

ANNEXURE C

**BILL
OF
QUANTITIES**

SERCIVE MAINTENANCE AND REPAIRS OF DIESEL GENERATOR AND ELECTRICAL WORKS AT ROOIWAL AND SOSHANGUVE AGRIPARKS

BILL OF QUANTITIES

Item	Description	TOTAL BOQ ESTIMATE			
		Unit	Quantity	Rate	Amount
	<u>SECTION 1</u> <u>BILL NO. 1</u> <u>PRELIMINARIES</u> <u>SUPPLEMENTARY PREAMBLES</u> 1. Tenderers are to refer to the Model Preambles for Trades (Latest Edition) and Supplementary Preambles for further description and amplification of work in this section. 2. The agreement is to be the General Conditions of Contract for Works of Civil Engineering Construction (2015) , published by the S. A. Institution Of Civil Engineering. 3. The Preliminaries are to be the Construction and management requirements for works contracts - Part 1: General engineering and construction works (SANS 1921-1: 2004 Edition 1) prepared by Standards South Africa and shall be deemed to be incorporated herein. 4. Tenderers are referred to the abovementioned documents for the full intent of the preliminaries thereof for which such allowance must be made as may be considered necessary. 5. Adjustment of the preliminaries: each item priced, is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount not to be varied), "V" denotes an amount variable in proportion to value and "T" denotes an amount in proportion to time. 6. Time (T) related Preliminaries will only be adjusted for omissions or additions, issued by the Employer, or delays caused by the Employer, for which variation and extension of time has been granted. <u>The total price for Preliminaries and General shall be deemed to include a project specific documents and resources such as but not limited to:</u> Establishment and de-establishment Health and safety file Health and Safety Agent Personal protective clothing and equipment Insurances <u>the reference to be made to the sections as detailed in annexure B of the quotation document;</u>				

Section A: General Conditions of Contract				
Section B: SANS 1921-1:2004 (Edition 1): Construction and Management Requirements for Works Contracts: Part 1				
Section C: Scope of Work in Accordance with SANS 10403				
Section D: Specification Data Associated with Sans 1921-1:2004 (Table A.1)				
Section E: Specific Preliminaries				
<u>Preliminaries and General</u>				
1	Fixed (10%)	Item	1	R
2	Value (15%)	Item	1	R
3	Time (75%)	Item	1	R
Total amount carried to summary page				

SECTION 2

BILL No.2

ALTERATIONS

PREAMBLES

NOTE: Tenderers are advised to study the "MODEL PREAMBLES FOR TRADES" (2008 Edition) as recommended and published by the Association of South African Quantity Surveyors before pricing this bill.

SUPPLEMENTARY PREAMBLES

1. The Tenderer is advised to visit the site, inspect the existing premises and acquaint himself thoroughly with the nature of the himself thoroughly with the nature of the work specified.
2. All sizes and dimensions stated herein are approximate and deemed only sufficient to identify the item of work concerned.
3. No allowance for overbreak has been made to any of the adjoining structures, walls, finishes, etc., where removals or pockets occur (the nett opening size, etc., has been made good in later items of this bill where such making good has not been included with the item) and the Contractor must allow in his prices for making good any overbreak that may occur.
4. All new finishes are measured in the relevant trades for new work.
5. Provide all necessary propping, etc., required to ensure the safety and stability of the structure during the contract period and remove at completion.
6. Provide all necessary additional barricades, screens, overhead protections, etc., required to ensure the safety of persons, property, etc., and remove at completion.
7. Allow for watering the works sufficiently to prevent nuisance from dust.
8. All alteration works described hereunder shall imply the use of an approved screed or plaster repairing compound and preparing existing surfaces to receive new.
9. All alteration work is within an existing facility. The contractor shall take utmost care to minimise damage to existing completed works in the vicinity of the alteration works.
10. Old material to be carted away: Old materials from the alterations, except where described to be re-used or handed over, as well as all rubbish, etc., must be regularly carted from the site and not be allowed to accumulate on or around the site.
11. Old material not to be re-used: None of the old materials are to be used for new work except where specifically described as being set aside for re-use.

