

GROBLERSDAL REFURBISHMENT OF EXISTING LANDFILL SITE

Situated in

ELIAS MOTSOALEDI LOCAL MUNICIPALITY

C2.1: PRICING INSTRUCTIONS

1. GENERAL

The pricing instructions describe the criteria and assumptions which will be assumed in the Contract that the Bidder has taken into account when developing his prices. The Bills of Quantities record the Contractor's rates for providing supplies, services, engineering and construction works in accordance with the Scope of Work.

The terms of payment and the provisions for price adjustment, if applicable, are established in the Contract Data. These items are not described in the Pricing Data.

The Bidder's obligations in pricing the Bid offer and the Employer's undertakings in the checking and correction of arithmetical errors are dealt with in the Standard Conditions of Bid contained in Annexure c of SANS 10845-3:2015, as amended in and read in conjunction with the Bid Data.

2. DOCUMENTS MUTUALLY EXPLANATORY

The documents forming the Contract are to be taken as mutually explanatory of one another. The Bill of Quantities forms an integral part of the Contract Documents and shall be read in conjunction with the Bid Data, Contract Data, Scope of Work, Site Information General and Special Conditions of Contract, the Specifications and the Drawings.

3. DEFINITIONS

For the purpose of this Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit	:	The unit of measurement for each item of work as defined in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).
Quantity	:	The number of units of work for each item
Rate	:	The payment per unit of measurement at which the Bidder Bids to do the work.
Amount	:	The product of the quantity and the rate Bided for an item
Sum	:	An amount Bided for an item, the extent of which is described in the Schedule of Quantities, the specifications or elsewhere but the quantity of work of which is not measured in any units.
Prime Cost (or PC item)	:	A sum fixed by the Engineer and entered in the Schedule of Quantities as the net sum provided to cover the cost of specific goods or materials to be supplied under the contract, or the net sum to be paid by the Contractor to merchants or others for such articles or materials. ¹
Provisional Sum	:	A sum of money fixed by the Engineer and entered in the Schedule of Quantities to provide for work not defined at the Bid stage and includes any allowance specifically made for unforeseen contingencies. ¹
Extra Over (or EO)	:	Qualifies an operation (or combination of operations) which is common in a varying degree to a number of other operations and which is scheduled once as "extra over" those other operations in order to avoid a multiplicity of items each reflecting the degree to which the common operations apply. The term "extra over" invariably denoted double measurement, no deduction being made from one on account of the other. ¹

4. **DESCRIPTIONS**

Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.

5. **REFERENCES**

The general conditions of contract, the special conditions of contract (if any), the specifications (including the project specification) and the drawings are to be read in conjunction with the schedule of quantities.

Descriptions in the schedule of quantities are abbreviated and the schedule has been drawn up generally in accordance with the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition) as amended in the Scope of Works. Should any requirement of the measurement and payment clause of the applicable standardised specification², or the project specification², or the particular specification(s)² conflict with the terms of the schedule or, when relevant, COLTO¹, the requirement of the standardised, project or particular specification, as applicable, shall prevail.

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made for waste.

The prices and rates to be inserted in the schedule of quantities are to be the full inclusive prices to the Employer for the work described under the several items, value added tax excluded. Such prices shall cover all costs and expenses that may be required in and for the construction of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the quotation is based.

A price or rate is to be entered against each item in the schedule of quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the schedule

6. **UNITS OF MEASUREMENT**

The units of measurement indicated in the Bill of Quantities are metric units.

The following abbreviations are used in the Bill of Quantities:

%	=	per cent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
MN	=	mega newton
MN-m	=	mega newton-metre
MPa	=	mega Pascal

kPa	=	kilopascal
m ²	=	square metre
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
m ² -pass	=	square metre-pass
no	=	number
PC sum	=	Prime Cost sum
Prov Sum	=	Provisional Sum
sum	=	lump sum
t	=	ton (1 000 kg)
R/only	=	Rate only
W/day	=	Work day

7. **NET MEASUREMENTS**

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for off-cuts and waste.

8. **QUANTITIES**

The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.

