



CONTRACT NO: 2021/069

BRIDGE PUMP STATION: SUPPLY, INSTALL AND COMMISSION OF TWO SUBMERSIBLE PUMPS

VOLUME 2 – Agreements, Contract, Pricing and Score

Issued by:

Umgeni Water
310 Burger Street
Pietermaritzburg
3201

Tender Queries

Contact Name: Mhali Ngema
Telephone: 033 3411333

Name of Tenderer:

National Treasury CSD Number:

Tip-Offs Anonymous Hotline:	Appeals/Objections
<p>Report unethical conduct at Umgeni Water on:</p> <p>Toll Free Number: 0800 864 463 Email: umgeniwater@whistleblowing.co.za Toll Free Fax: 0800 212 689 Postal: Freepost KZN665, Musgrave, 4062 SMS: 33490 Online: www.whistleblowing.co.za</p> <p><i>Stop theft / fraud / dishonesty / bribery / blackmail / intimidation, and remain anonymous.</i></p>	<p>Persons aggrieved by tender award decisions taken by Umgeni Water, may lodge an appeal within 7 days of the date of the intention to award advertisement.</p> <p>UW shall only consider written appeals/objections clearly stating reasons for appeal directed to:</p> <p>The Supply Chain Management Office, Attention: Supply Chain Management Email: appeals@umgeni.co.za</p>

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C.1 AGREEMENTS AND CONTRACT DATA

IMPORTANT NOTE ON C1.1:

ALL Tenderers MUST complete and sign Form A: OFFER (the first page hereafter).

Form B: ACCEPTANCE will be signed by the Employer and then only in the case of the successful Tenderer.

Form C: SCHEDULE OF DEVIATIONS must be signed by the Employer as well as the successful Tenderer at the close of the process of offer and acceptance.

Form D: CONFIRMATION OF RECEIPT must be signed by the successful Tenderer on receipt of a fully completed original copy of the Agreement including the Schedule of Deviations, if any.

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C1.1 FORM OF OFFER AND ACCEPTANCE

A: OFFER

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

TENDER NO. 2021/069– BRIDGE PUMP STATION: SUPPLY, INSTALL AND COMMISSION OF TWO SUBMERSIBLE PUMPS

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 Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, 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:

Signature:

Name: (of signatory in capital)

Capacity: (of signatory)

Name of Employer: (organization)

Address:

.....

Telephone number: **Fax number:**

CIDB Registration Number of Tenderer:

WITNESS:

Signature:

Name: (in capitals)

Date:

B: ACCEPTANCE

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 as set out in the General and Special Conditions of Contract, and 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

- C.1 Agreements and Contract Data, (which includes this Agreement)
- C.2 Pricing Data, including the Bill of Quantities
- C.3 Scope of Work
- C.4 Site Information
- C.5 Annexures

and the schedules, forms, drawings and documents or parts thereof, which may be incorporated by reference into Sections C.1 to C.5 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 representative(s) of both parties.

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

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

FOR THE EMPLOYER:

Signature:

Name: (of signatory in capitals)

Capacity: (of signatory)

Name of Employer: (organization)

Address:

Telephone number: Fax number:

WITNESS:

Signature: Name: (in capitals)

Date:

C: SCHEDULE OF DEVIATIONS

The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Tender Data and the Conditions of Tender.

A Tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.

Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1. **Subject:**
Details:
.....
2. **Subject:**
Details:
.....
3. **Subject:**
Details:
.....
4. **Subject:**
Details:
.....
5. **Subject:**
Details:
.....
6. **Subject:**
Details:
.....
7. **Subject:**
Details:
.....

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

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

FOR THE TENDERER:

Signature:

Name:

Capacity:

Tenderer: *(Name and address of organization)*

Witness:

Signature:

Name:

Date:

FOR THE EMPLOYER:

Signature:

Name:

Capacity:

Employer: *(Name and address of organization)*

Witness:

Signature:

Name:

Date:

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D: CONFIRMATION OF RECEIPT

The Tenderer, (now Contractor), identified in the Offer part of this Agreement hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) on this

the (day) of(month) 201..... (year)

at (place)

FOR THE CONTRACTOR:

Signature:

Name:

Capacity:

Signature and name of witness:

Signature:

Name:

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C1.2 CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

The **General Conditions of Contract for Construction Works, Third Edition (2015)**, published by the South African Institution of Civil Engineering, Private Bag X200, Halfway House, 1685 (Short title: "**GCC 2015**"), is applicable to this Contract and is obtainable from www.saice.org.za.

It is agreed that the only variations from the said General Conditions of Contract are those set out hereafter under "Special Conditions of Contract".

SPECIAL CONDITIONS OF CONTRACT

1. GENERAL

These Special Conditions of Contract (SCC) form an integral part of the Contract. They shall amplify, modify or supersede, as the case may be, the GCC 2015 to the extent specified below, and shall take precedence and shall govern.

The clauses of the SCC hereafter are numbered "SCC" followed in each case by the number of the applicable Clause or Sub-Clause in the GCC 2015, and if applicable, the heading, or (where a new condition that has no relation to the existing clauses is introduced) by a number that follows after the last Clause number in the GCC 2015.

SCC 1.1 Definitions

Add the following at the end of Sub-Clause 1.1.1:

SCC 1.1.1.35 "Client", as used in the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014, shall have the same meaning as "Employer".

SCC 1.1.1.36 "Principal Contractor", as used in the Occupational Health and Safety Act, 1993 and the Construction Regulations, 2014, shall have the same meaning as "Contractor".

SCC 4.4 Sub-Contracting

SCC 4.4.1 **Insert the following after the existing wording:**

"The Contractor shall not sub-contract any Works to Sub-Contractors who are not appropriately registered and graded by the Construction Industry Development Board (CIDB). Proof of registration and grading shall be submitted to the Employer's Agent prior to the award of any such work to a Sub-Contractor.

The Employer reserves the right to refuse payment to the Contractor for work carried out by Sub-Contractors who were not appropriately registered and graded by the CIDB at the time the work was being carried out.

Subsequent registration and grading by the CIDB of Sub-Contractors shall have no force or effect in curing the non-compliance retrospectively."

SCC 4.4.4 **Insert the following after the existing wording:**

"The contractual relationship between the Contractor and any of its CPG Partners shall be the same as if the Contractor had appointed the CPG Partner in terms of Clause 4.4.3. However, the requirements of and the procedures set out under PS 12 Selected Sub-Contractors included in Section C.3 Scope of Work shall not apply to CPG Partners.

The contractual relationship between the Contractor and its CPG Partners shall be as agreed upon between the Employer and the Contractor during the process of CPG negotiations prior to the award of the Contract, and as recorded in the Schedule of Deviations."

SCC 4.4.5 ***Insert the following after the existing wording:***

"The provisions of this Sub-clause shall apply to the appointment of CPG Partners."

SCC 4.4.6 ***Insert the following after the existing wording:***

"The provisions of this Sub-clause shall apply to the appointment of CPG Partners."

SCC 4.4.7 ***Insert the following after the existing wording:***

"The provisions of this Sub-clause shall apply to the appointment of CPG Partners."

SCC 4.5 Notices and fees

SCC 4.5.2 **Employer's responsibility for approval**

Insert the following after the existing wording:

"The Employer shall be responsible for obtaining any construction work permit which may be required in terms of Regulation 3(1) of the Construction Regulations, 2014 (promulgated under Section 43 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993))."

SCC 4.5.3 **Contractor's responsibility for consents**

Insert the following after the existing wording:

"Failure by the Contractor to provide in a proper and timeous manner all the necessary information and documents as required by Regulation 3(5) of the Construction Regulations, 2014 or as requested by the Employer or his agent, shall result in any claim which the Contractor may make in connection therewith for an extension of time, any direct or indirect costs, or any damages claim, being rejected."

SCC 4.5.4 **Contractor to be compensated**

Insert the following after the existing wording:

"The costs incurred by the Contractor in providing the necessary information and documents pursuant to the application for a construction work permit required by Regulation 3(1) of the Construction Regulations, 2014 shall be deemed to be included in the Contractor's rates and prices, whether itemized separately in the Bill of Quantities or not."

SCC 5.1 Time calculations

The phrase "*shall be excluded from the calculation of the time-span concerned*" shall be separated from Sub-clause 5.1.1.2 and shall be positioned in a new line below it.

SCC 5.1.1 The entire Sub-clause 5.1.1 shall read as follows:

"5.1.1 Except where otherwise provided in the Contract, where a specific time-span is stipulated in the Contract for carrying out any task, or for the termination of any right, or the duration of any event or circumstance,

5.1.1.1 The special non-working days set out in the Contract Data that fall within the said time-span, as well as

5.1.2 The day on which the time-span commences

shall be excluded from the calculation of the time-span concerned.”

SCC 5.3 Commencement of the Works

SCC 5.3.1 *Insert the following after the existing wording:*

“In the event of a construction work permit being required (as contemplated under Regulation 3 of the Construction Regulations, 2014), commencement of the Works shall only be legally permissible once a construction work permit has been issued by the relevant authority.

The Contractor shall be required to make an allowance of 50 (fifty) days from the Commencement Date of the Contract in his initial programme of Works required to be submitted in terms of Clause 5.6.1 so as to allow for the construction work permit to be issued by the Department of Labour, provided that should the Contractor fail to include such an allowance of the said 50 days, he shall be deemed to have done so.

In the event that the construction work permit shall have been issued within the 50 (fifty) day allowance period, the Due Completion Date shall be adjusted accordingly by the Employer's Agent, with due cognisance being taken as to the date on which the construction work permit was actually issued.

SCC 5.3.2 *Insert the following after the existing wording:*

“or alternatively, the Employer reserves the right, in its sole discretion, to grant to the Contractor an extension of time for Practical Completion, but without the payment of additional time-related General Items or any other compensation, for a period of not more than 28 (twenty eight) days, to allow the Contractor to submit the documentation referred to in Clause 5.3.1.”

SCC 5.7 Progress of the Works

SCC 5.7.1 *Substitute the fourth sentence (starting with “Such steps ...”) with the following:*

“Such steps shall be subject to the approval of the Employer's Agent, which approval shall not be unreasonably withheld”.

SCC 5.7.2 *Delete the second paragraph and substitute with the following:*

“In such an event, the additional costs incurred, by acceding to the Contractor's request, shall be deducted from the amount payable to the Contractor”.

SCC 5.14 Completion

SCC 5.14.5.1 *Amend this Sub-Clause as follows:*

In the second line, substitute the word “Guarantor” with “Contractor”.

