DEPARTMENT

TECHNICAL SERVICES

DIRECTORATE

Road Infrastructure Management

DIVISION

Roads Provision

PROCUREMENT DOCUMENT : Infrastructure (GCC 2015)

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

Contract No: **36709-1R**

Contract Title: **Gravel to Surface Upgrade of Sosha Rd & 106544 St, and minor stormwater upgrade on Umthathawe Grove in Inanda, Ward 107**

Estimated CIDB: Grade: **3** Class: **CE or higher**

CLARIFICATION MEETING AND QUERIES

Clarification Meeting: **Compulsory Clarification Meeting. All questions raised and responses provided during the clarification meeting will be consolidated and published on the Municipality's website by the 04 December 2026 benefit of all tenderers.**

Meeting Location: **Sosha Road, Inanda, Ward 107**
Date, Time: **(GPS: -29.71507, 30.958789)**
On 30 November 2026 at 10:00am

Queries can be addressed to: **Name: Sithembiso Zungu**
The Employer's Agent's: **Tel: 031-322-2811**
Representative: **eMail: Sithembiso.Zungu@durban.gov.za**

TENDER SUBMISSION

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

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

Closing Date/ Time: **Friday, 11 December 2026 at 11h00**

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

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

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

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Head: Roads Provision

Date of Issue: 20/11/2026

Version: 01/12/2025

FOR OFFICIAL USE ONLY

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

INDEX to PROCUREMENT DOCUMENT

TENDER PART	**Part T1**	**TENDERING PROCEDURES**		**Page**
		T1.1	**Tender Notice and Invitation to Tender**	
			T1.1.1 Tender Notice and Invitation to Tender	**2**
			T1.1.2 Notes to Tenderers	**04**
			T1.1.3 Information Regarding the eThekwini JDE System	**07**
		T1.2	**Tender Data**	
			T1.2.1 Standard Conditions of Tender	**7**
			T1.2.2 Tender Data *(applicable to this tender)*	**16**
			T1.2.3 Additional Conditions of Tender	**27**
	Part T2	**RETURNABLE DOCUMENTS**		**Page**
		T2.1	**List of Returnable Documents**	**28**
		T2.2	**Returnable Schedules, Forms and Certificates**	**29**

CONTRACT PART	**Part C1**	**AGREEMENT AND CONTRACT DATA**		**Page**
		C1.1	**Form of Offer and Acceptance**	
			C1.1.1 Offer	**50**
			C1.1.2 Acceptance	**51**
			C1.1.3 Schedule of Deviations	**52**
		C1.2	**Contract Data**	
			C1.2.1 Standard Conditions of Contract	**53**
			C1.2.2 Contract Data	**53**
			C1.2.3 Additional Conditions of Contract	**59**
	Part C2	**PRICING DATA**		**Page**
		C2.1	**Pricing Assumptions / Instructions**	**61**
		C2.2	**Bill of Quantities** (separate page numbering system)	**63**
	Part C3	**SCOPE OF WORK**		**Page**
		C3.1	**Project Description and Scope of Contract**	**65**
		C3.2	**Project Specifications**	**67**
		C3.3	**Standard Specifications**	**85**
		C3.4	**Particular Specifications**	**109**
		C3.5	**Contract and Standard Drawings**	**148**
		C3.6	**Annexures**	**150**
	Part C4	**SITE INFORMATION**		**Page**
		C4.1	**Locality Plan**	**151**
		C4.2	**Conditions on Site**	**151**
		C4.3	**Test Results**	**152**

PART T1: TENDERING PROCEDURES

T1.1.1: TENDER NOTICE AND INVITATION TO TENDER

Tenders are hereby invited for the works to upgrade Sosha Road and 106544 Street from gravel road to asphalt surfaced road, and minor stormwater infrastructure upgrade on Umthathawe Grove in Inanda, Ward 107. The works include earthworks; protection and connection of existing services; construction of pavement layers; installation of stormwater drainage; retaining structures; precast concrete kerbs and channels; and completion of finishing works such road signs and road markings.

Subject	Description	Tender Data
Employer	The Employer is the eThekwini Municipality as represented by: **Deputy Head: Roads Provision**	C.1.1.1
Tender Documents	Documentation is to be downloaded from the **National Treasury's eTenders website** or the **eThekwini Municipality Website:** • https://www.etenders.gov.za/ • https://www.durban.gov.za/pages/business/procurement	C.1.2
CIDB Eligibility	It is estimated that Tenderers should have a CIDB contractor grading designation of 3 CE or higher (or higher).	C.2.1.2
Meeting Type	Compulsory Clarification Meeting. Questions and answers from the clarification meeting will be consolidated and posted on website for the benefit of all tenders by 04 December 2026.	C.2.7
Meeting Details	Sosha Road, Inanda, Ward 107 (GPS: -29.71507, 30.958789) On 30 November 2026 at 10:00am	C.2.7
Seek Clarification	Queries relating to these documents are to be addressed to the Employer's Agent's Representative whose contact details are: Name: Sithembiso Zungu Tel: 031-322-2811 eMail: Sithembiso.Zungu@durban.gov.za	C.1.4
Submitting a Tender Offer	The Tender Offer (hard copy) shall be delivered to: The Tender Box in the foyer of the Municipal Building,166 KE Masinga Road, Durban An **electronic submission**, via the eThekwini Municipality **JDE System (ESP Module)**, is also to be made. Refer to Part T1.1.3 and Tender Data: C.2.13. Notwithstanding the **electronic submission**, a tender offer will only be deemed valid if the "hard copy" submission has been made.	C.2.13
Closing Time	The Tender Offer (hard copy) shall be delivered, and the electronic submission completed, both on or before **11/12/2026**, at or before 11h00.	C.2.15
Evaluation of Tender Offers	**The 80/20** Price Preference Point System, as specified in the **SCM Policy: Section 52: Preferential Procurement** will be applied in the evaluation of tenders. **Tender Data: C.3.11: Evaluation of Tender Offers** details the awarding of Preference Points, and other related evaluation requirements.	C.3.11

Requirements for sealing, addressing, delivery, opening, and assessment of tenders are stated in the Tender Data

CIDB B.U.I.L.D. Programme Standards	
Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts	**Not Applicable**
Standard for Developing Skills through Infrastructure Contracts	**Not Applicable**

T1.1.2: NOTES TO TENDERERS

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

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

GENERAL

1) The words BID, TENDER, QUOTATION, and REQUEST FOR QUOTATION (RFQ) are interchangeable throughout this procurement document.

2) **JDE-ESP Module** refers to the Ethekwini Supplier Portal module on the eThekwini Municipality JDE System. Refer to Part T1.1.3.

eThekwini Supply Chain Management Policy (SCMP)

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

1) Section 14(4): ETM Supplier Database

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

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

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

The following is to be noted:

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

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

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

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

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

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

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

5) Section 21.2: Tender Validity

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

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

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

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

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

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

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

Each party of a JV must submit separate Tax Compliance Status PINs. Unless otherwise stated, the requirements for a single entity submission in terms of documentation requirements, will apply to each member of a JV making a submission.

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

8) Section 49.1.2: Complaints and Objections (Appeals)

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

CIDB

Regulation 25(8)

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

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

B.U.I.L.D. Programme

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

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

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

T1.1.3: INFORMATION REGARDING THE ETHEKWINI JDE SYSTEM

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

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

1) General

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

This JDE System will be used for:

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

2) Registrations

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

National Treasury: Central Supplier Database

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

eThekwini Municipality Supplier Portal

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

eThekwini Municipality JDE System

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

3) Assistance with using the JDE System

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

General Queries:

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

Technical Queries:

- Kgopotso Maja — Tel: 031 322 3808; Email: kgopotso.maja@durban.gov.za

4) Viewing of available tenders

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

5) Tender documentation

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

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

6) Submission of tender offers

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

Should the **Tender Offer** be required in "**hard copy**" format, the submission is to be delivered to the Delivery Location as stated in the **Tender Data**.

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

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

7) Viewing the Tender opening schedule

Users on the **JDE System** will be able to view the **Tender Opening Schedule** for each closed Tender. The tender opening schedule will also be made available on the eThekwini Municipal website at URL:
https://www.durban.gov.za/pages/business/publication-of-received-bids

PART T1: TENDERING PROCEDURES

T1.2: TENDER DATA

T1.2.1 STANDARD CONDITIONS OF TENDER

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

The Standard Conditions of Tender make several references to the **Tender Data** for details that apply specifically to this tender. The **Tender Data** (T1.2.2) shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Annex C

Standard Conditions of Tender

C.1 General

C.1.1 Actions

C.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

C.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note:
1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

C.1.1.3 The employer shall not seek, and a tenderer shall not submit a tender, without having a firm intention and the capacity to proceed with the contract.

C.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the ***Tender Data***.

C.1.3 Interpretation

C.1.3.1 The ***Tender Data*** and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

C.1.3.2 These conditions of tender, the ***Tender Data*** and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

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

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

C.1.4 Communication and employer's agent

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

C.1.5 Cancellation and Re-Invitation of Tenders

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

1.0 due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
2.0 funds are no longer available to cover the total envisaged expenditure;
3.0 no acceptable tenders are received;
4.0 there is a material irregularity in the tender process.

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

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

C.1.6 Procurement procedures

C.1.6.1 General

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

C.1.6.2 Competitive negotiation procedure

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

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

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

distort competition or have a discriminatory effect.

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the ***Tender Data***, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

C.1.6.3.2 Option 2

C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

C.1.6.3.2.2 The employer shall evaluate tenders received during the second stage, in terms of the method of evaluation stated in the ***Tender Data***, and award the contract in terms of these conditions of tender.

C.2 Tenderer's obligations

C.2.1 Eligibility

C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the ***Tender Data*** and the tenderer, or any of his principals, is not under any restriction to do business with employer.

C.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

C.2.2 Cost of tendering

C.2.2.1 Accept that, unless otherwise stated in the ***Tender Data***, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

C.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

C.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

C.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

C.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the ***Tender Data***, in order to take the addenda into account.

C.2.7 Clarification meeting

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the ***Tender Data***.

C.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the ***Tender Data***.

C.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the ***Contract Data***. The tenderer is advised to seek qualified advice regarding insurance.

C.2.10 Pricing the tender offer

C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the ***Tender Data***.

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

C.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the ***Contract Data***.

C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the ***Tender Data***. The conditions of contract identified in the ***Contract Data*** may provide for part payment in other currencies.

C.2.11 Alterations to documents

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

C.2.12 Alternative tender offers

C.2.12.1 Unless otherwise stated in the ***Tender Data***, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the ***Tender Data*** or criteria otherwise acceptable to the employer.

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

C.2.13 Submitting a tender offer

C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the ***Contract Data*** and described in the scope of works, unless stated otherwise in the ***Tender Data***.

C.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the ***Tender Data***, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the ***Tender Data***. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the ***Tender Data***, as well as the tenderer's name and contact address.

C.2.13.6 Where a two-envelope system is required in terms of the ***Tender Data***, place and seal the returnable documents listed in the ***Tender Data*** in an envelope marked “financial proposal” and place the remaining returnable documents in an envelope marked “technical proposal”. Each envelope shall state on the outside the employer’s address and identification details stated in the ***Tender Data***, as well as the tenderer's name and contact address.

C.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the ***Tender Data***.

C.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the ***Tender Data***.

C.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

C.2.15 Closing time

C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the ***Tender Data*** not later than the closing time stated in the ***Tender Data***. Accept that proof of posting shall not be accepted as proof of delivery.

C.2.15.2 Accept that, if the employer extends the closing time stated in the ***Tender Data*** for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

C.2.16 Tender offer validity

C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the ***Tender Data*** after the closing time stated in the ***Tender Data***.

C.2.16.2 If requested by the employer, consider extending the validity period stated in the ***Tender Data*** for an agreed additional period with or without any conditions attached to such extension.

C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer’s agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).

C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as “SUBSTITUTE”.

C.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: *Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.*

C.2.18 Provide other material

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer’s commercial position (including

notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.
Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

C.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the ***Tender Data***.

C.2.20 Submit securities, bonds and policies

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the ***Contract Data***.

C.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

C.2.22 Return of other tender documents

If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the ***Tender Data***.

C.2.23 Certificates

Include in the tender submission or provide the employer with any certificates as stated in the ***Tender Data***.

C.3 The employer's undertakings

C.3.1 Respond to requests from the tenderer

C.3.1.1 Unless otherwise stated in the ***Tender Data***, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the ***Tender Data*** and notify all tenderers who collected tender documents.

C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

1 an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
2 the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
3 in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

C.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the ***Tender Data***. If, as a result a tenderer applies for an extension to the closing time stated in the ***Tender Data***, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

C.3.3 Return late tender offers

Return tender offers received after the closing time stated in the ***Tender Data***, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

C.3.4 Opening of tender submissions

C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the ***Tender Data***. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the ***Tender Data***, the name

of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.

C.3.5 Two-envelope system

C.3.5.1 Where stated in the ***Tender Data*** that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the ***Tender Data*** and announce the name of each tenderer whose technical proposal is opened.

C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the ***Tender Data***, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

C.3.6 Non-disclosure

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

C.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

C.3.8 Test for responsiveness

C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

3) complies with the requirements of these Conditions of Tender,
4) has been properly and fully completed and signed, and
5) is responsive to the other requirements of the tender documents.

C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

1. detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
2. significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or
3. affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Reject a non-responsive tender offer and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

C.3.9 Arithmetical errors, omissions and discrepancies

C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:

- the gross misplacement of the decimal point in any unit rate;
- omissions made in completing the pricing schedule or bills of quantities; or
- arithmetic errors in:
  1) line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
  2) the summation of the prices.

C.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either

confirm the tender offer as tendered or accept the corrected total of prices.

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

- If bills of quantities or pricing schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the line-item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected.

- Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the ***Tender Data*** associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

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

The activities associated with evaluating tender offers are as follows:

1. Open and record tender offers received
2. Determine whether or not tender offers are complete
3. Determine whether or not tender offers are responsive
4. Evaluate tender offers
5. Determine if there are any grounds for disqualification
6. Determine acceptability of preferred tenderer
7. Prepare a tender evaluation report
8. Confirm the recommendation contained in the tender evaluation report .

C.3.11.1 General

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the ***Tender Data***.

C.3.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the ***Contract Data***, require the employer to provide.

C.3.13 Acceptance of tender offer

Accept the tender offer; if in the opinion of the employer, it does not present any risk and only if the tenderer:

is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;

can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;

has the legal capacity to enter into the contract;

is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;

complies with the legal requirements, if any, stated in the ***Tender Data***; and

is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

C.3.14 Prepare contract documents

C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

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

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

C.3.15 Complete adjudicator's contract

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

C.3.16 Registration of the award

An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the cidb Register of Projects.

C.3.17 Provide copies of the contracts

Provide to the successful tenderer the number of copies stated in the ***Tender Data*** of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

C.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

T1.2.2 TENDER DATA

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

C.1: GENERAL

C.1.1 The employer:

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

C.1.2 Tender documents:

The Tender Documents issued by the Employer comprise:

1) The Procurement Document comprising of the PARTS as listed in the "INDEX" on page 1.
2) **Drawings**, issued separately from this document, or bound in Section C3.4: "Particular Specifications".

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

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

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

C.1.4 Communication and employer's agent:

The Employer's Agent is:	The Employer's Agent's Representative is:
Name: Balan Govender	Name: Sithembiso Zungu
Tel: 031 322 2861	Tel: 031-322-2811
eMail: Balan.Govender@durban.gov.za	eMail: Sithembiso.Zungu@durban.gov.za

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

C.1.6 Procurement procedures:

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

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

C.2: TENDERER'S OBLIGATIONS

C.2.1 Eligibility:

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

C.2.1.1 Eligibility: General

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

(a) In the event of a Compulsory Clarification Meeting:
   i) the Tenderer fails to attend the Compulsory Clarification Meeting, or
   ii) the Tenderer fails to have **Returnable Document "Certificate of Attendance at Clarification Meeting / Site Inspection"** signed by the Employer's Agent or their representative at the meeting.

(b) At the time of tender closing, the Tenderer is not registered on the **National Treasury Central Supplier Database (CSD)** and the **eThekwini Municipality Supplier Portal**. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture. Tenderers are to reference **Returnable Document "Compulsory Enterprise Questionnaire"** (section 1.5) and **Returnable Document "CSD Registration Report"**.

(c) In the case of Joint Venture (JV) submissions, two or more JV entities have common directors/ shareholders or common entities tendering for the same works.

(d) The following documentation is not completed in full, signed, and returned with the tender submission. **Failure to comply will result in the tender offer being deemed non-responsive.**
- T2.2.1: Compulsory Enterprise Questionnaire.
- T2.2.3: MBD 4: Declaration of Interest.
- T2.2.8: MBD 8: Declaration of Bidder's Past SCM Practices.
- T2.2.9: MBD 9: Certificate of Independent Bid Determination.
- T2.2.10: Declaration of Municipal Fees

(e) The certificates listed in the **Tender Data: C.2.23: Certificates** are to be included with the tender submission. **Failure to comply will result in the tender offer being deemed non-responsive.**
- T2.2.1: SARS Tax Compliance Status - PIN Issued (submitted with the Compulsory Enterprise Questionnaire).
- T2.2.12: Central Supplier Database (CSD) Report.
- T2.2.13: CIDB Registration and Status.

C.2.1.2 Eligibility: CIDB

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

Only those Tenderers who are registered (as "Active") with the CIDB (at time of tender closing), in a contractor Grading Designation of **3 or higher** in a CE Class will be eligible to have their tenders evaluated. Where, during evaluation, a bidder is found to be inactive, suspended, or non-compliant on the CIDB website register or has not submitted the CIDB certificate with the dates as prescribed, then the Employer shall verify the status of the bidder, through the CIDB website. **Tenderers found to be inactive, suspended, or not meeting the required grading, during this verification, shall be deemed non-responsive.**

Tenderers registered in any CIDB contractor grading designation other than **3 CE or higher** will not be eligible.

Joint ventures are eligible to submit tenders provided that:

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

C.2.1.3 **Eligibility: Tenderer's Experience**

Only those Tenderers that can provide proof of verifiable experience, in works of a similar nature, within the past 10 years, will be eligible to have their tenders evaluated in terms of Clause C.3.11.

Tenderers are to complete and sign the submission forms for each experience submission, as included in **Returnable Form: "Eligibility: Experience of Tenderer"**.
Failure to comply will invalidate the associated experience submission.

- **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 may be used for verification of the experience submission is specified on this table (which includes the Notes below the table).
  The non-submission of this **Documentation/ Information** may jeopardise the verification of the experience submission and render the submission invalid.
- Tenderers 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 Document "Eligibility: Experience of Tenderer"**.

Tenderers are to indicate the documentation/ information that has been included in the tender submission, in support of each experience submission, in the shaded column on Page **78**.

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

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

NOTES (for Table 3)

1. To include the names of the parties, the managing entity's name, the effective dates, and the signature(s) page, all pertaining to the agreement.

2. Issued by the Client / Employer.

3. Proof of the most recent payment received from the Main Contractor or Client/ Employer, OR the most recent submitted INVOICE. Whichever of these documents is submitted, a summary breakdown of quantities is to accompany that document.

4. Proof of the final payment received from the Main Contractor or Client/ Employer, OR the most recent submitted INVOICE. Whichever of these documents is submitted, a summary breakdown of quantities is to accompany that document.

5. Issued by the Client/ Employer.

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

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

Replace this paragraph with the following:

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

C.2.5 **Reference documents:**

Tenderers are to obtain their own copies of:

3) The **Conditions of Contract** identified in Section C1.2.1.1.
   Tenderers/ Contractors are required to obtain their own copies.

4) The **Specifications** identified in Section C3.3.1.
   Tenderers/ Contractors are required to obtain their own copies.

5) The following acts, regulations, policies, and standards referred to in this document, including but not limited to:
   - The Employer's Supply Chain Management Policy (as at advertising date).
   - The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations (2014).
   - The Construction Industry Development Board Act No 38 of 2000 and the Regulations issued in terms of the Act (July 2013 as amended).
   - The Preferential Procurement Policy Framework Act (PPPFA), and the PPPFA Regulations (November 2022).
   - The Amended Construction Sector Code (Government Gazette No.41287) applicable to B-BBEE compliance measurement.
   - SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
   - South African Road Traffic Signs Manual - Vol 2: Chapter 13: Roadworks Signing.
   - CIDB Standard for Developing Skills Through Infrastructure Contracts, published in Gazette Notice No. 48491 of 28 April 2023.
   - CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, published in Gazette Notice No. 36190 of 25 February 2013.
   - Any other eThekwini Policy documents referenced in the Tender Documents.

C.2.6 **Acknowledge addenda:**

Add the following paragraphs:

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

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

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

C.2.7 Clarification meeting:

Clarification Meeting Type: Compulsory Clarification Meeting. All questions raised and responses provided during the clarification meeting will be consolidated and published on the Municipality's website by the 04 December 2026 benefit of all tenderers.
Sosha Road, Inanda, Ward 107
(GPS: -29.71507, 30.958789)
On 30 November 2026 at 10:00am

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

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

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

C.2.10.2 Pricing the tender offer:

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

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

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

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

C.2.12 Alternative tender offers:

No alternative tender offers will be considered.

C.2.13 Submitting a tender offer:

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

The **Tender Offer** (hard copy) is to be delivered to the following **delivery address**:
the Tender Box in the foyer of the Municipal Building, 166 KE Masinga Road, Durban

Identification details to be shown on the hard copy package are:

- Contract No. : 36709-1R
- Contract Title : Gravel to Surface Upgrade of Sosha Rd & 106544 St, and minor stormwater upgrade on Umthathawe Grove in Inanda, Ward 107

Tender Offers are also to be **SUBMITTED ELECTRONICALLY** (uploaded) on the eThekwini Municipality **JDE System** (Ethekwini Supplier Portal (ESP Module)). For information pertaining to the JDE System, Tenderers are referred to **Section T1.1.2**.

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

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

After completion and signature (using **BLACK INK**), the entire Tender document is to be scanned to a single PDF (**P**ortable **D**ocument **F**ormat) document, at a resolution of 300 DPI (dots per inch). The PDF document is to be uploaded via the (Tender specific) upload option on the JDE System (ESP Module). Tenderers are responsible for resolving all access rights and submission queries on the JDE System before the tender closing date/ time (**Tender Data: C.2.15**).

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

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

C.2.15 Closing date and time:

The closing time is:

- **Date: Friday, 11 December 2026**
- **Time: 11h00**

11h00

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

C.2.16 Tender offer validity:

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

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

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

C.2.23 Certificates:

Refer to **T2.1: "List of Returnable Documents"** for a listing of certificates that must be provided with the tender. All certificates must be valid at the time of tender closing.

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

4) SARS Tax Compliance Status – PIN Issued

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

5) Central Supplier Database (CSD)

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

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

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

6) CIDB Registration (if applicable)

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

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

Separate **CIDB Registration printouts** are required for each party to a Joint Venture.
The **Joint Venture Grading Designation Calculator** printout should be included when making a submission as a Joint Venture:
(https://registers.cidb.org.za/PublicContractors/JVGradingDesignationCalc)

The date of obtaining the CIDB printout(s) is to be indicated on the printout and should be on or after the date of advertising of this tender. The Tenderer's registration with the CIDB must be reflected as "Active" as at the date of tender closing. Where, during evaluation, a bidder is found to be inactive, suspended, or non-compliant on the CIDB website register or has not submitted the CIDB certificate with the dates as prescribed, then the Employer shall verify the status of the bidder, through the CIDB website. Tenderers found to be inactive, suspended, or not meeting the required grading, during this verification, shall be deemed non-responsive.

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

C.3: THE EMPLOYER'S UNDERTAKINGS

C.3.1.1 Respond to requests from the tenderer:

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

C.3.2 Issue addenda:

Add the following paragraph:

"Addenda will be published on the National Treasury's **eTenders Website** and/ or the **eThekwini Municipality Website."** (Refer to **Tender Data: C.1.2**).

C.3.4 Opening of Tender Submissions:

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

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

C.3.9 Arithmetical errors, omissions and discrepancies:

Add the following Clause:

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

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

C.3.11 Evaluation of Tender Offers:

Eligibility

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

Functionality

FUNCTIONALITY will not be used in the evaluation of tenders.

