

# INVITATION TO QUOTE: BEY-SCM-596 REPAIR AND MAINTENANCE OF PUMPS, GENERATORS, WATER/WASTEWATER PUMPSTATIONS AND FACILITIES

Quotations are hereby invited from registered service providers for the above mentioned as per the bill of quantities.

Quotes must be placed in the municipal tender box, Robert Sobukwe Building, in sealed envelopes clearly marked "BEY-SCM-596", not later than 12h00, Monday on the 15<sup>th</sup> of December 2025 and will be opened in public immediately thereafter.

#### Note:

- 1. Faxed, e-mailed or late quotations will not be accepted.
- 2. The tender will be evaluated on 80/20 system Whereby 80 points will be allocated for price and a maximum of 20 points for specific goals.
- 3. To claim for specific goals prospective bidders MUST submit proof/required the required documents
- 4. Price must include vat (if registered for vat) and delivery costs to Graaff-Reinet.
- 5. All suppliers must be registered on the Central Supplier Database (CSD)
- 6. A current original tax clearance certificate of SARS is to be submitted.
- 7. Tenderers need to have a CIDB grading of at least 1ME or higher.
- 8. A current certified Municipal (rates& services) clearance certificate to be submitted.
- 9. Attached declaration of interest to be completed.
- 10. Please note that the total rates combined does not constitute as the final quotation amount as it will be used solely for evaluation purposes. Quotation will rate based subject to a maximum of R 300 000.00
- 11. A current certified BBBEE certificate must be submitted in order to claim preference points.
- 12. Council is not bound to accept the lowest or any quotation and reserves the right to accept any tender or part thereof.
- 13. For further details, please contact Mr. B. Koeberg @ 049 807 5700/ koebergb@bnlm.gov.za
- 14. Allocation of specific goals
- 15. This Bid is subject to the General Conditions of Contract (GCC) and, if applicable, any other Special Conditions of Contract.

NO	Specific goal categories	Max Points Allocation	Evaluation Indicators
1	B-BBEE Status Level Contributor	10	As for BBBEE points allocation please see MBD 6.1
2	The promotion of enterprises located in a specific province for work to be done or services to be rendered in that	10	10 Points- Located within the boundaries of the Dr Beyers Naudé Local Municipality  6 Points- Located within the boundaries of Sarah Baartman District Municipality
	province.		4 Points- Located within the boundaries of the Eastern Cape
			1 Point- Outside of the boundaries of the Eastern Cape

DR. E.M. RANKWANA

**MUNICIPAL MANAGER** 

### **BILL OF QUANTITIES**

NB!!! Please note that the total rates combined does not constitute as the final quotation amount as it will solely be used for evaluation purposes.

Quotation will rate based subject to a maximum of R 300 000.00

BEY-SCM-596	Repair and delivery of pumps, motors, generators, including maintenance and repair for various water and sewer pump stations and facilities for the Dr Beyers Naude Municipality					
ITEM NO.	DESCRIPTION	UNIT	MATERIAL		LABOUR	
	223 113.11		RATE	TOTAL	RATE	TOTAL
	NOTES:			-		
(i)	All rates must be exclusive of VAT.	_		_	-	
(ii)	All quantities are provisional and are for comparative purposes only and do not describe the final extent of the work.					
A1.0	GENERAL					
A1.1	Allow for Public liability insurance up to R10 000 000 per annum	Sum	R	R	R	R
A1.2	Provision of Performance Bond to the value of:					
A1.2.1	R 50 000-00	Sum	R	R	R	R
A1.2.2	R 100 000-00	Sum	R	R	R	R
A1.3	Allow for <u>annual</u> premium costs incurred for insurances as required in terms of the contract.	Sum	R	R	R	R
A1.4	Allow for <u>annual</u> cost incurred for compliance with the requirements of the OHS Act construction regulations.	Sum	R	R	R	R
A1.5	Monthly standby fee.	Sum	R	R	R	R

A1.6	Monthly cost of liaison, co-ordination and attendance on Municipality, Eskom, other	Sum	R	R	R	R
	Contractors, etc.					
A1.7	Allow for attendance on monthly maintenance	Sum		R	R	R
	meetings with the Municipality of minimum 2 hours each.					
A1.8	Allow for monthly liaison with Municipality's	Sum		R	R	R
	appointed Maintenance Supervisor. Item to					
	include for daily feedback / progress / co-					
	ordination meetings and sessions held in Knysna					
	of approx. 1 hour each.					
A1.9	Competent Health and Safety Official	Sum		R	R	R
<u>A2.0</u>	LABOUR AND TRANSPORT RATES					
A2.1	Labour, Normal Time:					
A2.1.1	Engineer	Hour		R	R	R
A2.1.2	Supervisor	Hour		R	R	R
A2.1.3	Installation Technician	Hour		R	R	R
A2.1.4	Labourer	Hour		R	R	R
A2.2	Labour, Normal Overtime:					
A2.2.1	Engineer	Hour		R	R	R
A2.2.2	Supervisor	Hour		R	R	R
A2.2.3	Installation Technician	Hour		R	R	R
A2.2.4	Labourer	Hour		R	R	R
A2.3	Labour, Sundays and Public Holidays:					
A2.3.1	Engineer	Hour		R	R	R
A2.3.2	Supervisor	Hour		R	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO			R		R
	NEXT PAGE					

	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
	PAGE					
A2.3.3	Installation Technician	Hour	R	R	R	R
A2.3.4	Labourer	Hour	R	R	R	R
A2.4	Travel:					
A2.4.1	Private Car or Light Delivery Vehicle.	km	R	R	R	R
A2.4.2	1 Ton 4 x 4 Bakkie	km	R	R	R	R
A2.4.3	10 Ton Crane Truck	Hr	R	R	R	R
A2.4.4	JCB type Backhoe Loader	Hr	R	R	R	R
A2.5	Accommodation and Subsistence per Person.	day	R	R	R	R
A3.0	MATERIAL AND LABOUR					
A3.1	Percentage mark-up on the nett cost of unscheduled items of material and labour from external specialist supplier / firm.	%				
A4.0	MISCELLANEOUS					
A4.1	Lump sum allowance for any items not included in this schedule necessary to complete the installation in accordance with the specification and drawings. Brief description of such items to be entered hereunder.	Sum	R	R	R	R
-	-					
	TOTAL SCHEDULE A TO BE CARRIED FORWARD TO PRICE SUMMARY			R		R

Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all provisional sums are carried over correctly.			

ITEM NO.	DESCRIPTION	UNIT	MATERIAL		LABOUR	
			RATE	TOTAL	RATE	TOTAL
	NOTES:	_	_	_	_	
(i)	All rates must be exclusive of VAT.					
(ii)	All rates to include for supply, delivery and installation thereof unless specified otherwise.					
(iii)	All quantities are provisional and are for comparative purposes only and do not describe the final extent of the work.					
B1.0	EQUIPMENT					
B1.1	Generating set with residential type exhaust silencing system complete as specified, including delivery to site and rigging into position inside roofed building:					
B1.1.1	50 kVA ( 40 kWe )	Item	R	R	R	R
B1.1.2	100 kVA ( 80 kWe )	Item	R	R	R	R
B1.1.3	150 kVA ( 120 kWe )	Item	R	R	R	R

B1.1.4	200 kVA ( 160 kWe )	Item	R	R	R	R
B1.1.5	300 kVA ( 240 kWe )	Item	R	R	R	R
B1.1.6	400 kVA ( 320 kWe )	Item	R	R	R	R
B1.1.7	550 kVA ( 440 kWe )	Item	R	R	R	R
B1.2	Weatherproof, 3CR12, canopy type enclosure for generating set mentioned in Item B1.1 above with sound output level of 80 dB @ 7m, including all sound attentuating louvres, padding, etc required.					
B1.2.1	50 kVA ( 40 kWe )	Item	R	R	R	R
B1.2.2	100 kVA ( 80 kWe )	Item	R	R	R	R
B1.2.3	160 kVA ( 128 kWe )	Item	R	R	R	R
B1.2.4	200 kVA ( 160 kWe )	Item	R	R	R	R
B1.2.5	300 kVA ( 240 kWe )	Item	R	R	R	R
B1.2.5	400 kVA ( 320 kWe )	Item	R	R	R	R
B1.2.7	550 kVA ( 440 kWe )	Item	R	R	R	R
B1.3	Generator control / change-over panel complete as specified, excluding kvA / kWh consumption meter measured elsewhere for:					
B1.3.1	50 kVA ( 40 kWe )	Item	R	R	R	R
B1.3.2	100 kVA ( 80 kWe )	Item	R	R	R	R
B1.3.3	150 kVA ( 120 kWe )	Item	R	R	R	R
B1.3.4	200 kVA ( 160 kWe )	Item	R	R	R	R
B1.3.5	300 kVA ( 240 kWe )	Item	R	R	R	R
B1.3.6	400 kVA ( 320 kWe )	Item	R	R	R	R
B1.3.7	550 kVA ( 440 kWe )	Item	R	R	R	R
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B1.4	Day tank with 12-hour diesel storage capacity including drip tray and interconnecting pipework, etc for:					
B1.4.1	50 kVA ( 40 kWe )	Item	R	R	R	R
B1.4.2	100 kVA ( 80 kWe )	Item	R	R	R	R
B1.4.3	150 kVA ( 120 kWe )	Item	R	R	R	R
B1.4.4	200 kVA ( 160 kWe )	Item	R	R	R	R
B1.4.5	300 kVA ( 240 kWe )	Item	R	R	R	R
B1.4.6	400 kVA ( 320 kWe )	Item	R	R	R	R
B1.4.7	550 kVA ( 440 kWe )	Item	R	R	R	R
B1.5	Self-priming electrically operated pump for automatically filling of indoor day tank.	Sum	R	R	R	R
B1.6	Supply, install and connect Wica diesel type, 0 to 1m, pressure transmitter complete with 15 m of instrumentation cable, including isolating ball valve, etc on day tank inside generator room.	Sum	R	R	R	R
B1.7	Earthing of new generator equipment, including 2 x 4,5m earth spikes and ± 30 metres of 70 mm2 Cu bare conductor, lugs, etc.	Sum	R	R	R	R
B1.8	Interconnecting and interfacing of generator controls, diesel level sensor, etc to telemetry equipment supplied by others, including liasion with Telemetry Contractor to ensure correct operation of remote monitoring of the generator set.	Sum	R	R	R	R
<u>B2.0</u>	MISCELLANEOUS					
B2.1	Supply and install replacement generator starter battery:					
B2.1.1	12V, 102Ah	Sum	R	R	R	R

B2.2	Lump sum allowance for any items not included in this schedule necessary to complete the installation in accordance with the specification and drawings. Brief description of such items to be entered hereunder.	Sum	R	R	R	R
	TOTAL SCHEDULE B TO BE CARRIED FORWARD TO PRICE SUMMARY			R		R
	Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all provisional sums are carried over correctly.					