12. With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork

13. The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, fittings, etc)

14. Insert preambles/specifications as may be required or in order to supplement any applicable preambles, specifications or bills of quantities descriptions

15. Take note that these Model Bills of Quantities utilise abbreviated descriptions

16. The Model Preambles for Trades 2008 published by the Association of South African Quantity Surveyors is designed to support and extend the abbreviated bills of quantities descriptions by inter alia referring to SANS construction standards. Where such model preambles are not applicable (eg where BS or Euro construction standards are applicable or the design consultants provide other preambles/specifications for insertion), users are to ensure that the abbreviated descriptions when read in conjunction with the applicable measuring system, represents the full description by extending the abbreviated bills of quantities descriptions and/or by inserting appropriate preambles or specifications

17. Consider inserting the preambles hereunder when using the abovementioned Model Preambles for Trades 2008

View site

Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials salvageable from the alterations. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained

Explosives

No explosives whatsoever may be used for alteration purposes unless otherwise stated

General

The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to tenants in the building and to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent

Taking out and removing piping, sanitary fittings, etc., including cutting off as necessary, disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere). All removed waste material must be dumped at a designated site identified by the contractor.

	Doors, fanlights, windows, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc, and oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately Prices for taking out of doors, windows, etc shall include for removal of all beads, architraves, ironmongery, etc Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc) <u>Taking out and removing piping, sanitary fittings, etc., including cutting off as necessary, disconnecting piping from fittings and making good floor and wall finishes (making good tiling and paintwork elsewhere)</u>				
	<u>Rooiwal Agripark</u>				
1	<u>Rooiwal Office</u>				
	<u>Breaking up and removing unreinforced concrete</u>				
1.1	Hackoff the wall 40mm x 50mm for allowance of electrical PVC 25mm conduit pipe	m	2	R	R
	<u>Soshanguve Agripark</u>				
2	<u>Soshanguve Office</u>				
	<u>Breaking up and removing unreinforced concrete</u>				
2.1	Hackoff the wall 40mm x 50mm for allowance of electrical PVC 25mm conduit pipe	m	2	R	R
	Total amount carried to summary page				R

<u>SECTION 3</u>					
<u>BILL NO.3</u>					
<u>TRADE: EXCAVATION WORKS</u>					
<u>SUPPLEMENTARY PREAMBLES</u>					
<u>Nature of ground</u>					
The nature of the ground is assumed to be loose sandy material, therefore "earth", but possibly interspersed with "soft rock" or "hard rock"					
The nature of the ground is assumed to be gravel, therefore earth, but possibly interspersed with "soft rock" or "hard rock"					
The nature of the ground is assumed to be silty clay with loose river boulders varying in size up to approximately 450mm diameter, all of which will be deemed as "earth", but possibly interspersed with "hard rock"					
Trial holes indicate that the nature of the ground is silty clay to a depth of approximately 500mm with fine to medium loose sandy material below, therefore "earth"					
<u>General</u>					
Descriptions of pipes laid in and including trenches and of inspection chambers, catchpits, etc shall be deemed to include excavation, bedding, backfilling, compaction to a minimum of 95% Mod AASHTO density and disposal of surplus material on site					
<u>EXCAVATION, FILLING, ETC</u>					
<u>TRADE: EXCAVATION WORKS</u>					
<u>Rooiwal Agripark</u>					
1	<u>The right hand site Generator</u>				
	<u>Excavation in earth not exceeding 1m deep</u>				
1.1	Excavate a trench of 300mm(W) x 700mm (D) x 8m (L) from the koisk to generator for 16 mm x 4mm core 1000V electrical cables	m ³	10	R	R
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
1.2	Backfilling in situ material and compact	m ³	10	R	R
2	<u>The left hand site Generator</u>				
	<u>Excavation in earth not exceeding 1m deep</u>				
2.1	Excavate a trench of 300mm(W) x 700mm (D) x 3m (L) from the koisk to generator for 16 mm x 4mm core 1000V electrical cables	m ³	5	R	R
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
2.2	Backfilling in situ material and compact	m ³	5	R	R
Total amount carried to the next page					R