SCC 6.5 Dayworks

SCC 6.5.1.3 *Amend this Sub-Clause as follows:*

In the last line, substitute the word “plant” with the words “construction equipment”.

SCC 6.7 Measurement of the Works

SCC 6.7.2 Delete the words:

“The Employer’s Agent shall ascertain and determine the value of the Works but, when required to do so by the Employer’s Agent”.

And insert the following at the end of the paragraph:

“This measurement shall take place on or before, but not later than, the 20th of the month, but should the 20th be a ‘non-working’ day, it shall take place on the last working day prior to the 20th.”

SCC 6.9 Vesting of Plant and Materials

SCC 6.9.3 Identification of Plant and materials

Add the following at the end of Sub-Clause 6.9.3.

“Storage of Plant

In consideration of receiving, from the Employer, payment on account, after the deduction of retention monies, in respect of items of Plant stored at the Contractor's workshop or his suppliers' premises or his other storage facilities, the Contractor shall complete the standard Employer Certificate of Indemnity. In so doing, the Contractor:

- (a) acknowledges that the items of Plant are the sole property of, and are held on behalf of, the Employer;
- (b) indemnifies the Employer against any loss or damage whatsoever of or to the said items of Plant whilst in the Contractor's possession or in transit and undertakes to effect adequate insurance against these risks in the name of the Employer and to produce such insurance to the Employer's Agent;
- (c) undertakes to deliver and install, at the site, the said Plant when required by the Employer;
- (d) undertakes that no payment has been received, in respect of the said items of Plant, from any other of his clients or employers and that the Employer has prior claim to the value of payments so received for same, prior to all others, from any assets of the Contractor's company; and
- (e) undertakes to act in accordance with such instructions as received from the Employer, through its officers or agents, to protect the interests of the Employer.

Payment for Plant stored at the Contractor's workshop or his suppliers' premises or his or any other storage facilities, shall be at the sole discretion of the Employer's Agent, and the Employer's Agent reserves the right to amend the requirements of the standard Certificate of Indemnity.”

SCC 6.10 Payments

SCC 6.10.4 Substitute the words “within 28 days” with “on or before but not later than the last day of the month following the month”.

SCC 6.10.6.2 Amend this Sub-Clause as follows:

Delete the words "Contractor's Bank" and substitute with the words "Employer's Bank".

SCC 6.10.8 Substitute the words "within 28 days" with "on or before but not later than the last day of the month following the month".

SCC 6.10.9 Substitute the words "within 28 days of the date of such certificate" with "on or before but not later than the last day of the month following the month in which the Employer's Agent has signed such payment certificate."

SCC 8.6 Insurances

The following deletions, substitutions and insertions are effected as indicated below:

SCC 8.6.1 Substitute the word "Contractor" in the second line with "Employer" and insert the words "and all Sub-Contractors, including CPG Partners, engaged in the Works under valid sub-contract agreements with the Contractor" after the word "Contractor" at the end of the Paragraph.

SCC 8.6.1.4 Substitute the word "Contractor" in the sixth line with "Employer".

SCC 8.6.2 Substitute the word "Contractor" in the third line with "Employer".

SCC 8.6.4 Substitute the word "Contractor" in the second line with "Employer".

SCC 8.6.5 Substitute the word "Employer" in the fourth line with "Contractor".

SCC 8.6.6 Substitute the word "Contractor" with "Employer", and "Employer's Agent" with "Contractor", and insert the words "upon request" after the word "shall" and before the word "produce".

SCC 8.6.7 Substitute the word "Contractor" with "Employer," and "Employer" with "Contractor", wherever they appear in this Sub-clause.

Add the following at the end of Sub-Clause 8.6.7:

SCC 8.6.8 The requirements and procedures set out under Annexure C5.1 included under Section C5.1 Annexures shall apply to the Contract.

SCC 9.1 Termination of Contract

SCC 9.1.4 Increased Costs

Add the following at the end of Sub-Clause 9.1.4:

The provisions of this Sub-clause shall only apply in the event of actual termination of the Contract.

SCC 10.1 Contractor's claim

SCC 10.1.4 Contractor's failure to comply with notice period

Insert the following words in the 3rd line after "Clause 10.1.2":

"or the Contractor fails to comply with the requirements of Clause 10.1.1.3".

SCC 10.1.5 Employer's Agent's ruling on Contractor's claim

Add the following after the existing wording:

"and provided that:

10.1.5.3 in the event that the Employer is required to give specific approval for the said period of 28 days to be extended (as required by Clause 3.2.3 and as stated in the Contract Data), and the Employer's Agent fails to obtain such specific approval within the said 28 day period, the Contractor's claim shall be deemed to have been rejected in its entirety."

SCC 10.2 Dissatisfaction claim

SCC 10.2.3 Employer's Agent's ruling on dissatisfaction

Add the following after the first sentence:

"provided that, in the event that the Employer's Agent fails to give his ruling within the said period of 28 days, the Contractor's dissatisfaction claim shall be deemed to have been rejected in its entirety."

FOR INFORMATION USE ONLY

C1.2.2 CONTRACT DATA**PART 1: DATA PROVIDED BY THE EMPLOYER****CONTRACT SPECIFIC DATA**

The following Contract Specific Data, referring to the General Conditions of Contract as stated above, are applicable to this Contract:

COMPULSORY DATA	
GCC Ref. Clause No.	
1.1.1.15	Name of Employer: Umgeni Water
1.2.1.2	Address of Employer: Physical: 310 Burger Street Postal: P O Box 9 Pietermaritzburg Pietermaritzburg 3201 3200 KwaZulu-Natal KwaZulu-Natal Telephone No: 033 341 1111 Fax No: 033 341 1167 E-mail: info@umgeni.co.za
1.1.1.16	Name of Employer's Agent: Mponi Ndoomingu
1.2.1.2	Physical: 7 Portland Road Postal: P O Box 9 Mkhondeni Pietermaritzburg Pietermaritzburg 3200 Telephone No: 033 846 1829 E-mail: nomathemba.ndoomingu@umgeni.co.za
1.1.1.13	The Defects Liability Period is 12 months
1.1.1.26/ 6.7.1	The Pricing Strategy is Fixed price
5.3	Commencement of Works
5.3.1	The documentation required before commencing with the Works are: <ol style="list-style-type: none">1. Health and Safety Plan (Refer to Clause 4.3);2. A signed agreement between the Employer and the Contractor for the works to be completed by the Contractor in terms of the provision of Section 37(2) of the Occupational Health and Safety Act (Act No 85 of 1993) and the Construction regulations of February 2014. (Refer to Clause 4.3);3. Proof of payment to the Employer, that the Contractor had paid all contributions required in terms of the Compensation for Occupational Injuries and Diseases Act (No 130 of 1993). (Refer to Clause 4.3);4. Initial Programme (Refer to Clause 5.6);5. Security (Refer to Clause 6.2.1 below);6. Insurance (Refer Clause 8.6); and Information and documents required from the Contractor for a construction work permit (if applicable) issued in terms of Regulation 3 of the Construction Regulations, 2014 (Refer to SCC 4.5.2, SCC 4.5.3, SCC 4.5.4 and SCC 5.3.1 above.)

5.3.2	The time to submit the documentation required before commencement with Works execution is 14 (fourteen) days.
5.5.1/ 1.1.1.14	Time for Practical Completion The time for achieving Practical Completion of the entire Works is 3 (three) months from the Commencement Date of the Contract including special non-working days.
5.6.1 & SCC 5.3.1	Programme The Contractor shall deliver his programme of works within 14 (Fourteen) days from the Commencement Date. Note: Refer to Project Specifications regarding required format, etc
5.8.1 & 5.1.1.1	Non-working times and special non-working days The non-working days are Sundays. The special non-working days are: 1. all public holidays as declared in terms of Section 27 of the Public Holidays Act, 1994 (Act No. 36 of 1994); and 2. the year-end break commencing with the close of business on the last working day prior to 16 December and ending with the start of business on the 1 st working day in January of the next year.
5.13.1	Penalty for Delay The penalty for failing to complete the Works by the Due Completion Date shall be R800 (inclusive of VAT) per day.
5.16.3	Latent Defects Liability Period The latent defects liability period is 3 (three) Years
6.2.1 & 6.2.2	Security The security to be provided by the Contractor shall be a Performance Guarantee (Demand Guarantee) of 10% (ten percent) of the Contract Sum (inclusive of VAT) delivered within the time stated in Clause 5.3.2 above. The Guarantee shall remain valid and enforceable until the Certificate of Completion is issued, whereafter the Guarantee shall be returned to the Contractor. Should the Contractor fail to provide the required Performance Guarantee within the time period stated in Clause 5.3.2 above, or if the Performance Guarantee differs substantially from the <i>pro forma</i> included under Section C1.3 Form of Guarantee, a security of 10% (ten percent) of the Contract Sum shall be retained by the Employer, in addition to the retention withheld in terms of Clause 6.10.3 below, subject to the provision that the Contractor may, at any time during the course of the Contract, provide a correctly worded and valid Performance Guarantee in fulfillment of his obligations under the Contract in order to have the security being withheld for this purpose released to him.
6.5	Dayworks
6.5.1.2.3	The percentage allowances to cover overhead charges for dayworks which has not been included in the Dayworks Schedule, are as follows: 50% of the gross remuneration of workmen and hourly paid foremen actually engaged in the dayworks; 15% on the net cost of materials actually used. No allowance will be made for work done, or for materials and equipment, for which dayworks rates have been quoted at tender stage.
6.10	Payments

6.10.1.5	The percentage limit for Plant and materials referred to in Clause 6.9.1 not yet supplied to Site or not yet built into the Permanent Works is: 80%.
6.10.3	Retention Money The percentage retention on the amounts due to the Contractor is 10%. The limit of retention money is 5% of the Contract Price. A guarantee in lieu of retention money is not permitted.
8.6.1	Insurances (Insurance cover requirements will be confirmed on award)
8.6.1.1.2	The Value of Plant and materials supplied by the Employer to be included in the insurance sum is R 0 (Nil Rand) (exclusive of VAT).
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is R 1 000 000 (One Million Rand) exclusive of VAT.
8.6.1.3	The limit of indemnity for liability insurance is: Public Liability R 10 000 000 (Ten Million Rand) (exclusive of VAT).
8.6.1.5	The Contractor is required to provide the following additional or varied insurance: 1. Professional Indemnity Minimum Cover is: R 5 000 000 (Five Million Rand) Period of cover: For the period of performance
8.6.2	Deductibles for which the Contractor is liable for payment are (subject to annual escalation(s) as per Umgeni Water annual summary of insurance arrangements and claims procedure):
8.6.2.1	Contract Works Deductible – R 25 000 (Twenty Five Thousand Rand) exclusive of VAT) for each and every incident.
8.6.2.2	Public Liability Deductible – R 15 000 (Fifteen Thousand Rand) (exclusive of VAT) for each and every incident.
8.6.2.3	SASRIA Deductible – 0.1% (Zero Point One Percent) of contract value minimum R 2 500 (Two Thousand Five Hundred Rand) maximum R 25 000 (Twenty Five Thousand Rand) (exclusive of VAT) for each and every incident.
10.5	Adjudication Dispute resolution shall be by ad-hoc adjudication. The Adjudication Board Rules in GCC 2015 shall apply. The Pro Forma Adjudication Board Member Agreement (GCC 2015 Appendix 5) shall be used for the appointment of members.
10.5.3	The number of Adjudication Board Members to be appointed is 1 (one).
10.7.1	Arbitration If a dispute is, after adjudication, still unresolved, the dispute shall be resolved by arbitration.
OPTIONAL DATA	
3.2.3	Specific approval of the Employer required The Employer's Agent shall obtain the <u>specific approval</u> of the Employer in writing before carrying out any of the following: (1) Any expenditure beyond the approved Contract Sum as defined in terms of Clause 1.1.1.11.