ITEM NO.	DESCRIPTION	UNIT	MATERIAL		LABOUR	
			RATE	TOTAL	RATE	TOTAL
	NOTES:	_	_	_	_	
(i)	All rates must be exclusive of VAT.					
(ii)	All rates to include for supply, delivery and installation thereof unless specified otherwise.					
(iii)	All quantities are provisional and are for comparative purposes only and do not describe the final extent of the work.					
<u>C1.0</u>	CONTROL CUBICLES					
	Tenders to price each control / equipment cubicle separately in accordance with the typical items of equipment to be installed inside same as indicated in the Specification. Allowance shall be made for all busbars, wiring, cut-outs, etc required, as well as for the necessary 304 stainless steel cladding / enclosure					
C1.1	Supply and install typical incomer compartment cubicle, excl kWh meter but complete with power analyser, surge arrestors, busbars, etc. with both main incoming and generator MCB's rated at:					
C1.1.1	60A @ 10 kA	Sum	R	R	R	R
C1.1.2	100A @ 15 kA	Sum	R	R	R	R
C1.1.3	150A @ 15 kA	Sum	R	R	R	R
C1.1.4	250A @ 25 kA	Sum	R	R	R	R

C1.1.5	300A @ 25 kA	Sum	R	R	R	R
C1.1.6	300 to 630A @ 50 kA ( adjustable type )	Sum	R	R	R	R
C1.2	Single pump control compartment complete with typical control gear, alarm / status indicator lamps, telemetry I/O, etc as specified, but excl pump motor drive (i.e. VSD / Soft Starter) measured elsewhere for:					
C1.2.1	3 kW pump	Sum	R	R	R	R
C1.2.2	7,5 kW pump	Sum	R	R	R	R
C1.2.3	15 kW pump	Sum	R	R	R	R
C1.2.4	30 kW pump	Sum	R	R	R	R
C1.2.5	55 kW pump	Sum	R	R	R	R
C1.2.6	90 kW pump	Sum	R	R	R	R
C1.2.7	132 kW pump	Sum	R	R	R	R
C1.2.8	315 kW pump	Sum	R	R	R	R
C1.3	Single mixer control compartment complete with typical control gear, alarm / status indicator lamps, telemetry I/O, etc as specified, but excl pump motor drive (i.e. VSD / Soft Starter) measured elsewhere for:					
C1.3.1	1.1 kW mixer	Sum	R	R	R	R
C1.3.2	3 kW mixer	Sum	R	R	R	R
C1.4	Single mixer control compartment complete with typical control gear, alarm / status indicator lamps, telemetry I/O, etc as specified, but excl mixer motor drive (i.e. VSD / soft starters) measured elsewhere for:		R	R	R	R
C1.4.1	1.1 kW mixer	Sum	R	R	R	R
C1.4.2	3 kW mixer	Sum	R	R	R	R

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C1.5	Single mechanical screen control compartment complete with typical control gear, alarm / status indicator lamps, telemetry I/O, etc as specified, but excl screen motor drive (i.e. VSD / soft starters) measured elsewhere for:					
C1.5.1	1.1 kW screen	Sum	R	R	R	R
C1.5.2	3 kW screen	Sum	R	R	R	R
C1.6	Single screw conveyor screen control compartment complete with typical control gear, alarm / status indicator lamps, telemetry I/O, etc as specified, but excl motor drive (i.e. VSD / soft starters) measured elsewhere for:					
C1.6.1	1.1 kW screw conveyor	Sum	R	R	R	R
C1.6.2	3 kW screw conveyor	Sum	R	R	R	R
C1.7	Single lime dosing control compartment complete with typical control gear, alarm / status indicator lamps, telemetry I/O, etc as specified, but excl motor drive (i.e. VSD / soft starters) measured elsewhere for:					
C1.7.1	0,75 kW lime dosing unit	Sum	R	R	R	R
C1.8	Single PLC / HMI control compartment complete with Delta type PLC and HMI equipment, I/O and communication cards, etc as specified with sufficient I/O modules to cater for:					
C1.8.1	50 x DIN, 10 x DOT, 5 x AIN	Sum	R	R	R	R
				•	•	•

C1.8.2	100 x DIN, 10 x DOT, 5 x AIN	Sum	R	R	R	R
C1.8.3	150 x DIN, 20 x DOT, 10 x AIN	Sum	R	R	R	R
C1.9	Single spare compartment with backplate for	Sum	R	R	R	R
	mounting of telemetry / future equipment.					
C1.10	HMI / PLC software programming including					
	implementation of Client / Engineer specific					
	requirements regarding HMI security and control					
	setup, as well as checking and verifying all other					
	control functions for implementing typical control					
	philosophy described in specification for:					
C1.10.1	Pump	Sum	R	R	R	R
C1.10.2	Mixer	Sum	R	R	R	R
C1.10.3	Mechanical screen	Sum	R	R	R	R
C1.10.4	Screw Conveyor	Sum	R	R	R	R
C1.10.5	Lime dosing	Sum	R	R	R	R
C1.11	Supply and install VSD similar or approved equal to					
	Weg CFW11 type inside new Motor Control Panel					
	cubicles for:					
C1.11.1	0,75 kW motor	Item	R	R	R	R
C1.11.2	1,1 kW motor	Item	R	R	R	R
C1.11.3	3 kW motor	Item	R	R	R	R
C1.11.4	7,5 kW motor	Item	R	R	R	R
C1.11.5	15 kW motor	Item	R	R	R	R
C1.11.6	30 kW motor	Item	R	R	R	R
C1.11.7	55 kW motor	Item	R	R	R	R
C1.11.8	90 kW motor	Item	R	R	R	R
C1.11.9	132 kW motor	Item	R	R	R	R
C1.11.10	315 kW motor	Item	R	R	R	R

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C1.12	Supply and install soft starter equipment similar or					
	approved equal to Weg type inside new Motor					
	Control Panel cubicles for:					
C1.12.1	0,75 kW motor	Item	R	R	R	R
C1.12.2	1,1 kW motor	Item	R	R	R	R
C1.12.3	3 kW motor	Item	R	R	R	R
C1.12.4	7,5 kW motor	Item	R	R	R	R
C1.12.5	15 kW motor	Item	R	R	R	R
C1.12.6	30 kW motor	Item	R	R	R	R
C1.12.7	55 kW motor	Item	R	R	R	R
C1.12.8	90 kW motor	Item	R	R	R	R
C1.12.9	132 kW motor	Item	R	R	R	R
C1.12.10	260 kW motor	Item	R	R	R	R
C1.13	Spare set of three ultra-rapid fuses for all VSD /					
	Soft Starter equipment installed in MCC panel					
	measured elsewhere.					
C1.13.1	0,75 kW motor	Item	R	R	R	R
C1.13.2	1,1 kW motor	Item	R	R	R	R
C1.13.3	3 kW motor	Item	R	R	R	R
C1.13.4	7,5 kW motor	Item	R	R	R	R
C1.13.5	15 kW motor	Item	R	R	R	R
C1.13.6	30 kW motor	Item	R	R	R	R
C1.13.7	55 kW motor	Item	R	R	R	R
C1.13.8	90 kW motor	Item	R	R	R	R
C1.13.9	132 kW motor	Item	R	R	R	R

C1.13.10	260 kW motor	Item	R	R	R	R
C1.14	Supply and install kWh meter inside incomer					
	compartment cubicle of MCC control panel for					
	incoming three phase supplies:					
C1.14.1	Less than 100A - Direct connect Landis & Gyr 3219	Item	R	R	R	R
	( Ampy ) type kWh meter					
C1.14.2	Above 100A - Landis & Gyr type ZMD 405 C7 kWh	Item	R	R	R	R
	meter, including CT's LED indicator fuses, test					
	block and cell phone modem for remote metering.					
	Item to include testing, commissioning and					
	programming of meter by Specialist Contractor to					
C1.15	municipal requirements, including test reports, etc.  Moulded case circuit breaker complete with					
C1.15	interconnecting tails, etc. installed inside MCC					
	Panel, kiosk, etc:					
C1.15.1	300 to 630A @ 50 kA ( TP, adjustable type )	No.	R	R	R	R
C1.15.2	300A @ 25 kA ( TP )	No.	R	R	R	R
C1.15.3	250A @ 25 kA ( TP )	No.	R	R	R	R
C1.15.4	150A @ 15 kA ( TP )	No.	R	R	R	R
C1.15.5	100A @ 10 kA ( TP )	No.	R	R	R	R
C1.15.6	80A @ 10 kA ( TP )	No.	R	R	R	R
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C1.15.7	63A @ 10 kA ( TP )	No.	R	R	R	R
C1.15.8	40A @ 10 kA ( TP )	No.	R	R	R	R
C1.15.9	20A @ 10 kA ( TP )	No.	R	R	R	R
C1.15.10	80A @ 10 kA ( SP )	No.	R	R	R	R

C1.15.11	63A @ 10 kA ( SP )	No.	R	R	R	R
C1.15.12	40A @ 10 kA ( SP )	No.	R	R	R	R
C1.15.13	20A @ 10 kA ( SP )	No.	R	R	R	R
C1.15.14	63A E/L Unit ( 3P + N )	No.	R	R	R	R
C1.15.15	63A E/L Unit ( 1P + N )	No.	R	R	R	R
	-					
<u>C2.0</u>	MISCELLANEOUS					
C2.1	Liasion with Municipality's Telemetry Contractor for the interfacing and enabling of the new / upgraded MCC panel and equipment onto the telemetry system.	Sum	R	R	R	R
C2.2	Lump sum allowance for any items not included in this schedule necessary to complete the installation in accordance with the specification and drawings. Brief description of such items to be entered hereunder.	Sum	R	R	R	R
	TOTAL SCHEDULE C TO BE CARRIED FORWARD TO PRICE SUMMARY			R		R
	Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all provisional sums are carried over correctly.					

## D.

ITEM NO.	DESCRIPTION	UNIT	MATERIAL		LABOUR	
			RATE	TOTAL	RATE	TOTAL
	NOTES:	_	-	_	_	
(i)	All rates must be exclusive of VAT.					
(ii)	All rates to include for supply, delivery and installation thereof unless specified otherwise.					
(iii)	All quantities are provisional and are for comparative purposes only and do not describe the final extent of the work.					
D1.0	ELECTRICAL INSTALLATION					
D1.1	Arrange power shutdown with Municipality / Eskom. Item to include Attendance Fee to be paid to Municipality / Eskom.	Sum	R	R	R	R
D1.2	Trenching by hand for LV cable / sleeve, 400 mm wide x 700 mm deep, including backfilling and compaction:					

D1.2.1	Soft pickable soil	m	R	R	R	R
D.1.2.2	Soft Rock	m	R	R	R	R
D1.2.3	Hard rock	m	R	R	R	R
D1.3	400 mm wide x 100-micron PVC Marker tape over cable in trench measured elsewhere.	m	R	R	R	R
D1.4	Concrete cable markers indicating cable direction, size etc.	No.	R	R	R	R
D1.5	450mm Deep imported bedding / cover material in 400mm wide trench measured elsewhere. Backfill material to be recovered from trenches	m	R	R	R	R
D1.6	Extra over cost for Items D1.2 and D1.5 above:					
D1.6.1	Imported backfill material from off-site source.	m3	R	R	R	R
D1.6.2	Disposal of surplus or unsuitable material including haulage up to 10 km from site.	m3	R	R	R	R
D1.7	Break-up and re-instate paving along cable route after installation of sleeve.	m	R	R	R	R
D1.8	uPVC sleeve installed in floor slab / trench measured elsewhere:					
D1.8.1	110mm Ø sleeve.	m	R	R	R	R
D1.9	Seal sleeve ends after installation of cable using Sista foam.					
D1.9.1	110mm Ø sleeve.	No.	R	R	R	R
D1.9.2	75mm Ø conduit.	No.	R	R	R	R
D1.9.3	50mm Ø conduit.	No.	R	R	R	R
D1.10	Supply and install overall screened, steel wire armoured, twisted pair type instrumentation cables in sleeve / conduit / cable tray measured elsewhere.					
D1.10.1	1,5 mm <sup>2</sup> x 1 Pair	m	R	R	R	R
D1.10.2	1,5 mm <sup>2</sup> x 8 Pair	m	R	R	R	R
D1.10.3	1,5 mm <sup>2</sup> x 8 Pair	m	R	R	R	R

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D1.11	Supply and install LV, PVCAS cable in trench /					
01.11	sleeve / cable tray measured elsewhere:					
D1.11.1	630 mm <sup>2</sup> Cu x 1 Core ( Unarmoured )	m	R	R	R	R
D1.11.2	300 mm <sup>2</sup> Cu x 1 Core ( Unarmoured )	m	R	R	R	R
D1.11.3	185 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.4	150 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.5	120 mm² Cu x 4 Core	m	R	R	R	R
D1.11.6	95 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.7	70 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.8	50 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.9	35 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.10	25 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.11	16 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.12	10 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.13	6 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.14	4 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.15	2,5 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.11.16	1,5 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
D1.12	Duracast resin through joint in LV, PVCAS cable measured elsewhere:					
D1.12.1	630 mm <sup>2</sup> Cu x 1 Core ( Unarmoured )	No.	R	R	R	R

D1.12.2	300 mm <sup>2</sup> Cu x 1 Core ( Unarmoured )	No.	R	R	R	R
D1.12.3	185 mm² Cu x 4 Core	No.	R	R	R	R
D1.12.4	150 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.5	120 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.6	95 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.7	70 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.8	50 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.9	35 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.10	25 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.11	16 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.12	10 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.13	6 mm² Cu x 4 Core	No.	R	R	R	R
D1.12.14	4 mm² Cu x 4 Core	No.	R	R	R	R
D1.12.15	2,5 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.12.16	1,5 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.13	Terminate and connect LV, PVCAS cables at kiosk / MCC panel / motors / equipment using brass cable gland, brass locknut, neoprene rubber shroud and crimp lugs:					
D1.13.1	630 mm <sup>2</sup> Cu x 1 Core ( Unarmoured )	No.	R	R	R	R
D1.13.2	300 mm <sup>2</sup> Cu x 1 Core ( Unarmoured )	No.	R	R	R	R
D1.13.3	185 mm² Cu x 4 Core	No.	R	R	R	R
D1.13.4	150 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.13.5	120 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.13.6	95 mm² Cu x 4 Core	No.	R	R	R	R
D1.13.7	70 mm² Cu x 4 Core	No.	R	R	R	R
D1.13.8	50 mm² Cu x 4 Core	No.	R	R	R	R
D1.13.9	35 mm² Cu x 4 Core	No.	R	R	R	R
D1.13.10	25 mm² Cu x 4 Core	No.	R	R	R	R
			•			

