

Documents may be obtained,
free of charge, in electronic format,
from the eTenders website.

Reference is to be made to
Clause F.1.2 of the
Tender Data.

WATER AND SANITATION UNIT
CUSTOMER SERVICES DEPARTMENT

PROCUREMENT DOCUMENT
INFRASTRUCTURE

CONTRACT No.: WS 7553

**TITLE: THE UPGRADE TO INDUSTRIAL, COMMERCIAL, AND
INSTITUTIONAL (ICI) WATER METER INSTALLATIONS IN
ETHEKWINI MUNICIPALITY PHASE 5**

**Clarification Meeting: A Compulsory Clarification Meeting will be held 14 Scott Road, Pinetown
3600 on 17 August 2022 at 11:00.**

Issued by:

**WATER AND SANITATION
UNIT**

**WATER AND SANITATION UNIT
CUSTOMER SERVICES DEPARTMENT**

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NAME OF TENDERER:

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PART T1: TENDERING PROCEDURES
T1.1: TENDER NOTICE AND INVITATION TO TENDER

Tenders are hereby invited for the works to Upgrade eThekwini Water & Sanitation's Industrial, Commercial, and Institutional bulk water meter installations.

(F.1.1.1) The Employer is the eThekwini Municipality as represented by Deputy Head: Customer Services

It is estimated that tenderers should have a CIDB contractor grading designation of 6 CE (or higher).

(F.1.2) Documents can be obtained in electronic format, issued by the eThekwini Municipality:

- Electronically downloaded documentation is obtainable from the National Treasury's eTenders website or the eThekwini Municipality's website . The entire document should be printed and suitably bound by the tenderer.

(F.2.7) A Compulsory clarification meeting will be held 14 Scott Road, Pinetown 3600 on 17th August 2022 at 11:00. Bidders are requested to submit email queries related to the bid. All email queries are to be submitted to Zlungile.memela@durban.gov.za by 2022/08/26. Email questions and answers will be consolidated and posted on eTenders/Municipal website for the benefit of all tenders by 2022/09/01.

(F.2.8) Queries relating to these documents may be addressed to the Employer's Agent's Representative whose contact details are: Zlungile Memela , 031 322 8568 (t) , Zlungile.memela@durban.gov.za

(F.2.13) Tender offers shall be delivered to the Municipal Building, 166 K.E. Masinga Road and placed in the tender box located in the ground floor foyer.

(F.2.15) Tender offers shall be delivered on or before Friday, 09th September, 2022 at or before 11:00

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

PART T1: TENDERING PROCEDURES

T1.2: TENDER DATA

T1.2.1 STANDARD CONDITIONS OF TENDER

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (July 2015) as published in Government Gazette No 38960, Board Notice 136 of 2015 of 10 July 2015.

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

T1.2.2 TENDER DATA

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

F.1: GENERAL

F.1.1 The employer: The Employer for this Contract is the eThekweni Municipality as represented by: Deputy Head: Customer Services

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

- 1) This procurement document.
- 2) Drawings: Bound in Section C3.4 as an Annexure.
- 3) "General Conditions of Contract for Construction Works – 3rd Edition 2015" issued by the South African Institution of Civil Engineering (GCC 2015). This document is obtainable separately, and Tenderers shall obtain their own copies.
- 4) "City of Durban Technical Specifications" hereinafter referred to as the Standard Engineering Specifications. This document is obtainable separately, and Tenderers shall obtain their own copies of the applicable Sections.
- 5) In addition, Tenderers are advised, in their own interest, to obtain their own copies of the following acts, regulations, and standards referred to in this document as they are essential for the Tenderer to get acquainted with the basics of construction management, the implementation of preferential construction procurement policies, and the participation of targeted enterprise and labour.
 - The 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).
 - The Preferential Procurement Policy Framework Act No 5 of 2000, and the Preferential Procurement Policy Framework Act Regulations (January 2017).
 - SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
 - The Employer's current Supply Chain Management Policy.
 - Any other eThekweni Policy documents referenced in the Tender Documents.

Electronically downloaded documentation is obtainable from the National Treasury's **eTenders Website**

- <https://etenders.treasury.gov.za/>

The entire downloaded document should be printed and suitably bound by the tenderer.

F.1.4 The employer's agent: The Employer's agent is

- Lindokuhle Mnguni Pr. Tech Eng
- Tel: 031 311 8056 (t)
- Email: Lindokuhle.mnguni@durban.gov.za

The tenderer's contact details as indicated in the Contract Data under Clause C1.2.2.2 "Data to Be Provided by Contractor" shall be deemed as the only applicable contact details for the tenderer for use in communications between the employer's agent and the tenderer after the closing time stated in the Tender Data.

F.2: TENDERER'S OBLIGATIONS

F.2.1 Eligibility: A Tenderer will not be eligible to submit a tender if:

- (a) the Tenderer does not comply with the legal requirements as stated in the Employer's current SCM Policy;
- (b) the Tenderer cannot provide proof that he is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in the contract;
- (c) In the event of a Compulsory Clarification Meeting:
 - i) the Tenderer fails to attend the Compulsory Clarification Meeting;
 - ii) the Tenderer fails to have form "Certificate of Attendance at Clarification Meeting / Site Inspection" (in Part T2.2) signed by the Employer's Agent or his representative.
- (d) in the case of JV submissions, two or more JV entities have common directors / shareholders or common entities tendering for the same works.
- (e) at the time of closing of tenders, the Tenderer is not registered on the National Treasury Central Supplier Database (CSD) as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture.

F.2.1.1 Eligibility: Only those tenderers who are registered (as "Active") with the CIDB (at time of tender closing), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a 6 CE class of construction work, are eligible to have their tenders evaluated.

Joint ventures are eligible to submit tenders provided that:

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

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

"Documents may be obtained, free of charge, in electronic format, from the National Treasury's

eTenders website or the eThekwini Municipality's website . The entire electronically downloaded document should be printed and suitably bound by the tenderer.

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

"Addenda will be published, in electronic format, on the National Treasury's eTenders website (see F.2.2.2 above). Tenderers are to ensure that the eTenders website is consulted for any published addenda pertaining to this tender until 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 address / fax number / email address as specified on the addenda. Failure of the tenderer to comply with the requirements of the addenda may result in the tender submission being made non-responsive."

F.2.7 Clarification meeting: A Compulsory clarification meeting will be held 14 Scott Road, Pinetown 3600 on 17th August 2022 at 11:00.

In the event of a Compulsory Clarification Meeting, Tenderers must sign the attendance register in the name of the tendering entity. Addenda will be issued to, and tenders will be received only from, those tendering entities appearing on the attendance list.

F.2.12 Alternative tender offers: No alternative tender offers will be considered.

F.2.13 Submitting a tender offer: Submissions must be submitted on official submission documentation issued in hard copy eThekwini Municipality.

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

- Contract No. : WS 7553
- Contract Title : THE UPGRADE TO INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL (ICI) WATER METER INSTALLATIONS IN ETHEKWINI MUNICIPALITY PHASE 5

The Employer's address for delivery of tender offers is: the Municipal Building, 166 K.E. Masinga Road and placed in the **Tender Box** located in the ground floor foyer.

Parts of each tender offer communicated on paper shall be submitted as an original, plus **1 copies**. Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

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

- Date : Friday, 09th September, 2022
- Time : 11:00

F.2.16 Tender offer validity: The Tender Offer validity period is 12 weeks (84 Days) from the closing time for submission of tenders.

F.2.20 Submit securities, bonds, policies: The tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part T2.2 of this procurement document.

F.2.23 Certificates: Refer to Part T2.1 for a listing of certificates that must be provided with the tender. All certificates must be valid at the time of tender closing.

CIDB Registration

Tenderers are to include with their submission a printout of their registration with the CIDB, obtained from the CIDB website (<https://registers.cidb.org.za/PublicContractors/ContractorSearch>).

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

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

Tax Clearance

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

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

B-BBEE Status Level of Contribution

The Amended Construction Sector Code (Government Gazette No.41287) is applicable to the B-BBEE compliance measurement of all entities that fall within the Construction Sector.

The requirements for measurement and verification of entities are contained in the “Amended Code Series CSC000: Framework for Measuring Broad Based Black Economic Empowerment in the Construction Sector”, as published in Notice 931 of 2017, Government Gazette No.41287 of 01/12/2017.

The requirements are summarised in the following table:

Enterprise Type	Total Annual Revenue (R million)	Ownership and Annual Turnover
EME: Built Environment Professional	< R1.8m	May present an affidavit OR a certificate issued by the CIPC OR authorised B-BBEE verification certificate (as below)
EME: Contractor	< R3.0m	
Reference should be made to Cl.3.6.2.4.1 of the Amended Construction Sector Code regarding the above exceptions.		
EME: Built Environment Professional	< R6m	Must present an authorised B-BBEE verification certificate by a SANAS accredited Verification Agency
EME: Contractor	< R10m	
QSE: Built Environment Professional	≥ R6.0m and < R25m	
QSE: Contractor	≥ R10.0m and < R50m	
Large Enterprise	>R50m	

The requirements for measurement of Joint Ventures is described in Cl.2.8 of the Amended Construction Sector Code. The compilation of a consolidated verification certificate is required.

B-BBEE Verification Certificates must be from a Verification Agency accredited by the South African National Accreditation System (SANAS).

Central Supplier Database (CSD)

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

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

Audited Financial Statements (F.2.1(f))

F.3: THE EMPLOYER'S UNDERTAKINGS

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

F.3.2 Issue addenda: Add the following paragraph: “Addenda will be published, in electronic format, on the National Treasury’s eTenders website. In the event that the Clarification Meeting is compulsory, Addenda will only be issued to those tendering entities appearing on the Clarification Meeting Register.”

F.3.4 Opening of Tender Submissions: Tenders will be opened immediately after the closing time for tenders. The public reading of tenders will not take place due to COVID protocols .

F.3.11 Evaluation of Tender Offers: The procedure for evaluation of responsive Tender Offers will be in accordance with the Employer’s current SCM Policy, the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (January 2017).

The procedure for the evaluation of responsive tenders is **Method 2** (Price and Preference with functionality).

The **80/20** preference points system will be used where the financial value (incl. VAT) of one or more responsive tender offers has a value that equals or is less than R 50,000,000. The Formula used to calculate the **Price Points**, and the **Preference Points** that will be allocated, will be according to the specified PPPFA Regulations.

Only locally produced goods, services, or works, or locally manufactured goods, with a stipulated minimum threshold for Local Production and Content will be considered

F.3.11.9 The value of W_2 is 100. The Functionality criteria (and sub-criteria if applicable) and maximum score in respect of each of the criteria are as follows:

Functionality Criteria / Sub Criteria		Maximum Points Score
Tenderer’s Experience		45
Qualifications and Experience of Key Personnel	Contracts Manager	10
	Civil Engineering Technician	10
	Lead Artisan Plumber	15
Preliminary Programme and Meter installation Methodology		15
Quality Assurance and Control Plan		5
Maximum possible score for Functionality (M_s)		100

The minimum number of evaluation points for Functionality is **60**. Only those tenderers who achieve the minimum number of Functionality evaluation points (or greater) will be eligible to have their tenders further evaluated.

Functionality shall be scored by not less than three evaluators and the scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for Functionality.

Evaluation criteria will be adjudicated according to submissions made in accordance with the following schedules, which are found in Part T2.2: Returnable Schedules:

EVALUATION SCHEDULE

Functionality shall be scored in accordance with the schedules below. The threshold for this contract is 60 Points. Failure to meet the threshold, and where applicable, the minimum scoring requirements for the various quality criteria, will lead to disqualification of the tender.

The prompts for judgement and the required returnable schedules for each of the evaluation criteria are listed below.

Functionality shall be scored by not less than three evaluators and the scores of each of the evaluators will be averaged, eighted and then totalled to obtain the final score for Functionality.

It is a strict requirement that the Tenderer submit proof of completion of each contract listed for experience by attaching a signed Certificate of Completion of Works, see returnables on pages 15 to 54 of this tender document.

Failure to do so will lead to the conclusion that the work was not successfully completed, and **NO** points will be awarded for any relevant experience claimed for that contract.

EVALUATION CRITERIA FOR FUNCTIONALITY

Experience of Tendering Firm

45 points

- a) Tendering Firm's experience of successfully completed contracts over the last **10 years** involving the installation of mechanical water meters (small and bulk diameter sizes):

5 points for each contract up to a maximum of:

25 points

Completed Contracts	Number of points awarded
0	0
1	5
2	10
3	15
4	20
5	25

- b) Tendering Firm's experience of successfully completed contracts over the last **10 years** involving the laying and repairing of water pipes of different pipe materials:

4 points for each contract up to a maximum of:

20 points

Completed Contracts	Number of points awarded
0	0
1	4
2	8
3	12
4	16
5	20

Qualifications and Experience of Key Personnel to be employed on the Contract **35 points**

1. Contracts Manager..... 10 points

Qualifications and Registrations:

Minimum 5 years relevant experience as a contracts manager and a relevant Degree or ND/NHD qualification. (1 point per year of relevant experience) **5 points**

Specific Experience:

Experience in the position of Contract/ Project Manager on contracts for the construction of the following from start to full completion and hand over:

- Installation of mechanical water meters
- Pipe laying/ pipe replacement or pipe repairing projects

1 point per project up to a maximum of: **5 points**

Completed Projects	Number of points awarded
0	0
1	1
2	2
3	3
4	4
5	5

2. Contract Civil Technician..... 10 points

Qualifications and Registrations:

Minimum 5 years relevant experience in meter installation/ pipe laying projects and a Degree/NHD/Diploma in Civil engineering (1 point per year of relevant experience) **5 points**

Experience in the position of Civil Technician on contracts for the construction of the following from start to full completion and hand over:

- Installation of mechanical water meters
- Pipe laying/ pipe replacement or pipe repairing projects

1 point per project up to a maximum of: **5 points**

Completed Project	Number of points awarded
0	0
1	1
2	2
3	3
4	4
5	5

3. Lead Artisan Plumber..... 15 points

Specific Experience:

Experience in the position of Lead Artisan Plumber (Minimum 5 years relevant experience) on contracts for the installation of mechanical water meters of different diameters.

Qualifications and Registrations:

Minimum 5 years relevant experience and a VALID Trade test qualification. Plumber experience will be calculated from date of qualification. All qualifications and experience will be verified accordingly. (1 point per year of relevant experience). **5 points**

2 points per project up to a maximum of:

10 points

Completed Projects	Number of points awarded
0	0
1	2
2	4
3	6
4	8
5	10

Preliminary Programme and meter installation Methodology.....15 points

Adequacy and completeness of tenderer's preliminary programme, indicating all construction activities, resources (i.e. labour and plant), cash flows and critical path.

- No information was provided, or submission of no substance/irrelevant information provided. 0 points
- Programme and methodology does not cover all the applicable individual activities which are in an acceptable sequence, with appropriate durations, and is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion). 3 points
- Programme and methodology covering all the applicable individual activities which are in an acceptable sequence, with appropriate durations, and is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion). 6 points
- Programme and methodology covering all the applicable individual activities which are in an acceptable sequence, with appropriate durations, and is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion). **Plus:** shows critical path with logical linking of tasks/ activities. 9 points
- Programme and methodology covers all the applicable individual activities which are in an acceptable sequence, with appropriate durations, is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion) and demonstrate that the tenderer clearly understand the Scope of Work. **Plus:** shows critical path with logical linking of tasks/ activities, shows detailed activity and resources breakdown, cashflow included. 12 points
- Programme and methodology covers all the applicable individual activities which are in an acceptable sequence, with appropriate durations, is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion) and gives real confidence that the tenderer will add value to the project. **Plus:** shows critical path with logical linking of tasks/ activities, shows detailed activity and resources breakdown, cashflow included. Detailed plant and equipment resource breakdown included. 15 points

<u>Quality Assurance & Control Plan</u>	5 points
• Contractor has no documented Q.A. Plan	0 points
• Contractor has own documented Q.A. plan of an acceptable standard	2 points
• Contractor has own documented Q.A plan that shows proper planning of ensuring all water meters installed are checked for compliance with checklist/questionnaire attached.	3 points
• Contractor has own documented Q.A plan that shows proper planning of ensuring all water meters installed are checked for compliance with checklist/questionnaire attached and shows plan for future planned quality check	5 points

MAXIMUM SCORE FOR TENDER EVALUATION = 100 points

THRESHOLD FOR FUNCTIONALITY = 60 points

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

- (a) The tenderer submits a valid Tax Clearance Certificate OR Tax Compliance Status PIN, issued by the TCS System of the South African Revenue Services, or has made arrangements to meet outstanding tax obligations;
- (b) The tenderer is registered, and “Active”, with the Construction Industry Development Board, at time of tender closing, in an appropriate contractor grading designation;
- (c) The tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
- (d) The tenderer has not:
 - Abused the Employer’s Supply Chain Management System; or
 - Failed to perform on any previous contract and has been given a written notice to this effect;
- (e) The tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer’s ability to perform the contract in the best interests of the employer or potentially compromise the tender process;
- (f) The tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;
- (g) 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.
- (h) If this tender is subject to “Local Content and Production”, the tenderer must complete and sign MBD 6.2 and attach Annexure C (of SATS 1286:2011).
- (i) 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.

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

F.3.17 Copies of contract: The number of paper copies of the signed contract to be provided by the Employer is ONE (1).

The additional conditions of tender are:

ACT.1 Appeals

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

The City Manager

Attention Ms S. Pillay eMail: Simone.Pillay@durban.gov.za

P O Box 1394

DURBAN, 4000

ACT.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.

ACT.3 Code of Conduct and Local Labour

The Tenderers shall make themselves familiar with the requirements of the following policies that are available on web address: <ftp://ftp.durban.gov.za/cesu/StdContractDocs/>:

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

ACT.4 Pre-qualification criteria for preferential procurement

If an organ of state decides to apply pre-qualifying criteria to advance certain designated groups, that organ of state must advertise the tender with a specific tendering condition that only one or more of the following tenderers may respond:

- (a) a tenderer having a stipulated minimum B-BBEE status level of contributor;
- (b) an EME or QSE;
- (c) a tenderer subcontracting a minimum of 30% to:
 - (i) an EME or QSE which is at least 51% owned by black people;
 - (ii) an EME or QSE which is at least 51% owned by black people who are youth;
 - (iii) an EME or QSE which is at least 51% owned by black people who are women;
 - (iv) an EME or QSE which is at least 51% owned by black people with disabilities;
 - (v) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
 - (vi) a cooperative which is at least 51% owned by black people;
 - (vii) an EME or QSE which is at least 51% owned by black people who are military veterans;
 - (viii) an EME or QSE.

A tender that fails to meet any pre-qualifying criteria stipulated in the tender documents is an unacceptable tender.

ACT.5 Subcontracting as Condition of Tender

For contracts above R30m, the 2017 PPPFA Regulations require organs of State to identify tenders, where it is feasible, to subcontract a minimum of 30% of the value of the contract to the following designated groups:

- (a) an EME or QSE;
- (b) an EME or QSE which is at least 51% owned by black people;
- (c) an EME or QSE which is at least 51% owned by black people who are youth;
- (d) an EME or QSE which is at least 51% owned by black people who are women;
- (e) an EME or QSE which is at least 51% owned by black people with disabilities;
- (f) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
- (g) a cooperative which is at least 51% owned by black people;
- (h) an EME or QSE which is at least 51% owned by black people who are military veterans; or
- (i) more than one of the categories referred to in paragraphs (a) to (h).

