

INVITATION OF QUOTATION ABOVE R30,000.00

THIS FORM SHOULD BE COMPLETED IN DETAIL AND SHOULD BE ACCOMPANIED BY A VALID TAX

COMPLIANCE STATUS PIN AND VALID BBBEE VERIFICATION CERTIFICATE/AFFIDAVIT

QUOTATION NUMBER: R/N/1819/984	VALIDITY PERIOD OF QUOTATION Days
	(To be completed by the Supplier)
CLOSING DATE: 25/10/2018	CLOSING TIME:11H00
	COMPANY NAME:
DESCRIPTION(SPECIFICATION/S) OF ITEMS/	
SERVICE REQUIRED: SUPPLY, DELIVER AND INSTALL	TEL NO: FAX NO:
IRRIGATION EQUIPMENT AT BAZANENI	FAX NO:
COMMUNITY GARDEN BIG 5 HLABISA	CONTACT PERSON:
CES ATTACHED CDEC	CSD REG NUMBER
SEE ATTACHED SPEC	MAAA
DOES OFFER COMPLY WITH	YES/NO
SPECIFICATION?	(DELETE WHICH EVER IS NOT APPLICABLE)
DOES ADTICLE COMBLY WITH CARS SPECIFICATION 2	
DOES ARTICLE COMPLY WITH SABS SPECIFICATION? HAS IT BEEN INSPECTED BY SABS?	YES/NO
THAT TO DEEN THAT ECTED OF SAUS:	YES/NO
	(DELETE WHICH EVER IS NOT APPLICABLE)
DELIVERY PERIOD AFTER INITIAL ORDER?	
IS THE PRICE FIRM	
15 THE TRICE THAT	
WHERE ARE THE STOCK HELD?	
(PHYSICAL ADDRESS , PLEASE)	
QUOTATION PRICE INCLUDING VAT	TOTAL: R
(VAT TO BE ADDED BY REGISTERED VAT VENDORS ONLY)	TOTAL R
COMPANY OFFICIAL STAMP (COMPULSORY)	SIGNATURE OF BIDDER
	DATE
NUMBER OF PAGES SUBMITTED BACK TO THE	(Supplier to complete)
DEPARTMENT BY THE SUPPIER	Supplier to complete)

NB: QUOTATION FOR THE ATTENTION OF: SAMKELISO ZITHA

TELEPHONE NUMBER: 033 343 8104

DOCUMENTS TO BE DEPOSITED AT THE BID BOX AT CEDARA: DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT, 1 CEDARA ROAD

NB: THE ATTACHED SBD4 & SBD9 FORMS MUST BE COMPLETED IN FULL. THIS REQUEST FOR QUOTATION (RFQ) MUST BE COMPLETED AND RETURNED WITH ALL YOUR QUOTATION DOCUMENTS.

COMPANY NAME :
ADDRESS :
CONTACT PERSON :
CONTACT NUMBER :

FAX NUMBER

LINE NO.	DESCRIPTION OR SPECIFICATION OF ITEM	REQUIRED QUANTITY	UNIT PRIC		TOTAL PRICE						
	(Please be very specific and clear)	QOANTIT!	R	С	R	С					
1.	Supply, deliver and install irrigation equipment as per attached specification.		,		*						
			i de								
	:				5						
	* L ,	ABOUR (IF AP	PLICABLE)								
	*DE	LIVERY (IF AP	PLICABLE)								
			ТОТ	AL							
	APPLICABLE TO VAT REGISTERE	D SUPPLIERS	15% VAT	\forall	54 · 1	1					
			TOTAL PRIC	CE		+-					

NLY APPLICABLE TO VAT REG	GISTERED SUPPLIERS 15% VAT	5a - 1
	TOTAL PRICE	
(COMPULSORY)	5/10/18 aneni– Hlabisa LMO 35 -8381044/ 824526982	DO DAYS

DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT Bazaneni Community Garden SUPPLY, DELIVERY AND INSTALLATION OF IRRIGATION EQUIPMENT

ITEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1,1	SABS 1200A	Fixed-Charge Items				
		This to include all contractual requirements, site				
1.1.1		establishment, setting out, security of the material, site facilities and disestablishment from site.	sum	1		
1,2	SABS 1200A	Time related Items				
1.2.1		All the general obligations, site supervision, employee remunerations. This to include all contractual requirements for a complete and fully commissioned scheme.	Sum	1	ē	
		SECTION 2: TRENCHING AND PIP	ES			
TEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2,1	SABS 1200 DB	Trenching				
2.1.1		Excavate for the pipeline trench on soft material and stockpile for backfiling	m	250		
2.1.2		Over and above item 2.1.1, Excavate on hard or rocky material. This to include for the use of any electrical tool.	m³	1		Rate Only
2,2	SABS 1200 DB	Bedding				
2.2.1		Supply and place bedding of locally sourced soft material on sections where the base of the trench is of hard material.	m	50		Rate Only
2,3	SABS 1200 DB	Backfiling				
2.3.1		Backfill using selected stockpiled material and compact in layers to 95% MOD AASHTO density.	m	250		
2,4	SABS 1200 L	Pipe - lay and join				
2.4.1		63mm HDPE, class 6	m	200		
2.4.2		50mm HDPE, class 6	m	100		
2.4.3		40mm HDPE, class 6	m	100		

