

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
1	SANS 1200A	PRELIMINARY AND GENERAL  NOTE: A rate or price must be entered in the amount column for each item. Items which are included should have the word "included" written in the appropriate amount column.				
	8.3	FIXED-CHARGE ITEMS & VALUE RELATED ITEMS				
1.1	PSA 9.1	Contractual requirements	Sum	1		
	8.3.2	Establish Facilities on the Site:				
	8.3.2.1	Facilities for Engineer				
1.2	PSAB 1	(a) Nameboards (1no)	Sum	1		
1.3		(b) Offices for Engineer (12m2)	m	1		
	8.3.2.2	Facilities for Contractor				
	PSA 2					
1.4		(a) Offices and storage sheds	Sum	1		
1.5		(b) Workshops	Sum	1		
1.6		(c) Ablution and latrine facilities	Sum	1		
1.7		(d) Tool and equipment	Sum	1		
1.8		(e) Water supplies, electric power, and communications	Sum	1		
1.9		(f) Dealing with water (see 5.5)	Sum	1		
1.10		(g) Access (see 5.8)	Sum	1		
1.11		(h) Plant	Sum	1		
1.12	8.3.3	Other fixed-charge obligations	Sum	1		
1.13	8.3.4	Removal of site establishment on completion	Sum	1		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
1.14	PAP 10.2.2	CONSTRUCTION REGULATIONS - OHS ACT Compliance with OHS Act and Regulations (including the Construction Regulations 2003)	Sum	1		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	8.4 PSA 9.1	TIME-RELATED ITEMS				
1.15	8.4.1	Contractual requirements	Sum	1		
1.16	8.4.2	Operations and maintenance of facilities on site	Sum	1		
	8.4.2.1	Facilities for Engineer				
1.17	PSAB 1	(a) Nameboards (1no)	Sum	1		
1.18		(b) Offices for Engineer (12m2)	Sum	1		
	8.3.2.2 PSA 2	Facilities for Contractor				
1.19		(a) Offices and storage sheds	Sum	1		
1.20		(b) Workshops	Sum	1		
1.21		(c) Living Accommodation	Sum	1		
1.22		(d) Ablution and latrine facilities	Sum	1		
1.23		(e) Tool and equipment	Sum	1		
1.24		(f) Water supplies, electric power, and communications	Sum	1		
1.25		(g) Dealing with water (see 5.5)	Sum	1		
1.26		(h) Access (see 5.8)	Sum	1		
1.27		(i) Plant	Sum	1		
1.28	8.4.3	Supervision for duration of Construction	Sum	1		
1.29	8.4.4	Company and head office overhead costs for the duration of the Construction	Sum	1		
1.30	8.4.5	Other time-related obligations	Sum	1		
	8.5	SUMS STATED PROVISIONALLY BY ENGINEER				
1.31		Testing of material by a nominated laboratory on instruction of the Engineer	Prov Sum	1	80 000.00	R80 000.00
1.32		Overhead costs on item above	%	80 000		
1.33		Provision for costs of calls and faxes	Prov	1	80 000.00	R80 000.00
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
1.34		Overhead costs on item above	%	80 000		
1.35		Community Liaison Officer	Prov	1	104 500.00	R104 500.00
1.36		Overhead costs on item above	%	104 500		
		Provisional Allowances for Training				
1.37		(i) Basic Life Skills Training for targeted labour	Prov Sum	1	80 000.00	R80 000.00
1.38		(ii) Basic Construction Skills training	Prov	1	80 000.00	R80 000.00
1.39		(iii) Health & Safety Management	Prov	1	80 000.00	R80 000.00
1.40		(iv) Contractor Development	Prov	1	80 000.00	R80 000.00
1.41		(v) Extra Over for administration of payment of training allowances.	%	320 000		
1.42		(vi) Transport and accommodation of workers for training where it is not possible to undertake the training in the close proximity to the site (Provisional)	Prov Sum	1	50 000.00	R50 000.00
1.43		Engineers Staff Costs of Calls and rental accommodation and travel	PC Sum	1	350 000.00	R350 000.00
1.44		Employment of 2 Local Students				
		(a) Local Students Cost	PC	1	210 000.00	R210 000.00
		(b) Additional required items( laptop, airtime,	month	11		
1.45	8.7	Dayworks	Prov	1	80 000.00	R80 000.00
		Labour (including overhead charges and profit)				
1.46		(a) Labourer	hr	0		Rate Only
1.47		(b) Gang leader/Foreman	hr	0		Rate Only
1.48		(c) Tradesman/Artisan	hr	0		Rate Only
		Materials				Rate Only
1.49		Overheads, charges plus profit on materials	%	0		Rate Only
		Plant (including overheads,charges, fuel and profit)				
1.50		(a) Backactor	hr	0		Rate Only
1.51		(b) TLB excavator	hr	0		Rate Only