D1.13.11	16 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.13.12	10 mm² Cu x 4 Core	No.	R	R	R	R
D1.13.13	6 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.13.14	4 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.13.15	2,5 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.13.16	1,5 mm <sup>2</sup> Cu x 4 Core	No.	R	R	R	R
D1.14	Terminate and connect overall screened, steel wire armoured, twisted pair type instrumentation cables at MCC panel / equipment / remote E-stop stations / pratley or termination box using brass cable gland, brass locknut, neoprene rubber shroud and crimp lugs:					
D1.14.1	1,5 mm <sup>2</sup> x 1 Pair	No.	R	R	R	R
D1.14.2	1,5 mm² x 4 Pair	No.	R	R	R	R
D1.14.3	1,5 mm <sup>2</sup> x 8 Pair	No.	R	R	R	R
D1.15	Terminate and connect instrumentation cables supplied with pressure / flow sensors, no flow / float switches, PT 100 sensors, etc at MCC panel / junction box using compression type glands and crimp lugs.	Sum	R	R	R	R
D1.16	HD bare copper earth wire laid in trench / sleeve / cable tray:					
D1.16.1	50mm <sup>2</sup>	m	R	R	R	R
D1.16.2	35mm <sup>2</sup>	m	R	R	R	R
D1.16.3	25mm <sup>2</sup>	m	R	R	R	R
D1.16.4	16mm²	m	R	R	R	R
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	-					
D1.16.5	6mm2	m	R	R	R	R
D1.16.6	4mm2	m	R	R	R	R
D1.17	Hard drawn bare copper earth wire terminated at kiosk / MCC panel / pump motor / pratley or termination box.					
D1.17.1	50mm <sup>2</sup>	No.	R	R	R	R
D1.17.2	35mm <sup>2</sup>	No.	R	R	R	R
D1.17.3	25mm <sup>2</sup>	No.	R	R	R	R
D1.17.4	16mm²	No.	R	R	R	R
D1.17.5	6mm <sup>2</sup>	No.	R	R	R	R
D1.17.6	4mm <sup>2</sup>	No.	R	R	R	R
D1.18	Main AMF / MCC earth consisting of approx. 30 metre length of 70mm <sup>2</sup> PVC bare copper conductor installed in trench, 2 x 4,5-metre-long earth spikes and 2 x earth spike markers.	Sum	R	R	R	R
D1.19	Galvanised steel conduit saddled to pumpstation ceiling / wall / roof purlins, etc. Item to include for all saddles, adapters etc required.					
D1.19.1	40 mm Ø	m	R	R	R	R
D1.19.2	32 mm Ø	m	R	R	R	R
D1.19.3	25 mm Ø	m	R	R	R	R
D1.19.4	20 mm Ø	m	R	R	R	R
D1.20	PVC conduit saddled to pumpstation ceiling / wall / roof purlins, etc. Item to include for all saddles, adapters etc required.					
D1.20.1	75 mm Ø	m	R	R	R	R
D1.20.2	50 mm Ø	m	R	R	R	R

D1.20.3	40 mm Ø	m	R	R	R	R
D1.20.4	32 mm Ø	m	R	R	R	R
D1.20.5	25 mm Ø	m	R	R	R	R
D1.20.6	20 mm Ø	m	R	R	R	R
D1.21	Surface mounted conduit boxes complete with covers and including fixing screws, etc:					
D1.21.1	100 x 50 mm PVC boxes	No.	R	R	R	R
D1.21.2	65mm Diameter PVC round box	No.	R	R	R	R
D1.21.3	100 x 50 mm galvanised steel boxes	No.	R	R	R	R
D1.22	Surface mounted, weather and vandal proof instrumentation junction boxes rated IP 65 minimum, complete with all terminals, connectors, etc for all cable / conduit terminations as required for connection of:					
D1.22.1	Typical pump ( i.e. flow switch, PT 100's, Klixons, etc	No.	R	R	R	R
D1.22.2	Typical Mixer ( seal fail, Klixons, etc )	No.	R	R	R	R
D1.22.3	Typical Screen ( over torque, etc )	No.	R	R	R	R
D1.22.4	Sump ( ultrasonic sensor, float switches, etc )	No.	R	R	R	R
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	PAGE -					
D1.23	Three way, IP 68 EZEE-FIT Ex n Pratley No. 0 Instrumentation cable box, complete with Kwikblok mountings, Kwikblocks, etc.	Item	R	R	R	R
D1.24	600 / 1000 V PVC insulated copper conductors wiring drawn into conduit / cable tray, including					

	terminations, etc. ( Conduit / cable tray measured					
	elsewhere ):					
D1.24.1	4 mm <sup>2</sup>	m	R	R	R	R
D1.24.2	2,5 mm <sup>2</sup>	m	R	R	R	R
D1.25	Supply and install Matelec type rotatable					
	weatherproof switches in flush mounted boxes:					
D1.25.1	One way	No.	R	R	R	R
D1.25.2	Two way	No.	R	R	R	R
D1.26	Light fittings surface mounted to wall / ceiling, etc					
	including all galvanised steel screws, grommets,					
	lamps, tubes, etc.:					
D1.26.1	IP 65, enclosed fluorescent type luminaire similar	No.	R	R	R	R
	or approved equal to the Lascon Corolite 10N type					
D1.26.2	with 2 x 58W lamps.  150 W HPS luminaires with internal eyelids, glass	No.		Nil		Nil
D1.20.2	diffusers and decorative skirt similar or approved	NO.		INII		INII
	equal to Bekanova type.					
D1.27	Surface mounted 16 Amp 3-pin weatherproof					
	switch socket outlet:					
D1.27.1	Double socket outlet	No.	R	R	R	R
D1.28	Hot dipped galvanised steel mesh cable tray					
	installed against wall / floor. Item to include all					
	brackets, stainless steel mounting screws / bolts					
	required:		_	_	_	_
D1.28.1	400mm wide	m	R	R	R	R
D1.28.2	200mm wide	m	R	R	R	R
D1.28.3	100mm wide	m	R	R	R	R
D1.28.4	50mm wide	m	R	R	R	R
D1.29	Labelling of all cables.	Sum	R	R	R	R
	-					
<u>D2.0</u>	MISCELLANEOUS					

D2.1	Provide Certificate of Compliance for upgraded / modified / new electrical installation as required in terms of the regulations.	Item	R	R	R	R
D2.2	Lump sum allowance for any items not included in this schedule necessary to complete the installation in accordance with the specification and drawing. Brief description of such items to be entered hereunder.	Sum	R	R	R	R
	- TOTAL SCHEDULE D TO BE CARRIED FORWARD TO			R		R
	PRICE SUMMARY					
	Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all provisional sums are carried over correctly.					

ITEM NO.	DESCRIPTION	UNIT	MATERIAL		LABOUR	
			RATE	TOTAL	RATE	TOTAL
	NOTES:	_	_	_	_	
(i)	All rates must be exclusive of VAT.					
(ii)	All rates to include for supply, delivery and installation thereof unless specified otherwise.					
(iii)	All quantities are provisional and are for comparative purposes only and do not describe the final extent of the work.					
E1.0	LEVEL SENSORS					
E1.1	Supply, install and connect high / low level float switches, similar or equal to Flygt ENM-6 type inside pump chamber complete with 15m of trailing cable.	Sum	R	R	R	R

E1.2	Supply, install and connect Wica type or similar, submersible pressure transducer (0 to 5 m) complete with 10 m of instrumentation cable inside sewage sump / reservoir. Item to include for 3 off stainless steel unistrut type mounting brackets with K-type clamps and +- 50 mm diameter protective PVC pipe.	Sum	R	R	R	R
E1.3	Supply, install and connect Wica type or similar, submersible pressure transducer (0 - 150m) complete with 1500m of instrumentation cable inside borehole. Item to include for ± 1500m of ± 50 mm diameter protective HDPE Pipe, including all mounting brackets, etc required.	Sum	R	R	R	R
E1.4	Supply, install and connect Wica type or similar, 0 to 15 bar, pressure transmitter complete with 10 m of instrumentation cable, including isolating ball valve, etc on pipeline inside pumpstation.	Sum	R	R	R	R
E1.5	Supply, install and connect Mobrey type or similar,	Sum	R	R	R	R
	0 to 5m, ultrasonic level / flow monitoring transducer complete with 10 m of instrumentation cable, including stainless steel mounting brackets assemblies and sensor head inside sump / reservoir.		R	R	R	R
E1.6	Supply and install Mobrey MCU901WX-A type controller or similar inside MCC panel, etc.	Sum	R	R	R	R
<u>E2.0</u>	FLOW METERS					
E2.1	Supply and install new 24 / 220 V AC, PN10 rated in-line, full bore, double flanged electromagnetic type flow meter and display similar or equal to Siemens Magflow type, complete as specified					

	including all setting up, calibration, etc of nominal internal dam size:					
E2.1.1	DN80	Item	R	R	R	R
E2.1.2	DN100	Item	R	R	R	R
E2.1.3	DN125	Item	R	R	R	R
E2.1.4	DN150	Item	R	R	R	R
E2.1.5	DN200	Item	R	R	R	R
E2.1.6	DN250	Item	R	R	R	R
E2.1.6	DN300	Item	R	R	R	R
E2.2	Supply and install new <u>battery powered</u> , PN10 rated in-line, full bore, double flanged electromagnetic type flow meter and display similar or equal to Flowmetrix Batmag type, complete as specified including all setting up, calibration, etc of nominal internal dam size:					
E2.2.1	DN80	Item	R	R	R	R
E2.2.2	DN100	Item	R	R	R	R
E2.2.3	DN125	Item	R	R	R	R
E2.2.4	DN150	Item	R	R	R	R
E2.2.5	DN200	Item	R	R	R	R
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E2.2.6	DN250	Item	R	R	R	R
E2.2.7	DN300	Item	R	R	R	R

E2.3	Supply and install now IDC7 rated ultraconic clamp	Item		T D	R	
E2.3	Supply and install new IP67 rated ultrasonic clamp	item	R	R	K	R
	on type flow meter and display similar or equal to					
	the Siemens Sitrans type, complete as specified					
	including all setting up, calibration, etc.					
E2.4	Liasion with Municipality's Telemetry Contractor	Sum	R	R	R	R
	for the interfacing and enabling of the new					
	flowmeter onto the telemetry system.					
E3.0	MISCELLANEOUS					
E3.1	Supply, install and connect IP 65 microswitch limit	Sum	R	R	R	R
20.2	type flow monitoring switches on counterweights	34111	'`	'`	"	"
	on non-return valve arm attachments, including					
	stainless steel mounting brackets, etc.					
E3.2	Start / Stop / Emergency Stop push button station,	Item	R	R	R	R
LJ.Z	hot dipped galvanised 1 200 mm x 100 mm x 50	itteiii	"	'`	"	,
	mm channel iron and base plate support assembly,					
	etc					
E3.3	Supply and install 9 kg dry powder Fire	Item	R	R	R	R
L3.3	Extinguisher.	Item	l K	'`	"	IN .
E3.4	Safety sign and notices complete as specified.	Sum	R	R	R	R
	, , ,					
E3.5	Supply and install municipal type padlocks on	Item	R	R	R	R
F2.6	building / equipment.	6				
E3.6	Lump sum allowance for any items not included in	Sum				R
	this schedule necessary to complete the installation			R		
	in accordance with the specification and drawing.					
	Brief description of such items to be entered					
	hereunder.					
	TOTAL COUEDING F TO DE CARRIER FORWARD TO					
	TOTAL SCHEDULE E TO BE CARRIED FORWARD TO			R		R
	PRICE SUMMARY					

Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all provisional sums are carried over correctly.			

#### F.

ITEM NO.	DESCRIPTION	UNIT	MATERIA	MATERIAL		LABOUR	
			RATE	TOTAL	RATE	TOTAL	
	NOTES:	_	_	_	_		
(i)	All rates must be exclusive of VAT.						
(ii)	All rates to include for supply, delivery and installation thereof unless specified otherwise.						
(iii)	All quantities are provisional and are for comparative purposes only and do not describe the final extent of the work.						