	T	SECTION 3: INFIELD PIPING				
TEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3,1		Fittings				
3.1.1		63mm x 50mm Saddle	no.	2		
3.1.2		50mm x 50mm adaptor	no.	2		
3.1.3		Controll valve @50mm	no.	2		
3.1.4		Controll valve @63mm	no.	1		
3.1.5		50mm x 1" saddle	no.	6		
3.1.6		0.6m x 1" HDPE stand pipe (BSP)	no.	6		
3.1.7		25mm nylon hydromatic valves (orange)	no.	6		
3.1.8		20mm nylon pipelet	no.	6		
3.1.9		20mm hose clamps	no.	12		
3.1.10		50mm end cap	no.	4		
3.1.11		elbow 63mm 90°	no.	1		
3.1.12		65mm cross	no.	1		
3.1.13		65mm nipple	no.	4		
3.1.14		65mm x 40mm reducer	no.	3		
3.1.15		40mm valve	no.	2		
3.1.16		40mm x 40mm x 40mm equal tee	no.	1		
3,2		Pipes				
3.2.1		36 x 20mm dragline hose (10yr)	no.	6		
3.2.2		600mm x 20mm galvanised stand pipe	no.	6		
3,3		Sprinklers				
3.3.1		VYR 36 sprinklers with standard 4mm nozzle (3.2bar)	no.	6		
		SECTION 4: PUMP , PLASTIC TANKS, STAND AND AS				
TEM	REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4,1		Pump - supply and install				
4.1.1		Suitable pump (35m@10m³/h), complete with petrol generator with all accessories mounted on trolley	no.	1		
4,2		Suction Pipe - supply and fit				
		2.5" x 3m heavy duty suction pipe complete with all couplings.				
4.2.1	W.	This to be complete with all necessary camlocks or perrot	sum	1		
		This to be complete with an necessary carriocks of periot	Julii	1		
4.2.1		The state of the s				
4.2.2		couplings to connect to the pump.	no	1		
		The state of the s	no.	1		
		couplings to connect to the pump. 89mm foot valve with non return valve	no.	1		
4.2.2		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit	no.	1		
4.2.2		couplings to connect to the pump. 89mm foot valve with non return valve	no.	1		
4.2.2 4,3 4.3.1		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type.				
4.2.2 4,3 4.3.1		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit	sum	1		
4.2.2 4,3 4.3.1 4,4 4.4.1		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow	sum	1		
4.2.2 4,3 4.3.1 4,4 4.4.1 4.4.2		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow 2.5" galvanised male/female elbow	sum no.	1 1 1		
4.2.2 4,3 4.3.1 4,4 4.4.1 4.4.2 4.4.3		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow 2.5" galvanised male/female elbow 2.5" x 1m galvanised stand pipe (BSP)	sum no. no.	1 1 1 1 1		
4,2.2 4,3 4.3.1 4,4 4.4.1 4.4.2 4.4.3 4.4.4		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow 2.5" galvanised male/female elbow 2.5" x 1m galvanised stand pipe (BSP) 2.5" brass non-return valve	no.	1 1 1 1 1 1		
4,2.2 4,3 4.3.1 4,4 4.4.1 4.4.2 4.4.3		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow 2.5" galvanised male/female elbow 2.5" x 1m galvanised stand pipe (BSP)	sum no. no.	1 1 1 1 1		
4.2.2 4,3 4.3.1 4,4 4.4.1 4.4.2 4.4.3 4.4.4 4.4.5		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow 2.5" galvanised male/female elbow 2.5" x 1m galvanised stand pipe (BSP) 2.5" brass non-return valve 63mm x 2.5' compression male adaptor	no.	1 1 1 1 1 1		
4.2.2 4,3 4.3.1 4,4 4.4.1 4.4.2 4.4.3 4.4.4 4.4.5		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow 2.5" galvanised male/female elbow 2.5" x 1m galvanised stand pipe (BSP) 2.5" brass non-return valve 63mm x 2.5' compression male adaptor	no. no. no. no.	1 1 1 1 1 1 1 1		
4,2.2 4,3 4,3.1 4,4 4,4.1 4,4.2 4,4.3 4,4.4 4,4.5 4,5.1		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow 2.5" galvanised male/female elbow 2.5" x 1m galvanised stand pipe (BSP) 2.5" brass non-return valve 63mm x 2.5' compression male adaptor Tanks - supply fit and connect 10 000L plastic tanks	no.	1 1 1 1 1 1		
4.2.2 4,3 4.3.1 4,4 4.4.1 4.4.2 4.4.3 4.4.4 4.4.5		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow 2.5" galvanised male/female elbow 2.5" x 1m galvanised stand pipe (BSP) 2.5" brass non-return valve 63mm x 2.5' compression male adaptor Tanks - supply fit and connect 10 000L plastic tanks Tanks to be protected by steel cage - to use galvanised bars	no. no. no. no.	1 1 1 1 1 1 1 1		
4,2.2 4,3 4,3.1 4,4 4,4.1 4,4.2 4,4.3 4,4.4 4,4.5 4,5.1		couplings to connect to the pump. 89mm foot valve with non return valve Delivery Pipe - supply and fit 2.5" x 1m rubber hose delivery pipe. This to be complete with all necessary couplings to connect to the pump and stand pipe. A 2.5" control valve and pressure gauge should also be included. All fittings shall be camlocks or perrot type. Stand Pipe / Goose neck - supply and fit 2.5" galvanised female elbow 2.5" galvanised male/female elbow 2.5" x 1m galvanised stand pipe (BSP) 2.5" brass non-return valve 63mm x 2.5' compression male adaptor Tanks - supply fit and connect 10 000L plastic tanks	no. no. no. no.	1 1 1 1 1 1 1 2		

SECTION 5: SUMMARY											
ITEM	REF	DESCRIPTION	AMOUNT								
5,1		SECTION 1: PRELIMINARY AND GENERAL ITEMS									
5,2		SECTION 2: TRENCHING AND PIPES									
5,3		SECTION 3: INFIELD PIPING									
5,4		SECTION 4: PUMP , PLASTIC TANKS, STAND AND ASSOCIATED FITTINGS									
		SUBTOTAL									
		VAT @ 15%									
	1	TOTAL SUM									



DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT BAZANENI COMMUNITY GARDEN

THE SUPPLY AND INSTALLATION OF APPROXIMATELY 0.6HA SPRINKLER IRRIGATION SYSTEM (DRAG-LINE)

1. BACKGROUND

Bazaneni vegetable garden is located at Hlabisa (Bazaneni) area at approximately 1 kilometer North of Hlabisa town, KZN. The approximated location of the irrigation site is at co-ordinates 28° 08' 41" South and 31° 53' 37" East.