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
1.52		(c) Pedestrian vibratory roller of mass > 0.5t	hr	0		Rate Only
1.53		(d) Tip truck 5m3	hr	0		Rate Only
1.54		(e) Flatbed truck, 7t	hr	0		Rate Only
1.55		(f) Dewatering pump, including hoses and operator	hr	0		Rate Only
1.56		(g) Bulldozer	hr	0		Rate Only
1.57		(h) Concrete mixer, 250l capacity	hr	0		Rate Only
1.58		(i) Tractor + 2 wheel tractor	hr	0		Rate Only
1.59		(j) Items not specified (to be completed by tenderer)	hr	0		Rate Only
1.60		(1)	hr	0		Rate Only
1.61		(2)	hr	0		Rate Only
1.62		(3)	hr	0		Rate Only
1.63		(k) Additional markup for standing time (provisional)	%	0		Rate Only
	PSA 5	Location and Protection of Existing Services				
1.64		(a) Excavation by hand in soft material to expose existing services	m <sup>3</sup>	80		
1.65		(b) Temporary protection of existing services	Sum	1		
1.66		(c) Relocation of Existing Services	Prov Sum	1	120 000.00	R120 000.00
		CONSTRUCTION REGULATIONS - OHS ACT				
1.67	PSA 9.4	Compliance with OHS Act and Regulations (including the Construction Regulations 2003)	Sum	1		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
2	SABS 1200 DB	SITE CLEARANCE				
2.1	8.2.1	Clear and grub	m <sup>2</sup>	25 050		
2.2		(ii) Sewer and stormwater routes, not within bulk earthworks, 2.0m wide strip	m	0		Rate Only
2.3 <sup>LIC</sup>	8.2.4	Reclear surfaces (only on instruction from the Engineer)	m <sup>2</sup>	2 000		Rate Only
	PSC 3.2	Removal of unreinforced and reinforced concrete to existing sewage ponds.				
2.4		(a) Reinforced	m <sup>3</sup>	6		
2.5		(b) Unreinforced	m <sup>3</sup>	12		
	PSC3.3	Dismantle and remove pipelines and manholes, not encased in concrete				
2.6		(a) Excavate, backfilling and compacting in all materials	m <sup>3</sup>	20		
		(b) Uplifting and disposing of pipes and fittings				
2.7		(i) 110 and 160 diameter PVC pipes	m	12		
Total Carried Forward To Summary						

SCHEDULE C: STRUCTURES - BULK EXCAVATION

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
3	SABS 1200D	BULK EXCAVATION				
	8.3.2	(b) Excavate in all materials and dispose of site, excavation depths up 5.0m				
3.1		(i) Cut	m <sup>3</sup>	2 096		
3.2		(i) Fill	m <sup>3</sup>	785		
		Extra over for:				
3.3		i) Hard Rock Excavation	m <sup>3</sup>	783		
	8.3.3	RESTRICTED EXCAVATION				
3.4 <sup>LIC</sup>		(a) Excavation by hand, and dispose surplus on site. Excavation and hand finishing for wall footings, subsoil drain, as well as channel	m <sup>3</sup>	419		
	SABS 1200 DM	SURFACE PREPARATION				
	8.3.3	Preparation by ripping and compaction to 93% MOD AASHTO in 150 mm layer insitu material				
3.5		a) Foundation	m <sup>2</sup>	1 820		
	SABS 1200ME	FOUNDATION LAYER				
3.6	8.3.3	Construct the foundation layer - 450mm thick with material obtained from commercial sources	m <sup>3</sup>	50		
	8.3.5	Process material by:				
3.7		(d) Stabilization	m <sup>3</sup>	12		
	8.3.8	Stabilizing agent				
3.8		(b) Portland Cement	t	4		
3.9	8.3.2(a)	Cut to spoil excavated material and dispose within the freehaul distance of 1,5 Km, and re-fill with suitable material compacted to minimum of 95% MOD AASHTO density.	m <sup>3</sup>	3 850		
3.10	8.3.3	Extra excavation in all materials to provide working space around structures and use for backfill around structures	m <sup>3</sup>	615		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
4.0	SANS 1200G	CONCRETE				
4.1	8.4.2	Blinding layer, class 15 MPa/19 mm concrete, 50 mm thick for all levels where reinforced concrete will be placed, and below no fines layer, including the necessary shuttering and finishing	m <sup>3</sup>	1.75		
4.2	8.4.3	Concrete filling, class 15 MPa/19 mm concrete for anchor blocks, filling were ordered by Engineer	m <sup>3</sup>	3		
4.3	8.4.3	Strength concrete, Class 35 MPa/19 mm for the following:	m <sup>3</sup>	36		
	8.3.1	STEEL REINFORCEMENT CONSISTING OF DEFORMED HIGH-TENSION STEELBARS, INCL. ALL CUTTING, BINDING-WIRE, SPACERBLOCKS ETC.				