	RAW WATER PUMPS					
F1.0	SELF-PRIMING PUMPS					
	The specified raw water self-priming pump sizes					
	listed below shall each include for the following					
	items:					
-	Priming air valve to suit application and duty.					
-	Low NPSHreq.					
-	Cast iron impeller and mechanical seals.					
-	Baseplate and coupling or V-belt with pulleys for					
	both pump and motor.					
F1.1	Supply and install self-priming pump with an					
	approximate Flow Rate (I/s) and Head (m) as					
	follows:					
F1.1.1	15I/s Flow and 15m Head	No	R	R	R	R
F1.1.2	20I/s Flow and 35m Head	No	R	R	R	R
F1.1.3	30I/s Flow and 6m Head	No	R	R	R	R
F1.1.4	35l/s Flow and 20m Head	No	R	R	R	R
F1.1.5	40l/s Flow and 30m Head	No	R	R	R	R
F1.1.6	45I/s Flow and 15m Head	No	R	R	R	R
F1.1.7	50l/s Flow and 40m Head	No	R	R	R	R
F1.1.8	50l/s Flow and 80m Head	No	R	R	R	R
F1.1.9	60l/s Flow and 4m Head	No	R	R	R	R
F1.1.10	110l/s Flow and 45m Head	No	R	R	R	R
F1.1.11	150l/s Flow and 50m Head	No	R	R	R	R
F1.1.12	150l/s Flow and 60m Head	No	R	R	R	R
<u>F2.0</u>	CENTIFUGAL PUMPS					
	The specified raw water centrifugal pump sizes					
	listed below shall each include for the following					
	items:					
_	Bronze impeller, diffuser and wear rings.					

-	EN57 shafts and mechanical seals.					
-	Baseplate and coupling for both pump and motor.					
-	Suitable for raw water.					
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F2.1	Supply and install <u>4-pole centrifugal pump</u> with an approximate Flow Rate (I/s) and Head (m) as follows:					
F2.1.1	5l/s Flow and 25m Head	No	R	R	R	R
F2.1.2	7,5l/s Flow and 100m Head	No	R	R	R	R
F2.1.3	10l/s Flow and 175m Head	No	R	R	R	R
F2.1.4	15I/s Flow and 15m Head	No	R	R	R	R
F2.1.5	15I/s Flow and 45m Head	No	R	R	R	R
F2.1.6	20I/s Flow and 35m Head	No	R	R	R	R
F2.1.7	20I/s Flow and 150m Head	No	R	R	R	R
F2.1.8	30I/s Flow and 6m Head	No	R	R	R	R
F2.1.9	35I/s Flow and 20m Head	No	R	R	R	R
F2.1.10	40l/s Flow and 30m Head	No	R	R	R	R
F2.1.11	45I/s Flow and 15m Head	No	R	R	R	R
F2.1.12	50I/s Flow and 40m Head	No	R	R	R	R
F2.1.13	50l/s Flow and 80m Head	No	R	R	R	R
F2.1.14	50l/s Flow and 120m Head	No	R	R	R	R
F2.1.15	60I/s Flow and 4m Head	No	R	R	R	R
F2.1.16	110l/s Flow and 45m Head	No	R	R	R	R
F2.1.17	150l/s Flow and 50m Head	No	R	R	R	R

F2.1.18	150l/s Flow and 60m Head	No	R	R	R	R
<u>F3.0</u>	BOREHOLE PUMPS					
	The specified raw water borehole pump sizes listed below shall each include for the following items:					
-	Stainless steel or non-ferrous pump / motor casing and impeller.					
-	Mechanical seals.					
-	Motor drop cable to be of suitable length to suit depth of borehole, i.e. no cable joints allowed in drop cable.					
-	Suitable for raw water with a high iron and manganese concentration.					
F3.1	Supply and install 4-pole borehole pump with an approximate Flow Rate (I/s) and Head (m) as follows:					
F3.1.1	2,5I/s Flow and 50m Head	No	R	R	R	R
F3.1.2	2,5l/s Flow and 100m Head	No	R	R	R	R
F3.1.3	5l/s Flow and 50m Head	No	R	R	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT PAGE			R		R
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE			R		R
F3.1.4	5l/s Flow and 100m Head	No	R	R	R	R
F3.1.4 F3.1.5	7,5l/s Flow and 50m Head	_	R	R	R	
		No				R
F3.1.6	7,5l/s Flow and 100m Head	No	R	R	R	R
F3.1.7	10l/s Flow and 50m Head	No	R	R	R	R
F3.1.8	10l/s Flow and 100m Head	No	R	R	R	R

F3.1.9	7,5I/s Flow and 125m Head	No	R	R	R	R
-	SEWAGE PUMPS					
F4.0	SELF-PRIMING PUMPS					
	The specified self-priming pumps of sizes and duty listed below shall each include for the following items:					
-	Priming air valve to suit application and duty.					
-	Low NPSHreq.					
-	Cast iron semi open type impeller and mechanical seals.					
-	Replaceable wear plate.					
-	Baseplate and coupling or V-belt with pulleys for both pump and motor.					
-	Suitable for raw unscreened sewage of minimum 76mm solids capacity.					
F4.1	Supply and install self-priming pump of size and Max Head (m) and Flow Rate (I/s) as follows:					
F4.1.1	Size: 152 x 152mm Max Head: 32m Max Flow Rate: 24 l/s	No	R	R	R	R
F4.1.2	Size: 254 x 254mm Max Head: 40m Max Flow Rate: 214 l/s	No	R	R	R	R
F4.1.3	Size: 102 x 76 mm Max Head: 51m Max Flow Rate: 121 l/s	No	R	R	R	R
<u>F5.0</u>	SUBMERSIBLE PUMPS					

	The specified sewage submersible pump sizes listed below shall each include for the following						
	items:						
-	Cast iron and non-clog impeller.						
-	10m Power and control cable.						
-	Mechanical seals.						
-	Motor fitted with Klixon type winding over temperature sensors and mechanical seal failure sensor.						
-	Duckfoot bend kit complete.						
1	Suitable for raw unscreened sewage.						
F5.1	Supply and install submersible pump set similar or approved equal to existing make and model listed below:						
F5.1.1	Robot type RW 2120 BE-V ( 2.6 kW )	No	R	R	R	R	
F5.1.2	Robot type RW 2130 DG-V ( 2.9 kW )	No	R	R	R	R	
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F5.1.3	- Robot type RW 2130 DG-V ( 3.5 kW )	No	R	R	R	R	
F5.1.4	Robot type RW 2120 BH-V ( 4 kW )	No	R	R	R	R	
F5.1.5	Robot type RW 4030 DJ-V ( 5 kW )	No	R	R	R	R	
F5.1.6	Robot type RW 4040/5.5 4 ( 5.5 kW )	No	R	R	R	R	
F5.1.7	Robot type RW 4030 DL-V ( 6 kW )	No	R	R	R	R	
F5.1.8	Robot type RW 4041/7.5 ( 7.5 kW )	No	R	R	R	R	
F5.1.9	Robot type RW 4032 BR-V ( 9 kW )	No	R	R	R	R	
F5.1.10	Robot type RW 6130 JE-V ( 13 kW )	No	R	R	R	R	

F5.1.11	Robot type RW 6130 JE-V ( 20 kW )	No	R	R	R	R
F5.1.12	EPS type 8.200 22 kW	No	R	R	R	R
F5.1.13	Robot type RW 6130 JG-V ( 29 kW )	No	R	R	R	R
F5.1.14	EPS type 150.32 30 kW	No	R	R	R	R
F5.1.15	Robot type RW 6141 LI-V (34 kW )	No	R	R	R	R
F5.1.16	Robot type RW 6130 JL-V ( 48 kW )	No	R	R	R	R
F6.0	STANDARD MAINTENANCE OF SUBMERSIBLE PUMPSTATION					
F6.1	Pull pump from installed position in sump, inspect pump (bearing, oil, volute and impeller)					
	and reinstall after repairs:					
F6.1.1	2.2 kW	each	R	R	R	R
F6.1.2	2.6 kW	each	R	R	R	R
F6.1.3	2.9 kW	each	R	R	R	R
F6.1.4	3.5 kW	each	R	R	R	R
F6.1.5	4 kW	each	R	R	R	R
F6.1.6	5 kW	each	R	R	R	R
F6.1.7	5.5 kW	each	R	R	R	R
F6.1.8	6 kW	each	R	R	R	R
F6.1.9	6.4 kW	each	R	R	R	R
F6.1.10	7.5 kW	each	R	R	R	R
F6.1.11	8.4 kW	each	R	R	R	R
F6.1.12	9 kW	each	R	R	R	R
F6.1.13	13 kW	each	R	R	R	R
F6.1.14	20 kW	each	R	R	R	R
F6.1.15	22 kW	each	R	R	R	R
F6.1.16	29 kW	each	R	R	R	R
F6.1.17	30 kW	each	R	R	R	R

F6.1.18	34 kW	each	R	R	R	R
F6.1.19	42 kW	each	R	R	R	R
F6.1.20	48 kW	each	R	R	R	R
F6.1.21	55kW	each	R	R	R	R
F6.1.22	90kW	each	R	R	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO					R
	NEXT PAGE					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS					R
	PAGE					
F6.2	Supply and fit of new volute					
F6.2.1	2.2 kW	each		R		R
F6.2.2	2.6 kW	each		R		R
				R		
F6.2.3	2.9 kW	each				R
F6.2.4	3.5 kW	each		R		R
F6.2.5	4 kW	each		R		R
F6.2.6	5 kW	each		R		R
F6.2.7	5.5 kW	each		R		R
F6.2.8	6 kW	each		R		R
F6.2.9	6.4 kW	each		R		R
F6.2.10	7.5 kW	each		R		R
F6.2.11	8.4 kW	each		R		R
F6.2.12	9 kW	each		R		R
F6.2.13	13 kW	each		R		R
F6.2.14	20 kW	each		R		R
F6.2.15	22 kW	each		R		R
F6.2.16	29 kW	each		R		R
F6.2.17	30 kW	each		R		R

34 kW	each	R	R
42 kW	each	R	R
48 kW	each	R	R
55kW	each	R	R
90kW	each	R	R
Rewind and supply new klixons			
2.2 kW	each	R	R
2.6 kW	each	R	R
2.9 kW	each	R	R
3.5 kW	each	R	R
4 kW	each	R	R
5 kW	each	R	R
5.5 kW	each	R	R
6 kW	each	R	R
6.4 kW	each	R	R
7.5 kW	each	R	R
8.4 kW	each	R	R
9 kW	each	R	R
13 kW	each	R	R
20 kW	each	R	R
22 kW	each	R	R
29 kW	each	R	R
30 kW	each	R	R
34 kW	each	R	R
42 kW	each	R	R
48 kW	each	R	R
55kW	each	R	R
90kW	each	R	R
	42 kW 48 kW 55kW 90kW Rewind and supply new klixons 2.2 kW 2.6 kW 2.9 kW 3.5 kW 4 kW 5 kW 5.5 kW 6.4 kW 7.5 kW 8.4 kW 9 kW 13 kW 20 kW 22 kW 29 kW 30 kW 34 kW 48 kW	42 kW       each         48 kW       each         55kW       each         90kW       each         Rewind and supply new klixons       each         2.2 kW       each         2.9 kW       each         3.5 kW       each         4 kW       each         5 kW       each         6 kW       each         6.4 kW       each         7.5 kW       each         8.4 kW       each         9 kW       each         13 kW       each         20 kW       each         22 kW       each         30 kW       each         34 kW       each         42 kW       each         42 kW       each         48 kW       each         55kW       each	42 kW       each       R         48 kW       each       R         55kW       each       R         90kW       each       R         Rewind and supply new klixons       R         2.2 kW       each       R         2.6 kW       each       R         2.9 kW       each       R         3.5 kW       each       R         4 kW       each       R         5 kW       each       R         5.5 kW       each       R         6 kW       each       R         6.4 kW       each       R         7.5 kW       each       R         8.4 kW       each       R         9 kW       each       R         13 kW       each       R         20 kW       each       R         22 kW       each       R         29 kW       each       R         30 kW       each       R         34 kW       each       R         42 kW       each       R         48 kW       each       R

	SUBTOTAL FOR THIS PAGE CARRIED OVER TO			R
	NEXT PAGE			
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R
	PAGE			
F6.4	Supply and fit new bearings			
F6.4.1	2.2 kW	each	R	R
F6.4.2	2.6 kW	each	R	R
F6.4.3	2.9 kW	each	R	R
F6.4.4	3.5 kW	each	R	R
F6.4.5	4 kW	each	R	R
F6.4.6	5 kW	each	R	R
F6.4.7	5.5 kW	each	R	R
F6.4.8	6 kW	each	R	R
F6.4.9	6.4 kW	each	R	R
F6.4.10	7.5 kW	each	R	R
F6.4.11	8.4 kW	each	R	R
F6.4.12	9 kW	each	R	R
F6.4.13	13 kW	each	R	R
F6.3.14	20 kW	each	R	R
F6.4.15	22 kW	each	R	R
F6.4.16	29 kW	each	R	R
F6.4.17	30 kW	each	R	R
F6.4.18	34 kW	each	R	R
F6.4.19	42 kW	each	R	R
F6.4.20	48 kW	each	R	R
F6.4.21	55kW	each	R	R
F6.4.22	90kW	each	R	R

