK TO TIP**

The unit of measurement shall be square metre (m<sup>2</sup>) and the rate shall include for the labour and plant necessary for the removal of the existing sidewalk, complete with layerworks and if present concrete channel/fillet and kerbing or asphalt haunching, removing debris, loading, transportation and spoiling at the approved tip.

**PS.B.3 REMOVAL OF TREES**

The unit of measurement shall be number (no.) and the rate shall include for the labour and plant necessary for the removal of the existing trees including de-stumping, backfilling and compacting cavities with suitable fill material, if required and as directed by Engineer or Environmental Control Officer and transporting to the approved tip and dumping or to be stored on site for future use.

**PS.B.4 REMOVAL OF BRICKWORK**

The unit of measurement shall be cubic metre (m<sup>3</sup>) and the rate shall include for the labour and plant necessary for the removal of the bricks, loading and transporting to the approved tip and spoiling.

**PS.B.5 REMOVAL OF UN- REINFORCED and REINFORCED CONCRETE**

The unit of measurement shall be cubic metre (m<sup>3</sup>) and the rate shall include for the materials, labour and plant necessary for the saw cutting, careful removal of the un-reinforced concrete structure, removing debris, loading, transportation to the approved tip and spoiling. No blasting permitted.

**PS.B.6 REMOVAL OF FENCE**

The unit of measurement shall be linear metre (m) and the rate shall include for the materials, labour and plant necessary for the excavation, careful removal of the fencing inclusive of poles, transporting to store yard / Contractor's camp site for re-use inclusive of re-installing the fencing and poles as directed by Engineer on Site.

**PS.C CONCRETE WORKS**

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**PS.C.1 NEW SABS SPECIFICATION FOR PORTLAND BASED CEMENT**

The new SABS ENV. 197-1 (adopted in 1996): Cement - composition, specification and conformity criteria Part 1: Common Cement, replaces SABS 471 - 1979, SABS 626 - 1971 and SABS 831 - 1971 in Clause C.2 of Part C: Concrete Work. This also has reference to Part G: Prestressing, specifically for the cement for grouting of prestressing ducts.

**PS.C.2 PORTLAND BLAST FURNACE CEMENT (CLAUSE C.3.1)**

Portland Blast furnace cement may be used in any part or the works except in sewer pipes and where H.A.C. has been specified. The Contractor's attention is however drawn to the characteristics of concrete made with this material and he shall ensure that no excavations containing such concrete are backfilled or structures loaded until the concrete being covered or loaded has achieved sufficient strength to withstand the imposed loads.

**PS.C.3 MATERIALS AND PLANT FOR CONCRETE WORK**

Where the mixing and placing of concrete is concerned, the Contractor shall have at least one standby machine available for each operation of the processes of mixing, hoisting, transporting or placing. No concrete work may be commenced unless the above requirements are fully met. All concrete is to be ready-mix concrete from an accredited supplier. No hand mixing will be permitted except for restricted conditions whereby hand mixing may be permitted.

**PS.C.4 PLACING OF CONCRETE**

No concrete is to be placed in the excavations until this has been approved by the Engineer or his Representative.



**PS.C.5 CONCRETE TO WALL FOOTING**

The rate of payment for this work shall be cubic metre (m<sup>3</sup>) and the Contractor shall allow in his price for the supply of all materials required to fully construct, handling, levelling, vibrating, soft board expansion joints, shuttering and Mesh Ref193 or 245 for the reinforced concrete wall footing as detailed on Drawing No.48815.

**PS.C.6 MASS CONCRETE IN AND BETWEEN TOP ROWS OF BLOCKS**

The rate of payment for this work shall be cubic metre (m<sup>3</sup>) and the Contractor shall allow in his price for the supply of all materials required to fully construct, shuttering, handling, levelling, and vibrating, for the mass concrete in and between the top rows of blocks as detailed on Drawing No.48815.

**PS.C.7 GRADE 20/26 AND 25/26 CONCRETE**

The rate of payment for this work shall be cubic metre (m<sup>3</sup>) and the Contractor shall allow in his price for the supply of all materials required to fully construct, shuttering, handling, levelling, and vibrating, for the concrete to wall footings, if required and as directed by Engineer on Site as well as for the encasement to ducts as detailed on Drawing No.48815.

**PS.C.8 STONE MAT / V-DRAINS / CONCRETE TRAPEZOIDAL DRAINS / TERRACE BLOK**

Should the Engineer's Representative consider the trench bottom to be unsuitable or ground water excessive, a mat of 26 mm stone of not less than 150 mm depth extending shall be spread before the concrete blinding is cast. Payment width will be limited to the width of the foundation slab / drain. The Engineer's Representative's decision in this respect shall be obtained before any material is used. No payment will be made for using a stone mat where this is not authorised. The rate of payment for this work shall be per cubic metre and the Contractor shall allow in his price for the supply of all materials required to fully construct, excavation, handling, levelling, vibrating, soft board expansion joints, shuttering and Mesh Ref193 or 245 for the reinforced concrete v-drains / concrete trapezoidal drains and Terrace Blok walls of the stone as detailed on Drawing No.48815. All concrete is to be ready-mix concrete from an accredited supplier.

**PS.C.9 CONCRETE SURFACING**

Concrete shall be cast in alternate panels with each panel making up the following dimensions width 2,25m, length 2.25m and nominal thickness 0,15m, with construction joints being formed both longitudinally and transversely. Payment for longitudinal and transverse joints will be paid separately.

No batching or hand mixing will be permitted.

The rate tendered for this item shall be per square meter (m<sup>2</sup>), for the specified thickness and compressive strength. The rate shall include for all plant, labour, and materials including preparatory works, formwork, texturing, curing and protection.

**PS.C.10 HAND PLACING OF CONCRETE**

No concrete is to be placed in the excavations until the base layer has been approved by the Engineer or his Representative.

The Contractor shall make allowance in his rates for hand placing of concrete and for fixing of tie bars as detailed in Drawing No. 48815.

The Contractors attention is drawn to the provisions of clause C.5.11, which states that concrete

shall be placed within one hour from the time of discharge.

The Contractor shall note that texturing and curing of the concrete pavement will NOT be measured separately. The Contractor shall therefore allow for this in his rate for concrete surfacing.

#### **PS.C.11 PREPARATION OF UNDERLYING LAYERS**

When the temperature of the subbase exceeds 20<sup>0</sup> C the subbase shall be wetted in advance of the placing of the concrete, keeping the surface continuously wet for a period of at least one hour before placing the concrete.

Immediately before placing of the concrete the excess water shall be broomed off the road so as to ensure that the subbase is still damp when the concrete is placed, but without puddles of water or pockets of mud.

The wetting is of particular importance during hot dry weather and no concrete shall be placed on a subbase which has not been wetted or which has dried out.

#### **PS.C.12 LONGITUDINAL/TRANSVERSE JOINT TYPES**

The Schedule of Quantities provides the Contractor with longitudinal and transverse joint types. The Contractor shall price these types of joints.

The longitudinal and transverse joints to be constructed shall be as detailed on Drawing No. 48815. Payment shall be under item C.4 as required.

The Contractor's rate shall include for all plant, labour and materials necessary for the construction of the specific joint but shall NOT include the supply and fixing of tie bars which shall be measured separately.

#### **PS.C.13 TIE BARS**

Tie bars shall consist of Y10 deformed bars complying with the requirements of SABS 920 as detailed on Drawing No. 48815.

Tie bars of the required dimensions and spacing shall be placed at right angles to joints. Tie bars shall be free of paint, grease or other coatings that may affect bond with the concrete.