4.4		a) Mild steel bars diameter 16mm and less	t	2		
4.5		b) High tensile steel bars diameter 16mm and less	t	2		
		FORMWORK				
		Rough Formwork				
4.6	8.2.1	a) Vertical	m <sup>2</sup>	35		
4.7		b) Horizontal	m <sup>2</sup>	35		
4.8		(c) Sloped	m <sup>3</sup>	35		
		Smooth Formwork				
4.9	8.2.2.	Horizontal to walls and soffit	m <sup>2</sup>	35		
4.10	8.2.2	Vertical	m <sup>2</sup>	35		
4.11	8.2.2	Roofslab soffit	m <sup>2</sup>	35		Rate Only
4.12	8.2.2	Vertical, for valve box walls	m <sup>2</sup>	0		
4.13		Narrow widths - 200mm or less	m	30		
		UNFORMED SURFACES AND FINISHES				
	8.4.4	a) Wood floated finish				
4.14		i) Top of slabs	m <sup>2</sup>	0		Rate Only
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
4.15		b) Steel floated finish	m <sup>2</sup>	0		Rate Only
4.16		1) Top of walls	m <sup>2</sup>	15		
4.17		2) Floors	m <sup>2</sup>	35		
4.18		c) 20mm Chamfers to tops of walls	m	12		
		SPECIAL SMOOTH FORMWORK PREPARED AND RUBBED				
4.19	8.2.3	a) Vertical to outside of all walls	m <sup>2</sup>	38		
4.20	8.2.3	b) Vertical to sides of roof upstand beam and roof slab	m <sup>2</sup>	0		Rate Only
Total Carried Forward To Summary						

SCHEDULE E: STRUCTURES - PRIMARY SETTLERS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5	SANS	CONCRETE				
5.1	8.4.2	Blinding layer, class 15 MPa/19 mm concrete, 50 mm thick for all levels where reinforced concrete will be placed, and below no fines layer, including the necessary shuttering and finishing	m <sup>3</sup>	5		
5.2	8.4.3	Concrete filling, class 15 MPa/19 mm concrete for anchor blocks, filling were ordered by Engineer	m <sup>3</sup>	5		
5.3	8.4.3	Strength concrete, Class 35 MPa/19 mm for the following:	m <sup>3</sup>	85		
	8.3.1	STEEL REINFORCEMENT CONSISTING OF DEFORMED HIGH-TENSION STEELBARS, INCL. ALL CUTTING, BINDING-WIRE, SPACERBLOCKS ETC.				