F6.5	Supply and Fit new mechanical seal and pump			
	seals			
F6.5.1	2.2 kW	each	R	R
F6.5.2	2.6 kW	each	R	R
F6.5.3	2.9 kW	each	R	R
F6.5.4	3.5 kW	each	R	R
F6.5.5	4 kW	each	R	R
F6.5.6	5 kW	each	R	R
F6.5.7	5.5 kW	each	R	R
F6.5.8	6 kW	each	R	R
F6.5.9	6.4 kW	each	R	R
F6.5.10	7.5 kW	each	R	R
F6.5.11	8.4 kW	each	R	R
F6.5.12	9 kW	each	R	R
F6.5.13	13 kW	each	R	R
F6.5.14	20 kW	each	R	R
F6.5.15	22 kW	each	R	R
F6.5.16	29 kW	each	R	R
F6.5.17	30 kW	each	R	R
F6.5.18	34 kW	each	R	R
F6.5.19	42 kW	each	R	R
F6.5.20	48 kW	each	R	R
F6.5.21	55kW	each	R	R
F6.5.22	90kW	each	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO			R
	NEXT PAGE			
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE			R
	FAUL			

F6.6	Supply and fit new impellor, balance and cut to size			
F6.6.1	2.2 kW	each	R	R
F6.6.2	2.6 kW	each	R	R
F6.6.3	2.9 kW	each	R	R
F6.6.4	3.5 kW	each	R	R
F6.6.5	4 kW	each	R	R
F6.6.6	5 kW	each	R	R
F6.6.7	5.5 kW	each	R	R
F6.6.8	6 kW	each	R	R
F6.6.9	6.4 kW	each	R	R
F6.6.10	7.5 kW	each	R	R
F6.6.11	8.4 kW	each	R	R
F6.6.12	9 kW	each	R	R
F6.6.13	13 kW	each	R	R
F6.6.14	20 kW	each	R	R
F6.6.15	22 kW	each	R	R
F6.6.16	29 kW	each	R	R
F6.6.17	30 kW	each	R	R
F6.6.18	34 kW	each	R	R
F6.6.19	42 kW	each	R	R
F6.6.20	48 kW	each	R	R
F6.6.21	55kW	each	R	R
F6.6.22	90kW	each	R	R
	LIME DOSING PUMP			
F7.0	LIME DOSING PUMP			
	1	I		

F7.1	Supply and install dry lime feeder with stainless	No	R	R	R	R
F7.1	steel worm and stainless-steel hopper (0,3m <sup>3</sup>	INO	K	N	N	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	capacity), dosage rate of 5kg/hour, suitable for VSD					
	application, complete with a 400V, 3-phase motor					
	and mounting frame.					
	and mounting name.					
	ELECTRIC MOTORS					
	The specified pump motor sizes listed below shall					
	each include for the following items:  All motors from 30kW to 150kW:					
-						
	Fitted with thermistor winding protection.					
-	All motors from 185kW to 315kW:					
	Fitted with PT100 temperature sensors on					
	windings and bearings, fitted in separate terminal					
	enclosure.					
-	All motors to be suitable for operation at 400V,					
	50Hz operation.					
<u>F7.0</u>	2-Pole Electric Motor					
F7.1	Supply and install 4-pole electric motor with a					
	standard kW power rating as follows:					
F7.1.1	5,5kW	No	R	R	R	R
F7.1.2	7,5kW	No	R	R	R	R
F7.1.3	11kW	No	R	R	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO			R		R
	NEXT PAGE					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
	<u>PAGE</u>					
	-					
F7.1.4	15kW	No	R	R	R	R

F7.1.5	18,5kW	No	R	R	R	R
F7.1.6	22kW	No	R	R	R	R
F7.1.7	30kW	No	R	R	R	R
F7.1.8	37kW	No	R	R	R	R
F7.1.9	45kW	No	R	R	R	R
F7.1.10	55kW	No	R	R	R	R
F7.1.11	75kW	No	R	R	R	R
F7.1.12	90kW	No	R	R	R	R
F7.1.13	110kW	No	R	R	R	R
F8.0	4-POLE ELECTRIC MOTOR					
F8.1	Supply and install 4-pole electric motor with a standard kW power rating as follows:					
F8.1.1	5,5kW	No	R	R	R	R
F8.1.2	7,5kW	No	R	R	R	R
F8.1.3	11kW	No	R	R	R	R
F8.1.4	15kW	No	R	R	R	R
F8.1.5	18,5kW	No	R	R	R	R
F8.1.6	22kW	No	R	R	R	R
F8.1.7	30kW	No	R	R	R	R
F8.1.8	37kW	No	R	R	R	R
F8.1.9	45kW	No	R	R	R	R
F8.1.10	55kW	No	R	R	R	R
F8.1.11	75kW	No	R	R	R	R
F8.1.12	90kW	No	R	R	R	R
F8.1.13	110kW	No	R	R	R	R
F8.1.14	132kW	No	R	R	R	R
F8.1.15	150kW	No	R	R	R	R
F8.1.16	185kW	No	R	R	R	R
				•	•	•

F8.1.17	225kW	No	R	R	R	R
F8.1.18	260kW	No	R	R	R	R
	-					
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO			R		R
	NEXT PAGE					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
	PAGE					
FO 0	- C DOLE ELECTRIC MOTOR					
F9.0	6-POLE ELECTRIC MOTOR					
F9.1	Supply and install <u>6-pole electric motor</u> with a					
F9.1.1	standard kW power rating as follows: 5,5kW	No	R	R	R	R
F9.1.2	7,5kW	No	R	R	R	R
F9.1.3	11kW	No	R	R	R	R
F9.1.4	15kW	No	R	R	R	R
F9.1.5	18,5kW	No	R	R	R	R
F9.1.6	22kW	No	R	R	R	R
F9.1.7	30kW	No	R	R	R	R
F9.1.8	37kW	No	R	R	R	R
F9.1.9	45kW	No	R	R	R	R
F9.1.10	55kW	No	R	R	R	R
F9.1.11	75kW	No	R	R	R	R
F9.1.12	90kW	No	R	R	R	R
F9.1.13	110kW	No	R	R	R	R
F9.1.14	132kW	No	R	R	R	R
F9.1.15	150kW	No	R	R	R	R
F9.1.16	185kW	No	R	R	R	R
F9.1.17	225kW	No	R	R	R	R
F9.1.18	260kW	No	R	R	R	R

	-					
	MISCELLANEOUS					
F10.0	COMPRESSORS					
F10.1	Supply and install industrial rated, electrically					
	driven piston type air compressor of standard					
	ratings as follows:					
F10.1.1	Working Pressure: 12 Bar	No	R	R	R	R
	Displacement: 5 cfm					
	Approx Power: ± 1,1 Kw					
F10.1.2	Working Pressure: 12 Bar Displacement: 18 cfm	No	R	R	R	R
	Approx Power: ± 4 kW					
F10.1.3	Working Pressure: 12 Bar	No	R	R	R	R
	Displacement: 25 cfm					
	Approx Power: ± 5,5 kW					
F10.1.4	Working Pressure: 12 Bar	No	R	R	R	R
	Displacement: 32 cfm					
	Approx Power: ± 7,0 kW					
<u>F11</u>	<u>CABLING</u>					
F11.1	Supply and fit 600 / 1000V rated submersible type					
	trailing cables to submersible pumps, etc.					
F11.1.1	16 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
F11.1.2	10 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO			R		R
	NEXT PAGE					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
	PAGE					
F11.1.3	6 mm² Cu x 4 Core	m	R	R	R	R
F11.1.4	4 mm² Cu x 4 Core	m	R	R	R	R
F11.1.5	2,5 mm <sup>2</sup> Cu x 4 Core	m	R	R	R	R

F11.1.6	1,5 mm² Cu x 4 Core	m	R	R	R	R
F11.1.7	4 mm <sup>2</sup> Cu x 7 Core	m	R	R	R	R
F11.1.8	2,5 mm² Cu x 7 Core	m	R	R	R	R
F11.1.9	1,5 mm <sup>2</sup> Cu x 7 Core	m	R	R	R	R
F12.0	GUIDE BARS					
F12.1	Supply and fit approx. 6m long stainless-steel guide rail inside sump:					
F12.1.1	DN65	Item	R	R	R	R
F12.1.2	DN80	Item	R	R	R	R
F12.1.3	DN100	Item	R	R	R	R
F12.2	Supply and fit new stainless steel top guide rail bracket inside sump:					
F12.2.1	DN65	Item	R	R	R	R
F12.2.2	DN80	Item	R	R	R	R
F12.2.3	DN100	Item	R	R	R	R
F12.3	Supply and fit new stainless steel bottom guide rail bracket inside sump:					
F12.3.1	DN65	Item	R	R	R	R
F12.3.2	DN80	Item	R	R	R	R
F12.3.3	DN100	Item	R	R	R	R
F13.0	VALVES					
F13.1	Supply and install flange mounted, PN16 rated, two pack epoxy powder coated cast iron gate valve designed for sewage applications, complete with stainless steel non-rising spindle and handwheel, and EPDM coated gate:					
F13.1.1	75mm	Item	R	R	R	R
F13.1.2	90mm	Item	R	R	R	R
F13.1.3	110mm	Item	R	R	R	R
F13.1.4	160mm	Item	R	R	R	R

F13.1.5	200mm	Item	R	R	R	R
F13.2	Supply and install free acting, flanged mounted,					
	two pack epoxy powder coated cast iron non-					
	return flap / check valve designed for sewage					
	applications:					
F13.2.1	75mm	Item	R	R	R	R
F13.2.2	90mm	Item	R	R	R	R
F13.2.3	110mm	Item	R	R	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO			R		R
	NEXT PAGE					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
	PAGE					
F13.2.4	100000	lt o me			R	D
	160mm	Item	R	R		R
F13.2.5	200mm	Item	R	R	R	R
F13.3	Supply and install free acting, flanged mounted,					
	two pack epoxy powder coated cast iron non-					
	return flap / check valve designed for sewage					
	applications complete with cantilever arm and					
F13.3.1	weight:	Item	R	R	R	R
F13.3.2	200mm	Item	R	R	R	R
F13.3.3	250mm	Item	R	R	R	R
<u>F14.0</u>	GEARBOXES					
F14.1	Helical parallel shaft type vertically mounted gearbox					
F14.1.1	Type: Hellical parallel shaft	Item	R	R	R	R
	Mounting: Vertical Power: 35kW Axial Load: 5 500N					

F14.1.2	Type: Vertical spindle Power: 5,5kW Axial Load: 2 500N	Item	R	R	R	R
F15.0	Overhaul of aerators-motors:					
F15.1	Vertical aerators	Item		R		R
F15.2	Horizontal aerator	Item		R		R
F15.3	Mixes	Item		R		R
F16.0	<u>OTHER</u>					
F15.1	Lump sum allowance for any items not included in this schedule necessary to complete the installation in accordance with the specification and drawing. Brief description of such items to be entered hereunder.	Sum	R	R	R	R
	TOTAL SCHEDULE F TO BE CARRIED FORWARD TO PRICE SUMMARY			R		R
	Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all provisional sums are carried over correctly.					

G.