Preference Point System

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

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

Price Points

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

80/20 Procurement System

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

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

Preference Points

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

The Basket of Preference Goals (SCM Policy Section 52.7)

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

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

- **Ownership Goal**
  Goal Weighting: **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
Race: Black (W1=75%)	Equals 0%	0
	Between 0% and 51%	4.8
	Greater or equal to 51% and less than 100%	8.4
	Equals 100%	12
Gender: Female (W2=25%)	Equals 0%	0
	Between 0% and 51%	1.6
	Greater or equal to 51% and less than 100%	2.8
	Equals 100%	4
	Maximum Ownership Goal Points:	**16**

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.
  Where W1+W2=100%

- **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 eThekwini 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	1.6
Kwa Zulu Natal	2.8
eThekwini Municipality	4
Maximum Goal Points:	**4**

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

C.3.13 Acceptance of tender offer:

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

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

(b) The Tenderer's tax compliance status has been verified, or they have made arrangements to meet outstanding tax obligations.

(c) If applicable, the Tenderer is **registered**, and **"Active"**, with the **Construction Industry Development Board** in an appropriate contractor grading designation.

(d) The Tenderer or any of its directors/ shareholders are n**ot listed on the Register of Tender Defaulters**, in terms of the Prevention and Combating of Corrupt Activities Act of 2004, as a person prohibited from doing business with the public sector.

(e) The Tenderer has not:
   i) Abused the Employer's Supply Chain Management System; or
   ii) Failed to perform on any previous contract and has been given a written notice to this effect.

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

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

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

C.3.15 Complete adjudicator's contract:

Refer to the Conditions of Contract and the Contract Data.

C.3.17 Copies of contract:

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

T1.2.3 ADDITIONAL CONDITIONS OF TENDER

T1.2.3.1 Complaints and Objections (Appeals)

Reference is to be made to Clause 49 of the eThekwini Supply Chain Management Policy.

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

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

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

EThekwini Metropolitan Municipality
First National Bank (FNB)
Account Number: 631-6574-6331
Reference Number: **36709-1R**

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

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

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

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

T1.2.3.3 Code of Conduct and Local Labour

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

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

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	29
T2.2.2	Certificate of Attendance at Clarification Meeting/ Site Inspection	30
T2.2.3	MBD 4: Declaration of Interest	31
T2.2.6	MBD 6.1: Preference Points Claim Form (SCM Policy Section 52.7)	33
T2.2.8	MBD 8: Declaration of Bidder's Past SCM Practices	35
T2.2.9	MBD 9: Certificate of Independent Bid Determination	37
T2.2.10	Declaration of Municipal Fees	39
T2.2.11	Contractor's Health and Safety Declaration	40
T2.2.12	CSD Registration Report	42
T2.2.13	CIDB Registration and Status	43
T2.2.14	Joint Venture Agreements (if applicable)	44
T2.2.15	Record of Addenda to Tender Documents	45
T2.2.16	Experience of Tenderer	46

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

C1.1.1	Form of Offer	50
C1.2.2.2	Data to be Provided by Contractor	53
C2.2	Bill of Quantities	**61**

T2.2.1 COMPULSORY ENTERPRISE QUESTIONNAIRE

Ref	Description	Tenderer to Complete	
1.1	Name of enterprise		
1.2	Name of enterprise's representative		
1.3	Email address of representative		
1.4	Contact numbers of representative	**Tel:**	**Cell:**
1.5	National Treasury Central Supplier Database Registration number	**MAAA**	
1.6	VAT registration number, if any:		
1.7	CIDB registration number, if any:		
1.8	Department of Labour: Registration number		
1.9	Department of Labour: Letter of Good Standing Certificate number		

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

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

3.0	**Particulars of companies and close corporations**	
3.1	Company registration number, if applicable:	
3.2	Close corporation number, if applicable:	
3.3	Tax Reference number, if any:	
3.4	* South African Revenue Service: Tax Compliance Status PIN:	

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

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

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

i) authorizes the Employer to verify the Tenderer's tax clearance status from the South African Revenue Services that it is in order.

ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004.

iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption.

iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the Tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest.

v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

NAME (Block Capitals): **Date**

SIGNATURE:

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

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

This is to certify that:

(entity name): ----------

of (address): ----------

---

was represented by the person(s) named below at the Clarification Meeting for Contract **36709-1R** held for all Tenderers, the details of which are stated in the **Tender Data: C.2.7**.

I / We acknowledge that the purpose of the meeting was to acquaint myself / ourselves with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for me / us to take account of everything necessary when compiling our rates and prices included in the tender.

Particulars of person(s) attending the meeting:

Name:	……	Name:	..... ……
Signature:	……	Signature:	..... ……
Capacity:	……	Capacity:	……

Attendance of the above person(s) at the meeting is confirmed by the Employer's Agent's Representative, namely:

Name: ……

Signature: ……

Date: ……

T2.2.3 MBD 4: DECLARATION OF INTEREST

MSCM Regulations: "**in the service of the state**" means to be:

(a) a member of:
  (i) any municipal council.
  (ii) any provincial legislature.
  (iii) the national Assembly or the national Council of provinces.
(b) a member of the board of directors of any municipal enterprise.
(c) an official of any municipality or municipal enterprise.
(d) an employee of any national or provincial department, national or provincial public enterprise or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999).
(e) a member of the accounting authority of any national or provincial public enterprise.
(f) an employee of Parliament or a provincial legislature.

"**Shareholder**" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

1 No bid will be accepted from persons **in the service of the state[1].**

2 Any person, having a kinship with persons **in the service of the state**, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to **persons in service of the state**, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.

3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Name of enterprise	
Name of enterprise's representative	
3.2 ID Number of enterprise's representative	
3.3 Position enterprise's representative occupies in the enterprise	
3.4 Company Registration number	
3.5 Tax Reference number	
3.6 VAT registration number	

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

3.8 Are you presently in the service of the state?	Circle Applicable	
	YES	NO

If yes, furnish particulars: ……

……

3.9	Have you been in the service of the state for the past twelve months? If yes, furnish particulars:	YES / NO
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? If yes, furnish particulars:	YES / NO
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? If yes, furnish particulars:	YES / NO
3.12	Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? If yes, furnish particulars:	YES / NO
3.13	Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? If yes, furnish particulars:	YES / NO
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? If yes, furnish particulars:	YES / NO

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

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

Use additional pages if necessary

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

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

NAME (Block Capitals): **Date**

SIGNATURE:

T2.2.6 MBD 6.1: PREFERENCE POINTS CLAIM (SCMP 52.7: Basket of Preference Goals)

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

5.0 GENERAL CONDITIONS

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

3.2 Failure on the part of the Tenderer to submit the required proof or documentation, in terms of the requirements in the Tender Data for claiming specific goal preference points, will be interpreted that **Preference Points for Specific Goals** are not claimed.

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

2.0 ADJUDICATION USING A POINT SYSTEM

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

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

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

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

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

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

3.0 POINTS AWARDED FOR PRICE

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

80/20 Procurement System **or** **90/10 Procurement System**

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

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

4.0 POINTS ALLOCATED FOR THE BASKET OF PREFERENCE GOALS

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

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

80/20 Preference Points System The Specific Goals to be allocated points in terms of this tender:	**Maximum Number of points ALLOCATED**	**Tenderer's Number of points CLAIMED**
Ownership Goal: Race (black)	12	
Ownership Goal: Gender (female)	4	
RDP Goal: The promotion of South African owned enterprises.	4	
Total CLAIMED Points (maximum 20)	**20**	

5.0 REMIDIES FOR THE SUBMISSION OF FALSE INFORMATION

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

Tenderers are to include, at the back of their tender submission, the required proof/ documentation in support of their Preference Goal claims (reference is to be made to the Specific Goals stated in the Tender Data: C.3.11).

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

NAME (Block Capitals): ---------- **Date**

SIGNATURE: ---------- ----------

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

1.0 This Municipal Bidding Document must form part of all bids invited.

2.0 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.

3.0 The bid of any bidder may be rejected if that bidder, or any of its directors have:

a) abused the municipal entity's supply chain management system or committed any improper conduct in relation to such system.
b) been convicted for fraud or corruption during the past five years.
c) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years.
d) been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).

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

		Circle Applicable	
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer / Authority of the institution that imposed the restriction after the audi alteram partem rule was applied.) The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	YES	NO

4.1.1 If YES, provide particulars.

……

……

4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	YES	NO

4.2.1 If YES, provide particulars.

……

……

4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	YES	NO

4.3.1 If YES, provide particulars.

……

……

		Circle Applicable	
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.		
	…….		
	…….		

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

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

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

NAME (Block Capitals): ---------- **Date**

SIGNATURE: ---------- ----------

T2.2.9 MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

NOTES

[1] Includes price quotations, advertised competitive bids, limited bids and proposals.

[2] Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

[3] Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

1.0 This Municipal Bidding Document (MBD) must form part of all **bids**[1] invited.

2.0 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or **bid rigging**).[2] Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.

3.0 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:

a. take all reasonable steps to prevent such abuse;
b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

4.0 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid rigging.

5.0 In order to give effect to the above, the below **Certificate of Independent Bid Determination** must be completed and submitted with the bid.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid for: Contract **36709-1R**
Gravel to Surface Upgrade of Sosha Rd & 106544 St, and minor stormwater upgrade on Umthathawe Grove in Inanda, Ward 107.

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

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

I certify, on behalf of: ……

that:

(continued on next page)

1. I have read and I understand the contents of this Certificate.

2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect.

3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;

4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;

5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
   (a) has been requested to submit a bid in response to this bid invitation.
   (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience.
   (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement, or arrangement with any competitor. However, communication between partners in a joint venture or consortium[3] will not be construed as collusive bidding.

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
   (a) prices.
   (b) geographical area where product or service will be rendered (market allocation).
   (c) methods, factors or formulas used to calculate prices.
   (d) the intention or decision to submit or not to submit, a bid.
   (e) the submission of a bid which does not meet the specifications and conditions of the bid.
   (f) bidding with the intention not to win the bid.

8. In addition, there have been no consultations, communications, agreements, or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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

NAME (Block Capitals): ---------- **Date**

SIGNATURE: ----------

T2.2.10 DECLARATION OF MUNICIPAL FEES

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

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

.....

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

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

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

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

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

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

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

NAME (Block Capitals): **Date**

SIGNATURE:

T2.2.11 CONTRACTOR'S HEALTH AND SAFETY DECLARATION

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

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

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

Declaration by Tenderer

1 I, the undersigned, hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHSA 1993 Construction Regulations 2014.

2 I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.

3 I propose to achieve compliance with the Regulations by one of the following **(Tenderers are to Circle Applicable - Yes or No)**:

	Circle Applicable	
(a) From my own competent resources as detailed in 4(a) hereafter.	Yes	No
(b) From my own resources still to be appointed or trained until competency is achieved, as detailed in 4(b) hereafter:	Yes	No
(c) From outside sources by appointment of competent specialist Subcontractors as detailed in 4(c) hereafter:	Yes	No

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

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

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

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

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

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

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

5 I, the undersigned, hereby undertake, if this tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 7(1) of the Construction Regulations, which plan shall be subject to approval by the Client.

6 I, the undersigned, confirm that copies of this company's approved Health and Safety Plan, the Client's Safety Specifications as well as the OHSA 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Principal Contractor's personnel, the Client's personnel, the Employer's Agent, visitors, and officials and inspectors of the Department of Labour.

7 I, the undersigned, hereby confirm that adequate provision has been made in the tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2014, and that I will be liable for any penalties that may be applied by the Client in terms of the said Regulations (Regulation 33) for failure on the Principal Contractor's part to comply with the provisions of the Act and the Regulations.

8 I, the undersigned, agree that failure to complete and execute this declaration to the satisfaction of the Client will mean that this company is unable to comply with the requirements of the OHSA 1993 Construction Regulations (2014) and accept that this tender will be prejudiced and may be rejected at the discretion of the Client.

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

NAME (Block Capitals): **Date**

SIGNATURE:

T2.2.12 CSD REGISTRATION REPORT

Reference is to be made to **Tender Data: C.2.1.1(b) and C.2.23**.

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

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

The following is an example of the printout obtained from the above website.
Note: the printout will contain more than one page.



CENTRAL SUPPLIER DATABASE FOR GOVERNMENT

Report Date:

Report Ran By:

CSD REGISTRATION REPORT

SUPPLIER IDENTIFICATION

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

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

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

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

NAME (Block Capitals): ---------- **Date**

SIGNATURE: ---------- ----------

T2.2.13 CIDB REGISTRATION AND STATUS

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

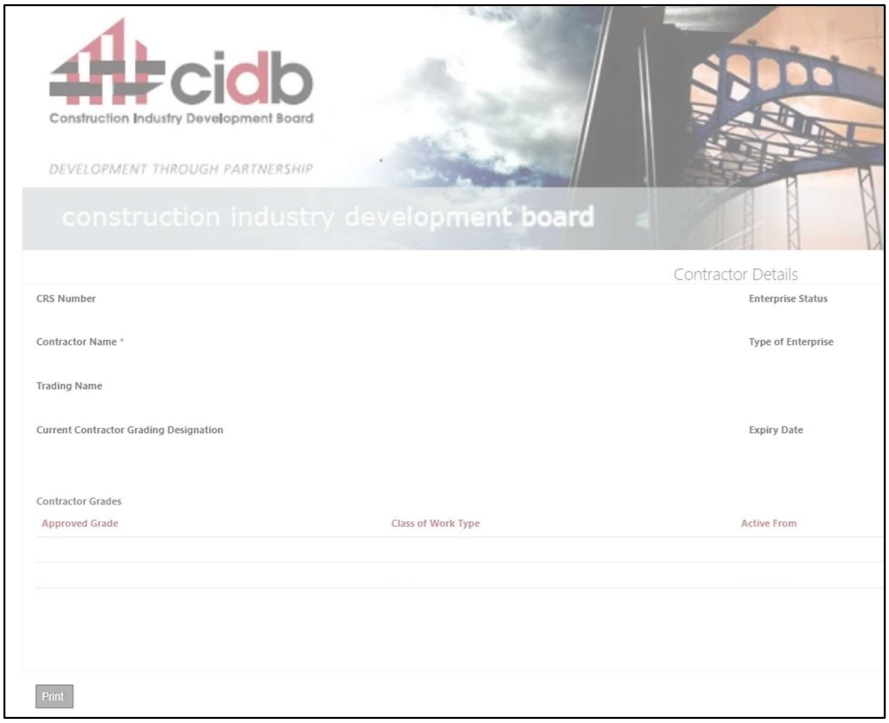
The **Tender Data: C.2.1.1: Eligibility**, requires a Tenderer to be registered, as "Active", with the CIDB (at time of tender closing), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in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

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

CIDB Registrations can be obtained from the CIDB website at:

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

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



Only those Tenderers who are registered (as "Active") with the CIDB (at time of tender closing), in a contractor Grading Designation of 3 or higher in a CE Class will be eligible to have their tenders evaluated. Where, during evaluation, a bidder is found to be inactive, suspended, or non-compliant on the CIDB website register or has not submitted the CIDB certificate with the dates as prescribed, then the Employer shall verify the status of the bidder, through the CIDB website.
Tenderers found to be inactive, suspended, or not meeting the required grading, during this verification, shall be deemed non-responsive.

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

NAME (Block Capitals): ---------- **Date**

SIGNATURE: ---------- ----------

T2.2.14 JOINT VENTURES AGREEMENTS

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

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

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

INTENT TO FORM A JOINT VENTURE

Should our submission for CONTRACT: **36709-1R** 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:	MAAA
CIDB #:			
Represented by (name):		Signature:	
Partner/ Member 2			
Entity Name:			
Ownership Interest in JV %:		CSD Registration:	MAAA
CIDB #:			
Represented by (name):		Signature:	
Partner/ Member 3			
Entity Name:			
Ownership Interest in JV %:		CSD Registration:	MAAA
CIDB #:			
Represented by (name):		Signature:	

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

T2.2.15 RECORD OF ADDENDA TO TENDER DOCUMENTS

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

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

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

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

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

NAME (Block Capitals): **Date**

SIGNATURE:

T2.2.16 ELIGIBILITY: EXPERIENCE OF TENDERER

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

Only those Tenderers that can demonstrate verifiable experience, in works of a similar nature, within the past 10 years, will be eligible to have their tenders evaluated in terms of **Tender Data: C.3.11**.

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

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

Guidance to Tenderers: Experience Submission Form

Client / Employer Details
- Provide details for whom the works were carried out (works owner).
- Provide **Contact details of the Client** or **Main Contractor** (if experience was gained as a sub-contractor) is required to be provided.
  The contact details may be used by the Employer to verify the information, pertaining to the experience submission. Should the Employer's reasonable attempts to make contact with the Client or Main Contractor fail (for whatever reason), that specific experience submission may be considered invalid.

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

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

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

(T2.2.16 is continued on the next page)

Confirmation of submission of Information/ Documentation

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

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

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

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

NAME (Block Capitals): ---------- **Date**

SIGNATURE: ---------- ----------

EXPERIENCE SUBMISSION #1

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

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

Experience as a:	Sub-Contractor:		Main Contractor:	

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

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

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

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

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

Confirmation of documentation submitted is to be recorded on Page 48.

Failure to complete this form, sign, and return with the tender submission will result in the experience submission being deemed unacceptable.

*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 #2

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

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

Experience as a:	Sub-Contractor:		Main Contractor:	

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

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

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

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

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

Confirmation of documentation submitted is to be recorded on Page 48.

Failure to complete this form, sign, and return with the tender submission will result in the experience submission being deemed unacceptable.

*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: **36709-1R**

Contract Title: **Gravel to Surface Upgrade of Sosha Rd & 106544 St, and minor stormwater upgrade on Umthathawe Grove in Inanda, Ward 107**

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

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

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

R..... (*In words* .....

.....)

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

For the Tenderer:

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

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

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

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

Address : .....

: .....

Telephone : .....

Witness:

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

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

Notes:
*** Indicates what information is mandatory.**
Failure to complete the mandatory information and sign this form will invalidate the tender.

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.1.2: FORM OF ACCEPTANCE

This Form will be completed by the Employer

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

The terms of the contract are contained in:

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

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

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

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

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

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

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

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

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

Address : .....

: .....

Witness:

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

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

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

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

1. Subject : ……..

Details : ……..

: ……..

2. Subject : ……..

Details : ……..

: ……..

3. Subject : ……..

Details : ……..

: ……..

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

FOR THE TENDERER		**FOR THE EMPLOYER**
…….……..	Signature	…….……..
…….……..	Name *(in capitals)*	…….……..
…….……..	Capacity	…….……..
……..……	Name and Address of	……..……
……..	Organisation	……..
……..		……..
……..		……..
……	Witness Signature	……
……..	Witness Name	……..
……..	Date	……..

C1.2: CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

C1.2.1.1 GENERAL CONDITIONS OF CONTRACT

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

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

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

C1.2.2 CONTRACT DATA

C1.2.2.1 DATA TO BE PROVIDED BY THE EMPLOYER

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

1.1.1.14 The **time for achieving Practical Completion**, from the Commencement Date is **16 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 eThekwini Municipality as represented by:
Deputy Head: **Roads Provision**

1.2.1.2 The address of the Employer is:
Physical: Road Infrastructure Management Directorate, 166 K.E. Masinga, Road, Durban 4001
Postal: Road Infrastructure Management Directorate, P O Box 680, Durban 4000
Telephone: 031 322 2879 (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 Balan Govender (Pr. Tech)
1.2.1.2 The address of the Employer' Agent is:
Physical: Road Infrastructure Management Directorate, 166 K.E. Masinga, Road, Durban 4001
Postal: Road Infrastructure Management Directorate, P O Box 680, Durban 4000
Telephone: 031 322 2879 (t)
Fax: 031 311 7321 (f)
E-Mail: balan.govender@durban.gov.za

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

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

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

4.11.1 To carry out and complete the works, the Contractor shall employ a competent Site Agent and Foreman as part of the key staff. It is a requirement for the Contractor's Site Agent and Foreman to each have a minimum of 3 years relevant experience including experience on projects of a similar nature. The CV's of the Site Agent and the Foreman should be submitted to the Employer's Agent's Representative for acceptance by the Division (reference is made to Cl.5.3.1 of the Contract Data).

Note:

i) "similar nature" implies projects that were of a value of at least 70% of this tender's value, and had a comparable Scope of Work in terms of technical requirements and operations.
ii) "experience" implies experience on projects of a similar nature.
iii) "accredited degree / diploma" implies a 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)
- Sub-Contracting Implementation Plan
- If required to be registered, in terms of the Occupational Injuries and Diseases Act (130 of 1993 as amended), the Contractor is to supply proof of being registered and in good standing with the compensation fund by submitting a valid Letter of Good Standing from the Compensation Commissioner. Should the Contractor's Letter of Good Standing be expired, but an application for renewal has been made, the Contractor is to submit the expired Letter of Good Standing AND proof of an application for renewal.

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

5.3.3 Add the following paragraph:

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

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

5.8.1 The **non-working days** are **Saturdays and** Sundays.
(5.1.1) The **special non-working** days are:

- All statutory holidays as declared by National or Regional Government.
- The 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.

Month	Days Lost	Average Rainfall	Month	Days Lost	Average Rainfall
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 1200** (per Day).

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

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

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

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

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

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

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

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

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

- The proportion not subject to adjustment: **x = 0.10**.
- The base month will be the month prior to the month in which tenders close.

- The Index for, **Plant**, **Materials**, and **Fuel** shall be based on **2023 = 100**.
- The Index for **Labour** shall be based on **2024 = 100**.

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

6.8.3 Price adjustments for **variation in the cost of the special material(s)** listed below, will be allowed.

Bitumen - escalation will be calculated using the "Rise and Fall" method as determined by the Employer. The base price for bitumen on this contract shall be the ruling price of 50/70 grade bitumen based on the **RUBIS Asphalt South Africa List Selling Price** for Penetration Grade Bitumen, seven (7) days prior to the closing date of tenders.

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

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

6.10.3 **Retention Money:** Delete the word "selected".
The percentage retention on the amounts due to the Contractor is 10%.
The limit of "retention money" is 5% of the Contract Sum.
Should the Contract Price exceed the Contract Sum then the limit of "retention money" is 5% of the Contract Price.
Interest will not be paid on retention withheld by the Employer.

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

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

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

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

8.6.1.4 **Ground Support Insurance**:

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

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

Third Party Insurance (Public Liability)

- Minimum amount for any one occurrence, unlimited as to the number of occurrences, for the period of the contract, inclusive of the maintenance period: **R 2,000,000**.
- 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: **R50,000.**

Principal's own surrounding Property Insurance

- Minimum amount for any one occurrence unlimited as to the number of occurrences against any claim for damage which may occur to the Council's own surrounding property: **R500,000.**
- Maximum first excess: **R 10,000.**

Insurance of Works

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

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

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

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

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

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

C1.2.2.2 DATA TO BE PROVIDED BY CONTRACTOR

1.1.1.9 The legal name of Contractor is:

……

……

……

……

1.2.1.2 The Physical address of the Contractor is:

……

……

……

……

The Postal address of the Contractor is:

……

……

……

……

The contact numbers of the Contractor are:

Telephone: ……

Fax: ……

The E-Mail address of the Contractor is:

……

C1.2.3 ADDITIONAL CONDITIONS OF CONTRACT

C1.2.3.1 COMMUNITY LIAISON OFFICER

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

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

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

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

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

C1.2.3.2 EMPLOYMENT OF LOCAL LABOUR

It is a condition of contract that the contractor will be required to employ local labour as specified in eThekwini 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 107.** The contractor will be required to provide proof of authenticity of local labour. Signed confirmation by the appointed CLO will suffice for this.

No additional costs will be entertained due to this Particular Specification. The contractor will remain responsible for providing proper supervision of all labour and will be responsible for the quality of work produced.

C1.2.3.3 SUB-CONTRACTING

It is a condition of contract that the contractor must allow for a minimum of **10%** of the contract value (excluding PC Sum items and Fixed Cost allowances) to be subcontracted to contractors who are **>51%** owned by Black People. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

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

C1.2.3.4 FTE (Full Time Equivalent) EMPLOYMENT INFORMATION

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

- Initials (per ID doc)
- Last Name (per ID doc)
- ID Number
- Disability (y / n)
- Education Level

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

- Category of Employment

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

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

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

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

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

C1.2.3.5 PERFORMANCE MONITORING OF SERVICE PROVIDERS

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

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

C1.2.3.6 EXCEPTED RISKS (Clause 8.3)

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

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

C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS

C2.1.1 GENERAL

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents (refer to C.1.2 and C.2.5 of the Tender Data).

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

Measurement and payment shall be in accordance with the relevant provisions of Part C of the Committee of Transport Officials (COTO) – Standard Specifications for Road and Bridge Works for South African Road Authorities – Draft Standard, 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 Specification.

Part C of the Standard 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 Specification, or the Scope of the works, conflict with the Bill of Quantities, the requirements of the Standard 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 C1.2: General Requirements and Provisions
- Part C1.4: Facilities for the Engineer
- Part C1.5: Accommodation of Traffic

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

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

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

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

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

C2.2: BILL OF QUANTITIES

The Bill of Quantities follows and comprises of **24** pages and has its own numbering system.