	Total amount brought from the next page				R
	BILL NO.3				
	TRADE: EXCAVATION WORKS				
	<u>Soshanguve Agripark</u>				
1	<u>Installation from the Generator to the Koisk</u>				
	<u>Excavation in earth not exceeding 1m deep</u>				
1.1	Excavate a trench of 300mm(W) x 700mm (D) x 5m (L) from the koisk to generator for 16 mm x 4mm core 1000V electrical cables	m ³	10	R	R
	<u>Soshanguve Agripark</u>				
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
1.2	Backfilling in situ material and compact	m ³	10	R	R
2	<u>Installation from Kosik to the Main DB</u>				
	<u>Excavation in earth not exceeding 1m deep</u>				
2.1	Excavate a trench of 300mm(W) x 700mm (D) x 25m (L) from the koisk to Main DB for 16 mm x 4mm core 1000V electrical cables	m ³	25	R	R
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
2.2	Backfilling in situ material and compact	m ³	25	R	R
3	<u>Installation from Main BD to Secondary BD</u>				
	<u>Excavation in earth not exceeding 1m deep</u>				
3.1	Excavate a trench of 300mm(W) x 700mm (D) x 150m (L) from main DB to Secdary DB for 16 mm x 4mm core 1000V electrical cables	m ³	150	R	R
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
3.2	Backfilling in situ material and compact	m ³	150	R	R
4	<u>Installation form Secondary DB to Third DB</u>				
	<u>Excavation in earth not exceeding 1m deep</u>				
4.1	Excavate 300mm(W) x 700mm (D) x 170m (L) from secondary DB to Third DB for 16 mm x 4mm core 1000V electrical cables	m ³	170	R	R
	<u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>				
4.2	Backfilling in situ material and compact	m ³	170	R	R
5	<u>Installation from Secondary DB to Fourth DB</u>				
	<u>Excavation in earth not exceeding 1m deep</u>				
5.1	Excavate 300mm(W) x 700mm (D) x 170m (L) from secondary DB to fourth DB for 16 mm x 4mm core 1000V electrical cables	m ³	170	R	R
	Total amount carried to the next page				R

Total amount brought from the next page						
	<u>BILL NO.3</u> <u>TRADE: EXCAVATION WORKS</u> <u>Soshanguve Agripark</u> <u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>					R
5.2	Backfilling in situ material and compact	m ³	170	R		R
6	<u>Installation of Electrical cables from staff house DB to Ablution BD</u> <u>Excavation in earth not exceeding 1m deep</u> Excavate 300mm(W) x 700mm (D) x 20m (L) from staff house to ablution block for 10mm x 3core armour cable <u>Soshanguve Agripark</u> <u>Earth filling obtained from the excavations and/or prescribed stock piles on site</u>	m ³	20	R		R
6.2	Backfilling in situ material and compact	m ³	20	R		R
Total amount carried to the summary page						R

<u>SECTION 4</u>					
<u>BILL NO.4</u>					
<u>TRADE: MECHANICAL WORKS</u>					
<u>SUPPLEMENTARY PREAMBLES</u>					
<u>Specifications, drawings, etc</u>					
Tenderers are referred to the specification and drawings numbered ? to ? prepared by ?, annexed to these bills of quantities (accompanying these bills of quantities?) for the items which are to be read and priced in conjunction with the mechanical work, for the full descriptions of the following said specification and drawings					
<u>Major equipment</u>					
Descriptions of major equipment such as chillers, air handling units and the like shall be deemed to include connections to water, air and electrical supply and/or discharge points, mountings, filters, insulation, inspection ladders and supports, bearers, vibration insulation gangways, access doors and panels and painting etc as specified					
<u>ROOIWAL AGRIPARK</u>					
1	<u>Rooiwal Agripark Left Hand Side Diesel Generator</u>				
1.1	Sevice maintenanceand repairs of 25KVA 3 Phase diesel generator	Item	1	R	R
1.2	Supply and install 12v battery for the diesel generator	No.	1	R	R
1.3	Supply and pour diesel fuel onto generator fuel tank	/	100	R	R
1.4	Supply and install 3-4mm panel window on the generator door panel	m²	0,5	R	R
2	<u>Rooiwal Right Hand Side Diesel Generator</u>				
2.1	Sevice maintenanceand repairs of 16KVA 3 Phase diesel generator	Item	1	R	R
2.2	Supply and install 12V battery for the diesel generator	No.	1	R	R
2.3	Supply and pour diesel fuel onto generator fuel tank	/	100	R	R
2.4	Supply and install 3-4mm panel window on the generator door panel	m²	0,5	R	R
<u>SOSHANGUVE AGRIPARK</u>					
3	<u>Soshanguve Agripark Diesel Generator</u>				
3.1	Sevice maintenanceand repairs of 16KVA 3 Phase diesel generator	Item	1	R	R
3.2	Supply and install 12V battery for the diesel generator	No.	1	R	R
3.3	Supply and pour diesel fuel onto generator fuel tank	/	100	R	R
3.4	Supply and install 3-4mm panel window on the generator door panel	m²	0,5	R	R
Total amount carried to summary page					R