The Contract Amount to be determined in accordance with the conditions of contract identified in the Contract Data shall be computed from the actual quantities of authorized work done, value at rates determined in terms of the Contract Data, against the respective items in the Bill of Quantities.

The item numbers appearing in the Bills of Quantities refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Road Authorities (1998 edition).

9. **CURRENCY**

All rates and sums of money quoted in the Bill of Quantities shall be in Rand and whole cents. Fractions of a cent shall be discounted.

10. **VALUE ADDED TAX**

Value Added Tax shall be excluded from the rates and sums contracted for the various items of work included in the Bill of Quantities. VAT will be added as a single entry to the summary.

11. **RATES AND PRICES**

11.1 **General**

- a) The Contractor must price each item in the Bill of Quantities in BLACK INK. Reproduced computer printouts of the Bills of Quantities will not be acceptable.
- b) The rates and prices to be inserted in the Bill of Quantities shall cover all the services and incidentals for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Bid is based, as well as overhead charges and profit. Reasonable prices shall be inserted as these

will be used as a basis for assessment of payment for additional work that may have to be carried out.

- c) Where the Contractor is required to furnish detailed drawings and designs or other information in terms of the Contract Data, all costs thereof shall be deemed to have been provided for and included in the unit rates and sum amounts contracted for the items scheduled in the Bill of Quantities. Separate additional payments will not be made.
- d) A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill. The Contractor will not be paid for items against which no rate or lump sum has been entered in the Bill of Quantities.
- e) Should the Contractor group a number of items and contract one lump sum for such group of items, this single lump sum shall apply to that group of items and not to each individual item.
- f) Should the Contractor indicate against any item that compensation for such item is included in another item; the rate for the item included in another item shall be deemed nil.
- g) A submission may be regarded as non-responsive if any rates or lump sums in the Bill of Quantities are, in the opinion of the Employer, unreasonable or out of proportion.

11.2 "Rate only" items

The Contractor shall fill in a rate (in the rate column) against all items where the words "rate only" appear in the Amount column, which rate will constitute payment for work which may be done in terms of this item. Such "rate-only" items are used where it is estimated that little or no work will be required under the item or where the item is to be considered as an alternative to another item for which a quantity is given.

11.3 Arithmetic

Excepting where Sum Amounts are required or where Provisional Sums have been indicated, the Contractor shall enter an applicable rate in the Rate Column of the Bill of Quantities for each scheduled item. He shall also enter an appropriate sum in the Amount column for each scheduled item, by determining in the applicable line item the product of the Quantity and the Unit Rate.

If there is an error in the line item resulting from the product of the unit rate and the quantity, the rate shall be binding, and the error of extension as entered in the Bid offer will be corrected by the Employer in determining the Contract Price.

Where there is an error in addition, either as a result of other corrections required by this checking process or in the Bidder's addition of prices, such error will be corrected by the Employer in determining the Contract Price.

12. VARIATION IN TEXT

No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made, it will not be recognized; the original wording of the Bill of Quantities will be adhered to.

- 13 Those parts of the contract to be constructed using labour-intensive methods have been marked in the bill of quantities with the letters LI in a separate column or as a prefix or suffix against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of works, is a

deviation from the contract. The items marked with the letters 'L' are not necessarily an exhaustive list of all the activities, which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour-intensive specification in the Scope of Works.

- 14 Where minimum labour intensity is specified by the design the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity target.
- 15 Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the scope of works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work, which was to be done labour-intensively will not be condoned, and any works so constructed will not be certified for payment.