The farm is being cultivated but has a no fit for purpose irrigation infrastructure. At the moment the farmers have grown some vegetables for their own consumption. The irrigation system used is a conventional system of fetching water from the nearby river and irrigates the crops using buckets. The department is thus planning to assist the farmers with the installation of irrigation infrastructure in order to bring the farm to a small scale commercial operation, without compromising food security. The department therefore invites reputable service providers to tender for the provision of services to supply and install a sprinkler irrigation system for Bazaneni garden.

The scheme has been designed and therefore the job entails a quotation by invited contractors to tender for the work that involves the supply, delivery and installation of irrigation pipes and fittings as per the attached Bill of Quantities. The trenching for the pipeline will also be required.

2. DETAILED SCOPE OF WORK

The detailed scope of work includes, but not limited to:-

- Establish site with sufficient labor, tools and materials that the works can be efficiently completed
- Supply, transport to site, deliver and store (safe) irrigation pipes and fittings as specified in the Bill of Quantities
- Trench (as per the drawing supplied), install pipes and backfill using stockpiled material
- Undertake a full commissioning of all equipment to ensure that they are in operation. This to include for testing of the pump, checking of any pipe leakages and positioning of sprinklers.
- Provide a full training to at least two operators of the pumping unit.

Tenderers are reminded that they must tender their bids using the Bill of Quantities attached at the end of this document so that the adjudicators can evaluate all the bids equally. Failure to provide adequate information may invalidate the tender.

The successful Tenderer will be given all the detailed drawings of pipe connections and standpipes layout prior to installation. However, a detailed layout plan is attached to give the bidders an indication of what the final product of the scheme should look like.

3. SITE SPECIFICATION

3.1 Crops

The crops to be irrigated will primarily be vegetables.

3.2 Irrigation system

The irrigation for this project will be from the drag-line sprinkler irrigation system and the following specifications apply:

- Sprinklers: VYRSA 36 (4mm nozzle, 2.4bar) with 20mm x 0.6m long galvanized standpipes
- Draglines: 36 m long draglines (10yr)
- Sprinkler spacing: 12m x 12m
- Laterals: 50mm uPVC pipes (class 6)
- Mainline pipe: 63mm pipes (class 6)
- Number of sprinklers operating together: 6 sprinklers (maximum)
- Water source: Nearby Bazaneni River.
- Pumping system: Petrol powered pump with a raised suction foot valve
- Suction pipe: 65mm kanaflex yellow flexible pipe
- Delivery pipe: 65mm heavy duty rubber hose

3.3 Rising Mainline Pipe

The mainline pipe is to be buried underground and shall have a minimum cover of at least 800mm from crown of the pipe. Proper bedding of at least 100mm around the pipe shall be provided where the base of the trench is of hard material.

3.4 Lateral Pipes

The laterals are to be buried underground and shall have a minimum cover of at least 600mm from crown of the pipe. Proper bedding of at least 100mm around the pipe shall be provided where the base of the trench is of hard material.

3.5 **Pump**

The pump is to be a petrol-engine operated centrifugal pump. The unit is to be mounted, aligned and assembled on a wheel-burrow frame. The pump shall be positioned on a flat platform next to the River, only when it is in operation. The following specifications shall apply:-

Duty point - 35m

Capacity -10 m³/hr

Power rating

3.6 Concrete Block

Properly sized concrete blocks shall be placed at every 90 degree bend or cross along the pipeline. This shall have a minimum strength of 15MPa.

4. LOCAL LABOUR

For unskilled work, the use of local labor is encouraged at all times. For semi-skilled work, priority is also given to local labor where possible. The contractor shall at all times communicate with the project participants to employ laborers.

5. HEALTH AND SAFETY ISSUES

All regulations and statutory requirements as laid down in the latest edition of the Occupational Health and Safety Act, 1993 (Act no 85 of 1993) shall apply.