<u>Section 5</u>					
<u>BILL NO. 5</u>					
<u>TRADE: ELECTRICAL WORKS</u>					
<u>SUPPLEMENTARY PREAMBLES</u>					
<u>Distribution boards etc</u>					
Tenderers are referred to the specification and drawings numbered ? to ? prepared by ?, annexed to these bills of quantities (accompanying these bills of quantities?) for the electrical work, for the full descriptions of the following items which are to be read and priced in conjunction with the said specification and drawings					
Contract price adjustment provisions					
With reference to clause ? of the Preliminaries all items in this bill will be subject to fluctuations in the cost of labour and material on the following basis:					
(a) Ring main units, miniature substations, transformers, main low tension boards, distribution boards and busbars between transformer and low tension boards calculated on the indices published by the Steel and Engineering Industries Federation of South Africa					
(b) Cables in excess of 16mm ² calculated on the basis of proven cost					
(c) All other work calculated on the index for work group ?					
<u>Switches, socket outlets, etc</u>					
Rates for switches, socket outlets, etc are to include for screwing to outlet boxes, connecting up and cover plates					
<u>Light fittings</u>					
Rates for light fittings are to include for hanging, fixing and connecting and for lamp holders and fluorescent tubes and lamps of the type and wattage described					
<u>Rooiwal Agripark</u>					
1	<u>Rooiwal Security Contianer</u>				
1.1	Supply and install LED 100W IP65 spot light	ea	1	R	R
1.2	Supply and install 4x4 double plug	ea	2	R	R
1.3	Supply and install 4FT double LED fitting with LED tubes	No.	1	R	R
2	<u>Rooiwal Residential Container</u>				
2.1	Supply and install 4FT double LED fitting with LED tubes	No.	1	R	R
3	<u>Rooiwal Office Plug</u>				
3.1	Supply and install 25mm PVC conduit	m	2,5	R	R
3.2	Supply and install 2,5mm ² twin + earth surfix cable	m	5	R	R
Total amount to carried to the next page					R

	Total amount brought from the next page				R
	BILL NO.5				
	<u>TRADE: ELECTRICAL WORKS</u>				
3	<u>Rooiwal Office Plug</u>				
3.3	Supply and install 4x4 double plug	ea	2	R	R
3.4	Supply and install 20A, 3kA Circuit Breaker CBI mini rail	ea	1	R	R
3.5	Supply and install 4FT double LED fitting with LED tubes	No.	2	R	R
4	<u>Installation form the left hand Generator to Koisk</u>				
4.1.1	Supply and install 16mm x 4 Core Armoured cable	m	5	R	R
4.1.2	Supply and install 1015 x 880 x 205 mm IP 55 mild steel encloser- double door	No	1	R	R
4.2	<u>Installation form the right hand Generator to Koisk</u>				
4.2.1	Supply and install 16mm x 4 Core Armoured cable	m	10	R	R
5	<u>Rewiring of the left hand Generator</u>				
5.1.1	Commissioning and test with a written report whether the can be maintain	Item	1	R	R
5.1.2.	Rewiring of diesel generator 's electrical connection	Item	1	R	R
	<u>Inspect, Repair,Test and Issue Certificate of Compliance's (COC's).(Refer to specification and Annexure A)</u>				
5.1.3	Diesel generator rewiring	Item	1	R	R
	<u>Rooiwal Agripark</u>				
6	<u>Inspect, Repair,Test and Issue Certificate of Compliance's (COC's).(Refer to specification and Annexure A)</u>				
6.1.1	DB - Security Contianer (outside)	ea	1	R	R
6.1.2	DB - Next To Generators (inside)	ea	1	R	R
6.1.3	DB - Main Office (inside)	ea	1	R	R
	<u>Soshanguve Agripark</u>				
1	<u>Soshanguce Office Plug</u>				
1.1	Supply and install 25mm PVC conduit	m	2,5	R	R
1.2	Supply and install 2,5mm ² twin + earth surfix cable	m	5	R	R
1.3	Supply and install 4x4 double plug	ea	1	R	R
1.4	Supply and install 20A, 3kA Circuit Breaker CBI mini rail	ea	1	R	R
1.5	Supply and install 4FT double LED fitting with LED tubes	No.	1	R	R
1.6	Supply and install 4x2 1 lever 1 way switch	ea	1	R	R
	Total amount to carried to the next page				R