BILL OF QUANTITIES

SECTION 1 PRELIMINARY AND GENERAL ITEMS

PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS				
1	C1.3.1.1 PS.C1.3.1 PS.C1.3.2	The Contractors General Obligations Fixed Obligations	sum	1		
2	C1.3.1.2 PS.C1.3.1 PS.C1.3.2	The Contractors General Obligations Value-related Obligations	sum	1		
3	C1.3.1.3 PS.C1.3.1 PS.C1.3.2	The Contractors General Obligations Time-related Obligations	months	4		
		Programming and Reporting				
4	C1.2.2.1 PS.1	Submission of a Scheme 1 Programme	sum	1		
5	C1.2.2.2 PS.1	Reviewing and updating a Scheme 1 Programme	months	4		
		Health and Safety				
6	C1.2.5.1 PS.10	Implementation of Health and Safety Plan	months	4		
		Security				
7	C1.4.8 PS.11	Provision of security on site to guard against any disruption of the works throughout the duration of the contract	months	4		
8	C1.2.4 PS.14	Liasing, coordinating and mentoring CPG Sub-contractors	months	4		
		Stakeholder Management				
9	C1.2.4 PS.13	Stakeholder Management and Liaison	months	4		
		CLO				
10	C1.2.4.1 PS.13	Community Liaison Officer	PC Sum	60000	1.00	60,000.00
11	C1.2.4 PS.13	Enter % of Work Package Order	%	60000		
12	C1.2.6 PS.16	Submission of As-Built Data	sum	1		
13	PS.18	Testing and Equipment for the Engineer (Provisional)	PC Sum	30000	1.00	30,000.00
14	PS.18	Enter % of Work Package Order	%	30000		
		ACCOMMODATION OF TRAFFIC				
15	C1.3.2 PS.C1.3.2	Contract sign boards	no.	2		

Part Continued **PART** 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
16	C1.5.7.1(b)	Delineators including mounting bases and ballast: Double sided, reversible left or right (1200mm x 250mm)	no	30		
17	PS.1.3.4	Temporary barriers for accommodation of traffic, concrete New Jersey type, Contractor's own source	m	20		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS R

SECTION 2 SITE CLEARANCE

PART 0106 C1.6 CLEARING AND GRUBBING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Clearing				
1	C1.6.1.1 PS.C.1.6.1	Clearing with machines where necessary, to spoil including haulage	m2	1000		
2	C1.6.1.2 PS.C.1.6.1	Clearing with hand labour only when labour enhanced work is specified, to spoil including haulage	m2	100		
		Grubbing				
3	C1.6.2.1 PS.C.1.6.1	Grubbing with machines where necessary, to spoil including haulage	m2	1000		
4	C1.6.2.2 PS.C.1.6.1	Grubbing with hand labour when labour enhancement work is specified or it is not practical to use a machine, to spoil including haulage	m2	100		
		Removal and Grubbing of Large Trees and Tree Stumps				
5	C1.6.3.1	Girth equal to or exceeding 1,0 m up to and including 2,0 m, to spoil including haulage	no	10		
6	C1.6.3.2	Girth exceeding 2,0 m up to and including 3,0 m, to spoil including haulage	no	3		

TOTAL CARRIED TO SECTION 2 SUMMARY: SITE CLEARANCE R

SECTION 3 SERVICES

PART 0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Relocation of Services by Others:				
		Water, Sewer, Electricity and Telecommunications				
1	C2.1.1.2 PS.2	Permanent services relocation or protection work by others	PC Sum	50000	1.00	50,000.00
2	C2.1.1.3 PS.1	Handling costs and profit in respect of item above	%	50000		
		Relocation of Services by the Contractor				
		Water, Sewer, Electricity and Telecommunications				
3	C2.1.1.4 PS.2	Permanent services relocation or protection work by the Contractor	ProvSum	1	40,000.00	40,000.00
4	C2.1.2.5 PS.2	Using hand excavation to locate, expose and verify services	m3	30		
5	C2.1.27.1 PS.C2.1.27.1	Demolition of existing manholes, access chambers and other service structures consisting of: Unreinforced concrete, to spoil including haulage	m3	2		
6	C2.1.27.2 PS.C2.1.27.2	Demolition of existing manholes, access chambers and other service structures consisting of: Reinforced concrete, to spoil including haulage	m3	2		
7	C2.1.27.3 PS.C2.1.27.3	Demolition of existing manholes, access chambers and other service structures consisting of: Masonry, to spoil including haulage	m3	2		
8	C2.2.5.2	Concrete encasement of services (class 20/26)	m3	5		

TOTAL CARRIED TO SECTION 3 SUMMARY: SERVICES **R**

SECTION 4 DRAINAGE

PART 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		450mm Pipes				
1	C3.2.1.1(a) PS.C3.2.1.1 PS.C2.1	Excavation for culvert structures: in all material situated within the following depth ranges below the surface level:(a) 0 m to 1,5 m, to spoil including haulage	m	180		
2	C3.2.1.1(b) PS.C3.2.1.1 PS.C2.1	(b) Exceeding 1,5 m and up to 3,0 m, to spoil including haulage	m	80		
3	C3.2.2.1 PS.C3.2.3.2	Backfilling: Using the excavated material	m	280		
4	C3.2.2.2(a) PS.C3.2.3.2	Backfilling: Using granular material	m	280		
		Inlets and Manholes				
5	C3.2.1.1(a) PS.C3.2.3.2 PS.C2.1	Excavation for Inlets and Manholes: in all material situated within the following depth ranges below the surface level:(a) 0 m to 1,5 m, and store on site for backfill	no	10		
6	C3.2.1.1(b) PS.C3.2.1.1 PS.C2.1	(b) Exceeding 1,5 m and up to 3,0 m, and store on site for backfill	no	5		
7	C3.2.2.1 PS.C3.2.3.2	Backfilling: Using the excavated material	m3	15		
8	C3.2.2.2(a) PS.C3.2.3.2	Backfilling: Using granular material	m3	5		
9	C3.2.1.4 PS.C3.2.1.1 PS.C2.1	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material,irrespective of depth, to spoil including haulage	m3	15		
10	C3.2.3.2 PS.C3.2.3.2	Concrete pipe culverts: On Class B bedding (450mm diameter concrete Class 100D)	m	80		
11	C3.2.3.3 PS.C3.2.3.2	Concrete pipe culverts: On Class C bedding (450mm diameter concrete Class 100D)	m	180		
12	C3.2.15.2 PS.C3.2.15.2	Inlet: Type S2; Depth: Exceeding 0,0m and up to 1,5m, including brickwork for inlet walls	no	5		
13	C3.2.15.2 PS.C3.2.15.2	Inlet: Type S2; Depth: Exceeding 1,5m and up to 2,0m, including brickwork for inlet walls	no	1		
14	C3.2.15.2 PS.C3.2.15.2	Manhole: Type A with a heavy duty polymer concrete cover Depth: Exceeding 0,0m and up to 1,5m	no	3		

Part Continued **PART 0302 C3.2 CULVERTS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
15	C3.2.15.2 PS.C3.2.15.2	Manhole: Type A with a heavy duty polymer concrete cover Depth: Exceeding 1,5m and up to 2,0m	no	1		
16	C3.2.15.2	Headwalls, Type A, for 450mm pipes	no	1		
17	C2.1.19.2	Dealing with subsurface water	sum	1		

TOTAL CARRIED TO SECTION 4 SUMMARY: DRAINAGE R

PART 0303 C3.3 CONCRETE KERBING AND CHANNELING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		1. 106544 STREET				
1	C3.3.2.1	Prefabricated kerbing-channeling (Type A, Figure 6 barrier kerb with 200mm wide channel/fillet. Drawing 38577.)	m	90		
2	C3.3.1.1	Prefabricated kerbing (Figure 12 kerb, flush with final asphalt surface level)	m	90		
3	C3.3.4 PS.C3.3.2.1	Drop kerbs and channel / Fillet at pedestrian crossings and driveways (Drawing 38579)	m	20		
4	C13.4.11	Cast in situ concrete for Pedestrian / Vehicular Scoop (Grade 20/13)	m3	10		
5	C2.1.16 PS.C2.1.16	Subsurface drains in trench bottoms (Drawing 38575 - Type A)	m	90		
		2. SOSHA ROAD				
6	C3.3.2.1	Prefabricated kerbing-channeling (Type A, Figure 6 barrier kerb with 200mm wide channel/fillet. Drawing 38577.)	m	100		
7	C3.3.1.1	Prefabricated kerbing (Figure 12 kerb, flush with final asphalt surface level)	m	100		
8	C3.3.4 PS.C3.3.2.1	Drop kerbs and channel / Fillet at pedestrian crossings and driveways (Drawing 38579)	m	8		
9	C13.4.11	Cast in situ concrete for Pedestrian / Vehicular Scoop (Grade 20/13)	m3	10		
10	C2.1.16 PS.C2.1.16	Subsurface drains in trench bottoms (Drawing 38575 - Type A)	m	75		

TOTAL CARRIED TO SECTION 4 SUMMARY: DRAINAGE R

SECTION 5 EARTHWORKS

PART 0402 C4.2 CUT MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		1. 106544 STREET				
1	C4.2.9.1 PS.C4.2	Excavating of materials to spoil, including haulage, in sites designated by the Contractor, material obtained from: Soft excavation	m3	135		
2	C4.2.9.3 PS.C4.2	Boulder excavation class B to spoil, including haulage	m3	10		
3	C4.2.9.4 PS.C4.2	Hard excavation (other than by blasting) to spoil, including haulage	m3	10		
4	C4.2.12.1(a)	Finishing the side slopes of Cuttings:(a) In soft material	m2	155		
		2. SOSHA ROAD				
5	C4.2.9.1 PS.C4.2	Excavating of materials to spoil, including haulage, in sites designated by the Contractor, material obtained from: Soft excavation	m3	575		
6	C4.2.9.3 PS.C4.2	Boulder excavation class B to spoil, including haulage	m3	30		
7	C4.2.9.4 PS.C4.2	Hard excavation (other than by blasting) to spoil, including haulage	m3	30		
8	C4.2.12.1(a)	Finishing the side slopes of Cuttings:(a) In soft material	m2	650		

TOTAL CARRIED TO SECTION 5 SUMMARY: EARTHWORKS R

PART 0403 C4.3 EXISTING ROAD MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Saw-cut				
1	C4.3.4.1(a)	Saw-cutting existing materials within the following average depth ranges:Asphalt:(a) Up to 50 mm	m	10		
2	C4.3.18.1 PS.C4.2	Excavate non-compliant or excess pavement layer material to spoil in sites designated by the Contractor, including haulage,, material consisting of: Asphalt material	m3	2		
3	C4.3.18.2 PS.C4.2	Excavate non-compliant or excess pavement layer material to spoil in sites designated by the Contractor, including haulage, material consisting of: Crushed stone, macadam, gravel and sand material	m3	2		

PART 0403 C4.3 EXISTING ROAD MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
TOTAL CARRIED TO SECTION 5 SUMMARY: EARTHWORKS						R

PART 0404 C4.4 COMMERCIAL MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C5.3.1	Compiling and implementing M&U plans for the construction of all the pavement layers.	no	1		
		1. 106544 STREET				
2	C4.4.2.1(d)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G2	m3	53		
3	C5.3.2.1(b)	150mm Selected layer (G2) compacted to 98 % of MDD	m3	53		
4	C4.4.2.1(e)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G5	m3	57		
5	C5.3.2.1(b)	150mm Selected layer (G5) compacted to 98 % of MDD	m3	57		
6	C4.4.2.1(g)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G7	m3	61		
7	C5.3.2.1(b)	150mm Selected layer (G7) compacted to 95 % of MDD	m3	61		
8	C5.3.11.1	Using a 3,0 m straight edge	m	1		
9	C5.3.11.2	Using a rolling straight edge	m	1		
10	C5.3.2.1(b)	Selected layer (G2) compacted to 98 % of MDD for driveways and restricted areas	m3	5		
		2. SOSHA ROAD				
11	C4.4.2.1(d)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G2	m3	56		
12	C5.3.2.1(b)	100mm Selected layer (G2) compacted to 98 % of MDD	m3	56		
13	C4.4.2.1(e)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G5	m3	61		
14	C5.3.2.1(b)	150mm Selected layer (G5) compacted to 98 % of MDD	m3	61		

Part Continued **PART 0404 C4.4 COMMERCIAL MATERIALS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
15	C4.4.2.1(g)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G7	m3	65		
16	C5.3.2.1(b)	150mm Selected layer (G7) compacted to 95 % of MDD	m3	65		
17	C5.3.11.1	Using a 3,0 m straight edge	m	1		
18	C5.3.11.2	Using a rolling straight edge	m	1		
19	C5.3.2.1(b)	Selected layer (G2) compacted to 98 % of MDD for driveways and restricted areas	m3	5		

TOTAL CARRIED TO SECTION 5 SUMMARY: EARTHWORKS R

PART 0502 C5.2 FILL

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C5.2.1.2	Compiling and implementing M&U plans: For fills 1,0 km in length when less than 5000 m3 for all fills	no	1		
		1. 106544 STREET				
2	C5.2.2.1(a)	Fill construction: Normal fill material in compacted layer thicknesses of 200 mm and less:(a) Compacted to 90 % of MDD	m3	250		
3	C5.2.2.1(b)	(b) Compacted to 93 % of MDD	m3	65		
		2. SOSHA ROAD				
4	C5.2.2.1(a)	Fill construction: Normal fill material in compacted layer thicknesses of 200 mm and less:(a) Compacted to 90 % of MDD	m3	575		
5	C5.2.2.1(b)	(b) Compacted to 93 % of MDD	m3	145		

TOTAL CARRIED TO SECTION 5 SUMMARY: EARTHWORKS R

SECTION 6 LAYERWORKS

PART 0501 C5.1 ROADBED

Item	Clause	Description	Unit	Quantity	Rate	Amount
		1. 106544 STREET				
1	C5.1.1.2 PS.C5.1.1.2	Roadbed construction and compaction to 95 % of MDD	m3	61		
2	C5.1.3.1(a) PS.C4.2	Excavate material to spoil from roadbed construction, material obtained from:(a) Soft excavation	m3	25		
3	C5.1.3.1(c) PS.C4.2	(c) Boulder excavation Class B	m3	10		
4	C5.1.3.1(d) PS.C4.2	(d) Hard excavation	m3	5		
5	C5.1.4.1	In-place treatment of roadbed in hard material: by ripping	m3	10		
6	C5.1.5.3	Roller passes compaction: Smooth drum vibratory rollers	m2	405		
		Subgrade Improvement				
7	C12.3.20 PS.C.12.3.20	Importing dump rock for subgrade improvement, 300mm thick	m3	13.5		
8	PS.C12.11	Supply and place general grade 5 geofabric	m2	100		
		2. SOSHA ROAD				
9	C5.1.1.2 PS.C5.1.1.2	Roadbed construction and compaction to 95 % of MDD	m3	62		
10	C5.1.3.1(a) PS.C4.2	Excavate material to spoil from roadbed construction, material obtained from:(a) Soft excavation	m3	25		
11	C5.1.3.1(c) PS.C4.2	(c) Boulder excavation Class B	m3	10		
12	C5.1.3.1(d) PS.C4.2	(d) Hard excavation	m3	5		
13	C5.1.4.1	In-place treatment of roadbed in hard material: by ripping	m3	10		
14	C5.1.5.3	Roller passes compaction: Smooth drum vibratory rollers	m2	441		
		Subgrade Improvement				
15	C12.3.20 PS.C.12.3.20	Importing dump rock for subgrade improvement, 300mm thick	m3	13.5		
16	PS.C12.11	Supply and place general grade 5 geofabric	m2	100		

TOTAL CARRIED TO SECTION 6 SUMMARY: LAYERWORKS **R**

PART 0901 C9.1 ASPHALT LAYERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Asphalt Mix Designs				
1	C9.1.1.2(a) PS.C9.1	Sand skeletal mixes: Continuously graded base or surfacing (SA-S10).	Lump sum	1		
		1. 106544 STREET				
		Bond Coat				
2	C9.1.3.1 PS.C9.1	Stable–grade 30 % net bitumen emulsion as specified. Applied with a calibrated distributer	m2	275		
3	C9.1.3.2 PS.C9.1	Applied in restricted areas using a portable pressure sprayer	m2	10		
		Asphalt Surface				
4	C9.1.5.1(a) PS.C9.1	New construction (paver laid) (a) Stone skeletal mix – continuously graded (SA-S10) as defined (35mm layer)	m2	270		
5	C9.1.5.1(a) PS.C9.1	New construction (hand laid) (a) Stone skeletal mix – continuously graded (SA-S10) as defined (35mm layer)	m2	10		
6	C9.1.12	Asphalt reinforcing - complete (Glassgrid GG100 or similar)	m2	275		
		Coring of Asphalt Layers				
7	C9.1.13.1	100 mm diameter	no	6		
8	C8.1.1.2	Prime coat: MC -30 cut-back bitumen	m2	280		
9	C8.1.3	Extra over item C8.1.1 for applying the prime coat accessible only to hand-held or light equipment	m2	20		
		2. SOSHA ROAD				
		Bond Coat				
10	C9.1.3.1	Stable–grade 30 % net bitumen emulsion as specified. Applied with a calibrated distributer	m2	294		
11	C9.1.3.2	Applied in restricted areas using a portable pressure sprayer	m2	30		
		Asphalt Surface				
12	C9.1.5.1(a) PS.C9.1	New construction (paver laid) (a) Stone skeletal mix – continuously graded (SA-S10) as defined (35mm layer)	m2	294		

Part Continued **PART 0901 C9.1 ASPHALT LAYERS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
13	C9.1.5.1(a)	New construction (hand laid) (a) Stone skeletal mix – continuously graded (SA-S10) as defined (35mm layer)	m2	30		
14	C9.1.12	Asphalt reinforcing - complete (Glassgrid GG100 or similar)	m2	294		
		Coring of Asphalt Layers				
15	C9.1.13.1	100 mm diameter	no	5		
16	C8.1.1.2	Prime coat: MC -30 cut-back bitumen	m2	324		
17	C8.1.3	Extra over item C8.1.1 for applying the prime coat accessible only to hand-held or light equipment	m2	20		

TOTAL CARRIED TO SECTION 6 SUMMARY: LAYERWORKS **R**

PART 1304 C13.4 CONCRETE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C13.3.1.1	Supply and lay 150mm thick for a 3m width roadway, grade 25/19 concrete road including transverse joints, curing with rough stiff bristle broom finish applied transversely across the width of theroad. Rate to include all excavations, formwork, shuttering and Ref 395 reinforcing mesh.	m3	6.75		
2	C13.3.1.1	Supply and lay 150mm thick for a 3m width roadway, grade 25/19 concrete road including transverse joints, curing with rough stiff bristle broom finish applied transversely across the width of theroad. Rate to include all excavations, formwork, shuttering and Ref 395 reinforcing mesh.	m3	11.25		

TOTAL CARRIED TO SECTION 6 SUMMARY: LAYERWORKS **R**

SECTION 7 ANCILLARY ROAD WORKS

PART 1105 C11.5 FENCING

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.5.4.1(d)	Dismantling existing fences:(d) Security fences	m	50		
2	C11.5.5.1	Providing temporary fences and gates	m	50		
3	C11.5.3.1(d)	Moving existing fences:(d) Security fences	m	200		
4	C11.5.1.1	Supply and erect new fencing material for new fences and for supplementing material in existing fences which are being repaired or removed: Diamond mesh (1.8m galvanized, 2mm gauge, 50mm appeture)"	m	20		

TOTAL CARRIED TO SECTION 7 SUMMARY: ANCILLARY ROAD WORKS R

PART 1106 C11.6 ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.6.1.3(a)	Road signboards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class I retro-reflective material, where the sign board is constructed from:Prepainted galvanized steel plate:(a) Area 0 to 0,5 m2	m2	4		
2	C11.6.5.1 PS.C2.1	Excavation and backfilling for road sign supports (not applicable to kilometre posts):Excavating soft material and backfilling	m3	2		
3	C13.4.11	Cast in situ concrete for road sign footings as directed by the Engineer (Grade 20/19)	m3	2		

TOTAL CARRIED TO SECTION 7 SUMMARY: ANCILLARY ROAD WORKS R

PART 1109 C11.9 FINISHING ROAD AND ROAD RESERVE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.9.1.1	Finishing the road and road reserve: Single carriageway road	m	200		

TOTAL CARRIED TO SECTION 7 SUMMARY: ANCILLARY ROAD WORKS R

SECTION 8 RETAINING WALLS

PART 1206 C12.6 MECH STABILISED FILL AND GABIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		1. 106544 STREET				
		Gabion Walls				
1	C12.6.14.1(a)	Foundation trench excavation: Excavating all material situated within the following depth ranges below the surface level(a) 0 m to 1,5 m	m3	12		
2	C12.6.15	Surface preparation for bedding the gabions	m2	28		
3	C12.6.16.2	Gabions and mattresses: PVC coated gabion boxes (2,0m x 1,0m x 1,0m)	m3	36		
4	C12.6.17	Geotextile (Filtration, min Grade 7)	m2	76		
		Segmented Block Walls (Geolock or similar approved)				
5	C12.6.2	Excavation for wall base foundation	m3	16		
6	C12.6.3	Concrete for wall base foundation (Grade 25/26)	m3	4.6		
7	C12.6.7	Metallic reinforcing mesh (Mesh Ref 245)	m2	28		
8	C12.6.12.2	Facings (Geolock wall as per drawing for wall 0-2m): For concrete block wall facing	m2	51		
9	C12.6.13	Drainage (50mm weepholes installed inclusive of all elements as per the drawing)	no	16		
10	C12.6.11	Backfill (Cement stabilised backfill as per the drawing)	m3	6		
11	C12.6.11	Backfill (19mm stone chips)	m3	2.7		
12	C12.6.11	Backfill (compacted to 95% MDD)	m3	4		
13	C12.6.17	Geotextile (Drainage grade A3)	m2	78		
14	C12.6.3	Concrete for Top Blocks of wall (Grade 25/26)	m3	4		
15	C3.1.9.1	Pipes in subsoil drainage systems: U-PVC pipes and fittings, normal duty, complete wth couplings (110mm, perforated)	m	30		
16	C3.3.6.2	Precast concrete chutes (catchwater drain, minimum 300mm wide by 150mm deep as per the drawing). Item to include all materials, formation, backfill and installation.	m	10		

Part Continued **PART 1206 C12.6 MECH STABILISED FILL AND GABIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		2. SOSHA ROAD				
		Gabion Walls				
17	C12.6.14.1(a)	Foundation trench excavation: Excavating all material situated within the following depth ranges below the surface level(a) 0 m to 1,5 m	m3	52.5		
18	C12.6.15	Surface preparation for bedding the gabions	m2	122.5		
19	C12.6.16.2	Gabions and mattresses: PVC coated gabion boxes (2,0m x 1,0m x 1,0m)	m3	157.5		
20	C12.6.17	Geotextile (Filtration, min Grade 7)	m2	262.5		
		Segmented Block Walls (Geolock or similar approved)				
21	C12.6.2	Excavation for wall base foundation	m3	28		
22	C12.6.3	Concrete for wall base foundation (Grade 25/26)	m3	8		
23	C12.6.7	Metallic reinforcing mesh (Mesh Ref 245)	m2	49		
24	C12.6.12.2	Facings (Geolock wall as per drawing for wall 0-2m): For concrete block wall facing	m2	70		
25	C12.6.13	Drainage (50mm weepholes installed inclusive of all elements as per the drawing)	no	8		
26	C12.6.11	Backfill (Cement stabilised backfill as per the drawing)	m3	21		
27	C12.6.11	Backfill (19mm stone chips)	m3	9.5		
28	C12.6.11	Backfill (compacted to 95% MDD)	m3	14		
29	C12.6.17	Geotextile (Drainage grade A3)	m2	136.5		
30	C12.6.3	Concrete for Top Blocks of wall (Grade 25/26)	m3	6		
31	C3.1.9.1	Pipes in subsoil drainage systems: U-PVC pipes and fittings, normal duty, complete wth couplings (110mm, perforated)	m	40		
32	C3.3.6.2	Precast concrete chutes (catchwater drain, minimum 300mm wide by 150mm deep as per the drawing). Item to include all materials, formation, backfill and installation.	m	15		

TOTAL CARRIED TO SECTION 8 SUMMARY: RETAINING WALLS **R**

BILL OF QUANTITIES SECTION SUMMARY

SECTION 1 PRELIMINARY AND GENERAL ITEMS

PART	0101	C1.1 GENERAL PREAMBLE	
PART	0102	C1.2 GENERAL REQUIREMENTS AND PROVISIONS	
PART	0103	C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND	
PART	0106	C1.6 CLEARING AND GRUBBING	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 2 SITE CLEARANCE