6. COMMISSIONING AND TRAINING

A complete commissioning of the scheme is to be conducted by the contractor and a practical training course is to be given to at least two operators. The training is to cover all aspects of maintenance and operation of the sprinkler irrigation system and the pumping unit.

7. COMMERCIAL INFORMATION

- a) The contractors are advised that the BoQ is re-measurable. Only the quantities used, as measured and verified by an Engineer, will be paid.
- b) Payment certificates must be submitted to the Engineer for approval, and once agreed, will be submitted by the Engineer to the project officer. The order number issued to the contractor is to appear on all invoices.
- c) No performance guarantee is required.

- d) No upfront payments will be made for materials off site.
- e) No upfront payment will be made for any work not yet done on site. Work will be paid in individual billed items as completed.
- f) The contractor must insure all components to protect him from damage to or theft of the components prior to contract completion and handover. The contractor shall remain fully responsible for the security of the materials and works throughout the contract period.
- g) It is important that the work be completed on time. Contractors are required to submit with their tender a detailed programme, indicating the duration of the works and the date by when they can complete the works. This will be taken into account in the tender adjudication process. The start date of the contract should be assumed as the date of the issuance of the order number to the appointed contractor.
- h) Rain delays. No allowance is to be made for rain delays in the contractors programme. Upon appointment, any working day with more than 10mm of rain will result in 1 day's extension of time on the contract. A non-working day with rain will not result in any extension of time to the contract.
- i) The department will not be responsible for any expenses incurred in the preparation of the tender; neither will discussion be entered into with any contractor as to the reasons for acceptance or rejection of any tender.
- j) Any damages or distortions made to the existing tunnels, fences, roads, buildings or any public/private property while performing the work shall be repaired by the contractor while still on site. A payment certificate will not be issued until the employer is satisfied with the remedial solutions of repairs.

8. INSTRUCTIONS FOR PRICING THE BILL OF QUANTITIES

The scope of works detailed in the BoQ has been drawn up by the Engineer who performed the site survey and design of the scheme. Any additional works identified by the contractor while pricing the BoQ, or works included in the BoQ but deemed unnecessary must be brought to the attention of the Engineer for a decision before any changes are made.

The following points are to be taken into account before pricing the Bill of Quantity:

- a) Nothing should be assumed to be provided by the client, except where specifically mentioned in the BoQ. A site camp location will be provided, but all electricity, generators, water, fuel, accommodation, ablutions, storage, transport, security etc., should be priced by the contractor. All these should be priced under the Preliminary and General Items of the BoQ.
- b) Items described in the BoQ are to be priced including labour and materials, unless where labour and materials are listed separately for pricing. The rates to be quoted for the stated item should include all costs required for the supply and successful

installation of the item, including design (where required), sourcing of materials, fabrication (where required), labour and transport.

- c) Where 'Rate Only' is indicated in the BoQ, contractors are advised to put the rate of undertaking that particular work only.
- d) In general, there will be no power available on site for powering tools. The use of generators to power tools as required should be included in applicable BoQ rates.

9. GENERAL SPECIFICATIONS

Specifications published by the South African Bureau of Standards (SABS), series 1200 (Standardised Specifications for Civil Engineering Construction) shall apply. All the material to be SABS approved.

9.1 Supply of Material

9.1.1 General

It is essential that the installation and commissioning of the irrigation system is carried out as soon as possible. Preference will be given to availability and duration.

All equipment must carry a guarantee of twelve months from the date of delivery.

It is the responsibility of the supplier to replace or rectify all erroneous deliveries or deviations from the specifications or amended specifications.

9.1.2 Program of Work

The tenderers are advised to provide the work program indicating the timeframe of the work from the issuance of the order number.