	Total amount brought from the next page				R
	BILL NO.5				
	TRADE: ELECTRICAL WORKS				
2	<u>Soshanguve Staff House</u>				
2.1	<u>Staff house No.3</u>				
2.1.1	Supply and install 4FT double LED fitting with LED tubes	No.	1	R	R
2.1.2	Supply and install 4x4 double plug	ea	2	R	R
2.2	<u>Staff house No.2</u>				
2.2.1	Supply and install 4FT double LED fitting with LED tubes	No.	1	R	R
2.2.2	Supply and install 4 x4 double plug	ea	2	R	R
2.2.3	Supply and install a LED 100W IP65 spot light for the front light	ea	1	R	R
2.2.4	Supply and install 4x2 2 lever 1 way switch	ea	1	R	R
2.3	<u>Staff house No.1</u>				
2.3.1	Supply and install 4FT double LED fitting with LED tubes	No.	1	R	R
2.3.2	Supply and install 4 x4 double plug	ea	2	R	R
2.3.3	Supply and install 4x2 1 lever 2 way switch	ea	1	R	R
2.4	<u>Staff Kitchen</u>				
2.4.1	Supply and install 4FT weatherproof double LED fitting with LED tubes	No.	1	R	R
2.4.2	Supply and install 4 x4 double plug	ea	3	R	R
2.4.3	Supply and install 60 A 4x4 stove isolator switch	ea	1	R	R
2.4.4	Supply and install a LED 100W IP65 spot light	ea	1	R	R
2.4.5	Supply and install 1.5mm surfix cable for the outside side spot light	m	5	R	R
2.4.6	Supply and install a day-night switch for the spot light	ea	1	R	R
2.4.7	Supply and install 20A, 3kA Circuit Breaker CBI mini rail for the spot light	ea	1	R	R
2.4.8	Supply and install 10mm x 3core armour cable from the Kitchen 's BD to Ablution BD	m	20	R	R
2.4.9	Supply and white Flush Mount DB of same kind	No.	1	R	R
2.4.10	Supply and install 10A contactor for the spotlight	ea	1	R	R
3	<u>Ablution block</u>				
	<u>Male</u>				
3.1.1	Supply and install 4FT double LED fitting with LED tubes	ea	2	R	R
3.1.2	Supply and install 4x4 2 lever 1 way swtich	ea	1	R	R
	Total amount carried to the next page				R

	Total amount brought from the next page				R
	<u>BILL NO.5</u>				
	<u>TRADE: ELECTRICAL WORKS</u>				
	<u>Soshanguve Agriaprk</u>				
	<u>Female</u>				
3.2.1	Supply and install 4FT double LED fitting with LED tubes	ea	2	R	R
3.2.2	Supply and install 4x4 2 lever 1 way switch	ea	1	R	R
4.	<u>Security Gate Lights</u>				
4.1.	Supply and install a LED 100W IP65 spot light	ea	2	R	R
4.2	Supply and install a day-night switch for the spot	ea	1	R	R
4.3	Supply and install 10A contactor for the spotlight	ea	1	R	R
5	<u>Installation from the Generator to Koisk</u>				
5.1.1	Supply and install 16mm x 4 Core Armoured cable	m	10	R	R
5.1.2	Supply and instal 20A, 3kA Circuit Breaker CBI mini rail	ea	2	R	R
5.2	<u>Installation from the Generator to Main DB</u>				
5.2.1	Supply and install 16mm x 4 Core Armoured cable	m	25	R	R
5.2.2	Supply and install orange double door 3 x 32 SAM 3 Phase DB	No.	1	R	R
5.2.3.	Supply and instal 20A, 3kA Circuit Breaker CBI mini rail	ea	2	R	R
5.3	<u>Installation from Main DB to Secondary DB</u>				
5.3.1	Supply and install 16mm x 4 Core Armoured cable	m	150	R	R
5.3.2	Supply and install orange double door 3 x 32 SAM 3 Phase DB	No.	1	R	R
5.3.3	Supply and install CBI 63 A 1P+N earth leakage Isolator 6KA	ea	1	R	R
5.3.4	Supply and instal 20A, 3kA Circuit Breaker CBI mini rail	ea	2	R	R
5.4	<u>Installation form Secondary DB to Third DB</u>				
5.4.1	Supply and install 16mm x 4 Core Armoured cable	m	170	R	R
5.4.2	Supply and install orange double door 3 x 32 SAM 3 Phase DB	No.	1	R	R
5.4.3	Supply and install CBI 63 A 1P+N earth leakage Isolator 6KA	ea	1	R	R
5.4.4	Supply and instal 20A, 3kA Circuit Breaker CBI mini rail	ea	2	R	R
5.5	<u>Installation form Secondary DB to Fourth DB</u>				
5.5.1	Supply and install 16mm x 4 Core Armoured cable	m	170	R	R
	Total amount carried to the next page				R