PART 0106	C1.6 CLEARING AND GRUBBING	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 3 SERVICES

PART	0201	C2.1 GEN REQMENTS AND TRENCHING SERVICE	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 4 DRAINAGE

PART	0302	C3.2 CULVERTS	
PART	0303	C3.3 CONCRETE KERBING AND CHANNELING	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 5 EARTHWORKS

PART	0402	C4.2 CUT MATERIALS	
PART	0403	C4.3 EXISTING ROAD MATERIALS	
PART	0404	C4.4 COMMERCIAL MATERIALS	
PART	0502	C5.2 FILL	
TOTAL CARRIED TO FINAL SUMMARY			

BILL OF QUANTITIES SECTION SUMMARY

SECTION 6 LAYERWORKS

PART	0501 C5.1 ROADBED	
PART	0901 C9.1 ASPHALT LAYERS	
PART	1304 C13.4 CONCRETE	
TOTAL CARRIED TO FINAL SUMMARY		

BILL OF QUANTITIES SECTION SUMMARY

SECTION 7 ANCILLARY ROAD WORKS

PART	1104	C11.4 ROAD RESTRAINT SYSTEMS	
PART	1105	C11.5 FENCING	
PART	1106	C11.6 ROAD SIGNS	
PART	1107	C11.7 ROAD MARKINGS AND ROAD STUDS	
PART	1109	C11.9 FINISHING ROAD AND ROAD RESERVE	

TOTAL CARRIED TO FINAL SUMMARY	

BILL OF QUANTITIES SECTION SUMMARY

SECTION 8 RETAINING WALLS

PART	1206	C12.6 MECH STABILISED FILL AND GABIONS	
TOTAL CARRIED TO FINAL SUMMARY			

SUMMARY OF BILL OF QUANTITIES

1	PRELIMINARY AND GENERAL ITEMS		R _____
0101	C1.1 GENERAL PREAMBLE	R _____	
0102	C1.2 GENERAL REQUIREMENTS AND PROVISIONS	R _____	
0103	C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND	R _____	
0106	C1.6 CLEARING AND GRUBBING	R _____	
2	SITE CLEARANCE		R _____
0106	C1.6 CLEARING AND GRUBBING	R _____	
3	SERVICES		R _____
0201	C2.1 GEN REQMENTS AND TRENCHING SERVICE	R _____	
4	DRAINAGE		R _____
0302	C3.2 CULVERTS	R _____	
0303	C3.3 CONCRETE KERBING AND CHANNELING	R _____	
5	EARTHWORKS		R _____
0402	C4.2 CUT MATERIALS	R _____	
0403	C4.3 EXISTING ROAD MATERIALS	R _____	
0404	C4.4 COMMERCIAL MATERIALS	R _____	
0502	C5.2 FILL	R _____	
6	LAYERWORKS		R _____
0501	C5.1 ROADBED	R _____	
0901	C9.1 ASPHALT LAYERS	R _____	
1304	C13.4 CONCRETE	R _____	
7	ANCILLARY ROAD WORKS		R _____
1104	C11.4 ROAD RESTRAINT SYSTEMS	R _____	
1105	C11.5 FENCING	R _____	
1106	C11.6 ROAD SIGNS	R _____	
1107	C11.7 ROAD MARKINGS AND ROAD STUDS	R _____	
1109	C11.9 FINISHING ROAD AND ROAD RESERVE	R _____	
8	RETAINING WALLS		R _____
1206	C12.6 MECH STABILISED FILL AND GABIONS	R _____	

SUB TOTAL	R _____
ADD VAT (15%) - (only if a registered VAT Vendor)	R _____
TOTAL CARRIED TO FORM OF TENDER	R _____

PART C3: SCOPE OF WORK

PAGE

C3.1 PROJECT DESCRIPTION AND SCOPE OF CONTRACT 65

C3.2 PROJECT SPECIFICATIONS 67

PS.1 Programme, Method of Work, and Accommodation of Traffic
PS.2 Services
PS.3 Watermains
PS.4 Sewers
PS.5 Stormwater
PS.6 Electrical Plant
PS.7 Telkom S.A. Limited / Neotel Plant
PS.8 CCTV Plant
PS.9 Management of the Environment
PS.10 Occupational Health and Safety

C3.3 STANDARD SPECIFICATIONS 85

C3.3.1 Listing of the Standard Specifications
C3.3.2 Amendments to the Standard Specifications

C3.4 PARTICULAR SPECIFICATIONS 109

C3.4.1 Part AH - OHSA 1993 Safety Specification (2014)
C3.4.2 Standard Environmental Management Plan for Civil Engineering Construction Works
C3.4.3 Site Specific Health and Safety Specification in terms of 2014 Construction Regulations.
C3.4.4 Baseline Risk Assessment document in terms of Construction Regulation 5.1(a)

C3.5 CONTRACT AND STANDARD DRAWINGS 148

C3.5.1 Contract Drawings / Details
C3.5.2 Standard Drawings

C3.6 ANNEXURES 150

C3.1: PROJECT DESCRIPTION AND SCOPE OF CONTRACT

C3.1.1 Description of Works

The contract entails the upgrade of 106544 Street and Sosha Road, , located in Inanda, Ward 107, from their existing gravel surface to asphalt surface roads. The contract also includes minor stormwater infrastructure Umthathawe Grove in Ward 107. The contract aims to enhance the road's functionality, safety, and aesthetic appeal, aligning with the division's infrastructure development goals.

The contract encompasses the upgrade of approximately 190m of existing gravel road, with a road width of 3m for both 106544 Street and Sosha Road. The scope of works includes the construction of a hardened asphalt roadway surface. Additionally, kerbing will be installed to define the road's boundary and improve drainage.

Retaining structures will also be constructed to stabilise the road, the adjacent terrain, and protect against potential erosion or flooding from the adjacent stream. Moreover, the stormwater drainage system will be installed and upgraded. The works may include the removal of existing infrastructure, including pipes, trees, walls, paving blocks, wire mesh fences, gates, precast fences, unreinforced concrete and brickwork. Furthermore, the works may include the clearance of river streams, embankments, and existing pipe culverts and headwalls.

Notably, a minimum of 10% of the works must be subcontracted to promote economic empowerment and community development.

Imported Materials:
Imported material consist of clean coarse sand, G7, G5, G2, or better materials for the various layers and drainage grade geofabric. Asphalt is from Private Plant and shall be machine laid and shall be Asphalt Sa-S10 (Previous Mix A) for the roadway. Mix design detailing bitumen component percentage to be provided to the Engineer prior to any payment being processed.

Services:
The identification, protection, relocation, and renewal of any underground and overhead services forms part of the scope of this contract. Accordingly, the responsibility of dealing with these services in whatever way deemed necessary by the service owner or employer's agent, belongs to the contractor. For municipal services, bulk materials should be sourced from the respective Department. Connection to houses will require the appointment of a Metro approved service provider.

Water and sewer reticulation materials may require protection, relocation, installation, collection, transportation, storage, and security from stores. The contractor will be responsible for collection of materials from store on authorisation and it may be on more than one occasion.

Stormwater:
Stormwater construction consists of 450mm diameter concrete Class 100D Pipes, subsoil pipes, Type S2 inlets and manholes. Works will further involve the construction of headwalls.

Water:
For any water reticulation, bulk materials will be provided by the Water Department. Connection to Houses. Appointment of Metro Approved Plumber. Water and Sewer Reticulation – protection/relocation/installation – collection, transport, storage, and security of materials from stores. Contractor will be required to collect materials from stores on authorisation on more than one occasion.

C3.1.2 Description of Site and Access

Refer to Item C4.1: Locality Sketch

The works are located in Inanda within the eThekwini Municipal Area and comprise three separate project sites, namely **106544 Street in Ward 107, Sosha Road in Ward 107** and **Umthathawe Grove in Ward 107**.

The three roads are situated at separate locations within the Inanda area and are accessible via the existing municipal road network. The Tenderer shall make adequate provision in their pricing for all logistical requirements associated with undertaking works at the three separate sites, including the movement of personnel, security, plant, equipment and materials between the respective sites. No additional payment arising from the distance or travel between 106544 Street, Sosha Road and Umthathawe Grove shall be entertained, and all associated costs shall be deemed to have been included in the Contractor's tendered rates and prices.

The approximate locations of the three project sites are as follows:
106544 Street – Ward 107 : **29°42’57.51” S, 30°57’20.53” E**

Sosha Road – Ward 107 : **29°42'55.42"S, 30°57'32.89"E**

Umthathawe Grove – Ward 107 : **29°43'14.92” S, 30° 57'39.93” E**

C3.1.3 Nature of Ground and Subsoil Conditions

Refer to Item C4.2: Conditions on Site.

Required tests will need to be carried out to determine suitability of material and possibility of removal and replacement. Hard rock may be encountered and where this material is to be removed to achieve formation level, appropriate methods shall be utilised.

C3.2: PROJECT SPECIFICATION

PREAMBLE

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

C3.2.1 GENERAL

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

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

PS.1.1 Preliminary Programme

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

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

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

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

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

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

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

(1) Time required for service relocations.
(2) Time allowances to be made for the ordering of special items.
(3) Notification required by service organisations.

(4) Any special sequence in which work must be carried out. Must certain areas of work be finished before work commences on others?
(5) If delays are anticipated with service relocations the contractor should be asked to allow time.
(6) Is work required out of normal hours? (eg. to accesses).
(7) Vehicular access to private property is to be maintained.
(8) Traffic restrictions.
(9) Community and Labour Disruptions.
(10) Work stoppages.
(11) Business and associated Forum Disruptions.
(12) 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.

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.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

The mechanisms to deal with service relocations may be one or a combination of the following processes:

Identification of service relocation/renewal scope of work in consultation with the service owner.
Preparation of a tender and bill of quantities for service management in consultation with service owner or the employer's agent.
4. Sourcing prices for the works done through a process directed by the employer's agent that subscribes to a fair, transparent and equitable practices.
5. The contractor will appoint and manage the sub-contractor
6. Manage the workflow process, risk, time, cost, quality of the sub-contractor.
7. Where the service provider choses to undertake the service management at their own accord, then the contractor will facilitate payment after agreement with the employer's agent. The contractor is also required to manage the process of risk, time, cost, quality of the service provider.

It is noted that the above procedures are aimed at putting the responsibility of the service management in the hands of the contractor, who is best suited to mitigate contract risk in this regard.

This contract will not make provisions for any extension of time or delay relating to service management. The contract programme must reflect a realistic timeline that attends to the service management scope of this project.

The programme will be reviewed at the monthly site meetings at which the contractor shall provide sufficient details that will allow the comparison of completed work per activity against the original

approved programme. The contractor shall indicate what resources and programme changes he/she intends to implement to remedy any activity that has fallen behind. The Engineer may demand from the Contractor a major revision of the programme. Such a revision shall be submitted for approval within fourteen days of the demand.

PS.1.3 Requirements for Accommodation of Traffic

PS.1.3.1 General

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

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

“Road signs and markings shall comply with the requirements of the “SADC Road Traffic Signs Manual - Volume 2: Roadworks Signing”.

PS.1.3.2 Basic Requirements

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

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

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

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

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

PS.1.3.3 Traffic Safety Officer

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

PS.1.3.4 Payment

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

PS.1.3.5 Pedestrian Movement

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

PS.1.3.6 Temporary Reinstatement

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

(a) if the permanent reinstatement of such road or way is to be carried out by the appropriate authority or by some person other than the contractor (or any subcontractor to him), the contractor shall at his own cost and independently of any requirement of or notice from the Engineer be responsible for the making good of any subsidence or shrinkage or other defect, imperfection or fault in the temporary reinstatement of such road or way, and for the execution of any necessary repair or amendment thereof from whatever cause the necessity arises, until the end of the period of maintenance in respect of works beneath such road or way until the authority or other person as aforesaid shall have taken possession of the site for the purpose of carrying out permanent reinstatement (whichever is the earlier), and shall indemnify and save harmless that Council against and from any damage or injury to the Council or to third parties arising out of or in consequence of any neglect or failure of the Contractor to comply with the foregoing obligations or any of them and against and from all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

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

PS.2 SERVICES

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

PS.2.1 Existing Services

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

PS.2.2 Proving Underground Services

This clause must be read in conjunction with COTO Ch2, the requirements of which shall be extended to cover all earthworks operations whether for trenching or bulk earthworks, in the vicinity of underground services.

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

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

The cost of the proving trenches is to be included in the work covered by in the BOQ.

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

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

When electrical cables are not in the positions shown on drawings of eThekwini 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 eThekwini 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 eThekwini Electricity shall be contacted immediately on the above telephone numbers.

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

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

PS.2.3 New Services and Relocation of Existing

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

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

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

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

Services affected by the contract are described as follows:

- PS.3: Watermains;
- PS.4: Sewers;
- PS.5: Stormwater;
- PS.6: Electrical Cables / Lighting;
- PS.7: Telkom / Neotel;
- PS.8: CCTV;

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

PS.2.4 Accommodation of Services

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

PS.3 WATERMAINS

PS.3.1 General

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

Some watermains exist in the work area. These are indicated on the contract drawings. The position and depth of the watermains will need to be proved before excavation for the road box takes place. It is not anticipated that it will be necessary for the Contractor to undertake any work

on this service. If any work to the watermain is required, the tenderer is responsible to communicate the relocation of the water mains with the eThekwini Water & Sanitation Department and actioned as in PS.2.3. Particular attention should be paid to tie-ins to the existing live mains which normally have to be done by the Water Supply Branch or their approved/appointed contractors, even if the installation of the new main needs to be installed.

Water Connections, top meters, bulk and domestic. For any Water reticulation, bulk materials will be provided by the Water Department. together with Appointment of Metro Approved Plumber. Water and Sewer Reticulation - protection / relocation / installation - collection, transport, storage and security of materials from stores. Contractor will be required to collect materials from store on authorisation on more than one occasion. There are various coupling / hydrants / valves. It may be required that temporary rider main is installed at locations where there are difficulties with levels and conflicting services and other annoyances.

Relocation of services shall generally be covered by the relevant Service department. Generally, work shall only commence on the relocation / installation of new service once the bulk earthworks have been completed and roughly trimmed to a level along a substantial portion of the affected services route. In addition, no sidewalk, verge, median or island shall be surfaced or top soiled until all work on the services has been completed. The contractor shall prove the position of the watermain, valves, hydrants and waterlines and shall be included in the tenderers rates for excavation. Any tie-ins to the existing live mains are normally done by the Water Supply Branch of eThekwini Municipality. Metro Water will be responsible for any re-lay should the need arise. The Contractor shall liaise with the relevant Department on time frames and requirements to complete the work satisfactorily. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. All service relocations shall be completed and finalised as soon as reasonably practicable following the commencement date. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution. Where independent plumbers recommended / approved by Metro Water, who are on the plumbers and eThekwini database, it will be required that the works is measured / quantified and that a minimum of 3 quotations are received for consideration in terms of MFMA legislation.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

PS.3.2 Water Main Valve Access

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

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

PS.3.3 Restriction on Compaction Equipment

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

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

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

PS.4 SEWERS

Any existing sewer manholes found in the work area will have to be raised / lowered to suit new road, sidewalk or verge levels. there is currently existing sewer pipes and manholes and various property connections. These connections may conflict with other services and will need to be dealt with on site.

Tenderer's attention is drawn to the following points regarding the sewers to be installed / relocated as part of this contract. Relocation of services shall generally be covered by the relevant Service department. Generally, work shall only commence on the relocation / installation of new service once the bulk earthworks have been completed and roughly trimmed to a level along a substantial portion of the affected services route. In addition, no sidewalk, verge, median or island shall be surfaced or top soiled until all work on the services has been completed.

The contractor shall prove the position of the sewer lines and shall be included in the tenderers rates for excavation. Any tie-ins to the existing live sewer mains are normally done by the Wastewater Branch of eThekwini Municipality. Metro Wastewater will be responsible for any re-

lay should the need arise. The Contractor shall liaise with the relevant Department on time frames and requirements to complete the work satisfactorily during the construction period. Relocations shall run concurrently with programmed activities. All service relocations shall be completed and finalised as soon as reasonably practicable following the commencement date.. No delay / disruption / standing time claims will be entertained during this period for service relocations, known and unknown, inter-alia service department liaison / design drawing preparation, procurement of materials, installation / relocation, backfilling, coordinating / protecting the service, damages to services. Further to that no delay / disruption / standing time claims will be entertained during the rest of the construction period for service relocations up to the practical completion date. It is reiterated that the Contractor is fully responsible for all service relocations, liaison and verification / design in consultation with the Employer's Agent's Representative for approval, followed by the associated programming and execution. Where independent plumbers recommended / approved by Metro Water / Metro Waste Water, who are on the plumbers and eThekwini database, it will be required that the works is measured / quantified and that a minimum of 3 quotations are received for consideration in terms of MFMA legislation. Adequate measures and safety measures / shoring etc. must be taken into consideration as some of the sewers may be relatively deep.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates.

PS.4.1 Blockage of Foul Water Sewers

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

PS.5 STORMWATER

The 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 stormwater system shall be proved on site by the Contractor prior to any construction work commencing in the vicinity of the stormwater system. The stormwater drainage to be installed under this contract may be integrated into the existing stormwater / stream system.

There are currently existing headwalls and stormwater pipes. New stormwater pipes of 450mm / 600mm diameter are to be installed. Existing infrastructure may connect to the new line, or alternatively be sealed, abandoned or removed. Stormwater excavation is within the existing road and traffic is to be suitably accommodated. Stormwater installation will more than likely conflict with other services, longitudinally or due to a related road or service crossing namely water / electrical / fibres / sewer / Telkom and other services, known and unknown. This will need to be accommodated and rectified on site. Various drains will need to be extended to tie into the new pipe or nearest convenient inlet / manhole.

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

There are existing electrical poles and electricity lines in the works area. Special attention must be paid to ensure there is no damage to the existing electricity infrastructure. The Contractor will be responsible to communicate and action the relocation of the electrical poles and cables with the Electricity department as per PS.2.3.

PS.6.1 General

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

PS.6.2 Street Lighting

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

There may be Departmental delays with regards relocations. Relocations of services shall run concurrently as the work progress as it is required that proving of services and location or position of the cables must be determined. It is a requirement that the street lighting be operational at all times. Relocations shall run concurrently with programmed activities. No delay costs will be entertained resulting from failure of service department to timeously and suitably relocate / lower their affected service. Delays shall be adjusted and accommodated in the project's construction period. The final street lighting shall be installed before asphalting of sidewalks or should the ELP's be within the median, prior to installation of the paving.

The contractor is to liaise with each of the service owners to identify service management strategies, irrespective of it being new or existing. The works sequence may require revision to accommodate any delay that may be experienced by the contractor in managing the service. This will require a revision of the contract programme without a change in contract duration or end dates. Meetings, communication, timeframes, correspondence and records of reference shall be collated and accurately recorded and stored or filed.

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

PS.6.4 Relocation of Existing Services

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

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

No work to Telkom / Neotel Plant is envisaged, but the tenderers attention is drawn to the fact that Telkom / Neotel copper cables and fibre optic cables may be existing in the contract area.

The exact position and depth of these services is not known as those service providers have not as yet provided this Department with the relevant records. Notwithstanding this, extreme care is to be exercised when working in the vicinity of these cables and proving of these services by hand.

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.

The exact position and depth of these services is not known as those service providers have not yet provided this Department with the relevant records. Notwithstanding this, extreme care is to be exercised when working in the vicinity of these cables and proving of these services by hand excavation will be required before excavations for roadworks takes place.

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:

- The road within a residential areas and high volumes of pedestrian movement is expected,
- Road construction is located next to electrical poles,
- The proposed works will require machinery and plant of varying size,
- The manual moving of heavy precast products will be required,
- The gradient of the road in moderate to steep. Plant and machinery need to be well controlled. Run-off from the site will have to be well managed (see PS.5 and PS.6),
- The deviation of the traffic must be maintained throughout the day and night, weekends and public holidays included, and
- All road signs must be maintained to allow for adequate sight distance by the road users

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

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

PS.10.2 Health and Safety Specifications and Plans to be submitted at tender stage

PS.10.2.1 Employer's Health and Safety Specification

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

PS.10.2.2 Tenderer's Health and Safety Plan

At tender stage only a brief overview of the Tenderer’s perception on the safety requirements for this contract will be adequate. This will be attached to T2.2: Contractor’s Health and Safety Plan.

Only the successful Tenderer shall submit a separate Health and Safety Plan as required in terms of Regulation 7 of the Occupational Health and Safety Act 1993 Construction Regulations 2014, and referred to in T2.2: Contractor’s Health and Safety Plan.

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

(i) A proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 9 to 29;
(ii) Pro-active identification of potential hazards and unsafe working conditions;

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

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

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

A generic plan will not be acceptable.

PS.10.3 Cost of compliance with the OHSA Construction Regulations

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

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

PS.11 SITE SECURITY

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

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

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

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

Payment for this item shall be made under Section 1, Part 0102 of the Bill of Quantities.

PS.12 PERFORMANCE MONITORING OF SERVICE PROVIDERS

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

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

PS. 13 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 one CLO who resides in **Wards 107**, selected and approved through the Ward Councillor or appointed representative, 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. Handling costs and profit in respect of the provided Invoiced Amounts shall not exceed a maximum of 10% as per the gazetted hourly labour rate based on the table of the minimum wage in South Africa and with reference to CIDB and for a full days active production on site verified by time and attendance register. The CLO shall not be appointed to another site or other employment and is to be in attendance for the full day based on the active days that the

contractor works on the site.

PS.14 CONSTRUCTION AND MANAGEMENT REQUIREMENTS

PS.14.1 General

Various types of Services from different service providers are affected by the contract. The laying, relocation and jointing of all cables will be carried out by the respective service provider, or agents appointed by them, whilst the excavation and backfilling forms part of this contract. Close liaison will therefore be necessary with service providers throughout the contract.

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

PS.14.2 Quality Assurance (QA) *(Read with SANS 1921)*

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

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

PS.14.3 Management and disposal of water *(Read with SANS 1921)*

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

PS.14.4 Disposal of spoil or surplus material *(Read with SANS 1921)*

The Contractor may dispose surplus and / or unsuitable material in legal spoil areas of his/her own choice subject to the approval of the Employer's Agent's Representative. The Contractor shall be responsible for all arrangements necessary to obtain such spoil sites.

PS.15 EMPLOYMENT OF LOCAL LABOUR

The contractor will be required to employ local labour as specified in the Part C3.3: Particular Specifications - “The Use of CLOs and Local Labour” of this Contract document. The contractor will be required to ensure that a minimum of 50% of the labour force is made up of local labour. For the purposes of this contract, “Local labour” will be deemed to be any persons who reside within Wards and local communities immediately around the site. The contractor will be required to provide proof of authenticity of local labour. Signed confirmation by the appointed CLO will suffice for this. The rate of reimbursement will be equal to the daily rate stipulated and gazetted by the Department of Labour based on an 8 hour day. The entire project is not a labour intensive project as the bulk of the work is mechanically achieved, however it is required that the Contractor and sub-Contractors shall use local labour as much as possible and provide opportunity to local business forums for smaller task on appointment and on tender process based on the sum of the equivalent tendered rates.

The Contractor is to submit proof of employment of local labour.

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.

PS.16 SURVEY

SUBMISSION OF AS-BUILT DATA

The Contractor shall supply the Employer’s Agent’s Representative with: -

9. A list of co-ordinates of cable duct markers and watermain valve covers newly constructed, modified or existing within the vicinity of the works
10. A list of surveyed invert and cover levels, and co-ordinates of all catchpits, manholes/barrier inlet unit and headwalls newly constructed, modified or existing within the vicinity of the works.
11. A list of surveyed invert and cover levels, and co-ordinates of all cable duct manholes newly constructed, modified or existing within the vicinity of the works.
12. A list of surveyed invert and cover levels, and co-ordinates of all sewer manholes newly constructed, modified or existing within the vicinity of the works.
13. A list of co-ordinates of road edge levels, kerbs, barriers and concrete lined drains.
14. Drawing in electronic format including items 1 to 5 listed above.
15. Materials As-Built records captured as per the eThekwini Municipality Materials As-Built record template (Template to be provided by Employer’s Agent’s Representative). The completion certificate shall not be issued unless the above information has been forwarded to the Employer’s Agent’s Representative
16. Setting-out of the Works

Whilst surveys have been carried out of the site, and the designs based on such surveys, it is the responsibility of the Contractor to recheck all the benchmarks and protect the benchmarks from

damage at the start of the contract.