ITEM NO.	DESCRIPTION	UNIT	Γ MATERIAL	L	LABOUR	
		RATE	TOTAL	RATE	TOTAL	
	NOTES:	_	_	_	_	
(i)	All rates must be exclusive of VAT.					
(ii)	All rates to include for supply, delivery and installation thereof unless specified otherwise.					
(iii)	All quantities are provisional and are for comparative purposes only and do not describe the final extent of the work.					
	_					
G1.0	GENERATING EQUIPMENT					
G1.1	Minor service of generator equipment consisting of:					

G1.1.1	Conduct full visual inspection on existing genset	Sum	R	R	R	R
	equipment.					
G1.1.2	Check hoses, radiator and radiator core and top-up antifreeze if necessary.	Sum	R	R	R	R
G1.1.3	Check and empty diesel water trap.	Sum	R	R	R	R
G1.1.4	Check V-belts and charging alternator.	Sum	R	R	R	R
G1.1.5	Check all electrical connections / voltages and test battery charger circuit.	Sum	R	R	R	R
G1.1.6	Test control system and safety device.	Sum	R	R	R	R
G1.1.7	Full mains failure load test.	Sum	R	R	R	R
G1.1.8	Transport costs, to and from Site.	Sum	R	R	R	R
G1.1.9	Provide written report and / or quotation on findings / work required.	Sum	R	R	R	R
G1.2	Major service of generator equipment consisting of:					
G1.2.1	Full minor service described in item G1.1 above.	Sum	R	R	R	R
G1.2.2	Full lube service including oil, oil filters and fuel filters.	Sum	R	R	R	R
G1.2.3	Replace air filter.	Sum	R	R	R	R
G1.2.4	Percentage mark-up ( as provided under Bill A, Item A3.1 ) on the provisional sum shown for the nett cost of unscheduled items found to be defective / faulty and require replacement / repair, i.e. replacement seals, bearings, etc.	%	R	R	R	R
<u>G2.0</u>	ELECTRIC MOTOR					
G2.1	Minor service of electric squirrel cage induction motor equipment consisting of:					
G2.1.1	Disconnect and remove motor and conduct full visual inspection.	Sum	R	R	R	R
G2.1.2	Disassemble, strip and clean motor.	Sum	R	R	R	R

G2.1.3	Check continuity / insulation resistance of windings,	Sum	R	R	R	R
	movement and wear of shaft / bearings, vibration,					
	excessive temperature, etc.					
G2.1.4	Test for shorted laminations, loose / open bars, etc.	Sum	R	R	R	R
G2.1.5	Check fan blades for damage and cracks.	Sum	R	R	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT			R		R
	<u>PAGE</u>					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
	PAGE					
G2.1.6	Check air gap and ventilation passages.	Sum	R	R	R	R
G2.1.7	Clean, lubricate and re-assemble.	Sum	R	R	R	R
G2.1.8	Transport costs, to and from Site.	Sum	R	R	R	R
G2.1.9	Provide written report and / or quotation on	Sum	R	R	R	R
	findings / work required.					
G2.1.10	Reinstall / reconnect motor in position following	Sum	R	R	R	R
	servicing / maintenance.					
G2.2	Major service of electric squirrel cage induction					
	motor equipment consisting of:					
G2.2.1	Full minor service described in item G2.1 above.	Sum	R	R	R	R
G2.2.2	Percentage mark-up ( as provided under Bill A, Item	%	R	R	R	R
	A3.1) on the provisional sum shown for the nett					
	cost of unscheduled items found to be defective /					
	faulty and require replacement / repair, i.e.					
	rewinding of coils, replacement bearing, etc.					
G3.0	CTANDADD MAINTENANCE OF CENTRIFICAL BURAD					
G5.U	STANDARD MAINTENANCE OF CENTRIFUGAL PUMP AND MOTOR					
G3.1	Rewind and install thermistors per kW (2-, 4- pole):					
	(- , ·   pois).	1	1	1		1

G3.1.1	0.37 kW	each	R	R
G3.1.2	0.55 kW	each	R	R
G3.1.3	0.75 kW	each	R	R
G3.1.4	1.1 kW	each	R	R
G3.1.5	1.5 kW	each	R	R
G3.1.6	2.2 kW	each	R	R
G3.1.7	3 kW	each	R	R
G3.1.8	4 kW	each	R	R
G3.1.9	5.5 kW	each	R	R
G3.1.10	7.5 kW	each	R	R
G3.1.11	11 kW	each	R	R
G3.1.12	15 kW	each	R	R
G3.1.13	17.5 kW	each	R	R
G3.1.14	22 kW	each	R	R
G3.1.15	30 kW	each	R	R
G3.1.16	37 kW	each	R	R
G3.1.17	45 kW	each	R	R
G3.1.18	55 kW	each	R	R
G3.1.19	75 kW	each	R	R
G3.1.20	90 kW	each	R	R
G3.1.21	110 kW	each	R	R
G3.1.22	160 kW	each	R	R
G3.1.23	175 kW	each	R	R
G3.1.24	200 kW	each	R	R
G3.1.25	220 kW	each	R	R
G3.2	Supply and fit new bearings per motor (2-, 4- pole			
G3.2.1	71	set	R	R
G3.2.2	80	set	R	R

G3.2.3	90	set		R		R
G3.2.4	112	set		R		R
G3.2.5	132	set		R		R
G3.2.6	160	set		R		R
G3.2.7	170	set		R		R
G3.2.8	200	set		R		R
G3.2.9	225	set		R		R
G3.2.10	250	set		R		R
G3.2.11	280	set		R		R
G3.2.12	315	set		R		R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT					R
	PAGE					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS					R
	PAGE					
G3.3.	Vibration of bearing test on pumps	each	R	R		R
G3.4	Vibration of bearing test on motor	each	R	R		R
G3.0	SUBMERSIBLE PUMPS					
G3.1	Minor service of submersible pumpset equipment consisting of:					
G3.1.1	Pull pump from installed position and conduct full	Sum	R	R	R	R
	visual inspection.					
G3.1.2	Inspect impeller / volute for wear, rubbing, cavitation or blockages.	Sum	R	R	R	R
G3.1.3	Inspect level and quality of existing oil inside oil chamber / housing and drain and replace oil.	Sum	R	R	R	R
		•	•			

G3.1.4	Check and test condition of all electrical	Sum	R	R	R	R
	connections, submersible cables and insulation of					
	stator windings, etc.					
G3.1.5	Check and test correct shaft rotation, vibration, etc	Sum	R	R	R	R
G3.1.6	Test correct operation of all check valves, air valves,	Sum	R	R	R	R
	pressure gauges, etc					
G3.1.7	Transport costs, to and from Site.	Sum	R	R	R	R
G3.1.8	Provide written report and / or quotation on findings / work required.	Sum	R	R	R	R
G3.1.9	Reinstall / reconnect pump in position following servicing / maintenance.	Sum	R	R	R	R
G3.1.10	Check and test correct operation of float switches, and untangle / clean as required.	Sum	R	R	R	R
G3.2	Major service of submersible pumpset equipment consisting of:		R	R	R	R
G3.2.1	Full minor service described in item G3.1 above.	Sum	R	R	R	R
G3.2.2	Percentage mark-up ( as provided under Bill A, Item	%	R	R	R	R
	A3.1) on the provisional sum shown for the nett					
	cost of unscheduled items found to be defective /					
	faulty and require replacement / repair, i.e. supply					
	and fit new impellor, mechanical seal, balancing, etc.					
<u>G4.0</u>	CENTIFUGAL PUMPS					
G4.1	Minor service of centrifugal pump equipment consisting of:					
G4.1.1	Disconnect pump from installed position and conduct full visual inspection.	Sum	R	R	R	R
G4.1.2	Inspect impeller / volute for wear, rubbing, cavitation or blockages.	Sum	R	R	R	R

	SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT			R		R
	<u>PAGE</u>					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
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	-					
G4.1.3	Inspect and lubricate bearings.	Sum	R	R	R	R
G4.1.4	Check and test correct shaft rotation, vibration, etc	Sum	R	R	R	R
G4.1.5	Transport costs, to and from Site.	Sum	R	R	R	R
G4.1.6	Provide written report and / or quotation on findings / work required.	Sum	R	R	R	R
G4.1.7	Reinstall / reconnect pump in position following servicing / maintenance.	Sum	R	R	R	R
G4.2	Major service of centrifugal equipment consisting of:		R	R	R	R
G4.2.1	Full minor service described in item G4.1 above.	Sum	R	R	R	R
G4.2.2	Percentage mark-up ( as provided under Bill A, Item	%	R	R	R	R
	A3.1 ) on the provisional sum shown for the nett					
	cost of unscheduled items found to be defective /					
	faulty and require replacement / repair, i.e. supply					
	and fit new impellor, mechanical seal, balancing, etc.					
-	-					
<u>G5.0</u>	BOREHOLE PUMPS					
G5.1	Minor service of submersible pumpset equipment consisting of:					
G5.1.1	Pull pump from installed position ( up to ± 150m deep ) and conduct full visual inspection.	Sum	R	R	R	R
G5.1.2	Inspect impeller / volute for wear, rubbing, cavitation or blockages.	Sum	R	R	R	R
G5.1.3	Inspect level and quality of existing oil inside oil chamber / housing and drain and replace oil.	Sum	R	R	R	R

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G5.1.4	Check and test condition of all electrical	Sum	R	R	R	R
	connections, submersible cables and insulation of					
	stator windings, etc.					
G5.1.5	Check and test correct shaft rotation, vibration, etc	Sum	R	R	R	R
G5.1.6	Test correct operation of all check valves, air valves,	Sum	R	R	R	R
	pressure gauges, etc					
G5.1.7	Transport costs, to and from Site.	Sum	R	R	R	R
G5.1.8	Provide written report and / or quotation on	Sum	R	R	R	R
	findings / work required.					
G5.1.9	Reinstall / reconnect pump in position (up to ± 150m	Sum	R	R	R	R
	deep) following servicing / maintenance.					
G5.2	Major service of submersible pumpset equipment					
	consisting of:					
G5.2.1	Full minor service described in item G5.1 above.	Sum	R	R	R	R
G5.2.2	Percentage mark-up ( as provided under Bill A, Item	%	R	R	R	R
	A3.1 ) on the provisional sum shown for the nett					
	cost of unscheduled items found to be defective /					
	faulty and require replacement / repair, i.e. supply					
	and fit new impellor, mechanical seal, balancing, etc.					
<u>G6.0</u>	COMPRESSOR					
G6.1	Minor service of compressor equipment consisting					
	of:					
G6.1.1	Check torque on head screws and conduct full visual	Sum	R	R	R	R
	inspection.					
G6.1.2	Clean and replace air filter if required.	Sum	R	R	R	R
G6.1.3	Drain and replace oil	Sum	R	R	R	R
G6.1.4	Check and tighten V-belts and pulleys.	Sum	R	R	R	R
G6.1.5	Drain moisture from pressure holding tank / vessel.	Sum	R	R	R	R
G6.1.6	Check correct operation of automatic discharge unit	Sum	R	R	R	R

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PAGE					
SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
<u>PAGE</u>					
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Major service of compressor equipment consisting of:					
Full minor service described in item G6.1 above.	Sum	R	R	R	R
Percentage mark-up ( as provided under Bill A, Item	%	R	R	R	R
A3.1 ) on the provisional sum shown for the nett					
·					
and fit new V-Belt, water separator, etc.	ļ				
Unblock pipe blockages with Jetting equipment					
Jet of lines (high pressure, minimum 200kPA). Rate					
must include all safety equipment					
160mm Ø to 900mm Ø	Sum		R		R
160mm Ø to 9000mm Ø (after hours)	Sum		R		R
Jet (high pressure, minimum 200kPA) and vacuum of					
lines. Rate must include all safety equipment					
160mm Ø to 900mm Ø	Sum		R		R
160mm Ø to 900mm Ø (after hours)	Sum		R		R
Camera inspection (information to be submitted in	Sum		R		R
suitable electronic format)					
Removal of all material from sewer blockages	Sum		R		R
Trace and uncover existing manholes					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE  Major service of compressor equipment consisting of:  Full minor service described in item G6.1 above.  Percentage mark-up ( as provided under Bill A, Item A3.1 ) on the provisional sum shown for the nett cost of unscheduled items found to be defective / faulty and require replacement / repair, i.e. supply and fit new V-Belt, water separator, etc.  Unblock pipe blockages with Jetting equipment  Jet of lines (high pressure, minimum 200kPA). Rate must include all safety equipment  160mm Ø to 900mm Ø 160mm Ø to 900mm Ø (after hours)  Jet (high pressure, minimum 200kPA) and vacuum of lines. Rate must include all safety equipment  160mm Ø to 900mm Ø 160mm Ø to 900mm Ø 160mm Ø to 900mm Ø (after hours)  Camera inspection (information to be submitted in suitable electronic format)  Removal of all material from sewer blockages	SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE  Major service of compressor equipment consisting of: Full minor service described in item G6.1 above.  Percentage mark-up ( as provided under Bill A, Item A3.1 ) on the provisional sum shown for the nett cost of unscheduled items found to be defective / faulty and require replacement / repair, i.e. supply and fit new V-Belt, water separator, etc.  Unblock pipe blockages with Jetting equipment  Jet of lines (high pressure, minimum 200kPA). Rate must include all safety equipment  160mm Ø to 900mm Ø Sum  160mm Ø to 900mm Ø (after hours)  Jet (high pressure, minimum 200kPA) and vacuum of lines. Rate must include all safety equipment  160mm Ø to 900mm Ø Sum  160mm Ø to 900mm Ø (after hours)  Camera inspection (information to be submitted in suitable electronic format)  Removal of all material from sewer blockages	SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE  Major service of compressor equipment consisting of:  Full minor service described in item G6.1 above.  Percentage mark-up ( as provided under Bill A, Item A3.1 ) on the provisional sum shown for the nett cost of unscheduled items found to be defective / faulty and require replacement / repair, i.e. supply and fit new V-Belt, water separator, etc.  Unblock pipe blockages with Jetting equipment  Jet of lines (high pressure, minimum 200kPA). Rate must include all safety equipment  160mm Ø to 900mm Ø  160mm Ø to 9000mm Ø (after hours)  Jet (high pressure, minimum 200kPA) and vacuum of lines. Rate must include all safety equipment  160mm Ø to 900mm Ø  Camera inspection (information to be submitted in suitable electronic format)  Removal of all material from sewer blockages  Sum	PAGE SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE  Major service of compressor equipment consisting of:  Full minor service described in item G6.1 above.  Percentage mark-up ( as provided under Bill A, Item A3.1) on the provisional sum shown for the nett cost of unscheduled items found to be defective / faulty and require replacement / repair, i.e. supply and fit new V-Belt, water separator, etc.  Unblock pipe blockages with Jetting equipment  Jet of lines (high pressure, minimum 200kPA). Rate must include all safety equipment  160mm Ø to 900mm Ø Sum R  160mm Ø to 900mm Ø (after hours) Sum R  Jet (high pressure, minimum 200kPA) and vacuum of lines. Rate must include all safety equipment  160mm Ø to 900mm Ø Sum R  Camera inspection (information to be submitted in suitable electronic format)  Removal of all material from sewer blockages Sum R	PAGE  SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE  Major service of compressor equipment consisting of:  Full minor service described in item G6.1 above. Sum R R R  Percentage mark-up ( as provided under Bill A, Item A3.1 ) on the provisional sum shown for the nett cost of unscheduled items found to be defective / faulty and require replacement / repair, i.e. supply and fit new V-Belt, water separator, etc.  Unblock pipe blockages with Jetting equipment  Jet of lines (high pressure, minimum 200kPA). Rate must include all safety equipment  160mm Ø to 900mm Ø Sum R  Jet (high pressure, minimum 200kPA) and vacuum of lines. Rate must include all safety equipment  160mm Ø to 900mm Ø Sum R  160mm Ø to 900mm Ø Sum R  Camera inspection (information to be submitted in suitable electronic format)  Removal of all material from sewer blockages  Sum R