	Total amount brought from the next page				R
	<u>BILL NO.5</u>				
	<u>TRADE: ELECTRICAL WORKS</u>				
	<u>Soshanguve Agriaprk</u>				
5.5	<u>Installation form Secondary DB to Fourth DB</u>				
5.5.2	Supply and install orange double door 3 x 32 SAM 3 Phase DB	No.	1	R	R
5.5.3	Supply and install CBI 63 A 1P+N earth leakage Isolator 6KA	ea	1	R	R
5.5.4	Supply and instal 20A, 3kA Circuit Breaker CBI mini rail	ea	2	R	R
6.1	<u>Installation of surge arrestor on Distribution Board</u>				
6.1.1	Supply and install surge arrestor on the office 's DB	ea	1	R	R
6.1.2	Supply and install surge arrestor on the contianer's DB	ea	1	R	R
	<u>Soshanguve Agripark</u>				
6.2	<u>Installation of surge arrestor on Distribution Board</u>				
6.2.1	Supply and install surge arrestor on the office DB	ea	1	R	R
6.2.2	Supply and install surge arrestor on the main DB	ea	1	R	R
6.2.3	Supply and install surge arrestor on the second DB	ea	1	R	R
6.2.4	Supply and install surge arrestor on the third DB	ea	1	R	R
6.2.5	Supply and install surge arrestor on the fourth DB	ea	1	R	R
6.2.6	Supply and install surge arrestor on the Kicthen DB	ea	1	R	R
	<u>Soshanguve Agripark</u>				
7	<u>Inspect, Repair,Test and Issue Certificate of Compliance's (COC's).(Refer to specification and Annexure A)</u>				
7.1	DB - Main Kiosk (outside)	ea	1	R	R
7.2	DB - Next To The Container (outside)	ea	1	R	R
7.3	DB - Main Office (inside)	ea	1	R	R
7.4	DB - Staff House (inside)	ea	1	R	R
7.5	DB - Secondary (outside)	ea	1	R	R
7.6	DB - Third (outside)	ea	1	R	R
7.7	DB - Fourth (outside)	ea	1	R	R
7.8	BD - Ablution (inside)	ea	1	R	R
	Total amount carried to the next page				R

	Total amount brought from the next page					R
	<u>BILL NO.5</u> <u>TRADE: ELECTRICAL WORKS</u> <u>Rooiwal Agripark</u>					
8	<u>DIESEL GENERATORS</u> <u>Rooiwal Agripark</u>					
8.1	<u>Right hand diesel generator</u>					
8.1.1	Connect and install 16mm ² bare earth cable with 12m spike rod connected to the generators	item	1	R		R
8.1.2	Replace automatic transfer switch if burnt	No.	1	R		R
8.1.3	Replace contactors if burnt	No.	1	R		R
8.1.4	Supply and install 4FT double LED fitting with LED tubes	No.	1	R		R
8.1.5	Supply and install day - night switch	ea	1	R		R
8.1.6	Supply and install 10A contactor for LED tubes	ea	1	R		R
8.2	<u>Right hand diesel generator</u>					
8.2.1	Connect and install 16mm ² bare earth cable with 12m spike rod connected to the generators	item	1	R		R
8.2.2	Replace automatic transfer switch if burnt	No.	1	R		R
8.2.3	Replace contactors if burnt	No.	1	R		R
8.2.4	Supply and install 4FT double LED fitting with LED tubes	No.	1	R		R
8.2.5	Supply and install day - night switch	ea	1	R		R
8.2.6	Supply and install 10A contactor for LED tubes	ea	1	R		R
	Total carried to Summary Page					R