	<p>(2) The issuing of any instruction to the Contractor to commence carrying out of the Works in terms of Clause 5.3.1.</p> <p>(3) The issuing of an instruction to accelerate the progress in terms of Clause 5.7.3.</p> <p>(4) The reduction of a penalty for delay in terms of Clause 5.13.2.</p> <p>(5) The determination of additional or reduced costs arising from changes in legislation in terms of Clause 6.8.4.</p> <p>(6) The agreeing of any adjustment of the sums for general items in terms of Clause 6.11.1.</p> <p>(7) Authorizing the Contractor to repair and make good in terms of Clause 8.2.2.2.</p> <p>(8) The agreeing of an extension to the 28 day period in terms Clause 10.1.3.1.</p> <p>(9) Changes to the Specifications related to Equipment and Materials which may have an impact on the Operation & Maintenance (O&M) of the Works.</p> <p>The onus shall be on the Contractor to obtain confirmation of the Employer's specific approval in respect of the above.</p> <p>Any instruction by the Employer's Agent that is given without the Employer's specific approval shall have no force or effect, and the Contractor shall have no claim against the Employer under such circumstances.</p>		
5.4	Access to the Site		
5.4.2 and C4.2	The access to and possession of the Site shall not be exclusive to the Contractor.		
6.8	Adjustment in rates and/prices		
6.8.2	Contract Price Adjustment will not be applicable.		
6.8.3	<p>Variation in cost of special materials</p> <p>Price adjustments for variations in the cost of special materials is/not allowed.</p>		
6.9.1.2	<p>Vesting of Materials</p> <p>The following Plant and materials shall be subject to the conditions of Clause 6.9.1.2.</p> <table> <tr> <td><u>Plant / Material</u></td><td><u>Stored at</u></td></tr> </table>	<u>Plant / Material</u>	<u>Stored at</u>
<u>Plant / Material</u>	<u>Stored at</u>		

PART 2: DATA PROVIDED BY THE CONTRACTOR

The Contractor is advised to read the **General Conditions of Contract for Construction Works, Third Edition (2015)** in order to understand the implications of this Data which is required to be provided.

GCC REF. CLAUSE No																			
1.1.1.9	Name of Contractor:																		
1.2.1.2	Address of Contractor: Physical: Postal: Telephone No: Fax No: E-mail:																		
6.2.1	Security Security is to be provided by the Contractor shall be as stipulated in the data provided by the Employer in Clauses 6.2.1 and 6.2.2.																		
6.8.3	The variations in cost of special materials will be based on the following: <table border="1"> <thead> <tr> <th>Special Material</th> <th>Unit</th> <th>Rate or Price</th> </tr> </thead> <tbody> <tr><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td></tr> <tr><td>.....</td><td>.....</td><td>.....</td></tr> </tbody> </table>	Special Material	Unit	Rate or Price
Special Material	Unit	Rate or Price																	
.....																	
.....																	
.....																	
.....																	
.....																	

C1.3 FORM OF GUARANTEE

[Note to Tenderer: This form should not be completed for the tender, but will be completed by the appointed Contractor.]

PRO FORMA FORM OF PERFORMANCE GUARANTEE - DEMAND GUARANTEE

Name of Project:

Contract Number & Title:

Name and address of Beneficiary:

(whom the Contract defines as the Employer)

We have been informed that (... *name of Contractor and company registration number* ...) (hereinafter called the "Principal") is your contractor under the above-named Contract which requires him to obtain a Performance Guarantee.

At the request of the Principal, we (... *names and capacities of persons authorised to issue the guarantee* ...) of (... *name of Financial Institution registered with the Financial Services Board* ...) hereby irrevocably undertake to pay you, the Employer, any sum or sums not exceeding in total the amount of (... *amount in figures and words* ...) (the "guaranteed amount"), upon receipt by us of your demand in writing and your written statement stating:

that the Principal is in breach of his obligation(s) under the Contract.

Any demand for payment must contain your authorised representative's signature. The demand must be received by us at this office on or before ... *the date 70 days after the date on which the Completion Certificate for the Works is due to be issued* ..., when this guarantee shall expire and shall be returned to us.

We have been informed that the Beneficiary may require the Principal to extend this guarantee if the Completion Certificate under the Contract has not been issued by the date 28 days prior to such expiry date. We undertake to pay you such guaranteed amount upon receipt by us, within a period of 7 days, of your demand in writing and your written statement that the Completion Certificate has not been issued for reasons attributable to the Principal, and that this guarantee has not been extended.

This guarantee shall be governed by South African Law and shall be subject to the Uniform rules for Demand Guarantees published as number 458 by the International Chamber of Commerce, except as stated above.

Signed at on this day of 20

Guarantors' names and signatures:

Witnesses' names and signatures:

C1.4 ADJUDICATION BOARD MEMBER AGREEMENT

[Note to Tenderer: This form should not be completed for the tender, but will be completed by the appointed Contractor.]

PRO FORMA **ADJUDICATION BOARD MEMBER AGREEMENT**

This Agreement is entered into between:

Adjudication Board Member: (Name, physical address, postal address, e-mail address, fax number, telephone number and mobile number.)

Contractor: (Name, physical address, postal address, e-mail address, fax number, telephone number and mobile number.)

Employer: (Name, physical address, postal address, e-mail address, fax number, telephone number and mobile number.)

The Contractor and the Employer will hereinafter be collectively referred to as "the Parties".

The Parties entered into a Contract for (name of project) which provides that a dispute under or in connection with the General Conditions of Contract for Construction Works, Third Edition (2015) must be referred to (ad hoc adjudication / standing adjudication)* (Delete as applicable).

The undersigned natural person has been appointed to serve as Adjudication Board Member and together with the undersigned Parties agrees as follows:

1. The Adjudication Board Member accepts to perform his duties in accordance with the terms of the Contract, the General Conditions of Contract for Construction Works' Adjudication Board Rules and this Agreement.
2. The Adjudicator undertakes to remain independent and impartial of the Contractor, Employer and Employer's Agent for the duration of the Adjudication Board proceedings.
3. The Adjudication Board Member agrees to serve for the duration of the Adjudication Board proceedings.
4. The Parties may at any time, without cause and with immediate effect, jointly terminate this Agreement.
5. Unless the Parties agree, the Adjudication Board Member shall not act as arbitrator or representative of either Party in any subsequent proceedings between the Parties under the Contract. No Party may call the Adjudication Board Member as a witness in any such subsequent proceedings.
6. The standing Adjudication Board's duties shall end upon the Adjudication Board Member(s) receiving notice from the Parties of their joint decision to disband the Adjudication Board.
7. The Adjudication Board Member shall be paid in respect of time spent upon or in connection with the adjudication including time spent traveling:
 - 7.1 A monthly retainer of (amount) for (number) of months, and/or
 - 7.2 A daily fee of (amount) based on a (number) hour day, and/or
 - 7.3 An hourly fee of (amount), and/or

7.4 A non-recurrent appointment fee of (*amount*) which shall be accounted for in the final sums payable.

8. The Adjudication Board Member's expenses incurred in adjudication work shall be reimbursed at cost.

On submission of an invoice for fees and expenses to the Parties, the Parties shall pay the full amount within 28 days of receipt of the invoice. Late payment of such invoice shall attract interest at prime plus 3% points compounded monthly at the prime rate charged by the Adjudication Board Member's bank.

This Agreement is entered into by:

(Signature): (Signature): (Signature):

Name: Name: Name:

Place: Place: Place:

Date: Date: Date:

who warrants that he/ she is duly
authorized to sign for and on
behalf of the **Contractor**

who warrants that he/ she is duly
authorized to sign for and on
behalf of the **Employer**

the **Adjudication Board Member**

C1.5 AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT No. 85 OF 1993

[Note to Tenderer: This form should not be completed for the tender, but will be completed by the appointed Contractor.]

**PRO FORMA
AGREEMENT IN TERMS OF SECTION 37(2) OF THE
OCCUPATIONAL HEALTH AND SAFETY ACT No 85 OF 1993**

THIS AGREEMENT is made between
(hereinafter called the EMPLOYER) of the one part, herein represented by:
.....
in his capacity as:;
AND:
(hereinafter called the CONTRACTOR) of the other part, herein represented by
.....
in his capacity as:
duly authorized to sign on behalf of the Contractor.

WHEREAS the CONTRACTOR is the Mandatary of the EMPLOYER in consequence of an agreement between the CONTRACTOR and the EMPLOYER in respect of

CONTRACT No: 2021/069 Bridge pump station supply: install and commission of two submersible pumps
for the construction, completion and maintenance of the works;

AND WHEREAS the EMPLOYER and the CONTRACTOR have agreed to enter into an agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993, as amended (hereinafter referred to as "the ACT");

NOW THEREFORE the parties agree as follows:

1. The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the Regulations promulgated in terms thereof.
2. The CONTRACTOR undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations: Provided that should the EMPLOYER have prescribed certain arrangements and procedures that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself / herself / itself with such arrangements and procedures.
3. The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations, and the CONTRACTOR expressly absolves the EMPLOYER and the EMPLOYER'S AGENT from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the Contract.
4. The CONTRACTOR agrees that any duly authorized officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the

CONTRACTOR has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

5. The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this Agreement, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

Thus signed at for and on behalf of the **CONTRACTOR**

on this the day of 20

Signature:

Name and Surname:

Capacity:

Witness:

1.