G8.1	To trace, open and uncover existing manholes	hour	R	R
	(remove vegetation) and cleaning of rivers where			
	sewer spillages occurs and injection of herbicides			
	around manholes (sewer chemicals, herbicides will			
	be supplied by Dr Beyers Naude Local Municipality)			
G8.2	Install manhole cover and frames (labour only)	each	R	R
G8.3	Unblock sewer blockages	each	R	R
G8.4	Cleaning of sewer lines	hour	R	R
G9.0	Cleaning of Pumpstations (SUMPS) and treatment			
	plants			
G9.1	Cleaning of pump stations, catch pits and sand	Cubes	R	R
	channels (rate must include all safety equipment)			
	Disposal of Waste material from pump stations,			
	catch pits and sand channels			
G9.2	0 – 7000 litre	rate/km	R	R
	Disposal of Waste material from pump stations,			
	catch pits and sand channels: After hours			
G9.3	0 – 7000 litre	rate/km	R	R
G10.0	Cleaning of Septic Tanks and Conservancy Tanks			
G10.1	Cleaning of septic tanks and conservancy tanks (rate must include all safety equipment)	Cubes	R	R
	Disposal of Waste material from septic tanks and conservancy tanks			
G10.2	0 – 7000 litre	rate/km	R	R
	Disposal of Waste material from septic tanks and			
	conservancy tanks: After hours			
G10.3	0 – 7000 litre	Rate/km	R	R
G11.0	Cleaning of Containers (Drums) at Pumpstations			
G11.0	cicaling of containers (Drums) at rumpstations			

G11.1	Cleaning of containers at pump stations	each		R		R
G11.2	Remove material and dispose at suitable site	Rate/km		R		R
G12.0	Cutting of Grass					
G12.1	All-inclusive rate for the mowing of grass and removing of surplus material at pump stations and applying herbicides around pump stations (herbicides will be supplied by Dr Beyers Naude Local Municipality)	per square		R		R
G13.0	General Maintenance Work					
G13.1	Repair and replace existing fences (labour only)	metre		R		R
G13.2	Installing of flat wrap (labour only)	metre		R		R
G13.3	Remove and install poles at fences					
G13.3.1	Pole 1.8m (labour only)	each		R		R
G13.3.2	Pole 2.2m (labour only)	each		R		R
G13.4	Tariff for travelling from Graaff-Reinet to and from destination of pump stations.	per km		R		R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT PAGE					R
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE					R
<u>G7.0</u>	Miscellaneous Items					
G7.1	Lump sum allowance for any items not included in this schedule necessary to complete the installation in accordance with the specification and drawing.	Sum	R	R	R	R

Brief description of such items to be entered hereunder.		
TOTAL SCHEDULE G TO BE CARRIED FORWARD TO PRICE SUMMARY	R	R
Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all provisional sums are carried over correctly.		

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ITEM NO.   DESCRIPTION   UNIT   MATERIAL   LABOUR
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			RATE	TOTAL	RATE	TOTAL
	NOTES:	_	_	_	_	
(i)	All rates must be exclusive of VAT.					
(ii)	All rates to include for supply, delivery and installation thereof unless specified otherwise.					
(iii)	All quantities are provisional and are for comparative purposes only and do not describe the final extent of the work.					
_	Duckfoot bend - DN200:	Each	R	R	R	R
_	Guide rails (SS304), pair, to suite ND50 duckfoot bend, 6m long	Each	R	R	R	R
	Guide rails (SS304), pair, to suite ND65 duckfoot bend, 6m long	Each	R	R	R	R
	Guide rails (SS304), pair, to suite ND80 duckfoot bend, 6m long	Each	R	R	R	R
	Guide rails (SS304), pair, to suite ND100 duckfoot bend, 6m long	Each	R	R	R	R
	Guide rails (SS304), pair, to suit ND150 duckfoot bend, 6m long	Each	R	R	R	R
	Guide rails (SS304), pair, to suit ND200 duckfoot bend, 6m long	Each	R	R	R	R
	Guide rail top bracket to suite DN50 duckfoot	Each	R	R	R	R
	Guide rail top bracket to suite DN65 duckfoot	Each	R	R	R	R
	Guide rail top bracket to suite DN80 duckfoot	Each	R	R	R	R
	Guide rail top bracket to suite DN100 duckfoot	Each	R	R	R	R
	Guide rail top bracket to suite DN150 duckfoot	Each	R	R	R	R
	Guide rail top bracket to suite DN200 duckfoot	Each	R	R	R	R
	Lifting chain, SS316, 6mm	Each	R	R	R	R
	Lifting chain, SS316, 8mm	Each	R	R	R	R
	Lifting chain, SS316, 10mm	Each	R	R	R	R

Supply & installation of Pipework, 304 SS, PN16:					
DN50 Straight pipe, flanged both ends (flange to flange):					
500mm	Each	R	R	R	R
1000mm	Each	R	R	R	R
1500mm	Each	R	R	R	R
2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R
SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT			R		R
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DN80 Straight pipe, flanged both ends (flange to flange):					
500mm	Each	R	R	R	R
1000mm	Each	R	R	R	R
1500mm	Each	R	R	R	R
2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R
DN100 Straight pipe, flanged both ends (flange to flange):					
500mm	Each	R	R	R	R
1000mm	Each	R	R	R	R
1500mm	Each	R	R	R	R
	l	1		I	1

 2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R
DN150 Straight pipe, flanged both ends (flange to flange):					
500mm	Each	R	R	R	R
1000mm	Each	R	R	R	R
1500mm	Each	R	R	R	R
2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R
DN200 Straight pipe, flanged both ends (flange to flange):					
500mm	Each	R	R	R	R
1000mm	Each	R	R	R	R
1500mm	Each	R	R	R	R
2000mm	Each	R	R	R	R
SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT PAGE			R		R
SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE			R		R
 2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R

flange):         Each         R         R         R           1000mm         Each         R         R         R	R
1000mm Each R R	
	R
1500mm Each R R R	R
2000mm Each R R	R
2500mm Each R R R	R
3000mm Each R R	R
DN300 Straight pipe, flanged both ends (flange to	
flange):	
500mm Each R R	R
1000mm Each R R	R
1500mm Each R R	R
2000mm Each R R	R
2500mm   Each   R   R   R	R
3000mm Each R R	R
DN350 Straight pipe, flanged both ends (flange to flange):	
500mm Each R R	R
1000mm Each R R	R
1500mm Each R R R	R
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SUBTOTOTAL CARRIED OVER FROM PREVIOUS PAGE R	R
_	

2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R
HDPE Fustion welded fittings c/w 304 backing					
rings T16 in50mm					
500mm	Each	R	R	R	R
1000mm	Each	R	R	R	R
1500mm	Each	R	R	R	R
2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R
HDPE Fustion welded fittings c/w 304 backing					
rings T16 in 80mm					
500mm	Each	R	R	R	R
1000mm	Each	R	R	R	R
1500mm	Each	R	R	R	R
2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R
HDPE Fustion welded fittings c/w 304 backing					
rings T16 in 100mm					
500mm	Each	R	R	R	R
 1000mm	Each	R	R	R	R
1500mm	Each	R	R	R	R
2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
L					

3000mm	Each	R	R	R	R
HDPE Fustion welded fittings c/w 304 backing					
rings T16 in 150mm					
500mm	Each	R	R	R	R
1000mm	Each	R	R	R	R
SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT			R		R
PAGE					
SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
PAGE					
_					
1500mm	Each	R	R	R	R
2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R
HDPE Fustion welded fittings c/w 304 backing					
rings T16 in 200mm					
500mm	Each	R	R	R	R
1000mm	Each	R	R	R	R
1500mm	Each	R	R	R	R
2000mm	Each	R	R	R	R
2500mm	Each	R	R	R	R
3000mm	Each	R	R	R	R
90 deg. Long radius bends, flanged both ends 304					
stainless steel					
DN50	Each	R	R	R	R
 •	•	•	•	•	•

	DN80	Each	R	R	R	R
	DN100	Each	R	R	R	R
	DN150	Each	R	R	R	R
	DN200	Each	R	R	R	R
-	DN250	Each	R	R	R	R
	DN300	Each	R	R	R	R
	DN350	Each	R	R	R	R
	DN400	Each	R	R	R	R
	DN450	Each	R	R	R	R
	DN500	Each	R	R	R	R
	DN550	Each	R	R	R	R
	DN600	Each	R	R	R	R
	_					
	45deg. Long radius bends, flanged both ends 304					
	stainless steel					
	DN50	Each	R	R	R	R
	DN80	Each	R	R	R	R
	DN100	Each	R	R	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT			R		R
	PAGE					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
	<u>PAGE</u>					
	-					
	DN150	Each	R	R	R	R
	DN200	Each	R	R	R	R
	DN250	Each	R	R	R	R
	DN300	Each	R	R	R	R
	DN350	Each	R	R	R	R
	•	•	•	•	•	

DN400	Each	R	R	R	R
DN450	Each	R	R	R	R
DN500	Each	R	R	R	R
DN550	Each	R	R	R	R
DN600	Each	R	R	R	R
-					
Equal, swept 90 deg. Long radius Tee, flanged all					
ends					
DN50	Each	R	R	R	R
DN80	Each	R	R	R	R
DN100	Each	R	R	R	R
DN150	Each	R	R	R	R
DN200	Each	R	R	R	R
DN250	Each	R	R	R	R
DN300	Each	R	R	R	R
DN350	Each	R	R	R	R
DN400	Each	R	R	R	R
DN450	Each	R	R	R	R
DN500	Each	R	R	R	R
DN550	Each	R	R	R	R
DN600	Each	R	R	R	R
-					
Unequal, swept 90 deg. Long radius Tee, flanged					
all ends (Main x Tee off)					
DN80 x DN50	Each	R	R	R	R
DN100 x DN80	Each	R	R	R	R
DN150 x DN100	Each	R	R	R	R
DN200 x DN150	Each	R	R	R	R
 DN250 x DN200	Each	R	R	R	R

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	DN300 x DN250	Each	R	R	R	R
	SUBTOTAL FOR THIS PAGE CARRIED OVER TO NEXT			R		R
	<u>PAGE</u>					
	SUBTOTOTAL CARRIED OVER FROM PREVIOUS			R		R
	<u>PAGE</u>					
	DN350 x DN300	Each	R	R	R	R
	DN400 x DN350	Each	R	R	R	R
	DN450 x DN400	Each	R	R	R	R
	DN500 x DN450	Each	R	R	R	R
	DN550 x DN500	Each	R	R	R	R
	DN600 x DN550	Each	R	R	R	R
	Flanged double action air-release valve suitable					
	for raw sewage, complete with 5m uPVC drainage					
	pipework					
	DN25	Each	R	R	R	R
	DN50	Each	R	R	R	R
	DN80	Each	R	R	R	R
	DN100	Each	R	R	R	R
	DN150	Each	R	R	R	R
	DN200	Each	R	R	R	R
	Ancillary Equipment, supply & installation					
	Nuts, Bolts, ready bar & packings, complete set					
	(number & size) per PN16 rated flange size A2					
	stainless					
	DN50	Each	R	R	R	R
	DN65	Each	R	R	R	R