In addition to the above, the eThekwini Municipal Council has adopted a framework for empowerment strategies for contracts between R5m and R30m.

PART T2: RETURNABLE DOCUMENTS
T2.1: LIST OF RETURNABLE DOCUMENTS

T2.1.1 General

The Tender Document must be submitted as a whole. All forms must be properly completed as required, and the document shall not be taken apart or altered in any way whatsoever.

The Tenderer is required to complete each and every Schedule and Form listed below to the best of his 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 not responsive.

T2.1.2 Returnable Schedules, Forms and Certificates

Company Specific

Certificate of Attendance at Clarification Meeting	16
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T2.1.3 Preferential Procurement Schedules and Affidavits

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

- eThekwini Municipality
 - City Government
 - Administration
 - Administrative Clusters
 - Finance
 - Supply Chain Management
 - Accredited Supplier and Contractor's Database.

NOTES

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

T2.2: RETURNABLE SCHEDULES, FORMS, AND CERTIFICATES

The returnable schedules, forms, and certificates as listed in T2.1.2 can be found on the pages 16 to 57.

CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING / SITE INSPECTION

This is to certify that:

(tenderer name)

of (address)

.....

was represented by the person(s) named below at the Clarification Meeting held for all tenderers, the details of which are stated in the Tender Data (F.2.7).

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

Particulars of person(s) attending the meeting:

Name:

Name:

Signature:

Signature:.....

Capacity:

Capacity:.....

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

Name:

Signature:

Date:

CERTIFICATE OF AUTHORITY

Indicate the status of the tenderer by ticking the appropriate box hereunder.

COMPANY	<input type="checkbox"/>	CLOSE CORPORATION	<input type="checkbox"/>	PARTNERSHIP	<input type="checkbox"/>	JOINT VENTURE	<input type="checkbox"/>	SOLE PROPRIETOR	<input type="checkbox"/>
Refer to Notes at the bottom of the page									

I / We, the undersigned, being the Chairperson (Company), Member(s) (Close Corporation), Partners (Partnership), Sole Owner (Sole Proprietor), Lead Partner (JV), in the company / business trading as:

.....

hereby authorise Mr/Mrs/Ms

acting in the capacity of

to sign all documents in connection with the tender for **Contract No. WS 7553** and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Notes

The following documents must be attached to the back inside cover to this procurement document:

- If a Company : a "Resolution of the Board" in this regard.
- If a Joint Venture : a "Power of Attorney" signed by the legally authorised signatories of all the partners to the Joint venture.

DECLARATION OF MUNICIPAL FEES

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

.....
 (full name of Company / Close Corporation / partnership / sole proprietary/Joint Venture)
 (hereinafter referred to as the TENDERER) are, as at the date hereunder, fully paid or an
 Acknowledgement of Debt has been concluded with the Municipality to pay the said charges in instalments.

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

<u>Account</u>	<u>Account Number:</u> to be completed by tenderer.
Consolidated Account No.	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Electricity	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Water	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Rates	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
JSB Levies	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<u>Other</u>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<u>Other</u>	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

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. ATTACHED, to the back inside cover of this document, please find copies of the above account's and or agreements signed with the municipality.

- 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 must be attached (to the back inside cover of this document).
- Where the tenderer's Municipal Accounts are part of their lease agreement, then a copy of the agreement, or official letter to that effect is to be attached (to the back inside cover of this document).

NAME : (Block Capitals)

SIGNATURE : DATE:

(of person authorised to sign on behalf of the Tenderer)

COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, a separate questionnaire in respect of each partner must be completed and submitted.

- 1) **Name of enterprise:**
- 2) **VAT registration number, if any:**
- 3) **CIDB registration number, if any:**
- 4) **Particulars of sole proprietors and partners in partnerships**

Full Name	Identity number*	Personal income tax number *

* Complete only if a sole proprietor or partnership and attach separate page if more than 3 partners

5) **Particulars of companies and close corporations**

Company registration number, if applicable:

Close corporation number, if applicable:

Tax Reference number, if any:

6) **Record in the service of the state**

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

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

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

Insert separate page if necessary

7) **Record of spouses, children and parents in the service of the state**

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

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

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

Insert separate page if necessary

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

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my/our tax matters are in order;
- ii) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercise, 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 of partly 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 bidders 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.

Signed Date

Name Position

Enterprise Name

TAX COMPLIANCE STATUS PIN / TAX CLEARANCE CERTIFICATE

Reference is made to F.2.23 of the Conditions of Tender.

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

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

Tenderers are to attach to this page a printout of their Tax Compliance Status PIN (TCS PIN) OR an original Tax Clearance Certificate.

NAME : (Block Capitals)

SIGNATURE : DATE:
(of person authorised to sign on behalf of the Tenderer)

B-BBEE STATUS LEVEL OF CONTRIBUTION CERTIFICATE

Reference is made to F.2.23 of the Conditions of Tender.

The Amended Construction Sector Code (Government Gazette No.41287) is applicable to the B-BBEE compliance measurement of all entities that fall within the Construction Sector.

The requirements for measurement and verification of entities are contained in the “Amended Code Series CSC000: Framework for Measuring Broad Based Black Economic Empowerment in the Construction Sector”, as published in Notice 931 of 2017, Government Gazette No.41287 of 01/12/2017.

The requirements are summarised in the following table:

Enterprise Type	Total Annual Revenue (R million)	Ownership and Annual Turnover
EME: Built Environment Professional	< R1.8m	May present an affidavit OR a certificate issued by the CIPC OR authorised B-BBEE verification certificate (as below)
EME: Contractor	< R3.0m	
Reference should be made to Cl.3.6.2.4.1 of the Amended Construction Sector Code regarding the above exceptions.		
EME: Built Environment Professional	< R6m	Must present an authorised B-BBEE verification certificate by a SANAS accredited Verification Agency
EME: Contractor	< R10m	
QSE: Built Environment Professional	≥ R6.0m and < R25m	
QSE: Contractor	≥ R10.0m and < R50m	
Large Enterprise	>R50m	

The requirements for measurement of Joint Ventures is described in Cl.2.8 of the Amended Construction Sector Code. The compilation of a consolidated verification certificate is required.

Tenderers are to attach to this page an affidavit, or a B-BBEE certificate issued by an authorised SANAS accredited Verification Agency.

NAME : (Block Capitals)

SIGNATURE : DATE:
(of person authorised to sign on behalf of the Tenderer)

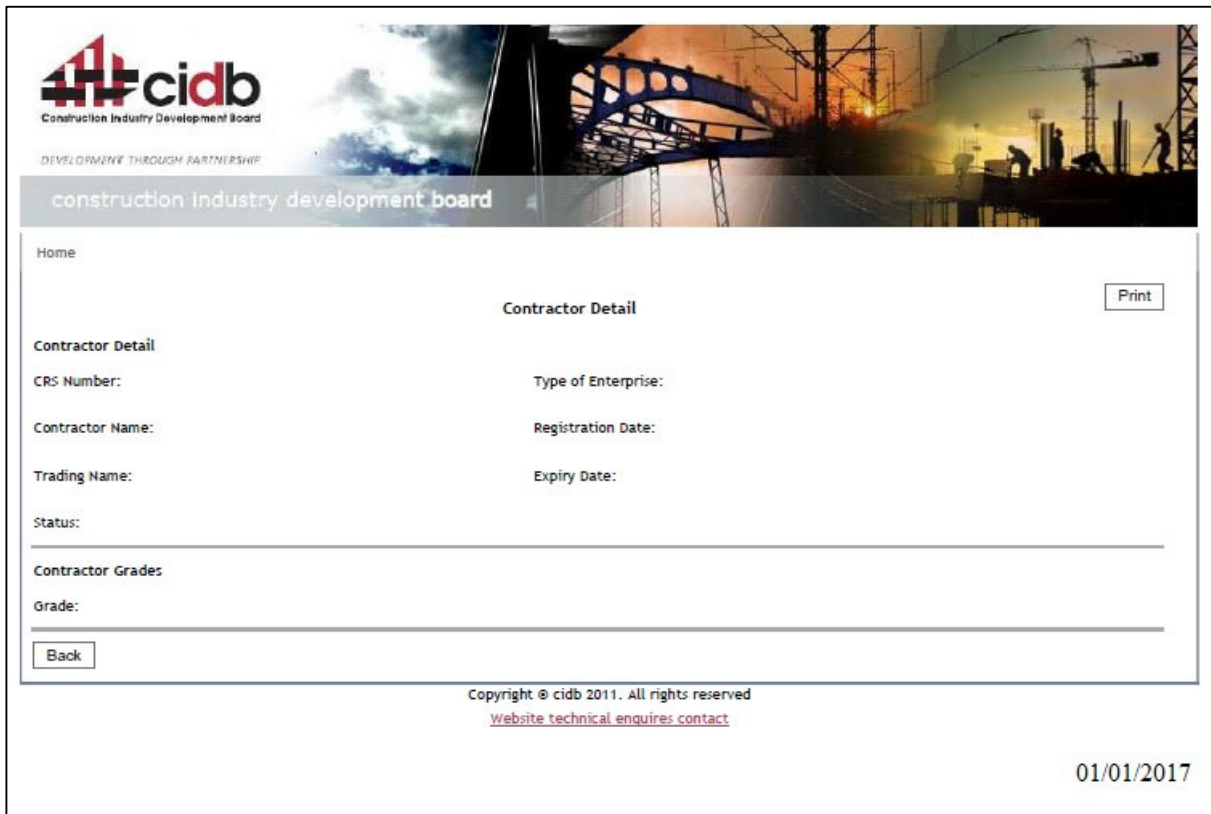
VERIFICATION OF CIDB REGISTRATION AND STATUS

Reference is made to F.2.23 of the Conditions of Tender.

Clause F.2.1.1 of the Conditions of Tender – “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, for a **CE** class of construction work.

Tenderers are to attach to this page a printout of their registration with the CIDB, as obtained from the CIDB website <https://registers.cidb.org.za/PublicContractors/ContractorSearch>. The date of obtaining the printout is to be indicated on the printout.

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



NAME : (Block Capitals)

SIGNATURE : DATE:
 (of person authorised to sign on behalf of the Tenderer)

CSD REGISTRATION REPORT

Reference is made to F.2.23 of the Conditions of Tender.

Clause F.2.1 of the Conditions of Tender – “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.

Tenderers are to attach to this page a printout of their CSD Registration Report, as obtained from the National Treasury’s CSD website <https://secure.csd.gov.za/Account/Login>. The date of obtaining the printout is to be indicated on the printout.

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

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	_____		

NAME : (Block Capitals)

SIGNATURE : DATE:
 (of person authorised to sign on behalf of the Tenderer)

AUDITED FINANCIAL STATEMENTS

CONSOLIDATED MUNICIPAL BIDDING DOCUMENTS

The following SECTIONS are required to be completed as part of this procurement document

<u>Section</u>	<u>Description</u>	<u>Required?</u>
A	General Enterprise Information	Yes
B	MBD2: Tax Clearance Certificate Requirements	Yes
C	MBD4: Declaration of Interest	Yes
D	MBD5: Declaration for Procurement Above R10 Million	Yes
E	MBD6.1: Preference Points Claim Form ITO the Preferential Regulations	Yes
F	MBD6.2: Declaration Certificate for Local Production and Content for Designated Sectors.....	Yes
G	MBD8: Declaration of Bidder's Past SCM Practices	Yes
H	MBD9: Certificate of Independent Bid Determination	Yes
I	Confirmations, Authorities, Certifications, Acknowledgements and Signatures	Yes

NOTES

- MBD4. MSCM Regulations: **"in the service of the state"** means to be:
- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (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; or
 - (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.
- MBD9. 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.

Ref	Description	Complete or Circle Applicable
-----	-------------	----------------------------------

SECTION B: MBD 2: TAX CLEARANCE CERTIFICATE REQUIREMENTS

It is a condition of bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

- 1.0 In order to meet this requirement bidders are required to complete the TCC 001: "Application for a Tax Clearance Certificate" form and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
- 2.0 SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
- 3.0 The original Tax Clearance Certificate must be submitted together with the bid (attached to the inside back cover of this procurement document). Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.
- 4.0 In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
- 5.0 Copies of the TCC 001: "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.
- 6.0 Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za.
- 7.0 Notwithstanding Clauses 1.0 to 6.0 above: Since 18 April 2016, SARS has introduced a new Tax Compliance Status System (TCS). As part of this enhanced system, tenderers can now submit a Tax Compliance Status PIN instead of an original Tax Clearance Certificate (TCC). This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status. This number, if available, is to be entered in Item 2.7 of Section A of these consolidated Municipal Bidding Documents.
For further particulars please contact your nearest SARS branch, or call the SARS Contact Centre on 0800 00 7277, or log onto SARS eFiling.

SECTION C: MBD 4: DECLARATION OF INTEREST

No bid will be accepted from persons "in the service of the state". 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. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

1.0 Are you presently in the service of the state? If yes, furnish particulars:	YES	NO
2.0 Have you been in the service of the state for the past twelve months? If yes, furnish particulars:	YES	NO
3.0 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
4.0 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
5.0 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? If yes, furnish particulars:	YES	NO
6.0 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
7.0 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
8.0 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers are indicated in SECTION A of these Consolidated Municipal Bidding documents .		

Ref	Description	Complete or Circle Applicable	
SECTION D: MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)			
For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire.			
1.0	Are you by law required to prepare annual financial statements for auditing? If YES, you will be required to submit audited annual financial statements (on request during the tender evaluation period) for the past three years or since the date of establishment if established during the past three years.	YES	NO
2.0	Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days? If NO, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days. If YES, provide particulars on a letterhead. (Attach this letter to the back inside cover of this procurement document).	YES	NO
3.0	Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract? If YES, provide particulars on a letterhead. (Attach this letter to the back inside cover of this procurement document).	YES	NO
4.0	Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic? If YES, provide particulars on a letterhead. (Attach this letter to the back inside cover of this procurement document).	YES	NO

SECTION E: MBD 6.1: PREFERENCE POINTS CLAIM ITO THE PREFERENTIAL REGULATIONS		
Preference points for this tender shall be awarded as per the Tender Data and the Preferential Procurement Regulations (2017). Failure on the part of a tenderer to submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS), or a Sworn Affidavit for an EME, or sworn affidavit for a QSE (in line with the revised BBEE codes of Good Practice), together with the bid will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed. The Employer reserves the right to require of a tenderer, 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 Employer.		
1.0	B-BBEE Status Level of Contribution claimed:	
	Will any portion of the contract be sub-contracted?	YES NO
	If YES, indicate:	
	(i) what percentage of the contract will be subcontracted?	
	(ii) the name of the sub-contractor?	
	Name:	
	(iii) the B-BBEE status level of the sub-contractor?	
2.0	(iv) whether the sub-contractor is an EME?	YES NO
The undersigned, certify that the B-BBEE status level of contribution indicated in paragraph 1.0 above qualifies the company / firm for preference points and acknowledges that the remedies as per Clause 14 of the Preferential Procurement Regulations (2017) shall apply.		

SECTION F: MBD 6.2: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Municipal Bidding Document (MBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).
Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

- 1.0 General Conditions
- 1.1 Preferential Procurement Regulations, 2017 (Regulation 8) makes provision for the promotion of local production and content.
- 1.2 Regulation 8.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3 Where necessary, for bids referred to in paragraph 1.2 above, a two-stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4 A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.

Ref	Description	Complete or Circle Applicable								
1.5	<p>The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:</p> $LC = [1 - x / y] * 100$ <p>Where: x is the imported content in Rand y is the bid price in Rand excluding value added tax (VAT).</p> <p>Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as required in paragraph 4.1 below.</p> <p>The SABS approved technical specification number SATS 1286:2011 is accessible on http://www.thedti.gov.za/industrial development/ip.jsp at no cost.</p>									
1.6	<p>A bid may be disqualified if –</p> <p>(a) this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and</p> <p>(b) the bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.</p>									
2.0	Definitions									
2.1	“bid” includes written price quotations, advertised competitive bids or proposals;									
2.2	“bid price” price offered by the bidder, excluding value added tax (VAT);									
2.3	“contract” means the agreement that results from the acceptance of a bid by an organ of state;									
2.4	“designated sector” means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;									
2.5	“duly sign” means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).									
2.6	“imported content” means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour and intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;									
2.7	“local content” means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;									
2.8	“stipulated minimum threshold” means that portion of local production and content as determined by the Department of Trade and Industry; and									
2.9	“sub-contract” means the primary contractor’s assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.									
3.0	<p>The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:</p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Description of services, works or goods</u></th> <th style="text-align: right;"><u>Stipulated minimum threshold</u></th> </tr> </thead> <tbody> <tr> <td>.....</td> <td style="text-align: right;">..... %</td> </tr> <tr> <td>.....</td> <td style="text-align: right;">..... %</td> </tr> <tr> <td>.....</td> <td style="text-align: right;">..... %</td> </tr> </tbody> </table>	<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u> % % %	
<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>									
..... %									
..... %									
..... %									
4.0	Does any portion of the services, works or goods offered have any imported content?	<table border="1" style="display: inline-table;"> <tr> <td style="padding: 2px 10px;">YES</td> <td style="padding: 2px 10px;">NO</td> </tr> </table>	YES	NO						
YES	NO									
4.1	<p>If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by the SARB for the specific currency at 12:00 on the date of advertisement of the bid.</p> <p>The relevant rates of exchange information is accessible on www.reservebank.co.za.</p> <p>Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):</p> <p style="text-align: center;"> US Dollar: <input style="width: 50px;" type="text"/> Pound Sterling: <input style="width: 50px;" type="text"/> Euro: <input style="width: 50px;" type="text"/> Yen: <input style="width: 50px;" type="text"/> Other: <input style="width: 50px;" type="text"/> </p> <p>NB: Bidders must submit proof of the SARB rate (s) of exchange used.</p>									
5.0	Were the Local Content Declaration Templates (Annex C, D and E) audited and certified as correct?	<table border="1" style="display: inline-table;"> <tr> <td style="padding: 2px 10px;">YES</td> <td style="padding: 2px 10px;">NO</td> </tr> </table>	YES	NO						
YES	NO									
5.1	<p>If yes, provide the following particulars:</p> <p>(a) Full name of auditor:</p> <p>(b) Practice number: (c) Telephone number: Cell number:</p> <p>(d) Email address:</p> <p>(Documentary proof regarding the declaration will, when required, be submitted to the satisfaction of the Accounting Officer / Accounting Authority)</p>									
6.0	Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the Accounting Officer / Accounting Authority provide directives in this regard.									

LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (Close Corporation, Partnership or Individual)

IN RESPECT OF BID No:

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity)

NB 1 - The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

NB 2 - Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below. Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned in Section H of these Consolidated MBD returnable questionnaires (comprising 8 pages), do hereby declare the following:

- (a) The facts contained herein fall within my own personal knowledge.
- (b) I have satisfied myself that:
 - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
 - (ii) the declaration templates have been audited and certified to be correct.
- (c) The local content percentages (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C;

• Bid price, excluding VAT (y)	R	
• Imported content (x), as calculated in terms of SATS 1286:2011	R	
• Stipulated minimum threshold for local content (paragraph 3 above)		%
• Local content %, as calculated in terms of SATS 1286:2011		%

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above. The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

- (d) I accept that the Procurement Authority / Municipality /Municipal Entity has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Municipal / Municipal Entity imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SECTION G: MBD8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

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; or
 - 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).
- In order to give effect to the above, the following questions must be answered.