GROBLERSDAL REFURBISHMENT OF EXISTING LANDFILL SITE

Situated in
ELIAS MOTSOLEDI LOCAL MUNICIPALITY
of the Limpopo Province

BID No. EMLM 34/2023



SECTION 1 : PRELIMINARY AND GENERAL

ITEM No.	PAY REF	DESCRIPTION	SI UNIT	QTY.	RATE		TENDER AMOUNT	
1.1	SANS 1200 A	GENERAL						
	8.3	Scheduled Fixed Charge and Value Related Items						
1.1.1	8.3.1	<u>Contractual Requirements, Sureties and Insurance</u>	L/Sum	1.00	R	-	R	-
	8.3.2	<u>Establishment of Facilities on the Site</u>						
1.1.2	8.3.2.1	FACILITIES FOR ENGINEER						
1.1.2.1	PSAB 3.2	a) Furnished offices (1No.)	L/Sum	1.00	R	-	R	-
1.1.2.2		c) Name Board (2 No. OFF)	L/Sum	1.00	R	-	R	-
1.1.3	8.3.2.2	FACILITIES FOR CONTRACTOR						
1.1.3.1		a) Offices, stores, workshops	L/Sum	1.00	R	-	R	-
1.1.3.2		b) Tools and equipment	L/Sum	1.00	R	-	R	-
1.1.3.3		c) Toilets and ablutions	L/Sum	1.00	R	-	R	-
1.1.3.4		d) Temporary fencing off site of construction camp	L/Sum	1.00	R	-	R	-
1.1.3.5		e) Provision of water, power and communication	L/Sum	1.00	R	-	R	-
1.1.3.6		f) Refuse containers and disposal	L/Sum	1.00	R	-	R	-
1.1.4	8.3.3	OTHER FIXED CHARGE OBLIGATIONS	L/Sum	1.00	R	-	R	-
1.1.5	8.3.4	REMOVAL OF SITE ESTABLISHMENT	L/Sum	1.00	R	-	R	-
1.2	8.4	Scheduled Time Related Items						
1.2.1	8.4.1	<u>Contractual Requirements, Sureties and Insurance</u>	months	8.00	R	-	R	-
TOTAL CARRIED FORWARD					R			

TOTAL BROUGHT FORWARD					R	
-	8.4.2	<u>Operation and Maintenance of Facilities on Site, for Duration of Construction, except where otherwise stated</u>				
1.2.2	8.4.2.1	FACILITIES FOR ENGINEER				
1.2.2.1	PSAB 3.2	a) Furnished offices (1No.)	months	8.00	R -	R -
1.2.2.2		1) Provision of accommodation for the Resident Engineer for the duration of the phase	Prov. Sum	1	R 65 000.00	R 65 000.00
1.2.2.3		2) Provision of Cellphone for the Resident Engineer/Project Engineer for the duration of the phase	Prov. Sum	1	R 55 000.00	R 55 000.00
1.2.2.4		3) Provision of Airtime and Internet for the Resident Engineer/Project Engineer for the duration of the phase (R1500p/m airtime and R1000p/m uncapped Wifi)	Prov. Sum	1	R 20 000.00	R 20 000.00
1.2.2.5		4) Provision of Laptop for the Resident Engineer and Project Engineer	Prov. Sum	1	R 60 000.00	R 60 000.00
1.2.2.6		5) Handling cost and profit in respect of sub-item 1,2,2,2 - 1,2,2,5 (b)(1)	%	R 200 000.00		R -
1.2.3	8.4.2.2	FACILITIES FOR THE CONTRACTOR				
1.2.3.1		a) Offices, stores, workshops	months	8.00	R -	R -
1.2.3.2		b) Tools and equipment	months	8.00	R -	R -
1.2.3.3		c) Toilets and ablutions	months	8.00	R -	R -
1.2.3.4		d) Temporary fencing off site of construction camp	months	8.00	R -	R -
1.2.3.5		e) Provision of water, power and communication	months	8.00	R -	R -
1.2.3.6		f) Refuse containers and disposal	months	8.00	R -	R -
TOTAL CARRIED FORWARD					R	