At construction joints, the one half of the tie bar shall be supported on the subbase by means of suitable stools while the other half shall project into the adjacent pavement.

#### **PS.C.14 FINISHING**

The surface shall be roughened with a light pass of a stiff bristled broom applied transversely across the width of the road to create striations of about 1,5mm to 3,0mm in depth. In order to ensure straight brush marks, the brush shall be operated against a straight-edge laid at right angles to the pavement centre line.

#### **PS.C.15 SMOOTHNESS OF SURFACING**

The minimum number of surface irregularities permitted with a 3m rolling straight edge on each panel will be as follows:

10 mm – 2 No.

15 mm max – 1 No.

**PS.C.16 PROTECTION OF THE CONCRETE PAVEMENT**

The Contractor shall take precautions in the form of barricading and watchmen to keep pedestrians, cyclists, animals etc., off the freshly placed concrete, particularly outside normal working hours.

No vehicular traffic having an axle loading greater than 20 kN shall be run on the finished surface of a concrete pavement within a period of fourteen days of its completion, unless the Engineer permits a reduction of this period when the pavement is constructed during generally warm weather conditions. Rubber-tyred vehicles having an axle loading less than 20 kN and traveling at speeds not exceeding 25 km/h may be permitted after a period of seven days from the completion of a concrete pavement.

No vehicle with an axle load in excess of 80 kN shall be run on the completed surface at any stage of the contract.

**PS.C.17 CURING**

Curing shall be in accordance with the provisions of clause C.5.13. Methods (b) and (c), as included in C.5.13.2, shall NOT be permitted on the finished pavement surface.

**PS.C.18 TESTS ON CONCRETE**

The Roads Provision Department shall supervise the slump and air content testing and the making of the concrete cubes for compressive strength testing. The Contractor shall be responsible for the sampling, the provision of all equipment including concrete cube moulds, and for curing. The transporting of the cubes shall be the Contractor's responsibility. The testing of the cubes shall be done by the Pavement and Geotechnical Engineering Laboratory.

The procedure for sampling, manufacture of test cubes, storing, curing and testing shall be in accordance with the TMH1 Method D1. The following deviations from the above procedure shall apply:

When test cubes are prepared by rodding, six specimens shall be prepared per batch and the average of the three cube strengths shall be taken as one test result.

In the case of concrete pavements a minimum of 6 test cubes shall be taken for each batch of concrete delivered to the site.

**PS.C.19 LIQUID SEALANT IN JOINTS BETWEEN CONCRETE AND ASPHALT PAVEMENT**

The liquid sealant used in joints between concrete and asphalt pavement shall be hot-poured type joint sealing compound placed in accordance with the manufacturer's specification. The Contractor is to submit sample specifications to the Engineer for approval prior to procuring of materials.

**PS.C.20 PANEL ANCHOR**

The Contractor's rate shall include for all plant, labour, materials and setting out necessary for the construction of the panel anchor as detailed in Drawing No. 48815.

**PS.C.21 ANCHOR BLOCK**

The Contractor's rate shall include for all plant, labour, materials and setting out necessary for the construction of the anchor block as detailed in Drawing No. 48815.

**PS.DA EARTHWORKS : BULK**

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**PS.DA.1 INTERPRETATIONS**

The following shall be added to the list of definitions.

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

**PS.DA.2 GEOTECHNICAL INFORMATION**

There are no specific geotechnical or detail site information available. Geotechnical testing will be required at the top of subgrade level by a SANAS accredited Specialist Materials Laboratory. An item for this has been included in the Schedule of Quantities. The Tenderers urgent attention is drawn to the fact that the existing site conditions / insitu material is possibly that of intermediate to hard material. The Tenderer is to price for this relevant excavation items accordingly.

**PS.DA.3 EXCAVATION OF MATERIAL FROM SITE**

- (a) Further to Clauses DA.8.1 and DA.8.3 Tenderer's are to note that the measurement of excavation of material on site is based on the cut volumes in place before excavation between the original ground levels after stripping of topsoil and the top of earthworks calculated from cross sections as described in Clause DA.8. **No allowance will be made for bulking or shrinkage and it shall be assumed that 1 cubic metre of excavated material from the site shall form 1 cubic metre of compacted fill.**
- (b) The nature of the road works is such that a considerable amount of the excavation shall be in intermediate to possibly hard and restricted conditions. No additional payment shall be made for such excavation and the Tenderer shall therefore make due allowance in the rates for Bulk Earthworks for any additional work or hand excavation in restricted excavations.
- (c) The Contractor's attention is drawn to the presence of water mains in the road reserve area. The Contractor shall limit the size and type of construction plant used in this area so as not to damage the existing water main. Any damage to the water main due to the size and type of construction

plant used will be to the Contractor's account.

**No additional payment will be made for compliance with this clause and Tenderer's shall include in his/her relevant tendered rates for all extra plant (TLB, heavy duty excavators, woodpeckers, jackhammers / breakers), labour and materials required to work in these intermediate to possibly hard areas for the excavation of material from site.**

#### **PS.DA.4 EXCAVATE UNSUITABLE MATERIAL BELOW EMBANKMENTS OR FORMATION**

Further to Clause DA.8.3 the rate shall also include for trimming the area excavated to the required level and compaction of the in-situ material.

#### **PS.DA.5 IMPORT SUITABLE FILL MATERIAL**

The fill material shall conform to the requirements for a G7 or G9 Material as described in TRH 14 with the following Amendments:-

- (a) The material shall be free of weathered shale and will be subject to the approval of the Engineer as well as the Materials Testing Laboratory.
- (b) No allowance will be made for bulking or shrinkage and it shall be assumed that 1 cubic metre of excavated material from the site shall form 1 cubic metre of compacted fill. The Contractor is to make allowance for bulking and shrinking in his rates.

#### **PS.DA.6 COMPACTION OF FILL**

The second paragraph of Clause DA.8.5 is to be amended by substituting "top of earthworks" for 'formation' where it occurs.

#### **PS.DA.7 FORMATION**

Formation shall be defined as the surface to the underside of the G5 layer (top of G7) specified in the pavement design as processed to tolerances as defined in DA.5.5. The Tenderer shall make full allowance in the rates for areas of formation in cut or where the fill layer thickness is less than 150 mm.

#### **PS.DA.8 TOLERANCES**

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

The allowable tolerances shall be:

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

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

than that specified plus 20 mm.

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

**PS.DA.9    GEOFABRIC BLANKET**

The geofabric shall comply with Clause PG.3.8.

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.

**PS.DA.10    DEDUCTIONS FOR RETESTS**

Deductions for retests are expanded in Clause DA.7 in the Standard Engineering Specifications.

**PS.DA.11    OVERHAUL**

Notwithstanding the requirements of Clause DA.8.10 no additional payment shall be made for overhaul.

**PS.DA.12    STOCKPILE HANDLING**

Tenderers are to note that no stockpile handling will be payable on this contract. Cut material suitable for fill, shall be placed directly into fill without being stockpiled. If this is not possible, the Tenderer shall include in the bulk earthworks rates, any costs that he would incur in stockpiling and subsequent re-handling of material.

**PS.DA.13    STOCKPILE AREAS**

Stockpile areas have been described under Clause DA.5.2.1.2 (a).