1.0	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. If yes, furnish particulars:	YES	NO
2.0	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. If yes, furnish particulars:	YES	NO
3.0	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? If yes, furnish particulars:	YES	NO

4.0 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? If yes, furnish particulars:	YES	NO
5.0 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? If yes, furnish particulars:	YES	NO

SECTION H: MBD9: CERTIFICATE OF INDEPENDENT BID DETERMINATION

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.

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.

The following 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.

In order to give effect to the above, the following Certificate of Bid Determination must be completed and submitted with the bid. The undersigned, in submitting the accompanying bid, in response to the invitation for the bid do hereby make the following statements that I certify to be true and complete in every respect:

- 1.0 I have read and I understand the contents of this Certificate;
- 2.0 I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3.0 I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
- 4.0 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;
- 5.0 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; and
 - c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
- 6.0 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding. (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.
- 7.0 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.
- 8.0 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.
- 9.0 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.
- 10.0 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.

SECTION I: CONFIRMATIONS, AUTHORITIES, CERTIFICATIONS, ACKNOWLEDGEMENTS and SIGNATURES

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

- 1.0 Confirms that the contents of these Consolidated MBD returnable questionnaires (comprising 8 pages) fall within my personal knowledge and are to the best of my Knowledge and belief, both true and correct;
- 2.0 Confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercise, 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;
- 3.0 Confirms that no partner, member, director or other person, who wholly or partly exercise control over the enterprise, has within the last five years been convicted of fraud or corruption;
- 4.0 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 bidders or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- 5.0 Certify that the B-BBEE status level of contribution indicated in Section E.1: Item 1.0 qualifies the enterprise for preference points and acknowledges that the remedies as per Clause 14 of the Preferential Procurement Regulations (2017) shall apply. In the event of a contract being awarded as a result of points claimed, the enterprise may be required to furnish documentary proof to the satisfaction of the employer that the claims are correct;
- 6.0 Accept that, in addition to cancellation of a contract, action may be taken against me should these declarations prove to be false.

Signed Date

Name Position

EXPERIENCE OF TENDERER (Installation of mechanical water meters)

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

- a) **Tendering Firm's experience with project value (excluding VAT) of successfully completed contracts (i.e. on time and to specification) over the last 10 years involving the installation of mechanical water meters of all sizes (if applicable):**

Note: A separate sheet to be completed for each project

Contract Description:			
Month and Year Commenced:		Award Value (VAT Excl.)	
Month and Year Completed:		Completed Value (VAT Excl.)	
Name of Client:		Tel. No.:	
Name of Client's Representative:		Tel./ Cell No.:	
Name of Consulting Engineering Firm:		Tel. No.:	
Name of Consultant's Representative:		Tel./ Cell No.:	

Details of the above Contract
The following information is required for evaluation of the above contract and the Tenderer shall provide such information to the best of his knowledge:
1. Description and scope of construction work completed:

EXPERIENCE OF TENDERING FIRM (Pipe laying/pipe replacements/pipe repairs)

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

- a) **Tendering Firm's experience with project value (excluding VAT) of successfully completed contracts (ie. on time and to specification) over the last 10 years involving pipe laying, pipe replacement or pipe repairs of any type of pipe material and size:**

Note: A separate sheet to be completed for each project

Contract Description:			
Month and Year Commenced:		Award Value (VAT Excl.)	
Month and Year Completed:		Completed Value (VAT Excl.)	
Name of Client:		Tel. No.:	
Name of Client's Representative:		Tel./ Cell No.:	
Name of Consulting Engineering Firm:		Tel. No.:	
Name of Consultant's Representative:		Tel./ Cell No.:	

Details of the above Contract
The following information is required for evaluation of the above contract and the Tenderer shall provide such information to the best of his knowledge:
1. Description and scope of construction work completed:

CONTRACTORS SELF SCORING OF TENDERERS EXPERIENCE

NOTE: The tenderer is to fill in the unshaded cells

Sub Criteria	Prompts for Judgement-Key Expert Criteria	Max Points		Tenderer's Self Score
<p>Proven experience in the installation of mechanical water meters in the past 10 years.</p>	Contractor failed to provide evidence of experience.	0 of 25	<p style="text-align: center;">25</p>	
	Contractor has successfully completed the construction of ONE (1)	5 of 25		
	Contractor has successfully completed the construction of TWO (2) projects involving the installation of water meters.	10 of 25		
	Contractor has successfully completed the construction of THREE (3) projects involving the installation of water meters.	15 of 25		
	Contractor has successfully completed the construction of FOUR (4) projects involving the installation of water meters.	20 of 25		
	Contractor has successfully completed the construction of FIVE (5) projects involving the installation of water meters.	25 of 25		
<p>Proven experience in pipe-laying projects involving any of the following, pipe laying, pipe replacements of pipe repairs of any pipe materials.</p>	Contractor failed to provide evidence of experience.	0 of 20	<p style="text-align: center;">20</p>	
	Contractor has successfully completed the construction of ONE (1) project/contract involving laying/replacement or repairs of water pipes.	4 of 20		
	Contractor has successfully completed the construction of TWO (2) project/contract involving laying/replacement or repairs of water pipes.	8 of 20		
	Contractor has successfully completed the construction of THREE (3) project/contract involving laying/replacement or repairs of water pipes.	12 of 20		
	Contractor has successfully completed the construction of FOUR (4) project/contract involving laying/replacement or repairs of water pipes.	16 of 20		
	Contractor has successfully completed the construction of FIVE (5) project/contract involving laying/replacement or repairs of water pipes.	20 of 20		
SUB-TOTAL			45	

NAME :

(Block Capitals)

SIGNATURE :

DATE:

QUALIFICATIONS OF CONTRACT/PROJECT MANAGER

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

The person nominated for this key personnel position above shall provide all the information required below and sign the declaration at the end of this form

Full Name & Surname:			
ID/ Passport No.		Age:	
Name of Tertiary Institution/s Attended:			
Tertiary Qualification/s (and Year/s Obtained):			
Name of Professional Institution/s Registered With:		Registration Number/s:	

Note: Certified copies of all relevant qualifications, registrations and past experience must be attached to this form.

Declaration by nominee for key staff position above:

I, the undersigned, declare that all the information provided above and in forms that follow correctly describes my qualifications and experience.

I, the undersigned do hereby agree to present myself for an interview with the Client or a representative of the Client should further clarity be required on the information provided herein.

SIGNATURE DATE:
 (of the person named on this form)

Note to Tenderer:

The Tenderer shall ensure that this form is signed by the person nominated for the above key staff position and that all the information provided is true. Any inconsistency in the information provided will lead to the conclusion that the person nominated is not suitably qualified for the position and NO points will be awarded. Should this key staff member not be available for deployment to this contract upon award, only approved candidates with similar or better credentials will be considered by the employer.

SIGNATURE DATE:
 (of person authorised to sign on behalf of the Tenderer)

QUALIFICATIONS OF CIVIL TECHNICIAN

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

The person nominated for this key personnel position above shall provide all the information required below and sign the declaration at the end of this form

Full Name & Surname:			
ID/ Passport No.		Age:	
Name of Tertiary Institution/s Attended:			
Tertiary Qualification/s (and Year/s Obtained):			
Name of Professional Institution/s Registered With:		Registration Number/s:	

Note: Certified copies of all relevant qualifications, registrations and past experience must be attached to this form.

Declaration by nominee for key staff position above:

I, the undersigned, declare that all the information provided above and in forms that follow correctly describes my qualifications and experience.

I, the undersigned do hereby agree to present myself for an interview with the Client or a representative of the Client should further clarity be required on the information provided herein.

SIGNATURE DATE:
 (of the person named on this form)

Note to Tenderer:

The Tenderer shall ensure that this form is signed by the person nominated for the above key staff position and that all the information provided is true. Any inconsistency in the information provided will lead to the conclusion that the person nominated is not suitably qualified for the position and NO points will be awarded. Should this key staff member not be available for deployment to this contract upon award, only approved candidates with similar or better credentials will be considered by the employer.

SIGNATURE DATE:
 (of person authorised to sign on behalf of the Tenderer)

QUALIFICATIONS OF LEAD ARTISAN PLUMBER

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

The person nominated for this key personnel position above shall provide all the information required below and sign the declaration at the end of this form

Full Name & Surname:			
ID/ Passport No.		Age:	
Name of Tertiary Institution/s Attended:			
Tertiary Qualification/s (and Year/s Obtained):			
Name of Professional Institution/s Registered With:		Registration Number/s:	

Note: Certified copies of all relevant qualifications and registrations must be attached to this form.

Declaration by nominee for key staff position above:

I, the undersigned, declare that all the information provided above and in forms that follow correctly describes my qualifications and experience.

I, the undersigned do hereby agree to present myself for an interview with the Client or a representative of the Client should further clarity be required on the information provided herein.

SIGNATURE DATE:
 (of the person named on this form)

Note to Tenderer:

The Tenderer shall ensure that this form is signed by the person nominated for the above key staff position and that all the information provided is true. Any inconsistency in the information provided will lead to the conclusion that the person nominated is not suitably qualified for the position and NO points will be awarded. Should this key staff member not be available for deployment to this contract upon award, only approved candidates with similar or better credentials will be considered by the employer.

SIGNATURE DATE:
 (of person authorised to sign on behalf of the Tenderer)

CONTRACTOR SELF SCORING OF THE EXPERIENCE OF KEY PERSONNEL

NOTE: The tenderer is to fill in the unshaded cells

Sub criteria	Prompts for Judgement-Key Expert Criteria	Max Points		Tenderer's Self Score
<p>Contracts/Project Manager</p> <p><u>Qualifications and Registrations:</u> Minimum 5 years relevant experience and a Degree or NHD/ND</p> <p><u>Specific Experience:</u> Experience in the position of Contract/Project Manager on contracts for the construction of the following from start to full completion and hand over: - Installation of mechanical water meters - Pipe laying/ pipe replacement or pipe repairing projects</p>	<p>Minimum 5 years relevant experience as a contracts manager and a relevant Degree or NHD/ND</p>	0 or 5	5	
	The Tenderer has no experience in relation to the project experience requirements.	0 of 5	5	
	Contractor has successfully completed the construction of ONE (1) contract of work in relation to the project experience requirements.	1 of 5		
	Contractor has successfully completed the construction of TWO (2) contract of work in relation to the project experience requirements.	2 of 5		
	Contractor has successfully completed the construction of THREE (3) contract of work in relation to the project experience requirements.	3 of 5		
	Contractor has successfully completed the construction of FOUR (4) contract of work in relation to the project experience requirements.	4 of 5		
	Contractor has successfully completed the construction of FIVE (5) contract of work in relation to the project experience requirements.	5 of 5		
<p>Civil Technician</p> <p><u>Qualifications and Registrations:</u> Minimum 2 years relevant experience and a Degree or NHD/ S4 in civil engineering</p> <p><i>Experience in the position of Civil Technician</i> on contracts for the construction of the following from start to full completion and hand over: - Installation of mechanical water meters - Pipe laying/ pipe replacement or pipe repairing projects</p>	<p>Degree or NHD/ S4 in Civil Engineering</p>	0 or 5	5	
	The Technician has no experience in relation to the project experience requirements.	0 of 10	5	
	Technician has successfully completed the construction of ONE (1) contract of work in relation to the project experience requirements.	1 of 5		
	Technician has successfully completed the construction of TWO (2) contract of work in relation to the project experience requirements.	2 of 5		
	Technician has successfully completed the construction of THREE (3) contract of work in relation to the project experience requirements.	3 of 5		
	Technician has successfully completed the construction of FOUR (4) contract of work in relation to the project experience requirements.	4 of 5		
	Technician has successfully completed the construction of FIVE (5) contract of work in relation to the project experience requirements.	5 of 5		

<p>Lead Artisan Plumber</p> <p>Specific Experience: <i>Experience in the position of Lead Artisan Plumber (Minimum 5 years relevant experience) on contracts for the installation of mechanical water meters of different diameters.</i></p> <p>Qualifications and Registrations: Minimum 5 years relevant experience and a Trade test qualification. Plumber experience will be calculated from date on qualification</p>	<p>Trade test qualification.</p>	0 or 5	5	
	<p>The plumber has no experience in relation to the project experience requirements.</p>	0 of 10	10	
	<p>Plumber has successfully completed the construction of ONE (1) contract of work in relation to the project experience requirements.</p>	2 of 10		
	<p>Plumber has successfully completed the construction of TWO (2) contract of work in relation to the project experience requirements.</p>	4 of 10		
	<p>Plumber has successfully completed the construction of THREE (3) contract of work in relation to the project experience requirements.</p>	6 of 10		
	<p>Plumber has successfully completed the construction of FOUR (4) contract of work in relation to the project experience requirements.</p>	8 of 10		
	<p>Plumber has successfully completed the construction of FIVE (5) contract of work in relation to the project experience requirements.</p>	10 of 10		
SUB-TOTAL			35	

NAME : (Block Capitals)

SIGNATURE : DATE:
(of person authorised to sign on behalf of the Tenderer)

PRELIMINARY PROGRAMME AND METER INSTALLATION METHODOLOGY

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

The Tenderer shall attach to this form a preliminary programme and methodology which shall clearly indicate the tasks and activities associated with the installation of water meters of sizes 40mm – 300mm.

The time for achieving practical completion is 104 weeks of the calendar days. The preliminary programme and methodology submitted by the Contractor must include the following:

- Construction duration.
- Method statement

The assessment of the Tenderer's Preliminary Programme shall be done in accordance with table below:

No response/ Response cannot be evaluated (Score - 0)	No information was provided, or submission of no substance/irrelevant information provided.
Poor (Score - 2)	Programme and methodology does not cover all the applicable individual activities which are in an acceptable sequence, with appropriate durations, and is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion).
Less than Acceptable (Score - 4)	Programme and methodology covering all the applicable individual activities which are in an acceptable sequence, with appropriate durations, and is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion).
Acceptable (Score - 6)	Programme and methodology covering all the applicable individual activities which are in an acceptable sequence, with appropriate durations, and is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion). Plus: shows critical path with logical linking of tasks/ activities.
Above Acceptable (Score - 8)	Programme and methodology covers all the applicable individual activities which are in an acceptable sequence, with appropriate durations, is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion) and demonstrate that the tenderer clearly understand the Scope of Work. Plus: shows critical path with logical linking of tasks/ activities, shows detailed activity and resources breakdown, cashflow included.
Excellent (Score - 10)	Programme and methodology covers all the applicable individual activities which are in an acceptable sequence, with appropriate durations, is in accordance with generally accepted construction practice, and is in line with Clause 1.1.1.14 of the Conditions of Contract (time for achieving Practical Completion) and gives real confidence that the tenderer will add value to the project. Plus : shows critical path with logical linking of tasks/ activities, shows detailed activity and resources breakdown, cashflow included. Detailed plant and equipment resource breakdown included.

SIGNATURE DATE:
(of person authorised to sign on behalf of the Tenderer)

QUALITY ASSURANCE & CONTROL PLAN

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

The quality control statement must discuss which tests and control measures that are to be employed on site to attain the specified results, and is to cover the programme associated activities, the extent of which shall be no more than 2 A4 pages.

SIGNATURE DATE:
(of person authorised to sign on behalf of the Tenderer)

CONTRACT PARTICIPATION GOALS – CONTRACTOR

Objective

The objective of eThekwini Water & Sanitation empowerment initiative is to bring about meaningful transformation in all procurement projects and in particular in the built environment through the following:

- Meaningful Economic Participation;
- Local Economic Development;
- Transfer of Technical, Management and Entrepreneurial Skills; and
- Creation of sustainable Black Enterprises

Contract Participation Goals

Contract Participation Goal (CPG) – the **final** value of services paid to the CPG Partner/s based on the final Contract Price.

At the time of awarding the Contract, the 30% minimum CPG amount will be based on the Contract Sum exclusive of the following:

- VAT, CPA and Contingencies.

During Contract implementation, adjustments relating to Provisional Sums and Contingencies linked to the CPG allocation will be agreed upon between the parties to the contract, as and when the need arises.

The CPG is expressed as a percentage of the total contract amount.

Tenderers are required to achieve at least **30%** Contract Participation Goals (CPG) of the value of goods, services and Works paid to one or more targeted enterprises to comply with eThekwini Municipality BBBEE policy initiative.

- 30% includes any special materials.
- 30% excludes VAT, CPA and Contingencies.
- The tenderer will be required to achieve the actual Rand value committed for the CPG, adjusted according to the following:
 - Variation Orders- Each VO will be evaluated by the Employer's Agent and the Project Manager to determine whether it should be counted, in its entirety or partially, as part of CPG or not.
 - Re-measurable items (including CPA and provisional sums) Each re-measurable item change will be evaluated by the Employer's agent and Project Manager to determine whether it should be counted as part of CPG or not.

Within 2 weeks of the award of the Contract, the tenderer will be required to submit a cash flow projection for the main contractor and the CPG partner/s.

Applicability

The CPG target shall be achieved through the following mechanisms: -

- The main Contractor may propose a suitable targeted enterprise or CPG partner/s provided there is a statement of no objection from eThekwini Water & Sanitation.
- Sub-contracting of the CPG Partner/s at the same rate / price that the tender would have offered to EWS whilst making a profit margin consistent to the profit margins that the main contractor would have made under normal trading processes.
- The working capital arrangements between the main contractor and the CPG Partner/s must be agreed upon between the two parties prior to commencement of the works to ensure that the CPG Partner does not have cash flow challenges during contract implementation.

Targeted Enterprise			
Annual Turnover	Black Ownership	Tax Clearance Certificate	CPG Target
TE < R15 m	>50%	Required	30% Min.

For each monthly invoice submitted by the Main Contractor, the Targeted Enterprise(s) costs per function must be clearly articulated to enable the CPG targets to be easily and regularly monitored.

The Main Contractor must pay the amount due to the Targeted Enterprise within 3 days of receiving payment from the Employer.

Eligibility Criteria for Targeted Enterprise

- The Main Contractor must not have equity holding exceeding 20%, either directly or through a flow-through principle
- SARS registration and tax clearance
- Company registration
- Must be >50% Black-owned

Subcontracting as Condition of Tender

For contracts above R30m, the 2017 PPPFA Regulations require organs of State to identify tenders, where it is feasible, to subcontract a minimum of 30% of the Contract Price to the following designated groups:

- an EME or QSE;
- an EME or QSE which is at least 51% owned by black people;
- an EME or QSE which is at least 51% owned by black people who are youth;
- an EME or QSE which is at least 51% owned by black people who are women;
- an EME or QSE which is at least 51% owned by black people with disabilities;
- an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
- a cooperative which is at least 51% owned by black people;
- an EME or QSE which is at least 51% owned by black people who are military veterans; or
- more than one of the categories referred to in paragraphs (a) to (h).

In addition to the above, the eThekweni Municipal Council has adopted a framework for empowerment strategies for contracts between R5m and R30m.

Penalties for not achieving the minimum CPG

In the case where the minimum CPG value of 30% is not achieved. The Main Contractor will be penalized as follows:

No.	CPG not achieved in contract	Penalty Factor	Application	Objective
1	1 – 30%	0.5	For every percentage CPG not achieved; the CPG amount not achieved in Rands will be multiplied by the corresponding penalty factor. The factored amount in Rands will be deducted from the Main Contractor 's Payment Certificates.	The Main Contractor is to support and mentor the Targeted Enterprise(s) to achieve the project milestones as part of the objectives to transfer Technical, Management and Entrepreneurial skills.