TOTAL BROUGHT FORWARD					R	
1.2.4	8.4.3	<u>Supervision for duration of construction</u>	months	8.00	R -	R -
1.2.5	8.4.4	<u>Company & Head Office Overhead Costs for the Duration of the Contract</u>	months	8.00	R -	R -
1.2.6	8.4.5	<u>Other Time Related Obligations (Including Monthly Site Survey)</u>	months	8.00	R -	R -
1.3	8.5	SUMS STATED PROVISIONALLY BY ENGINEER				
1.3.1	PSA 8.5. b	Removal of Stormwater in the landfill Cell	Sum	1.00	R -	R -
1.3.2	PAF7.5	Appointment of Operation, Health and Safety Consultant	Prov. Sum	1.00	R 300 000.00	R 300 000.00
1.3.3		(b) Handling costs and profit in respect of sub-item 1.3.2	%	R 300 000.00		R -
1.3.4		Appointment of Social Facilitator for the duration of the Project	PC Sum	1.00	R 100 000.00	R 100 000.00
1.3.5		(b) Handling costs and profit in respect of sub-item 1.3.4	%	R 100 000.00		R -
1.3.6		Appointment of Environmental Impact Monitoring Consultant	Prov. Sum	1.00	R 200 000.00	R 200 000.00
1.3.7		(b) Handling costs and profit in respect of sub-item 1.3.6	%	R 200 000.00		R -
1.3.8		Appointment of Quantity Surveyor	Prov. Sum	1.00	R 120 000.00	R 120 000.00
1.3.9		(b) Handling costs and profit in respect of sub-item 1.3.8	%	R 120 000.00		R -
1.3.10		Appointment of an Independent Geotechnical Laboratory to check workmanship	Prov. Sum	1.00	R 300 000.00	R 300 000.00
1.3.11		(b) Handling costs and profit in respect of sub-item 1.3.10	%	R 300 000.00		R -
1.3.12		Appointment of Independent Land Surveyor to check workmanship	Prov. Sum	1.00	R 100 000.00	R 100 000.00
TOTAL CARRIED FORWARD					R	

TOTAL BROUGHT FORWARD					R		
1.3.13		(b) Handling costs and profit in respect of sub-item 1.3.11	%	R 100 000.00		R	-
1.4	PSA 8.6	<u>PRIME COST ITEMS</u>					
1.4.1	PSA 7.5	a) Acceptance control testing	PC Sum	1.00	R 100 000.00	R 100 000.00	
1.4.2	PSA 8.6	b) Contractor's overheads, charges and profit in items 1.4.1 above	%	R 100 000.00		R	-
1.4.3	PSA 7.5	a) Training by an Accredited Service Provider	Prov. Sum	1.00	R 250 000.00	R 250 000.00	
1.4.4	PSA 8.6	b) Contractor's overheads, charges and profit in items 1.4.3 above	%	R 250 000.00		R	-
1.4.5		a) Experiential training for S4 civil students. (2 Students)	Prov. Sum	1.00	R 300 000.00	R 300 000.00	
1.4.6		b) Contractor's overheads, charges and profit in items 1.4.5 above	%	R 300 000.00		R	-
1.5	PSA 8.8	<u>TEMPORARY WORKS</u>					
1.5.1	8.8.4	Existing Services:					
1.5.1.1		- c) Excavation by hand in soft material to expose any service if required by the Engineer	m³	20.00	R	-	R -
1.5.2	PSA 8.9	Topographical Survey prior to construction commencement	L/Sum	1.00	R	-	R -
1.5.3	PSA 8.10	As built drawings	L/Sum	1.00	R	-	R -
1.5.4	PSA 8.5	Employment of Community Liaison Officer (CLO)	Prov. Sum	1.00	R 80 000.00	R 80 000.00	
1.5.5		(b) Handling costs and profit in respect of sub-item 1.5.4	%	R 80 000.00		R	-
TOTAL CARRIED FORWARD					R		

TOTAL BROUGHT FORWARD					R			
1.5.6	PSA 8.6	Borrow Pit and Land Use	L/Sum	1.00	R	-	R	-
1.5.7	PSA 8.7	Leak Location Surveys	L/Sum	1.00	R	-	R	-
1.6	C.4.3.6	OCCUPATIONAL HEALTH AND SAFETY ACT 1993: HEALTH AND SAFETY SPECIFICATION						
1.6.1	PAF 10.1	Preparation of Risk Assessment, Safe Work Procedures, the Project Health and Safety file, Plan, the provision of PPE and protection clothing and any other H & S matters that the contractor deem necessary	L Sum	1.00	R	-	R	-
1.6.2	PAF 10.1	Full compliance with all Health & Safety matters during the construction of the works under the contract	L Sum	1.00	R	-	R	-
1.6.3	PAF 10.1	Submission of the Health and Safety File	PC	1.00	R	-	R	-
1.7	SANS 1200 A	DAYWORKS AND PLANT HIRE						
	8.7	Dayworks:						
		a) Normal Time:						
1.7.1		(i) Supervisor	hr					Rate Only
1.7.2		(ii) Artisan	hr					Rate Only
1.7.3		(iii) Operator	hr					Rate Only
1.7.4		(iv) Labourer	hr					Rate Only
		a) Overtime including Sundays						
1.7.5		(i) Supervisors	hr					Rate Only
1.7.6		(ii) Artisan	hr					Rate Only
1.7.7		(iii) Operator	hr					Rate Only
1.7.8		(iv) Labourer	hr					Rate Only
TOTAL CARRIED FORWARD					R			