5.4		a) Mild steel bars diameter 16mm and less	t	12		
5.5		b) High tensile steel bars diameter 16mm and less	t	17		
		FORMWORK				
		Rough Formwork				
5.6	8.2.1	a) Vertical	m <sup>2</sup>	12		
5.7		b) Horizontal	m <sup>2</sup>	12		
5.8		c) Sloped	m <sup>3</sup>	0		
		Smooth Formwork				
5.9	8.2.2.	Horizontal to walls and soffit	m <sup>2</sup>	18		
5.10	8.2.2	Vertical	m <sup>2</sup>	194		
5.11	8.2.2	Roofslab soffit	m <sup>2</sup>	0		Rate Only
5.12	8.4.4	a) Wood floated finish				
5.13		i) Top of slabs	m <sup>2</sup>	0		Rate Only
5.14		b) Steel floated finish	m <sup>2</sup>	0		Rate Only
5.15		1) Top of walls	m <sup>2</sup>	47		
5.16		2) Floors	m <sup>2</sup>	115		
5.17		c) 20mm Chamfers to tops of walls	m	16		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
		SPECIAL SMOOTH FORMWORK PREPARED				
5.18	8.2.3	a) Vertical to outside of all walls	m <sup>2</sup>	57		
5.19	8.2.3	b) Vertical to sides of roof upstand beam and roof slab	m <sup>2</sup>	0		Rate Only
Total Carried Forward To Summary						

SCHEDULE F: STRUCTURES - DENITRIFICATION TANK

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
6	SANS 1200G	CONCRETE (STRUCTURAL)				
6.1	8.4.2	Blinding layer, class 15 MPa/19 mm concrete, 50 mm thick for all levels where reinforced concrete will be placed, and below no fines layer, including the necessary shuttering and finishing	m <sup>3</sup>	15		
6.2	8.4.3	Concrete filling, class 15 MPa/19 mm concrete for anchor blocks, filling were ordered by Engineer	m <sup>3</sup>	15		
6.3	8.4.3	Strength concrete, Class 35 MPa/19 mm for the following:	m <sup>3</sup>	66		
	8.3.1	STEEL REINFORCEMENT CONSISTING OF DEFORMED HIGH-TENSION STEELBARS, INCL. ALL CUTTING, BINDING-WIRE, SPACERBLOCKS ETC.				
6.4		a) Mild steel bars diameter 16mm and less	t	0		
6.5		b) High tensile steel bars diameter 16mm and less	t	20		
		FORMWORK				
		Rough Formwork				
6.6	8.2.1	a) Vertical	m <sup>2</sup>	42		
6.7		b) Horizontal	m <sup>2</sup>	29		
6.8		(c) Sloped	m <sup>3</sup>	29		
		Smooth Formwork				
6.9	8.2.2.	Horizontal to walls and soffit	m <sup>2</sup>	57		
6.10	8.2.2	Vertical	m <sup>2</sup>	57		
6.11	8.2.2	Roofslab soffit	m <sup>2</sup>	0		Rate Only
6.12	8.4.4	a) Wood floated finish				
6.13		i) Top of slabs	m <sup>2</sup>	0		Rate Only
6.14		b) Steel floated finish	m <sup>2</sup>	0		Rate Only
6.15		1) Top of walls	m <sup>2</sup>	47		
6.16		2) Floors	m <sup>2</sup>	115		
6.17		c) 20mm Chamfers to tops of walls	m	16		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
		SPECIAL SMOOTH FORMWORK PREPARED				
6.18	8.2.3	a) Vertical to outside of all walls	m <sup>2</sup>	0		Rate Only
6.19	8.2.3	b) Vertical to sides of roof upstand beam and	m <sup>2</sup>	0		
	SABS 1200	STRUCTURAL STEELWORK				
	8.3.1.2	Supply and fabrication of structural steel				
6.20		(1) Handrails complete, We Cro lock handrails to with top and bottom rails bolted to channels with 2no. M10 bolts (grade 4.6) on top of steel beams and walkways.	m	48.00		
6.21		(4) Brackets, Fixing Plates And Frames	t	0.00		
6.22		(5) Rectagrid RS 60X4.5	m <sup>2</sup>	30.00		
		Bolts				
6.23		(i) M10 Rawl bolts for steel framing	No.	83.00		
6.24		(ii) M12 bolts to vertical posts fixing to concrete	No.	13.00		
6.25		(ii) M16 Rawl bolts to vertical posts fixing to	No.	5.00		
6.26		(ii) M20 Rawl bolts to vertical posts fixing to	No.	80.00		
		Supply and fabrication of structural steel				
6.27		254 X 146 X 37 I-Section	Kg	369.00		
6.28		203 X 133 X 25 I-Section	Kg	689.00		
6.29		100 X 100 X 3.5 square hollow section (SHS)	Kg	91.00		
6.30		200 X 75 Channel	Kg	653.00		