Monitoring and Reporting on CPG

- EWS will monitor CPG implementation on site. This may include direct contact with CPG Partner/s on site for verification purposes.
- The CPG Partner/s shall be in agreement with the measurement and payment for the work completed, for the purposes of submitting payment certificates, as determined by the Contractor.
- CPG Partner/s shall attend all contractual meetings relevant to their scope of work including contract award negotiations, monthly contract site meetings and technical meetings.

NAME : (Block Capitals)

SIGNATURE : DATE:
 (of person authorised to sign on behalf of the Tenderer)

PLANT and EQUIPMENT

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

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

DESCRIPTION (type, size, capacity etc)	QUANTITY	YEAR OF MANUFACTURE

Attach additional pages if more space is required

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

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

Attach additional pages if more space is required

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

NAME : (Block Capitals)

SIGNATURE : DATE:
 (of person authorised to sign on behalf of the Tenderer)

CONTRACTOR'S HEALTH AND SAFETY PLAN

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

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

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

NAME : (Block Capitals)

SIGNATURE : DATE:
(of person authorised to sign on behalf of the Tenderer)

CONTRACTOR'S HEALTH AND SAFETY DECLARATION

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

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

Declaration by Tenderer

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

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

3. I propose to achieve compliance with the Regulations by one of the following:

Tenderers are
to Circle Applicable

(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) List the 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 hereby undertake, if my 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 confirm that copies of my company's approved Health and Safety Plan, the Client's Safety Specifications as well as the OHS 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 hereby confirm that adequate provision has been made in my 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 OHS 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 agree that my failure to complete and execute this declaration to the satisfaction of the Client will mean that I am unable to comply with the requirements of the OHS 1993 Construction Regulations 2014, and accept that my tender will be prejudiced and may be rejected at the discretion of the Client.

NAME : (Block Capitals)

SIGNATURE : DATE:
(of person authorised to sign on behalf of the Tenderer)

JOINT VENTURES AGREEMENTS

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

RECORD OF ADDENDA TO TENDER DOCUMENTS

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

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

NAME : (Block Capitals)

SIGNATURE : DATE:
(of person authorised to sign on behalf of the Tenderer)

AMENDMENTS, QUALIFICATIONS AND ALTERNATIVES

(This is not an invitation for amendments, deviations or alternatives but should the Tenderer desire to make any departures from the provisions of this contract he shall set out his proposals clearly hereunder. The Employer will not consider any amendment, alternative offers or discounts unless forms (a), (b) and (c) have been completed to the satisfaction of the Employer).

I / We herewith propose the amendments, alternatives and discounts as set out in the tables below:

(a) AMENDMENTS

PAGE, CLAUSE OR ITEM NO	PROPOSED AMENDMENT

- (1) *Amendments to the General and Special Conditions of Contract are not acceptable;*
- (2) *The Tenderer must give full details of all the financial implications of the amendments and qualifications in a covering letter attached to his tender.*

(b) ALTERNATIVES

PROPOSED ALTERNATIVE	DESCRIPTION OF ALTERNATIVE

- (1) *Individual alternative items that do not justify an alternative tender, and an alternative offer for time for completion should be listed here.*
- (2) *In the case of a major alternative to any part of the work, a separate Bill of Quantities, programme, etc, and a detailed statement setting out the salient features of the proposed alternatives must accompany the tender.*
- (3) *Alternative tenders involving technical modifications to the design of the works and methods of construction shall be treated separately from the main tender offer.*

(c) DISCOUNTS

ITEM ON WHICH DISCOUNT IS OFFERED	DESCRIPTION OF DISCOUNT OFFERED

- (1) *The Tenderer must give full details of the discounts offered in a covering letter attached to his tender, failing which, the offer will be prejudiced.*

NAME : (Block Capitals)

SIGNATURE : DATE:
 (of person authorised to sign on behalf of the Tenderer)

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: **WS 7553**

Contract Title: **THE UPGRADE TO INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL (ICI) WATER METER INSTALLATIONS IN ETHEKWINI MUNICIPALITY PHASE 5**

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

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

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

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

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

For the Tenderer:

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

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

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

Capacity (*of Signatory*) :

Address :
:

Telephone :

Witness:

Signature : **Date** :

Name(*in capitals*) : :

Notes:

* Indicates what information is mandatory.

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

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.1.2: FORM OF ACCEPTANCE

This Form will be completed by the Employer

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

The terms of the contract are contained in:

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

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

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

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

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

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

Name (*of signatory in capitals*) :

Capacity (*of Signatory*) :

Name of Employer (*organisation*) :

Address :

:

Witness:

Signature : **Date** :

Name(*in capitals*) :

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

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

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

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

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

FOR THE TENDERER

FOR THE EMPLOYER

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

C1.2: CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

C1.2.1.1 GENERAL CONDITIONS OF CONTRACT

The Conditions of Contract are the General Conditions of Contract for Construction Works (2015 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 from date of hand-over**.

1.1.1.14 The **time for achieving Practical Completion**, from the Commencement Date is **104 Weeks**. The period as stated in 5.3.2, and the 7 days referred to in 5.3.3, are included in the above time for achieving Practical Completion. The special non-working days as stated in 5.8.1 are excluded from the above time for achieving Practical Completion.

1.1.1.15 The Employer is the eThekweni Municipality as represented by:
WATER AND SANITATION UNIT : Deputy Head: Customer Services

1.2.1.2 The address of the Employer is:
Physical: eThekweni Water and Sanitation Unit, 3 Prior Road, DURBAN, 4001
Postal: eThekweni Water and Sanitation Unit, P O Box 1038, DURBAN, 4000
Telephone: 031-311-8603 (t)
Fax: 031-311-8699 (f)
E-Mail: Aaron.mfunda@durban.gov.za

1.1.1.16 The **name of the Employer's Agent** is Lindokuhle Mnguni Pr. Tech Eng

1.2.1.2 The address of the Employer' Agent is:
Physical: eThekweni Water and Sanitation Unit, 14 Scott Road, Pinetown, 3600
Postal: eThekweni Water and Sanitation Unit, P O Box 1038, DURBAN, 4000
Telephone: 031 311 8056 (t)
Fax: 031 311 3725 (f)
E-Mail: Lindokuhle.mnguni@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.

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)**

5.3.2 The **time to submit the documentation** required before commencement with Works is **28 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.”

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

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

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

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

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

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

5.13.1 The **penalty for delay** in failing to complete the Works is **R 1000** (per Day), unless the contractor can prove beyond reasonable doubt of delays of mitigating circumstances leading to non-compliance. .

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 **12 months from date of each installation hand-over to the municipality.**

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

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

- The proportion not subject to adjustment: **x = 0.10.**
- The base month will be the month prior to the month in which tenders close.
- The Index for Labour, Plant, and Materials shall be based on **December 2016 = 100.**
- The Index for Fuel shall be based on **December 2020 = 100.**
- The Index shall be based on **December 2020 = 100.**

	STATS SA Statistical Release	Table	Description	Coefficient
• “L” is the “Labour Index”	P0141	Table A	Geographic Indices; CPI per Province; Kwa-Zulu Natal	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 40/50 grade bitumen from the Durban SAPREF Refinery, seven (7) days prior to the closing date of tenders.

- 6.10.1.5 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 500,000.**
- 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: **R100,000.**
 - Maximum first excess: **R 20,000.**
- 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 100,000.**
 - 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: **R 15,000**
- 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: **R 50,000**
 - Maximum first excess: **R 15,000.**
- Insurance of Works**
- Minimum amount for additional removal of debris (no damage): **R 15,000.**
 - Minimum amount for temporary storage of materials off site, excluding Contractor's own premises: **R 100,000.**
 - Minimum amount for transit of materials to site: **R 50,000.**

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

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

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

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

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

10.5.3 The **number of members** of the Adjudication Board to be appointed: **1**

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 eThekwin Council Policy "The use of CLOs and Local Labour". The contractor will be required to ensure that a minimum of 50% of the labour force is made up of local labour. For the purposes of this contract, "Local labour" will be deemed to be any **persons who reside within Ward(s)**. The contractor will be required to provide proof of authenticity of local labour. Signed confirmation by the appointed CLO will suffice for this.

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

C1.2.3.3 CONTRACTOR PARTICIPATION GOAL (CPG)

It is a condition of contract that the contractor must allow for a minimum of **30%** of the contract value (excluding PC Sum items and Fixed Cost allowances) to be subcontracted to contractors who are >76% PPG (Priority Population Group) owned. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

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

C1.2.3.4 FTE (Full Time Equivalent) EMPLOYMENT INFORMATION

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

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

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

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

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 of the Employer’s Supply Chain Management Policy.

Key Performance Indicators (KPIs) will be discussed and agreed upon with the Contractor before commencement of the contract.

C1.2.3.6 EMPOWERMENT STRATEGIES

For contracts above R30m, the 2017 PPPFA Regulations require organs of State to identify tenders, where it is feasible, to subcontract a minimum of 30% of the value of the contract to the following designated groups:

- (a) an EME or QSE;
- (b) an EME or QSE which is at least 51% owned by black people;
- (c) an EME or QSE which is at least 51% owned by black people who are youth;
- (d) an EME or QSE which is at least 51% owned by black people who are women;
- (e) an EME or QSE which is at least 51% owned by black people with disabilities;
- (f) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
- (g) a cooperative which is at least 51% owned by black people;
- (h) an EME or QSE which is at least 51% owned by black people who are military veterans; or
- (i) more than one of the categories referred to in paragraphs (a) to (h).

In addition to the above, the eThekwin Municipality Council has adopted a framework for empowerment strategies for contracts between R5m and R30m.

C1.2.3.7 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 because of the occurrence of any of the "Excepted Risks" as defined under Clause 8.3.

C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS

C2.1.1 GENERAL

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

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

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

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

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

C2.1.3 QUANTITIES REFLECTED IN THE SCHEDULE

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

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Specifications and Project Specifications and the

Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for waste.

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

C2.1.5 MONTHLY PAYMENTS

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

C2.1.4 PROVISIONAL SUMS / PRIME COST SUMS

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

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

C2.1.6 PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in

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

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

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

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

C2.1.7 "RATE ONLY" ITEMS

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

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

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

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

C2.1.8 PRELIMINARY AND GENERAL

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

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

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

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

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

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

C2.2: BILL OF QUANTITIES

The Bill of Quantities follows and comprises of 10 pages. The pages are numbered 72 – 84.

**Section A:
Preliminary
& General**

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A1	SABS 1200 & PAM & C.3.1	Fixed Charge Items:				
A1.1	8.3.1	Contractual requirements	Sum	1		
A1.2	8.3.2	Facilities for Contractor	Sum	1		
A1.3	8.3.3	Other fixed charge obligations	Sum	1		
A1.5	PAM	The preparation of risk assessments, safe work procedures, the Health and Safety file, the Health and Safety plan, provision of Personal Protective Equipment and Clothing and any other Health and Safety matters that the contractor deems necessary	Sum	1		
A1.6	PAM	The completion and checking of the project Health and Safety file upon completion of the works and handing it over to the Client	Sum	1		
A2	8,4	Time-Related Items:				
A2.1	8.4.1	Contractual requirements	Weeks	104		
A2.2	8.4.2	Operation and maintenance of facilities on the Site for the duration of construction, except where otherwise stated:	Weeks	104		
A2.3	8.4.3	Supervision during the course of the Contract	Weeks	104		
A2.4	8.4.4	Company and Head Office Overhead Costs for the duration of the Contract	Weeks	104		
A2.5	8.4.5	Other time-related obligations	Weeks	104		
A2.6	PAM	Contractor's obligations in respect of the Occupational Health and Safety Act and Construction Regulations for the duration of the contract	Weeks	104		
A2.7	PAM	Updating and amending risk assessments, safe working procedures, the project Health and Safety file, the Health and Safety plan, the provision and maintenance of Personal Protective Equipment and Clothing and any other Health and Safety matters the Contractor deems necessary	Weeks	104		
A2.8		Allow for observing the requirements of the Environmental Management Plan	Weeks	104		
A2.9	C3.1.3	Supply the services of a Category A plumber who is registered as such with EWS, 2 general workers, a one-ton bakkie with a roof rack and trailer and a security team (where required)	Weeks	104		
A2.10		Contractor to ensure that all necessary equipment/plant needed is always available and in working condition e.g.: Water pump, generator, breaker, angle grinder etc.	Weeks	104		
Carried forward						

Section A: Preliminary & General

Brought forward						
A2.11		Supply of 500x300mm concrete anchor blocks as and when required	No	2		
A3	8.5	Provisional Sums:				
A3.1		Relocation of existing services and fences where ordered	PS	1	R 50 000,00	R 50 000,00
A3.2		Proving and locating existing services, only where ordered by the Engineer	PS	1	R 90 000,00	R 90 000,00
A3.3		Inspection of Materials by Inspectors appointed by the Engineer	PS	1	R 50 000,00	R 50 000,00
A3.4		Contractor's mark-up on Item A.3.3	%		R 50 000,00	
A3.5		Allowance for additional fittings that may be required not specified in the BOQ	PS	1	R 250 000,00	R 250 000,00
A3.6		Allowance for underground meter chamber (if required)	PS	1	R 50 000,00	R 50 000,00
A4		Road/sidewalk Reinstatement (Provisional)Extra over item for section B to F				
A4.1		Reinstate excavated road layer works to original specifications (all compacted to 95% Mod AASHTO) using materials from stockpile.	m ³	200		
A4.2		Reinstate asphalt surface 30mm thick using cold premix collected from stores	m ²	400		
A4.3		Reinstate block paving surface reusing pavers from stockpile	m ²	400		
A4.4		Reinstate concrete surface with 25Mpa concrete (wood float finish or alternatively to match existing)	m ³	100		
Total carried to Summary						

**Section B:
40/50mm
Flow Meter
Installation**

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B1	SABS 1200 & PS & C3.1 C3.1.3	- Site works Locating existing meter, liaison with consumers, excavation and removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures and accurate record keeping.	No	1		
B2	C3.1.3	Meter Assembly and Installation - Collected from EWS Stores: Collect valve and meter from stores, all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 1) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of: 4x50mm Threaded flange 2x50mm stainless steel barrel nipple 2x50mm x 90 deg Flanged bend one leg extended by 70mm 2x50mm Ball O Stop valves 1x50mm Dirt Box 1x40/50mm Flow meter TOTAL PRICE FOR 40/50mm ASSEMBLY	No	1		
B2.1	C3.1.3	Meter Assembly and Installation - Fabricated/purchased from external supplier In the event of unforeseen shortages of materials at eThekwinI stores, supply the fittings indicated below, to EWS current Departmental Standards				
B2.1.1		50mm Threaded flange	No	4		
B2.1.2		50mm stainless steel barrel nipple	No	2		
B2.1.3		50mm x 90 deg flanged bend one leg extended by 100mm	No	2		
B2.1.4		50mm Ball O Stop valves	No	2		
B2.1.5		50mm Dirt Box	No	1		
B2.1.6		50/40mm Flow meter	No	1		
B2.1.7		M16 nuts and Bolts	No	50		
B2.1.8		M16 washers	No	100		
B2.1.9		50mm x 90 deg flanged bend stainless steel spool piece	No	2		
B2.1.10						
B3	C3.1.3	Fabricate and Install 40/50mm Meter Cover Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rislun Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1		
B4	PS1.3	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	No	1		
Carried forward						

Section B: 40/50mm Flow Meter Installation

Brought forward					
B5	1200L	Pipework:			
	C3.1.3	Steel Pipes and Specials			
		Supply API 5L Sch 40 steel pipe, manufacture, handle, lay, bed, joint, and disinfect the following (rates to include for supplying of all steel pipes, in-situ welding of joints and flanges where applicable, all cutting, flanges, jointing material, wastage and electrogalvanized bolts, nuts, and washers). All pipes and specials to be coated and lined with Rilsan to a minimum thickness of 300 microns.			
B5.1		50mm ND Spool Pieces Flanged both ends			
B5.1.1		0 mm - 200mm	No	2	
B5.1.2		200mm - 400mm	No	2	
B5.1.3		400mm - 600mm	No	2	
B5.1.4		600mm - 800mm	No	2	
B5.1.5		800mm - 1000mm	No	2	
B5.2		50mm ND Bends			
B5.2.1		90 Degree bends flanged both ends	No	2	
B6	1200L	Fittings			
	C3.1.3	In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards			
B6.1		Adaptors, couplings and reducers			
B6.1.1		50mm copper to steel	No	1	
B6.1.2		50mm steel to steel	No	1	
B6.1.3		50mm x Table D to Table 16 Adaptor Spool	No	2	
B6.1.4		54mm x 42mm Brass Reducer	No	1	
B6.1.5		50mm PVC	m	6	
B6.1.6		50mm x 50mm Screw Flange	No	1	
B6.2		Compression Fittings for HDPE			
B6.2.1		50mm Flange adaptor	No	2	
B6.2.2		50mm Female adaptor	No	2	
B6.2.3		50mm Male adaptor	No	1	
B6.2.4		50mm Male Bends	No	2	
B6.2.5		50mm Elbows	No	2	
B6.2.6		50mm x 110mm Male Adaptor	No	1	
B6.2.7		50mm female bends	No	1	
B6.3		Copper Fittings			
B6.3.1		54mm Copper to Male Adaptor	No	1	
B6.3.2		54mm Copper to Steel 90-degree elbow	No	1	
B6.3.3		54mm x 42mm Copper to Steel reducer	No	1	
B6.3.4		54mm F/Male Iron Adaptor	No	1	
B7		Pipe Cut to Suit on Site dimensions			
B7.1		50mm HDPE pipe	m	2	
Total carried to Summary					

						Section C: 80mm Flow Meter Installation
ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C1	SABS 1200 & PS & C3.1 C3.1.3	Site works Locating existing meter, liaison with consumers, excavation & removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures an accurate record keeping.	Sum	1		
C2	C3.1.3	Meter Assembly and Installation - Collected from EWS Stores: Collect valves and meters from stores, all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 2, Rev 1) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of: 1x80mm Butterfly valve supplied complete with matching flanges and jointing material 1x80mm Gate valve supplied complete with matching flanges and jointing material 1x80mm Spool Piece 250mm Flanged Distance 2x80mm x 90 deg Flanged bend one leg extended by 100mm 1x80mm dirt box 1x80mm x 240mm long flanged spool 1x80mm Flow meter TOTAL PRICE FOR 80mm ASSEMBLY	No	1		
C3	C3.1.4	Meter Assembly and Installation - Fabricated/purchased from external supplier In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards				
C3.1.4.1		80mm Butterfly valve supplied complete with matching flanges and jointing material	No	1		
C3.1.4.2		80mm Gate valve supplied complete with matching flanges and jointing material	No	1		
C3.1.4.3		80mm Spool Piece 250mm Flanged Distance	No	1		
C3.1.4.4		80mm x 90 deg Flanged bend one leg extended by 100mm	No	2		
C3.1.4.5		80mm dirt box	No	1		
C3.1.4.6		80mm x 240mm long flanged spool piece	No	1		
C3.1.4.7		80mm Flow meter	No	1		
C3.1.4.8		M16 nut and bolt (long length)	No	50		
C3.1.4.9		M16 washers	No	100		
C3.1.4.10		80mm x 90 deg flanged bend	No	2		
C3.1.4.11		80mm steel spool piece (refer to Table 3 for dimensions)	No	1		
C4	C.4.1	Fabricate and Install 80mm Meter Cover Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rislun Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1		
Carried forward						