TOTAL BROUGHT FORWARD					R	
1.7.9		(i) Loader 150kW	hr			Rate Only
1.7.10		(ii) Grader 130 kW	hr			Rate Only
1.7.11		(iii) Vibrating roller 12t	hr			Rate Only
1.7.12		(iv) Grid compactor	hr			Rate Only
1.7.13		(v) Tractor 65 kW	hr			Rate Only
1.7.14		(vi) Water cart 10000l	hr			Rate Only
1.7.15		(vii) Tip truck 10 m3 capacity	hr			Rate Only
1.7.16		(viii) Excavator 20t	hr			Rate Only
1.7.17		(ix) Bull Dozer 120 kW	hr			Rate Only
1.7.18		(x) Concrete mixer 0.3m ³	hr			Rate Only
1.7.19		(xi) TLB 73 kW	hr			Rate Only
TOTAL CARRIED TO SUMMARY					R	

SECTION 2 : LANDFILL CELL No.1

ITEM No.	PAY REF	DESCRIPTION	SI UNIT	QTY.	RATE		TENDER AMOUNT	
2.1	SABS 1200 C	SITE CLEARING						
2.1.1	PSC 8.2.1	Clear Site incl. remove trees up to 1m girth to approved areas off Site	ha	5.00	R	-	R	-
	8.2.2	Remove trees of girth: Over and up to: -						
2.1.2		1,0 m to 2,0 m	No.	5.00	R	-	R	-
2.2	SABS 1200 DB	EARTHWORKS (PIPE TRENCHES)						
	PSDB 8.3.2	a) Excavate in all materials for trenches, backfill, compact and stockpile of surplus material						
2.2.1		i) Intermediate material	m ³	10.00	R	-	R	-
2.2.2		ii) Hard rock material	m ³	500.00	R	-	R	-
2.2.3	PSDM 8.3.8	Extra over for removal of oversize material	m ³	100.00	R	-	R	-
2.2.4	PSDB 8.3.2	Restricted excavation for leachate sump	m ³	25.00	R	-	R	-
2.2.5	PSDB 8.3.2	Restricted excavation into embankments to construct 500mm wide * 600 mm deep anchor trench	m ³	250.00	R	-	R	-
2.2.6	PSDB 8.3.2	Restricted excavation into embankment for a riser pipe	m ³	4.00	R	-	R	-
2.3	SABS1200 DM	EARTHWORKS (ROADS, SUBGRADE)						
		Cut to Fill						
2.3.1	PSDM 8.3.4	Excavate in all materials for landfill cell(s), place in embankment where applicable (incl. edge control berm) and compact to 93% MoD AASHTO	m ³	7800	R	-	R	-
	PSDM 8.3.7	Cut to Stockpile						
TOTAL CARRIED FORWARD					R			