**PS.DB EARTHWORKS FOR PIPE TRENCHES**

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**PS.DB.1 BEDDING AND BACKFILL MATERIALS****PS.DB.1.1 General**

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

**PS.DB.1.2 Storm water Pipes**

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

**PS.DB.1.3 Telkom Ducts / Neotel Ducts / Fibre Optic Service Providers Ducts**

- 1) Notwithstanding Clause DB.3.6 of Part DB : "Earthworks for Pipe Trenches", only a clean sand containing no particles of diameter exceeding 10 mm, having a Plasticity Index (P.I.) not exceeding 10 and free from vegetation and lumps shall be used for the bedding cradle and selected fill blanket. It is anticipated that most of the bedding material will have to be provided from an off-site source. Bedding shall be constructed to the dimensions as is detailed on drawing 38589 : "Telkom Cable Ducts and Junction Box Details".

**PS.DB.2 EXCAVATION AND BACKFILLING - EXISTING SERVICES**

The Tenderer's attention is drawn to the presence of existing services in the area. The Contractor may find it impractical to use mechanical plant for excavation on some portions of the works due to conditions caused by the presence of these services.

The Tenderer's attention is further drawn to the fact that his rates for excavation and backfilling must include for all costs associated with working around these existing services and their protection and accommodation, as no claim for extra payment will be accepted for increased working space or for the inability to use plant in any circumstances.

**No additional payment will be made for compliance with this clause and Tenderer's shall include in his/her relevant tendered rates for all extra plant (TLB, heavy duty excavators, woodpeckers, jackhammers / breakers), labour and materials required to work in these intermediate to possibly hard areas for the excavation of material from site.**

**PS.DB.3 EXCAVATION, BACKFILLING AND REINSTATEMENT OF TRENCHES (CLAUSE DB.5.3.2)**

Further to and notwithstanding the requirements of the Departmental Specification, Part DB, the following requirements in respect of trench excavation, backfilling and reinstatement shall be adhered to:

- 1) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling. It will be the Contractor's responsibility to use selective methods of excavation (TLB, heavy duty excavators, woodpeckers, jackhammers / breakers) to ensure that this unsuitable material does not contaminate other materials suitable for reuse.
- 2) It is anticipated that a significant portion of the material excavated for trenches in existing natural ground is likely to be classified as "Intermediate to Hard" in terms of Part DB of the Departmental Technical Specification, and that blasting methods will NOT be employed to facilitate excavation. Tenderers are to note that the unit of measurement shall be the linear metre (m), and that the rate tendered shall be inclusive of all work or operations necessary to excavate backfill, spoil or stockpile the material either using extra plant ie.TLB, heavy duty excavators, woodpeckers, jackhammers / breakers.
- 3) 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. If necessary and required, an item has been included in the Bill of Quantities for the disposal of unsuitable material to tip and the Contractors tendered rate for this item shall include for stockpiling if deemed necessary.
- 4) 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
- 5) Notwithstanding the method of trench excavation adopted by the Contractor, the restriction on the maximum trench width as defined in specification Clause DB.6.1 - must be strictly adhered to. Should the Contractor over-excavate the trench then he will be responsible for increasing the pipe strength and / or bedding class to be used, all to his cost.



The measurements for excavation shall be the total through-length along the centre-line of a pipeline measured HORIZONTALLY with deductions for manholes. In addition, trench depth will be measured vertically on the centre-line of the pipeline from the existing ground level to the invert level.

**No additional payment will be made for compliance with this clause and Tenderer's shall include in his/her relevant tendered rates for all extra plant (TLB, heavy duty excavators, woodpeckers, jackhammers / breakers), labour and materials required to work in these intermediate to possibly hard areas for the excavation of material from site.**

#### **PS.DB.4 SHORING OF TRENCHES TO EXCAVATIONS**

The Contractor shall be responsible for the design and installation of all shoring where applicable, which must not only comply with all of the relevant safety regulations pertaining to the provision of safe working conditions in earthwork excavations but also will provide sufficient lateral support to minimise any damage to adjacent structures, services or road surfaces.

In addition to the above and the requirements of Clause DB.5.3.2 (a) all excavations in road reserves and adjacent to structures and where excavations are in excess of 1,5 m in depth shall be supported with close shoring and no open or intermittent shoring of any description will be permitted.

The minimum requirements for shoring of these trench excavations shall be as follows:

- 1) Either ribbed steel trench sheeting of suitable thickness with an edged return for interlocking or suitably sized timber poling boards or runners are to be used. Adequate sized 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.
- 2) The shoring for the excavations shall be progressively installed as the excavation proceeds. Care being taken to ensure the soil is not removed within a minimum 300 mm of the toe of the runners.
- 3) Installation of shoring after the trench has been excavated to a depth in excess of 1,5 m is not acceptable.
- 4) Details of the proposed shoring must be supplied to the 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.
- 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.

The cutting back of the trench sides shall be to the Contractor's account. Payment for reinstatement of the road hardening shall be based on the widths given in Clause DB.8.3.3.

#### **PS.DB.5 EXCAVATION FOR SERVICES TO BE LAID BY OTHERS**

Where indicated, the Contractor shall be required to excavate a trench for the installation of services by others. (Depth and width of trench shall be confirmed on site). The trench bottom shall be trimmed to comply with the tolerances specified under Clause DB.6.3, after which it shall be taken over by the service organisation. After installation of the services the trench shall be

backfilled as part of the bedding operation to approximately 300 mm above the service. Thereafter the Contractor shall continue the backfilling utilising suitable material from the trench excavation, in 150 mm layers which shall be compacted to 95% Mod. A.A.S.H.T.O. density. The unit of measurement shall be the cubic metre (m<sup>3</sup>) and the rate shall cover the work described under Clause DB.8.1.

#### **PS.DB.6 EXCAVATION IN ROAD AND PAVED AREAS**

Further to Clause DB.8.7 the rate tendered shall include for saw cutting the existing road asphalt.

#### **PS.DB.7 RESTRICTED EXCAVATION**

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

#### **PS.DB.8 COMPACTION OF TRENCHES**

Further to Clause DB.8.5, Tenderers are to note that in all cases the compaction of the trench bottom and the trench backfill shall be to 95% Mod. A.A.S.H.T.O. An extra-over item has not been included in the Bill of Quantities and tenderers shall include for these costs under the relevant excavate and backfill items. The Contractor shall furnish the Engineer with his / her compaction test results.

#### **PS.DB.9 BACKFILLING OF SERVICE TRENCHES**

As part of the bedding operation, services laid or relocated by others will be backfilled by them to approximately 300 mm above the service. The backfill shall then be continued by the Contractor up to the original level. The backfilling shall be carried out using suitable material from the trench excavation, in 150 mm layers which shall be compacted to 95% Mod. A.A.S.H.T.O. density. The unit of measurement shall be the cubic metre (m<sup>3</sup>) and the rate shall include for all plant and labour required to select, place and compact the material as specified.

#### **PS.DB.10 OVERHAUL**

Notwithstanding the requirements of Clauses DB.8.1 and DB.8.17 no additional payment shall be made for haulage.

#### **PS.DB.11 GEOFABRIC BLANKET**

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

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

#### **PS.DB.12 WATERMAINS**

- 1) Notwithstanding Clause DB.3.6 of Part DB : "Earthworks for Pipe Trenches", only a clean sand containing no particles of diameter exceeding 10mm, having a Plasticity Index (P.I.) not exceeding 10 and free from vegetation and lumps shall be used for

the bedding cradle and selected fill blanket. It is anticipated that most of the bedding material will have to be provided from an off-site source. Bedding shall be constructed to the dimensions required for Class 'C' bedding.

- 2) Contractors are advised that the choice, placement and compaction of bedding and backfill materials are critical to the satisfactory performance of steel pipes. Therefore strict adherence to all specifications in this regard will be enforced.

The unit of measurement shall be the linear metre (m). The rate shall include for its supply, laying, joining, cutting and waste, plant and labour.