Section C: 80mm Flow Meter Installation

Brought forward					
C5	PS1.3	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	No	1	
C6	1200L	Pipework:			
	C3.1.3	Steel Pipes and Specials Supply API 5L Sch 40 steel pipe, manufacture, handle, lay, bed, joint, and disinfect the following (rates to include for supplying of all steel pipes, in-situ welding of joints and flanges where applicable, all cutting, flanges, jointing material, wastage and electrogalvanized bolts, nuts, and washers). All pipes and specials to be coated and lined with Rilsan to a minimum thickness of 300 microns.			
C6.1		80mm ND Spool Pieces Flanged both ends			
C6.1.1		0 mm - 200mm	No	2	
C6.1.2		200mm - 400mm	No	2	
C6.1.3		400mm - 600mm	No	2	
C6.1.4		600mm - 800mm	No	2	
C6.1.5		800mm - 1000mm	No	2	
C6.2		80mm ND Bends			
C6.2.1		90 Degree bends flanged both ends	No	2	
C7	1200L	Fittings			
	C3.1.3	In the event of unforeseen shortages of materials at eThekweni stores, supply the fittings indicated below, to EWS current Departmental Standards			
C7.1		Adaptors, couplings, and reducers			
C7.1.1		80mm x Table D to Table 16 Adaptor Spool	No	1	
C7.1.2		75mm Maxi Fit Flange Adaptor	No	1	
C7.1.3		75mm Maxi Fit Flange Coupling	No	1	
C7.1.4		75mm Steel Barrel adaptor	No	1	
C7.2		Compression Fittings for HDPE			
C7.2.1		63mm Flange Adaptors	No	2	
C7.2.2		63mm x 90-degree Bends	No	1	
C7.2.3		75mm Flange adaptor	No	2	
C7.2.4		75mm Female Adaptor	No	1	
C7.2.5		75mm x 90 Degree Bends	No	2	
C7.2.6		75mm x 90mm Reducer	No	1	
C7.2.7		75mm x 75mm x 75mm Flanged (Special Fitting)	No	1	
C7.2.8		75mm x 75mm Screwed flange	No	1	
C7.2.9		75mm Elbows	No	2	
C8		Pipe Cut to Suit on Site Dimensions			
C8.1		63mm HDPE pipe	m	2	
C8.2		75mm HDPE pipe	m	2	

Total carried to Summary

						Section D: 100mm Flow Meter Installation
ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D1	SABS 1200 & PS & C3.1 C3.1.3	Site works Locating existing meter, liaison with consumers, excavation & removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures and accurate record keeping.	Sum	1		
D2	C3.1.3	Meter Assembly and Installation - Collected from EWS Stores: Collect valves and meters from stores, all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 3, Rev A) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of: 1x 100mm Butterfly valve supplied complete with matching flanges and jointing material 1x100mm Gate valve supplied complete with matching flanges and jointing material 1x100mm Spool Piece 250mm Flanged Distance 1x 100mm dirt box 2x 100mm x 300mm long flanged spool 1x 100mm Flow meter TOTAL PRICE FOR 100mm ASSEMBLY	No	1		
D3	PMS5	Meter Assembly and Installation - Fabricated/purchased from external supplier In the event of unforeseen shortages of materials at eThekwinI stores, supply the fittings indicated below, to EWS current Departmental Standards				
D3.1.4.1		100mm Butterfly valve supplied complete with matching flanges and jointing material	No	1		
D3.1.4.2		100mm Gate valve supplied complete with matching flanges and jointing material	No	1		
D3.1.4.3		100mm Spool Piece 250mm Flanged Distance	No	1		
D3.1.4.4		100mm x 90 deg Flanged bend one leg extended by 100mm	No	2		
D3.1.4.5		100mm dirt box	No	1		
D3.1.4.6		100mm x 300mm long flanged spool	No	2		
D3.1.4.7		100mm Flow meter	No	1		
D3.1.4.8		M16 nuts and bolts (Long length)	No	60		
D3.1.4.9		M16 washer	No	120		
D3.1.4.10		100mm x 90 deg Flanged bends with spool piece (refer to note 8)	No	2		
Carried forward						

Section D: 100mm Flow Meter Installation

Brought forward						
D4	C3.1.3	Fabricate and Install 100mm Meter Cover Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rilsan Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1		
D5	PS1.3	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	No	1		
D6	1200L C3.1.3	Pipework: Steel Pipes and Specials Supply API 5L Sch 40 steel pipe, manufacture, handle, lay, bed, joint, and disinfect the following (rates to include for supplying of all steel pipes, in-situ welding of joints and flanges where applicable, all cutting, flanges, jointing material, wastage and electrogalvanized bolts, nuts, and washers). All pipes and specials to be coated and lined with Rilsan to a minimum thickness of 300 microns.				
D6.1		100mm ND Spool Pieces Flanged both ends				
D6.1.1		0 mm - 200mm	No	2		
D6.1.2		200mm - 400mm	No	2		
D6.1.3		400mm - 600mm	No	2		
D6.1.4		600mm - 800mm	No	2		
D6.1.5		800mm - 1000mm	No	2		
D6.2		100mm ND Bends				
D6.2.1		90 Degree bends flanged both ends	No	2		
1200L	1200L	Fittings In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards				
D7.1		Adaptors, couplings and reducers				
D7.1.1		100mm x Table D to Table 16 Adaptor Spool	No	1		
D7.1.2		100mm Couplings	No	2		
D7.1.3		100mm Maxi Fit Flange Adaptor	No	1		
D7.1.4		100mm Maxi Fit Flange Coupling	No	1		
D7.1.5		100mm Steel Barrel adaptor	No	1		
D7.2		Compression Fittings for HDPE				
D7.2.1		90mm Flange Adaptors	No	2		
D7.2.2		90mm x 90-degree Bends	No	2		
D7.2.3		100mm Flange Adaptors	No	2		
D7.2.4		100mm x 90-degree Bends	No	2		
D7.3		Double 90-degree bend with thrust plate (Special fitting)	No	1		
D7.4		Pipe Cut to Suit on Site dimensions				
D7.4.1		90mm	m	2		
D7.4.2		110mm	m	2		
Total carried to Summary						

						Section E: 150mm Flow Meter Installation
ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E1	SABS 1200 & PS & C3.1 C3.1.3	Site works Locating existing meter, liaison with consumers, excavation & removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures and accurate record keeping.	Sum	1		
E2	C3.1.3	Meter Assembly and Installation - Collected from EWS Stores: Collect valves and meter from stores, supply all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 4, Rev1) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of: 1x 150mm Butterfly valve supplied complete with matching flanges and jointing material 1x150mm Gate valve supplied complete with matching flanges and jointing material 1x150mm Spool Piece 250mm Flanged Distance 2x 150mm x 90 deg Flanged bend one leg extended by 100mm 1x 150mm dirt box with 450mm spool 2x 150mm x 450mm long flanged spool 1x 150mm Flow meter TOTAL PRICE FOR 150mm ASSEMBLY	No	1		
E2.2	C3.1.3	Meter Assembly and Installation - Fabricated/purchased from external supplier In the event of unforeseen shortages of materials at eThekwinI stores, supply the fittings indicated below, to EWS current Departmental Standards				
E2.2.1		150mm Butterfly valve supplied complete with matching flanges and jointing material	No	1		
E2.2.2		150mm Gate valve supplied complete with matching flanges and jointing material	No	1		
E2.2.3		150mm Spool Piece 250mm Flanged Distance	No	1		
E2.2.4		150mm x 90deg Flanged bend one leg extended by 100mm	No	2		
E2.2.5		150mm dirt box with 450mm spool	No	1		
E2.2.6		150mm x 450mm long flanged spool	No	2		
E2.2.7		150mm Flow meter	No	1		
E2.2.8		M16 nuts and bolts (long length)	No	60		
E2.2.9		M16 washers	No	120		
E2.2.10		150mm x 90 deg short steel radius bends with spool piece	No	2		
Carried forward						

Brought forward					
E3	C3.1.3	Fabricate and Install 150mm Meter Cover Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rislun Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1	
E4	PS.1.3	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	Sum	1	
E5	1200L	Pipework: Steel Pipes and Specials In the event of unforeseen shortages of materials at eThekweni stores, supply the fittings indicated below, to EWS current Departmental Standards			
E5.1		150mm ND Spool Pieces Flanged both ends			
E5.1.1		0 mm - 200mm	No	2	
E5.1.2		200mm - 400mm	No	2	
E5.1.3		400mm - 600mm	No	2	
E5.1.4		600mm - 800mm	No	2	
E5.1.5		800mm - 1000mm	No	2	
E5.2		150mm ND Bends			
E5.2.1		90 Degree bends flanged both ends	No	2	
E6	1200L	Fittings In the event of unforeseen shortages of materials at eThekweni stores, supply the fittings indicated below, to EWS current Departmental Standards			
E6.1		Adaptors, couplings, and reducers			
E6.1.1		150mm x Table D to Table 16 Adaptor Spool	No	1	
E6.1.2		150mm Couplings	No	2	
E6.1.3		150mm Maxi Fit Flange Adaptor	No	1	
E6.1.4		150mm Maxi Fit Flange Coupling	No	1	
E6.1.5		150mm Steel Barrel adaptor	No	1	
E6.2		Compression Fittings for HDPE			
E6.2.1		150mm Flange Adaptors	No	2	
E6.2.2		150mm x 90-degree Bends	No	2	
E6.2.3		150mm Male Adaptor	No	2	
E6.2.4		150mm Female Adaptor	No	2	
E6.2.5		150mm x 90-degree Bends	No	2	
E6.3		Double 90-degree bend with thrust plate (Special fitting)	No	1	
E7		Pipe Cut to Suit on Site dimensions			
E7.1		150mm	m	2	
Total carried to Summary					

						Section F: 200mm Flow Meter Installation
ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
F1	SABS 1200 & PS & C3.1 C3.1.3	- Site works Locating existing meter, liaison with consumers, excavation & removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures and accurate record keeping.	Sum	1		
F2	C3.1.3	Meter Assembly and Installation - Collected from EWS Stores: Collect valves and meter from stores, supply all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 5, Rev1) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of: 1x 200mm Butterfly valve supplied complete with matching flanges and jointing material 1x200mm Gate valve supplied complete with matching flanges and jointing material 1x200mm Spool Piece 250mm Flanged Distance 2x 200mm x 90 deg Flanged bend one leg extended by 100mm 1x 200mm dirt box 2x 200mm x 450mm long flanged spool 1x 200mm Flow meter TOTAL PRICE FOR 200mm ASSEMBLY	No	1		
F2.2	C3.1.3	Meter Assembly and Installation - Fabricated/purchased from external supplier In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards				
F2.2.1		200mm Butterfly valve supplied complete with matching flanges and jointing material	No	1		
F2.2.2		200mm Gate valve supplied complete with matching flanges and jointing material	No	1		
F2.2.3		200mm Spool Piece 300mm Flanged Distance	No	1		
F2.2.4		200mm x 90deg Flanged bend one leg extended by 150mm	No	2		
F2.2.5		200mm dirt box 350mm long	No	1		
F2.2.6		200mm x 600mm long flanged spool	No	2		
F2.2.7		200mm Flow meter	No	1		
F2.2.8		M16 nuts and bolts (long length)	No	60		
F2.2.9		M16 washers	No	120		
F2.2.10		200mm x 90 deg short steel radius bends with spool piece (Refer to note 8)	No	2		
F2.2.11		200mm steel spool piece (See table 3)	No	1		

Carried forward	
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Brought forward				
F3	C3.1.3	Fabricate and Install 200mm Meter Cover Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rislac Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1
F4	PS.1.3	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	Sum	1
F5	1200L	Pipework: Steel Pipes and Specials In the event of unforeseen shortages of materials at eThekweni stores, supply the fittings indicated below, to EWS current Departmental Standards		
F5.1		200mm ND Spool Pieces Flanged both ends		
F5.1.1		0 mm - 200mm	No	2
F5.1.2		200mm - 400mm	No	2
F5.1.3		400mm - 600mm	No	2
F5.1.4		600mm - 800mm	No	2
F5.1.5		800mm - 1000mm	No	2
F5.2		200mm ND Bends		
F5.2.1		90 Degree bends flanged both ends	No	2
F6	1200L	Fittings In the event of unforeseen shortages of materials at eThekweni stores, supply the fittings indicated below, to EWS current Departmental Standards		
F6.1		Adaptors, couplings, and reducers		
F6.1.1		200mm x Table D to Table 16 Adaptor Spool	No	1
F6.1.2		200mm Couplings	No	2
F6.1.3		200mm Maxi Fit Flange Adaptor	No	1
F6.1.4		200mm Maxi Fit Flange Coupling	No	1
F6.1.5		200mm Steel Barrel adaptor	No	1
F6.2		Compression Fittings for HDPE		
F6.2.1		200mm Flange Adaptors	No	2
F6.2.2		200mm x 90-degree Bends	No	2
F6.2.3		200mm Male Adaptor	No	2
F6.2.4		200mm Female Adaptor	No	2
F6.2.5		200mm x 90-degree Bends	No	2
F6.3		Double 90-degree bend with thrust plate (Special fitting)	No	1
F7		Pipe Cut to Suit on Site dimensions		
F7.1		200mm	m	2

Total carried to Summary							

Section G: Summary

THE UPGRADE TO INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL (ICI) WATER METER INSTALLATIONS IN ETHEKWINI MUNICIPALITY PHASE 5	
<u>Contract No.: WS 7553</u>	
<u>SUMMARY OF WORK PERFORMED</u>	
DESCRIPTION	SCHEDULED AMOUNT
Section A: Preliminary & General	R
Section B: Installation of 40mm or 50mm Diameter Water Meter	R
Section C: Installation of 80mm Diameter Water Meter	R
Section D: Installation of 100mm Diameter Water Meter	R
Section E: Installation of 150mm Diameter Water Meter	R
Section F: Installation of 200mm Diameter Water Meter	R
SUB TOTAL	R
ADD: VALUE ADDED TAX (15%)	R
TOTAL VALUE OF WORK	R

PART C3: SCOPE OF WORK

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C3.1: PROJECT DESCRIPTION AND SCOPE OF CONTRACT

C3.1.1 Description of Works

The Employer's objective under this Contract is to:

Upgrade existing ICI (Industrial, Commercial & Institutional) water meter installations to current NRW branch design standards to ensure accurate metering.

Position all meter installations in a more visible location, above ground (where applicable) and outside properties to make meter reading easy to accomplish.

The consolidations of billing meters to one register per property; will make billing and capturing of readings more streamlined.

Reduce the number of register sites required for maintenance and replacement per meter cycle, reducing servicing cost per consumer.

Overview and extent of the works

eThekweni Water and Sanitation Technical Customer Services Branch is currently underway with a 10-year WCWDM Plan, which will reduce the NRW levels from 39.6 % volume to approximately 25 % by 2026. The upgrade to ICI water meter installation contract has been drawn up to assist with some of the apparent loss initiatives as set out in the strategic master plan.

The works called for under this Contract comprise the following:

Trenching, bedding, backfilling for reticulation/connection pipes.

Earthworks to include for pipeline trenching and meter chambers.

Barricading all trenches.

Fabrication, supplying, laying, jointing, testing of pipes and fittings, that shall connect to the existing pipework.

Reinstatement of site to original condition.

Liaison with consumer regarding installation and consolidation of meters.

Consolidation of meter; end capping of mainline to individual fire sprinkler storage lines per property.

Non- used meter chambers to be removed or backfilled and site reinstated.

All useable material in old chamber to be returned to stores such as steel door/ cover.

Installation of new consolidated meter further upstream, to accommodate all lines or tie in off additional lines to downstream of new consolidated meter.

Such other work as may be deemed necessary by the Engineer for the completion of the project.

The Contractor is to note that the works called for under this Contract is subject to confirmation of existing infrastructure. The items scheduled under the Contract are an estimate of the installations required in the operational area and is subject to vary.

C3.1.2 Description of Site and Access

The Sites are located in the eThekweni Municipality supply area.

C3.1.3 Nature of Ground and Subsoil Conditions

Tenderers must satisfy themselves as to the nature of materials to be excavated under this contract. No geotechnical survey of this site has been undertaken due to the nature of the contract and the various areas that construction is anticipated. The nature of the project is such that no excavation in rocks is anticipated as excavation will generally take place in existing trenches.

No responsibility is accepted for any conclusions drawn by Tenderers from the information supplied and Tenderers must satisfy themselves as to the nature of materials to be excavated under this Contract. Tenderers are at liberty to excavate any further trial holes or to carry out other investigations to satisfy themselves as to the nature of the ground that will be encountered in the Works, provided that they advise the Engineer of their intention to carry out such further trial hole excavations or other investigations so that the necessary safety requirements can be ensured. Any trial hole excavated in areas close to pedestrian or vehicular traffic shall be barricaded and shall be backfilled immediately after inspection of the soil conditions.

The Tenderer shall be fully liable for any claims for losses, damage or injuries whatsoever arising out of, or as a consequence of, carrying out trial hole excavations for the purpose of his tender. Furthermore, the Engineer's authority for the carrying out of any exploratory excavations is subject to the Tenderer indemnifying the Employer and the Engineer against any such claims.

C3.1.4 Scope of Contract

The Contractor will carry out the following work under this contract: -

1. Locate the consumer water meter on site.
2. Capture photos of the existing meter installation prior to proving existing services.
3. Prove existing pipework prior to fabrication.
4. Capture photos during installation of replacement meter and on completion of the works after making good.
5. Locate the isolation valves along the main water supply reticulation.
6. Re-position the new installation outside property (where necessary).
7. All installations to be above ground.
8. Excavate by hand in all materials for meter installation, backfill, compact, and dispose of surplus material.
9. Removal of existing meter installation/chambers and returning material to stores.
10. Excavation and Reinstatement to new meter installation area. Contractor to excavate in various surfaces (for e.g., concrete, asphalt, paving);
11. Cutting into existing pipeline, preparation of both pipe edges for new pipe work.
12. Connection to be made to consumer pipe.
13. Carry out the work within specific time limit within shut down time.
14. Erecting notice boards for Consumer to be informed of shut down time
15. All consolidated property to have old metering points removed, backfilled, and compacted. All old fittings and meters to be returned to stores.
16. Accommodation of traffic, road signs, flagman and speed control must be employed during the construction process.
17. Remove existing road/sidewalk block paving surface to Contractor's stockpile for reuse (if required).
18. Remove existing road/sidewalk asphalt surface to Contractors off site tip.
19. Remove existing road pavement layers to stockpile for re-use.
20. Coordinate shutdowns with relevant role-players.

The water meter sizes range from 40mm to 150mm which will be changed under this contract.

The appointed **Category A** plumber will be responsible for the following:

1. Isolate mains for tie in
2. Repair of leaking/burst main from 15mm to 600mm in diameter.
3. To work on various types of pipes used in eThekwinini region (e.g. AC, PVC, Polypipe, HDPE, UPVC, Steel, Copper etc)

The **Council** will be responsible for the following:

1. Provision of the meter records detailing the existing meter data to the contractor.
2. Determining the size of the required meter.
3. Processing of the meter application forms for the issue of the required water meter.
4. Verifying that the material drawn for the meter installations is in accordance with the installation requirements.
5. Provision of water meters and associated fittings (where applicable and as scheduled).
6. Closing of valves (if required) to isolate sections of the water main for the installation of the water meter.