TOTAL BROUGHT FORWARD					R			
2.3.2		Excavate in all materials for landfill cell(s) and stockpile selected clay material	m ³	8000	R	-	R	-
2.3.3		Excavate in all materials for landfill cell(s) and stockpile	m ³	9200.	R	-	R	-
		EMBANKMENTS						
		Cell demarcation berm						
2.3.4	PSDM 8.3.4	Import, place and compact to 95% Mod AASHTO selected fill from stockpile to form a cell separation berm	m ³	11500	R	-	R	-
2.3.5	PSDM 8.3.4	Final Trimming and shaping of side slopes and base	m ²	39000	R	-	R	-
2.3.6	LB 8.2.2.3	Backfill Anchor trench with selected granular materials compacted to 90% Mod AASHTO	m ³	250	R	-	R	-
2.4	SABS 1200 LD	SEWERS						
	PSLD 8.2.1	Supply lay and bed complete with couplings:						
2.4.1		110mm diameter (Φ) slotted HDPE pipe for leachate collection and Leachate Detection layers	m	2800	R	-	R	-
2.4.2		160mm diameter (Φ) unslotted HDPE pipe for leachate gravity line to the leachate dam	m	250	R	-	R	-
2.4.3		160mm diameter (Φ) unslotted HDPE pipe for leachate gravity line to the leachate dam	m	150	R	-	R	-
2.5	SABS 1200 LD	Leachate Manhole						
2.5.1	PSLD 8.2.3	Supply and install precast concrete 1.5m diameter manhole ring as per detail drawing	No.	2.00	R	-	R	-
2.5.2		Supply and install cast iron removable cover complete with locking accessories	No.	2.00	R	-	R	-
TOTAL CARRIED FORWARD					R			

TOTAL BROUGHT FORWARD					R			
2.6	PS	LANDFILL LINER						
2.6.1		Geosynthetics - P&G Fixed (incl leachate pond)	L/Sum	1.00	R	-	R	-
2.6.2		Geosynthetics - P&G Time related (incl leachate pond)	L/Sum	1.00	R	-	R	-
2.6.3		Geosynthetics - Transport (incl leachate pond)	L/Sum	1.00	R	-	R	-
2.6.4		Base						
2.6.4.1	PSDM 8.3.4	Import from stockpile, place and compact clay liner (200mm thick) to min 95% standard proctor	m ³	5900	R	-	R	-
2.6.4.2	PSDM 8.3.4	Import from stockpile, place and compact clay liner (4x150mm thick) to min 95% standard proctor	m ³	13300	R	-	R	-
2.6.4.3	PS 4.9.1	Supply and install 1.5mm H.D.P.E smooth geomembrane liner	m ²	29 700	R	-	R	-
2.6.4.4	PSDK 8.2.4.1	Import from stockpile, place 100mm thick layer of Silty sand as protection layer	m ³	2 970	R	-	R	-
2.6.4.5	PSDM 8.3.5	Import and place 38-50mm crushed rock aggregate as leachate collection layer 150mm thick.	m ³	4400	R	-	R	-
2.6.4.6	PSDK 8.2.4.1	Supply and installation of a 300g/m ² woven geotextile as filtration layer above the leachate collection layer	m ²	29 700	R	-	R	-
2.6.5		Side Slopes						
2.6.5.1	PSDM 8.3.4	Import from stockpile, place and compact clay liner (150mm thick) to min 95% standard proctor	m ³	1300	R	-	R	-
2.6.5.2	PSDM 8.3.4	Import from stockpile, place and compact clay liner (4x150mm thick) to min 95% standard proctor	m ³	1300	R	-	R	-
2.6.5.3	PS 4.9.1	Supply and install 1.5mm H.D.P.E mono textured geomembrane liner	m ²	9 130	R	-	R	-
2.6.5.4	PSDK 8.2.4.1	Supply and installation of a 300g/m ² woven geotextile as Protection layer above the HDPE layer	m ²	9 130	R	-	R	-
TOTAL CARRIED TO SUMMARY					R			