**PS.EB GRADED CRUSHED STONE**

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**PS.EB.1 BASE AND SUB-BASE**

The unit of measurement shall be cubic metre (m<sup>3</sup>) of compacted and completed material; the rate shall include for the supply of materials; labour; plant necessary for the transportation, laying; levelling; processing and compacting the layer to required specification and tolerance.

- (a) Details of the source of the supply of the base and sub-base material are required by the Engineer before road works commence.

A Certificate of Acceptance for these layers will only be issued by the Engineer when levels and densities are correct.

No allowance will be made for bulking or shrinkage. The Contractor is to make allowance for bulking and shrinking in his rates for G2 and G5 material.

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

**PS.EB.2 PRIMING**

After the issue of the Certificate of Acceptance referred to in PS.EB.1, the sub-base shall then be primed with an Inverted Emulsion Primer conforming to S.A.B.S. 1260 of 1979 and applied at the rate of 0,6 l/m<sup>2</sup>.

**PS.ED ROAD ASPHALT**

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**PS.ED.1 SMOOTHNESS APPLICABLE TO WEARING COURSE (Clause ED.6.2)**

The smoothness applicable to the wearing course shall be that specified in Clause ED 6.2(b). A Category "C" Road is required for the Upgrade of 109437 Street and Surrounding Roads in Ward 84..

**PS.ED.2 RESTRICTION ON PLACING OF ASPHALT**

The Contractor shall, wherever possible, complete the earthworks, trimming of embankments and compaction to sidewalks / verges prior to the laying of the wearing course on the adjacent section of road so as to prevent construction plant and equipment from damaging the freshly laid wearing course.

**PS.ED.3 PATCHING OF EXISTING SURFACE**

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

**PS.ED.3.1 Construction**

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

**PS.ED.3.2 Materials**

The asphalt base course shall comply with the requirements of Part ED : Road Asphalt.

**PS.ED.3.3 Measurement and Payment**

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

**PS.ED.4 WEARING COURSE****PS.ED.4.1 Asphalt Mix Requirements**

There are a total of 9 mixes:-

- 9 sand skeleton mixes (i.e. continuously graded mixes)

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

<b>Sand Skeleton Mixes (Sa)</b>		<b>Nominal Maximum Particle Size</b>		
<b>Traffic Condition Category</b>		<b>10.0</b>	<b>14.0</b>	<b>20.0</b>
<b>S</b>	Standard Conditions	Sa-S10	Sa-S14	
<b>H</b>	Heavy Conditions	Sa-H10	Sa-H14	Sa-H20
<b>V</b>	Very Heavy Conditions		Sa-V14	Sa-V20
<b>E</b>	Extreme Conditions		Sa-E14	Sa-E20

Design Level	Mix Types
Level I	Sa-S10, Sa-S14
Level II	Sa-H10, Sa-H14, Sa-H20, Sa-V14, Sa-V20
Level III	Sa-E14, Sa-E20

**Table 5 Asphalt Mix Requirements**

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

**Table 6 Traffic Condition Risk Profiles**

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

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

**Table 7 Typical Mix Use**

#### PS.ED.4.2 Asphalt Mix Design

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

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

**Table 8 Asphalt Mix Design Guideline Documents**

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

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

**Table 9 Mix Parameters for the Job Mix Formula**

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

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

Should substantial changes to material types and properties occur, the asphalt mix designs for affected mixes shall be reviewed and where necessary re-constituted and re-submitted for approval.

#### **PS.ED.4.2.1 Sand Skeleton Mixes**

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

##### **PS.ED.4.2.1.1 Level I Design**

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

Asphalt mixes shall achieve the volumetric criteria noted in Table 11 at the compaction effort noted in Table 10 with a design air void content of 4%.

Traffic Condition Category <sup>1</sup>	Marshall	Gyratory
	SANS 3001 AS1	AASHTO T 312
	No. Blows	N <sub>design</sub>
Standard (S)	75+45	75

**Table 10 Volumetrics Compaction Requirements (Level I)**

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

**Table 11 Mix Design Requirements (Level I)**



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

Test	Requirement	Test Method
Modified Lottman (TSR)	0.8 min.	ASTM D 4867 M
Indirect tensile strength (@ 25°C)	900 kPa - 1 650 kPa	ASTM D 6931-07
Dynamic creep (@ 40°C)	10 MPa min.	CSIR RMT 004
Water permeability	0.1mm/s - 4 mm/s	EN 12697-19
Air Permeability (@ 7% Voids) (x 10 <sup>-8</sup> cm <sup>2</sup> )	1.0 max.	TRH 8 App C
Marshall Stability, Flow and Quotient	Report	SANS 3001-AS2

**Table 12 Empirical Performance Tests (Level I)**

#### PS.ED.4.2.1.1.1 Particular Mix Requirements – Mix Sa-S10

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

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

**Table 13 Mix Design Requirements**

#### PS.ED.4.2.1.2 Level II Design

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

	Marshall	Gyratory
	SANS 3001 AS1	AASHTO T 312
Traffic Condition Category <sup>1</sup>	No. Blows	N <sub>design</sub>
Heavy (H) & Very Heavy (V)	-	100

**Table 14 Volumetrics Compaction Requirements (Level II)**

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

Property	Test conditions	Specification	Test method
Workability	Superpave gyratory compactor - air voids after 25 gyrations (max.)	7%	ASTM D 6925
Durability	Modified Lottman test conditions (min.)	0.8	ASTM D 4867M
Stiffness/ (dynamic modulus)	AMPT dynamic modulus @ 20°C Loading frequencies of 0.1, 0.5, 1, 5, 10, 25 Hz	Report	AASHTO TP 79

Permanent deformation	HWTT at relevant number of passes	See Table 16	AASHTO T 324
Fatigue	Four-point beam fatigue test @ 10°C, 10Hz to 50% stiffness reduction Strain levels 200, 400, 600µε	Report	AASHTO T 321

**Table 15 Performance Tests (Level II)**

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

**Table 16 Hamburg Wheel Tracking Test Specifications****PS.ED.4.2.1.3 Level III Design**

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

Traffic Condition Category <sup>1</sup>	Marshall	Gyratory
	SANS 3001 AS1	AASHTO T 312
	No. Blows	N <sub>design</sub>
Extreme (E)	-	125

**Table 17 Volumetrics Compaction Requirements (Level III)**

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

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

**Table 18 Additional Temperatures for Stiffness and Fatigue Tests (Level III)****PS.ED.4.2.2 Warm Mix Asphalt**

Should a Warm Mix Asphalt be used in the mix, the mix design shall incorporate the use of such a technology/additive in the mix design process. Any consequential deviations from the guidelines set out in Sabita Manual 35 "Design and use of asphalt in road pavements – Appendix B", Sabita Manual 33 "Interim design procedure for high modulus asphalt" or standard industry practice shall be brought to the attention of the Roads Provision Department and shall be documented in the mix design report.

**PS.ED.4.2.3 Mix Design Approval**

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

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

**PS.ED.4.2.3.1 Mix Design Approval Process**

The contractor shall submit his proposed mix design to the Roads Provision Department for acceptance of the mix design at least 2 weeks prior to initial supply of any particular mix.