7. Monitoring the Contractor's progress on site and report to EWS;
8. Attending/Resolving Contractor queries.
9. Liaise EWS OPS were necessary to obtain shut for numerous consumers on street
10. Quality Control.
11. GPS'ing of the completed meter installations.
12. Updating of the GIS showing the positions of the finalized Consumer meters.
13. Process all payment due to the Contractor.

The **Contractor** will be responsible for the following:

1. Liaison with Consumer regarding installation of new meter
2. Liaison with Consumer regarding consolidation of new meter.
3. Issuing formal notification letters to the consumer.
4. Liaison with the Consultants Representation to determine the required meter positions and sizes.
5. Determine existing connection points into the water supply system for the meter positions by digging and following the reticulation to its connection point.
6. Assembly and installation of the water meter.
7. Erecting shut down notification boards 48hr prior to shut down.
8. Water tightness testing after installation.
9. Repairing all visible leaks.
10. Repairing leaks on the installation that occur within one month of completion.
11. Requesting materials to be drawn from EWS stores.
12. Providing the Consultant with progress report and digital photos for each meter installation.
13. Provision of security as required for site staff, materials, personnel, etc to complete the required works.
14. Liaison with EWS for the shutting off valves for the meter installation if required.
15. Completing of "blue forms" once a new meter has been installed and handing over to Employers Representative.

PMS.3 MATERIALS SUPPLIED BY THE EMPLOYER

The Employers Agent Representative will supply the materials as stipulated in the tender document.

PMS 3.1 Procedure for the withdrawal of material

1. The Contractor shall notify the Employers Agent Representative at least one week in advance of his/her intention to withdraw materials from the Employer's stores. A list of the materials that the Contractor wishes to withdraw shall accompany such notification.
2. The Engineer shall then issue to the Contractor the necessary requisition forms to allow him to withdraw the required materials from the Employer's store. Contractors are to note that materials are to be collected between 08h00 and 15h00 Mon- Fri.

PMS 3.2 Ownership of Materials once collected by the Contractor

All materials supplied by the Employer remain the property of the Employer even after being collected by the Contractor. However, the Contractor shall become fully responsible for the materials once he has drawn them from the Employer's stores. The contractor is to supply a weekly summary of the items drawn from stores and the corresponding requisition numbers and sites in which material were used.

PMS 3.3 Handling of Materials

It shall be the responsibility of the Contractor to check on receiving, the condition of all materials supplied to by the Employer. All defects shall be recorded on the delivery forms and the Engineer shall be notified in writing. The Employers Agent Representative will then: -

1. Replace the defective materials.
2. Repair the defective materials; or
3. Instruct the Contractor to repair the material at the Employer's cost.

PMS.4 QUALITY ASSURANCE

The Contractor is to submit details of his Quality Assurance Plan to the Engineer for approval prior to commencing with field activities. It is expected that the Contractor will have appropriate quality control procedures in place for the following activities:

1. Reporting requirements.
2. Communication
3. Tracking the materials used on this project; and
4. Completing the necessary change control forms correctly.

PMS.5 SUPPLY OF MATERIAL FROM COMMERCIAL SOURCES

In the event of unforeseen shortages of materials from eThekwini Stores. The contractor will be allowed to supply materials for work to proceed from an alternative source. These items are indicated in the bill for 15mm and 25mm installations. Special attention is drawn to the following:

The rates submitted for the items will be valid for the full duration of the contract.

C3.2: PROJECT SPECIFICATION

PREAMBLE

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

C3.2.1 GENERAL

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

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

PS.1.1 Preliminary Programme

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

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

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

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

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

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

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

- (1) Time required for service relocations.
- (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? (e.g., to accesses).
- (7) Vehicular access to private property is to be maintained.
- (8) Traffic restrictions.

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

PS.1.3 Requirements for Accommodation of Traffic

PS.1.3.1 General

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

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

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

PS.1.3.2 Basic Requirements

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

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

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

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

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations. The Contractor shall ensure that the existing property accesses are always maintained. Where necessary the Contractor shall make allowance in the rates for completing

the work required to the accesses out of normal hours.

PS.1.3.3 Traffic Safety Officer

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

PS.1.3.4 Payment

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

PS.1.3.5 Pedestrian movement

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

PS.1.3.6 Temporary Reinstatement

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

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

PS.2 SERVICES

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

PS.2.1 Existing Services

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

PS.2.2 Proving Underground Services

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

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

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

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

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

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

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

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

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

Agent's Representative.

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

PS.2.3 New Services and Relocation of Existing

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

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

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

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

Services affected by the contract are described as follows:

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

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

PS.2.4 Accommodation of Services

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

PS.3 WATERMAINS

PS.3.1 General

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

PS.3.2 Water Main Valve Access

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

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

PS.3.3 Restriction on Compactive Equipment

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

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

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

PS.4 SEWERS

Services to be proved prior to avoid working close to sewer lines.

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

Services to be proved prior to avoid working close to stormwater lines.

PS.5.1 Blockage Stormwater Sewers

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

PS.6 ELECTRICAL PLANT

The contractor shall be responsible for providing electrical plant such as water pumps, generators, breakers and other equipment needed to assist with the installation of the water meter such as such as to break concrete or asphalt on driveways.

PS.6.1 General

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

PS.6.2 Street Lighting

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

PS.6.3 MV / LV Cables

Certain MV / LV cables are to be replaced within the contract area (see drg xxxxxxxA0). The actual cable work associated with this relocation and / or replacement of these cables will be carried out by eThekwini Electricity and it is stressed that the **two** week period referred to in Clause PS.2 is the minimum period required to enable eThekwini Electricity to be on site timeously.

PS.6.4 Relocation of Existing Services

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

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

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

PS.8 CCTV PLANT

No work to CCTV Plant is envisaged, but the tenderers attention is drawn to the fact that CCTV cables and fibre optic cables are existing in the contract area.

PS.9 MANAGEMENT OF THE ENVIRONMENT

The Contractor shall pay special attention to the following:

PS.9.1 Natural Vegetation

The Contractor shall confine his operation to as small an area of the site as may be practical for the purpose of constructing the works.

Only those trees and shrubs directly affected by the works and such others as the Employer's Agent may direct in writing shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work or where directed by the Engineer.

PS.9.2 Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire, the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

PS.9.3 Environmental Management Plan

In addition to the above, all requirements according to the Environmental Management Plan as detailed in C3.4: Particular Specifications, will be adhered to.

PS.10 OCCUPATIONAL HEALTH AND SAFETY

PS.10.1 General Statement

When considering the safety on site the Contractor's attention is drawn to the following:

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

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

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

PS.10.2.1 Employer's Health and Safety Specification

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

PS.10.2.2 Tenderer's Health and Safety Plan

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

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

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

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

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

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

A generic plan will not be acceptable.

PS.10.3 Cost of compliance with the OHSA Construction Regulations

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

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

PS.11 SITE SECURITY

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

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

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

PS.12 PERFORMANCE MONITORING OF SERVICE PROVIDERS

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

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

C3.3: STANDARD SPECIFICATIONS

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

Part	Description	Date of Issue	
AB	General Specifications	July	1992
B	Site Clearance	March	1990
DA	Earthworks: Bulk	January	1985
DB	Earthworks for Pipe Trenches	July	1992
ED	Road Asphalt	July	1992
EF	Kerbs and Haunches	July	1992
EG	Sidewalks, Footpaths and Median Areas	July	1992
F	Protection Works	July	1992
S	Reinstatement	March	1993
TA	Road Signs	October	1989

C3.3.2 AMENDMENTS TO THE STANDARD SPECIFICATIONS

INTRODUCTION

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

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

PS AB	General Specifications
PS B	Site Clearance
PS C	Concrete Work
PS DA	Earthworks: Bulk
PS DB	Earthworks for Pipe Trenches
PS ED	Road Asphalt
PS EF	Kerbs and Haunches
PS EG	Sidewalks, Footpaths and Median Areas
PS F	Protection Works
PS PF	Pressure Pipelines: other than Steel
PS PG	Non Pressure Pipelines and Pc Culverts
PS S	Reinstatement
PS TA	Road Signs
PS TB	Road Markings

C3.4: PARTICULAR SPECIFICATIONS

In addition to the Standardized and Project Specifications the following Particular Specifications / Policies shall apply to this contract and are available on web address:

<ftp://ftp.durban.gov.za/cesu/StdContractDocs/>:

C3.4.1 Part AH - OHS Act 1993 Safety Specification
(26 Pages)

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

PAM: OHSA 1993 HEALTH AND SAFETY SPECIFICATION

PAM-1: SCOPE

This specification covers the health and safety requirements to be met by the Contractor to ensure a continued safe and healthy environment for all workers, employees and subcontractors under his control and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2003, and all other safety codes and specifications referred to in the said Construction Regulations.

In terms of the OHSA Agreement included in Section T2.2.3 of the Contract document, the status of the Contractor as mandatory to the Employer (Client) is that of an Employer in his own right, responsible to comply with all provisions of OHSA 1993 and the Construction Regulations 2003.

This safety specification and the Contractor's own Safety Plan as well as the Construction Regulations 2003, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

The following are possible risks associated with this project:

- Potentially dangerous existing services, i.e. water and sewerage mains, electrical high voltage cables buried and overhead,
- Deep excavations in soils requiring shoring or reducing of slopes,
- Movement of construction vehicles on site, taking into consideration steep slopes, other traffic and existing services,
- Exposure to possible injuries due to mishandling or failure of power and hand tools,
- Risks related to general safety and security on site.

Additional risks may arise from specific methods of construction selected by the Contractor which are not necessary covered in the above.

PAM-2: DEFINITIONS

For the purpose of this Contract the following shall apply:

(a) "Employer" where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as "Client" as defined in the Construction Regulations 2003. "Employer" and "Client" is therefore interchangeable and shall be read in the context of the relevant document.

(b) "Contractor", wherever used in the contract documents and in this specification, shall have the same meaning as "Contractor" as defined in the General Conditions of Contract.

In this specification the terms "principal contractor" and "contractor" are replaced with "Contractor" and "subcontractor" respectively.

For the purpose of this Contract the Contractor will, in terms of OHSA 1993, be the mandatory, without derogating from his status as an Employer in his own right.

(c) "Engineer" where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the Client as defined in the Construction Regulations).

PAM-3: TENDERS

The Contractor shall submit the following with his tender:

- (a) a documented Health and Safety Plan as stipulated in Regulation 5 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2003 and will be subject to approval by the Employer;
- (b) a declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2003;
- (c) a declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.
- (d) Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the Contract safely in accordance with the Construction Regulations.

PAM-4: NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK

After award of the Contract, but before commencement of construction work, the Contractor shall, in terms of Regulation 3, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

- (a) the demolition of structures and dismantling of fixed plant of height of 3,0 m or more;
- (b) the use of explosives;
- (c) construction work that will exceed 30 days or 300 person-days;
- (d) excavation work deeper than 1,0 m; or
- (e) working at a height greater than 3,0 m above ground or landings.

The notification must be done in the form of the pro forma included in "Forms to be Completed by Successful Tenderer" of the tender document.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

PAM-5: RISK ASSESSMENT

Before commencement of any construction work during the construction period, the Contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 7 of the Construction Regulations 2003).

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the Contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, Employer, Engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the Contractor.

PAM-6: APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS

PAM-6.1 Health and Safety plan

The Contractor shall appoint his employees and any subcontractors to be employed on the Contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan, or relevant sections thereof. The Contractor shall ensure that all subcontractors and employees are committed to the

implementation of his Safety Plan.

PAM-6.2 Health and Safety induction training

The Contractor shall ensure that all employees under his control, including subcontractors and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site.

The Contractor shall ensure that every employee on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

PAM-7: APPOINTMENT OF SAFETY PERSONNEL

PAM-7.1: Construction Supervisor

The Contractor shall appoint a full-time Construction Supervisor with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

PAM-7.2: Construction safety officer

Taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a full-time or part-time Construction Safety Officer if so decided by the Inspector of the Department of Labour. The Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision shall be made by the Contractor in his rates, to cover the cost of this dedicated construction safety officer appointed after award of the contract.

PAM-7.3: Health and Safety representatives

In terms of Sections 17 and 18 of the Act (OHSA 1993) the Contractor, being the Employer in terms of the Act for the execution of the contract, shall appoint a health and safety representative whenever he has more than 20 employees in his employment on the site of the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 100 employees.

The function of the health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of incidents (in collaboration with his Employer, the Contractor), to investigate complaints by employees relating to health and safety at work, to make representations to the Employer (Contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety

committee.

PAM-7.4: Health and Safety committee

In terms of Sections 17 and 18 of the Act (OHS Act 1993) the Contractor (as Employer), shall establish one or more health and safety committee(s) where there are two or more health and safety representatives at a workplace. The persons selected by the Contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the Contract, to discuss incidents related to health and safety with the Contractor and the inspector, and to make recommendations regarding health and safety to the Contractor and to keep record of recommendations and reports made by the committee.

PAM-7.5: Competent persons

In accordance with the Construction Regulations the Contractor has to appoint in writing competent persons responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

- (a) Risk assessment and induction training as described in Regulation 7 of the Construction Regulations;
- (b) Fall protection as described in Regulation 8;
- (c) Formwork and support work as described in Regulation 10;
- (d) Excavation work as described in Regulation 11;
- (e) Demolition work as described in Regulation 12;
- (f) Scaffolding work as described in Regulation 14;
- (g) Suspended platform operations as described in Regulation 15;
- (h) Material hoists as described in Regulation 17;
- (i) Batch plant operations as described in Regulation 18;
- (j) Explosive powered tools as described in Regulation 19;
- (k) Cranes as described in Regulation 20;
- (l) Construction vehicle and mobile plant inspections on a daily basis by a competent person as described in Regulation 21(1);
- (m) Control of all temporary electrical installations on the construction site as described in Regulation 22.
- (n) Stacking and storage on construction sites as described in Regulation 26; and
- (o) Inspections of fire equipment as described in Regulation 27.

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Contractor from any of his responsibilities to comply with all requirements of the Construction Regulations.

PAM-8: RECORDS AND REGISTERS

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer, the Employer, trade union officials and subcontractors and employees. The following records and registers must be kept on site and shall always be available for inspection.

- (a) A copy of the OHSA 1993 Construction Regulations 2003;
- (b) A copy of this Health and Safety Specification;
- (c) A copy of the Contractor's Health and Safety Plan (Regulation 4);
- (d) A copy of the Notification of Construction Work (Regulation 3);
- (e) A health and safety file in terms of Regulation 5(7) with inputs by the Construction Safety Officer [Regulation 6(7)];
- (f) A copy of the risk assessment described in Regulation 7;
- (g) A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 8;
- (h) Drawings pertaining to the design of structures [Regulation 9(3)] and formwork and support work structures [Regulation 10(d)] must be kept on site;
- (i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site [Regulation 11(3)(h)];
- (j) A copy of the certificate of the system design for suspended platforms [Regulation 15(3)];
- (k) A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists [Regulation 7(5)].
- (l) Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site [Regulation 17(8)];
- (m) A record of any repairs to or maintenance of a batch plant must be kept on site [Regulation 18(9)];
- (n) A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used [Regulation 19(2)];
- (o) A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant [Regulation 21(1)(j)].

PAM-9: CONTRACTOR'S RESPONSIBILITIES

For this Contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor has the status of Employer in his own right in respect of the Contract. The Contractor is therefore responsible for all the duties and obligations of an Employer as set out in the Act (OHSA 1993) and the Construction Regulations 2003.

Before commencement of work under the Contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatory (Employer) for the Contract under consideration.

The Contractor's duties and responsibilities are clearly set out in the Construction Regulations 2003 and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the Contractor of any of his duties and responsibilities in terms of the Construction Regulations.

- (a) Contractor's position in relation to the Employer (Client) (Regulation 4)

In accordance with Section 4 of the Regulations, the Contractor shall liaise closely with the Employer or the Engineer on behalf of the Employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

- (b) The Principal Contractor and Contractor (Regulation 5)

The Contractor is in terms of the definition in Regulation 2(b) the equivalent of Principal Contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 5.

Any subcontractors employed by the Contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall however provide and demonstrate to the Contractor a suitable, acceptable and sufficiently documented health and safety plan before commencement of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the Contractor's safety plan, the health and safety specifications of the Employer and the Construction Regulations 2003.

(c) Supervision of construction work (Regulation 6)

The Contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 6 and as set out in PAM-7 above. Appointment of those personnel and employees does not relieve the Contractor from any of the obligations under Regulation 6.

(d) Risk assessment (Regulation 7)

The Contractor shall have the risk assessment made as set out in PAM-7 above before commencement of the work, and it must be available on site for inspection at all times. The Contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including subcontractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 7.

(e) Fall protection (Regulation 8)

Fall protection, if applicable to this Contract shall comply in all respects with Regulation 8 of the Construction Regulations.

(f) Structures (Regulation 9)

The Contractor will be liable for all claims arising from collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based.

In addition the Contractor shall comply with all aspects of Regulation 9 of the Construction Regulations.

(g) Formwork and support work (Regulation 10)

The Contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person.

The provisions of Regulation 10 of the Construction Regulations shall be followed in every detail.

(h) Excavation work (Regulation 11)

It is essential that the Contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The Contractor shall therefore ensure that all excavation work is carried out under the supervision of a competent person, that inspections are carried out by a Professional Engineer or Technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions.

Supervision by a competent person will not relieve the Contractor from any of his duties and responsibilities under Regulation 11 of the Construction Regulations.

(i) Demolition work (Regulation 12)

Whenever demolition work is included in a Contract, the Contractor shall comply with all the requirements of Regulation 12 of the Construction Regulations. The fact that a competent person has to be appointed by the Contractor, does not relieve the Contractor from any of his responsibilities in respect of safety of demolition work.

(j) Tunnelling (Regulation 13)

The Contractor shall comply with Regulation 13 wherever tunnelling of any kind is involved.

(k) Scaffolding (Regulation 14)

The Contractor shall ensure that all the provisions of Regulation 14 of the Construction Regulations are complied with. [Note : Reference in the Regulations to "Section 44 of the Act" should read "Section 43 of the Act"]

(l) Suspended platforms (Regulation 15)

Wherever suspended platforms will be necessary on any Contract, the Contractor shall ensure that copies of the system design issued by a Professional Engineer are submitted to the Engineer for inspection and approval. The Contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all work related to suspended platforms are done in accordance with Regulation 15 of the Construction Regulations.

(m) Boatswain's chairs (Regulation 16)

Where boatswain's chairs are required on the construction site, the Contractor shall comply with Regulation 16.

(n) Material Hoists (Regulation 17)

Wherever applicable, the Contractor shall comply with the provisions of Regulation 17 to the letter.

(o) Batch plants (Regulation 18)

Wherever applicable, the Contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used

in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 18. The Contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(p) Explosive powered tools (Regulation 19)

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 19 are complied with.

It is especially important that warning notices are displayed and that the issue and return of cartridges and spent cartridges be recorded in a register to be kept on site.

(q) Cranes (Regulation 20)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 20 shall be complied with.

(r) Construction vehicles and mobile plant (Regulation 21)

The Contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 21.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent person and the findings must be recorded in a register to be kept on site.