9.2 Handling, Receipt and Storage of Pipes and Fittings

All pipes and pipe fittings delivered for the execution of the work must be handled, received and stored on site according to the following instructions:

UPVC pipes and fittings

- SABS/SANS 996-1: 2010

and SABS 0112/ SANS 10112:2003

Polyethylene pipes and fittings

- SABS 0112/ SANS 10112:2003

All other pipes and fittings must be stored in a safe place and protected against mechanical damage or weathering occasioned by nature. The contractor is responsible for all security of materials until handover and commissioning of the work is completed.

Items delivered for which no SABS/ SANS specifications exist are subject to the engineer's approval.

9.3 Pipework: Medium Pressure Pipelines (SABS 1200 L)

9.3.1 Plastic pipes

The unplasticised polyvinyl chloride (uPVC) piping system shall conform to SABS 966-1976 or ISO 4422. All uPVC fittings except for saddles shall be either injection moulded plastic (FIP or similar) or cast iron fittings capable of withstanding working pressures of at least 900 kPa. All uPVC bends shall be long radius bends. If working pressure exceeds 900 kPa then fittings shall be rated to at least 1.75 times the working pressure.

All saddles for uPVC piping shall be polypropylene or injection moulded plastic (FIP or similar) and shall be complete with stainless steel bolts. All hose clamps and screws shall be stainless steel.

All uPVC reducers shall either be injection moulded plastic (FIP or similar) or galvanised manufactured specials capable of withstanding working pressures of at least 900 kPa or fabricated uPVC Class 9. If injection moulded plastic reducing bushes are used, the contractor must supply a double socket to fit over the big end. If fabricated uPVC reducers are used the contractor must supply a double socket to the spigot end.

The black polyethylene piping (HDPE) systems shall conform to SABS 533 or ISO 4427 standard. All saddles for HDPE piping shall be polypropylene or injection moulded plastic (FIP or similar) and shall be complete with stainless steel bolts. All hose clamps and screws shall be stainless steel.

9.3.2 Steel Pipes, Fittings and Specials

The steel pipes and fabricated fittings shall comply with the requirements of SABS 719 and Butt weld fittings to ANSI B16.9 and BS 1640, or JIS 2404-72 or SABS 62 and galvanised as required to SABS ISO 1461 where applicable. The mild steel piping shall be fabricated and assembled in the workshop. The inside and outside of the pipes shall be sand blasted and copon painted or galvanised as specified in the Schedule of Quantities.

Prefabricated piping sections shall be capable of being fitted into place without springing or forcing. Loose flanges and cutting lengths shall be supplied at the discretion of the pipework contractor, to allow for minor alignment errors or plant location. All pipelines shall be cleaned internally.

The pipe network shall be carried on suitable designed supports to ensure that no undue stresses are placed on adjoining pipework and equipment. All flange boltholes shall be spaced equally off centre, unless specified otherwise on arrangement drawings. Thread tape shall be used on all threaded fittings.

9.3.3 Galvanised Piping and Fittings Exposed To Soil and Air

All galvanising shall be done in accordance with SABS ISO 1461. The minimum amount of zinc deposited shall be 760g/m². All galvanised surfaces, which suffer damage during transport or erection, shall be made good with an approved "cold-galvanising" process.

9.4 Valves

9.4.1 Gate Valves and Scour Valves

Resilient seal gate valves (RSV) shall be similar to VOSA configuration and shall comply with SABS 664 (latest amendment) with classes and flanged drillings as scheduled in the bill of quantities. Where plain-ended valves are required, the ends shall be suitable for the type of pipe specified. The valves shall be designed for droptight closure over the full range of pressures from zero to maximum working pressure. The valves shall be provided with a straight unobstructed body passage without pockets. The spindle seat shall consist of 2 nitrile rubber O-rings located in a corrosion resistant housing. A wiper ring shall also be provided. The gates shall be completely rubber covered. The gate guides shall be of the tongue and groove type. Spindles shall be manufactured on solid stainless steel and shall be of non-rising type. The body of the valve shall be coated to a minimum DFT of 250 microns.

9.4.2 Non Return Valves

All wafer type non return valves may have a cast iron or brass body, but stainless steel plates having machined sealing faces, 316 stainless steel pin and springs, nitrile seat and teflon or similar bearing washers.