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

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

**PS.ED.4.2.4 Mix Design Review**

Every mix design is to be reviewed at least annually or whenever there is a substantial change to material types and properties. The review should include verification of the asphalt mix through testing of at least the following characteristics:-

- Binder compliance with SANS 4001-BT1
- Modified binder compliance with TG1
- Binder classification in terms of the SA PG Binder Classification System
- Aggregate and filler compliance with Table 1
- Aggregate BRD, ARD and water absorption
- Mix binder content
- Mix BRD and MTRD and voids
- Particular mix type characteristics
  - Sand skeleton mixes
    - Level I design mix volumetrics
      - All requirements in Table 11 and Table 13 (as applicable)
    - Level I design mix performance characteristics
      - All requirements in Table 12
    - Level II design mix performance characteristics (Table 15)
      - Workability
      - Durability
      - Permanent deformation
    - Level III design mix performance characteristics (Table 15)
      - Workability
      - Durability
      - Permanent deformation

**PS.ED.5 ASPHALT PRODUCTION****PS.ED.5.1 Mixing Plant**

Asphalt shall be manufactured through a batch-mixing or drum-mixing plant (approved by the Roads Provision Department) such that the requirements of this specification can be met in full. The plant shall be operated and kept in a well maintained condition as directed by the Quality Management System. Records of such maintenance shall be made available on request.

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

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

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

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

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

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

#### PS.ED.5.2 Quality Control

The quality of mix produced shall be monitored as directed in the contractor's Quality Management System. The asphalt mix constituents (i.e. binder and aggregates), and the asphalt mix produced shall be checked for compliance and consistency on a regular bases through routine process control testing. The results of such testing shall be available for review by the Roads Provision Department at all times.

#### PS.ED.5.3 Quality Management System

The Quality Management System (QMS) should include documentation outlining the asphalt mix design process, the annual mix review process and processes pertaining to delivery of the asphalt mix.

The QMS shall also include any agreed frequency of split sampling of either raw mix constituents or asphalt mixes (prepared as agreed) with the Roads Provision Department. Such samples are to be delivered to the eThekweni Municipality's Bitumen and Asphalt Laboratory located at the Roads Provision Asphalt Plant in uMhlathuzana Road. All samples shall be adequately and uniquely labeled so that the location of any related mix is readily traceable.

The QMS shall also document the processes to be followed whenever a deviation from specifications is identified. The Contractor shall provide full rectification of any work undertaken with such asphalt mix or materials.

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

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

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

Quality Control Tests			Minimum Test Frequency
Binder	Penetration		Every batch delivered
	Softening Point		Every batch delivered
	SA PG Binder Classification		1 per 3 months
Aggregate	Coarse Aggregate	Aggregate Grading	Every batch delivered
		Flakiness Index (Max.)	1 per month
		Aggregates BRD, ARD and Water Absorption	1 per month
		ACV, 10%FACT	1 per month
		Polished Stone Value (Coarse Aggregates)	1 every year per stone type and source
	Fine Aggregate	Aggregate Grading	Every batch delivered

		Aggregates BRD, ARD and Water Absorption	1 per month
		Sand Equivalent (Fine Aggregates)	Every batch delivered
		Methylene Blue Adsorption Value	1 per month
Asphalt Mix	Temperature of Mix	In the truck at the exit weighbridge	Every load
		In the truck at the point of delivery	Every load
	Bitumen Content		1 test per 200 tons of output or part thereof per day
	Extracted Mix Aggregate Grading Analysis		1 test per 200 tons of output or part thereof per day
	Voids Analysis (Bulk Relative Density and Maximum Theoretical Relative Density)		1 test per 200 tons of output or part thereof per day

**Table 21 Test Frequencies****PS.ED.5.2.2 Process Control**

The mix temperature of the mix taken in the truck at the exit to the plant shall not exceed the value stated in the mix design. Furthermore, the temperature of the mix taken in the truck on delivery shall not be less than the value stated in the mix design.

Quality checks on mix production will be based on the Job Mix Formula (JMF) for the approved mix design. Tolerances on variation from the JMF are given in Table 22.

			Permissible Deviation from JMF (%)	
			Individual Results	Average of 3 Consecutive Results
Aggregate Fraction - Grading	Sieve Size (mm)	28	± 5.0	± 3.0
		20	± 5.0	± 3.0
		14	± 5.0	± 3.0
		10	± 5.0	± 3.0
		7.1	± 5.0	± 3.0
		5	± 4.0	± 2.5
		2	± 4.0	± 2.5
		1	± 4.0	± 2.5
		0.6	± 4.0	± 2.5
		0.3	± 3.0	± 2.0
		0.15	± 2.0	± 1.5
		0.075	± 1.0	± 1.0
Voids in the Mix (@ design compaction)		± 1.5	± 1.0	
Binder Content		± 0.3	± 0.2	

**Table 22 Mix Production Property Limits**

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

- All process control test results shall be referenced back to the unique Mix Design reference number.
- Mix extraction gradings shall be made available within 48 hours of the asphalt being manufactured.
- Binder content and void content shall be made available by 08:00am on the day following manufacture of the asphalt.

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

The Contractor shall be responsible for rectification of any work completed (or partially completed) with asphalt mix that does not meet the specification to the satisfaction of the Roads Provision Department. The processes related to the rectification of such work shall be outlined in the QMS.

**PS.ED.5.2.3 Acceptance Testing**

After reviewing the results of the process control testing, the Roads Provision Department may elect to conduct their own testing of the binder, aggregates or asphalt mix produced. A copy of test results will be submitted to the Contractor as soon as they are available.

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

**PS.ED.5.2.4 On Site Mix Problems**

The contractor shall also make himself available on site should the workability and compaction of the mix during the paving/laying operation be problematic in order to assist in troubleshooting the cause of such problems. If the root cause of the problem is related to the asphalt mix design, the contractor shall re-evaluate his mix design to correct such issues and re-submit his mix design for approval.

**PS.ED.6 LAYING OF ASPHALT**

- (a) The Contractor shall supply the Engineer with the name of the approved asphalt Sub-Contractor and asphalt mix design from the supplier before asphalt is laid.

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 / restricted. The asphalt shall not be laid if its temperature is below 140°C and the Engineer shall have the right to reject the asphalt delivered to site. All costs incurred for rejected asphalt shall be borne by the Contractor. All standing time costs due to the rejected asphalt will not be paid by the Employer to the Contractor.

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 93% of the Maximum Theoretical Relative Density (MTRD) of the mix.

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

- (b) Further to Clause ED.8.1, the rate tendered shall include for all extra work required to lay and compact, if required as directed by the Engineer on Site, the asphalt base and make-up courses

in restricted areas.

#### **PS.ED.7 LONGITUDINAL AND TRANSVERSE JOINTS**

If necessary, Tenderer's are to note that the tendered rate per Section 3 Item ED.3 and 4 are not to include for saw cutting. If the Engineer requires the joint to be saw cut, the saw cutting to the longitudinal joint and transverse joint will be paid for under Section 3 Item ED.5 as an extra over to Section 3 Items ED.3 and 4.

A longitudinal joint is to be formed by cutting into the existing road surface by a width of 300 mm to a depth of 50 mm where the new surface is to be tied longitudinally into the adjacent existing pavement as shown on Drawing No. 48815. The position of the joint shall be indicated by the Engineer on site. After cutting / milling the joint shall be swept of all loose material and painted with a tack coat.

Cutting of the joints shall only take place immediately prior to the laying of the wearing course.

The unit of measurement shall be linear metre (m). The rate tendered shall cover the neat cutting of the joint, the cutting of the additional 150 mm step into the existing adjacent asphalt base layers as shown on Drawing No. 48815 and the removal of all the old asphalt to tip off site inclusive of haulage.

#### **PS.ED.8 SAW CUT TO LONGITUDINAL AND TRANSVERSE JOINTS**

The saw cut shall be cut with a diamond cutter to a neat uniform line 50 mm deep along the edge of the existing road where directed by the Engineer.