It is the Contractor's responsibility to set out the Works and any discrepancies in the design or setting out shall be identified and brought to the attention of the Employer's Agent's Representative promptly so they can be corrected before any abortive expenditure is incurred.

PS. 17 TESTING

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

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

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

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

PS.18 AS BUILT DRAWINGS

The Survey for, and Preparation of As-Built drawings is to be done by a professionally registered Surveyor in accordance to the EThekwini Municipality, Land Surveying Branch: Engineering Surveys standard. The guidelines and examples are available.

(See http://www.durban.gov.za/City Services/engineering%2Ounit/Surveying Land Information/Page s/default.aspx)

The contractor is to provide a full survey drawing of the entire works, indicating all key aspects of the works including position of the fence, levels and street furniture within the scope of works, with particular emphasis to a complete tachey survey.

The contractor shall commission a surveyor close to the end of the works such that the survey shall be concluded on completion of the work.

Should the as built survey not be ready once the works are completed, the final payment certificate shall exclude payment for this item and a completion certificate and retention money shall be

withheld until such time the as built survey is handed to the Engineer.

If required, payment for the above will be made under the applicable items as scheduled in the Preliminary & General Section of the Bill of Quantities referencing this clause.

PS.19 TESTING REQUESTED BY EMPLOYERS AGENT

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

PS.20 ADDITIONAL SURVEY

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

PS.21 SURVEY OF EXISTING SERVICES

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

C3.3: STANDARD SPECIFICATIONS

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

C3.3.2 AMENDMENTS TO THE STANDARD SPECIFICATIONS

INTRODUCTION

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

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

PS.C1.2	**GENERAL REQUIREMENTS AND PROVISIONS**
PS.C1.2.2.3	**Submission of a Scheme 2 Programme:**
	It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data (refer to Clause 5.3.1/2). The preliminary programme to be submitted with the tender shall be used as basis for this programme. The Tenderer's attention is drawn to the fact that a number of factors will affect the programming of and method of carrying out the works. The more important of these are: (a) Items mentioned in addition to PS1, (b) All pavement designs to be done and submitted at-least one month before the pavement is to be laid. 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.C1.2.2.5	**Reviewing and Updating a Scheme 2 Programme every month:**
	The contractor shall update the programme every month and submit to the Engineer. The Contractor shall revise the programme when instructed to do so by the Engineer in accordance with the requirements of the Conditions of Contract or when the Contractor is aware that the programme no longer reflects the way in which the Contractor plans to execute the remaining work. Payment shall be made only upon the revised programme being accepted by the Employer's Agent, regardless of the number of iterations / revisions / corrections made before the programme was accepted by the Employer's Agent.
PS.C1.3	**THE CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS**
PS.C1.3.1	**The Contractor's General Obligations:**
	In addition to the Standard Specification, the Contractors General Obligations shall also include: • Training and supervision of local labour • Management of labour where labour enhance construction methods are specified • Compliance with, and application of the Compensation for Occupational Injuries and Diseases Act • The Contractor's camp site and store yard. Note: The Contractor's office for this contract shall be as required to fulfill his obligations under the Contract. The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and labourers. The Employer has not made a site available to the contractor. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor. However the Contractor may, if he prefers to, have a camp site at another location and must first obtain the written permission of the landowner, and subsequently the Engineer, to do so. Any clearing of the site that is necessary and the making good after de-establishment will be the responsibility of the Contractor. 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; Deputy Head: Real Estate and/or Deputy Head of Parks, Recreation and Beaches Department; or other owner. Particular attention should be directed to these requirements and written clearances from the relevant Departments or other owners will be required. No employees except for security guards will be allowed to sleep or be accommodated on the site in urban areas. No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site. No informal housing or squatting will be allowed. Chemical toilets only will be allowed where temporary facilities have to be provided.
PS.C1.3.2	**Contract Sign Boards:**
	The typical notice board layout is given in section C3.6. The tendered rate shall include full compensation for providing and erecting each sign board, including for timber poles, concrete bases if required, fixings, excavation and backfill, and for the later removal of the sign board, structures and fixings, and reinstating the area upon completion of the contract. The rate shall include for all labour, plant, tools, materials and equipment.
PS.C1.6	**CLEARING AND GRUBBING**
PS.C1.6.1	**Clearing and grubbing within road reserve**
	The unit measurement shall be square meters (m^2).
PS.C1.6.4.1	**Removal of buildings and structures**
	Removal of Stormwater manholes and inlet; covers and frames: The unit of measurement shall be number (No.) and the rate shall include for the labour and plant necessary for the careful removal of the inlet covers and frames, loading and either: (a) storing on site for re-use, or; (b) transporting to the Municipal store or; (c) transporting to the approved tip and dumping. **Demolition of brickwork of Manholes and inlets.** The unit of measurement shall be number (No.) and the rate shall include for the labour, plant and material necessary for: (a) breaking down brickwork to 1 m below formation level; (b) sealing the incoming and outgoing pipes with concrete; (c) backfilling with clean, coarse sand and compacting to 95% MDD; (d) storing manhole covers on site for re-use or spoiling to tip. Sealing concrete pipes, the concrete shall be paid for under a separate item. **Removal and reinstatement of wire mesh fence:** The unit of measure is metre (m). The rate for the removal of a wire mesh fence (with the supports) shall cover labour and plant necessary for the removal of the existing fence, loading and stockpiling on site. In case of reinstatement; the unit of measurement is metre (m). The rate shall include all labour, material, plant, transportation, fittings, posts, wire mesh, concrete foundations, adjustments, repairs, and any other work required to reinstate the fence to its original condition or better, to the satisfaction of the Employer's Agent's Representative. **Removal of pipe culverts:** The unit of measure is metre (m). The rate shall cover labour and plant necessary for the removal of the existing pipe culverts, loading and spoiling at the approved spoil site.

PS.C1.7	**LOADING AND HAULING**
	The unit of measurement shall be cubic metre (m^3). The Contractor shall make his own arrangements for the provision of a suitable approved dumping site off the site for the disposal of material obtained from excavations, demolition, clearing and grubbing, and rock cuttings. The rates in the Bill of Quantities are to include all costs of fees payable to cover the disposal of waste material at the dumping site.
PS.C2.1	**GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES**
PS.C2.1.1.1	**Contractor's Obligations:**
	Before any work commences, the Contractor shall contact all private owners or public authorities controlling services so that they may, either protect, move or relocate any service as required, or confirm that all such work has been completed. Payment will not be made for any inconvenience caused to the Contractor in regard to any services crossing the site or any authority working on or relocating any such services, nor will any delays caused by such work or relocation be accepted as a basis for claiming an extension of time for completing the works. All known existing services and those services which require relocation and protection, are shown on the services plans. The Contractor's attention is drawn to the fact that such services information is based on information supplied by others, and the accuracy and completeness of this information has not been confirmed. The Contractor will therefore be required to proceed with extreme caution in order to avoid damage to existing services. Before commencing any work in the vicinity of services, the Contractor shall contact the relevant service authorities for assistance in locating the exact position of the services and where necessary the Contractor shall accurately locate the services by careful hand excavation. In general, the Engineer may call upon the Contractor to re-excavate trenches previously dug and backfilled by others where in the opinion of the Engineer such work is necessary to ensure the stability of any other works over such trenches. This in no way relieves the Contractor of his responsibilities in terms of the works.
PS.C2.1.6	**Trench Excavation:**
	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. The unit of measurement for the stormwater pipes shall be linear meter (m). The unit of measurement for the manholes, inlets and headwalls shall be number (No). The following requirements in respect of trench excavation, backfilling and reinstatement shall be adhered to: 1) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling. It will be the Contractor's responsibility to use selective methods of excavation to ensure that this unsuitable material does not contaminate other materials suitable for reuse. 2) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling in areas subject to traffic loading. An item has been included in the Bill of Quantities for the disposal of unsuitable material to tip and the Contractor's tendered rate for this item shall include for stockpiling if deemed

	necessary. 3) Where the Contractor chooses to trench by open excavation e.g. battering sides of the trenches, this over-excavation shall not be backfilled with unsuitable excavated material but shall be backfilled with the same imported material as used for the pay-width of the trench. Payment for the imported backfill shall be limited to the pay-width of the trench only and the Contractor shall allow in his rates for any extra backfill material that may be required as a result of over-excavating 4) Notwithstanding the method of trench excavation adopted by the Contractor, the restriction on the maximum trench width 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.
	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 all excavations in road reserves and adjacent to structures and where excavations are in excess of 1,0 m in depth shall be supported with close shoring and no open or intermittent shoring of any description will be permitted. 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.
PS.C2.1.16	**Subsurface Drains in Trench Bottoms:**
	The unit of measurement shall be the metre of subsoil drain constructed complete as specified or shown on the drawings. These shall be "Netlon" plastic subsoil pipes complying with SABS 791 as amended, or the new Flo Drain system. 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.

The outfall end of each run of subsoil drain shall be built into the nearest inlet/manhole or headwall.

The stone aggregate used for the subsoil drain filter shall consist of 9,5 mm crushed stone conforming to the following grading:

Sieve size mm	132	95	67	475	236
% Passing	100	85 - 100	0 - 55	0 - 25	0 - 5

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.

The geofabric shall include for wrapping the geofabric around either the subsoil pipe, subsoil drain or stone bedding

The tendered rate shall include full compensation for constructing the subsoil drain complete, including excavation by hand in soft material, the supply and installation of geotextiles and pipes and the supply and placing of any drainage aggregate. The rate shall be subject to an extra over-payment under item C2.1.7 and shall also be subject to additional payment under item C2.1.17 for the removal disposal of any surplus or unsuitable excavated material to spoil sites provided either by the Employer or the Contractor.

PS.C2.1.27.1 **Demolition of Existing Manholes, Access Chambers and Other Service Structures Consisting of: Unreinforced Concrete:**

Where partial demolition is required for extension work to existing structures, the contact face shall be cut to predetermined lines and levels, and any loose and fragmented material shall be removed. Where partial demolition is not required but extension work only, the contact surface shall be roughened and cleaned of all dirt and loose particles.

Only hand operated breaking equipment shall be used for the demolition of concrete where extension work is required.

The unit of measurement shall be the cubic meter of plain concrete demolished. The tendered rate shall include full compensation for all labour, plant and equipment (including any specialised equipment) required to demolish the existing concrete.

The tendered rate shall include disposal of the product of the demolition to an approved borrow pit. The tendered rate shall also include for any river diversions, cofferdamming and/or any dewatering activities that is necessary for the demolition activities.

The tendered rate shall also include full compensation for any necessary measures to ensure no debris contaminates or restricts the stream flow in rivers and for any debris that has fallen into rivers to be recovered.

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

PS.C2.1.27.3	**Demolition of Existing Manholes, Access Chambers and Other Service Structures Consisting of: Masonry:**
	The rate shall include for the labour, plant and material necessary for: (a) breaking down brickwork to 1 m below formation level; (b) sealing the incoming and outgoing pipes with concrete; (c) backfilling with clean, coarse sand and compacting to 95% MOD AASHTO; (d) storing manhole covers on site for re-use or spoiling to tip.
PS.C2.2.1.1	**Cable Ducts:**
	The following ducts shall be used for this aspect of the project. 110mm or 160mm ribbed HDPE duct (Kabelflex or similar approved). On completion of duct laying and backfilling, the ducts shall be proved by twice pulling through a cylindrical cleaning brush, once in each direction. The ducts shall then be proved by drawing through a wooden or Teflon mandrel 400mm long and 5mm less in diameter than the duct. The sub-contractor shall provide a method statement for carrying out of the duct proving
PS.C2.2.7.4	**Brick Headwall to Ducts:**
	Ducts shall have brick headwalls constructed at each end of the ducts, as shown on standard Drawing No. 38581. Bricks for these headwalls shall be selected good quality clay commons. Mortar shall conform to mix Class A as defined in the latest edition of the Standard Building Regulations.
PS.C3.2.3.2	**Concrete Pipe Culverts:**
	A3.5.2 Culvert Material *c) Prefabricated concrete pipe culvert units* – Replace “Ogee joints” with “Spigot and Socket pipes” Reinforced concrete pipes for stormwater shall - A. comply with S.A.B.S. 677 for S.C. type pipes without lifting holes; B. be manufactured with a spigot and socket type joint suitable for use with a rubber ring joint; and C. comply with the proof load requirements for the various classes of pipe as indicated on the contract drawings and/or in the schedule of quantities. The rubber ring joints shall comply with S.A.B.S. 974 - Part 1. Laying: All pipelaying and jointing shall be undertaken by experienced pipelayers who shall, when requested, produce proof of their capabilities to the satisfaction of the Engineer. The various types of pipes and culverts shall be handled and laid in accordance with the manufacturer's instructions. The Contractor shall provide the latest copy of the instructions and shall ensure that all pipe layers have a good working knowledge of the required procedures. Notwithstanding anything contained in the instructions, the Engineer's interpretation shall be final. Pipes and culverts shall be lowered gently and carefully into the trench without jarring or bumping by crane, derrick, or other approved lifting tackle and care shall be taken not to damage the items. The hand installation of pipes shall only be permitted when using U.P.V.C. or A.C. pipes up to a nominal diameter of 150 mm unless authorised by the Engineer. Control of the level and line of the pipeline, to ensure correct placing to designed line and level, shall be by side and top lines or other acceptable means approved by the Engineer. All internal surfaces of pipes and fittings shall be kept clean and free of foreign matter both during and after laying. The surfaces of all joints shall be thoroughly cleaned before the pipe or special is placed in its final position. No water shall be allowed to come in contact with or run through any pipe before the joint has been completed and at no time shall muddy, clayey or dirty water be allowed to enter the pipe.

Exposed ends of pipe and fittings in the trench shall be sealed by suitable end caps at all times when pipelaying is not actually in progress.

Laying shall commence at the lower end of the trench and proceed upgrade. Pipes and fittings must be laid with their spigots or male end pointing in the direction of the flow. All pipes and culverts shall be laid in a straight line, both in the horizontal and vertical plane, between adjacent manholes or catchpits except where shown on the contract drawings or directed by the Engineer.

Each pipe, fitting or culvert unit shall mate uniformly with the next to preserve an invert free from steps. Except with the prior consent of the Engineer, the laying of pipes and the bedding cradle, if specified, between any two consecutive manholes shall be checked by the Engineer's representative for line and level before the selected fill blanket is placed.

Where pipes are required to be cut on site, only manufacturer's recommended special machines shall be used and the resultant pipe end must be clean and uniform.

No pipes shall be left overnight or during rainy weather without sufficient backfilling between pipe couplings to prevent flotation. Where pipes are indicated on the contract drawings to be laid to a horizontally curved alignment the pipes must be fully jointed in a straight line and subsequently deflected with the previously laid pipe suitably anchored to prevent movement. Care must be taken to ensure the pipes are laid in a smooth curve with equal deflections at each joint.

Jointing:
All pipe joints and the operation of jointing shall be carried out strictly in accordance with the pipe suppliers instructions. In particular:

A. all rubber rings and seals shall be carefully inspected after being placed in position and before the joint is closed to ensure that they have not suffered any cuts, tears or other damage and are not in any other way defective;
B. care shall be taken to ensure that:
    I. all jointing surfaces are cleaned immediately prior to jointing;
    II. the joint gaps in the bedding remain clear and the alignment of the pipe remains true;
    III. the full weight of the pipe does not rest on the rubber ring during jointing;
    IV. pipes with damaged jointing surfaces are not used in the pipe run between manholes but are set aside for building into manhole walls etc.;
C. pipes and fittings of different materials shall be jointed only with special adaptors recommended by the pipe manufacturer; and
D. where a pipeline passes through a rigid structure and to prevent possible shear failure of the pipe, two flexible joints shall be positioned on each side of the structure. These shall be positioned 0,3 m and 0,8 m respectively from the nearside faces of the structures.

Concrete Encasement of Pipes:
The lower part of the encasement shall be constructed as for a class A bedding. Once the line has been tested and approved, the encasement of the pipes shall be completed, care being taken to ensure that the expansion joints in the upper part of the encasement coincide with that in the lower part. No backfilling over the concrete shall be commenced until the concrete has achieved a compressive strength of 15 MPa.

Pay Trench Width:
For payment purposes only, where measurement is specified by volume and a pipe is to be laid, the pay trench width shall be as indicated in the table below which is based on the excavation having vertical sides. Wherever the pay width is used to compute the measurement of volume in the following measurement and payment items provision shall be allowed in the rates for additional excavation necessary to either shore or batter back, the trench sides, if open battered trench excavations is permitted.

Nominal Diameter (mm)	Trench Width (mm)

over	upto	
0	100	700
100	700	nominal internal diameter plus 600
700	1000	" plus 800
1000	2000	" plus 1 000
2000	-	" plus 1 200

Pipe laying shall also include: supply and compaction of bedding, the laying, including curved alignment where specified, building pipes into manholes, catchpits and through rigid structures, all cutting and wastage of materials.

PS.C3.2.15.2 **Manholes:**

The tendered rate for these items shall be the number of complete manholes or inlet units (as shown on the drawings, including all concrete, blinding brickwork, covers, frames, grids and other accessories) that fall within the designated depth ranges listed. Standard drawings refer to drawing nos. 38570, 38571, 38572, 38573 and 38574.

The tendered rates shall include full compensation for the supply and installation of any precast elements as required to complete the manholes and catchpits, supplying, testing, loading, transporting and off-loading of all items, providing and placing, and installing, laying and jointing the prefabricated elements as specified, including cutting on the site, and waste. Where precast elements are installed on cast in situ concrete floors or walls or on brickwork walls, no additional payment shall be made for any additional costs arising from the change between cast in situ and precast work. No additional payments shall be made for working in depts greater than 1.0m (payment item C3.2.15.4 shall not apply). The rate shall further cover the cast-in-situ concrete, including the channel with serrations, mixing, laying, float finishing, setting out, all supervision, plant, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.

Unit of Measurement: Number (No.)

Refer to COTO A3.2.

Inlets:

The tendered rate for these items shall be the number of complete manholes or inlet units (as shown on the drawings, including all concrete, blinding, brickwork, covers, frames, grids and other accessories) that fall within the designated depth ranges listed.

Standard drawings refer to drawing nos. 38570, 38571, 38572, 38573 and 38574.

The tendered rates shall include full compensation for the supply and installation of any precast elements as required to complete the manholes and catchpits, supplying, testing, loading, transporting and off-loading of all items, providing and placing, and installing, laying and jointing the prefabricated elements as specified, including cutting on the site, and waste. Where precast elements are installed on cast in situ concrete floors or walls or on brickwork walls, no additional payment shall be made for any additional costs arising from the change between cast in situ and precast work. No additional payments shall be made for working in depts greater than 1.0m (payment item C3.2.15.4 shall not apply).The rate shall further cover the cast-in-situ concrete, including the channel with serrations, mixing, laying, float finishing, setting out, all supervision, plant, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.

Unit of Measurement: Number (No.)

Refer to COTO A3.2.

PS.C3.2.9 **Headwalls:**

	The tendered rate for these items shall be the number of complete headwalls (as shown on the drawings, including all concrete, brickwork, and other accessories). Standard drawings refer to drawing no. 38576. The tendered rates shall include full compensation for the supply and installation of any precast elements as required to complete the headwalls, supplying, testing, loading, transporting and off-loading of all items, providing and placing, and installing, laying and jointing the prefabricated elements as specified, including cutting on the site, and waste. Where precast elements are installed on cast in situ concrete floors or walls or on brickwork walls, no additional payment shall be made for any additional costs arising from the change between cast in situ and precast work. The rate shall further cover the cast-in-situ concrete, energy dissipation blocks, mixing, laying, float finishing, setting out, all supervision, plant, labour, equipment, materials, protection and incidentals necessary to complete the work as specified. All headwalls shall be cast in-situ unless otherwise stated. The use of prefabricated Units may be used subject to approved by the Engineer prior to use. Prefabricated units, drawings, specs and installation methodology shall be issued to the engineer minimum of 3 weeks prior to its programmed construction. Unit of Measure: Number (No.) Refer to COTO A3.2, A.2.7.11
PS.C3.2.28	**Removal of brickwork from manholes/inlets:**
	The unit of measurement is cubic metre (m^3) net in place before demolition. The rate shall cover the complete demolition of the structure and associated works and disposal of the material to an approved tip. Backfilling of any resulting cavities shall be paid for separately.
PS.C3.2.30	**Raising or Lowering of Existing Manholes and Inlets**
	The unit of measurement shall be number (No.) measured in increments of 0,25 m in paved or unpaved areas. The tendered rate shall include the removal of the existing adapter slab, cover, and frame; storing on site for potential re-use; demolition of the manhole as necessary; and the provision of all labour, materials, and equipment required to rebuild the manhole to the designated new level, including setting the cover and frame to the correct final level. The tendered rate shall also include either: • the re-use of existing covers and frames where suitable, or • the supply and installation of new covers and frames where re-use is not possible or directed by the Engineer.
PS.C3.3.2.1	**Precast Concrete Kerbing and Cast In-situ Channeling:**
	The grade of concrete for all cast in-situ work shall be grade 20/19 The sealer shall conform to B.S.4254 of 1967 - Two part polysulphide based sealants for the building industry, as amended. All kerbs shall be precast, supplied in 1 m lengths and shall conform to the requirements of S.A.B.S. 927 of 1969 - Precast concrete kerbs and channels as published in General Notice 463 dated 9 July 1982. If the curve radius is less than 25 m, but greater than 2 m, the maximum permissible length of kerb shall be 300 mm. Where the kerb radius is less than 2 m the kerb and channel shall be cast-in-situ. It is essential that moulds are manufactured and braced from a material which will not warp or distort after repeated use.