<u>SECTION 6</u> <u>BILL NO.6</u> <u>PLASTERING</u> <u>SUPPLEMENTARY PREAMBLES</u> <u>Laying</u> Monolithic granolithic shall be applied to the partially set slab and thoroughly compacted and lightly wood floated to the required levels Bonded granolithic shall be applied to the slab after applying a 1:1 sand-and-cement slurry brushed over the surface and allowed to partially set before applying the granolithic. The granolithic shall be thoroughly compacted and lightly wood floated to the required levels After wood floating, the monolithic and bonded granolithic shall remain undisturbed until bleeding has ceased and the surface has stiffened. Any remaining bleed water and laitance shall then be removed and the surface steel trowelled or power floated <u>EXTERNAL AND INTERNAL PLASTER ON EXISTING SURFACES</u> <u>Rooiwal Agripark</u> 1 <u>Rooiwal Office installation of a Plug</u> <u>Cement plaster on brickwork</u> 1.1 12mm plaster on brick wall above ground <u>Soshanguve Agripark</u> 1 <u>Soshanguve Office</u> <u>Cement plaster on brickwork</u> 1.1 12mm plaster on brick wall above ground					
	m²	1	R		R
	m²	1	R		R
Total amount carried to summary page					R

<u>SECTION 7</u>				
<u>BILL NO. 7</u>				
<u>TRADE: STRUCTURAL STEEL WORKS</u>				
<u>SUPPLEMENTARY PREAMBLES</u>				
Descriptions Descriptions of bolts shall be deemed to include nuts and washers Descriptions of L-shaped and U-shaped anchor bolts shall be deemed to include bending, threading, nuts and washers and embedding in concrete Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
1	<u>Rooiwal Agripark</u>			
	<u>Left hand side cage</u>			
1.1.1	Supply and install 100 x 25 Kontos Bullet Hinges	No.	1	R
1.1.2	Supply and install ultra lock for the cage	No.	1	R
1.2	<u>Right hand side cage</u>			
1.2.1	Supply and install 100 x 25 Kontos Bullet Hinges	No.	1	R
1.2.2	Supply and install ultra lock for the cage	No.	1	R
2	<u>Soshanguve Agripark</u>			
2.1	Supply and install 100 x 25 Kontos Bullet Hinges	No.	1	R
2.2	Supply and install ultra lock for the cage	No.	1	R
Total amount carried to summary page				
				R

<u>SECTION 8</u>					
<u>BILL NO.8</u>					
<u>TRADE: PAINTING WORKS</u>					
<u>SUPPLEMENTARY PREAMBLES</u>					
<u>PREPARATORY WORK TO EXISTING WORK</u>					
1. Paintwork to existing work shall be deemed to include preparing existing surfaces					
<u>Previously painted metal surfaces</u>					
2. Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be completely removed and cracks shall be opened, filled with a suitable filler and finished smooth					
<u>PAINT SPECIFICATIONS</u>					
All painting shall be done in accordance with "?" specifications unless otherwise described					
<u>PAINTWORK ETC TO NEW AND EXISTING WORK</u>					
1	<u>Rooiwal Agripark</u>				
1.1	<u>Left hand side generator palisade cage</u>				
1.1.1	Supply, prepared and paint with first coat of green anti-rust NS4 steel primer for the cage	m ²	30	R	R
1.1.2	Supply and spray paint first and second of brilliant green polyurethane paint for the cage	m ²	60	R	R
1.1.3	Supply, prepared and paint with first coat of white anti-rust NS4 steel primer for the generator	m ²	6	R	R
1.1.4	Supply and spray paint first and second coat of satin white polyurethane paint for the generator	m ²	12	R	R
1.2	<u>Right hand side generator palisade cage</u>				
1.2.1	Supply, prepared and paint with first coat of green anti-rust	m ³	20	R	R
1.2.2	Supply and spray paint first and second coat of brilliant green polyurethane paint for the cage	m ³	40	R	R
1.2.3	Supply, prepared and paint with first coat of white anti-rust	m ³	6	R	R
1.2.4	Supply and spray paint first and second coat of satin white polyurethane paint for the generator	m ³	12	R	R
Total amount carried to the next page					R

[illegible]