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

#### **PS.ED.9 BINDER**

The binder shall conform to SANS 4001-BT1 and have a penetration of 35/50 as determined through the mix design process.

**PS.EF KERBS AND HAUNCHES**

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**PS.EF.1 Fig.6 MOUNTABLE KERB AND CONCRETE FILLET**

The kerbing to be used for this contract shall be Fig.6 mountable kerb and concrete fillet as detailed on Drawing No. 48815.

The unit of measurement shall be per metre (m). The rate shall include all the materials, labour and plant necessary to fully construct as detailed on Drawing No.48815 inclusive for all excavation, compacting, shuttering, vibrating, concrete base, concrete fillet, mortar, jointing, expansion joints and continuous concrete haunching as complete.

**PS.EF.2 Fig.12 / TYPE E CONCRETE EDGE RESTRAINT**

The edge restraint kerbing to be used for this contract shall be Fig.12 / Type E as detailed on Drawing No. 48815.

The unit of measurement shall be per metre (m). The rate shall include all the materials, labour and plant necessary to fully construct as detailed on Drawing No.48815 inclusive for all excavation, compacting, shuttering, vibrating, concrete base, mortar, jointing, expansion joints and continuous concrete haunching as complete.



**PS.EG SIDEWALKS, FOOTPATHS AND MEDIAN AREAS**

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**PS.EG.1 CONCRETE ACCESS HARDENING AND SCOOPS**

Concrete access hardening and scoops shall consist of cast insitu grade 20/13 concrete laid either directly onto the compacted subgrade or onto a graded crushed stone base.

The concrete mix, mixing, batching, transporting, placing compaction and curing shall comply with the requirements of Part C Concrete Work.

The surface of the concrete shall have a wood float finish.

Pavement layer for the various scoop types shall be:

(a) Pedestrian and Residential: Concrete 100 mm thick.

**PS.EG.2 TOLERANCES**

The average thickness of the concrete shall not be less than that specified with a tolerance for any single reading of  $\pm 10$  mm.

The finished surface levels shall be within  $\pm 5$  mm of the design levels.

**PS.EG.3 MEASUREMENT AND PAYMENT**

The unit of measurement shall be square metres (m<sup>2</sup>) of completed area and the rate shall cover excavation, formation preparation, all necessary compaction, supply and application of weed killer, graded crushed stone, protection of adjacent areas and asphalt laid and compacted.

**PS.EH STEEL GUARDRAILS AND CONCRETE MEDIAN BARRIERS**

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**PS.EH.1 GENERAL**

The unit of measurement shall be the linear metre of guardrail. The tendered rate shall include for all materials, plant and labour required to fully construct.

**PS.EH.2 MATERIALS**

Guardrails and end wings shall be of plain carbon steel and together with bolts, nuts and washers shall be hot-dipped galvanised. The pre-cast concrete posts shall have a concrete strength of grade 30/26. The Tenderer shall make due allowance in his/her rates tendered for a 50mm concrete screed layer to set in the concrete posts.

**PS.EH.3 CONSTRUCTION**

Guardrails shall have a nominal length of 4,13 m and shall have three slotted holes. No punching or drilling of the guardrails or end wings shall be permitted once the rails have been galvanised.

Where the radius of the road is less than 50 m, the Contractor shall erect pre-curved guardrails to the radius shown on the relevant drawings.

Where the radius of the road is less than 50 m, the Contractor shall erect pre-curved guardrails to the radius shown on the relevant drawings.

End wings shall comply with Type 1(a) Standard in Fig. 2 of SABS 1350.

Anchor blocks shall be made from grade 20/26 concrete and shall be 1,0 m x 0,7 m x 0,7 m in size. The end of the first section of guardrail shall be cast into an anchor block with a 0,5 m long 16 mm H.T. bar placed through the bolt hole.

Splice bolts shall not be recessed. Bolts for the attachment of rails and end wings to supporting posts shall have a length of 450 mm of which 100 mm shall be threaded. Reinforcing plates are not required.

**PS.EH.4 TOLERANCES**

The level and line shall be as specified in the drawings with a tolerance of  $\pm 10$  mm.

**PS.F PROTECTION WORKS**

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**PS.F.1 TOPSOILING****PS.F.1.1 Materials**

The soil shall be loamy with a well-defined crumb structure, neither too sandy nor too clayey. It shall contain evidence of fibrous plant roots and shall be free from perennial weed root stocks, stone, and glass, metallic and plastic substances.

The imported topsoil shall be obtained from a source approved by the Director: Parks.

A 1 kg sample of the topsoil shall be submitted for approval to the Engineer 4 weeks before the top soiling operation commences.

**PS.F.1.2 Measurement and Payment**

The unit of measurement shall be the square metre (m<sup>2</sup>). Further to Clause F.8.1 and F.8.2, the rate shall include for the purchase, supply, and transport, mixing, distributing, spreading, trimming and finishing of the topsoil and compost mixture.

**PS.F.2 WEEPHOLES IN BRICK RETAINING WALLS**

Weep holes consisting of 50mm Ø PVC pipes are to be provided at 1250mm centres horizontally and 900mm centres vertically. Weep holes are to be backed by a 300x300x300mm no fines concrete block as detailed on Drawing No.48815.

**PS.F.3 EXCAVATION FOR FOOTINGS TO RETAINING WALL**

The unit of measurement shall be the cubic metre (m<sup>3</sup>) and the rate shall include for all materials, plant and labour necessary as specified in Clause DD.5 and DD.8.2.

**PS.F.4 DRAINAGE GRADE GEOFABRICS**

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

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

**PS.F.5 50 mm Ø P.V.C. OR FIBRE CEMENT WEEPHOLES**

The unit of measurement shall be the number (No.) and the rate shall include for all the materials, labour and tools necessary to construct the weep holes as specified in Clause F.5.6.2. In addition to the no fines concrete block, the Contractor shall make allowance for the P.V.C. pipe to be filled with a no fines concrete plug as detailed on Drawing No.48815.

The rate shall also allow for disposal to tip of all excavated material and leaving the area in a tidy and clean condition.

**PS.F.6 OVERHAUL**

Notwithstanding the requirements of Clause F.8.1 and Clause F.8.2, no additional payment shall be made for haulage. The rates tendered for items in Part F of the Bill of Quantities shall include the cost of haulage.

**PS.F.7 RE-ERECTING FENCING**

The unit of measurement shall be linear metre (m) and the rate shall include for the re-erection of the entire fence system previously stored at camp site / store yard.

The rate shall also allow for all labour and materials necessary to complete the works; disposal to tip of all excavated material and leaving the area in a tidy and clean condition.

**PS.F.8 GABION BOX RETAINING WALL AND MATTRESSES**

Materials and construction shall be as is specified in Clause F.5.5 and F.6.3, and measurement and payment as is specified in Clause F.8.6 of the Standard Engineering Specification.

**PS.F.9 INTERLOCKING EARTH RETAINING SYSTEMS / WALL**

Approved Terrace Block TB500 or equivalent plantable interlocking earth retaining system and as directed by Engineer on Site. The materials required for the full construction of the retaining wall shall comply with the relative SABS standards. The rates shall be measured in square metres squared (m<sup>2</sup>) of slope area. The rate shall cover the supply and transport of suitable and approved retaining blocks, 50mm Ø PVC pipe weepholes (inclusive of no fines concrete plug), 1300mm wide geofabric, materials, excavation, preparation, plant and labour and construction of the retaining wall fully as detailed in Drawing No.48815.