2.

Thus signed at for and on behalf of the **EMPLOYER**

on this the day of 20

Signature:

Name and Surname:

Capacity:

Witness:

1.

2.

C2.1 PRICING INSTRUCTIONS

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, which include the Conditions of Tender, Conditions of Contract, the Specifications (including the Project Specification) and the Drawings.

The Tenderer is advised to check the number of pages and should any be found missing or in duplicate or the figures or writing indistinct or these Bill of Quantities contain any obvious errors, the Tenderer must inform the Employer's Agent at once and have it rectified. No liability whatsoever will be admitted in respect of errors due to the foregoing.

Should there be any doubt or obscurity as to the meaning of any particular item, the Tenderer must obtain an explanation of it, in writing, from the Employer's Agent. No claims for extras arising from any such doubt or obscurity will be admitted after delivery of the tender.

2. DESCRIPTION OF ITEMS IN THE SCHEDULE

The Bill of Quantities has been drawn up generally in accordance with Civil Engineering Quantities 1990 issued by the South African Institution of Civil Engineers.

The short descriptions of the items in the Bill of Quantities are for identification purposes only and comply in general with the measurement and payment clauses of the Standardized Specifications, the Project Specifications and the Particular Specifications, read together with the relevant clauses of the Scope of Work and directives on the Drawings, set out what ancillary or associated work and activities are included in the rates for the operations specified.

3. QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bill of Quantities are the estimated quantities of work to be done, and for a Re-measurement Contract, will be subject to re-measurement 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. Any additional works or any extension of work quantities over and above that contained in the Bill of Quantities shall be agreed before the work is completed in the form of an Extra Works Authorization in the case of additional works or a Change Order in the case of an increase in quantities, whichever is the applicable. All documentation must be signed by the Employer's Agent before the work is commenced and such additional works or increased quantities will not be paid for if certified for payment without the approved documentation.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities, and the contract price for the completed contract shall be computed at the relevant unit rates and prices, all 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.

4. PRICING OF THE BILL OF QUANTITIES

All unit prices, extensions and totals must be filled in **black ink**. Unit prices, extensions and totals submitted in electronic format will not be acceptable.

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 of the work 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

C2.2.

obligations set forth or implied in the documents on which the Tender is based. Reasonable unit rates and prices shall be entered in the Bill of Quantities as these will be used as a basis for assessment of payment for additional work that may have to be carried out.

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, 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.

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

- (a) an alternative item or material is contemplated and may be used at the discretion of the Employer's Agent;
- (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.

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

5. GOODS AND SERVICES SOURCED INTERNATIONALLY

It will be the Contractor's responsibility to obtain Forward Cover to avoid price increases for the Employer on any goods and services in this category. In failing to do that, any increase in prices on these items, after the Commencement Date of the Contract, shall be for the Contractor's account.

6. PROVISIONAL SUMS

Where Provisional sums or Prime Cost sums are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with Clause 6.6 of the General Conditions of Contract for Construction Works, Third Edition (2015) (GCC 2015). 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. **Unauthorized changes made by the Tenderer to provisional items in the Bill of Quantities, or to the stated provisional percentages and sums in the Summary of the Bill of Quantities, will not be tolerated and any changes to same shall be considered to be an alternative tender and thus non-responsive.**

7. CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figures must be entered above or adjacent to the deleted entry, and the alteration must be initialed by the Tenderer.

8. ARITHMETICAL ERRORS

C2.3.

Arithmetical errors found in the Bill of Quantities as a result of faulty multiplication or addition will be corrected by the Employer's Agent at the tender evaluation stage, as set out in the Standard Conditions of Tender Clause F3.9.

9. MONTHLY PAYMENTS

Unless otherwise specified in the Specifications and Project Specifications, progress payments in Interim Certificates, referred to in Clause 6.10 of the GCC 2015, in respect of "sum" items in the Bill of Quantities shall be by means of interim progress installments 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.

10. CONTINGENCY

The sum provided under contingency in the Bill of Quantities is under the sole control of the Employer and may be deducted in whole or in part and shall only be expended by written order of the Employer as a Variation Order.

11. ASSET CODES

The alphabetical characters appearing in the "AC" column (if applicable) in the Bill of Quantities are for the Employer's administrative purposes only and do not have any relevance to the rates tendered.

Note to document compiler: The extreme right hand column of the BoQ is to be titled "AC" and the relevant Asset Code from the list below inserted for each major section in the BoQ.

C = Civil infrastructure
M = Mechanical infrastructure
E = Electrical infrastructure
I = Instrumentation

12. UNITS OF MEASUREMENT

The units of measurement described in the Bill of Quantities are metric units for which the standard international abbreviations are used. Abbreviations used in the Bill of Quantities, including some non-standard abbreviations, are as follows:

mm = millimetre
m = metre
km = kilometre
m² = square metre
m².pass = square metre-pass
ha = hectare
m³ = cubic metre
m³.km = cubic metre-kilometre
l = litre
kl = kilolitre
MPa = megapascal
kW = kilowatt

h = hour
kg = kilogram
t = ton (1000 kg)
No. = number
sum = lump sum
MN = meganewton
MN.m = meganewton-metre
P C sum = Prime Cost sum
Prov sum = Provisional sum
% = percentage
pers. Days = person days

C2.4.

C2.2 BILL OF QUANTITIES

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R-C
1	SANS 1200 A	PART 1: PRELIMINARY AND GENERAL				
1.1	PS1.8 page C3.13	Comply with all health and safety requirements including Personal Protective Equipment (PPE); provision for safety files (including COVID-19)	Sum	1		
1.2	PS1.11 page C3.16	Provision for O & M Manuals as per Umgeni Water specification	Sum	1		
1.3	Page C3.8 to C3.18	Provisional sum for attendance of FAT for Umgeni Water Personnel.	Sum	1	R 20 000	R 20 000
1.4		Training of staff (operators and maintenance personnel)	Sum	1		
1.5	8.3.1	Contractual requirements	Sum	1		
PART 1 CARRIED FORWARD TO SUMMARY PAGE						

C2.5.

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R-C
2		PART 2: BILL OF QUANTITIES FOR MECHANICAL				
2.1	Page C3.8 to C3.18	Supply, install and commission submersible pumps	Each	2		
2.2	PS1.1 (b)	Supply, install and commission all pipe work modification to suite new equipment	Sum	1		
2.3	PS1.6 (f)	Supply, and install of lifting chain and provide a securing facility	Sum	1		
2.4	PS 1.1 (g)	Supply and install a glycerin 0 to 2000kPA filled pressure gauge	Each	2		
2.5	PS 1.1 C 3.10	Provision of base foot per pump	Each	2		
2.6	PS 1.1 (c)	Commissioning and handover of pump station	Sum	1		
2.7	PS 1.1 (i)	Decommission of existing redundant infrastructure and transport Darvill WWW	Sum	1		
2.8	PS 1.1 (d)	Supply, and install an isolation DN 200 PN 16 gate valve	Each	2		
2.9	PS 1.1 (e)	Supply, and install a Flanged reflex non- return valve DN 200,PN 16	Each	2		
2.10	PS 1.1 (h)	Provision for honey sucker truck	day	5		
PART 2 CARRIED FORWARD TO SUMMARY PAGE						

C2.6.

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R-C
3		PART 3: BILL OF QUANTITIES FOR ELECTRICAL WORK				
3.1	PS 1.2 (a)	Supply and install no flow switches on the pump delivery side	Each	2		
3.2	PS 1.2 (d)	Supply and install 160A, 50kA TP (adjustable thermal) molded case circuit breakers, complete with all accessories (rotary handle & shaft)	Each	2		
3.3	PS 1.2 (e)	Supply and install 200A 50kA TP molded case circuit breaker complete with accessories for the main incomer	Each	1		
3.4	PS 1.2 (f)	Re-design, supply, install and commission the electrical control circuit to be as per the proposed control philosophy	Sum	1		
3.5	PS 1.2 (g)	Supply, deliver and install 35mm ² x 4C ECC cable	m	60		
3.6	PS 1.2 (h)	Supply, install appropriately sized multi core cable between VSD enclosure and submersible pumps	m	60		
3.7	PS 1.2 (i)	Supply and install cable accessories (lugs, trucking etc.)	Sum	1		
3.8	PS 1.2 (k)	Provision for minor repairs on main MCC and VSD enclosure to make compliant with SANS 10142 and issue certificate of compliance	Sum	1		
3.9	PS 1.2 (n)	Test and commission the electrical system	Sum	1		
3.10	PS 1.2 (c)	Supply, install and commission appropriate sized variable speed drive to submersible pump	No	1		
3.11	PS 1.2 (j),(k)	Provision to integrate the new control circuit to the existing telemetry and SCADA control	Sum	1		
3.12	PS 1.2 (l)	Relocate the existing local stop pedestal closer to the submersible pump	Sum	1		
3.13	PS 1.2 (a)	Supply and install one (1) sump ultrasonic level transmitter complete with the necessary wiring	Sum	1		
PART 3 CARRIED FORWARD TO SUMMARY PAGE						

C2.7.

SUMMARY OF BILL OF QUANTITIES

PART	DESCRIPTION	AMOUNT R-C
PART 1	PRELIMINARY AND GENERAL	
PART 2	MECHANICAL	
PART 3	ELECTRICAL WORK	
A SUBTOTAL		
B CONTINGENCIES (Add 10% of Subtotal A)		
C SUBTOTAL (A + B)		
D VALUE ADDED TAX (Add 15% Subtotal C)		
E SUBTOTAL (C+D)		

SIGNED ON BEHALF OF TENDERER

C3.1

C3.1	STANDARD SPECIFICATIONS	C3.2
C3.2	AMENDMENTS TO THE STANDARD SPECIFICATIONS	C3.3
C3.3	UMGENI WATER PARTICULAR SPECIFICATIONS	C3.6
C3.4	AMENDMENTS TO THE UMGENI WATER PARTICULAR SPECIFICATIONS	C3.7
C3.5	PROJECT SPECIFICATIONS	C3.10
	STATUS	C3.1
PS-1	PROJECT DESCRIPTION	C3.8
PS-2	OVERVIEW AND DETAILS OF CONTRACT	C3.8
PS-3	DESCRIPTION OF SITE AND ACCESS	C3.20
PS-4	NATURE OF GROUND AND SUBSOIL CONDITIONS	C3.20
PS-5	DRAWINGS.....	C3.20
PS-6	CONSTRUCTION AND MANAGEMENT REQUIREMENTS.....	C3.20
PS-7	CONSTRUCTION PROGRAMME	C3.21
PS-8	SITE FACILITIES AVAILABLE	C3.21
PS-9	SITE FACILITIES REQUIRED	C3.22
PS-10	OCCUPATIONAL HEALTH AND SAFETY	C3.22
PS-11	ENVIRONMENTAL MANAGEMENT	C3.24
PS-12	SELECTED SUBCONTRACTORS	C3.24

C3.1 STANDARD SPECIFICATIONS

The standard specifications on which this contract is based are the South African Bureau of Standards Standardized Specifications for Civil Engineering Construction SABS 1200 series. Although not bound in nor issued with this Document, the following Sections of the Standardized Specifications of SABS 1200 shall form part of this Contract:

("SABS" has been changed to "SANS, without change to the contents of the specifications.)

