



CLUSTER
Trading Services

UNIT
Water and Sanitation

DEPARTMENT
Sanitation Operations

PROCUREMENT DOCUMENT
INFRASTRUCTURE

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

Contract No: WS-7502

Contract Title: KwaMashu Wastewater Treatment Works Functional Upgrade

Est. CIDB Grade/ Class: 6 ME

ted AND QUERIES

Clarification Meeting: Compulsory Clarification Meeting

Meeting Location, Date, Time: KwaMashu Wastewater Treatment Works, 206 Stonebridge Drive
On the 03 of August 2023 at 10:00

Queries can be addressed to: Bevan Coles
The Employer's Agent's: Tel: 031-311-8872
Representative: eMail: bevan.coles@durban.gov.za
email queries must be submitted on 17 August 2023 and consolidated questions and answers to be uploaded on the 24 of August 2023.

TENDER SUBMISSION

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

Closing Date/ Time: Friday, 01 September 2023 at 11h00

FACSIMILE, eMAIL, or POSTED TENDERS WILL NOT BE ACCEPTED

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Head: Sanitation Operations

Date of Issue: 28/07/2023

Document Version 24/02/2023(c)

FOR OFFICIAL USE ONLY

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

FOR OFFICIAL USE ONLY

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

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PART T1: TENDERING PROCEDURES**T1.1.1: TENDER NOTICE AND INVITATION TO TENDER**

Tenders are hereby invited to tender for the works to supply, deliver, install and commission mechanical and electrical plant and equipment to KwaMashu Wastewater Treatment Works as and when required.

Subject	Description	Tender Data Ref.
Employer	The Employer is the eThekweni Municipality as represented by: Deputy Head: Sanitation Operations	F.1.1.1
Tender Documents	Documents can only be obtained in electronic format, issued by the eThekweni Municipality. Documentation can be downloaded from the National Treasury's eTenders website or the eThekweni Municipality's Website . The <u>entire document</u> should be printed (on A4 paper) and suitably bound by the tenderer.	F.1.2
Eligibility	It is <u>estimated</u> that tenderers should have a CIDB contractor grading designation of 6 ME (or higher). The CIDB provisions in relation to a Contractor's Potentially Emerging (PE) status <u>do not</u> apply.	F.2.1.1
Clarification Meeting	KwaMashu Wastewater Treatment Works, 206 Stonebridge Drive On the 03 of August 2023 at 10:00	F.2.7
Seek Clarification	Queries relating to these documents are to be addressed to the Employer's Agent's Representative whose contact details are: Bevan Coles Tel: 031-311-8872 eMail: bevan.coles@durban.gov.za email queries must be submitted on 17 August 2023 and consolidated questions and answers to be uploaded on the 24 of August 2023.	F.2.8
Submitting a Tender Offer	Tender offers shall be delivered to: The Tender Box in the foyer of the Municipal Building 166 KE Masinga Road, Durban	F.2.13
Closing Time	Tender offers shall be delivered on or before Friday, 01 September 2023 at or before 11h00 .	F.2.15
Evaluation of Tender Offers	The 80/20 Price Preference Point System, as specified in the PPPFA Regulations 2022 will be applied in the evaluation of tenders. Refer to Clause F.3.11 of the Tender Data for the Specific Goal(S) for the awarding of Preference Points, and other related evaluation requirements.	F.3.11

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

PART T1: TENDERING PROCEDURES

T1.2: TENDER DATA

T1.2.1 STANDARD CONDITIONS OF TENDER

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

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

T1.2.2 TENDER DATA

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

F.1: GENERAL

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

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

- 1) This procurement document.
- 2) "FIDIC Conditions of Contract for Plant and Design-Build, for Electrical and Mechanical Plant, and for Building and Engineering Works, designed by the Contractor (Second Edition 2017)", herein after referred to as the "FIDIC Conditions of Contract" and also known as the "Yellow Book" This document is obtainable separately, and Tenderers shall obtain their own copies of the applicable Sections.
- 3) Drawings, issued separately from this document, or bound in Section C3.4 (as an Annexure).
- 4) In addition, Tenderers are advised, in their own interest, to obtain their own copies of the following acts, regulations, and standards referred to in this document as they are essential for the Tenderer to get acquainted with the basics of construction management, the implementation of preferential construction procurement policies, and the participation of targeted enterprise and labour.
 - The Employer's current (as at advertising date) Supply Chain Management Policy.
 - The Preferential Procurement Policy Framework Act No 5 of 2000, and the Preferential Procurement Policy Framework Act Regulations (2022).
 - The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations (2014).
 - The Construction Industry Development Board Act No 38 of 2000 and the Regulations issued in terms of the Act (July 2013).
 - SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
 - Any other eThekweni Policy documents referenced in the Tender Documents.

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

Website or the **eThekweni Municipality's Website** at URLs:

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

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

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

Bevan Coles

Tel: 031-311-8872

eMail: bevan.coles@durban.gov.za

email queries must be submitted on 17 August 2023 and consolidated questions and answers to be uploaded on the 24 of August 2023.

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

F.1.6 Procurement procedures: The competitive negotiation procedure shall be applied.

F.2: TENDERER'S OBLIGATIONS

F.2.1.1 Eligibility: General

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

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

SCM Policy (Cl.14(4)) requires suppliers/ service providers/ contractors to be registered on the

eThekwini Municipality Central Supplier Database or be in a position to be so before the award.

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

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

The following are to be noted:

- (a) The information for registration as in the possession of the 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.

F.2.1.2 Eligibility: CIDB

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

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

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

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

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

"Addenda will be published, in electronic format, on the websites specified in F.1.2. Tenderers are to ensure that the eTenders website is consulted for any published addenda pertaining to this tender up to three days before the tender closing time as stated in the Tender Data."

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

F.2.7 Clarification meeting:

KwaMashu Wastewater Treatment Works, 206 Stonebridge Drive
On the 03 of August 2023 at 10:00

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

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

F.2.13 Submitting a tender offer: Submissions must be submitted on official submission documentation issued (either in hard copy or in electronic format) by the eThekweni Municipality.

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

- Contract No. : **WS-7502**
- Contract Title : **KwaMashu Wastewater Treatment Works Functional Upgrade**

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

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

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

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

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

- Date : **Friday, 01 September 2023**
- Time : **11h00**

F.2.16 Tender offer validity: The Tender Offer validity period is 120 Days from the closing date for submission of tenders.

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

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

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

Tax Clearance

Reference is also to be made to returnable form T2.2.3: "Tax Compliance Status PIN/ Tax Clearance Certificate".

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

be entered on Returnable Document T2.2.1: "Compulsory Enterprise Questionnaire". Separate Tax Clearance Certificates / TCS PINs are required for each entity in a Joint Venture.

Failure to comply will make the tender non-responsive.

Compensation Commissioner

Reference is also to be made to returnable form T2.2.13: "Eligibility: Registration with Compensation Commissioner".

The tenderer is to supply proof of being registered and in good standing with the compensation fund by submitting a valid **Letter of Good Standing** from the Compensation Commissioner.

Failure to comply will make the tender non-responsive.

Central Supplier Database (CSD)

Reference is also to be made to returnable form T2.2.14: "Eligibility: CSD Registration Report".

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

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

CIDB Registration

Reference is also to be made to returnable form T2.2.15: "Eligibility: Verification of CIDB Registration and Status".

Registration with the CIDB must be reflected as "Active" at time of tender closing.

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

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

The date of obtaining the CIDB printout(s) is to be indicated on the printout.

F.3: THE EMPLOYER'S UNDERTAKINGS

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

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

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

F.3.11 Evaluation of Tender Offers:

Eligibility

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

Functionality

FUNCTIONALITY will be evaluated to determine the responsiveness of tenders received. The minimum score for FUNCTIONALITY is 60 points. Those tenders not achieving the minimum score will be deemed non-responsive.

The functionality Criteria, Sub-Criteria, Points per Criteria/ Sub-Criteria, Returnable Documentation and Schedules, Method of Evaluation, and Prompts for Judgement are as specified in T1.2.3: “Additional Conditions of Tender”.

Preference Point System

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

Price Points

The **80/20** preference points system will be applied. The Formula used to calculate the **Price Points (max. 80)** will be according to that specified Regulation 4.1.

Preference Points

Reference is also to be made to T2.2.7: “MBD 6.1: Preference Points Claim”.

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

• **Ownership Goal**

Goal Weighting: 100%

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

Ownership Categories	Criteria	80/20	90/10
Race: Black (w1)	Equals 0%	0	N/A
	Between 0% and 51%	5	N/A
	Greater or equal to 51% and less than 100%	12	N/A
	Equals 100%	15	N/A
Gender: Female (w2)	Equals 0%	0	N/A
	Between 0% and 51%	2	N/A
	Greater or equal to 51% and less than 100%	4	N/A
	Equals 100%	5	N/A
Maximum Goal Points:		20	N/A

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

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

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

- Companies and Intellectual Property Commission registration document (CIPC)
- CSD report.
- B-BBEE Certificate of the tendering entity.
- Consolidated BBBEE Certificate if the tendering entity is a Consortium, Joint Venture, or Trust (Issued by verification agency accredited by the South African Accreditation System).
- Agreement for a Consortium, Joint Venture, or Trust.

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

- The tenderer submits a **valid Tax Clearance Certificate OR Tax Compliance Status PIN**, issued by the TCS System of the South African Revenue Services, or has made arrangements to meet outstanding tax obligations.
- The tenderer is **registered, and "Active", with the Construction Industry Development Board**, at time of tender closing, in an appropriate contractor grading designation.
- The tenderer or any of its directors/shareholders is **not listed on the Register of Tender Defaulters** in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.
- The tenderer has not:
 - Abused the Employer's Supply Chain Management System; or
 - Failed to perform on any previous contract and has been given a written notice to this effect.
- The tenderer has completed the **Compulsory Enterprise Questionnaire** and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process.
- The tenderer is **registered and in good standing with the compensation fund or with a licensed compensation insurer**.
- The Employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the **necessary competencies and resources to carry out the work safely**.