	Kerbs and in-situ channels shall be laid on a concrete foundation true to line and level to the dimensions shown on the contract drawings. The correct grade and line shall be maintained by use of an approved cord or line. The Contractor shall place sufficient pegs to ensure that the kerbs are laid on a true curve and NOT in a series of chords. Levels shall be adhered to strictly, particularly when graded channels are required between inlets. Kerbs shall be laid with a 13 mm gap and this joint shall be filled with cement mortar and the outside face of the joint shall be struck with a semi-circular jointer. In addition, suitable expansion joints 13 mm in width shall be provided at ± 18,0 m centres through kerb, channel and supporting concrete. This joint shall consist of a compressible material and polysulphide filler which shall match the colour of the concrete. Unless otherwise stated in the drawing, the interface between the channel/fillet and the road asphalt is the sett position, as such the kerbs and channels/fillets shall be constructed relative to the sett position and true to level. The precast items and cast-in-situ channels/fillets shall be protected from damage from the remaining road construction operations. For COTO item C3.3.2.1, the Kerb only shall be prefabricated, and all other components shall be cast in-situ (channels, backing, base etc.) The unit of measurement shall be the metre (m) and the rate shall cover the supply of all precast items, including transporting, loading, laying and jointing (including all expansion joints and sealer), cast-in-situ concrete foundation, including mixing, laying, float finishing, setting out of kerb and channel, all supervision, plant, testing, labour, equipment, materials, protection and incidentals necessary to complete the work as specified. Unit of Measure: Meter (m) Standard drawings refer to drawing no. 38577
PS.C4.2	**Earthworks:**
	Tenderers are to note that all topsoil from site is to be excavated to stockpile for later use. Cut material should ideally be moved directly to fill unless there are circumstance that prevent the contractor from doing so. Moving of material from cut to stockpile shall only be done with the approval of the Engineer. The exact location shall be pointed out by the Engineer. The unit of measurement shall be cubic meter (m^3) and shall include for labour, plant, and material. The nature of the roadworks is such that a fair amount of the excavation shall be in concrete / asphalt / intermediate / hard and soft materials. Quantities for any concrete / asphalt requiring breaking up with the use of excavators / breakers shall be measured prior to excavation and agreed upon by the Engineer. No additional payment shall be made for restricted excavation and the Tenderer shall therefore make due allowance in the rates for any additional work or hand excavation.
	Excavation of Road Layers:
	Existing road layerworks, excluding the asphalt, shall be excavated as restricted excavation ensuring no contaminating between layers and either: (a) storing on site for re-use, or; (b) transporting and off-loading to the Municipal Depot, either in Malacca in Durban North or the Phoenix Depot or (c) transporting to the Municipal depot in Verulam and off-loading or (d) spoiling at an approved tip site. The Contractor's rate for the removal of the layerworks, excluding the asphalt, shall include for the full operation, inclusive of haulage, and is to include for the restricted operation as well.
	Excavation of Asphalt and Concrete in Road:
	The unit of measure is cubic meters (m^3). The rate shall cover labour and plant necessary for removal of abandoned roadways, sidewalk

	/ median, concrete sidewalks, scoops, pedestrian and vehicular, interlocking blocks, asphalt paving and brick paving.
PS.C4.4.4.1	**Cementitious Stabilising Agents:**
	The cement used shall conform to SABS ENV 197-1 and shall be classified as either CEM II/A-S 42.5 or CEM III/A 32.5 respectively Prior to the commencement of paving of the layer the Contractor shall construct a section of trial layer to demonstrate his capability of constructing the layer in accordance with the specifications. The trial layer shall be constructed with the same materials, mix proportions and equipment as the Contractor intends using for the main layer. A trial section of not less than 50 m^2 shall be submitted for approval. The Engineer shall also have the right to call for a new trial section at any stage of the contract when, in his opinion, changes by the Contractor in the approved equipment, materials, mix or plant warrant such a procedure. The Contractor may, unless advised of any deficiencies in the trial layer, proceed with the main layer from a time ten days after the completion of the trial section or such earlier time as the Engineer may allow. In the event of deficiencies in the trial layer, the Engineer may order the Contractor to construct further trial sections until a satisfactory section is achieved. The Contractor may then proceed with the main layer from a time ten days after the successful completion of the satisfactory trial section. An item has been provided in the BOQ for the trial layer section.
PS. C5.1.1.2	**Roadbed Construction**
	Any particle size greater than 100 mm within this layer shall be removed and replaced with suitable material. The whole of the roadbed, except where stabilised shall then be proof-rolled with a vehicle having a minimum wheel load of 20 kN in order to determine any soft spots. The Contractor is responsible for protecting the formation at all times. No construction traffic that is likely to cause damage shall be allowed on the formation. Preparation of the formation shall only be carried out after all services and ducts have been laid. Soft spots shall be removed and replaced with suitable material and compacted in accordance with the specification.
PS.C9.1	**Asphalt Layers:**
	Smoothness Applicable to Wearing Course:
	The smoothness of the pavement will be determined by using a profilograph and the surface finish shall be tested in accordance with the following specification. The profile index will be determined using a California type profilograph furnished and operated by the Engineer in the presence of the Contractor. The profilograph shall be moved longitudinally along the pavement at a speed no greater than 5 kph and shall record the surface profile at full scale vertically. The results of the profilograph test will be evaluated as described in the metricated version of Test No. Calif. 526-D. The Contractor shall furnish paving equipment and employ methods that produce a riding surface having a profile index of 300 mm per kilometer or less for category "A" Roads and 500 mm per kilometer or less for Category "B" Roads. The profile measurements will start 10 m and will terminate 20 m from each bridge approach pavement or existing pavement that is joined by the new pavement in the direction of placement. Two pavement profiles will be taken of each day's production and the Profile Index shall be defined as the average of the two profiles. The position the profiles are taken will be either on the centre line of each planned traffic lane, if two traffic lanes are paved, or in the wheel paths of the traffic lane (i.e. 1 m from each edge) if only one traffic lane is included in the paved width. A daily average profile index shall be determined for each day's paving and a profile index of

	each day's production shall be established as soon as possible. A day's paving is defined as a minimum of 0,1 km of pavement placed in a day. If less than 0,1 km is paved, the day's production will be grouped with the next day's production. Rectification: The full depth of the layer shall be removed and replaced with fresh material laid and compacted to specification. Where the surface level is too high or too low the area rectified shall be not less than one lane wide and at least 15 m long for wearing course. Where the number of surface irregularities exceeds the specified limits the area to be rectified shall be 100 m long and not less than one lane wide.
	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.
	Laying of Asphalt:
	The Contractor shall provide the Engineer with the name of the asphalt Sub-Contractor before asphalt is laid. The asphalt shall be laid by an approved paving machine. Hand-laying shall be permitted at the Engineer's discretion when the area involved is small. The asphalt shall not be laid if its temperature is below 140 °C. The asphalt shall be rolled in accordance with the method described in chapter VI of the Asphalt Institute Paving Manual (MS-8). A final density is required of at least 96% of the Marshall density of the mix. An acceptance certificate for this layer will be issued by the Engineer's inspector when all requirements have been met. The rate tendered shall include for all extra work required to lay and compact the asphalt base and make-up courses in restricted areas. **SIDEWALKS:** The rates tendered for paving on sidewalks is to include the approved weedkiller “Outpace 100 GR.” The use of the weedkiller will be closely monitored on site, applied on formation and after the placing of the paving.
	Tenderer’s are to further take note of the Technical Specification for Asphalt Contained at the end of this section.
	<u>Asphalt Mix Requirements</u> 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).

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

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

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.

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.

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%.

	Marshall	Gyratory
	SANS 3001 AS1	AASHTO T 312
Traffic Condition Category[1]	No. Blows	N_{design}
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 $10^{-8}cm^2$)	1.0 max.	TRH 8 App C
Marshall Stability, Flow and Quotient	Report	SANS 3001-AS2

Table 12 Empirical Performance Tests (Level I)

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

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
Traffic Condition Category[1]	SANS 3001 AS1	AASHTO T 312
	No. Blows	N_{design}
Heavy (H) & Very Heavy (V)	-	100

Table 14 Volumetrics Compaction Requirements (Level II)

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

Property	Test conditions	Specification	Test method
Workability	Superpave gyratory compactor - air voids after 25 gyrations (max.)	7%	ASTM D 6925
Durability	Modified Lottman test conditions (min.)	0.8	ASTM D 4867M
Stiffness/ (dynamic modulus)	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

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%.

	Marshall	Gyratory
	SANS 3001 AS1	AASHTO T 312
Traffic Condition Category[1]	No. Blows	N_{design}
Extreme (E)	-	125

Table 17 Volumetrics Compaction Requirements (Level III)

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

Property	Test conditions	Specification	Test method

Stiffness (dynamic modulus)	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)

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.

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.

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.

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

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.C11.7.1	**Road Markings:**

The plastic road marking material shall also comply with the requirements of Specification BS.3262, 1987 Part 3.

A) The material shall consist of a light-coloured aggregate, pigment and extender, bound together with a thermoplastic resin, plasticised as necessary.

The approximate composition of the material as laid is dependent on the appropriate specification, but for example shall be:

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 E) Flow resistance: The percentage decrease in the height of the cone of SPRAYPLASTIC shall not be more than 25 after testing for 48 hours at 23 C (temperate 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). G) Abrasion resistance: The abrasive wear of SPRAYPLASTIC shall typically be less than 0,5 g per 100 revolutions. Items have been included in the Bill of Quantities for the provision of temporary road marking using P.V.A. paint. • The unit of measurement shall be linear meter (m) - Transverse lines, painted island and arrestor bed markings. • The unit of measurement shall be number (no.) – White lettering and symbols
PS.C11.8.3	**Landscaping and Planting Plants**
	The unit of measurement shall be square meter (m^2).
PS.C12.3.20	**Dumprock:**
	The dumprock shall consist of fresh to slightly weathered upgraded waste rock from mining activities, blasting or rock excavation. Shales, slates or other laminated mudrocks shall not be accepted. Dumprock shall have a minimum size not more than two-thirds of the compacted thickness of the layer. The rock shall otherwise be upgraded but shall contain less than 10% passing the 37,5 mm sieve when spread on site. Dumprock shall have a minimum 10% FACT value of 100 kN when dry and 40 kN when tested drained after 24 hours soaking. Dumprock shall be spread and levelled such that when compacted it is at the specified thickness and levels. When the correct road profile has been attained the dumprock layer shall be rolled 5 passes of a 10/12 ton static three wheel steel roller or equivalent vibrating roller. Dry, fine material (13,2 mm down) with a Plastic Index of between 0 and 7 shall then be applied in a blanket over the full width of the layer. With hand labour following the roller, the fine material shall be rolled and broomed into the voids of the stone. This procedure shall be

repeated until the stone layer will accept no further fines.

Compaction of the layer shall continue until movement of the material under the compactor becomes negligible or for a maximum of 10 passes of the roller whichever occurs first.

The completed dumprock layer shall be measured in cubic metre (m³). The rate shall cover the supply, loading, transporting, dumping, spreading of all materials and all processing of the layer and proof rolling, all as detailed.

Geofabrics:

The unit of measurement shall be the square metre (m²). The synthetic fibres of a geotextile blanket shall consist of at least 100% by mass of polypropylene, polyethylene or a polyester polymer and shall contain such additives as are necessary to render the filaments resistant to the effects of ultra-violet radiation in accordance with the following requirement:
The geotextile shall retain 80% of its specified strength after an effective exposure period of 1500 hours to direct sunlight.

The grade of geotextile shall conform to Table 1 of SABS 0221-1988:

TABLE 1 - GRADES OF GEOTEXTILES

1	2	3	4	5	6	7	8	9	10	11
Property	Grades									
	1	2	3	4	5	6	7	8	9	10
	Minimum value									
Thickness, mm	as specified by manufacturer									
Mass per unit area, g/m²	100	100	140	140	200	200	240	240	300	300
Penetration load, kN	1,0	1,0	1,5	1,5	2,5	2,5	3,0	3,0	4,0	5,0
Tensile strength, kN/m	6	6	10	10	13	13	18	18	25	30
Permeability, 1/s.m²										
High flow	200	-	170	-	130	-	80	-	40	-
Low flow	-	25	-	20	-	15	-	10	-	5

PS.C12.11 **Geosynthetics:**

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

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

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

Refer to COTO A12.11 for all geosynthetics

Goetextile:
The synthetic fibres of a geotextile blanket shall consist of at least 100% by mass of polypropylene, polyethylene or a polyester polymer and shall contain such additives as are necessary to render the filaments resistant to the effects of ultraviolet radiation in accordance with the following requirement :
The geotextile shall retain 80% of its specified strength after an effective exposure period of 1500 hours to direct sunlight.

PROPERTIES	GRADES

			1	2	3	4	5	6	7	8	9	10
			MINIMUM VALUE									
Thickness, mm			as specified by manufacturer									
Mass per unit area, g/m²			100	100	140	140	200	200	240	240	300	300
Penetration load, KN			1	1	1.5	1.5	2.5	2.5	3	3	4	5
Tensile strength, kN/m			6	6	10	10	13	13	18	18	25	30
Permeability 1/s.m²	High flow		200		170		130		80		40	
	Low flow			25		20		15		10		5

PS.C12.11.1	**Geosynthetics: Embankment protection**
	The unit of measurement shall be the square metre (m²). The rate shall include for the supply of the material, laying, joining, cutting and waste.

C3.4: PARTICULAR SPECIFICATIONS

In addition to the Standardized and Project Specifications the following Particular Specifications / Policies shall apply to this contract:

C3.4.1 Part AH - OHSA 1993 Safety Specification
(26 Pages)

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

C3.4.3 Site Specific Health and Safety Specification in terms of 2014 Construction Regulations.

C3.4.4 Baseline Risk Assessment document in terms of Construction Regulation 5.1(a)

C3.4.3 SITE SPECIFIC HEALTH AND SAFETY SPECIFICATION IN TERMS OF 2014 CONSTRUCTION REGULATIONS

ETHEKWINI MUNICIPALITY

Occupational Health & safety Unit

Site Specific Health and Safety Specification in terms of 2014 Construction Regulations 5.1(b)

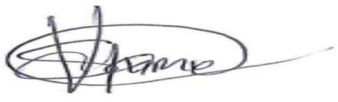
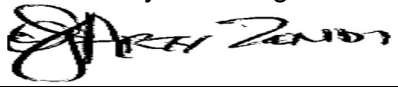
Document Title	HSS 32.10.26 Site Specific Health and Safety Specification
Client	eThekwini Municipality Road Provision
Project Name	Gravel to surface upgrade of Sosha road & 106544 st, and minor stormwater upgrade on Umthathawe gravel Inanda
Contract Number	1R-36769
Revision	n/a
Date	12/10/2026
Compiled by:	Name: Siziwe Chiliza  signature
Approved BY:	Name: Arty Zondi signature 

Table of contents

1. Project Description and site access
2. Limitation of liability
3. Purpose of the Construction Health and Safety Specification
4. Project Health and Safety Cost
5. Scope of Work
6. Compensation for Occupational Injuries and Diseases Act, 130 of 1993
7. Notification of Construction Work
8. Management and Supervision of Construction
   8.1 Construction Manager
   8.2 Construction health and safety officer
   8.3 Construction Supervisor
9. Principal Contractor's Health and Safety Plan
10. Hazard Identification and Risk Assessment
1 1. Health and Safety File
12. Close—out and Consolidated Health and Safety File
13. Health and Safety Training
14. Incidents Management & First Aid
1 5. Health & Safety Audits
1 6. Fire Precautions on Construction Site
1 7. Electrical Installations on Construction Sites
18. Personal Protective Equipment (PPE) and Clothing
19. Occupational Health and Safety Signage
20. Duties of Principal Contractors and Contractors
21 . Public Health and Safety
22. Construction Employees Facilities
23. Housekeeping and General Safeguarding on Construction Site
24. Construction Medicals
25. Health and Safety Representative and SHE Committee
26. Stacking and Storage on Construction Site
27. Emergency Procedures
28. Induction and Toolbox Talk Program me
29. Construction vehicle and mobile plant
30. Organogram
31 . Carrying out construction work in a residential place

1. PROJECT DESCRIPTION AND SITE ACCES

The contract entails the upgrade of 106544 Street and Sosha Road, , located in Inanda, Ward 107, from their existing gravel surface to asphalt surface roads. The contract also includes minor stormwater infrastructure Umthathawe Grove in Ward 107. The contract aims to enhance the road's functionality, safety, and aesthetic appeal, aligning with the division's infrastructure development goals.

The contract encompasses the upgrade of approximately 190m of existing gravel road, with a road width of 3m for both 106544 Street and Sosha Road. The scope of works includes the

construction of a hardened asphalt roadway surface. Additionally, kerbing will be installed to define the road's boundary and improve drainage.

Retaining structures will also be constructed to stabilise the road, the adjacent terrain, and protect against potential erosion or flooding from the adjacent stream. Moreover, the stormwater drainage system will be installed and upgraded. The works may include the removal of existing infrastructure, including pipes, trees, walls, paving blocks, wire mesh fences, gates, precast fences, unreinforced concrete and brickwork. Furthermore, the works may include the clearance of river streams, embankments, and existing pipe culverts and headwalls.

2. LIMITATIONS OF LIABILITY

The Principal Contractor shall enter into a Mandatory Agreement with the Client, as defined in Section 37(2) of the Occupational Health and Safety ACT.
The Principal Contractor shall ensure that each contractor appointed by the principal Contractor and each sub-contractor appointed by a contractor also into a Mandatory Agreement with the Principal Contractor, as defined in Section 37(2) of the Occupational Health and Safety ACT. These agreements shall be included in the Principal Contractor's H&S File on site and be valid for the duration of the contractors' work on the construction site.

3. PURPOSE OF THE CONSTRUCTION SPECIFICATION

The works are located in Inanda within the eThekwini Municipal Area and comprise three separate project sites, namely **106544 Street in Ward 107, Sosha Road in Ward 107** and **Umthathawe Grove in Ward 107**.

The three roads are situated at separate locations within the Inanda area and are accessible via the existing municipal road network. The Tenderer shall make adequate provision in their pricing for all logistical requirements associated with undertaking works at the three separate sites, including the movement of personnel, security, plant, equipment and materials between the respective sites. No additional payment arising from the distance or travel between 106544 Street, Sosha Road and Umthathawe Grove shall be entertained, and all associated costs shall be deemed to have been included in the Contractor's tendered rates and prices.

4. PROJECT HEALTH AND SAFETY COST

The Client must ensure that potential Principal Contractor submitting tenders have made adequate provision for the cost of health and safety measures.
The Principal Contractor shall allow in their cost provision for complying with the requirements of this Construction Health and Safety Specification; resources for the following Health and Safety controls shall be in place.

NO.	H&S cost item	Description
1.	Construction Health and Safety Officer	A part-time Construction health and safety officer is required to ensure that the health and safety Ian is implemented on site.
2	Medical certificate of fitness	Medical examination of all employees and certification of fitness by an Occupational Medicine Practitioner
3	Personal Protective Equipment	Personal Protective Equipment to be provided as per risk exposure, including but not limited to hands protection, and face protection
4	Public protection	To reduce risk exposure to the employees and members of the public
5	Employee facilities	Drinking water, ablution toilet etc..
6	Trainings and competency	Electrician, Risk assessor, Incident Investigator and Firefighter, first aider, Fall protection
7	Safety file	Full completed with all documents
8	Health and safety signage	All signatures must be displayed

5. SCOPE OF WORK

The scope of works for this project entails the following:

Imported Materials:

Imported material consists of clean coarse sand, G7, G5, G2, or better materials for the various layers and drainage grade geofabric. Asphalt is from Private Plant and shall be machine laid and shall be Asphalt Sa-S10 (Previous Mix A) for the roadway. Mix design detailing bitumen component percentage to be provided to the Engineer prior to any payment being processed.

Services:

The identification, protection, relocation, and renewal of any underground and overhead services forms part of the scope of this contract. Accordingly, the responsibility of dealing with these services in whatever way deemed necessary by the service owner or employer's agent, belongs to the contractor. For municipal services, bulk materials should be sourced from the respective Department. Connection to houses will require the appointment of a Metro approved service provider.

Water and sewer reticulation materials may require protection, relocation, installation, collection, transportation, storage, and security from stores. The contractor will be responsible for collection of materials from store on authorisation and it may be on more than one occasion.

Stormwater:

Stormwater construction consists of 450mm diameter concrete Class 100D Pipes, subsoil pipes, Type S2 inlets and manholes. Works will further involve the construction of headwalls.

Water:

For any water reticulation, bulk materials will be provided by the Water Department.

Connection to Houses. Appointment of Metro Approved Plumber. Water and Sewer Reticulation – protection/relocation/installation – collection, transport, storage, and security of materials from stores. Contractor will be required to collect materials from stores on authorisation on more than one occasion.

6. COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT

The Principal Contractor, each contractor and each sub-contractor shall submit proof of Good Standing with CODA Commissioner or a Mutual Association licensed in terms of Section 30 of COIDA, prior to starting any work on site. A copy of the Letter of Good Standing with COIDA Commissioner must be included in the H&S Plan of each contractor working on the site and must remain updated for the duration of the construction work.

7. NOTIFICATION OF CONSTRUCTION WORK

The Principal Contractor must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to Annexure 2 if the intended construction work will—
Include excavation work.
Include working at a height where there is risk of falling.
Include the demolition of a structure; or
Include the use of explosives to perform construction work.
A contractor who intends to carry out construction work that involves construction of a single-story dwelling for a client who is going to reside in such dwelling upon completion, must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to Annexure

8. MANAGEMENT AND SUPERVISION OF CONSTRUCTION WORK

During the submission of your health and safety file for approval, please ensure that at least the following appointments are submitted with the file:

- Construction manager CR8(1)
- Construction work supervisor CR8(7)
- Construction health and safety officer CR8(5) — part-time
- Risk assessor CR9(1)
- Incident investigator GAR9(2)
- Electrical installation controller EIR5(4) and proof of registration with DOL as an electrical installer or contractor • Fall protection planner

8.1 Construction Manager

The Principal Contractor shall appoint in writing a full-time competent person as the construction manager with the duty of managing all construction on the site including the duty of ensuring occupational health and safety compliance. The Construction Manager must demonstrate competency in relation to work being performed and the ability to manage construction work which may include making all statutory appointments in terms of health and safety.

8.2 Construction health and safety officer

The Principal Contractor shall appoint a part-time competent Construction Health and Safety Officer for the construction work, with at least 1 years in the construction industry as a construction health and safety officer.

8.3 Construction supervisor

A Construction Manager must in writing appoint construction supervisors responsible for

construction activities and ensuring occupational health and safety compliance on the construction site. A contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the construction supervisor contemplated in sub regulation (7), and every such employee has, to the extent clearly defined by the contractor in the letter of appointment, the same duties as the construction supervisor: Provided that the designation of any such employee does not relieve the construction supervisor of any personal accountability for failing in his or her supervisory duties in terms of this Regulation.

9. PRINCIPAL CONTRACTOR'S HEALTH AND SAFETY PLAN

The Principal Contractor shall submit a suitable, sufficiently documented and coherent specific health and safety plan based on the Client documented Health and Safety Specification. The health and safety plan shall include but not limited to the following:

- Objectives
- Scope of work
- Management of construction and supervision
- Monitoring and review plan
- Sub-contractor management

- ***CODA***
  - Risk Assessment & Safe Working Procedures
  - Incident Management
  - First Aid
  - Emergency procedures
  - Fire Prevention & Protection
  - Public Health and Safety
  - PPE provision
  - Health & Safety Signage
  - Construction Vehicles and Mobile Plants
  - Hand tools management
  - Electrical Tool Management
  - Electrical installation on construction site
  - Construction Employees Facilities
  - Health & Safety Policies
  - Health and Safety Training & Competencies
  - Housekeeping
  - Inductions
  - Medicals
  - Stacking and Storage
  - Internal and external Audit
  - Inspection Registers
  - Toolbox Talks
  - Carrying out construction work in a residential place

10. HAZARD IDENTIFICATION AND RISK ASSESSMENT

The Principal Contractor shall before commencement of any construction and during such construction works have risk assessments performed by appointed competent person in

writing which forms part of the health and safety plan to be applied.

The provisions of Regulation 9 of the Construction Regulations shall be followed in every detail.

11. HEALTH AND SAFETY FILE

The Client must discuss and negotiate with a Principal Contractor the content of the Health and Safety Plan and thereafter finally approve the Health and Safety plan for implementation. The recommended Health and Safety file shall include the following:

- SHE Policy
- PPE Policy
- Notification of Construction work
- Client Health & Safety Specification and Baseline
- Principal Contractor Health & Safety Plan
- Letter of good standing
- Section 37.2 Mandatory Agreement
- Contractor appointment letter in terms of CR 5.1 (k)
- Legal appointments and competencies
- Risk Assessments as per scope of work
- Safe Working Procedures for each task
- Incident/Accident Management Procedures
- LOA from SCM
- Organogram as per appointments
- Copy of OHS Act and Construction Regulations 2014
- Health and Safety Induction program me
- Emergency Procedures
- Medical Certificate of fitness
- Toolbox Talks Program me/ Plan • Fall protection plan

12. CLOSE- OUT CONSOLIDATED HEALTH AND SAFETY FILE

The Principal Contractor shall compile a consolidated H&S file and hand over to eThekwini municipality, Human settlements Unit (project manager responsible for the project). OHS Unit will conduct a project close out using the appropriate checklist before the completion of the project. The closeout file forms part of the project completion requirements for the retention payment.

13. HEALTH AND SAFETY TRAINING

The Principal Contractor shall ensure that employees are trained on health and safety measures this shall include but not limited to:

- Written Safe Working Procedures
- Risk Assessments
- Health and Safety Plan and other policies
- Fall protection plan
- Emergency Procedures/ Plan
- Incident management procedures
- Induction
- Toolbox Talks

14. INCIDENTS MANAGEMENT & FIRST AID

All incidents and accidents as per Section of the Act must be reported, recorded and investigated as per General Administration Regulation 8 & 9. Where a fatality or permanent disabling injury or incident occurs on the Construction site, the Client must ensure that the

Principal Contractor provides the Provincial Director with a report contemplated in Section 24 of the Act and the report includes the measures that the Principal Contractor intends to implement to ensure a safe construction site.

15. HEALTH AND SAFETY AUDITS

The Client must ensure that periodic health and safety audits are conducted at intervals mutually agreed upon between the Principal Contractor and the Client at least every 30 days, the copy of the health and safety audit report must be provided to the Principal Contractor within seven days after the audit.

16. FIRE PRECAUTIONS ON CONSTRUCTION SITE

The Principal Contractor shall provide suitable fire extinguishers which shall be serviced regularly in accordance with the manufacture's recommendations. Safety signage shall be prominently displayed in all areas where fire extinguishers are located. The Principal Contractor shall arrange for training of the relevant personnel, in the use of fire extinguishers.

The provisions of Regulation 29 of the Construction Regulations as well as Regulation 9 of Environmental Regulation for Workplaces shall be followed in every detail.

17. ELECTRICAL INSTALLATIONS AND MACHINERY ON CONSTRUCTION SITE.

The Principal Contractor shall designate a competent electrician in writing who shall control all electrical installations. All temporary electrical installations used by the contractor are inspected at least once a week by a competent person and the inspection findings are recorded in a register kept on the construction site. All Electrical machinery is inspected by the authorized operator or user on daily basis using a relevant checklist prior to use and the inspection findings are recorded in a register kept on the construction site.

The provisions of Regulation 5, 6 & 9 of the Electrical Installation Regulations shall be followed in every detail.

18. PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

The Principal Contractor shall ensure that every employee is issued with, and wears SANS-approved P.P.E. as per the conducted risk assessment. Failure to use protective equipment as per the risk assessment shall require disciplinary intervention and this process shall be documented in the induction. No employer shall in respect of anything which he is in terms of this Act required to provide or to do in the interest of health or safety of an employee make any deductions from any employee's remuneration or require or permit any employee to make any payment to him or to any other person.

The provisions of Regulation 2 of the General Safety Regulations shall be followed in every detail.

19. OCCUPATIONAL HEALTH AND SAFETY SIGNAGE

The Principal Contractor shall erect and maintain quality safety signage. The signage shall include but is not limited to:

- The construction work permit number displayed at the entrance (if applicable) • Access restrictions
- A sign indicating that all visitors must report to the site office and must be accompanied by the Principal Contractor when accessing the site • The name and telephone number of the responsible person(s)
- Emergency telephone number(s)
- PPE to be worn at the site
- When falling objects may occur, relevant barricading and warning signs must be erected

- Excavations, heights structures, temporary structures and all risk areas must be indicated as per the specific methods defined in the H&S Plan.

20. DUTIES OF PRINCIPAL CONTRACTORS AND CONTRACTORS

Contractors and sub-contractors must be given a copy of the H&S specification and any additional specification issued by the Client and shall comply with these specifications integrally. All employers working on the site shall conform to the standard in the CHSS. All the duties of the Principal Contractor in this CHSS equally apply, in full, to contractors of such Principal Contractor and to sub-contractors of such contractors. The Principal Contractor shall ensure that the comprehensive and updated list of alts the contractors and sub-contractors on site includes:

- A reference to the agreements between the parties, including all contractorsSection 37(2) agreements with the Principal Contractor
- The type of work being done
- The date of the approval of the H&S Plan
- The date of expiry of the COIDA certificate of good standing • The date of the last monthly audit

The provisions of Regulation 7 of the Construction Regulations shall be followed in every detail.

21. PUBLIC HEALTH AND SAFETY

The site shall always be secured to prevent the unauthorized access of persons to construction risk areas. Appropriate health and safety signage shall be posted and access control to site must be exercised via a single access point. All members entering the site must indicate in what capacity them visiting the site. The access point must be designed and constructed to allow for temporary parking, entry of construction vehicles, entry of personnel transport vehicles and entry of individual workers and other persons. The principal Contractor shall ensure that each person visiting the site shall be inducted to the site and such abridged induction shall outline the hazards from on-site activities and the precautions to be observed to avoid or minimize those risks. Visitors must only enter when accompanied by a responsible person designated by the Principal Contractor.

22. CONSTRUCTION EMPLOYEES FACILITIES

The Principal Contractor shall provide at or within reasonable access of every construction site, the following clean, hygienic and maintained facilities: (a) Shower facilities after consultation with the employees or employees representatives, or at least one shower facility for every 15 persons; (b) at least one sanitary facility for each sex and for every 30 workers; (c) changing facilities for each sex; and (d) sheltered eating areas.

The provisions of Regulation 2, 3, 4, 6, 7, 9 of the Facilities Regulations shall be followed in every detail.

23. HOUSEKEEPING AND GENERAL SAFEGUARDING ON CONSTRUCTION SITE

The Principal Contractor shall appoint a person responsible for general housekeeping and stacking and storage of materials and equipment on the entire site.

The provisions of Regulation 27 of the Construction Regulations shall be followed in every detail.

24. CONSTRUCTION MEDICALS

A Principal Contractor must ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an Occupational Health Practitioner in the form of Annexure 3.

25. HEALTH AND SAFETY REPRESENTATIVE AND SHE COMMITTEE

Health and Safety Representatives

- The Principal Contractor shall ensure that Health and Safety Representatives are appointed in writing and exercise their functions as defined in OHSA.
- The Principal Contractor shall elect and appoint a health and safety representative regardless of the number of employees on the site.
- The H&S representative shall always be on site and report to the Health and Safety Officer and Construction Manager.

Health and Safety Committee

- The Principal Contractor shall ensure that the H&S committee meets monthly
- The Principal Contractor's management and each contractor shall be represented at the H&S committee meeting; contractors with more than 20 employees shall have an H&S representative at each committee meeting and each contractor shall have a management member attending each H&S committee meeting.

26. STACKING AND STORAGE ON CONSTRUCTION SITE

A Principal Contractor must, in addition to compliance with the provisions for the stacking of articles in the General Safety Regulations, 2003, ensure that—
A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site; Adequate storage areas are provided; are demarcated storage areas; and storage areas are kept neat and under control.

27. EMERGENCY PROCEDURES/ PLAN

Principal contractor shall submit a detailed Emergency Procedures/ Plan for approval by the client prior to commencement of work on site. The procedures shall detail the response plan including the following:

List of key competent personnel
Details of emergency services
Action or steps to be taken in the event of emergencies
Information on hazardous material
Emergency events relevant to the project

28. INDUCTION AND TOOLBOX PROGRAMME

No contractor may allow or permit any employee or person to enter any site unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.
A contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment.
A contractor must at all times keep on his or her construction site records of the health and safety induction training contemplated in sub-regulation (6) and such records must be made available on request to an inspector, the client, the client's agent or the principal contractor;
The Principal Contractor must ensure that the toolbox talks are conducted on weekly basis and the training records kept on the safety file.

29. CONSTRUCTION VEHICLES AND MOBILE PLANTS

For any use of construction vehicle and mobile plant in the construction site, contractor must comply with all the provisions of Construction Regulation 23.

30. ORGANOGRAM

Contractor shall submit an organogram outlining the site safety, health and environmental management structure as per appointment. The organogram must reflect the project and the company name and must have legal references.

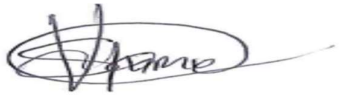
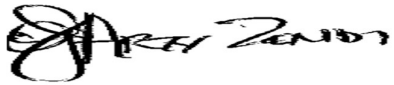
31. CARRYING OUT CONSTRUCTION WORK IN A RESIDENTIAL PLACE

The contractor must highlight the approach on how he/ she will ensure cooperation with other affected parties in the area e.g., Residents, Local businesses ect.

C3.4.4 Baseline Risk Assessment document in terms of Construction Regulation 5.1(a)

ETHEKWINI MUNICIPALITY
Occupational Health & Safety Unit

Baseline Risk Assessment in terms of Construction Regulation 5.1(a)

Document Title	Baseline Risk Assessment in terms of Construction Regulation 5.1(a)
Client	eThekwini Municipality – road provision
Project Name	Gravel to surface upgrade of Sosha rd & 106544 st, and minor stormwater upgrade on Umthathawe grove Inanda
Contract Number	1R- 36769
Revision	01
Date	12/10/2026
Internal Reference no.	BRA 32/10/2026
Compiled by (Safety officer)	Siziwe Chiliza Signature: 
Reviewed by (Manager: Safety& Risk)	Arty Zondi Signature: 

MAIN ACTIVITY	Site Establishment					
REF NO	**SUB ACTIVITY**	**SAFETYRISKS**	**HEALTH RISK**	**ENVIROMENTAL RISK**	**PUBLIC RISK**	**RECOMMENDED RISK CONTROL MEASURE**
1.1	Travel to site	• Potholes • Undulating roads • Poor visibility	• Fatigue	• Oil/diesel spillages	• Community livestock • Other vehicles driving recklessly • Pedestrians • Construction works on public road	• All drivers to be deemed competent • No staff to travel in rear of vehicles with equipment • All equipment to be secured during transport • All vehicles to be road worthy • No drivers/Operators to be under the influence of alcohol or drugs of any kind. • Inspection Records must be kept for all vehicles and plant.

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
1.2	Site clearance and de-vegetation	• Poor traffic control • Incompetent drivers • inadequate signage's • Moving of construction vehicles and vehicle colliding • Snakes insect bites & stings	• Back strain • cuts, • Abrasion • heat exhaustion • noise exposure • dust inhalation	• Spilling of oil diesel, petrol • Contamination of ground	• Tripping hazard • dust inhalation • intermittent noise level	• All staff to have medicals done by an occupational medical practitioner prior to commencement of work. All workers to have valid medicals with annexure 3 documents signed and stamped by Occupational Medical Practitioner with records in file. • All staff to work under supervision • Dust suppression is to be maintained • Responsible 8.1 to ensure Instructions are given on Manual handling using Safe Work Procedure (SWP) for Manual Handling. • Only Licensed and Appointed Mechanical Aids Operators (i.e. Crane Operators, TLB operators, Bobcat Operators, etc.) to operate plant on site. • Inspection & Maintenance records must be maintained for all mechanical aids on site.

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
1.3	Site fencing	• Pinch points from manual handling • Trip hazards • Underground services	• Heat exposure • Dust • Noise • Chemical burns/ contact dermatitis from cement and eye injuries from cement splashes	Hydrocarbon spills	• Unauthorised persons entering site • School learners entering site • Damage to underground services	• All contractor staff and local labour to be inducted of all “no go” areas • All staff have company logo PPE with name tags • Contractor staff to work within designated areas only • Contractor to conduct DSTI’s (Daily Safety Task Instruction) and communicated at the beginning of the shift daily. DSTI close out to be conducted and attendance registered signed by all staff. • Flagman to be provided to ensure vehicles are guided onto site. • Wear hand protection (PVC Gloves), safety glasses and face shield always by the operator of the concrete chute. • Concrete spillages to be cleaned up and concrete truck chute to be cleaned in concrete wash area. • Stacking & Storage Supervisor to be appointed to control lay down areas.

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
1.4	Placing of mobile offices	• Use of mechanical aids for offloading • Failure of lifting equipment • Fall from heights • Manual handling • Mechanical aids overturning • Overhead power lines	• Noise • Hand and body injuries • Heat exposure • Dust exposure	Hydrocarbon spills	• Exposure to dust • Interaction of machinery and learners	• All operators to be deemed competent • All riggers to be deemed competent • All lifting equipment to be. load tested • Flagman/banksman to be present on-site during movement of plant • Access control to be managed on site • All staff to have the required PPE • Staff working at heights to be trained for heights safety • Contractor to conduct DSTI's (Daily Safety Task Instruction) and communicated at the beginning of the shift on a daily basis. DSTI close out to be conducted and attendance registered signed by all staff. • Ensure Offloading area is clear, level, secure and free from slip trip and falling hazards. • Mechanical Aids must be operated in accordance with the operators training and manufacturers guidelines

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
1.5	Connection of power supply	Electrocution Hand injuries	Heat exhaustion	None	Interruption of power supply	• Only authorised person to do electrical connection • A COC is to be provided for all electrical works done • Monthly inspections to be done for all temporary electrical connections • Contractor is to be responsible for power consumption • Required agreements to be in file for electrical usage
1.6	Water supply	Injuries during the laying of water pipes	Drinking water which is not safe for human consumption	None	Theft of water by residents	• All drinking water is to be labelled/sign posted • Water use is to be managed on site • The location of standpipes to be correctly positioned to mitigate theft of water from site
1.8	Construction of staff facilities: eat area/toilets/ change area	• Manual handling • Fall from heights • Hand injuries • Use of portable electrical power tools	• Electrocution • Dust exposure • Heat exposure	None	None	• Separate facilities for both male and female • Drinking water to be provided for staff on site • If portable toilets are to be used required service slips are to be maintained on site • Staff facilities area to be suitable for staff use

MAIN ACTIVITY	Construction Works					
REF NO	**SUB ACTIVITY**	**SAFETYRISKS**	**HEALTH RISK**	**ENVIROMENTAL RISK**	**PUBLIC RISK**	**RECOMMENDED RISK CONTROL MEASURE**
2.1	Site survey	• Trips and falls • Injuries from use of hand tools	• Heat exhaustion • Dust exposure	Use of cement for markings contamination	• Trips and falls • Unauthorised entrance	• Works to be supervised • DSTI to be done • Lime to be used for ground markings • Required PPE to be used • All survey pegs to be made visible • If steel is to be used rebar caps are to be fitted onto them
2.2	Mechanical excavations	• Machinery collides with people • Collision with machinery • Fall into open excavation • Collapse of side walls	• Dust exposure • Back injuries • Noise exposure	Hydrocarbon spills	• Dust exposure • Collision with machinery	• DSTI to be done • All staff to have the required PPE • All plant to be inspected before use • All open excavations to be netted off and sign posted • Excavated spoil to be 500mm away from edge of excavation • Nil staff to be in any excavation when machinery in use
2.3	Manual excavations	• Slips and falls • Fall into open excavations • Collapse of side walls	• Dust exposure • Back injuries • Heat exhaustion	None	Fall into open excavations	• All staff to be trained in safe works procedure • All spoil to be away from edge of excavation • Ladders to be provided for access and egress from excavations

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.4	Unsafe stacking and storage practices	• Manual handling injuries • Pinch points • Slips and trips	Back injuries	None	None	• Required PPE to be used • DSTI to be done • All works to be supervised • All steel to be stacked within a designated area
2.5	Installation of Temporary Electrical Installations	• Use of hand tools injuries • Trips and falls • Collapse of excavation side walls • Contact with machinery	• Chemical burns from concrete • Heat exhaustion • Dust exposure	Ground contamination	Collision with pedestrians	• DSTI to be done • Flagman to direct all trucks to site • All staff to have the required PPE when handling concrete • Nil staff to be in foundation during discharge of concrete into excavation • Delivery trucks to use designated access • Washing of truck chutes to be done within a concrete wash area
2.6	Housekeeping	• Manual handling injuries • Trips and falls	• Dust exposure • Back strains • Ergonomically injuries	Ground contamination due to mixing of mortar on natural ground	Unauthorised access to site	• Proper stacking of bricks to be done • Movement of bricks to be done with proper wheelbarrows • All staff to have required PPE • A platform to be created for mixing of mortar • Housekeeping to be maintained on site

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.7	Site Induction	• Struck by machinery • Manual handling injuries • Fires	• Dust exposure • Heat exhaustion • HAVS • Noise	Hydrocarbon spills	Unauthorised access	• All staff to have required PPE • DSTI to be done • All works to be supervised • Safe works procedure to be done and communicated to staff • Risk assessments to be communicated by means of training
2.8	Setting up of temporary road works signage	• Struck by machinery • Placing of incorrect signage at locations	incident Damage to property	Environmental degradation	None	The Contract • Manager must ensure that a suitable site-specific Traffic Management Plan is developed and implemented and a competent Traffic Safety Officer
2.9	Public vehicular and pedestrian traffic travelling on the public road during construction work	• injuries • car collision	incident Damage to property	None	None	• All works to be supervised All All temporary road traffic signage must comply with the • SARTSM • Flagman to direct all vehicles to site
2.10	Layer works (asphalt layer)	• Use of hand tools injuries • Trips and falls • Contact with machinery Respiratory failure • Burns	• Chemical burns from asphalt • Heat exhaustion • High temperature of product	Ground contamination	none	• Flagman to direct all vehicles • All staff to have the required PPE when handling asphalt • Delivery trucks to use designated access • All spills to be cleaned and disposed • Enforced reverse alarms to be fitted Application of dust masks

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.11	Backfilling	• Manual handling injuries • Trips and falls	• Dust exposure • Back strains • Ergonomically injuries • Heat exhaustion	Ground contamination due to mixing of mortar on natural ground	Unauthorised access to site	• All staff to have required PPE • A platform to be created for mixing of mortar • Waste skips to be provided on site • All asphalt waste to be properly disposed on site • Housekeeping to be maintained on site
2.12	Refuelling plant and equipment	• Extremely flammable, high hazard. The liquid can release vapours at temperature below ambient which forms flammable mixtures	Heat exhaustion	Ground contamination due to mixing of mortar on natural ground	Unauthorised access to site	• Required appointments to be in file • All works to be supervised Remove all sources of ignition. Contain and • collect spillage with non-combustible absorbent materials. Place in a suitable container for disposal in accordance with waste regulations

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.13	Excavator Plate compactor, Bomag roller, Front end loader, Mobile crane TLB, milling machine, paver, excavator, skid steer(bobcat), rollers (steel drum/ rubber tyre) grader, insist recycler, chip spreader, bitumen distributor(tanker)	• Collapse of scaffolding • Slips and falls • Fall from heights/ elevated positions	Heat exhaustion	None	Unauthorised access to site	• All staff will be deemed fit for work with medicals records in file • Required PPE will be provided for staff • All works to be supervised •

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.15	Employees working in close proximity to moving machinery Exposure to noise	noise	noise	none	No unauthorised access	• All power tools to be inspected before use. Records to be in file • Housekeeping to be maintained on site • Employee to make use of SABS approved hearing protection, supervisor to ensure that the correct P.P.E is used. Task to be supervised by a competent supervisor
2.16	• Hazardous chemical substances	injuries Contact with skin/ eyes Inhalation or indigestion	Skin irritation, burns or infections Could cause loss in eyesight			• Required PPE to be used • DSTI to be done • All works to be supervised • All steel to be stacked within a designated area • Exposed rebar to be fitted with rebar caps • All power tools to be inspected before use.
2.17	Neighbouring business and public exposed to the nature of the construction activities	• Dust exposure • Heat exhaustion	Dust pollution	Unauthorised access to site		Communication with neighbouring business is critical. Health risk must be communicated to all • employees' dust, noise generated out of the construction work must be managed • Fence constructed to approved standard

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.18	Emergency Preparedness, Emergency Drill & Evacuation	No training No implementation Planning done Failure to have a basic site-specific Emergency Management Plan	Person/s unprepared to respond to the emergency at hand	none	none	The Construction Manager must ensure that a site specific Emergency Management Plan is developed for implementation. Adequate number of employees trained in the use of fire equipment
2.17	Utilizing incompetent Sub-Contractors	• Use of hand tools injuries • Trips and falls • Contact with machinery	• Chemical burns from concrete • Heat exhaustion • Dust exposure	Ground contamination	Collision with pedestrians	The Construction Manager must be reasonably satisfied that the Sub Contractors intended to be appointed have the necessary competencies and resources to carry out the work safely
2.18	Brickwork at manholes	• Manual handling injuries • Use hand tools injuries	• Ergonomical injuries • Heat exhaustion	None	None	• DSTI to be done • Risk assessment and SWP to be communicated to all staff • All power tools to be inspected before use • Fall arrest equipment to be used at all heights

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.19	Mixing mortar	• Unsafe • electrocution • loading strain	Loading / unloading material	none	none	The Construction Manager must ensure that a SWP is developed implemented about safe lifting and loading procedures All work needs to be supervised

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
2.20	Install Geosynthetic layer	Poor Ergonomics may result in muscular skeletal injuries	• Ergonomical injuries • Heat exhaustion	None	None	The Construction Manager must ensure that workers are trained in the risk of ergonomically injuries and methods to mitigate the risks

MAIN ACTIVITY						
REF NO	**SUB ACTIVITY**	**SAFETYRISKS**	**HEALTH RISK**	**ENVIROMENTAL RISK**	**PUBLIC RISK**	**RECOMMENDED RISK CONTROL MEASURE**
3.3	Construction of drains	• Trips and falls • Manual handling injuries • Underground services • Open excavations	• Dust exposure • Heat exposure • Ergonomical injuries • Noise exposure	None	None	• All works to be supervised • DSTI to be done • Risk assessments & SWP to be done • All open excavations to be netted off • Access and egress to be provided for all open excavations • All spoil to be away from excavation side wall

MAIN ACTIVITY						
REF NO	**SUB ACTIVITY**	**SAFETYRISKS**	**HEALTH RISK**	**ENVIROMENTAL RISK**	**PUBLIC RISK**	**RECOMMENDED RISK CONTROL MEASURE**
3.4	Pouring Ready Mix concrete	• Noise • Dust • Bumping against, • Concrete truck tipping over •	• noise induced hearing loss	None	None	• flag person required and Visual check required • Wearing required PPE
3.5	Waste removal	• Noise • Dust • Bumping against, • Struck by flying items	• cuts and abrasions • dust inhalation • noise induced hearing loss	None	None	• Safe & proper use of hand tools • Wearing required PPE • practise of proper manual lifting of material

MAIN ACTIVITY						
REF NO	**SUB ACTIVITY**	**SAFETYRISKS**	**HEALTH RISK**	**ENVIROMENTAL RISK**	**PUBLIC RISK**	**RECOMMENDED RISK CONTROL MEASURE**
3.9	Inlet and outlet structures	• Use of hand tools injuries • Trips and falls • Contact with machinery • Working in a restricted area • Manual handling	• Dust exposure • Ergonomical injuries • Chemical burns	None	None	• Safe & proper use of hand tools • Wearing required PPE • practise of proper manual lifting of material • Supervise the works by a competent supervisor
3.10	Working with hot asphalt	• lack of proper access / working platform	Heat exhaustion	None	None	• DSTI to be done • Risk assessment and SWP to be communicated to all staff • Scaffold to be erected by competent person • Scaffold to be erected as per SANS 10085 • Supervise the works by a competent supervisor • Staff to be trained for work at heights • Fall arrest equipment to be used at all heights • Adequate lighting to be provided

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
6.3	Cleaning tools with solvent	• Use of power tool – electrocution • Manual handling • Work in restricted area	Dust exposure	None	None	• All power tools to be inspected before use • DSTI to be done • Risk assessment/SWP to be done and in file • All staff to have required PPE
6.5	Manual lifting of tool	• Fall from heights • Fall of • equipment from heights	• Dust exposure • Heat exhaustion • Manual exertion	None	None	• Work platform to be inspected • Full supervision at all times • Staff to have fall arrest equipment in use • Manual lifting techniques to be practiced at all times
	Welding, flame cutting, soldering and similar operations	• Fumes inhalation • Eye injury	• Chest pain • heat	none	none	• Proper PPE required • Close supervision

MAIN ACTIVITY						
REF NO	**SUB ACTIVITY**	**SAFETYRISKS**	**HEALTH RISK**	**ENVIROMENTAL RISK**	**PUBLIC RISK**	**RECOMMENDED RISK CONTROL MEASURE**
7.1	Inlet and outlet structures	Struck by vehicle	heat	none	none	Traffic management plan required
7.2	Applying tack	Eye injury	contamination	none	none	Close supervision all the time

MAIN ACTIVITY						
REF NO	**SUB ACTIVITY**	**SAFETYRISKS**	**HEALTH RISK**	**ENVIROMENTAL RISK**	**PUBLIC RISK**	**RECOMMENDED RISK CONTROL MEASURE**
8.1	Site levelling using excavator/ bob cat	• Trips and falls • Exposed survey pegs • Use of hand tools	• Heat exposure • Noise exposure	Hydrocarbon spills	• Pedestrians exposed to machinery • Accidents	• Works to be supervised • Staff to use required PPE • Dust suppression to be maintained • Refuelling to be done in designated areas • Rebar caps to be fitted on exposed pegs • Risk assessments and SWP to be done for staff • All plant operators to be deemed competent • Flagman to be present on site
8.2	Backfill and compaction of other layers	• Manual handling • Trips and falls • Use of mobile plant accidents	• Heat exhaustion • Dust exposure • Noise exposure	Hydrocarbon spills	• Pedestrians exposed to machinery • Accidents	• Works to be supervised • Staff to use required PPE • Dust suppression to be maintained • Refuelling to be done in designated areas • Rebar caps to be fitted on exposed pegs • Risk assessments and SWP to be done for staff • All plant operators to be deemed competent • Flagman to be present on site

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
8.4	Concreting of walkways/ driveway	• Use of hand tools injuries • Trips and falls • Collapse of excavation side walls • Contact with machinery	• Chemical burns from concrete • Heat exhaustion • Dust exposure	Ground contamination	Collision with pedestrians	• DSTI to be done • Flagman to direct all trucks to site • All staff to have the required PPE when handling concrete • Nil staff to be in foundation during discharge of concrete into excavation • Delivery trucks to use designated access • All spills to be cleaned and disposed

MAIN ACTIVITY	COVID 19

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
9.1	Travel to site Deliveries -use of public transport	• Nil decontamination of public transport • Passengers in public transport not using face masks • Nil social distancing in public transport • Nil decontamination of supplies and deliveries	• Staff contracting the virus during use of public transport • Staff contracting virus during handling of contaminated supplies	None	None	• All staff to ensure that they use a face mask and sanitise when using the public transport • Contractor could arrange for a dedicated transport for all staff to and from work. • Staff are not to use their work PPE when travelling on public transport. • All staff to follow decontamination procedures when entering work site
9.2	Management to prepare site before construction works commence	• Nil decontamination of offices and facilities • Failure to align policies and procedures to COVID 19 virus	• Returning staff not provided with COVID related PPE and disinfectants • Possible contamination to staff	none	Unauthorised persons entering site	• Management to ensure all offices, facilities are disinfected with proper disinfectants • Overgrown vegetation to be cut before any staff can return to site • Required COVID 19 PPE is to be purchased and made available for staff when project commences

	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
	Site preparation	• Failure to display related signage's for site access due to COVID virus. • Nil PPE and sanitisers (COVID related) for staff to return to work • Management not inducted/educated on COVID 19	Staff returning to work are not educated on policy changes Management unable to provide correct information to staff on COVID 19 issues	none	none	• Required access control signage's (COVID related) to be displayed at main entrance • Management to rearrange facilities area to ensure social distancing • Policies and procedures (COVID related) to be amended and approved before site can reopen. This is to be communicated to all staff • An induction program (COVID 19) is to be prepared which is to be communicated to all staff when project commences • Required sanitisers and disinfectants to be purchased and made available before project commences • Contractor to ensure required staff information form pertaining to COVID 19 is available which is to be filled out by each staff • Adequate hazardous waste bins to be made available on site
9.3	Entering of construction work site	Staff fail to use required PPE	Staff may be infected with the virus	none		All staff to follow the required social distancing when at main entrance

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
	Entering construction work	• Congestion of staff at main entrance to site • Failure of contractor to screen staff entering site • Staff not maintaining social distancing	Staff spreading of the virus to other staff	none	none	• Due to lockdown, staff are to declare their movement, medical history during lockdown. These records are to be kept on site for record/tracing purposes • All staff are to be tested as per contractor's protocol to enter the site. Taking of staff temperature and desensitising of entire staff. An infrared thermometer is to be used. • Contractor to ensure all staff conducting the required testing is provided with the required PPE and is supervised by management. • Staff are not permitted to enter the site with their work PPE. Work PPE is to be left on site when leaving site to prevent possible contamination of work PPE • Any staff tested with a high temperature or signs of COVID is to follow the quarantine procedure until staff can be tested by the DOH for possible COVID 19 infection.