9.6 Pumps and motors

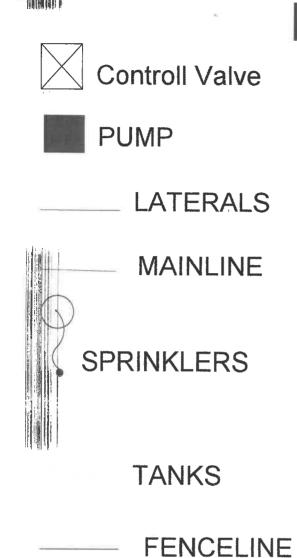
The pumping unit and all its accessories shall carry a warranty period of 12 months from the date of commission. The pump and motor must be aligned, assembled and tested at the workshop before installation on site. The pump shall be a centrifugal pump capable of pumping at least 10m³/hr to a 35m head.

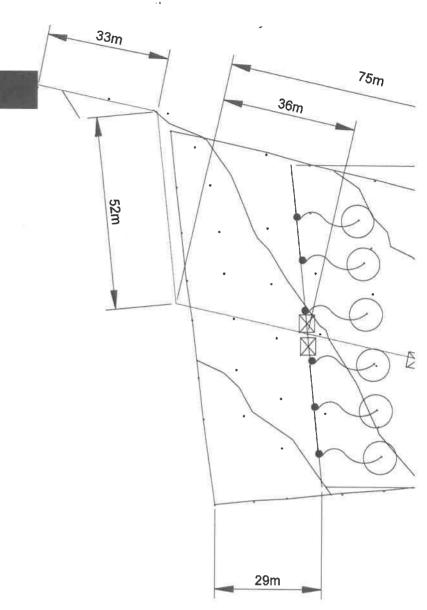
9.6 Standard Specifications

The workmanship must be of the highest standard throughout and be done according to the most modern practices. All inferior work will be replaced or rectified, as soon as it is pointed out by the engineer, at the cost of the contractor.

9.7 Commissioning

Should any defects in the equipment become apparent during commissioning or during maintenance accounting; it will be the suppliers' responsibility to replace such defective equipment.







ENGINEERING KING CETSHWAYO DISTRICT PRIVATE BAG X522, ESHOWE TEL: 035 - 473 0400 DEPARTMENT OF AGRICULTURE

BAZANENI

DISTRICT KING CETSHWAYO

DOA OFFICE ESHOWE

HORIZONTAL SCALE

1:1500

VERTICAL SCALE

SURVEYED BY HIEIA BN
ORAWN BY HIEIA BN

Hlela BN

CO-ORDINATE SYS'
Transverse Mercator
Projection
Central Meridian 31° Ea:

DA)



SPRINKLERS

TANKS

FENCELINE

0040 574 - 550	PRIVATE BAG X522, ESHOWE	KING CETSHWAYO DISTRICT	ENGINEERING
DOA OFFICE	DISTRICT	BAZANEN	DEPARTMEN
ESHOWE	KING CETSHWAYO	EN	T OF AGRICULTURE
-	0	_	