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

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

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

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

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

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

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

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

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

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

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

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

T1.2.3.3 Code of Conduct and Local Labour

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

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

T1.2.3.4 Functionality Specification

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		Maximum Score (Ms)	Weighting (W2)
1. Tenderer's Experience		100	30
2. Experience of Key Staff	Project Lead	100	20
	Lead Mechanical Design Engineer	100	15
	Lead Electrical Design Engineer	100	15
3. Approach Paper and Methodology		100	10
4. Programme		100	10
Maximum possible score for Functionality (Ms)			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. Each evaluation criteria will be assessed in terms of six indicators and scores allocated according to the following table:

Level 0	Level 1	Level 2	Level 3	Level 4
0	40	70	90	100

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

Functionality Criteria	Returnable Schedules
Tenderer's Experience	<ul style="list-style-type: none"> Experience of Tenderer
Project Organogram and Experience of Key Staff	<ul style="list-style-type: none"> Proposed Organisation and Staffing Key Personnel CV's with Experience of Key Personnel
Preliminary Programme	<ul style="list-style-type: none"> Preliminary Programme
Construction Methodology & Quality Control	<ul style="list-style-type: none"> Construction Approach, Methodology, and Quality Control Schedule of Proposed Subcontractors Plant and Equipment

Unless otherwise stated, evaluation criteria will be adjudicated with respect to the contract specific Scope of Work, as specified in C.3. In this regard the following definitions apply to the evaluation criteria prompts for judgement:

- “**successfully completed**” implies a project has been completed on time and to specification;
- “**similar nature**” implies projects which involved the design, supply, installation (i.e mechanical, electrical and instrumentation) of infrastructure and construction monitoring of Wastewater Treatment Works and of a value of at least 70% of this tender’s value, and had a comparable Scope of Work in terms of technical requirements and operations;
- “**experience**” implies experience on projects of a similar nature;
- “**accredited degree / diploma**” implies a minimum 3 year qualification within the built environment, from a registered University or University of Technology or TVET

Criteria: Tenderer’s Experience	
Note: “successfully completed” implies a project that has been completed on time and to specification. The tenderer must submit certificates of completion / signed letters from the respective Client/s confirming completion of the said project. Failure to submit this information will result in the project not being considered as part of the evaluation.	
<u>Level 0</u> Score = 0	No information provided / no relevant experience / projects completed more than fifteen (15) years ago / successfully completed less than two (2) projects / failure to submit certificates of completion.
<u>Level 1</u> Score = 40	To have successfully completed at least two (2) projects (within the past fifteen (15) years) which each involved the design, supply, installation (i.e mechanical, electrical and instrumentation) of infrastructure and construction monitoring of Wastewater Treatment Works.
<u>Level 2</u> Score = 70	To have successfully completed at least three (3) projects (within the past fifteen (15) years) which each involved the design, supply, installation (i.e mechanical, electrical and instrumentation) of infrastructure and construction monitoring of Wastewater Treatment Works.
<u>Level 3</u> Score = 90	To have successfully completed at least four (4) projects (within the past fifteen (15) years) which each involved the design, supply and installation (i.e mechanical, electrical and instrumentation) of infrastructure and construction monitoring of Wastewater Treatment Works.
<u>Level 4</u> Score = 100	To have successfully completed at least five (5) projects (within the past fifteen (15) years) which each involved the design, supply and installation (i.e mechanical, electrical and instrumentation) of infrastructure and construction monitoring of Wastewater Treatment Works.

Criteria : Experience of Key Staff Note: certificates confirming qualifications and registrations must be attached. Failure to submit this information will result in the respective key personnel not being considered as part of the evaluation.	Lead Electrical Design Engineer	No information provided / irrelevant information provided / does not meet minimum educational requirement / does not meet professional registration requirement / less than three (3) years of relevant experience.
	Lead Mechanical Design Engineer	No information provided / irrelevant information provided / does not meet minimum educational requirement / does not meet professional registration requirement / less than three (3) years of relevant experience.
	Project Lead	No information provided / irrelevant information provided / does not meet minimum educational requirement / does not meet professional registration requirement / less than three (3) years of relevant experience.
<u>Level 0</u> Score = 0		

Criteria : Experience of Key Staff Note: certificates confirming qualifications and registrations must be attached. Failure to submit this information will result in the respective key personnel not being considered as part of the evaluation. Level 1 Score = 40	Lead Electrical Design Engineer	Three (3) to Seven (7) years of experience on projects relating to the design and installation of medium and low voltage electrical networks and motor control systems AND AND BSc Degree/BEng Degree/BTech Degree/NHD/NTD in Electrical Engineering AND Registration with ECSA as PR Eng/PR Tech Eng/ Pr.cert.Eng
	Lead Mechanical Design Engineer	Three (3) to Seven (7) years of experience on projects relating to the design and installation of mechanical components for municipal or industrial wastewater treatment plants and/or pump stations AND BSc Degree/BEng Degree/BTech Degree/NHD in Mechanical Engineering AND Registration with ECSA as PR Eng/PR Tech Eng/ Pr.cert.Eng
	Project Lead	Three (3) to Seven (7) years of experience on projects relating to the design and construction monitoring of municipal or industrial wastewater treatment plants AND BSc Degree/BEng Degree/BTech Degree/NHD in Engineering (Civil/Mechanical/ Electrical) AND Registration with ECSA as PR Eng/PR Tech Eng

Criteria : Experience of Key Staff continued...	Lead Electrical Design Engineer	Eight (8) to Ten (10) years of experience on projects relating to the design and installation of medium and low voltage electrical networks and motor control systems AND BSc Degree/BEng Degree/BTech Degree/NHD/NTD in Electrical Engineering AND Registration with ECSA as PR Eng/PR Tech Eng/ Pr.cert.Eng
	Lead Mechanical Design Engineer	Eight (8) to Ten (10) years years of experience on projects relating to the design and installation of mechanical components for municipal or industrial wastewater treatment plants and/or pump stations AND BSc Degree/BEng Degree/BTech Degree/NHD/NTD in Mechanical Engineering AND Registration with ECSA as PR Eng/PR Tech Eng/Pr.Cert.Eng
	Project Lead	Eight (8) to Ten (10) years of experience on projects relating to the design and construction monitoring of municipal or industrial wastewater treatment plants AND BSc Degree/BEng Degree /BTech Degree/BEng Degree/NHD in Engineering (Civil/Mechanical/ Electrical) AND Registration with ECSA as PR Eng/PR Tech Eng
Level 2 <i>Score = 70</i>		

Criteria : Approach Paper and Methodology	
<u>Level 0</u> Score = 0	No information provided / irrelevant information provided / a generic approach paper and methodology which does not adequately cover all programmed activities in chronological order.
<u>Level 1</u> Score = 40	A <u>generic</u> approach paper and methodology which <u>does not adequately</u> cover all programmed activities in chronological order.
<u>Level 2</u> Score = 70	A <u>project specific</u> approach paper and methodology which <u>adequately</u> covers all programmed activities and listed in chronological order.
<u>Level 3</u> Score = 90	A <u>project specific</u> approach paper and methodology which covers all programmed activities and associated regulatory compliance requirements in <u>detail</u> and listed in chronological order.
<u>Level 4</u> Score = 100	<p>A <u>project specific</u> approach paper and methodology which covers all programmed activities and associated regulatory compliance requirements in <u>detail</u> and listed in chronological order -</p> <p>Plus:</p> <ul style="list-style-type: none"> ▪ Risk management. ▪ Staff and resource management. ▪ Relevant approvals. ▪ Quality control. ▪ Communication and stakeholder engagement. ▪ List of service providers to be used for quality control procedures (where applicable).

Criteria : Programme	
<u>Level 0</u> Score = 0	No information provided / irrelevant information provided.
<u>Level 1</u> Score = 40	The programme is <u>generic</u> and <u>does not adequately</u> cover all key activities, in sequential order, with reasonable time frames relating to the scope of work and reflects the critical path.
<u>Level 2</u> Score = 70	The programme <u>adequately</u> covers all key activities, in sequential order, with reasonable time frames relating to the scope of work and reflects the critical path.
<u>Level 3</u> Score = 90	The programme <u>well defines</u> all key activities and resources, in sequential order, with reasonable time frames relating to the scope of work and reflects the critical path.
<u>Level 4</u> Score = 100	<p>The programme <u>well defines</u> all key activities and resources, in sequential order, with reasonable time frames relating to the scope of work and reflects the critical path -</p> <p>Plus:</p> <ul style="list-style-type: none"> ▪ Risk management. ▪ Staff and resource management. ▪ Relevant approvals. ▪ Quality control. ▪ S-curve cash flow. ▪ Communication and stakeholder engagement. ▪ List of service providers to be used for quality control procedures (where applicable).

PART T2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

T2.1.1 General

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

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

T2.1.2 Returnable Schedules, Forms and Certificates

Entity Specific

T2.2.1	Compulsory Enterprise Questionnaire	22
T2.2.2	Certificate of Attendance at Clarification Meeting	24
T2.2.3	Tax Compliance Status PIN / Tax Clearance Certificate	25
T2.2.4	Contractor's Health and Safety Declaration	26
T2.2.5	MBD 4: Declaration of Interest	28
T2.2.6	MBD 5: Declaration for Procurement Above R10 Million	30
T2.2.7	MBD 6.1: Preference Points Claim Form ITO the Preferential Regulations	31
T2.2.8	MBD 8: Declaration of Bidder's Past SCM Practices	34
T2.2.9	MBD 9: Certificate of Independent Bid Determination	36
T2.2.10	Joint Venture Agreements (if applicable)	39
T2.2.11	Record of Addenda to Tender Documents (if applicable)	40

Eligibility

T2.2.12	Eligibility: Declaration of Municipal Fees	41
T2.2.13	Eligibility: Registration with Compensation Commissioner	42
T2.2.14	Eligibility: CSD Registration Report	43
T2.2.15	Eligibility: Verification of CIDB Registration and Status	44

Technical or Functionality Evaluation

T2.2.16	Experience of Tenderer	45
T2.2.17	Proposed Organisation and Staffing	46
T2.2.18	Key Personnel	47
T2.2.19	Experience of Key Personnel	48
T2.2.20	Approach Paper/Methodology/Programme	55
T2.2.21	Schedule of Proposed Subcontractors	58
T2.2.22	Plant and Equipment	59
T2.2.23	Contractor's Health and Safety Plan	60

T2.2 RETURNABLE SCHEDULES, FORMS, AND CERTIFICATES

The returnable schedules, forms, and certificates, as listed in T2.1.2, can be found on pages 22 to 40.

NOTE

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

T2.2.1 COMPULSORY ENTERPRISE QUESTIONNAIRE

Ref	Description	Complete or Circle Applicable
1.1	Name of enterprise	
1.2	Name of enterprise's representative	
1.3	ID Number of enterprise's representative	
1.4	Position enterprise's representative occupies in the enterprise	
1.5	National Treasury Central Supplier Database Registration number	MAAA
1.6	eThekweni Supplier Database: Reference number (PR), if any:	PR
1.7	VAT registration number, if any:	
1.8	CIDB registration number, if any:	
1.9	Department of Labour: Registration number	
1.10	Department of Labour: Letter of Good Standing Certificate number	
2.0	Particulars of sole proprietors and partners in partnerships (attach separate pages if more than 4 partners)	
	Full Name	Identity No.
		Personal income tax No. *
2.1		
2.2		
2.3		
2.4		
3.0	Particulars of companies and close corporations	
3.1	Company registration number, if applicable:	
3.2	Close corporation number, if applicable:	
3.3	Tax Reference number, if any:	
3.4	South African Revenue Service: Tax Compliance Status PIN:	

4.0 Record in the service of the state (Insert on a separate page if necessary)

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

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

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

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

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

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

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

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

Reference is to be made to Clauses F.2.1(c) and F.2.7 of the Tender Data.

This is to certify that:

(tenderer name):

of (address):

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

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

Particulars of person(s) attending the meeting:

Name: Name:

Signature: Signature:

Capacity: Capacity:

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

Name:

Signature:

Date:

T2.2.3 TAX COMPLIANCE STATUS PIN / TAX CLEARANCE CERTIFICATE

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

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

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

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

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.4 CONTRACTOR'S HEALTH AND SAFETY DECLARATION

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

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

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

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

Declaration by Tenderer

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

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

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

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

Circle Applicable	
Yes	NO
Yes	NO
YES	NO

- 4 Details of resources I propose:

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

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

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

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

(i) By whom will training be provided?

(ii) When will training be undertaken?

(iii) Positions to be filled by persons to be trained or hired:

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

Name of proposed subcontractor:

Qualifications or details of competency of the subcontractor:

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.5 MBD 4: DECLARATION OF INTEREST

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

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

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

- 1 No bid will be accepted from persons **in the service of the state**¹.
- 2 Any person, having a kinship with persons **in the service of the state**, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to **persons in service of the state**, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
- 3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Name of enterprise	Complete T2.1.2.1 Item 1.1
Name of enterprise's representative	Complete T2.1.2.1 Item 1.2
3.2 ID Number of enterprise's representative	Complete T2.1.2.1 Item 1.3
3.3 Position enterprise's representative occupies in the enterprise	Complete T2.1.2.1 Item 1.4
3.4 Company Registration number	Complete T2.1.2.1 Item 3.1 or 3.2
3.5 Tax Reference number	Complete T2.1.2.1 Item 3.3
3.6 VAT registration number	Complete T2.1.2.1 Item 1.7
3.7 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted.	
<div style="text-align: right;">Circle Applicable</div>	
3.8 Are you presently in the service of the state?	<div style="display: flex; justify-content: space-around;"> YES NO </div>
If yes, furnish particulars:	
3.9 Have you been in the service of the state for the past twelve months?	<div style="display: flex; justify-content: space-around;"> YES NO </div>
If yes, furnish particulars:	

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

YES

NO

If yes, furnish particulars:

.....