AA 1986 - GENERAL (Small Works)

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria.

SANS 1921 (2004): Construction and Management Requirements for Works Contracts

Preface on Interim Situation until Full Suite of SANS Series of Specifications are Available

The Bill of Quantities is based on the SABS 1200 system of specifications and measurement.

Where SANS specifications are available, these have been incorporated into the "Contract" section of this document.

Where overlapping specifications from the SANS 2001 series of specifications occur the appropriate SABS 1200 specifications have been incorporated in the Project Specifications. In such cases, the requirements of the latter shall prevail over the requirements of the SANS specification(s).

The payment clauses in the Bill of Quantities are based on the SABS 1200 series of specifications for consistency and the Tenderer is required to ensure that he has priced all of the requirements pertaining to the SABS specifications.

C3.2 AMENDMENTS TO STANDARD SPECIFICATIONS

INTRODUCTION

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

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

FOR INFORMATION USE ONLY

PSAA : GENERAL (Small Works)
(Applicable to SABS 1200 AA – 1986)

PSAA 3 MATERIALS

PSAA 3.1 Quality and Samples

Add to the Sub-Clause:

No used or recycled material may be used in the Works unless expressly authorised by the Employer's Agent.

Materials specified as being to the approval of a Standards Bureau shall bear the official mark of the appropriate standard.

Samples of concrete aggregates and pipe bedding material are to be delivered to an approved laboratory.

PSAA 4 PLANT

PSAA 4.1 Contractor's Office and Stores (Refer SANS 1921-1 Clause 4.14)

Add to the Sub-Clause:

Neither housing nor shelters are available for the Contractor's employees, and the Contractor shall make his own arrangements to house his employees and transport them to site.

The Employer will place an area of ground at the disposal of the Contractor at the pipe yard site to enable him to erect his site offices, workshops and stores. The temporary facilities and ablution facilities shall comply with the requirements of the Local Authority.

On completion of the Works or as soon as the Contractor's facilities are no longer required the Contractor shall remove such facilities and clear away all surface indications of their presence. The site is to be rehabilitated as described elsewhere.

PSAA 5 CONSTRUCTION

**PSAA 5.1.2 Preservation and Replacement of Pegs Subject to Land Survey Act
(Refer SANS 1921 - 1 Clause 4.15)**

Add to the Sub-Clause:

Before the commencement of construction work in the vicinity of boundaries, the Contractor, under the direction of the Employer's Agent, shall search for plot pegs where boundaries have not been established by the erection of walls or fences and the Contractor shall compile a list of such pegs that are apparently in their correct positions. At the completion of the contract, the Contractor shall expose the pegs that were listed at the commencement of the construction and the Employer's Agent will arrange for any such pegs that are missing to be replaced at the Contractor's expense.

All plot boundary pegs shall be marked with fencing droppers which shall be painted.

As the construction of the Works may necessitate the removal and re-location of certain survey beacons the Employer will make the necessary application to the Surveyor-General and, notwithstanding the provisions of Sub-Clause 5.1.2 will meet the costs of the re-survey by a Land Surveyor of these servitude beacons in their new position.

The Employer will accordingly indemnify the Contractor against all costs implied in Sub-Clause 5.1.2 in respect of those beacons which may have to be removed by the Contractor.

The Employer's Agent will arrange for any pegs that are missing to be replaced at the Contractor's expense.

All survey reference marks shall be clearly marked and protected by the erection of three fencing standards.

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C3.3 UMGENI WATER PARTICULAR SPECIFICATIONS

In addition to the SABS Standard Specifications, the following Umgeni Water Particular Specifications shall apply to this contract. They are not bound in with this Volume but are issued separately in Volume 3 as “Annexure to C3.3: Umgeni Water Particular Specifications”.

Umgeni Water Insurance Summary and Claims Procedure
Umgeni Water O & M manual standard
Umgeni Water Particular Specification for 164mm to 2230mm Diameter Steel Pipes, Specials, Coatings and Linings
Umgeni Water Particular Specification for Valves

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C3.4 AMENDMENTS TO THE UMGENI WATER PARTICULAR SPECIFICATIONS

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

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C3.5 PROJECT SPECIFICATIONS

STATUS

The Project Specifications (PS) forms an integral part of the contract and supplements the Standard Specifications and Umgeni Water Particular Specifications. They contain a general description of the works, the site and the requirements to be met.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specifications, the Project Specifications shall take precedence. In the event of a discrepancy between the Specifications and the drawings and / or the Bill of Quantities, the drawings take precedence, thereafter the Bill of Quantities. In all events, the discrepancy shall be brought to the attention of the Employer's Agent before the execution of the work under the relevant item.

3.5.1 QUALITY ASSURANCE

The successful Tenderer shall furnish the Employer a detailed Quality Control Plan (QCP) and Procedure for all materials, such as valves, submersible pumps, motors, pipes, specials and fittings for approval prior to any fabrication, coating, lining and delivery.

The Employer shall inspect all of the above at the fabricator or corrosion applicator and release same for delivery with a 48 hour written notice.

PS 1 PROJECT DESCRIPTION

SCOPE

The work consists of supply, deliver, install and commission of two (02) submersible pumps complete with compatible electrical motors, variable speed drive, footplates and suitable sized pipe work connections for Howick Waste Water Works (WWW) Bridge Pump station.

PS1.1 SCOPE DESCRIPTION (MECHANICAL)

- a) Supply, deliver, install and commission of two (2) submersible pumps complete with compatible electrical motors.
- b) Fabricate and install suitable pipe work connections for the submersible pump sets.
- c) Test, commission and handover the complete work to Umgeni Water as per specification.
- d) Supply, install and commission two (2) non-return valves DN 200 PN16
- e) Supply, install and commission two (2) isolation gate valves DN 200, PN16
- f) Supply, install and commission two (2) lifting galvanised chains for submersible pumps and provide a securing facility
- g) Supply, install and commission two (2) pressure gauges (0 to 2000kPa) with isolating ball valves
- h) Provision for honey sucker truck to scour the two wastewater sumps for ease of installation
- i) Decommission the existing redundant infrastructure (pumps, motors and the relevant electrical components) and transport to Darvill Waste Water Works
- j) Prepare and submit Operating and Maintenance Manuals as per Umgeni Water's O & M Specifications.

PS1.2 SCOPE DESCRIPTION (ELECTRICAL)

- a) Supply, install and commission two (2) no-flow switches and related cabling. No-flow switches shall be integrated to the control circuit
- b) Supply and install one (1) ultrasonic level transmitter complete with all the wiring. Ultrasonic level transmitter shall be integrated to the control circuit.
- c) Supply, install and commission a one (1) appropriately sized variable speed drive (VSD) completely wired in. VSD to be installed on the existing VSD cubicle.

- d) Supply, install and commission two (2) feeder molded case circuit breakers(adjustable), appropriately(160A, 50kA) sized for 55kV VSDs and replace existing the fused isolators on the main MCC
- e) Supply, install and commission one (1) 200A 50kA TP molded case circuit breaker complete with all accessories to replace the existing main fused isolator on the main MCC
- f) Design, modify, supply and install pump control circuits to make provision for the submersible pumps protection, no flow, ultrasonic meter, duty/standby control. Modifications shall be in line with the pump station control philosophy
- g) Supply, install and commission of all required electrical cables 35mm² x 4C x 60m PVC/SWA/PVC/ECC cable from MCC to VSD enclosure.
- h) Supply, install and commission of appropriately 60m x size multi core cable between VSD enclosure and submersible pumps.
- i) Supply and install of all cable accessories(lugs, glands and cable trays)
- j) Provision to connect the new pump control circuit to the existing telemetry control
- k) Provision to integrate the new pump control circuit to the SCADA control
- l) Relocate the existing local stop pedestal closer to the submersible pump
- m) Provision for minor repairs on the main mcc and VSD enclosure to make compliant with SANS 10142 and issue certificate of compliance
- n) Test and commission the electrical installation

PS1.3 SYSTEM CONSTRAINS

It should be noted that only one pump/time would be allowed installation

The system to be worked on will be live only the worked on part would be isolated

The pump station to be worked on is next to the natural river, at no point should sewage be allowed to get to the river

The area to be worked on is confined, all Umgeni Water confined space rules to be adhered to at all times

There are two existing variable speed drive with a capacity of 45kW and 55kW respectively. It is assumed that the existing 55kW VSD will have the capacity to drive one submersible pump

PS1.4 PUMP TECHNICAL SPECIFICATIONS

PUMP DATASHEET		
Characteristics	Designer	Tenderer
Pump type	Submersible pumps	
Inlet Diameter	250mm	
Outlet diameter	223mm	
Impeller diameter	As per manufacture	
Discharge Head	50m	
NPSH available	0 m	
Velocity	1 m/s	
Recommended flow velocity	40l/s to 60l/s	
Max. Flow rate	As per manufacture	
Medium	Sludge / waste water / sewage	
Power	47kW	
Operation duration /day	24 hours	
Number pumps required	Two pumps	
Addition Information		
Internal material recommended	hard faced for very abrasive environment and thick sludge	
Mechanical seal	tungsten-tungsten faces to	

C3.10

	take abrasion environment	
Macerator function	Chopper function to macerate all objects that may clog the pump	
Protection System	No flow monitoring system	
	Moisture detection protection	
Ambient temperature	*5 – 70 degree	
Discharge pipe	A 200 mild steel pipe to be adapted to the outgoing raising main	
	PN16 pipe to be installed on the discharge line of the pump to the NRV to allow ease of removal and installation	
Foot plate	Both pumps to be supplied with foot plates for pumps to be supported on	
Deliver Isolation Valve (IV)	All pumps to be supplied and fitted with individual isolation valve 200mm PN16	
Non Return Valves (NRV)	All pumps to be supplied and fitted with individual flanged reflux Non Return valve 200mm PN 16	
No Flow Protection	No flow protection shall be included as part of the pumps installation and shall be pre-set (interlocked), to operate immediately when the pumps loose prime and stops delivering flow	

PS1.5 ELECTRICAL SPECIFICATIONS

Control Philosophy

A level transmitter shall monitor the waste water level of the sump and provide an input to the submersible pump to start/stop. The pumps shall function as a duty/standby pair and the duty pumps shall run as a constant speed set on the variable speed drive.