DN80	Each	R	R	R	R
DN100	Each	R	R	R	R
DN125	Each	R	R	R	R
DN150	Each	R	R	R	R
DN200	Each	R	R	R	R
DN250	Each	R	R	R	R
DN300	Each	R	R	R	R
DN350	Each	R	R	R	R
DN400	Each	R	R	R	R
TOTAL SCHEDULE H TO BE CARRIED FORWARD TO			R		R
PRICE SUMMARY					
Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all provisional sums are carried over correctly.					
	DN100  DN125  DN150  DN200  DN250  DN300  DN350  DN400  TOTAL SCHEDULE H TO BE CARRIED FORWARD TO PRICE SUMMARY  Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all	DN100  DN125  Each  DN150  Each  DN200  Each  DN250  Each  DN300  Each  DN350  Each  DN400  Each  DN400  Each  TOTAL SCHEDULE H TO BE CARRIED FORWARD TO PRICE SUMMARY   Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all	DN100 Each R  DN125 Each R  DN150 Each R  DN200 Each R  DN250 Each R  DN300 Each R  DN350 Each R  DN400 Each R  TOTAL SCHEDULE H TO BE CARRIED FORWARD TO PRICE SUMMARY  Note on electronic spreadsheet pricing: It remains the contractor's responsibility to check that his prices multiply and add correct, and that all	DN100 Each R DN125 Each R R DN150 Each R R DN200 Each R R R DN250 Each R R R DN300 Each R R R DN350 Each R R R DN400 Each R R R DN400 Each R R R R	DN100 Each R R R DN125 Each R R R DN150 Each R R R DN200 Each R R R DN250 Each R R R DN300 Each R R R DN300 Each R R R DN350 Each R R R DN400 Each R R R R

## **SUMMARY OF BILL OF QUANTITIES**

DESCRIPTION	AMOUNT (ZAR)
BILL A: PRELIMINARY AND GENERAL ITEMS	R
BILL B: GENERATOR INSTALLATION	R
BILL C: CONTROL PANEL EQUIPMENT	R
BILL D: ELECTRICAL INSTALLATION	R
BILL E: MISCELLANEOUS EQUIPMENT	R
BILL F: PUMPS, MOTORS AND ACCESSORIES	R
BILL G: SERVICING OF PLANT AND EQUIPMENT	R
BILL H: WELDING	R
SUB TOTALS	
TOTAL MATERIAL AND LABOUR	R
NETT TENDER AMOUNT, EXCL. VAT	R
ADD 15 % VAT	R
GROSS TENDER AMOUNT, TO BE CARRIED FORWARD TO FORM OF OFFER AND ACCEPTANCE IN PART C1.1 HEREOF	R
	BILL A: PRELIMINARY AND GENERAL ITEMS  BILL B: GENERATOR INSTALLATION  BILL C: CONTROL PANEL EQUIPMENT  BILL D: ELECTRICAL INSTALLATION  BILL E: MISCELLANEOUS EQUIPMENT  AND MATERIAL ITEMS  BILL F: PUMPS, MOTORS AND  ACCESSORIES  BILL G: SERVICING OF PLANT AND  EQUIPMENT  BILL H: WELDING  SUB TOTALS  TOTAL MATERIAL AND LABOUR  NETT TENDER AMOUNT, EXCL. VAT  ADD 15 % VAT  GROSS TENDER AMOUNT, TO BE  CARRIED FORWARD TO

NB!!!1 Please note that the total rates combined does not constitute as the final quotation amount as it will solely be used for evaluation purposes.

Quotation will rate based subject to a maximum of R 300 000.00

<b>Phone Number:</b>	
Date:	
Signature	

3

## **MBD 4: DECLARATION OF INTEREST**

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

completed and submitted with the bid.

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

In order to give effect to the above, the following questionnaire must be

3.1	Full Name:	
3.2	Identity Number:	
3.3	Company Registration Number:	
3.4	Tax Reference Number:	
3.5	VAT Registration Number:	
3.6	Are you presently in the service of the state*	/ES / NO
3.6.	1If so, furnish particulars.	

(i) any municipal council;

<sup>\*</sup> MSCM Regulations: "in the service of the state" means to be -

<sup>(</sup>a) a member of -

<sup>(</sup>ii) any provincial legislature; or

<sup>(</sup>iii) the national Assembly or the national Council of provinces;

<sup>(</sup>b) a member of the board of directors of any municipal entity;

<sup>(</sup>c) an official of any municipality or municipal entity;

<sup>(</sup>d) an employee of 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);

<sup>(</sup>e) a member of the accounting authority of any national or provincial public entity; or

<sup>(</sup>f) an employee of Parliament or a provincial legislature.

3.7	Have you been in the service of the state for the past twelve months?	YES / NO
3.7.1	If so, furnish particulars.	
3.8	Do you, have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?	YES / NO
3.8.1	If so, furnish particulars.	
3.9	Are you, aware of any relationship (family, friend, other) between a bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?	YES / NO
3.9.1	If so, furnish particulars	

3.10		ne company's direc or stakeholders in se			YES/	NO
3.10.	1 If so, furnish	particulars.				
3.11		, child or parent of the cipal shareholders or s			YES / N	0
	of the state?					
3.11.	1 If so, furnish	particulars.				
			CERTIFICATIO	 DN		
	I,	THE		RSIGNED	(NA	ME)
		T THE INFORMATIO			LARATION FORI	VI IS
	I ACCEPT DECLARATION	THAT THE STAT ON PROVE TO BE	E MAY ACT	AGAINST M	IE SHOULD T	HIS
	FALSE.					
	Signature				Date	
	Position	<u></u>		Name of Bidder		

#### **MBD 6.1**

## PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

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

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

#### 1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to invitations to tender:
  - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
  - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

## 1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the 90/10 preference point system.
- b) The applicable preference point system for this tender is the 80/20 preference point system.
- c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.
- 1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
  - (a) Price; and
  - (b) Specific Goals.

## 1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

- 1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner

required by the organ of state.

#### 2. **DEFINITIONS**

- (a) "tender" means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) "price" means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) "rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) "tender for income-generating contracts" means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
  - (e) "the Act" means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

#### 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

#### 3.1. POINTS AWARDED FOR PRICE

#### 3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

$$Ps = 80\left(1 - \frac{Pt - Pmin}{Pmin}\right)$$
 or  $Ps = 90\left(1 - \frac{Pt - Pmin}{Pmin}\right)$ 

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

## 3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

#### 3.2.1. POINTS AWARDED FOR PRICE

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

$$Ps = 80\left(1 + \frac{Pt - Pmax}{Pmax}\right)$$
 or  $Ps = 90\left(1 + \frac{Pt - Pmax}{Pmax}\right)$ 

#### Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

## 4. POINTS AWARDED FOR SPECIFIC GOALS

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

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system)  (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system)  (To be completed by the tenderer)
B-BBEE Status Level Contributor (Please see below Table 2)		10		

The promotion of enterprises located in a specific province for work to be done or services to be rendered in that	10	
province		

## **DECLARATION WITH REGARD TO COMPANY/FIRM**

4.3.	Name of company/firm	
4.4.	Com	pany registration number:
4.5.	TYPE	OF COMPANY/ FIRM
		Partnership/Joint Venture / Consortium
		One-person business/sole propriety
		Close corporation
		Public Company
		Personal Liability Company
		(Pty) Limited
		Non-Profit Company
		State Owned Company
	[Тіск	APPLICABLE BOX]

- 4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
  - i) The information furnished is true and correct;
  - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
  - iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
  - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have
    - (a) disqualify the person from the tendering process;
    - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution, if deemed necessary.

**TABLE 2: B-BBEE Status Level Contribution** 

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	5	10
2	4	8
3	3	6
4	2	4
5	1	3
6	1	2
7	1	2
8	1	2
Non-compliant contributor	0	0

	SIGNATURE(S) OF TENDERER(S)
SURNAME AND NAME:	
DATE:	
ADDRESS:	

## MBD8

## **DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES**

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

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National	Yes	No
	Treasury's database as a company or person prohibited from doing business with the public sector?		
	(Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied).		
	The Database of Restricted Suppliers now resides on the National Treasury's webiste ( <a href="www.treasury.gov.za">www.treasury.gov.za</a> ) and can be accessed by clicking on its link at the bottom of the home page.		
4.1.1	If so, furnish particulars:		

4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the	Yes	No
	Prevention and Combating of Corrupt Activities Act (No		
	12 of 2004)?		
	The Register for Tender Defaulters can be accessed on the National Treasury's website ( <a href="www.treasury.gov.za">www.treasury.gov.za</a> ) by clicking on its link at the bottom of the home page.		
4.2.1	If so, furnish particulars:		
4.2.1	ii 50, iuitiisti particulais.		
4.3	Was the bidder or any of its directors convicted by a	Yes	No
	court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?		
4.3.1	If so, furnish particulars:	•	
	·		
ltem	Question	Yes	No
Item 4.4	Does the bidder or any of its directors owe any municipal	<b>Yes</b> Yes	<b>No</b> No
	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal		
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?  If so, furnish particulars:  Was any contract between the bidder and the		
4.4.1	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?  If so, furnish particulars:	Yes	No
4.4.1	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?  If so, furnish particulars:  Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of	Yes	No

## **CERTIFICATION**

I, THE UNDERSIGNED (FULL NAME) ......

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION
FORM IS TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

	•••••
Signature	
	Date
Position	
1 OSITION	Name of Bidder

## MBD 9

#### CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids<sup>1</sup> invited.
- 2 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 offirms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).<sup>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38(1) prescribes that a supply chain management policymust provide measures for the combating of abuse of the supply chain managementsystem, and must enable the accounting officer, among others, to:
- a. take all reasonable steps to prevent such abuse;
- b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
- c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- This MBD serves as a certificate of declaration that would be used by institutions toensure that, when bids are considered, reasonable steps are taken to prevent any formof bid-rigging.
- In order to give effect to the above, the attached Certificate of Bid Determination (MBD9) must be completed and submitted with the bid:
- <sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.
- <sup>2</sup> 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. Bidrigging is, therefore, an agreement between competitors not to compete.
- I, the undersigned, in submitting the accompanying bid:

## BEY-SCM-596

as the bidder.

6.

# REPAIR AND MAINTENANCE OF PUMPS, GENERATORS, WATER/WASTEWATER PUMPSTATIONS AND FACILITIES

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

in response to the invitation for the bid made by:

## DR BEYERS NAUDÉ LOCAL MUNICIPALITY

I cert	tify, on behalfof:	_that:
(Nan	ne 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 C be true and complete in every respect;	ertificate is found notto
3.	I am authorized by the bidder to sign this Certificate, and to submit on behalf of the bidder;	the accompanyingbid,
4.	Each person whose signature appears on the accompanying bid bythe bidder to determine the terms of, and to sign, the bid, on be	
5.	For the purposes of this Certificate and the accompanying bid, I un "competitor" shall include any individual or organization, other than not affiliated with the bidder, who:	
(a)	has been requested to submit a bid in response to this bid invitation	on;
(b) quali	could potentially submit a bid in response to this bid invifications, abilities or experience; and	tation, based ontheir

(c) provides the same goods and services as the bidder and/or is in the sameline of business

The bidder has arrived at the accompanying bid independently from, and

withoutconsultation, communication, agreement or arrangement with any competitor.

Howevercommunication 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 orarrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 10. I am aware that, in addition and without prejudice to any other remedy provided tocombat any restrictive practices related to bids and contracts, bids that are suspiciouswill be reported to the Competition Commission for investigation and possible impositionof administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998and or may be reported to the National Prosecuting Authority (NPA) for criminalinvestigation and or may be restricted from conducting business with the public sectorfor 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.

Signature	Date
Position	Name of Bidder

<sup>&</sup>lt;sup>3</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skilland knowledge in an activity for the execution of a

	CERTIFICATE FO	OR MUNICIPAL SER	VICES	
Information required in te (d).	erms of the DR BEYER:	S NAUDE 's Supply Chain	Management Policy, Clause 32	2 (2)
Name of the Te	Tender Numb	per: BEY-SCM-596		
FURTHER I	DETAILS OF THE BIDDI	ER/S: Proprietor / Direct	or(s) / Partners, etc:	
Physical Business address of the Bidder		Municipal Ac	count Number(s)	
If there is not enough spa	ice for all the names, p	please attach the addition	nal details to the Tender docur	ment.
Name of Director / Member / Partner	Identity Number	Physical <b>residential</b> address of Director / Member / Partner	Municipal Account number(s)	
l,			, the undersigned,	
	(full na	me in block letters)		
undisputed commitme	ents for municipal ser		correct and that I/we have no ality or other service provider nan 30 days.	
		Signature		
THUS	DONE AND SIGNED for	and on behalf of the Bid	der / Contractor	
at	on	the day of	2025	