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

YES

NO

If yes, furnish particulars:

.....

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

YES

NO

If yes, furnish particulars:

.....

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

YES

NO

If yes, furnish particulars:

.....

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

YES

NO

If yes, furnish particulars:

.....

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.6 MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION
(ALL APPLICABLE TAXES INCLUDED)

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

Circle Applicable			
1.0 Are you by law required to prepare annual financial statements for auditing?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px 10px;">YES</td> <td style="width: 50%; padding: 2px 10px;">NO</td> </tr> </table>	YES	NO
YES	NO		
1.1 If YES, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.			
2.0 Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px 10px;">YES</td> <td style="width: 50%; padding: 2px 10px;">NO</td> </tr> </table>	YES	NO
YES	NO		
2.1 If NO, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.			
2.2 If YES, provide particulars.			
.....			
.....			
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?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px 10px;">YES</td> <td style="width: 50%; padding: 2px 10px;">NO</td> </tr> </table>	YES	NO
YES	NO		
3.1 If YES, provide particulars.			
.....			
.....			
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?	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 2px 10px;">YES</td> <td style="width: 50%; padding: 2px 10px;">NO</td> </tr> </table>	YES	NO
YES	NO		
4.1 If YES, provide particulars.			
.....			
.....			

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.7 MBD 6.1: PREFERENCE POINTS CLAIM
In terms of THE PREFERENTIAL PROCUREMENT REGULATIONS (2022)

Reference is to be made to Clause F.3.11 of the Tender Data.

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

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

1.0 GENERAL CONDITIONS

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

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

1.2 The applicable preference point system for this tender is the 80/20 preference point system.

1.3 Preference Points for this tender shall be awarded for:

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

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

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

2.0 DEFINITIONS

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

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

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

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

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

3.0 FORMULA FOR CALCULATION OF PREFERENCE PRICE POINTS

3.1 PROCUREMENT OF GOODS AND SERVICES

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

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

Where:

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

4.0 POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

The Specific Goals to be allocated points in terms of this tender	Maximum Number of points ALLOCATED (80/20 system)	Maximum Number of points ALLOCATED (90/10 system)	Number of points CLAIMED (80/20 system)	Number of points CLAIMED (90/10 system)
Ownership Goal: Race: Black (w1) Gender: Female (w2)	20	N/A		N/A
Should the municipality apply a combination of Specific Goals, the points for the individual goals will be weighted according to the Goal Weightings specified in the Tender Data (Clause F.3.11) to arrive at the final points for Preferential Points for Specific Goals .				

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

I acknowledge that:

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

NAME (Block Capitals):

Date

SIGNATURE:

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

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

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

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

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

- 4.1.1 If YES, provide particulars.

.....

.....

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

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

- 4.2.1 If YES, provide particulars.

.....

.....

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

- 4.3.1 If YES, provide particulars.

.....

.....

Circle Applicable	
YES	NO

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

YES

NO

4.4.1 If YES, provide particulars.

.....

.....

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

YES

NO

4.5.1 If YES, provide particulars.

.....

.....

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

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

NAME (Block Capitals):

Date

SIGNATURE:

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

- ¹ Includes price quotations, advertised competitive bids, limited bids and proposals.
- ² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.
- ³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

- 1.0 This Municipal Bidding Document (MBD) must form part of all **bids**¹ invited.
- 2.0 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or **bid rigging**).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3.0 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
- a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4.0 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of **bid rigging**.
- 5.0 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

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

I certify, on behalf of:

(Name of Bidder)

that:

1. I have read and I understand the contents of this Certificate.
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect.
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation.
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience.
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement, or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
- (a) prices.
 - (b) geographical area where product or service will be rendered (market allocation).
 - (c) methods, factors or formulas used to calculate prices.
 - (d) the intention or decision to submit or not to submit, a bid.
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid.
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements, or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.10 JOINT VENTURES AGREEMENTS

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

T2.2.11 RECORD OF ADDENDA TO TENDER DOCUMENTS

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

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.12 ELIGIBILITY: DECLARATION OF MUNICIPAL FEES

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

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

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

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

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

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

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

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

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.13 ELIGIBILITY: REGISTRATION WITH COMPENSATION COMMISSIONER

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

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

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

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

Clause 82: Employer to furnish returns of earnings

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

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

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

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

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

Clause 89: Mandators and contractors

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

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

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

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

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

NAME (Block Capitals): _____

Date

SIGNATURE: _____

T2.2.14 ELIGIBILITY: CSD REGISTRATION REPORT

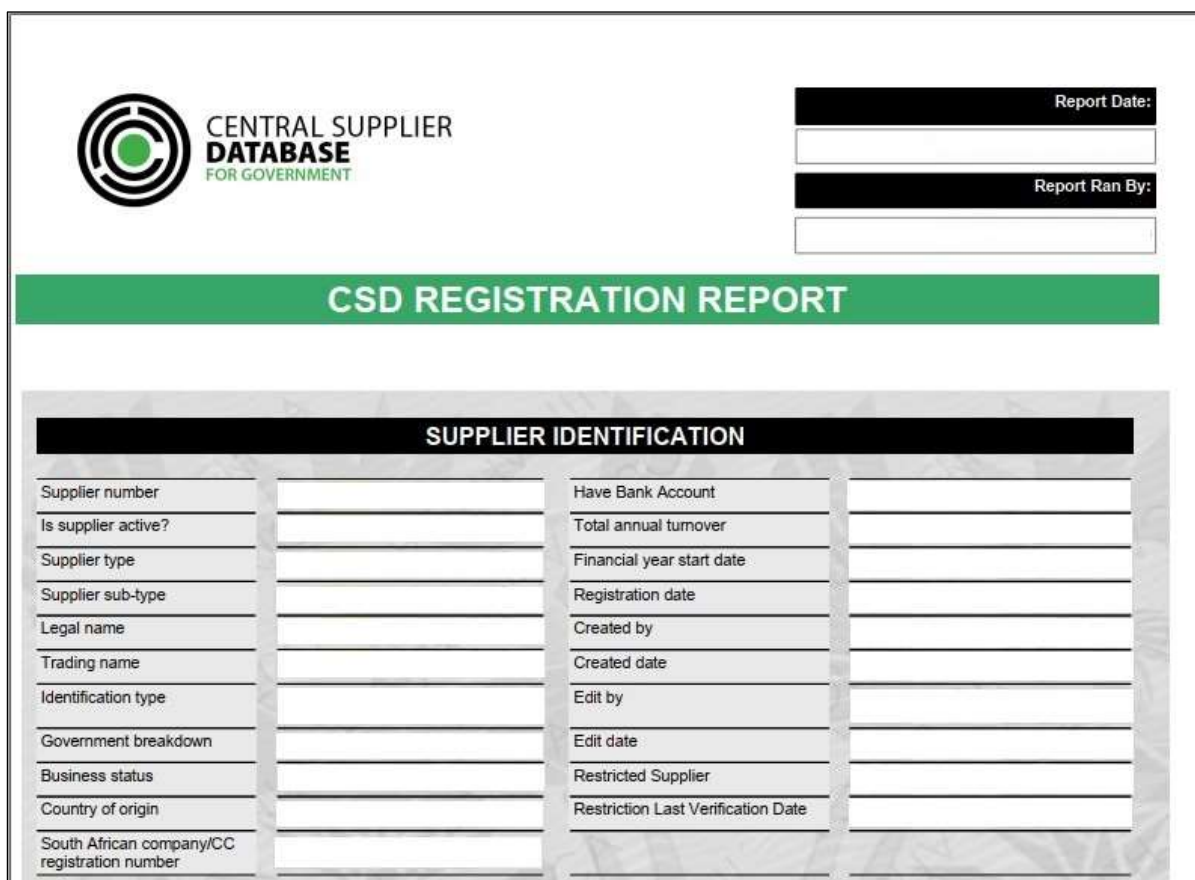
Reference is to be made to Clauses F.2.1(e) and F.2.23 of the Tender Data.

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

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

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

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



CENTRAL SUPPLIER DATABASE FOR GOVERNMENT

Report Date:

Report Ran By:

CSD REGISTRATION REPORT

SUPPLIER IDENTIFICATION

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.15 ELIGIBILITY: VERIFICATION OF CIDB REGISTRATION AND STATUS

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

The Conditions of Tender, **Clause F.2.1.1: Eligibility**, requires a tenderer to be registered, as "Active", with the CIDB (at time of tender closing), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations. The required class of construction work is specified in Clause F.2.1.1.

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

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

Home

Contractor Detail Print

Contractor Detail

CRS Number: Type of Enterprise:

Contractor Name: Registration Date:

Trading Name: Expiry Date:

Status:

Contractor Grades

Grade:

Back

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[Website technical enquires contact](#)

01/01/2017

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.17 PROPOSED ORGANISATION and STAFFING

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

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

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

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

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.18 KEY PERSONNEL

Refer to Clause T1.2.3.4 for Functionality Points evaluation prompts (if applicable).

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

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

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.19 EXPERIENCE OF KEY PERSONNEL

Refer to Clause T1.2.3.4 for Functionality Points evaluation prompts (if applicable).

KEY STAFF	FULL NAME AND SURNAME
Project Lead	
Lead Mechanical Design Engineer	
Lead Electrical Design Engineer	

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

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

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

Each CV should be structured under the following headings:

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

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

NAME (Block Capitals):

Date

SIGNATURE:

QUALIFICATIONS AND EXPERIENCE OF PROJECT LEAD

The relevant person listed under key staff above shall complete all the required information below and sign the declaration at the end of this form.

Full Name & Surname:			
ID/ Passport No.:		Age:	

Name of Tertiary Institution Attended:			
Relevant Qualification/s Obtained (and year):			
Name of Professional Institution Registered With:		Registration No.:	

EMPLOYMENT HISTORY (To be listed in chronological order with reference to relevant experience only)

Period of Employment (MM/YY to MM/YY)	Name of Employer	Years of Relevant Experience
Total number of years of relevant experience:		

Note:

1. The tenderer must submit a brief CV (of not more than 4 pages) containing relevant work experience only. Ambiguous, vague, or unclear statements submitted in the CV will not be considered.

Declaration by Key Staff

I the undersigned, declare that all the information provided above and contained in my CV is a true reflection of myself, my qualifications and my experience.

NAME : (Block Capitals)

SIGNATURE : DATE:

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise, confirms that the contents attached hereto relative to the above are within his/her personal knowledge and are to the best of his/her belief both true and correct.

NAME : (Block Capitals)

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

QUALIFICATIONS AND EXPERIENCE OF LEAD MECHANICAL DESIGN ENGINEER

The relevant person listed under key staff above shall complete all the required information below and sign the declaration at the end of this form.