VSD technical specification

The VSD supplier shall be as per the Umgeni Water technical specifications for variable speed drives.

PS1.6 WORK INSTRUCTIONS

- The Contractor shall make provision for attendance of the FAT test by Umgeni Water Personnel prior to acceptance and delivery of the equipment to site in Umgeni Water.
- The Contractor shall supply, deliver on site all the equipment as stated in the technical specification in section 3 of this document, install, commissioning and handover the equipment to Umgeni Water Personnel.
- All the units shall each be installed with a base foot.
- Two pumps to be installed
- The Contractor shall fabricate, supply and installation all the necessary pipe work modification to suite as per pump set practical application requirements.
- The Contractor shall supply galvanized chain fitted on all pump for lifting

NB: It shall be noted that only one equipment at a time shall be made available to the Contractor for decommissioning, stripping and installation, testing and commissioning of the new equipment as we shall be working on live Plant.

- g. On completion of the commissioning, submission of the O & M Manuals according to Umgeni Water's O & M Specifications.

PS1.7 COMMISSIONING AND HAND OVER

a. Quality System

The Contractor shall maintain an effective quality management system in accordance with the requirements so as to ensure and demonstrate that goods and services conform to the specified requirements.

b. Delivery

1. The delivery process will be under the supervision of Project Leader.
2. The Contractor shall therefore inform the Project Leader of the date and time of the delivery of the equipment through e-mail.
3. All other related activities of this delivery work shall be covered in the contract.

c. Equipment Performance Test and Acceptance Criteria

In accordance to the Umgeni Water Mechanical Technical Specifications, the following shall be noted and complied with:

1. Equipment hand over procedures as stipulated by the suppliers of equipment shall at all times be strictly adhered to.
2. The handover of specialized equipment shall be undertaken by the supplier or an approved specialist.
3. All components or parts of the equipment shall be thoroughly checked for normal operation before equipment shall be allowed to run for hand over trial purposes;
4. Following the running of the equipment to test it, the equipment shall be allowed to run for a period not less than seven working days prior to hand over to Umgeni Water Project Team;
5. The responsible hand over Contractor's Personnel shall be present to supervise the operation of the equipment during the entire hand over test trial;
6. Where the Umgeni Water personnel are to witness any tests, the Contractor shall ensure that the Project Leader receives one week's prior notice in writing via e-mail before such tests commence;
7. Tests to demonstrate the operation of all apparatus shall be arranged with the Project Leader who will avail the following personnel from Umgeni Water: Maintenance Engineers, Plant Superintendent, Maintenance Foremen, and Maintenance Personnel;
8. The Contractor shall submit detailed test procedures for approval to the Umgeni Water Maintenance Engineer prior to testing;
9. The Contractor shall carry out site performance tests on the blower equipment after installation to demonstrate the equipment being in compliance with the requirements of the Specification;
10. Following completion as whole, equipment shall be subjected to performance acceptance tests by the Contractor & Project Leader with the readings being continuously recorded and documented as portfolio of evidence for at least a minimum seven days. The tests shall include, but not limited to, the following:
 - All the appropriate performance test(s);
 - Confirmation of the outlet flow rate;
 - The noise survey test of the equipment;
 - Power absorbed by the electrical motor unit(s);

11. The Contractor must allow for reasonable assistance to the Umgeni Water Maintenance Engineers during the following inspections:-
 - First Physical and Acceptance Inspection: The completeness and correctness of the equipment will be checked, all workmanship and materials will be checked for compliance with the specification.
 - Final Physical and Acceptance Inspection: The remedial work pointed out in (a) above will be checked. Any new items noticed will also be pointed out to the Contractor.
 - First Performance Acceptance Inspection:
 - Final Performance Acceptance Inspection: The remedial work pointed out in (c) above will be checked. Any new items noticed will also be pointed out to the Contractor.
 - Handover Inspection: The outstanding items in (a) and (c) will again be inspected. The Contractor will be given time for remedial work and re-inspection.
12. Handover will be accepted after the final performance acceptance inspection process is completed and, if both parties are satisfied that everything is according to the specification.
13. Immediately after the handover of the equipment, the Umgeni Water Project leader will issue the Certificate of Practical Completion to the Contractor;
14. The guarantee period will come into effect after the Final Performance Acceptance Inspection is completed on the condition that the Contractor does not have outstanding remedial work.
15. The guarantee period will start immediately after the completion of any outstanding remedial work.
16. Certificates confirming inspections and listing faults will be issued by the Project Leader for every inspection held.
17. The Contractor must ensure that the equipment is correct, complete and to specification before calling for a Final Performance Acceptance Inspection.
18. All additional costs relating to abortive Final Performance Acceptance Inspection, where the Project Leader is called to site, but finds the Contractor is prepared for it shall be borne by Contractor.
19. The Contractor shall provide a competent person to accompany the Project Leader or his Representative during inspections.
20. This representative shall know the equipment, shall be in a position to accept and carry out instructions and shall take notes during the inspections, so that the inspection work can continue smoothly.
21. The Contractor must replace any portion of the equipment that does not meet with the requirements of this specification as may be imposed thereon by test or inspection and, such replacements shall be done at his own costs.
22. The Contractor must keep an inspection register of all tests to be witnessed and all inspections to be held by the Project Leader.
23. The times and dates for tests and inspections must be agreed to by all parties after the receipt by the Project Leader of the Contractor's written application for such tests to be witnessed or inspections to be held.
24. The Contractor shall carry out all reasonable tests requested by the Project Leader to demonstrate that the equipment or parts thereof comply with the specification document.

25. The Project Leader can request that any part of the equipment or the part thereof be re-tested, as part of the acceptance inspections if reasonable doubt exists about the performance of the equipment or part thereof during the test.

d. Training on Operation and Maintenance of equipment

1. The Contractor shall make provision for the observational presence of the installation process for the equipment by the Umgeni Water Maintenance Personnel on both the routine planned maintenance and breakdown / reactive maintenance i.e. trouble shooting on the equipment.

PS1.8 SHEQ

a. Security

1. The Contractor shall ensure that all tools and materials are kept under lock and key.
2. Umgeni Water is not responsible for the loss of the Contractor's equipment as a result of any cause whatsoever.
3. Umgeni Water reserves the right for security guards to search persons or vehicles entering or leaving the premises.

b. Permits

1. The Contractor shall not perform work for which the issuing of a permit is required prior to the obtaining of a duly completed and approved permit. The following are included as hazardous tasks and may not be carried out by the Contractor unless a work permit has been duly authorized by Umgeni Water:
- Cutting or welding in any risk area.
 - Working at a height of more than two meters.
 - Working with hazardous substances (e.g. toxic chemicals and flammable liquids).
 - Working inside confined spaces (e.g. vessels, chambers and pipelines).
 - Working in electrical lockouts installations.
 - Breaking in any live water main.

c. Housekeeping

1. After the completion of each day work the Contractor must make good and clean up the site area where work was performed, and also at the completion of the contract.
2. Sites must be kept reasonable tidy during work operations.

d. Alcohol or intoxicating Substances

The Contractor shall ensure that no alcohol or intoxicating substances are on their possession while on site. Anyone suspected to be intoxicated or under influence of Alcohol shall not be allowed on site.

e. Safety

1. Umgeni Water has a strict attitude when it comes to personal safety of all on site.
- The Contractor is expected to provide a Health and Safety File to meet the minimum requirements of the Construction Regulations 2014.

5.2 The Health & Safety file must be submitted to the SHEQ co-ordinator prior to any work execution. The Contractor and sub-contractors have to attend a Compulsory Induction before starting the project.

2. Unsafe activities, equipment and procedures shall not be tolerated. It should be noted that if this work requires people to work in elevated positions and confined areas, compliance to the OHS Act is mandatory. The Contractor will

be required to submit together with the quotation a schedule of all his activities and as to how he intends to carry them, to the Umgeni Water Project Manager and Safety Officer for approval.

f. Safety file index

1. Organogram (Site Structure)
2. Section 37 (signed by Umgeni Water representative as well as the contractor) (To be provided by Umgeni Water)
3. Rules for contractors on site (signed by contractor supervisor) (To be provided by Umgeni Water)
4. Appointments (As well as proof of training)
5. Medical fitness test certificated with copies of IDs
6. Letter of good standing with Labour Department
COVID
7. Company safety Policy
8. Method Statements
9. Risk assessments
10. Safe working Procedures / SHE Plan (to include confined space as well as a fall protection plan if work is to be done at height exceeding 1.5M)
11. Equipment certification (as per legislative requirements depending on the equipment to be used during the project as well as proof of training to operate equipment as may be required by legislation also depending on equipment / machinery used during the project)
12. Registers (PPE, Equipment Checklist, First aid box etc.)
13. Emergency Numbers
14. Environmental Management Plan (covering bad weather conditions as well)
15. Addendum: COVID 19 SHE Compliance review template for contractors

g. Safety Induction

The qualifying contractor to make sure that all staff who will be working on this Project must be Safety Inducted before the commencement of any work. This will include all sub- contractors' staff.

h. Safety Clothing and Equipment

The Contractor shall supply all the Umgeni Water specified safety clothing and equipment for his workmen on site. The Contractor's workmen on site shall wear hard hats, safety glasses, safety shoes and overalls.

i. Accidents

1. In addition to any statutory obligations, the Contractor shall immediately report to the Project Manager every occurrence causing damage to property or injury to persons.
2. If required by the Employer, the Contractor shall submit a further report in writing to the Employer within 48 hours of such requirement setting out full details of the occurrence.
3. The Contractor shall report those injuries that are reportable in terms of Section 24 of the OHS Act (1993) to the Department of Labour.
4. The Employer shall have the right to make any queries either on the Site or elsewhere as to the cause and results of any such occurrence and the Contractor shall make available to the Employer the necessary facilities for carrying out such enquiries.

PS1.9 GENERAL

1. Various standard and project specifications refer to equipment being equivalent to a certain brand article. This should be read as equipment that would normally meet the requirements of the Umgeni Water Maintenance Engineer, but as brand articles are always subject to changes by the manufacturers, it remains the Tenderer's responsibility to ensure that such brand article will also meet the performance and other technical requirements

of the project specification.