(s) Electrical installation and machinery on construction sites (Regulation 22)

The Contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the Contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 22.

(t) Use of temporary storage of flammable liquids on construction sites (Regulation 23)

The Contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 1986) and all the provisions of Regulation 23 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(u) Water environments (Regulation 24)

Where construction work is done over or in close proximity to water, the provisions of Regulation 24 shall apply.

(v) Housekeeping on Construction sites (Regulation 25)

Housekeeping on all construction sites shall be in accordance with the provisions of the environmental Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 25 of the Construction Regulations.

(w) Stacking and storage on construction sites (Regulation 26)

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions of Regulation 26 of the Construction Regulations shall apply.

(x) Fire precautions on construction sites (Regulation 27)

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 27 of the Construction Regulations.

(y) Construction welfare facilities (Regulation 28)

The Contractor shall comply with the construction site provisions as in the Facilities Regulations (Government Notice R1593 of 12 August 1988) and the provisions of Regulation 28 of the Construction Regulations.

(z) Non-compliance with the Construction Regulations 2003

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The Contractor, as Employer for the execution of the Contract, shall ensure that all provisions of the Construction Regulations applicable to the Contract under consideration are complied with to the letter.

Should the Contractor fail to comply with the provisions of the Regulations 3 to 28 as listed in Regulation 30, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 30.

The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations.

PAM-10: MEASUREMENT AND PAYMENT

PAM-10.1: These items have been included in the Bill of Quantities to comply with the above mentioned specifications

C3.5: CONTRACT AND STANDARD DRAWINGS


C3.5.1 CONTRACT DRAWINGS / DETAILS

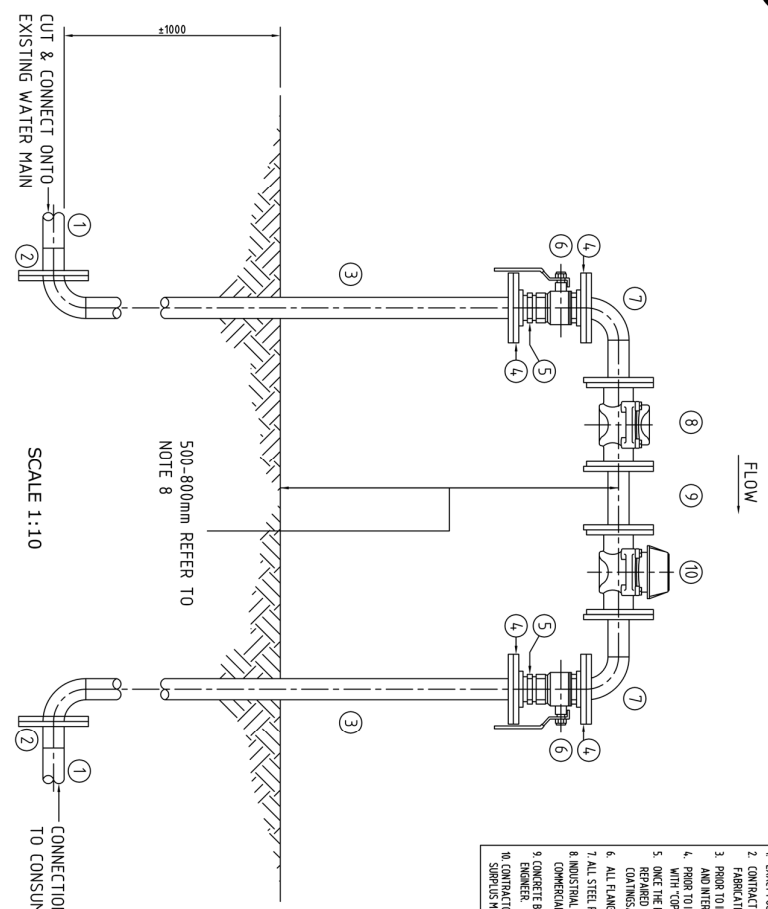
C3.5.2 STANDARD DRAWINGS

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

Dwg No	Description	Date of Issue	
072056	Sheet1 Consumer Meter Connection	February	2015
072056	Sheet2 Rev1 Consumer Meter Connection	February	2015
072056	Sheet3 Rev1 Consumer Meter Connection	February	2015
072056	Sheet4 Rev1 Consumer Meter Connection	February	2015
072056	Sheet5 Rev1 Consumer Meter Connection	February	2015
045483	50 - 150 Dirt Box Detail Rev4	August	2003
045484	200 – 400 Dirt Box Detail Rev5	August	2003
28	No 5 Valve Cover	July	2007
6	Precast Concrete Valve Spacer rings	June	2007

C3.6: ANNEXURES





500-800mm REFER TO NOTE 8

SCALE 1:10

FLOW →

NOTES

1. EXACT POSITION OF METER INSTALLATION TO BE INDICATED BY ENGINEER
2. CONTRACTOR TO CONFIRM DIMENSIONS OF ALL NEW STEEL PIPE WORK PRIOR TO FABRICATION AND INSTALLATION.
3. PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED AND INTERNALLY LINED WITH "RESAN" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS.
4. PRIOR TO INSTALLATION AND ASSEMBLY ANY UNCOATED FLANGE FACES TO BE COATED WITH "TOPON KSBOR" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS.
5. ONCE THE PIPE WORK HAS BEEN INSTALLED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED USING AN APPROVED PROCEDURE AS PER TABLE "REPAIR OF PIPE COATINGS/LININGS".
6. ALL FLANGE DRILLING TO BE TO SABS 1023 (M 8).
7. ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 719 - MEDIUM BLACK - SEAM THICK.
8. INDUSTRIAL AREAS - METER INSTALLATIONS TO BE 800mm INCL. (U) AND COMMERCIAL AREAS - METER INSTALLATIONS TO BE 500mm INCL. (U) AT ENGINEERS DISCRETION.
9. CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY ENGINEER.
10. CONTRACTOR TO REINSTATE EXCAVATED AREA TO ORIGINAL CONDITION & DISPOSE OF UNSUITABLE SURPLUS MATERIAL OFF SITE.

TABLE 1: REPAIR OF PIPE COATINGS/LININGS

COATING/LINING	COLOR	REPAIR MEDIUM
COPON KSR 88	RED/BLUE	COPON HYCOIE 151
FUSION BONDED EPOXY (F.B.E.)	GREEN	COPON HYCOIE 151
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.M.D.P.E.)	BLACK	COPON HYCOIE 151
COPON	RED	COPON HYCOIE 151
SOLVENT FREE/BORNE EPOXY (S.F./S.B.E.)	BLUE/RED/ GREY	COPON HYCOIE 151
CEMENT MORTAR	GREY	EPIDERMIX 333
RILSAN	BLACK	RILSAN REPAIR KIT

TABLE 2:

ITEM No.	DESCRIPTION	DIMENSIONS	QUANTITY
1	EXISTING SLOANED WATER MAIN		
2	Sloane® FLANGE ADAPTOR TO SUIT		2
3	Sloane® 45° BEND WITH STEEL SPOOL, PEGET F.A.BE (SPOOL, PEGET LENGTH VARIES, REFER TO NOTE 8)		2
4	Sloane® THREADED UOER FLANGE (M8)		4
5	Sloane® STAINLESS STEEL WRPLE		2
6	Sloane® BALL VALVE (M7)		2
7	Sloane® 45° BEND WITH STEEL SPOOL, PEGET WOLAM LONG F.A.BE	100	2
8	Sloane® 3 STONER CONCRETE STONER TYPE WITH HOOKS	200	1
9	Sloane® STAINLESS STEEL SPOOL PIECE F.A.BE	150	1
10	Sloane® BULK METER (F.A.BE)	200	1

LEGEND

EXISTING UNDERGROUND SERVICES
 AS SHOWN BELOW

NEW UNDERGROUND SERVICES
 AS SHOWN BELOW

SEWERS AND M.F.S.
 STORM WATER DRAINS AND M.F.S.
 WATER MAINS AND VALVES
 ELECTRIFICY CABLES
 TELECOM CABLES
 OIL PIPELINES

REVISION

NO.	DATE	DESCRIPTION	ISSUED FOR SIGNATURE
1	08/09/2019	ISSUED FOR SIGNATURE	

UNDERGROUND SERVICES CHECKED DATE

S.W. DRAINS: _____ DATE: _____

SEWERS: _____ DATE: _____

TELECOM CABLES: _____ DATE: _____

ELECTRIFICY CABLES: _____ DATE: _____

STORM WATER DRAINS: _____ DATE: _____

WATER MAINS: _____ DATE: _____

VALVES: _____ DATE: _____

TELECOM CABLES: _____ DATE: _____

OIL PIPELINES: _____ DATE: _____

PLANNING UNIT

Project Title: **NRW STANDARD CONSUMER METER CONNECTION**

Drawing Title: **500mm CONSUMER METER CONNECTION**

Ward No. _____

Contract No. _____

Project No. _____

Planning Unit _____

500mm CONSUMER METER CONNECTION

Scale: 1:10 Date: 08/09/2019

Designed: K.P.N. Drawn: A.T.N.

Checked: S.S./N.N.

Manager: NON REVENUE WATER

Director: HEAD WATER & SANITATION

N.A. Mchloed Executive Director

Drawing No. **72056** Sheet **1/1** Rev. **A**

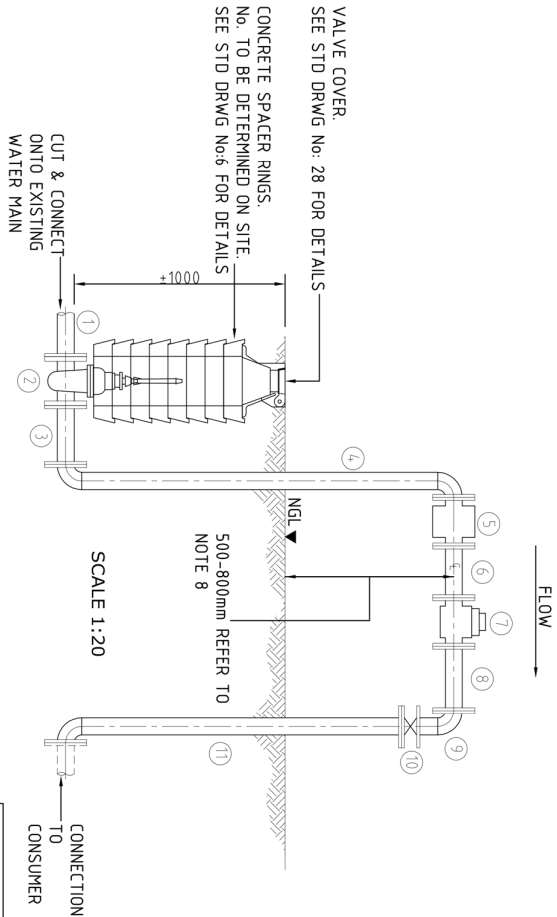


TABLE :1

REPAIR OF PPE COATINGS/LININGS		
COATING/LINING	COLOR	REPAIR MEDIUM
COPOL K518 88	RED/BLUE	COPOL HYCOTE 151
FUSION BONDED EPOXY (F.B.E)	GREEN	COPOL HYCOTE 151
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.M.D.P.E)	BLACK	COPOL HYCOTE 151
COPOL	RED	COPOL HYCOTE 151
SO LVENT FREE/BORNE EPOXY (S.F.E/S.B.E)	BLUE/RED/ GREY	COPOL HYCOTE 151
CEMENT MORTAR	GREY	EPIDERMIX 238
RILSAN	BLACK	RILSAN REPAIR KIT

TABLE :2

ITEM No.	DESCRIPTION	QUANTITY
1	EXISTING 80mm WATER MAIN	1
2	80mm GATE VALVE	1
3	80mm STEEL SPOOL PIECE 250mm EL ANGED DISTANCE	1
4	2 No 80mmx 90° STEEL SHORT RADIUS BENDS WITH STEEL SPOOL PIECE (SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E	1
5	80mm STRAINER 25mm LONG. CONFORM S/STRAINER TYPE WITH ENGINEER	1
6	80mm STEEL SPOOL PIECE 240mm LONG (F.B.E)	1
7	80mm BULK METER 225mm LONG (F.B.E)	1
8	80mm STEEL SPOOL PIECE F.B.E REFER TO TABLE 3 FOR DIMENSIONS.	1
9	80mmx 90° STEEL SHORT RADIUS BEND WITH 40mm LONG SPOOL PIECE (F.B.E)	1
10	80mm BUTTERFLY VALVE WATERED WITH FLANGES (P.R.M)	1
11	80mmx 90° STEEL SHORT RADIUS BEND WITH SPOOL PIECE (SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E	1

NOTES

- EXACT POSITION OF METER INSTALLATION TO BE INDICATED BY ENGINEER.
- CONTRACTOR TO CHECK DIMENSIONS OF ALL NEW STEEL PIPE WORK PRIOR TO FABRICATION AND INSTALLATION.
- PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED AND INTERNALLY LINED WITH "RILSAN" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS, OR SIMILAR APPROVED (O.S.A)
- PRIOR TO INSTALLATION AND ASSEMBLY, ANY UNCOATED FLANGE FACES TO BE COATED WITH COPOL K51888 TO A MINIMUM FIRM THICKNESS OF 300 MICRONS. (O.S.A)
- ONCE THE PIPE WORK HAS BEEN INSULATED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED TO APPROVED PROCEDURE AFTER LABEL "REPAIR OF PPE COATINGS/LININGS"
- ALL FLANGE DRILLING TO BE TO SABS 113 (P.N) 81.
- ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 719 - MEDIUM BLACK - 6mm THICK.
- INDUSTRIAL AREAS - METER INSTALLATIONS TO BE 500mm INCL. - (U) AT ENGINEERS DISCRETION.
- CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY ENGINEER.
- CONTRACTOR TO RENOVATE EXCAVATED AREA TO ORIGINAL CONDITION & DISPOSE OF UNSUITABLE SURPLUS MATERIAL OFF SITE.

TABLE :3

INSTALLATION REQUIREMENT FOR DIMENSIONS IN TABLE 2		
METER TYPE	ITEM 6	ITEM 8
SERVOUS	240mm	—
ELSTER KENT	240mm	300

ETHEKWINI WATER & SANITATION

WATER DESIGN BRANCH
REDUCED PLAN USE SCALE BELOW
0 10 20 30 40 50
80mm ON ORIGINAL PLAN

LEGEND

EXISTING UNDERGROUND SERVICES ARE AS SHOWN BELOW

SERVICES AND MFTS

STORM WATER DRAINS AND MFTS

WATER MAINS AND VALVES

ELECTRIC CABLES

TELECOM CABLES

OIL PIPELINES

1	FEB2016	80-200mm METERS ISSUED FOR SIGNATURE
A	JAN 08	

CHANGES TO FITTINGS ON 80-200mm METERS ISSUED FOR SIGNATURE

Project Title: NPW STANDARD CONSUMER METER CONNECTION

Drawing Title: 80mm CONSUMER METER CONNECTION

Project No.:

Ward No.:

Contract No.:

Project Title: NPW STANDARD CONSUMER METER CONNECTION

Drawing Title: 80mm CONSUMER METER CONNECTION

Scale: 1:20

Designed: K.E.X

Checked: S.S.N/N

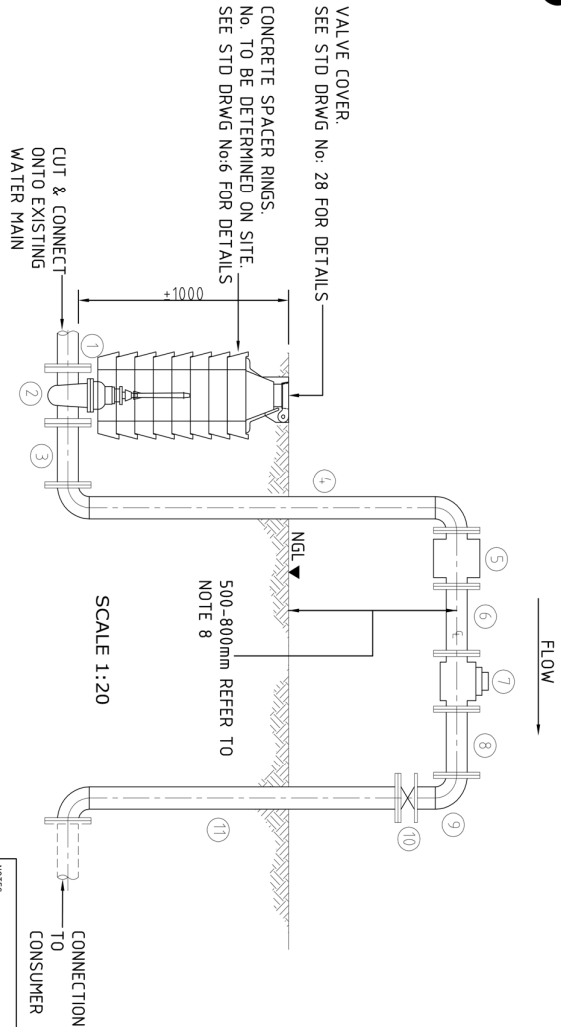
Manager: NON RENOVUE WATER

Engineer: HEAD WATER & SANITATION

Drawing No. 72036

Sheet: 27

Rev: 1



VALVE COVER
SEE STD DRWG No: 28 FOR DETAILS
CONCRETE SPACER RINGS.
NO. TO BE DETERMINED ON SITE.
SEE STD DRWG No:6 FOR DETAILS

CUT & CONNECT
ONTO EXISTING
WATER MAIN

TABLE :1

REPAIR OF PIPE COATINGS/LININGS	
COATING/LINING	COLOR
COPON KSR 88	RED/BLUE
FUSION BONDED EPOXY (F.B.E)	GREEN
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.M.D.P.E)	BLACK
COPON	RED
SOL VENT FREE/80RPE EPOXY (S.F.E./S.B.E)	BLUE/RED/ GREY
CEMENT MORTAR	GREY
RILSAN	BLACK

TABLE :2

ITEM No.	DESCRIPTION	QUANTITY
1	EXISTING 100mmØ WATER MAIN	
2	100mmØ GATE VALVE	1
3	100mmØ STEEL SPOOL PIECE F.B.E 250mm FLANGED DISTANCE	1
4	2 No 100mmØ 90° STEEL SHORT RADIUS BENDS WITH STEEL SPOOL PIECE (SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E	1
5	100mmØ STRAINER 250mm LONG CONCRETE STRAINER TYPE WITH ENGINEER	1
6	100mmØ STEEL SPOOL PIECE 300mm LONG (F.B.E)	1
7	100mmØ BULK METER 250mm LONG (F.B.E)	1
8	100mmØ STEEL SPOOL PIECE (F.B.E) REFER TO TABLE 3 FOR DIMENSIONS.	1
9	100mmØ 90° STEEL SHORT RADIUS BEND WITH 100mm LONG SPOOL PIECE (F.B.E)	1
10	100mmØ BUTTERFLY VALVE WAFFERED WITH FLANGES (P/N16)	1
11	100mmØ 90° STEEL SHORT RADIUS BEND WITH SPOOL PIECE (SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E	1

CONNECTION
TO
CONSUMER

NOTES

1. EXACT POSITION OF REFER INSTALLATION TO BE INDICATED BY ENGINEER
2. CONNECTION TO CONCRETE DIMENSIONS OF ALL NEW STEEL PIPE WORK FROM TO FABRICATION AND INSTALLATION
3. PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED OR INTERNALLY LINED WITH RILSAN TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS, OR SIMILAR APPROVED (OSI)
4. PRIOR TO INSTALLATION AND ASSEMBLY ANY UNCOATED FLANGE FACES TO BE COATED WITH "COPON KSR88" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS (OSI)
5. ONCE THE PIPE WORK HAS BEEN INSTALLED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED USING AN APPROVED PROCEDURE AS PER TABLE - REPAIR OF PIPE COATINGS/LININGS.
6. ALL FLANGE DRILLING TO BE TO SABS 103 (P/N 81)
7. ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 719 - MEDIUM BLACK-6mm THICK
8. INDUSTRIAL AREAS - METER INSTALLATIONS TO BE 80mm NG-(CL) AND COMMERCIAL AREAS - METER INSTALLATIONS TO BE 50mm NG-(CL) AT ENGINEERS DISCRETION.
9. CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY 10. CONSTRUCTION TO BE INSTALLED TO PROTECT EXCAVATED AREA TO ORIGINAL CONDITION & DISPOSE OF UNSUITABLE. SPORE MATERIAL OFF SITE

TABLE :3

INSTALLATION REQUIREMENT FOR DIMENSIONS IN TABLE 2	ITEM 6	ITEM 8
METER TYPE	300mm	
SENSUS		
ELSTER KENT	300mm	300

ETHEKWINI WATER & SANITATION

WATER DESIGN BRANCH

REDUCED PLAN USER SCALE BELOW

0 10 20 30 40 50

Scale on ORIGINAL PLAN

LEGEND

EXISTING UNDERGROUND SERVICES ARE AS SHOWN BELOW

SERVICES AND M.F.T'S

STORM WATER DRAINS AND M.F.T'S

WATER MAINS AND VALVES

ELECTRICITY CABLES

TELECOM CABLES

OIL PIPELINES

CHANGES TO DIMENSIONS ON FEBRUARY 2015 60-200mm LETTERS JAN 08 ISSUED FOR SIGNATURE

Date	1	2	3
Revision	A		
Revision	Date	Description	
1	FEBRUARY 2015	ISSUED FOR SIGNATURE	
2	JAN 08	ISSUED FOR SIGNATURE	

Engineer	MOHINI KOHNT
Check	SHERWOOD
DATE	DATE
WATERSHEDS	JUNE 02
TELECOM CABLES	
ELECTRICITY CABLES	
S.A.F. CABLES	

NOTE: Any modification to the contract shall be agreed in writing by both parties. No variation shall be allowed for work not shown on the drawings. Any work shown on the drawings shall be done in accordance with the specifications and standards of the SABS. Wherever possible these shall be done before work begins.