Full Name & Surname:			
ID/ Passport No.:		Age:	

Name of Tertiary Institution Attended:			
Relevant Qualification/s Obtained (and year):			
Name of Professional Institution Registered With:		Registration No.:	

EMPLOYMENT HISTORY (To be listed in chronological order with reference to relevant experience only)

Period of Employment (MM/YY to MM/YY)	Name of Employer	Years of Relevant Experience
Total number of years of relevant experience:		

Note:

- The tenderer must submit a brief CV (of not more than 4 pages) containing relevant work experience only. Ambiguous, vague, or unclear statements submitted in the CV will not be considered.

Declaration by Key Staff

I the undersigned, declare that all the information provided above and contained in my CV is a true reflection of myself, my qualifications and my experience.

NAME : (Block Capitals)

SIGNATURE : DATE:

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise, confirms that the contents attached hereto relative to the above are within his/her personal knowledge and are to the best of his/her belief both true and correct.

NAME : (Block Capitals)

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

QUALIFICATIONS AND EXPERIENCE OF LEAD ELECTRICAL DESIGN ENGINEER

The relevant person listed under key staff above shall complete all the required information below and sign the declaration at the end of this form.

Full Name & Surname:			
ID/ Passport No.:		Age:	

Name of Tertiary Institution Attended:			
Relevant Qualification/s Obtained (and year):			
Name of Professional Institution Registered With:		Registration No.:	

EMPLOYMENT HISTORY (To be listed in chronological order with reference to relevant experience only)

Period of Employment (MM/YY to MM/YY)	Name of Employer	Years of Relevant Experience
Total number of years of relevant experience:		

Note:

- The tenderer must submit a brief CV (of not more than 4 pages) containing relevant work experience only. Ambiguous, vague, or unclear statements submitted in the CV will not be considered.

Declaration by Key Staff

I the undersigned, declare that all the information provided above and contained in my CV is a true reflection of myself, my qualifications and my experience.

NAME : (Block Capitals)

SIGNATURE : DATE:

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise, confirms that the contents attached hereto relative to the above are within his/her personal knowledge and are to the best of his/her belief both true and correct.

NAME : (Block Capitals)

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

T2.2.20 APPROACH PAPER / METHODOLOGY / PROGRAMME

Refer to T1.2.3.4: "Functionality Specification" for Functionality Points evaluation prompts

Tenderers must explain their understanding of the objectives of the assignment and the Employer's stated and implied requirements, highlight the issues of importance, and explain the technical approach they would adopt to address them. The approach paper should explain the methodologies to be adopted, and should also include a project plan and programme which outlines processes, procedures and associated resources, indicates how risks will be managed and identifies what contribution can be made regarding value management.

Tenderers must attach their approach papers to this page. The approach paper should not be longer than 6 pages.

The scoring of the approach paper will be as follows:

Criteria : Approach Paper and Methodology	
<u>Level 0</u> Score = 0	No information provided / irrelevant information provided / a generic approach paper and methodology which does not adequately cover all programmed activities in chronological order.
<u>Level 1</u> Score = 40	A <u>generic</u> approach paper and methodology which <u>does not adequately</u> cover all programmed activities in chronological order.
<u>Level 2</u> Score = 70	A <u>project specific</u> approach paper and methodology which <u>adequately</u> covers all programmed activities and listed in chronological order.
<u>Level 3</u> Score = 90	A <u>project specific</u> approach paper and methodology which covers all programmed activities and associated regulatory compliance requirements in <u>detail</u> and listed in chronological order.
<u>Level 4</u> Score = 100	<p>A <u>project specific</u> approach paper and methodology which covers all programmed activities and associated regulatory compliance requirements in <u>detail</u> and listed in chronological order -</p> <p>Plus:</p> <ul style="list-style-type: none"> ▪ Risk management. ▪ Staff and resource management. ▪ Relevant approvals. ▪ Quality control. ▪ Communication and stakeholder engagement. ▪ List of service providers to be used for quality control procedures (where applicable).

Criteria : Programme	
<u>Level 0</u> Score = 0	No information provided / irrelevant information provided.
<u>Level 1</u> Score = 40	The programme is <u>generic</u> and <u>does not adequately</u> cover all key activities, in sequential order, with reasonable time frames relating to the scope of work and reflects the critical path.
<u>Level 2</u> Score = 70	The programme <u>adequately</u> covers all key activities, in sequential order, with reasonable time frames relating to the scope of work and reflects the critical path.
<u>Level 3</u> Score = 90	The programme <u>well defines</u> all key activities and resources, in sequential order, with reasonable time frames relating to the scope of work and reflects the critical path.
<u>Level 4</u> Score = 100	<p>The programme <u>well defines</u> all key activities and resources, in sequential order, with reasonable time frames relating to the scope of work and reflects the critical path -</p> <p><u>Plus:</u></p> <ul style="list-style-type: none"> ▪ Risk management. ▪ Staff and resource management. ▪ Relevant approvals. ▪ Quality control. ▪ S-curve cash flow. ▪ Communication and stakeholder engagement. ▪ List of service providers to be used for quality control procedures (where applicable).

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.22 PLANT and EQUIPMENT

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

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

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

Attach additional pages if more space is required

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

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

Attach additional pages if more space is required

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

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

NAME (Block Capitals):

Date

SIGNATURE:

T2.2.23 CONTRACTOR'S HEALTH AND SAFETY PLAN

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

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

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

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

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

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

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

Contract No: **WS-7502**

Contract Title: **KwaMashu Wastewater Treatment Works Functional Upgrade**

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

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

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

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

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

For the Tenderer:

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

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

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

Capacity (of Signatory) :

Address :

:

Telephone :

Witness:

Signature : **Date** :

Name (in capitals) : :

Notes:

*** Indicates what information is mandatory.**

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

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

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

The terms of the contract are contained in:

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

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

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

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

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

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

Name (*of signatory in capitals*) :

Capacity (*of Signatory*) :

Name of Employer (*organisation*) :

Address :

:

Witness:

Signature : **Date** :

Name(*in capitals*) : :

C1.1: FORM OF OFFER AND ACCEPTANCE**C1.1.3: SCHEDULE OF DEVIATIONS****This form will be completed by THE EMPLOYER and ONLY THE SUCCESSFUL TENDERER**

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

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

FOR THE TENDERER**FOR THE EMPLOYER**

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

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

The Conditions of Contract are based on the FIDIC “Conditions of Contract for Plant and Design-Build, for Electrical and Mechanical Plant, and for Building and Engineering Works, designed by the Contractor (Second Edition, 2017)” hereinafter referred to as the “FIDIC Conditions of Contract for Electrical and Mechanical Plant” (also known as the “Yellow Book”).

The Contract Data (including variations and additions) shall amplify, modify or supersede, as the case may be, the FIDIC (Second Edition, 2017), 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 FIDIC (Second Edition, 2017) to which it mainly applies.

C1.2.2 CONTRACT DATA**C1.2.2.1 DATA TO BE PROVIDED WITH THE TENDER**

Ref / Clause Number	Data										
1.1.13	Name of Contractor: _____ Physical: _____ Postal: _____ _____ _____ E-Mail: _____ Telephone No: _____										
1.1.27	Defects Notification Period (DNP): 730 Days (2 Years)										
1.1.30	Name of Employer: eThekweni Municipality										
1.1.30	Address of Employer : <table> <tr> <td><u>Physical</u></td><td><u>Postal</u></td></tr> <tr> <td>4th Floor</td><td>Water and Sanitation Unit</td></tr> <tr> <td>3 Prior Road</td><td>P.O.Box 1038</td></tr> <tr> <td>Durban</td><td>Durban</td></tr> <tr> <td>4001</td><td>4000</td></tr> </table> Email: Sibusiso.Vilane@durban.gov.za Telephone: 031-322 2763	<u>Physical</u>	<u>Postal</u>	4th Floor	Water and Sanitation Unit	3 Prior Road	P.O.Box 1038	Durban	Durban	4001	4000
<u>Physical</u>	<u>Postal</u>										
4th Floor	Water and Sanitation Unit										
3 Prior Road	P.O.Box 1038										
Durban	Durban										
4001	4000										
1.1.35	Name of Engineer: Bevan Coles										
1.1.35	Address of Engineer: (See Employer Address)										

**Ref /
Clause
Number****Data**Physical

4th Floor
3 Prior Road
Durban
4001

Postal

Water and Sanitation Unit
PO Box 1038
Durban
4000

- 1.1.37 Exceptional Event" means an event or circumstance as defined in Sub-Clause 18.1 [Exceptional Events].
- 1.1.52 Local Currency: Shall be 100% South Africa ZARs
- 1.1.86 Time for Completion: (7 Months)/ 28 weeks
- 1.3 Agreed methods of electronic transmission: e-mail communication will be acceptable.
- 1.4 Law: Laws and Acts of South Africa
- 1.4 Language: The ruling language and the language for communication will be English.
- 1.9 Period for notification of errors, faults or other defects in the employer 's requirements is 2 Days.
- 2.1 Right of Access to Site: On the commencement date; work to be commenced immediately upon hand-over of the site to the Contractor.
- 4.2 Performance Security / Guarantee: As per the table of the amount tendered by the successful tenderer, to be provided within 14 days after the Employer has informed the Contractor, in writing, that his tender has been accepted, but in any case, before signing of the Form of Acceptance and the Schedule of Deviations in the Form of Offer and Acceptance.

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

Value of Package Order (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	7% of the Contract Sum
Greater than R 10m	10% of the Contract Sum

- 5.1 General Design Obligations: The Contractor shall carry out, and be responsible for, the design of the Works. Design shall be prepared by designers who:
- (a) are engineers or other professionals, qualified, experienced, and competent in the disciplines of the design for which they are responsible.
 - (b) comply with the criteria (if any) stated in the Employer's Requirements; and
 - (c) are qualified and entitled under applicable Laws to design the Works

Errors in the Employers Requirements: Period for notifying unforeseeable errors, faults and defects in the Employer's requirements: 42 days

Ref / Clause Number	Data
5.2	<p>Contractor's Documents: The Contractor's Documents shall comprise the documents:</p> <ul style="list-style-type: none"> (a) specified in the Employer's Requirements. (b) required to satisfy all permits, permissions, licenses and other regulatory approvals which are the Contractor's responsibility under Sub-Clause 1.13 [Compliance with Laws]; and (c) described in Sub-Clause 5.6 [As-Built Records] and Sub-Clause 5.7 [Operation and Maintenance Manuals].
5.3	<p>Contractor's Undertaking: The Contractor undertakes that the design, the Contractor's Documents, the execution of the Works and the completed Works will be in accordance with:</p> <ul style="list-style-type: none"> (a) the Laws of the Country; and (b) the documents forming the Contract, as altered, or modified by Variations.
5.4	<p>Technical Standards and Regulations: The Contractor's Documents, the execution of the Works and the completed Works (including defects remedied by the Contractor) shall comply with the Country's technical standards, building, construction and environmental Laws, Laws applicable to the product being produced from the Works, and other standards specified in the Employer's Requirements, applicable to the Works, or defined by applicable Laws.</p>
5.5	<p>Training: The Contractor shall carry out training of employees of the Employer (and/or other personnel identified in the Employer's Requirements) in the operation and maintenance of the Works, and any other aspect of the Works, to the extent specified in the Scope of Work.</p>
5.6	<p>As-Built Records: The Contractor shall prepare, and keep up-to-date, a complete set of "as-built" records of the execution of the Works, showing the exact as-built locations, sizes and details of the work as executed by the Contractor.</p>
5.6	<p>Operation and Maintenance Manuals: The Contractor shall prepare, and keep up to date, a complete set of operation and maintenance manuals for the Works (the "O&M Manuals" in these Conditions).</p>
5.7	<p>Design Error: If errors, omissions, ambiguities, inconsistencies, inadequacies or other defects are found in the Contractor's design and/or the Contractor's Documents, they and the Works shall be corrected in accordance with Sub-Clause 7.5 [Defects and Rejection].</p>
5.8	<p>Labor Laws: The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment (including wages and working hours), health, safety, welfare, immigration and emigration, and shall allow them all their legal rights. The Contractor shall require the Contractor's Personnel to obey all applicable Laws, including those concerning health and safety at work.</p>