9.4	Work tasks	• Nil social distancing on site • Staff socialising on site • Staff not using their required PPE to prevent COVID infections	• Spreading of the virus to other staff • Possible infections	none	Possible closure of site due to infection	• Identified tasks are to be evaluated to encourage social distancing • All staff to have the required PPE when on site • Staff to decontaminate all tools and workspace prior to any activity • Monitoring to be done by management • Inductions to be done for all staff on social distancing whilst at work. • Failure of staff to comply with COVID control measures are to be removed off site.

REF NO	SUB ACTIVITY	SAFETYRISKS	HEALTH RISK	ENVIROMENTAL RISK	PUBLIC RISK	RECOMMENDED RISK CONTROL MEASURE
9.5	Use of facilities during break intervals	• Nil social distancing • Nil hygiene been maintained at break intervals • Nil paper towel provided for staff at wash facilities • Lack of chairs for staff at facilities area	• Possible contamination of staff • Staff not practising adequate hygiene control measures • Possible spread of virus • Inadequate provision of hand wash /sanitisers for staff	none	none	• Breaks are to be staggered to allow social distancing of staff • All staff are to take their breaks at the identified facilities area • Layout of facilities area to be planned to encourage social distancing • Table and chairs to be disinfected before and after all break intervals • Toilets to be disinfected at frequent interval. • Adequate hand wash and sanitisers are to be provided for staff to frequently wash their hands • Paper towels to be provided for staff use • Labelled bins to be provided for all hazardous waste • Staff are not to share any meals or utensils • Staff are not to leave the site to purchase any meals
9.6	Use of jackhammer	• Injuries • Noise • Loss limb	• vibration	none	none	• Tools need to be inspected • Safety team supervisor

C3.5: CONTRACT AND STANDARD DRAWINGS

C3.5.1 CONTRACT DRAWINGS / DETAILS

See the attached layout drawing.

C3.5.2 STANDARD DRAWINGS

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

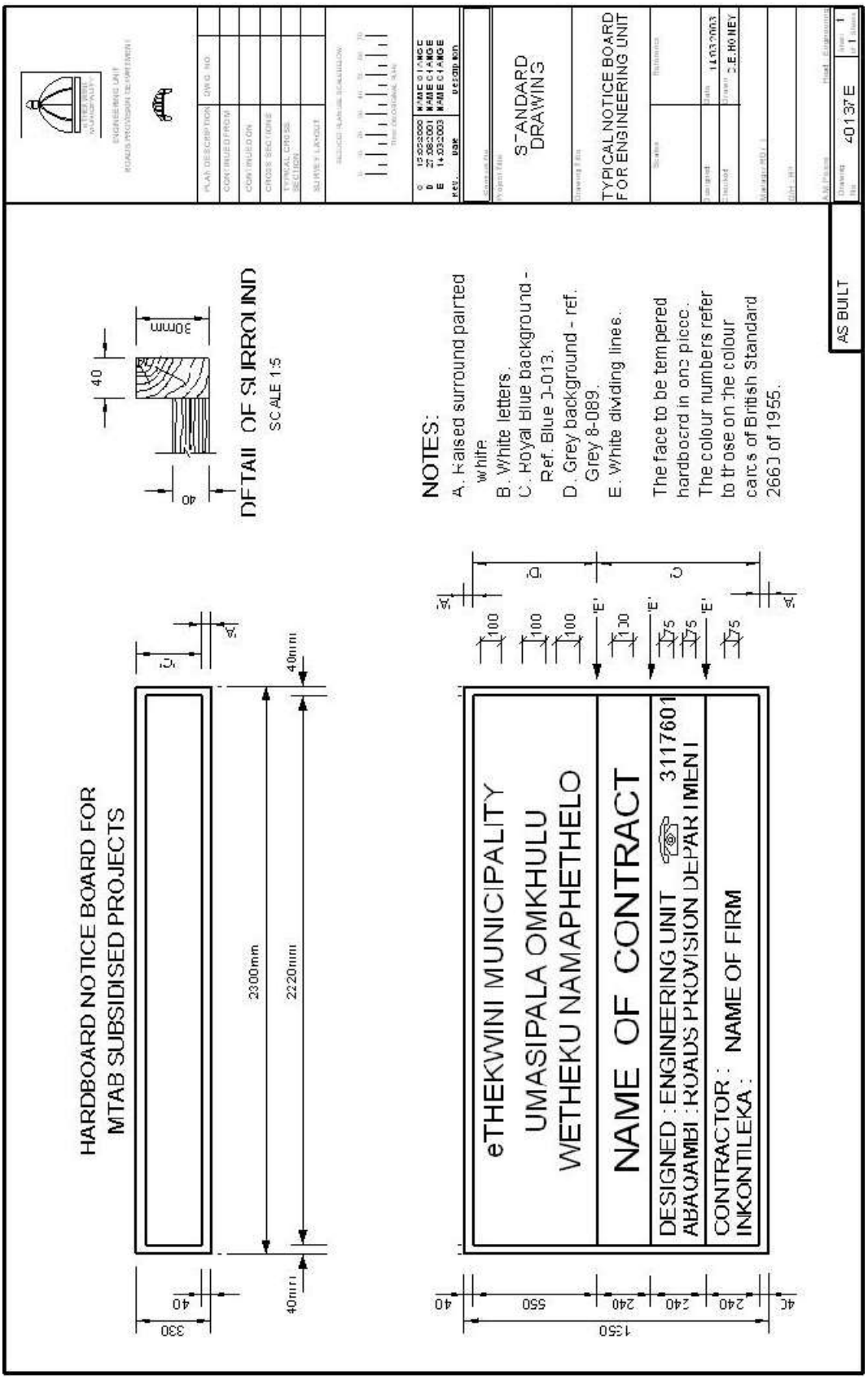
Dwg No	Description	Date of Issue
38570	Ring Manholes	February 1990
38571	Brick Manhole Details	February 1990
38572	Stormwater Inlet Details	February 1990
38573	Stormwater Inlet Special Details	February 1990
38574	Sewer Manholes: Ramp, Backdrop and Channelling Details	February 1990
38575	Sub-Soil Drain, Pipe Bedding and Pipe Protection Details	February 1990
38576	Headwall Details	February 1990
38577	Kerbing Details	February 1990
38578	Concrete Median Barriers	February 1990
38579	Vehicular and Pedestrian Scoops	February 1990
38580	Concrete Bollard and Steel Guard Rail	February 1990
38581	Retaining Wall, PC Steps, Staircase, Cable Ducts and Headwalls	February 1990
38582	Precast Concrete Fencing and Aluminium Gates	February 1990
38583	Wire Mesh Fence and Gate Details	February 1990
38584	Standard Hydrant Thrust Blocks and Trenches	February 1990
38585	Water Connections, Pipework and Fittings	February 1990
38586	DP & TC Manholes - Rectangular	February 1990
38587	DP & TC Manholes - “L” Shaped	February 1990
38588	DP & TC Manholes - “T” Shaped	February 1990
38589	DP & TC Cable Ducts and Junction Box Details	February 1990
43120	Typical Details of Grid Inlets	February 1990

C3.5.3 CONTRACT DRAWINGS / DETAILS



C3.6: ANNEXURES

C3.6.1 Construction Notice Board Details



PART C4: SITE INFORMATION

C4.1 LOCALITY PLAN



Figure 1: 106544 Street, Ward 107



Figure 2: Sosha Road, Ward 107



Figure 3: Umthathawe Grove, Ward 107

C4.2 CONDITIONS ON SITE

There is no specific geotechnical information or other site information.

C4.3 TEST RESULTS

There are no specific test results.



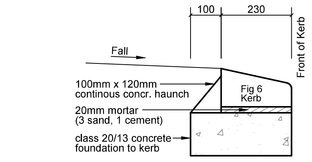
106544 STREET - CENTRE LINE DETAILS

No.	CHAINAGE	Y Co-Ord	X Co-Ord	CURVE DETAILS	REMARKS
START	0	4286.90	3288640.51	—	—
END	92.02	4266.08	3288550.88	—	—

SOSHA ROAD - CENTRE LINE DETAILS

No.		CHAINAGE	Y Co-Ord	X Co-Ord	CURVE DETAILS	REMARKS
START		0	3992.29	3288523.41	—	—
Curve No. 1	BCC1	0.70	3992.41	3288524.10	R = 8.000m	—
	PI1		3993.10	3288527.81	IA = 50° 27' 28"	
	ECC1	7.75	3990.68	3288530.70	TL = 3.77m	
Curve No. 2	BCC2	40.34	3969.76	3288555.69	R = 20.000m	—
	PI2		3967.10	3288558.87	IA = 23° 25' 58"	
	ECC2	48.52	3963.39	3288560.73	TL = 4.15m	
Curve No. 3	BCC3	74.40	3940.26	3288572.33	R = 30.000m	—
	PI3		3937.27	3288573.83	IA = 12° 43' 08"	
	ECC3	81.06	3934.03	3288574.63	TL = 3.34m	
END		98.37	3917.22	3288578.79	—	—

SETTING OUT DETAILS



TYPE E SEMI-MOUNTABLE KERB PLACED ON ROAD SURFACE
Scale 1 : 10

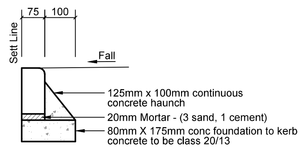
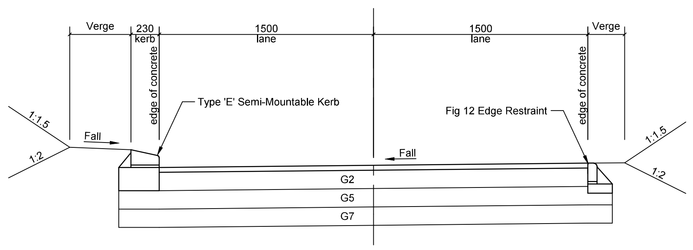


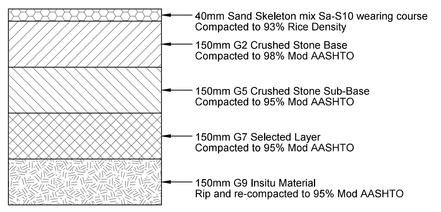
FIG. 12 KERB - EDGE RESTRAINT
Scale 1 : 10

GENERAL NOTES:

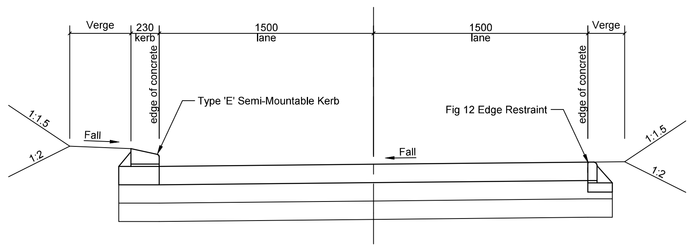
1. CONTRACTOR TO EXERCISE EXTREME CARE AND CAUTION WHILST WORKING IN THE VICINITY OF ALL SERVICES.
2. CONTRACTOR TO ENSURE EXISTING SERVICES ARE TO BE EXPOSED PRIOR TO ANY CONSTRUCTION COMMENCING.
3. CONTRACTOR TO ENSURE THAT ANY BOUNDARY BEACONS DISLODGED ARE TO BE REPLACED IN ITS EXACT POSITION AFTER CONSTRUCTION AT CONTRACTORS OWN COST.
4. THE COST OF ANY DEVIATIONS (TRAFFIC) NOT PROVIDED OR SHOWN ON THE PLAN AND IN THE SCHEDULE AND REQUIRED BY THE CONTRACTOR TO ENABLE HIM TO COMPLY WITH THE NECESSARY TRAFFIC REQUIREMENTS ETC. SHALL BE AT THE CONTRACTORS OWN COST.
5. FINAL POSITION AND EXTENT OF BELLMOUTH TO BE CONFIRMED BY THE EMPLOYER'S AGENT ON SITE.
6. ALL DRIVEWAY ACCESSES TO BE MAINTAINED AND REGRADED TO SUITE NEW ROAD LEVELS WHERE REQUIRED FOR ENTIRE CONTRACT DURATION.
7. CONTRACTOR TO ENSURE EXISTING GRAVES, IF PRESENT, ARE PROTECTED AND NOT DISTURBED.
8. REMOVAL OF EXISTING TREES AND FENCES TO BE CONFIRMED BY THE EMPLOYER'S AGENT ON SITE PRIOR TO ANY CONSTRUCTION COMMENCING.
9. CONTRACTOR IS NOT ALLOWED TO UTILISE WATER FROM ANY RIVER OR STREAM FOR CONSTRUCTION.
10. VERGES AND EMBANKMENTS ARE TO BE TRIMMED AND SHAPED TO SPECIFICATION PRIOR TO ROAD ASPHALT BEING LAID.



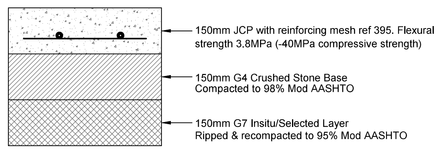
TYPICAL CROSS SECTION (ASPHALT)
Scale 1 : 25



PAVEMENT DESIGN LAYERS (ASPHALT)
Scale 1 : 10



TYPICAL CROSS SECTION (CONCRETE)
Scale 1 : 25



PAVEMENT DESIGN LAYERS (CONCRETE)
Scale 1 : 10

LAYOUT PLAN
Scale 1:500

106544 STREET - STORMWATER DRAINAGE DETAILS

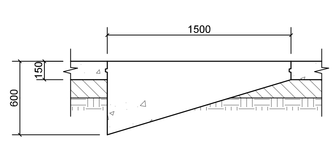
APPROX. CHAINAGE	INLET/OUTLET NUMBER	INLET/OUTLET TYPE	DISTANCE	PIPE GRADE	BEDDING DETAILS	PIPE SIZE & CLASS SPIGOT & SOCKET	REMARKS
50.000	INLET1	S1					
			37.500m	%	C	450mm Ø 100D	
12.500	INLET2	S1					CONNECT INTO EXISTING STORMWATER SYSTEM

SOSHA ROAD - STORMWATER DRAINAGE DETAILS

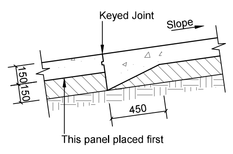
APPROX. CHAINAGE	INLET/OUTLET NUMBER	INLET/OUTLET TYPE	DISTANCE	PIPE GRADE	BEDDING DETAILS	PIPE SIZE & CLASS SPIGOT & SOCKET	REMARKS
98.38	INLET1	S1					
			12.500m	%	C	450mm Ø 100D	
.	INLET2	S1					
			50.000m	%	C	450mm Ø 100D	
.	INLET3	S1					
			40.000m	%	C	450mm Ø 100D	
.	INLET4	S1					
			37.000m	%	C	450mm Ø 100D	
EXISTING STORMWATER INLET							CONNECT INTO EXISTING STORMWATER SYSTEM

STORMWATER NOTES:

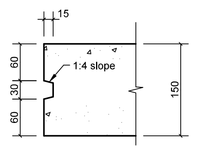
1. FOR DETAILS ON INLETS, MANHOLES AND HEADWALLS REFER TO STD DRAWING No's. 38571, 38572, 38573 AND 38576.
2. FINAL INLET, MANHOLE AND HEADWALL POSITION AND LEVELS TO BE CONFIRMED BY THE EMPLOYER'S AGENT ON SITE.
3. EXTENT OF RENO MATTRESS PROTECTION TO BE CONFIRMED BY THE EMPLOYER'S AGENT ON SITE.



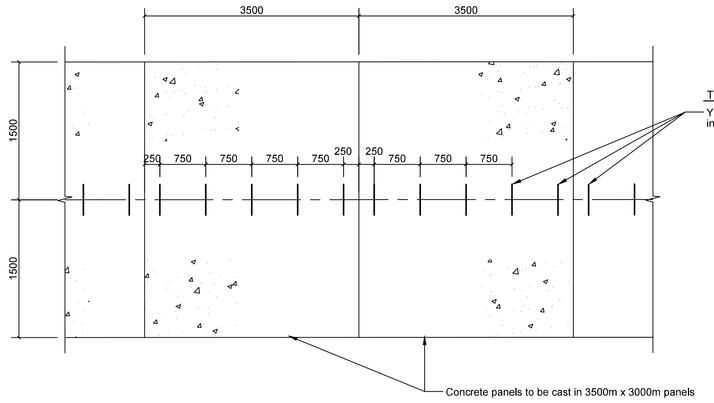
ANCHOR BLOCK
Scale 1 : 25



PANEL ANCHOR
Scale 1 : 25



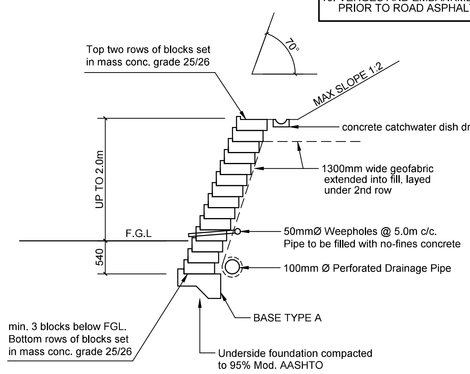
TRANSVERSE & LONGITUDINAL KEY DETAIL
Scale 1 : 5



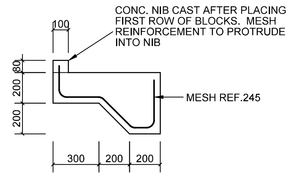
CONCRETE PANEL LAYOUT
Scale 1 : 50

RETAINING WALL NOTES:

1. BLOCK TYPE : GEOLOK BLOCKS OR SIMILAR APPROVED BLOCKS TO BE SANS 505:2012 CERTIFIED.
2. ALL FOUNDATION TRENCHES TO BE APPROVED BY THE EMPLOYER'S AGENT ON SITE PRIOR TO CASTING OF CONCRETE.
3. BOTTOM ROAD OF BLOCKS TO BE PLACED WHILE THE BASE CONCRETE IS STILL WORKABLE.
4. FILL BEHIND WALL TO BE COMPACTED TO 95% Mod. AASHTO AND AS PER PART DD OF ETHEKWINI'S STANDARD ENGINEERING SPECIFICATIONS (YELLOW PAGES). BENCHING OF EXISTING AND/OR CUT SLOPES MAY BE REQUIRED WHERE NECESSARY.
5. CONCRETE IN WALL BASE - GRADE 25/26 OR AS SPECIFIED.
6. CEMENT STABLISHED FILL - 12:1 CLEAN COARSE SAND : CEMENT, WELL RAMMED BETWEEN BLOCKS, IN BLOCKS AND 500mm BEHIND BLOCKS AS DETAILED.
7. MINIMUM OF 8 BLOCKS TO BE LAID PER SQ.M OR AS PER THE MANUFACTURES SPECIFICATION.
8. CONTRACTOR TO MAKE ALLOWANCE FOR +/- 73mm "STEP BACK" WITH EACH 200mm STEP UP WHEN SETTING OUT THE BASE OR AS PER THE MANUFACTURERS SPECIFICATION.
9. CONTRACTOR TO REFER TO DETAILED SURVEY DRAWINGS FOR THE LOCATION OF SERVICES, PROPERTY BOUNDARIES ETC.
10. LEVELS AND DIMENSIONS INDICATED ON THIS DRAWING ARE ONLY A GUIDE AND THESE NEED TO BE CONFIRMED BY THE EMPLOYERS AGENT ON SITE.
11. POSITION OF RETAINING WALLS TO BE CONFIRMED BY THE EMPLOYERS AGENT ON SITE.
12. ALL RETAINING WALLS AS PER STRUCTURES DEPARTMENT DETAILS (ISSUED SEPERATELY IF REQUIRED).



TYPICAL WALL 0.0m TO 2.0m HIGH
Scale 1 : 50



BASE TYPE A
1 : 20

DRAUGHTING SYMBOLS

DETAIL	Proposed	Existing
CENTERLINE		
WATERMAIN DUCT		
TELKOM CABLE DUCT		
ELECTRIC CABLE DUCT		
ELECTRIC CABLES		
ELECTRIC LIGHT POLE	LEP	LEP
TRAFFIC SIGNAL	TS	TS
CONSUMER DISTRIB. UNIT	CDU	CDU
TELKOM CABLES	TEL	TEL
TELEPHONE POLE	TP	TP
SEWER		
STORMWATER DRAIN	SWD	SWD
STORMWATER INLET		
SCOOP		
KERB AND CHANNEL		
EARTH EMBANKMENT		
WATERMAIN		
VALVE / Air Valve	V / AV	V / AV
FIRE PLUG	FP	FP
STANDARD HYDRANT	SH	SH
EXISTING M.H. TO BE CONVERTED TO CATCHPIT		
EXISTING CATCHPIT TO BE CONVERTED TO M.H.		

FOR TENDER PURPOSES ONLY

New Road Area ..... m²

Unsurfaced to Surfaced ..... km's

AS BUILT

Date ..... Sign .....

eTHEKWINI MUNICIPALITY

ENGINEERING UNIT
ROADS PROVISION DEPARTMENT

PLAN DESCRIPTION	DWG. NO.	
CONTINUED FROM		
CONTINUED ON		
CROSS SECTIONS		
TYPICAL CROSS SECTION		
SURVEY LAYOUT		

REDUCED PLAN USE SCALE BELOW

0 10 20 30 40 50 60 70

70mm ON ORIGINAL PLAN

DRAWN IN ALLYWINDOWS

IWG31

Revision	Date	Description

NOTE:
No construction work to commence until land and servitude acquisitions have been completed

Acquisitions completed

Date ..... Engineer .....

NORTH POINT

UNDERGROUND SERVICES CHECKED

SERVICE	DATE	SIGNATURE
S.W.DRAINS		
SEWERS		
WATER MAINS		
G.P.O.CABLES		
ELECTRIC CABLES		
S.A.R. CABLES		
E.S.C. CABLES		
OIL PIPE LINE		

NOTE:
Only underground services affected by new construction work are shown. Care must be taken during excavations for road foundations, trenches etc., to avoid damage to underground services such as sewers, drains, cables, water mains and connections. Wherever possible these must be located before work proceeds.

Contract No
1R-36709

Project Title
GRAVEL TO SURFACE UPGRADE OF SOSHA ROAD AND 106544 STREET, AND MINOR STORMWATER UPGRADE ON UMTHATHAWE GROVE IN WARD 107 INANDA

Drawing Title
DIMENSIONS, SETTING OUT, EXISTING AND PROPOSED SERVICES PLAN AND TYPICAL DETAILS

Scales	Reference
AS SHOWN	
Designed	**Date**
S.ZUNGU	09 OCTOBER 2026
Checked	**Drawn in AllyWindows by**
N.PARSHOTAM	D.NAIDOO

Manager RD (N)

Deputy Director : RP

Director : Engineering Services

Drawing No	Sheet
49587	01 of 02 Sheets