**PS.F.10 FLOW DIVERSIONS AND FLOODING**

Water flows continuously in some of the existing pipes, streams and culverts and it shall be necessary for the Contractor to deviate this flow from time to time during construction. The

possibility of flooding should be borne in mind by the Contractor and he should effect relevant insurances as the Council will accept no responsibility whatsoever for any loss or damage from such flooding, including any loss or damage to the works.

No water shall enter the space between shutters while concreting of drainage structures is in progress.

The Contractors rates shall cover, if he deems necessary, for flow diversions and flooding.

#### **PS.F.11 GRASSING**

Grass planting / sodding shall be Cynodon Dactylon "creeping" variety. The area to be planted / sod shall be fertilised by the Contractor. The grass stolons shall be planted in moist soil at a maximum spacing of 150 mm in both directions. The full responsibility of maintaining the grassed areas shall rest with the Contractor. A satisfactory cover of grass is defined as a cover of living grass in which no bare patches exist larger than 0,1 m<sup>2</sup>.

Maintenance shall include watering, re-fertilisation when necessary, re-grassing of unsatisfactory areas, weeding and any other work for the establishment of a satisfactory stand of grass as directed by Engineer on Site. Maintenance shall also include the repair of erosion damage to the grassed areas.

The work in grass planting / sodding shall be measured in square metres (m<sup>2</sup>) of area effectively covered with a satisfactory cover of living grass.

The rate shall cover the supply of grass and fertilizer, preparation, application of the fertilizer, planting and for the maintenance of the planted area.

#### **PS.F.12 CATCHWATER DRAINS**

The Contractor shall note that the catch water drain is to have 100mm thick topsoil lining with grass sodding formed.

The Contractor should further note that a portion of the material to be excavated for the catch water drain is classified as Intermediate to Hard in terms of Part DA, and "Hard" in terms of Part DB of the Departmental Technical Specification.

The rate tendered for the catch water drain shall include for all materials, labour and plant required to fully construct.

The catch water drain shall be constructed at positions determined by the Engineer on Site as the Contract progresses.

**PS.PG NON-PRESSURE PIPELINES AND PRECAST CONCRETE CULVERTS**

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**PS.PG.1 SUBSOIL PIPES**

The following clause shall replace Clause PG.3.5.

"These shall be "Geopipe" plastic subsoil pipes complying with SABS 791 as amended.

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

**PS.PG.2 SUBSOIL DRAINS AND OUTLETS**

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

Subsoil drains shall be type A, B or C as detailed on standard drawing No. 38575.

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

**PS.PG.2.1 Connection of Subsoil Drains to Existing Stormwater System**

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

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

**PS.PG.2.2 Subsoil Termination Stub**

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

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

**PS.PG.3 STONE FOR SUBSOIL DRAIN FILTER**

The following clause shall replace Clause PG.3.10.

"The stone aggregate used for the subsoil drain filter shall consist of 19.0 mm crushed stone conforming to the following grading :

Sieve size mm	19.0	13.2	9.5	6.7	4.75
% Passing	100	85 - 100	0 - 50	0 - 25	0 - 5

**PS.PG.4 RIVER SAND BACKFILL FOR SUBSOIL DRAIN FILTER**

The following clause shall replace Clause PG.3.11.

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

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

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

**PS.PG.5 GEOFABRIC BLANKET**

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

**PS.PH MANHOLES AND APPURTENANT DRAINAGE WORKS**

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**PS.PH.1 MANHOLES AND INLETS**

Tenderers are to note that manholes and inlets shall be measured according to type and varying depth only. The rate tendered for the manholes/inlets shall include for the different pipe sizes and benching configurations and excavation, backfilling and compacting around the newly constructed manholes and inlets in all materials.

The Contractor shall note that the rate for inlets shall include the cost of the graded channel in front of the inlet and / or splay and the cost of the transition kerb and channel upstream and downstream from each inlet. This will not form part of the payment for kerb and channel. Payment shall only be made once the manhole / inlet is 100% complete with cover lid.

**PS.PH.2 MANHOLES AND APPURTENANT WORKS: REVISED DRAWING NUMBERS**

Clause PH.3.2.1.1 second paragraph is replaced by the following:

Details of the precast concrete components of standard manholes are shown on standard drawings 38570 for both foul-water sewers and stormwater drains, 38574 for foul-water sewers and 38571 for stormwater drains.

Clause PH.5.11 first paragraph:

Standard drawing 21701 is replaced by drawing 38574.

**PS.PH.3 BRICKS**

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

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



**PS.PH.4 ABANDONED SEWER AND STORMWATER MANHOLES**

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

The manholes are to be broken down 1 m below the existing surface level and the void backfilled with suitable material after the incoming and outgoing sewers have been sealed with concrete.

**PS.PH.5 REINFORCED CONCRETE SLAB FOR BLINDING M.H.'S**

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

**PS.PH.6 MANHOLES WITH TYPE S1, S2, D3, D4 AND D5 INLET COVERS**

A number of Type "A" and "B" stormwater manholes with various types of inlet covers have been scheduled on this contract. The manholes are schedule by type and in depth increments of 500 mm. Heavy duty manhole covers are required as part of this contract (ie. 150mm thick)

The unit of measurement shall be number (No.) and the tendered rate for each type shall include for the supply of all labour, plant and materials required to construct the manhole complete in accordance with the Standard Drawings and Specification, and inlet type cover as is specified in the contract drawings.

**PS.PH.7 INLET AND OUTLET HEADWALLS**

Standard drawing number 38576 shows details of outlet headwalls. The unit of measure for these headwalls shall be Number (No.) and shall include for all labour, plant and materials required for the construction of the headwall inclusive of the base, cut-off walls and splitter blocks, excavation, backfilling and compacting around the newly constructed manholes and inlets in all materials.

The construction of brickwork shall be as specified in Clause F.5.6.3. Mortar shall conform to mix Class A as defined in the latest edition of the Standard Building Regulations.

**PS.PH.8 CONSTRUCTION OF MANHOLE / INLET OVER EXISTING STORMWATER PIPE**

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

Further to Clauses PH.8.2 and PH.8.3 the rate shall include for :

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

**PS.PH.9 CONVERT EXISTING INLETS TO MANHOLES**

Where indicated, existing inlets shall be converted to standard manholes as shown on Standard Drawing 38571. The unit of measurement shall be number (No.) and in addition to the plant, labour and materials required to alter the inlet, the rate shall include for :

- (a) disposal of any spoil/rubble to tip,
- (b) raising/lowering of the manhole cover by 0-300 mm from the original level,

(c) supply and setting of the new manhole covers and frames to the new levels.  
Separate items have been included in the Bill of Quantities to cover the different manhole types.

#### **PS.PH.10 BREAK INTO EXISTING BRICK MANHOLE/INLET FOR STORMWATER PIPE**

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

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

#### **PS.PH.11 ALTERATIONS TO EXISTING MANHOLES AND STORMWATER INLETS INCLUDING RAISING AND LOWERING THE COVERS**

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

- (i) Where the cover is to be raised/lowered and set back less than 300 mm.
- (ii) Where the cover is to be raised/lowered and set back a distance of more than 300 mm but less than 800 mm.

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

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

#### **PS.PH.12 CONVERT EXISTING S1 INLETS TO S2 INLETS**

Where indicated, existing S1 inlets shall be converted to a standard S2 inlets as shown on Drawing 38572. The unit of measurement shall be number (No.) and in addition to the plant, labour and materials required to alter the inlet, the rate shall include for :

- (a) disposal of any spoil/rubble to tip,
- (b) raising/lowering of the inlet cover by 0-300 mm from the original level,
- (c) supply and setting of the new inlet covers to the new levels.