SECTION 3: LEACHATE POND

ITEM No.	PAY REF	DESCRIPTION	SI UNIT	QTY.	RATE		TENDER AMOUNT	
3.1	SABS 1200 C	CLEARING						
3.1.1	PSC 8.2.1	Clear Site incl. remove trees up to 1m girth to approved areas off Site	m ²	9500	R	-	R	-
	SABS1200 DM	EARTHWORKS (ROADS, SUBGRADE)						
3.1.2	PSDM 8.3.2	Remove topsoil to nominal depth of 150 mm and stockpile	m ²	9500	R	-	R	-
3.1.3	PSDM 8.3.4	Excavate in all materials for contaminated water pond and place in embankment, compacted to 93% Mod AASHTO	m ³	1600	R	-	R	-
3.1.4	PSDM 8.3.7	Excavate in all materials and place in stockpile	m ³	3500	R	-	R	-
		LINER						
3.1.5	PSDM 8.3.3	Rip in-situ surfaces to 150mm and compaction to 95% Mod AASHTO	m ²	5200	R	-	R	-
3.1.6	PSDM 8.3.4	Import from stockpile, place and compact clay liner incl. side slopes (600mm thick) compaction to 95% Mod AASHTO	m ³	3200	R	-	R	-
3.1.7	PS 4.9.1	Supply and install 1,5mm H.D.P.E mono textured geomembrane liner	m ²	5200	R	-	R	-
3.2	SABS 1200 DK and 1200G	EMERGENCY OVERFLOW						
3.2.1		Construct emergency overflow as per drawing	L/Sum	1	R	-	R	-
3.3	SABS 1200 DB	EARTHWORKS (PIPE TRENCHES)						
3.3.1	PSDB 8.3.2	Restricted excavation into dam embankment and/or in-situ materials to construct 500mm wide * 600 mm deep anchor trench	m ³	95	R	-	R	-
TOTAL CARRIED FORWARD					R			

TOTAL BROUGHT FORWARD					R			
3.3.2	PSDB 8.3.2	Backfill Anchor trench with approved materials compacted to 90% Mod AASHTO	m ³	95	R	-	R	-
3.3.3		Extra over for excavation in:						
3.3.3.1		i) Intermediate material	m ³	1000	R	-	R	-
3.3.3.2		ii) Hard rock excavation	m ³	500	R	-	R	-
3.3.4	PSDM 8.3.8	Extra over for removal of oversize material	m ³	350	R	-	R	-
TOTAL CARRIED TO SUMMARY					R			

SECTION 4 : CONTAMINATED & CLEAN WATER DRAINAGE

ITEM No.	PAY REF	DESCRIPTION	SI UNIT	QTY.	RATE		TENDER AMOUNT	
4.1	SABS 1200 C	STORMWATER DRAINAGE						
		CLEARING						
4.1.1	PSC 8.2.1	Clear Site incl. remove trees up to 1m girth to approved areas off Site	m ²	5000	R	-	R	-
4.2	SABS1200 DM	EARTHWORKS (ROADS, SUBGRADE)						
4.2.1	PSDM 8.3.2	Remove topsoil to nominal depth of 150 mm and stockpile	m ²	5000	R	-	R	-
4.2.2	PSDB 8.3.2 & PSDM 8.3.4	Excavate in all materials for contaminated or clean water drainage and stockpile	m ³	700	R	-	R	-
4.3		CONTAMINATED & CLEAN WATER DRAINS						
4.3.1	PSDB 8.3.2 & PSG 8.4.3	Construct concrete lining of trapezoidal drains in-situ and in segments not exceeding 2.5 m length; 100mm thick - Drain type 1	m ²	2024	R	-	R	-
4.4		CULVERTS						
4.4.1	SABS 1200 LE	Supply materials and construct drainage crossing, headwalls and discharge outlet including bedding and backfilling as per drawing details:	No	2	R	-	R	-
4.4.2	LE 8.2.2	900*600mm Class 175S Precast Box Culvert	m	12	R	-	R	-
4.4.3	SABS 1200 DA	EXTRA OVER ITEMS:						
	PSDB 8.3.2	Extra over for excavation in:						
4.4.3.1		i) Intermediate material	m ³	300	R	-	R	-
TOTAL CARRIED TO SUMMARY					R			

<u>C3.3 SUMMARY OF BILL OF QUANTITIES</u>	
- - - - -	<u>TENDERED AMOUNT</u>
SECTION 1: PRELIMINARY AND GENERAL	R -
SECTION 2: LANDFILL CELL No.1	R -
SECTION 3: LEACHATE POND	R -
SECTION 4: DRAINAGE	R -
SUB TOTAL 01:	R -
CONTINGENCIES (10% OF SUB TOTAL)	R -
SUB TOTAL 02:	R -
VALUE ADDED TAX (15%)	R -
TENDER SUM CARRIED TO FORM OF TENDER	R -