Ref / Clause Number	Data
6.4	<p>Working Hours: No work shall be carried out on the Site on locally recognized days of rest, or outside the normal working hours stated in the Contract Data, unless:</p> <ul style="list-style-type: none"> (a) otherwise stated in the Contract. (b) the Engineer gives consent; or (c) the work is unavoidable or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately give a Notice to the Engineer with reasons and describing the work required. <p>Normal Working Hours: From 07h30 to 16h00. In the event of emergency callouts, a 24-hour standby is required, seven days per week.</p>
6.5	<p>The non-working days are Saturdays and Sundays</p> <p>The special non-working days are:</p> <ul style="list-style-type: none"> 1) All statutory holidays as declared by National or Regional Government. 2) The year-end break that commences on the first working day after 15 December. Work resumes on the first working day after 5 January of the next year.
8.3	Number of additional paper copies of programmes will be 2
8.8	Delay damages: 0.007% of the accepted contract amount per calendar day
8.8	Maximum amount of delay damages : No maximum % of the final contract value
13.4(b)	Provisional sums : Percentage adjustment
13.7	<p>Adjustments for changes in cost: Escalation shall be in accordance with SEIFSA Table C (index of Actual Wage Rates). Any other escalation shall be negotiated with the Employer on the basis of SEIFSA indices and AA rates.</p> <p>The base month is: July (to coincide with SEIFSA adjustments)</p>
13.7	The adjustments for changes in cost shall be determined using SEIFSA Indices and Formulae to determine the amount of the variation of the Contract price, as follows:
13.7	<p>(i) <u>For Manufacturing Portion of the Contract</u></p> <ul style="list-style-type: none"> (a) 24% of the Contract price shall be adjusted in accordance with the price indices applicable in "Table G" "Mechanical Engineering Materials" at the closing date of the tender and 2 months prior to the quoted delivery date. (b) 21% of the Contract price shall be adjusted in accordance with the price indices applicable in "Table G" "Electrical Engineering Material" at the closing date of the tender and 2 months prior to the quoted delivery date. (c) 45% of the Contract price shall be adjusted in accordance with the price indices applicable in "Table C.3" "Actual Labour Cost" for hourly paid employees at the closing date of the tender and 2 months prior to the quoted delivery date.

13.7 (ii) **For Installation Portion of the Contract**

90% of the Contract price shall be adjusted in accordance with the price indices applicable in "Table C.3(a)" "Actual Labour Cost (Field Force)" for hourly paid employees at the closing date of the tender and during the last month of the quoted installation period.

Any application for an adjustment of the Contract price shall be accompanied by calculations, duly certified, showing how the adjustment has been derived.

In the event of the dates for delivery or erection extending beyond the tendered dates plus any extensions of time granted in terms of the Conditions of Contract, the price adjustment factors calculated in accordance with the formulae above shall not exceed those applying at the due dates for delivery or erection as the case may be.

Any billed items in the Preliminary and General section which do not fall into either the manufacturing or installation categories for the purpose of calculating the Contract price adjustment, as above, are to be dealt with in the following manner:

- (1) determine the ratio of manufacturing to installation portions for items as tendered.
- (2) apply the ratio from (1) above to the value of the billed items in the Preliminary and General Section which are not categorizable.

Escalation factors, given as equations are as follows:

- Manufacturing (supply and delivery) factor:

$$f_m = 0,45 \frac{(L_i - L_o)}{L_o} + 0,24 \frac{(M_i - M_o)}{M_o} + 0,21 \frac{(E_i - E_o)}{E_o}$$

- Installation (installation and commissioning) factor:

$$f_i = 0,9 \frac{(L_i - L_o)}{L_o}$$

Where: Mo, Lo, Lo and Li, Mi, Ei, Li are commencement date indices and completion date indices respectively for the relevant escalation period.

Note: Adjustments for changes in cost will not be applicable to imported items of plant and equipment. However, consideration will be given to payment for exchange rate variation as per the Clause below.

Adjustment for Changes in Cost due to Exchange Rate Fluctuation.

- (i) Where the goods are imported, the Contractor shall within 21 days of the notification of acceptance of his tender arrange through his bankers for the foreign commitment to be covered forward down to the Rand in order to fix the rate of exchange, exercising due care in consultation with the said bankers to ensure that the forward exchange is taken out on such terms as will provide the best possible exchange rate. The Contractor shall notify the Employer as soon as possible regarding the rate which has been fixed on such forward exchange.

An increase or decrease between the basic rate of exchange as at a date seven days prior to the date of closing of tenders and that existing at the date of establishment of the forward exchange cover within the period stipulated above shall be paid or deducted by the Employer. Upon the failure of the Contractor to arrange cover aforesaid, the Contractor shall

Ref / Clause Number	Data
	be liable for any such increase or decrease in the basic rate of exchange occurring beyond thirty days of notification of tender acceptance.
14.2	Currencies and proportions: SA ZARs, 100%
14.3(iii)	Retention : 10% of Accepted Contract Amount-(10% reducing to 5% upon the issue of a Taking-Over Certificate.)
14.3(iii)	Limit of Retention Money (as a percentage of Accepted Contract Amount)- 10% of Contract Sum
14.5(b)(i)	Plant and Materials for payment when shipped
14.5(c)(i)	Plant and materials for payment when delivered to the Site
14.6	Minimum amount of interim payment certificates: nil
17.2(d)	Forces of nature, the risks of which are allocated to the Contractor- Rainfall, lightning, flooding (incl. flooding of sewer system), wind, heat, humidity or cold.
19.1	Periods for submission of insurance: (a) Evidence of insurance: 14 days (b) Relevant policies: 30 days
19.2.1 (a)	The Works – The contractor shall insure and keep insured in the joint names of the Contractor and the employer from the Commencement Date until the date of the issue of the Taking Over Certificate for the Works.
19.2.1 (b)	Goods - The Contractor shall insure, in the joint names of the Contractor and the Employer, the Goods and other things brought to Site by the Contractor to the extent specified and/or amount stated in the Contract Data (if not specified or stated, for their full replacement value including delivery to Site)
19.2.2	Liability for breach of professional duty to the extent that the Contractor is responsible for the design of part of the Permanent Works under Sub-Clause 4.1 [Contractor's General Obligations], and/or any other design under the Contract, and consistent with the indemnities specified in Clause 17 [Care of the Works and Indemnities]: Minimum amount of insurance: R 2,000.000-00
19.2.3	Contractor and the Employer, against liabilities for death or injury to any person, or loss of or damage to any property (other than the Works) arising out of the performance of the Contract and occurring before the issue of the Performance Certificate, other than loss or damage caused by an Exceptional Event. The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and the Employer as separate insureds. Such insurance shall be effected before the Contractor begins any work on the Site and shall remain in force until the issue of the Performance Certificate and shall be for not less than the amount stated in the Contract Data (if not stated, the amount agreed with the Employer). Minimum amount of insurance: R 1,000.000-00

Ref / Clause Number	Data
19.2.4	Injury to employees: The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising out of the execution of the Works in respect of injury, sickness, disease or death of any person employed by the Contractor or any of the Contractor's other personnel.
19.2.5	Other insurances required by Laws and by local practice The Contractor shall provide all other insurances required by the Laws of the countries where (any part of) the Works are being carried out, at the Contractor's own cost. Other insurances required by local practice (if any) shall be detailed in the Contract Data and the Contractor shall provide such insurances in compliance with the details given, at the Contractor's own cost.
21.2	Appointing entity (official) for the DAAB member shall be the Head Water and Sanitation

PARTICULAR CONDITIONS

The Particular Conditions are:

Sub-Clause 1.13 Compliance with Laws

Add the following paragraph after 1.13 (b):

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.

Sub-Clause 4.12 Rights of Way and Facilities

Add the following:

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

Sub-Clause 5.1 Design

DESIGN SERVICES AND ACTIVITY MATRIX

Component	Responsible	Input information provided by
Overall Process	Contractor	Employer
Basic Engineering and preliminary design of Civil Infrastructure	N/A	N/A
Detailed design and drawing of electrical equipment	Contractor	Employer

Detailed design of control and instrumentation equipment and SCADA	N/A	N/A
Detailed design of mechanical, electrical	Contractor	Employer
Temporary works	Contractor	
As-built drawings	Contractor	
Operation and Maintenance manuals	Contractor	
Monthly operations reports (during operations period)	N/A	

Sub-Clause 8.1 Commencement of Work

Add the following:

The **documentation required** before commencement of Works are:

- **Health and Safety Plan (refer to Clause 4.8)**
- **Initial programme (refer to Clause 8.3)**
- **Performance Security (refer to Clause 4.2)**
- **Insurance (refer to Clause 19)**

The **time to submit the documentation** required before commencement of Work is **14 days**.

Sub-Clause 8.5(c) Extension of Time for Completion

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 Engineer 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 Engineer 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.		

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

The **special non-working** days are:

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

Sub-clause 11.10 Unfulfilled Obligations

Replace the following words in the second paragraph, "occurring more than two years after expiry of the DNP" With the following: "occurring more than **five** years after expiry of the DNP"

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 CONTRACTOR PARTICIPATION GOAL (CPG)**

It is a condition of contract that the contractor must allow for a minimum of **10%** of the contract value to be subcontracted to contractors who are **>51% PPG** (Priority Population Group) owned. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

The penalty for not achieving the specified CPG will be 0.5% of the contract value for every 1% of CPG not achieved.

C1.2.3.2 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) are specified in the Part C3: Scope of Works, or will be discussed and agreed with the Contractor before commencement of the contract.

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 14.2 and 14.6 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 13.4 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 14 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.
- (iii) In addition to the above, the following pricing instruction will apply for this specific tender:

The tender prices will remain firm for the first 12 months of the contract period for all electro-mechanical equipment. Thereafter, prices will be subject to variation.