**PS.TA ROAD SIGNS**

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**PS.TA.1 GENERAL**

The Tenderer shall make allowance in the time related rates under Section 1.AB in the Bill of Quantities rates, repositioning, covering/uncovering, relocating or removing temporary signs and other forms of road furniture as required during the progress of the works.

**PS.TA.2 ROAD SIGN BOARDS**

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

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

**PS.TA.3 RE-ERECT ROAD SIGNS**

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

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

**PS.TA.4 TEMPORARY ROAD SIGNS****PS.TA.4.1 Materials**

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

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

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

#### **PS.TA.4.2 Erection**

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

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

#### **PS.TA.5 TIMBER POSTS**

The timber posts for the temporary sign supports shall be 100 mm diameter creosote gum posts.

#### **PS.TA.6 DRUMS**

All drums shall be white painted, 200 litre drums or similar approved by the Engineer. Drums shall not be used for delineation purposes.

#### **PS.TA.7 PROTECTION AND MAINTENANCE**

The Contractor shall protect and maintain all road furniture (road signs, delineators, drums, barriers, barricades etc.) throughout the course of the contract and shall be responsible for the cost of replacing any road furniture that may be damaged or stolen.

**PS.TB ROAD MARKING**

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**PS.TB.1 PLASTIC ROAD MARKING MATERIAL**

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

(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 dependant on the appropriate specification, but for example shall be:

Aggregate	40 parts
Solid Glass Beads	20 parts
Pigment and Extender	20 parts
Binder	20 parts

The proportioning of the various ingredients shall be such that the material, when in a molten state, can be sprayed readily onto the road surface to give an even line of good definition.

**(b) Aggregate**

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

**(c) Reflectorisation**

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

Sieve	% Retained
0,18 mm	0 - 3
0,850 mm	5 - 20
0,425 mm	65 - 95
Below 0,425 mm	0 - 10

Minimum of spherical beads by number 70%

(d) Luminance

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

The percentage decrease in the height of the cone of SPRAYPLASTIC shall not be more than 25 after testing for 48 hours at 23 C (temperate grade) or 40 C (semi-tropical or tropical grades).

(f) Low Temperature Impact Resistance

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

(a) Abrasion resistance

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

**PS.TB.2 LETTERING, SYMBOLS AND TRAFFIC ISLAND MARKING**

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

**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      OHS Baseline Risk Assessment  
(29 Pages)
- C3.4.3      Standard Environmental Management Plan for Civil Engineering Construction Works  
(24 Pages)

### **C3.5: CONTRACT AND STANDARD DRAWINGS**

#### **C3.5.1 CONTRACT DRAWINGS / DETAILS**

48815 Layout plan of Upgrade of 109437 Street and Surrounding Roads in Umlazi-DD of Ward 84.

#### **C3.5.2 STANDARD DRAWINGS**

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

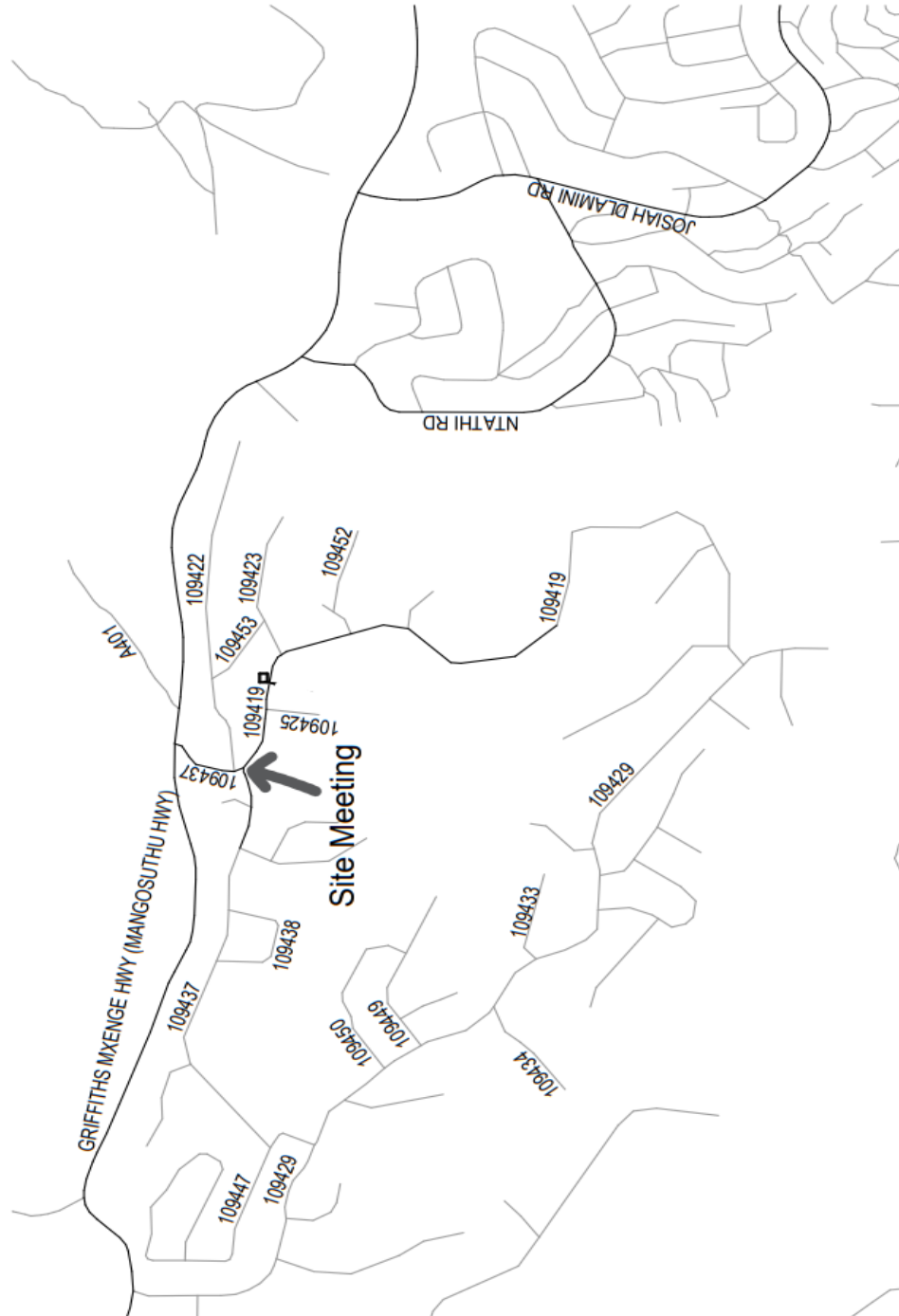
<b>Dwg No</b>	<b>Description</b>	<b>Date of Issue</b>	
38570	Ring Manholes	February	1990
38571	Brick Manhole Details	February	1990
38572	Stormwater Inlet Details	February	1990
38573	Stormwater Inlet Special Details	February	1990
38574	Sewer Manholes: Ramp, Backdrop and Channelling Details	February	1990
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





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

CONTRACT No. 1R-30608  
UPGRADING OF STREET 109437 AND SURROUNDING ROADS  
IN UMLAZI D OF WARD 84

**LOCALITY PLAN**

**C4.2 CONDITIONS ON SITE**

There is no specific geotechnical information or other site information however the Tenderer's urgent attention is drawn to the possibility that the existing in-situ material / ground is considered to be mostly intermediate to hard and the Tenderer is encouraged to visit the site to check existing conditions onsite and price his / her rates accordingly.

**C4.3 TEST RESULTS**

There are no specific test results.