P.P.E PIPE LINES

NOTE: Any modification to the contract shall be agreed in writing by both parties. No variation shall be allowed for work not shown on the drawings. Any work shown on the drawings shall be done in accordance with the specifications and standards of the SABS. Wherever possible these shall be done before work begins.

Project Title: NRW STANDARD CONSUMER METER CONNECTION

Drawing Title: 100mmØ CONSUMER METER CONNECTION

Scales: 1:20

Designed: K.E.X. Date: 16/01/08

Checked: S.S./N.N. Drawn: A.T.F.K

Manager: NON BEYENGE WATER

AS SON DEPUTY HEAD ENGINEERING

E.MSWELL: HEAD WATER & SANITATION

Drawing No: 72056

Sheet: 87

Rev: 1

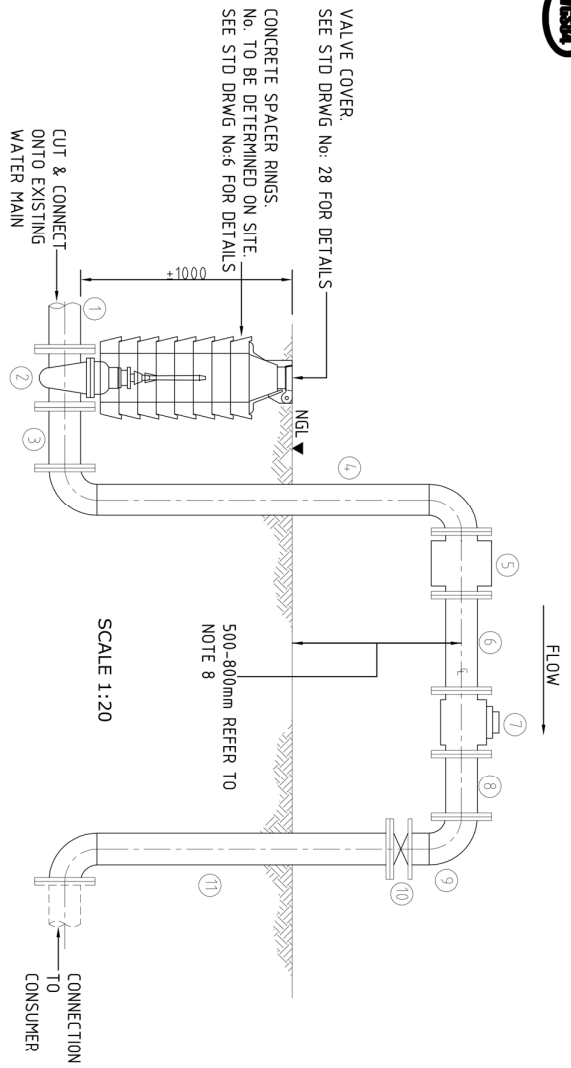


TABLE :1

COATING/LINING	COLOR	REPAIR MEDIUM
COPON KSR 88	RED/BLUE	COPON HYCOTE 151
FUSION BONDED EPOXY (F.B.E)	GREEN	COPON HYCOTE 151
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.M.D.P.E)	BLACK	COPON HYCOTE 151
COPON	RED	COPON HYCOTE 151
SOLVENT FREE/BORNE EPOXY (S.F.F./S.B.E)	BLUE/RED/ GREY	COPON HYCOTE 151
CEMENT MORTAR	GREY	EPIDERMX 238
RIL SAN	BLACK	RIL SAN REPAIR KIT

TABLE :2

ITEM No.	DESCRIPTION	QUANTITY
1	EXISTING 150mm ^Ø WATER MAIN	1
2	150mm ^Ø GATE VALVE	1
3	150mm ^Ø STEEL SPOOL PIECE F.B.E 250mm FLANGED DISTANCE	1
4	2 No 150mm ^Ø 90° STEEL SHORT RADIUS BENDS WITH STEEL SPOOL PIECE SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8 I.F.B.E	1
5	150mm ^Ø STRAINER 300mm LONG CONFORM STRAINER TYPE WITH ENGINEER	1
6	150mm ^Ø STEEL SPOOL PIECE 450mm LONG (F.B.E)	1
7	150mm ^Ø BULK METER 300mm LONG (F.B.E)	1
8	150mm ^Ø STEEL SPOOL PIECE (F.B.E) REFER TO TABLE 3 FOR DIMENSIONS.	1
9	150mm ^Ø 90° STEEL SHORT RADIUS BEND WITH 100mm LONG SPOOL PIECE (F.B.E)	1
10	150mm ^Ø BUTTERFLY VALVE W/AREDED WITH FLANGES (P.N.8)	1
11	150mm ^Ø 90° STEEL SHORT RADIUS BEND WITH SPOOL PIECE SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8 I.F.B.E	1

NOTES

1. EXACT POSITION OF METER INSTALLATION TO BE INDICATED BY ENGINEER
2. COMPARISON TO GIVEN DIMENSIONS OF ALL NEW STEEL PIPE WORK PRIOR TO FABRICATION AND INSTALLATION.
3. PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED AND INTERNALLY LINED WITH GALVANIZED TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS, OR SHOWN APPROVED (OS4)
4. PRIOR TO INSTALLATION AND ASSEMBLY ANY UNCOATED FLANGE FACES TO BE COATED WITH "TERRON KSR88" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS (OS4)
5. ONCE THE PIPE WORK HAS BEEN INSTALLED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED USING AN APPROVED PROCEDURE AS PER TABLE "REPAIR OF PIPE COATINGS / LININGS".
6. ALL FLANGE DRILLING TO BE TO SABS 102 (P.N. 6)
7. ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 719 - MEDIUM BLACK- 6mm THICK
8. INDUSTRIAL AREAS - METER INSTALLATIONS TO BE 500mm ING.-(C.I) AND COMMERCIAL AREAS - METER INSTALLATIONS TO BE 500mm ING.-(C.I) AT ENGINEERS DISCRETION.
9. CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY 14 CONSTRUCTION TO CORRECTLY EXCAVATED AREA TO ORIGINAL CONDITION & DISPOSAL OF UNSUITABLE SURPLUS MATERIAL OFF SITE

TABLE :3

METER TYPE	ITEM 6	ITEM 8
SENSUS	450mm	---
ELSTER KENT	450mm	300

ETHEKWINI MUNICIPALITY WATER & SANITATION

WATER DESIGN BRANCH

REDUCED PLAN USE SCALE BELOW

0 10 20 30 40 50

50mm ON ORIGINAL PLAN

LEGEND

EXISTING UNDERGROUND SERVICES ARE AS SHOWN BELOW.

SENSUS AND M.F.S

STOBY WATER DRAINS AND M.F.S

WATER MAINS AND VALVES

ELECTRICITY CABLES

TELKOM CABLES

OIL PIPELINES

CHANGES TO FITTINGS ON 150mm^Ø 80-200mm^Ø METERS JAN 09 ISSUED FOR SIGNATURE

1. REPAIRS 80-200mm^Ø METERS JAN 09 ISSUED FOR SIGNATURE

Revision 1 DATE DESCRIPTION

DATE: 16/07/08

DESIGNED: R.E.X

CHECKED: S.S./N.N

DRAWN: A.F.K

MANAGER: NON BERENDE WATERS

REGIONAL DEPUTY HEAD ENGINEERING

E.ANSWELL: HEAD WATER & SANITATION

Drawing No. 72056

Sheet 1 of 1

Project Title: NEW STANDARD CONSUMER METER CONNECTION

Ward No.

Contract No.

Project No.

Planning Unit

Drawing Title

150mm^Ø CONSUMER METER CONNECTION

Scale: 1:20

Date: 16/07/08

Design: R.E.X

Checked: S.S./N.N

Drawn: A.F.K

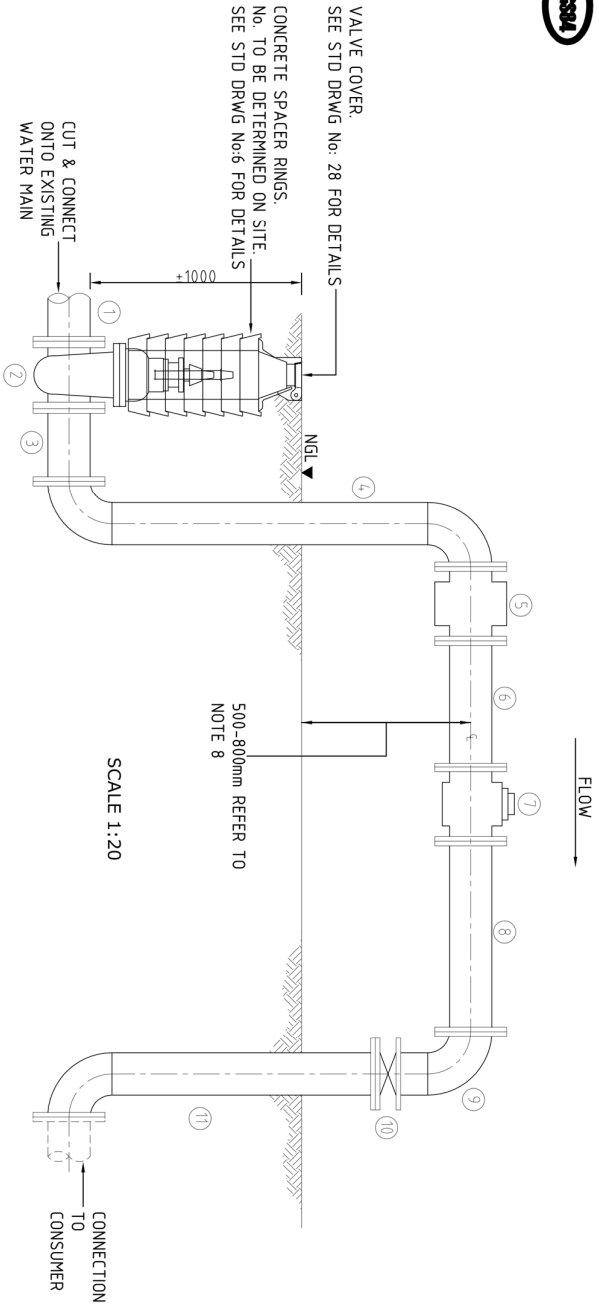
Manager: NON BERENDE WATERS

Regional Deputy Head Engineering

E.ANSWELL: HEAD WATER & SANITATION

Drawing No. 72056

Sheet 1 of 1



REPAIR OF PIPE COATINGS/LININGS

COATING/LINING	COLOR	REPAIR MEDIUM
COPON KSIR 88	RED/BLUE	COPON HYCOTE 151
FUSION BONDED EPOXY (F.B.E)	GREEN	COPON HYCOTE 151
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.M/D.P.E)	BLACK	COPON HYCOTE 151
COPON	RED	COPON HYCOTE 151
SOVENT FREE/BORNE EPOXY (S.F.F./S.B.E)	BLUE/RED/ GREY	COPON HYCOTE 151
CEMENT MORTAR	GREY	EPIDERMIX 338
RILSAN	BLACK	RILSAN REPAIR KIT

TABLE :2

ITEM No.	DESCRIPTION	QUANTITY
1	EXISTING 200mm WATER MAIN	1
2	200mm GATE VALVE	1
3	200mm STEEL SPOOL, PIECE F.B.E 300mm FLANGED DISTANCE	1
4	2 No 200mmx90° STEEL SHORT RADIIUS BENDS WITH STEEL SPOOL, PIECE (SPOOL LENGTH VARIES-REFER TO NOTE 8) F.B.E	1
5	200mm STRAINER 350mm LONG, CONFORM STRAINER TYPE WITH ENGINEER	1
6	200mm STEEL SPOOL, PIECE 600mm LONG (F.B.E)	1
7	200mm BULK METER 350mm LONG (F.B.E)	1
8	200mm STEEL SPOOL, PIECE (F.B.E) REFER TO TABLE 3 FOR DIMENSIONS.	1
9	200mmx 90° STEEL SHORT RADIIUS BEND WITH 150mm LONG SPOOL, PIECE (F.B.E)	1
10	200mm BUTTERFLY VALVE WATERED WITH FLANGES (P.N:6)	1
11	200mmx 90° STEEL SHORT RADIIUS BEND WITH SPOOL, PIECE (SPOOL, PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E	1

NOTES

- EXACT POSITION OF METER INSTALLATION TO BE INDICATED BY ENGINEER
- CONTRACTOR TO CONFIRM DIMENSIONS OF ALL NEW STEEL PIPE WORK PRIOR TO FABRICATION AND INSTALLATION
- PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED AND INTERNALLY LINED WITH "RILSAN" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS, OR SIMILAR APPROVED (O.S.A)
- PRIOR TO INSTALLATION AND ASSEMBLY ANY INDICATED FLANGE FACES TO BE COATED WITH "COPON/SPER" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS (O.S.A)
- ONCE THE PIPE WORK HAS BEEN INSTALLED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED USING AN APPROVED PROCEDURE AS PER TABLE "REPAIR OF PIPE COATINGS/ LININGS"
- ALL FLANGE DRILLING TO BE TO SABS TR31P/11
- ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 79 - MEDIUM BLACK- 6mm THICK
- WOODS HOLE AREAS - METER INSTALLATIONS TO BE 800mm (ING - CU AND CONCRETE) AREAS - METER INSTALLATIONS TO BE 500mm (ING-CU) AT ENGINEERS DISCRETION
- CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY ENGINEER
- CONTRACTOR TO RENOVATE EXCAVATED AREA TO ORIGINAL CONDITION & DISPOSE OF UNSUITABLE, SUPERFLUOUS MATERIAL OFF SITE

TABLE :3

INSTALLATION REQUIREMENT FOR DIMENSIONS IN TABLE 2

METER TYPE	ITEM 6	ITEM 8
SENSUS	600mm	
ELSTER KENT	600mm	300

ETHEKWINI WATER & SANITATION



WATER DESIGN BRANCH
REDUCED PLAN USE SCALE BELOW
0 10 20 30 40 50
50mm ON ORIGINAL PLAN

LEGEND
EXISTING UNDERGROUND SERVICES ARE AS SHOWN BELOW
NEW WATER MAINS AND VALVES
ELECTRICITY CABLES
TELECOM CABLES
OIL PIPELINES

1 PREPARED BY: CHANGES TO FITTINGS ON 80-200mm METERS
DATE: ISSUED FOR SIGNATURE

REVISION	DATE	DESCRIPTION
1		

DATE	PREPARED BY	MONTH	YEAR
	UNDERGROUND SERVICES CHECKED		
	S.W. DRAINS		
	SEWERS		
	TELECOM CABLES		
	ELECTRIC CABLES		
	S.A.R. CABLES		
	E.S.O. CABLES		

NOTE: Only underground services affected by new construction are shown. Excavations for road foundations, trenches etc. to avoid services (drain, cables, underground and other) are shown in blue and yellow.

Contract No. _____
Project No. _____
Planning Unit _____
Ward No. _____
Project Title: **NRW STANDARD CONSUMER METER CONNECTION**
Drawing Title: **200mm CONSUMER METER CONNECTION**
Scales: 1:20
Designed: K.R.X. Date: 18/01/08
Checked: S.S./N.N. Drawn: A.T.R.
Manager: NON REVENUE WATER
B.SONU DEPUTY HEAD ENGINEERING
E.MSWELL: HEAD WATER & SANITATION
Drawing No: **72056** Sheet: **5/7** Rev: **1**

PART C4: SITE INFORMATION

C4.1 LOCALITY PLAN



C4.2 CONDITIONS ON SITE

Tenderers must satisfy themselves as to the nature of materials to be excavated under this contract. No geotechnical survey of this site has been undertaken due to the nature of the contract and the various areas that construction is anticipated. The nature of the project is such that no excavation in rocks is anticipated as excavation will generally take place in existing trenches.

No responsibility is accepted for any conclusions drawn by Tenderers from the information supplied and Tenderers must satisfy themselves as to the nature of materials to be excavated under this Contract. Tenderers are at liberty to excavate any further trial holes or to carry out other investigations to satisfy themselves as to the nature of the ground that will be encountered in the Works, provided that they advise the Engineer of their intention to carry out such further trial hole excavations or other investigations so that the necessary safety requirements can be ensured. Any trial hole excavated in areas close to pedestrian or vehicular traffic shall be barricaded and shall be backfilled immediately after inspection of the soil conditions.

The Tenderer shall be fully liable for any claims for losses, damage or injuries whatsoever arising out of, or as a consequence of, carrying out trial hole excavations for the purpose of his tender. Furthermore, the Engineer's authority for the carrying out of any exploratory excavations is subject to the Tenderer indemnifying the Employer and the Engineer against any such claims.

C4.3 TEST RESULTS

Contractor is required to conduct a water tightness test and flush the line to ensure the flow is uninterrupted and the property receiving water at the required pressure and check for any leaks or installation faults before proceeding to the next property on their job cards.