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 8 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 **4** pages. The pages are numbered 79 to 82

BILL OF QUANTITIES / SCHEDULE OF RATES / ACTIVITIES

Item No.	Description	Unit	Quantity	Rate		Amount	
				R	c	R	c
1	<u>PRELIMINARIES AND GENERAL</u>						
1.1	<u>Fixed Charge Items</u>						
1.1.1	Formal Contract	Sum	1				
1.1.2	Site Establishment	Sum	1				
1.1.3	Sureties	Sum	1				
1.1.4	Insurance of works, materials and damage to property	Sum	1				
1.1.5	Initial supply of labour, material, labour and services required by the contractor	Sum	1				
1.1.6	Security	Sum	1				
1.1.7	General Safety (fixed charges)	Sum	1				
1.1.8	Contractors Initial Obligations in Respect of OHS Act	Sum	1				
1.1.9	Contractors Obligations in terms of Compliance to COVID 19 Regulations	Sum	1				
1.1.10	Removal of site establishment on completion of Contract	Sum	1				
1.2	<u>Time Related Charges</u>						
1.2.1	General Safety (time related)	Sum	1				
1.2.2	Contractor's superintendence	Sum	1				
	SUB-TOTAL No.1						

Item No	Description : (Note Reference to “pumpsets” includes both pump and motor)	Unit	Quantity	RATE		Amount	
				R	c	R	c
2	<u>REPLACEMENT OF PLANT AND EQUIPMENT</u> (The safe rigging, removal and replacement, installation and commissioning of the following plant and equipment)						
2.1	Supply of one off AISI 304 new stainless steel stone trap conveyor.	No.	1				
2.2	Supply of aerator motors to suit and aerator gearboxes to suit	No.	3				
2.3	Supply of <u>four</u> off stainless steel Bioreactor Mixer Impellers to suit, <u>four</u> off Bioreactor Mixer Motors to suit and <u>three</u> off Bioreactor Mixer gearboxes to suit	No.	1				
2.4	The supply and Installation of a new primary clarifier mechanical structure as per specifications.	No.	2				
2.5	The supply of self-priming pumps at the raw sludge pump station as per specifications	No.	2				
2.6	The supply of a front rake mechanical screen as per specifications	No.	1				
2.7	The supply of a progressive cavity digester feed pump as per specifications	No.	2				
2.8	The supply of a progressive cavity thickener transfer pump as per specifications	No.	2				
2.9	The supply of a submersible centrifugal pump for the WAS DAF(Dissolved air Floatation) plant as per specifications	No.	2				
2.10	The supply of a progressive cavity DAF Sludge pump as per specifications	No.	2				
2.11	The supply of one off air compressor for the DAF plant as per specifications	No.	1				
2.12	The supply of a self-priming sludge mixer pump at the Digesters as per specifications	No.	4				
2.13	The supply of a self-priming recirculation pump at the Digesters as per specifications	No.	4				
2.14	The supply of a self-priming digester feed chopper pump as per specifications	No.	2				
2.15	The supply of one off secondary digester motor and gearbox unit as per specifications	No.	1				

Item No	Description : (Note Reference to “pumpsets” includes both pump and motor)	Unit	Quantity	RATE		Amount	
				R	c	R	c
2.16	The supply of a progressive cavity sludge feed pump as per specifications at the Dewatering plant	No.	3				
2.17	The supply of a submersible filtrate pump as per specifications at the Dewatering plant	No.	2				
2.18	The supply of a progressive cavity sludge transfer pump rotor and stator as per specifications at the Dewatering plant	No.	2				
	SUB-TOTAL No.2						

Item No	Description (Note Reference to “pumpsets” includes both pump and motor)	Unit	Quantity	RATE		Amount	
				R	c	R	c
3.	<u>PROVISIONAL SUMS</u>	Sum					
3.1	Mechanical and Electrical work which includes the modification of steel pipework, supply of consumables, modification of existing concrete plinths and construction of new concrete plinths, fabrication of steel parts to ensure fully functional mechanical and electrical installations defined under “Item 2” of the Bill of Quantities and in line with the relevant standard specifications. And any other relevant work to complete a fully functional system.	Prov Sum	1	1 500 000	00	1 500 000	00
3.2	Overheads, profits and charges on 3.1 above	%					
3.3	The supply, delivery, installation and commissioning of mechanical and electrical plant and equipment as required and where necessary	Prov Sum	1	500 000	00	500 000	00
3.4	Overheads, profits and charges on 3.3 above	%					
	SUB-TOTAL No.3						

SUMMARY OF THE BILL OF QUANTITIES

SUB-TOTAL No.1	
SUB-TOTAL No.2	
SUB-TOTAL No.3	
TOTAL (EXCL VAT)	
15%VAT	
TOTAL (INCL VAT)	

TOTAL CARRIED OVER TO FORM OF OFFER:

Sub-Total No.1 (excl VAT) + Sub-Total No.2 (excl VAT) + Sub-Total No.3 (excl VAT)

PART C3: SCOPE OF WORK

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C3.1: PROJECT DESCRIPTION AND SCOPE OF CONTRACT**C3.1.1 Description of Works**

The KwaMashu Wastewater Treatment Works has a 70MI/day (70 million litres per day) design capacity plant that treats sewage from the surrounding areas and receives pumped flow from various wastewater pump stations in the sewer network. During recent times the plant has experienced numerous equipment failures. The plant has experienced an increase in flow over the recent years and the nature of the inflow is highly detrimental to the equipment due to high volumes of sand.

The majority of equipment are at the end of product life cycle or have been damaged as a result of flooding, inorganic particles or a high volume of sand in the wastewater.

This contract is for the replacement of equipment at KwaMashu Wastewater Treatment Works including the supply, delivery, installation, testing and commissioning of various plant and equipment as and when required. The existing equipment are to be removed and new equipment installed as replacement units.

Immediately on award of the contract the successful tenderer shall carry out equipment inspections to confirm accurate plant replacement. The final plant and equipment confirmed shall then be discussed with the EWS Engineer and agreement reached regarding the final details of plant and equipment before any orders are placed.

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.

PS.1 PROJECT DESCRIPTION

The project entails the supply, delivery, installation, and commissioning of mechanical and electrical plant and equipment at KwaMashu Wastewater Treatment Works. **The units are to match the specifications of the existing installed units and specifications of equipment required** as described in the scope of contract and the equipment data tables. This is for redundancy purposes and to assist in ensuring continuous service delivery.

PS.2 DESCRIPTION OF SITE AND ACCESS

The site is fully fenced and access is via the main entrance boom gate. The contractor shall provide their own water and electricity at their own cost until the contract is completed. EWS staff will also be present on site in certain instances, the contractor must allow for their safety and make the site as safe as possible

IMPORTANT NOTES :-

- A) ANY VISITOR TO THE SITES FOR ANY REASON WHATSOEVER MUST REPORT TO THE RESPONSIBLE PERSON FOR THE SITES.
- B) WHILST ON SITE ALL PERSONEL SHALL WEAR SAFETY HARD HATS, SAFETY SHOES, EAR PLUGS, MOUTH AND NOSE COVERS AND CORRECT SAFETY CLOTHING.
- C) THE SITES ARE REGARDED AS POTENTIALLY HAZARDOUS AS IT MAY CONTAIN HARMFUL OR FLAMABLE GASSES OR LIQUIDS. THE SITES ARE STRICTLY NO SMOKING AREAS. NO HOTWORK IS ALLOWED ON SITE EXCEPT WITH THE AGREEMENT AND WRITTEN APPROVAL OF THE EWS ENGINEER

At the site handover meeting discussions will be finalised about gaining daily access to the sites. It is suggested that the Main Contractor should not leave any equipment or materials on site outside of normal working hours.

Access to site shall be via the engineer or the designated individual from the Municipality. A permit to work will then be generated by the Employers Representative and issued to the Contractor to undertake what is required. Any security required to perform the work shall be at the cost of the tenderer.

The GPS coordinates to the site is below:

Plant and equipment are to be delivered, installed, and commissioned at the site below.
Treatment Works site coordinates:

Name of site	GPS Coordinates	
	Latitude	Longitude
KwaMashu Wastewater Treatment Works	-29.72928028	31.00888889

PS.3 SCOPE OF CONTRACT

PS.3.1 SCOPE OF WORK

This work arises from the need to supply, deliver, install and commission critical plant and equipment at KwaMashu wastewater treatment works **as and when required** as per the scope below and in line with OEM standards. The scope of work below is for plant and equipment that require replacement; **however the final list could change depending on the plant needs and requirements at the time of project implementation.** The scope is sufficient to obtain costs and pricing and the Engineer reserves the right to apply minor adjustments to which plant would require replacements. The successful tenderer shall obtain prices, and final confirmation shall be made before the placing of an order.

- The scope of works is as follows: The safe rigging, removal and replacement, installation and commissioning of the following plant and equipment in line with best practice engineering standards, equipment data tables and particular specifications.
 1. One off AISI 304 stainless steel stone trap conveyor.
 2. Two off self-priming pumps at the raw sludge pump station as per specifications
 3. The removal of an existing thickener step screen and replacement with a front rake mechanical screen as per specifications
 4. Two off progressive cavity digester feed pumps as per specifications
 5. Two off progressive cavity thickener transfer pumps as per specifications
 6. Two off submersible centrifugal pumps for the WAS DAF(Dissolved air Floatation) plant as per specifications
 7. Two off progressive cavity DAF Sludge pumps as per specifications
 8. One off air compressor for the DAF plant as per specifications
 9. One off secondary digester motor and gearbox unit as per specifications
 10. Three off progressive cavity sludge feed pumps as per specifications at the Dewatering plant
 11. Two off submersible filtrate pumps as per specifications at the Dewatering plant
 12. Two progressive cavity sludge transfer pump rotor and stator as per specifications at the Dewatering plant
 13. Three off aerator motors to suit and three off aerator gearboxes to suit
 14. Four off stainless steel Bioreactor Mixer Impellers to suit, four off Bioreactor Mixer Motors to suit and three off Bioreactor Mixer gearboxes to suit
- The pump suction and delivery flanges must match that of the existing pumps and inlet and delivery pipework in the respective pump stations.
- Where there is an update to a pump version below the contractor shall provide the updated version if the existing version is obsolete.
- Delivery of each equipment set to site above shall be including all necessary rigging, craneage and transportation.
- The installation of the pump sets, screens, motors, mixers etc shall include all work necessary in ensuring fully working equipment operations and in line with best

engineering practice as prescribed by the relevant SANS and ISO standards. Installation work may include modification to existing pipework, pipe flanges, and pump positions as per site requirements.

- Dry well pump installations shall be accompanied with a suitably designed and installed pump base support to handle the pump running at full speed and according to best practice engineering standards recognised internationally.
- The pump installation, pump base supports, flange adjustments and commissioning of the pump sets shall be done by the successful tenderer and costs for this must be provided. Pump base supports must be approved by the pump OEM **in writing**.
- Where required the pump baseplate and or suction chamber must if constructed from M.S. be heavy hot dipped galvanised in accordance with the relevant standards for hot dip galvanising of fabricated pipe or steelwork. Any of this equipment if offered or manufactured in Cast Iron shall be coated with an approved two coat epoxy paint system in agreed colours. After installation, testing and approval to operate the pumps the underside of the baseplate and or suction chamber shall be grouted with non-shrink grout in accordance with the grouting manufacturer's instructions.
- The pump installation should be done in accordance with the manufacturer's specifications. It is suggested that the pump agent install the pump/motorsets, base plate and or suction chamber to ensure uniformity and to maintain guarantees. The base must be grouted with non-shrink grout and the base plate must be hot dipped galvanised IF constructed from mild steel.
- The contractor will be solely responsible for testing the existing station to obtain data for and producing a system curve for each station and to ensure that the duty of the new pumps to be supplied is in line with current operation. Before the contractor places an order for the pumps the contractor must discuss and obtain written approval from EWS.
- The pump sets shall be commissioned by the most responsive tenderer into operation and pump performance shall be as per individual pump performance curves and tender specification requirements.
- The tenderer shall submit pump curves and additional pump information for each pump set and plant equipment as part of tender returnables.
- Upon completion of works, supply and delivery of 1 hard-copy each of OEM Manuals for ALL plant and equipment and an electronic version (.pdf) of ALL plant and equipment information. Manuals must contain pump and motor set information (detailed pump drawings, pump curves, full pump specifications, pump installation recommendations, instructions for operation and maintenance of each set)
- Failure to submit equipment details returnables **shall result in a material deviation in accordance with CIDB regulations**.

PS.3.2 EXISTING EQUIPMENT SPECIFICATIONS

The specifications mentioned below are for the **existing** equipment sets installed at KwaMashu wastewater treatment works that require replacement. The sets to be supplied in the contract must match the equipment specifications, physical dimensional arrangement, head and flow outputs and all other requirements mentioned in the tender specifications. The onus is upon the contractor to ensure the replacement units match the existing units.

Pump motors are to be as per the OEM's (Original Equipment Manufacturer's) preferred specification.