6.31		50 X 50 X 5 Angle (260mm long)	Kg	4.00		
6.32		8mm Vastrap landing plate with 50mm turndown	m <sup>2</sup>	1.20		
6.33		8mm steel fixing plate	m <sup>2</sup>	160.00		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
7	SANS	CONCRETE (STRUCTURAL)				
		SCHEDULED FORMWORK ITEMS				
	8.2.1	Rough				
		Vertical				
7.1		(iii) Surface Bed and Boxes	m <sup>2</sup>	290		
	8.2.2	Smooth				
		Vertical				
7.2		(i) Central Drainage Trench Floor and Walls	m <sup>2</sup>	104		
	8.2.6	Box out holes/form voids:				
		Small, circular, of diameter up to and including 0.35m				
7.3		(i) 0 m up to and including 0,5 m depth	No.	14		
		Large, other than circular, of area over 0,1 m <sup>2</sup> and up to and including 1 m <sup>2</sup> , and in the following depth ranges:				
7.4		(i) 0 m up to and including 0,5 m	No.	3		
	8.3	STEEL REINFORCEMENT ITEMS				
	8.3.1	STEEL REINFORCEMENT CONSISTING OF DEFORMED HIGH-TENSION STEELBARS, INCL. ALL CUTTING, BINDING-WIRE, SPACERBLOCKS ETC.				
7.5		a) Mild steel bars diameter 16mm and less	t	0		
7.6		b) High tensile steel bars diameter 16mm and less	t	119		
	8.4	SCHEDULED CONCRETE ITEMS				
7.7	8.4.2	Blinding layer, class 15 MPa/19 mm concrete, 50 mm thick for all levels where reinforced concrete will be placed, and below no fines layer, including the necessary shuttering and finishing	m <sup>3</sup>	48		
7.8		No-fines concrete walls	m <sup>3</sup>	71		
7.9 <sup>LIC</sup>		Loffelstein retaining wall L500	No	3000		
7.10 <sup>LIC</sup>		Loffelstein retaining wall L300	No	2250		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	8.4.3	Strength Concrete:				
		Class 20/19				
7.11		(i) Floors / Foundations	m <sup>3</sup>	288		
7.12		(iii) Central Drainage Trench Floor and Walls	m <sup>3</sup>	70		
7.13		(iv) Concrete Thrust Blocks	m <sup>3</sup>	0		
7.14		(vi) Inlet Concrete Block	m <sup>3</sup>	0		
		Class 20/8				
7.15		(i) Benching in boxes	m <sup>3</sup>	0		
	8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
7.16		(i) Floors / Foundations	m <sup>2</sup>	450		
7.17		(ii) Trust Blocks	m <sup>2</sup>	0		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
8	SABS 1200D	BULK EXCAVATION				
8.1	8.3.2	(b) Excavate in all materials and dispose of site	m <sup>3</sup>	0		
8.2		Extra over for: i) Hard Rock Excavation	m <sup>3</sup>	0		
8.3	8.3.3	RESTRICTED EXCAVATION				
		(a) Excavation by hand, and dispose surplus on site	m <sup>3</sup>	0		
	SABS 1200	SURFACE PREPARATION				
	8.3.3	Preparation by ripping and compaction to 93% MOD AASHTO in 150 mm layer insitu material				
8.4		a) Foundation	m <sup>2</sup>	0		
	SABS	FOUNDATION LAYER				
8.5	8.3.3	Construct the foundation layer - G5 gravel material with material obtained from commercial sources	m <sup>3</sup>	0		
	8.3.5	Process material by:				
8.6		(d) Stabilization	m <sup>3</sup>	0		
	8.3.8	Stabilizing agent				
8.7		(b) Portland Cement	t	0		
	SANS	CONCRETE				
8.8	8.4.2	Blinding layer, class 15 MPa/19 mm concrete, 50 mm thick for all levels where reinforced concrete will be placed, and below no fines layer, including the necessary shuttering and finishing	m <sup>3</sup>	1.4		
8.9	8.4.3	Concrete filling, class 15 MPa/19 mm concrete for anchor blocks, filling were ordered by Engineer	m <sup>3</sup>	1.4		
8.10	8.4.3	Strength concrete, Class 35 MPa/19 mm for the following:	m <sup>3</sup>	102		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT		RATE	AMOUNT R
Brought Forward						
8.11	8.3.1	STEEL REINFORCEMENT CONSISTING OF DEFORMED HIGH-TENSION STEELBARS, INCL. ALL CUTTING, BINDING-WIRE, SPACERBLOCKS ETC.				