2. Such requirements shall be read as being in addition to that which the brand article can provide. If the brand article cannot be offered by the Supplier, to meet such requirements, then the Tenderer must allow for the adjustment of the brand article to comply with such requirements.
3. In preparing the installation and fitting work, the Umgeni Water Maintenance Engineer will have contact with Suppliers of equipment, to allow for such normal requirements with regard to equipment size, access for installation, access for maintenance, mass, electrical supply, safety precautions, etc., that Suppliers might have, in order to ensure proper installation and future safety and optimum operation of such equipment.
4. As the final selection of equipment is, however, in the hands of the successful Tenderer, and the contract for the supply of the equipment, is between the Contractor and the Supplier, it shall be the Contractor's responsibility to ensure that the equipment ordered will be suitable for the spaces in which it will be installed and that other influences shall not interfere with the safe, and optimum future operation of such equipment.
5. Particular attention must be given to the aspects of easy accessibility for maintenance and adjustment and specific safety requirements of particular suppliers.
6. Preference will be given to equipment and materials of local manufacture where such equipment and materials meet with the requirements of the standard and project specifications.
7. Tenderers shall only offer equipment and materials of a well-known recognised make, unless prior approval has been obtained from the Umgeni Water Maintenance Engineer.
8. The continuous successful operation of the system is dependent on good maintenance and the availability of spares. It is therefore important that Tenderers only include for equipment with good local representation, who are able to provide after-sales service.
9. Installation fit is an engineering function and not a system design function.
10. Tenderers shall price in their contract for the required engineering undertaken during the preparation of shop drawings in co-ordinating services to suit service spaces provided.
11. Such engineering to include co-ordination with other Contractors and shall take into account the Civil Contractor's preferred services installation sequence program.
12. It shall be a condition of this contract that in submitting a tender, the Tenderer will be deemed to have visited the site and to have considered all factors relating thereto which could influence his tender.
13. No claims for additional payment on the grounds of insufficient and or inaccurate information will be entertained.
14. The Contractor shall nominate the "responsible person" who shall be responsible for the contract delivery work, and who shall ensure that training is provided to the Umgeni Water Personnel on the operation, handling and maintenance of the new equipment to be delivered on site.
15. The Contractor shall study the documentation supplied and comment on the bill of materials. All travelling and subsistence costs involved in execution of this work shall be included in the price.

16. This is firm and fixed price contract and the Contractor to bear in mind that no additional work will be paid for unless it is at the request of Umgeni Water.
17. All people working on site shall not use water from the channel or from the tap which has a warning sign on it. Usage of this un-sanitised water will result to exposure to severe diseases.
18. The Contractor's obligations under the Contract comprise the provision of all labour, materials, transport and supervision for the supply, delivery, installation and commissioning of submersible pumps
- 5.19 The Umgeni Water Rules for Contractors on Site guided by, SHE Guidelines 43-1 Rules for Contractors on Site shall apply and a copy of this document will be attached.
- 20 The Tenderer is required to submit a 'bona fide' Tender, intended to be competitive and not to fix or adjust the amount of the Tender by or under or in accordance with any agreement or arrangement with any third party. The Tenderer is also obliged to ensure that it has not and will not at any time before the hour and date for the lodgement of this Tender do any of the following acts:
- Communicate to any person the amount or approximate amount of the proposed Tender except where the disclosure, in confidence, of the amount of this Tender was necessary for the preparation of the Tender.
 - Enter into any agreement or arrangement with any third party that we shall refrain from submitting a Tender or regarding the amount of any Tender to be submitted.
 - Offer, pay or give or agree to pay or give any sum of money or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to this or any other Tender or proposed Tender for the Works any act or deed of the sort described above; and
 - Commit any act or omission that would be contrary to the Maintenance and Promotion of Competition Act 96 of 1979 and notices and regulations published in terms of that Act, or contrary to the Harmful Business Practices Act 71 of 1988.
21. In the aforementioned context the word "person" includes any person or anybody or association, corporate or otherwise; and any "agreement or arrangement" includes any transaction, formal or informal, and whether legally binding or not.
22. The Contractor shall use suitably qualified and experienced rigging personnel for lifting and handling all items for this supply, delivery, installation and commissioning work.
23. The plant and rigging equipment used for the handling of this equipment shall be such that no components shall be damaged in the entire process. In the event any components get damaged, the contractor shall timeously replace it.

PS1.10 Guarantee

1. Contractor shall provide twelve-month guarantee for all equipment supplied in terms of the contract.
2. The guarantee period shall commence upon handover of the project.
3. The 5 % retention money shall NOT be claimed by the Contractor until the exhausting of the guarantee period of **twelve months** from the date of handover equipment.

PS1.11 Reference documents and standards

1. All design, procedures, materials and equipment shall be in accordance with

the current editions of the relevant South African National Standards Codes.

2. The Contractor shall pay special attention to and abide by Umgeni Water's rules for Contractors on site.
3. The Contractor shall also pay special attention to O & M Manuals which shall be according to the Umgeni water O&M manuals specifications.

PS1.12 Commissioning and hand over

1. Quality System

The Contractor shall maintain an effective quality management system in accordance with the requirements so as to ensure and demonstrate that goods and services conform to the specified requirements.

a. Delivery

- i. The delivery process will be under the supervision of Project Leader.
- ii. The Contractor shall therefore inform the Project Leader of the date and time of the delivery of the equipment through e-mail.
- iii. All other related activities of this delivery work shall be covered in the contract.

b. Equipment Performance Test and Acceptance Criteria

In accordance to the Umgeni Water Mechanical Technical Specifications, the following shall be noted and complied with:

- i. Equipment hand over procedures as stipulated by the suppliers of equipment shall at all times be strictly adhered to;
- ii. The handover of specialised equipment shall be undertaken by the supplier or an approved specialist;
- iii. All components or parts of the equipment shall be thoroughly checked for normal operation before equipment shall be allowed to run for hand over trial purposes;
- iv. Following the running of the equipment to test it, the equipment shall be allowed to run for a period not less than seven working days prior to hand over to Umgeni Water Project Team;
- v. The responsible hand over Contractor's Personnel shall be present to supervise the operation of the equipment during the entire hand over test trial;
- vi. Where the Umgeni Water personnel are to witness any tests, the Contractor shall ensure that the Project Leader receives one week's prior notice in writing via e-mail before such tests commence;
- vii. Tests to demonstrate the operation of all apparatus shall be arranged with the Project Leader who will avail the following personnel from Umgeni Water: Maintenance Engineers, Plant Superintendent, Maintenance Foremen, and Maintenance Personnel;
- viii. The Contractor shall submit detailed test procedures for approval to the Umgeni Water Maintenance Engineer prior to testing;
- ix. The Contractor shall carry out site performance tests on the blower equipment after installation to demonstrate the equipment being in compliance with the requirements of the Specification;
- x. Following completion as whole, equipment shall be subjected to performance acceptance tests by the Contractor & Project Leader with the readings being continuously recorded and documented as portfolio of evidence for at least a minimum seven days. The tests shall include, but not limited to, the following:

- All the appropriate performance test(s);
 - Confirmation of the outlet flow rate;;
 - Power absorbed by the electrical motor unit(s);
- xi. The Contractor must allow for reasonable assistance to the Umgeni Water Maintenance Engineers during the following inspections:-
- First Physical and Acceptance Inspection: The completeness and correctness of the equipment will be checked, all workmanship and materials will be checked for compliance with the specification.
 - Final Physical and Acceptance Inspection: The remedial work pointed out in (a) above will be checked. Any new items noticed will also be pointed out to the Contractor.
 - First Performance Acceptance Inspection:
 - Final Performance Acceptance Inspection: The remedial work pointed out in (c) above will be checked. Any new items noticed will also be pointed out to the Contractor.
 - Handover Inspection: The outstanding items in (a) and (c) will again be inspected. The Contractor will be given time for remedial work and re-inspection.
- xii. Handover will be accepted after the final performance acceptance inspection process is completed and, if both parties are satisfied that everything is according to the specification.
- xiii. Immediately after the handover of the equipment, the Umgeni Water Project leader will issue the Certificate of Practical Completion to the Contractor;
- xiv. The guarantee period will come into effect after the Final Performance Acceptance Inspection is completed, on the condition that the Contractor does not have outstanding remedial work.
- xv. The guarantee period will start immediately after the completion of any outstanding remedial work.
- xvi. Certificates concerning inspections and listing faults will be issued by the Project Leader for every inspection held.
- xvii. The Contractor must ensure that the equipment is correct, complete and to specification before calling for a Final Performance Acceptance Inspection.
- xviii. All additional costs relating to abortive Final Performance Acceptance Inspection, where the Project Leader is called to site, but finds the Contractor ill prepared for it, shall be borne by Contractor.
- xix. The Contractor shall provide a competent person to accompany the Project Leader or his Representative during inspections.
- xx. This representative shall know the equipment, shall be in a position to accept and carry out instructions and shall take notes during the inspections, so that the inspection work can continue smoothly.
- xxi. The Contractor must replace any portion of the equipment that does not meet with the requirements of this specification as may be imposed thereon by test or inspection and, such replacements shall be done at his own costs.
- xxii. The Contractor must keep an inspection register of all tests to be witnessed and all inspections to be held by the Project Leader.
- xxiii. The times and dates for tests and inspections must be agreed to by all parties after the receipt by the Project Leader of the Contractor's written application for such tests to be witnessed or inspections to be held.
- xxiv. The Contractor shall carry out all reasonable tests requested by the Project Leader to demonstrate that the equipment or parts thereof comply with the specification document.

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- xxv. The Project Leader can request that any part of the equipment or the part thereof be re-tested, as part of the acceptance inspections if reasonable doubt exists about the performance of the equipment or part thereof during the test.

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PS 3 DESCRIPTION OF SITE AND ACCESS

No persons other than the employees of the Contractor and his Subcontractors shall be allowed on the site except with the consent of the Project Leader. Facilities to inspect the works shall at all times be afforded by the Contractor to the Project Leader and his representatives, Umgeni Water's representatives, authorities and officials.