DATA SHEETS

Datasheet: This is the minimum specifications EWS will consider: Failure to complete the datasheet in full will lead to **disqualification**. Bidders are required to submit datasheets and manufactures brochures that are linked to the completed datasheet. **The tenderer shall fill in the data sheets below in the column "Offered: Supplier/Bidder".**

PRELIMINARY TREATMENT			
Items No	Description	Specified: Engineer	Offered: Supplier/Bidder
1. Stone Trap Conveyor			
1.	Type	Shaftless Screw Conveyor (SCC01)	
2.	Manufacturer	Huber Rotamat	
3.	Quantity	1	
4.	Model	Huber U320	
5.	Weight	+/- 1100 kg	
6.	Screw Radius	R149.mm	
7.	Length	7500 mm	
8.	Trough width	320 mm	
9.	Trough Height	345.4 mm	
10.	Wear bars at upper trough area	2.4 m	
11.	Linings	UMWPE Linings at bottom trough area	
12.	Proximity Switch	IFM IG0374 Proximity switch on inspection hatch	
13.	Trough, Covers, Supports Materials	AISI 304	
14.	Screw Material	350WA SANS 1431	
15.	Motor	0.75 kW (WEG) Service Factor: 2.2	
16.	Motor Type:	FDAF88B-K2-WEG80M4	
17.	Motor rpm	1440 rpm	
18.	Gearbox	165.38:1	
19.	Gearbox Manufacturer	Flender	
20.	Gearbox Output rpm	8.5 rpm	
21.	General	<ul style="list-style-type: none"> Covers to be in maximum 1.5 m sections to allow easy access. Wear liners in maximum 2m sections to enable easy replacement. 	

RAW SLUDGE PUMP STATION			
Items No	Description	Specified: Engineer	Offered: Supplier/Bidder
2. Raw Sludge Pumps			
1.	Pump Brand	Gorman Rupp	
2.	Quantity	2	
3.	Pump Model	V-series V4A60-B	
4.	Pump Type	Centrifugal Self Priming Pump	
5.	Pump Impeller Diameter	Standard	
6.	Pump Motor Brand	WEG (Model:200L)	
7.	Pump Motor kW	30 kW	
8.	Pump Motor rpm	1465 rpm	
9.	V Belt	SPB 2020mm	
10.	V Belt spec	16mm/m span at 4.6-6.6 N Deflection (16 X 0.685 = 11mm)	
11.	Motor Pulley diameter	236 mm	
12.	Pump Pulley diameter	180mm	
13.	Centres (mm)	685 mm	

THICKENER SCREEN			
3. Mechanical Screen			
1.	Type	Fine Screen, Incline Bar Screen, front rake	
2.	Quantity	1	
3.	Motor	1.1 - 1.5 kW	
4.	Motor Voltage	400 V	
5.	Channel Width	600 mm	
6.	Channel Depth	960 mm	
7.	Screen ID	TBA	
8.	Screen OD	TBA	
9.	Screenfield height	800 mm	
10.	Screenfield bar type	Taper bar 40x8x4	
11.	Top Water Level	900 mm	
12.	Flowrate (m ³ /hr):	82 in (30% effluent)	
13.	Screen Angle:	75°	
14.	Discharge height from channel floor	1560 mm	
15.	Discharge height above top of channel	600 mm	
16.	Screenfield Bar spacing (Aperture)	6 mm	
17.	Screen body material	304L Stainless Steel	
18.	Screenfield material	304L Stainless Steel	
19.	Drive Chain type	Pin-Bush-Link type	
20.	Chain Material	304L Stainless Steel	
21.	Screen Bottom	Lower chain guided by HDPE turnabout	
22.	Gearbox	(Comply with DIN 867, DIN 3961, DIN 3961, DIN 3967, DIN 3976, DIN 3978, DIN ISO 2203)	
23.	Mechanical Protection	Torque limit switch	
24.	General	<ul style="list-style-type: none"> Removable covers for ease of maintenance. No lower bearing or sprocket at the lower chain submerged below water level. Recessed side from to remove chain from flow path 	

SLUDGE THICKENER PUMP STATION			
4. Digester Feed Pump			
1.	Pump Brand	Netzsch Nemo Pump	
2.	Pump type	Progressive Cavity Pump	
3.	Quantity	2	
4.	Pump Model	NM076BY01P05B	
5.	Pump Pressure	5.1 Bar	
6.	Pump rpm	133 rpm	
7.	Flowrate (m ³ /h)	30 m ³ /h	
8.	Pump Motor brand	Nord	
9.	Pump Motor kW	11 kW	
10.	Pump Motor type	160MH/4TF	
11.	Pump Motor rpm	1465	
12.	Pump Gearbox brand	Nord	
13.	Pump Gearbox model	SK52F VL-160MH/4F	
5. Thickener Transfer Pump			
1.	Pump Brand	Mono Pump	
2.	Pump Model	217B	
3.	Pump Max Differential Pressure	12 Bar	
4.	Pump Maximum Delivery Pressure	16 Bar	
5.	Pump rpm	600 rpm	
6.	Quantity	2	
DISSOLVED AIR PLOATATION (DAF) PLANT			
6. WAS Pumps			
1.	Pump Brand	WILO Pump	
2.	Quantity	2	
3.	Pump Type	Submersible Pump	
4.	Pump Model	FA 10.51E	
5.	Pump motor kW	4 kW	
6.	Pump motor model	FK17.1-4/8K	
7.	Pump rpm	1385 rpm	
8.	Flowrate (m ³ /h)	55 m ³ /h	
9.	Head (m)	8m	
10.	Pump Impeller diameter (mm)	187 mm	
DISSOLVED AIR PLOATATION (DAF) PLANT			
Items No	Description	Specified: Engineer	Offered: Supplier/Bidder
7. DAF Sludge Pump			
1.	Pump Brand	Netzsch Nemo Pump	
2.	Quantity	2	
3.	Pump Type	Progressive Cavity Pump	
4.	Pump rotor quality	CrNiMo17-12-2	
5.	Pump stator quality	NEMOLAST S65L	
6.	Pump Model	NM076BY01L06B	
7.	Pump Motor Brand	Nord	
8.	Pump Motor kW	11 kW	
9.	Pump Motor type	SK 160MH/4 TF	
10.	Pump Protection	IP55	
11.	Pump motor kW	11 kW	
12.	Pump rpm	183 rpm	
13.	Pump Capacity (m ³ /h)	31 m ³ /h	
14.	Pump Pressure (Bar)	5 Bar	
15.	Pump Gearbox brand	Nord	
16.	Pump Gearbox model	SK42F AL-160MH/4 TF	

DISSOLVED AIR PLOATATION (DAF) PLANT			
Items No	Description	Specified: Engineer	Offered: Supplier/Bidder
8. Compressor			
1.	Compressor Brand	Ingersoll-Rand	
2.	Quantity	1	
3.	Compressor Type	Ingersoll-Rand Air receiver	
4.	Compressor kW	4 kW	
5.	Compressor motor speed rpm	1445 rpm	
6.	Compressor Design Pressure	1380 kPa	
7.	Compressor Test Pressure	2070 kPa	
8.	Compressor Capacity	0.22 m ³	
9.	Compressor Model No,	242	
10.	Compressor Type	Type 30	
SECONDARY DIGESTION			
9. Motor and Gearbox Unit			
1.	Motor brand	Siemens	
2.	Quantity	1	
3.	Motor kW	0.25	
4.	Motor rpm	1380	
5.	Gearbox brand	Siemens	
6.	Gearbox ratio	1232:1	
7.	Gearbox output speed rpm	11 rpm	
DEWATERING PLANT			
10. Sludge Feed Pumps			
1.	Pump Brand	Netzsch Nemo	
2.	Quantity	3	
3.	Pump Model	NM053BY01P05B	
4.	Pump type	Progressive Cavity Pump	
5.	Pump stator quality	NEMOLAST S65L	
6.	Pump rotor quality	CrNiMo17-12-2	
7.	Pump Pressure (Bar)	5 Bar	
8.	Pump flowrate	20 m ³ /h	
9.	Pump rpm	235 rpm	
10.	Pump Motor kW	7.5 kW	
11.	Pump Motor Brand	Nord	
12.	Pump Motor protection	IP55	
13.	Pump Motor Type	SK 132MH/4 TF	
14.	Pump Gearbox Brand	Nord	
15.	Pump Gearbox speed rpm	235 rpm	
11. Filtrate Pumps			
1.	Pump Brand	WILO Pump	
2.	Quantity	2	
3.	Pump Type	Submersible Pump	
4.	Pump Model	EMU FA 10.33	
5.	Pump impeller diameter mm	223 mm	
6.	Pump motor kW	4 kW	
7.	Pump motor rpm	1385 rpm	
8.	Flowrate (m ³ /h)	80 m ³ /h	
9.	Head (m)	10m	
10.	Pump Motor model	FK17.1-4/8K	

DEWATERING PLANT			
Items No	Description	Specified: Engineer	Offered: Supplier/Bidder
12. Sludge Transfer Pump Stator and Rotor configuration			
1.	Pump Brand	Netzsch Nemo	
2.	Quantity	2	
3.	Pump Model	NM076SF04S4V	
4.	Pump type	Progressive Cavity Pump	
5.	Pump stator quality	NEMOLAST S65L	
6.	Pump rotor quality	CrNiMo17-12-2	
7.	Pump Pressure (Bar)	25 Bar	
8.	Pump flowrate	5 m ³ /h	
9.	Pump rpm	109 rpm	

50 ML AERATION PLANT			
Items No	Description	Specified: Engineer	Offered: Supplier/Bidder
13. Aerator Module			
Gearbox			
1.	Gearbox Brand	Hansen P4	
2.	Model	QVPF 3	
3.	Gearbox Ratio	39.687:1	
4.	Gearbox Output Speed	37.4/24.8 rpm	
5.	Oil Capacity	+/- 70 litres	
6.	Quantity	3	
Motor			
1.	Motor brand	WEG	
7.	Motor kW	80/28	
8.	Mounting	Vertical shaft down	
9.	Frame	280 S/M	
10.	Motor RPM	1485/985	
11.	Quantity	3	
14. Mixers			
Impeller			
1.	Mixer Type	Bioreactor Mixer Impeller	
2.	Mixer Material	316L Stainless Steel	
3.	Mixer Diameter	2100 mm	
4.	Mixer Design	Radial Mixer, as per sample on site	
5.	Mixer Speed(rpm)	26.1 rpm	
6.	Quantity	4	
Motor			
1.	Motor Brand	WEG	
2.	Motor Mounting	Flange Mounted	
3.	Motor Position	Vertical	
4.	Motor Frame	132 M	
5.	Motor kW	7.5 kW	
6.	Motor rpm	1470 rpm	
7.	Quantity	4	
Gearbox			
1.	Gearbox Brand	Hansen	
2.	Output coupling	Rigid(female)	
3.	Gearbox Model	SPFN64C	
4.	Oil Capacity	20 Litres	
5.	Gearbox Ratio	56:1	
6.	Speed (rpm)	26.1 rpm	
7.	Quantity	3	

PS.4 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.4.1 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.4.2 Programme in Terms of Clause 8.3 of the Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 8.3 of the FIDIC Conditions of Contract, be furnished within the time stated in the Contract Data.

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

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

[Detail any factors which may affect the programming of the project]

- (1) Time required for service relocations.
- (2) Time allowances to be made for the ordering of special items.
- (3) Notification required by service organisations.
- (4) Any special sequence in which work must be carried out. Must certain areas of work be finished before work commences on others?
- (5) If delays are anticipated with service relocations the contractor should be asked to allow time.
- (6) Is work required out of normal hours? (eg. to accesses).
- (7) Vehicular access to private property is to be maintained.
- (8) Traffic restrictions.