		a) Mild steel bars diameter 16mm and less	t	17		
8.12		b) High tensile steel bars diameter 16mm and less	t	28		
		FORMWORK				
		Rough Formwork				
8.13	8.2.1	a) Vertical	m <sup>2</sup>	129		
8.14		b) Horizontal	m <sup>2</sup>	28		
8.15		(c) Sloped	m <sup>3</sup>	28		
		Smooth Formwork				
8.16	8.2.2.	Horizontal to clarifier walls and soffit	m <sup>2</sup>	35		
8.17	8.2.2	Vertical	m <sup>2</sup>	32		
8.18	8.2.2	Roofslab soffit	m <sup>2</sup>	32		
8.19	8.2.2	Vertical, for valve box walls	m <sup>2</sup>	1		
8.20		Narrow widths - 200mm or less	m	11		
		UNFORMED SURFACES AND FINISHES				
	8.4.4	a) Wood floated finish				
8.21		i) Top of slabs	m <sup>2</sup>	0		Rate Only
8.22		b) Steel floated finish	m <sup>2</sup>	0		Rate Only
8.23		1) Top of walls	m <sup>2</sup>	8		
8.24		2) Floors	m <sup>2</sup>	58		
8.25		c) 20mm Chamfers to tops of walls	m	8		
		SPECIAL SMOOTH FORMWORK PREPARED				
8.26	8.2.3	a) Vertical to outside of all walls	m <sup>2</sup>	163		
8.27	8.2.3	b) Vertical to sides of roof upstand beam and	m <sup>2</sup>	0		Rate Only
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
9	SANS 1200G	CONCRETE				
9.1	8.4.2	Blinding layer, class 15 MPa/19 mm concrete, 50 mm thick for all levels where reinforced concrete will be placed, and below no fines layer, including the necessary shuttering and finishing	m <sup>3</sup>	38		
9.2	8.4.3	Concrete filling, class 15 MPa/19 mm concrete for anchor blocks, filling were ordered by Engineer	m <sup>3</sup>	16		
9.3	8.4.3	Strength concrete, Class 35 MPa/19 mm for the following:	m <sup>3</sup>	192		
	8.3.1	STEEL REINFORCEMENT CONSISTING OF DEFORMED HIGH-TENSION STEELBARS, INCL. ALL CUTTING, BINDING-WIRE, SPACERBLOCKS ETC.				
9.4		a) Mild steel bars diameter 16mm and less	t	40		
9.5		b) High tensile steel bars diameter 16mm and less	t	100		
		FORMWORK				
		Rough Formwork				
9.6	8.2.1	a) Vertical	m <sup>2</sup>	64		
9.7		b) Horizontal	m <sup>2</sup>	64		
9.8		(c) Sloped	m <sup>3</sup>	64		
		Smooth Formwork				
9.9	8.2.2.	Horizontal to walls and soffit	m <sup>2</sup>	64		
9.10	8.2.2	Vertical	m <sup>2</sup>	64		
9.11	8.2.2	Roofslab soffit	m <sup>2</sup>	0		Rate Only
9.12	8.2.2	Vertical, for valve box walls	m <sup>2</sup>	3		
9.13		Narrow widths - 200mm or less	m	26		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
		UNFORMED SURFACES AND FINISHES				
	8.4.4	a) Wood floated finish				
9.14		i) Top of slabs	m <sup>2</sup>	0		Rate Only
9.15		b) Steel floated finish	m <sup>2</sup>	0		Rate Only
9.16		1) Top of walls	m <sup>2</sup>	56		
9.17		2) Floors	m <sup>2</sup>	72		
9.18		c) 20mm Chamfers to tops of walls	m	56		
		SPECIAL SMOOTH FORMWORK PREPARED AND RUBBED				
9.19	8.2.3	a) Vertical to outside of all walls	m <sup>2</sup>	22		
9.20	8.2.3	b) Vertical to sides of roof upstand beam and roof slab	m <sup>2</sup>	0		Rate Only
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
10	SANS 1200G	CONCRETE (STRUCTURAL)				
		SCHEDULED FORMWORK ITEMS				
	8.2.1	Rough Vertical				
10.1		(iii) Surface Bed and Boxes	m <sup>2</sup>	40		
	8.2.2	Smooth Vertical				
10.2		(i) Central Drainage Trench Floor and Walls	m <sup>2</sup>	26		
	8.2.6	Box out holes/form voids:  Small, circular, of diameter up to and including 0.35m				
10.3		(i) 0 m up to and including 0,5 m depth	No.	2		
		Large, other than circular, of area over 0,1 m <sup>2</sup> and up to and including 1 m <sup>2</sup> , and in the following depth ranges:				
10.4		(i) 0 m up to and including 0,5 m	No.	2		
	8.3	STEEL REINFORCEMENT ITEMS				
	8.3.1	STEEL REINFORCEMENT CONSISTING OF DEFORMED HIGH-TENSION STEELBARS, INCL. ALL CUTTING, BINDING-WIRE, SPACERBLOCKS ETC.				