DESIGNED BY HIGH BN ORAWWBY HIELA BN

DATE

PIPE LAYOUT

CO-ORDINATE SYSTEM
Transverse Mercator
Projection
Central Meridian 31* East

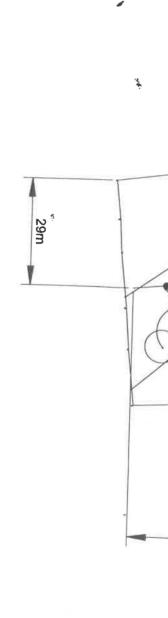
COORDINATES
FARM SIZE
0.6Ha

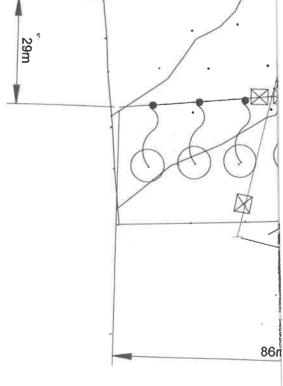
CENTER LAT: 28

CENTER LONG : '31

DATE : 15/08/2018

FILE NUMBER





DECLARATION OF INTEREST

- 1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-
 - the bidder is employed by the state; and/or
 - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2.	In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.
2.1	Full Name of bidder or his or her representative:
2.2	Identity Number:
2.3	Position occupied in the Company (director, trustee, shareholder ² , member):
2.4	Registration number of company, enterprise, close corporation, partnership agreement or trust:
2.5	Tax Reference Number:
2.6	VAT Registration Number:
2.6.1	The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 3 below.

¹"State" n	neans –
------------	---------

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

²"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

man	agement of the enterprise or business and exercises control over the enterprise.
Pleas	e clearly indicate, with an 'X' only one box that is applicable to your business or firm
2.7	Are you or any person connected with the bidder presently employed by the state? YES NO
2.7.1	If so, furnish the following particulars:
	Name of person / director / trustee / shareholder/member:
	Name of state institution at which you or the person connected to the bidder is employed
	Position occupied in the state institution:
	Any other particulars:
2.7.2	If you are presently employed by the state, did you obtain YES NO
	the appropriate authority to undertake remunerative work outside employment in the public sector?
	If yes, did you attach proof of such authority to the bid document?
	(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.)
2.7.2.	1 If no, furnish reasons for non-submission of such proof:

2.8	Did you or your spouse, or any of the company's directors /	YES NO
	trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?	123 110
2.8.1	If so, furnish particulars:	
2.9	Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?	YES NO
2.9.1	If so, furnish particulars.	
•••		
2.10	Are you, or any person connected with the bidder,	
	aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?	YES NO
2.10.	1 If so, furnish particulars.	
ğ	· · · · · · · · · · · · · · · · · · ·	
×	· · · · · · · · · · · · · · · · · · ·	•••••••••••••••••••••••••••••••
2.11	Do you or any of the directors / trustees / shareholders / members	YES NO
	of the company have any interest in any other related companies whether or not they are bidding for this contract?	TEO NO
2.11	1 If so, furnish particulars:	
<u> </u>		
·····		

M	W E	17	111	11	- P	I A	112	l I	13	ы	20	V	111	N/I	H I	MT4	 11	σ.	Λſ	343	214	71	11	11	11	υ	W.	Λ	NI.	n	υ		D/	٦ı	- 12	W	17	ĿТ	O	LDI	ME	יואי	г
v.	V /-	۱L	U.	ωU	-11	LA.	1.	٦L.	ν	ĿI		I	ш.	IVI.	C.	N.	JI		41	۲Ħ	۲П	ι.ι	,,,		IJ	л	C.	м	IV.	"	ĸ	U	ĸ	٩Т.	4 II.	J P.	v	т. Г	41	<i>1</i> P I	VI P	.IVI	1 -

3 Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	Personal Income Tax Reference Number	State Employee Number / Persal Number	
4 DECLARATION				
I, THE UNDERSIGNED (NAMI	Ε)			
CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT.				
I ACCEPT THAT THE STATE DECLARATION PROVE TO B		BID OR ACT AGAINST	ME SHOULD THIS	
		va.		
Name of bidder			Position	
Signature		2242	Date	

CERTIFICATE OF INDEPENDENT BID DETERMINATION

1 This Standard Bidding Document (SBD) must form part of all bids1 invited.

m 3

- Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *per se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bidrigging.
- In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:
- 1 Includes price quotations, advertised competitive bids, limited bids and proposals.
- ² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

SBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

i, the undersigned, in submitting the accompanying bid:				
(Bid Number and Description)				
in response to the invitation for the bid made by:				
(Name of Institution)				
do hereby make the following statements that I certify to be true and complete in every respect:				
certify, on behalf ofthat:				
(Name of Bidder)				

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

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

Cimphus	D.
Signature	Date
Position	Name of Bidder