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

PS.4.3 Requirements for Accommodation of Traffic**PS.4.3.1 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.4.3.2 Basic Requirements

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

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

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

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

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

PS.4.3.3 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.4.3.4 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.4.3.5 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.4.3.6 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.5 OCCUPATIONAL HEALTH AND SAFETY

PS.5.1 GENERAL STATEMENT

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

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

PS.5.2 HEALTH AND SAFETY SPECIFICATIONS AND PLANS TO BE SUBMITTED AT TENDER STAGE

PS.5.2.1 EMPLOYER'S HEALTH AND SAFETY SPECIFICATION

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

PS.5.2.2 TENDERER'S HEALTH AND SAFETY PLAN

At tender stage only a brief overview of the tenderer's perception on the safety requirements for this contract will be adequate. This will be attached to 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 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.5.3 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.6 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 if deemed necessary by the contractor at no extra cost to the Employer.

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 in the Bill of Quantities.

PS.7 PROCEDURE FOR THE EXECUTION OF THIS CONTRACT

The Contractor shall adhere to the following schedule set out below:

- Initial kick off meeting between the Employer's Agent and Representatives and the Contractor to set out milestones and requirements to ensure the completion of the scope of works.
- Induction of the Contractor and the Contractor's staff on site.
- Confirmation of equipment sets to be ordered between the Employer's Agent and the Contractor.
- Once the pump set specifications have been finalized and agreed upon, and approval is obtained, in writing, by the Employer or his/her Representative, shall the Contractor begin placing the order for the respective equipment sets.

- The Contractor shall supply the Employer's Representative pump test certificates of the assembled pump sets before they are released from the pump factory.
- Upon delivery of pump sets and other equipment the Contractor shall schedule a meeting for the Employer's Representative to inspect the equipment sets prior to installation.
- The Contractor shall schedule a meeting to discuss the installation of the equipment sets with the relevant installation programme.
- Commissioning meetings shall be setup once various equipment sets have been installed.
- A final handover meeting will take place once the Employer is satisfied that the scope of the contract was fulfilled.
- The contract shall permit interim payments for the scope of work that is completed.

PS.8 WARRANTIES AND QUALITY ASSURANCE

The Contractor will be solely responsible for the production of work that complies with good engineering practice and with the specifications of the contract, to the satisfaction of the Employer's Agent/Representative.

The Contractor shall ensure that sufficient supervisory staff, the required transport, instruments, tools and equipment are available to control the quality of his own workmanship. Attention is drawn to the fact that it is not the duty of the Employer or Employer's Agent/Representative to assume the role of Quality Controller.

Material and equipment shall be of OEM specification, new and unused and of the best quality available. The pump sets shall be guaranteed as per the OEM's stipulations or a minimum of 1 year from delivery.

C3.3: STANDARD SPECIFICATIONS

C3.3.1 LISTING OF THE STANDARD SPECIFICATIONS

The design, manufacture, assembly and testing of the pumps covered by the specification shall unless specifically stated otherwise conform to the latest editions of all standards and codes (along with addenda) mentioned below. In case of conflict between two different classes of specifications, the requirements of the more stringent of the two shall govern.

ISO – International Organization for standardization

SANS – South African National Standards

ISO 5199-2002 Technical specifications for Centrifugal pumps

ISO 1940 Mechanical vibration -- Balance quality requirements for rotors

ISO 21049: 2004 Shaft sealing systems for centrifugal and rotary pumps

SANS 1804-1:2012 Induction Motors Part 1: IEC requirements

SANS 1804 – 2:2012 Induction Motors Part 2: Low-Voltage three-phase standard motors.

SANS 32 Internal and/or external protective coatings for steel tubes - Specification for hot dip galvanized coatings applied in automatic plants

SANS 62 -1 Pipes Suitable for threading and of nominal size not exceeding 150 mm

SANS 044 Welding consumables - Technical delivery conditions for welding filler materials
Type of product, dimensions, tolerances and markings

SANS 064 Preparation of steel surfaces for coating

SANS 0111 Engineering drawing

SANS 121 Hot dip galvanized coatings on fabricated iron and steel articles- Specifications and test methods

SANS 455 Covered electrodes for the manual arc welding of carbon and carbon manganese steels

SANS 664 Wedge gate and resilient seal valves for waterworks

SANS 719 Electric welded low carbon steel pipes for aqueous fluids (large bore)

SANS 10140 Identification Colour Marking

SANS 1200 Standardized Specification for Civil Engineering Construction

SANS 1123 Pipe flanges

SANS 1319 Zinc phosphate primer for steel

SANS 1476 Fabricated Flanged Steel Pipework

SANS 1700 Fasteners

SANS 1700-5-18: Fasteners- Non-electrolytically applied zinc flake coatings

SANS 1700:5 Fasteners, ISO metric precision hexagon head bolts (coarse thread medium fit series), screws and hexagon nuts

SANS 2808 Paints and varnishes - Determination of film thickness

SANS 51714 Non-destructive testing of welds - Ultrasonic testing of welded joints

ANSI AWS D01.6 Structural welding (stainless steel)

AP15L Seamless Steel Tube Pipes for aqueous fluids, Chemical and Physical properties

JIS B2311 Steel Butt-welding pipe fittings for ordinary use

BS 4999 General requirements for rotating electrical machines

BS 5080 Part 1: Methods of testing for structural fixings in concrete and masonry

ASTM A213 Standard Specification for Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheated and Heat Exchanger Tubes

ASTM A312 Standard materials specification for Seamless and welded Austenitic Stainless Steel pipe

- ASTM A333/A333M** Standard Specification for Seamless and Welded Steel Pipe for Low-Temperature Service
- ASTM A370** Standard Test Methods and Definitions for Mechanical Testing of Steel Products
- ASTM A403 WPW** Standard Specification for Wrought Austenitic Stainless Steel Piping Fittings
- ASTM A488/ A488M** Standard Practice for Steel Castings, Welding, Qualifications of Procedures and Personnel
- DIN 11850** Stainless steel tubes for the food and chemical industries - Dimensions, materials
- DIN 11852** Fittings for the food and chemical industries - Fittings of stainless steel - Tees, bends and reducers for welding
- ASME Section IX** Welding and Brazing Qualifications
- SIS 05/59/00 – 1967** Pictorial Surface Preparation Standards for Painting Steel Surfaces
- ISO 898-1** Mechanical properties of fasteners made of carbon steel and alloy steel -- Part 1: Bolts, screws and studs
- EN 1435** Non-destructive examination of weld – Radiographic examination of weld joints

C3.3.2 GENERAL/ STANDARD REQUIREMENTS

- a) Pump and Driving Motor set along with accessories shall be supplied as per technical specification / Data sheet given in this specification or the OEM's updated version of the pump and motor.
- b) This specification together with the pump and motor data sheets and attachments defines the minimum requirements for Pumps, Driver (electric motor), accessories and spares
- c) Each Pump shall be fully assembled and coupled with the motor on a pallet (note no base plate required). Suitable coupling and coupling guard shall also be provided where applicable. Required number of nuts and bolts to be supplied for fitment to an existing base plate where applicable
- d) Centrifugal Pump shall have stable performance characteristics and as per OEM standards.
- e) Pump-Motor assembly shall be capable of starting with a full valve open condition.
- f) The motors shall be complete in all respects and shall be as per specifications and pump OEM requirements to suit the pumps required.
- g) Pumping unit and auxiliary equipment shall be designed and constructed for safe operation at full load duty and continuous service. The pumps shall be of robust construction, suitable for long periods of maintenance-free service. Units shall be of a design proven in similar service with an excellent track record.
- h) All electrical and mechanical equipment shall be designed and manufactured so that no damage results from inland transportation and during storage, installation and operation of equipment under the climatic conditions to which it will be subjected. (Coastal)
- i) Pump and Motor assembly shall be designed to permit ease of access during inspection, maintenance, and repair.
- j) Clamps, lifting lugs and eyebolts of adequate capacity shall be provided to ensure safe and easy handling of the pumps and motors
- k) Pump shall be completely assembled at manufacturer's shop and mating parts shall be match marked for ease of assembly at site.
- l) No deviations or exceptions from this specification shall be permitted without written approval of the purchaser. Intended deviations shall be separately listed with supporting reasons, for consideration by the Purchaser.
- m) Compliance with this specification shall not relieve the supplier of the responsibility of furnishing equipment and accessories of proper design, materials and workmanship to meet the specified operating conditions.
- n) The installation of the pump sets shall be according to best engineering practice.

C3.3.3 EWS STANDARD SPECIFICATIONS

Annexure C3.3.3.1 EWS Mechanical Standards

Annexure C3.3.3.2 Standard LV Motor Specifications

C3.4: PARTICULAR SPECIFICATIONS

C3.4.1 PUMP PARTICULAR SPECIFICATIONS

C3.4.1.1 Submersible Pump Specific Requirements

Furnish and install Submersible pumps designed for pumping raw sludge water. Each pump shall be equipped with a close coupled, submersible electric motor connected for operation on 400 volts, 3-phase, 50 hertz, with a minimum 10-meter length submersible cable. The pump cable shall have a separate core for each electrical connection required to the pump and for any protection device, plus one core for the earth connection. The power cable shall be sized according to IEC.

The supply cables shall enter the pumpset body through a suitable watertight cable entry gland.

C3.4.1.2 Wet Well Installation

The pumps shall be supplied with a mating cast iron EN 1561-GJL-250 or ASTM-A48-No35B 80 mm discharge connection. The pumps shall be automatically and firmly connected to the discharge connection, guided by no less than two parallel guide bars extending from the top of the station to the wet well mounted discharge connection.

Sealing of the pumping unit to the discharge connection shall be accomplished by a machined metal to metal contact. Sealing of the discharge interface with a diaphragm, O-ring or profile gasket will not be accepted.

The entire weight of the pump/motor unit shall be borne by the pump discharge elbow. No portion of the pump/motor unit shall bear on the sump floor directly or on a sump floor mounted stand.

C3.4.1.3 Hydraulic End Design

The impeller(s) shall be of semi open multi vane, back-swept, non-clog design and dynamically balanced. The leading edges shall be horizontal and due to the backswept form, transport any debris to the perimeter of the inlet.

The impeller vanes shall be self-cleaned upon each rotation as they pass across a sharp relief groove and shall keep the vane clear of debris, maintaining an unobstructed pumping. The impeller shall have heavily back swept leading edges with a specific angle distribution enabling the capability of handling solids, fibrous materials, heavy sludge and other matter found in waste water. The clearance between the insert ring and the impeller shall be adjustable.

The impeller shall be of hard iron EN GJN-HB555(XCr23) (5.5610) or ASTM-A 532-Alloy III A.

Pump volute shall be single-piece non-concentric design with smooth passages large enough to pass any solids that may enter the impeller. Pump volute shall be of cast iron EN GJL-250 or ASTM-No35B. EN GJS-500-7 or ASTM- No 80-55-06 is also allowed

C3.4.1.4 Cooling System

Each submersible pump motor shall be sufficiently cooled by the surrounding air or liquid and immersible pumps to be oil/glycol cooled.

C3.4.2 HEALTH AND SAFETY SPECIFICATION

C3.4.2.1 COVID SPECIFICATION

C3.4.2.2 HEALTH AND SAFETY SPECIFICATION

C3.5: CONTRACT AND STANDARD DRAWINGS

C3.5.1 CONTRACT DRAWINGS / DETAILS

No Drawings

C3.5.2 STANDARD DRAWINGS

No Standard Drawings

C3.6: ANNEXURES

There are no annexures

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

Figure 1: KwaMashu WWTW Locality plan, 206 Stonebridge Drive

C4.2 CONDITIONS ON SITE

There is no specific geotechnical information or other site information.