PS 4 NATURE OF GROUND AND SUBSOIL CONDITIONS-NOT APPLICABLE

PS 5 DRAWINGS-NOT APPLICABLE

PS 6 CONSTRUCTION AND MANAGEMENT REQUIREMENTS

The following parts of SANS 1921 Construction and management requirements for works contracts and associated specification data are applicable:
SANS 1921-1 General engineering and construction works

The associated specification data are as follows:

Clause	Specification data associated with SANS 1921-1
	Essential Data
4.1.7	The requirements for drawings, information and calculations for which the Contractor is to be responsible is detailed in the project specifications.
4.2.1	The responsibility strategy assigned to the Contractor for the works is A.
4.3	The planning, programme and method statements are to comply with the following: <ol style="list-style-type: none"> 1) The programme shall be prepared in bar (Gantt) chart form, preferably using a project management software tool such as <i>Microsoft Project</i> and shall be issued to the Employer's Agent in both hard copy and electronic format. The programme shall be structured to cover all items of work conceivable including all work to be done by Sub-Contractors and shall clearly indicate the critical path 2) The programme must clearly show the intermediate milestone dates to be achieved taking the indicative construction sequences into account. 3) In addition to any other constraints the construction sequence and timing shall take into account 4) Regular meetings must be held with the Employer's Agent. 5) Method statements shall be prepared in accordance with the requirements of the project specifications.
4.3.3	The period of notice shall be a minimum of one working day
	Variations
All relevant	In all clauses where it appears, replace the word "Employer" with "Employer's Agent"
4.1.10	Where reference is made to "SANS 2001", substitute with "SABS 1200"
	Additional Clauses
4.6 (e)	Managing and disposing of water will include for by-pass arrangements, of temporary earthworks, cofferdams, pumping equipment, well-pointing, de-watering equipment etc. for dealing with all possible flows whether or not the existing flow path is being interfered with during installation of pipework.
4.7.4	No blasting will be permitted within 10m of any structure, pipeline or service unless the Contractor can satisfy the Employer's Agent that his proposed blasting methods and controls are such that no damage will be caused to the adjoining structure, pipeline or service. The Contractor will be required to

Clause	Specification data associated with SANS 1921- 1
	provide equipment for and take vibro-recordings at no additional cost to the Employer.
4.8.1	The Contractor shall be responsible for protection from damage to any structures or services that might be affected by the excavations or works. The Contractor shall, before submitting his tender, carefully study the tender drawings and inspect on site the routes of the proposed pipelines and structures to be constructed in close proximity to existing structures and services and make due allowance in his rates for protection of structures and services by use of special construction methods such as close shoring, sheet piling.

PS 7 CONSTRUCTION PROGRAMME *(Read with SANS 1921-1:2004 Clause 4.3)*

PS 7.1 Preliminary Programme

The preliminary programme submitted as part of the Tender Returnable Documents 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 and special non-working days as specified in the Special Conditions of Contract, in the Project Specifications and in the Contract Data.

PS 7.2 Programme in Terms of Clause 5.6 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the tender shall be used as basis for this programme. The Contractor's attention is also drawn to Clause 5.7.3 of the General Conditions of Contract 2015.

The Contractor shall indicate on the programme all critical path activities. In this regard, the Contractor's attention is drawn to Clause 5.12 of the General Conditions of Contract, where consideration will only be given to claims for extension of time associated with critical path activities.

The Contractor's attention is drawn to PS 6 Clause 4.3

PS 8 SITE FACILITIES AVAILABLE

PS 8.1 Contractor's Site Establishment *(Read with SANS 1921 - 1 : 2004 Clause 4.14)*

The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and labourers.

PS 8.2 Accommodation of Employees

PS 8.3 Power Water and other Services

The contractor shall make provision for power, water and other services

PS 9 SITE FACILITIES REQUIRED

PS 9.1 Employer's Agent's Office-Not Applicable

Refer to the amendments to the Standardized Specifications PSAB 3.2 to PSAB 5.5

PS 9.2 Rented Accommodation-Not Applicable

PS 10 OCCUPATIONAL HEALTH AND SAFETY (Read with SANS 1921 - 1: 2004 Clause 4.10 and the Particular Specification for Construction Health and Safety)

PS 10.1 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, 1993 (Act 85 of 1993) (OHASA), and the Construction Regulations 2014 issued under Section 43 of the OHASA by the Minister of Labour.

For the purpose of this Contract, the Contractor is required to confirm his status as mandatory of the Employer for the execution of the Contract by entering into an agreement with the Employer in terms of the OHASA by executing the Agreement under C1.5 included in Section C1: Agreements and Contract Data.

PS 10.2 Health and Safety Specifications and Plans to be submitted at Tender Stage

- (a) Employer's Health and Safety Specification
The Employer's Health and Safety Specification will be included in the tender documents as part of the Project Specifications.
- (b) Contractor's Health and Safety Plan
The Occupational Health and Safety Plan should be submitted at tender stage so as enable the Employer to determine whether the Contractor is capable of fulfilling the requirements of Construction Regulation 5(1)(h).

The successful Tenderer shall, on receipt of notification that he has been awarded the contract, submit without delay his own documented Health and Safety Plan for the execution of the work under the Contract. His Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods and procedures in terms of Construction Regulations 7 to 30 inclusive;
- (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 Sub-Contractors, employees and visitors to the site, including safety training in hazards and risk areas;
- (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;
- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014; and
- (viii) all other information and documentation that is required by the Employer, the Employer's Agent, or the agent who acts as a representative for the Employer, in

order to enable the Employer to apply for a construction work permit in terms of Construction Regulation 3(1) (if required by law).

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or his agent appointed as contemplated under the relevant provisions of the Construction Regulations 2014, and the Contractor's Health and Safety Plan may be required to be amended 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, and before the requirements of Construction Regulation 3, or Construction Regulation 4, as applicable, have been complied with.

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, or any failure on the part of the Contractor to submit the required information or documentation in support of the application for a construction work permit (in terms of Construction Regulation 3), or failure to give notification of construction work (in terms of Construction Regulation 4), as applicable, shall not be used as a reason to claim for extension of time or standing time and related costs.

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PS 10.3 Cost of Compliance with the OHASA and Construction Regulations 2014

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) (OHASA), the Construction Regulations 2014, and the Employer's Health and Safety Specification as applicable to this Contract.

Should the Contractor fail to comply with any of the provisions of the OHASA, Construction Regulations 2014, or Employer's Health and Safety Specification, he shall be liable for penalties as provided for in any of the aforementioned documents.

Items that may qualify for remuneration will be specified in the Health and Safety Specifications, or in the Project Specifications.

PS 11 ENVIRONMENTAL MANAGEMENT

A provisional sum has been included in the Bill of Quantities for the environmental rehabilitation to be carried out by a 'selected sub-contractor'.

Refer to SANS 1921-1:2004 Clause 4.19 and PS 6 Clause 4.19.5 and to PS11 above

PS 12 SELECTED SUB-CONTRACTORS

Selected Sub-Contractors (refer to GCC 2015 Clause 4.4) shall be chosen and appointed as follows:

The Employer will prepare a detailed scope of work and/or specification for work to be done or goods to be supplied by a Selected Sub-Contractor.

The Employer and the Contractor will compile a list of firms or persons acceptable to both and who will be invited by the Contractor to submit tenders for the requisite work to be carried out or goods to be supplied by Selected Sub-Contractors. When the tenders are received they will be evaluated and the Employer will then indicate which tender he requires the Contractor to accept and he will advise the Contractor accordingly. The Contractor shall then accept that Tender and appoint him/her as a Selected Sub-Contractor.

The Contractor shall incorporate in the sub-contract, provisions that:

In respect of the work carried out or the goods that are the subject of the sub-contract, the Selected Sub-Contractor undertakes to the Contractor *mutatis mutandis* the obligations and liabilities as are imposed upon the Contractor to the Employer in terms of the Contract, and holds the Contractor harmless from and indemnifies him against the same and in respect of all claims, demands, lawsuits, damages, costs, charges and expenses whatsoever arising out of or in connection therewith, or arising out of or in connection with any failure to perform such obligations or to fulfil such liabilities, and

The Selected Sub-Contractor shall also hold the Contractor harmless from and indemnify him against:

- Shortcomings in the sub-contract work if and where the work was designed by the Selected Sub-Contractor;
- Defects in the goods if and where the goods were manufactured and / or supplied by the Selected Sub-Contractor;
- Any negligence by the Selected Sub-Contractor, his / her Agents, workmen and servants;
- Any misuse by the Selected Sub-Contractor of any Constructional Plant, Temporary Works or materials provided by the Contractor for the purposes of the Contract; and
- Any claims as aforesaid.

C4.1 LOCALITY PLAN

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C4.2 DESCRIPTION OF AND ACCESS TO THE SITE

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C4.3 ATMOSPHERIC / CLIMATIC

In terms of GCC 2015, Clause 5.12.2.2, extension of time will be considered for abnormal climatic conditions in accordance with the following:

The number of days per month on which work is expected not to be possible as a result of **normal rainfall**, and for which the Contractor shall make provision in his tendered rates, prices and programme, are listed in the table below. Only the number of days lost as a result of abnormal rainfall, exceeding the number of days listed in table, will qualify for consideration of extension of time.

TABLE: EXPECTED NUMBER OF WORKING DAYS LOST PER MONTH DUE TO NORMAL RAINFALL

MONTH	Expected number of working days lost as result of normal rainfall	Average monthly Rainfall (mm)
JANUARY	*3	146
FEBRUARY	3	100
MARCH	2	72
APRIL	2	56
MAY	1	30
JUNE	0	17
JULY	0	10
AUGUST	1	25
SEPTEMBER	3	73
OCTOBER	4	108
NOVEMBER	5	142
DECEMBER	*2	142
TOTAL	26 days	921

(The average monthly rainfall figures quoted are for the period 2000 to 2009 from the Umzinto Waterworks rainfall station No U8E900P01 monitored by Umgeni Water on daily basis; they are included for information only, and shall not be taken into consideration for calculation of extension of time. The number of days lost are based on the number of days in each month that rainfall exceeded 10mm. * The number of working days lost for December and January allows for the builders' holidays from 16 December to 9 January)

During the execution of the Works, the Employer's Agent's Representative will certify a day lost due to abnormal climatic conditions only:

- If no work was possible on the relevant working day on any item which is on the critical path according to the latest approved construction programme; or
- if less than 30% of the work force and plant on site could work during that specific working day.

Extension of time as a result of abnormal climatic conditions shall be calculated monthly being equal to the number of working days certified by the Employer's Agent's Representative as lost due to rainfall to abnormal climatic conditions, less the number of days allowed for as stated in the table above, which could result in a negative figure for certain months. The total extension of time as a result of abnormal climatic conditions 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.

C4.4 NATURE OF THE GROUND AND SUBSOIL CONDITIONS-NOT APPLICABLE

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C4.5 ENVIRONMENTAL-NOT APPLICABLE.

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PART C5: ANNEXURES

ANNEXURE to C1	Umgeni Water Insurance Summary and Claims Procedure
ANNEXURE to C3.2	Umgeni Water O & M Manual Standard

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