10.5		a) Mild steel bars diameter 16mm and less	t	2		
10.6		b) High tensile steel bars diameter 16mm and less	t	4		
	8.4	SCHEDULED CONCRETE ITEMS				
10.7	8.4.2	Blinding layer, class 15 MPa/19 mm concrete, 50 mm thick for all levels where reinforced concrete will be placed, and below no fines layer, including the necessary shuttering and finishing	m <sup>3</sup>	3		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	8.4.3	Strength Concrete:				
		Class 20/19				
10.8		(i) Floors / Foundations	m <sup>3</sup>	12.5		
10.9		(iii) Central Drainage Trench Floor and Walls	m <sup>3</sup>	8.5		
10.10		(iv) Concrete Thrust Blocks	m <sup>3</sup>	2		
10.11		(vi) Inlet Concrete Block	m <sup>3</sup>	1		
		Class 20/8				
10.12		(i) Benching in boxes	m <sup>3</sup>	1		
	8.4.4	Unformed surface finishes:				
		Wood-floated finishes to:				
10.13		(i) Floors / Foundations	m <sup>2</sup>	26		
		(ii) Trust Blocks	m <sup>2</sup>	1		
		Steel-floated finishes to:				
10.14		(i) Floors / Foundations	m <sup>2</sup>	0		
10.15		(ii) Benching in Boxes	m <sup>2</sup>	2		
10.16		(ii) Trust Blocks	m <sup>2</sup>	3		
	8.5	Joints				
10.17		Type 1	m	9		
10.18		Type 2	m	9		
10.19		Type 3	m	9		
10.20		Bitumen Coat (Brick/Concrete Interface)	m	1		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
11		NEW PUMP SUMPS				
		EARTHWORKS				
	SABS 1200	BULK EARTHWORKS				
	8.3	Scheduled Earthworks Items				
	PSD 8.3.2	Bulk Excavation				
11.1		Excavate by machine in all materials and use for embankment or backfill or dispose, as ordered	m <sup>3</sup>	105		
		Extra-over for				
11.2		1) Hard rock excavation (Blasting or Pneumatic Drilling)	m <sup>3</sup>	12		
	PSD 8.3.3	Restricted Excavations				
11.3 <sup>LIC</sup>		Excavate in all materials and use for embankment or backfill or dispose, as ordered	m <sup>3</sup>	25		
	SABS 1200	CONCRETE (STRUCTURAL)				
		SCHEDULED FORMWORK ITEMS				
	8.2.1	Rough				
		Vertical				
11.4		(iii) Surface Bed and Boxes	m <sup>2</sup>	113		
	8.2.2	Smooth				
11.5		Vertical	m <sup>2</sup>	230		
	8.2.6	Box out holes/form voids:				
		Small, circular, of diameter up to and including 0.35m				
11.6		(i) 0 m up to and including 0,5 m depth	No.	3		
		Large, other than circular, of area over 0,1 m <sup>2</sup> and up to and including 1 m <sup>2</sup> , and in the following depth ranges:				
11.7		(i) 0 m up to and including 0,5 m	No.	2		
	8.3	SCHEDULED REINFORCEMENT ITEMS				
11.8		High tensile Steel	t	9		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	8.4	SCHEDULED CONCRETE ITEMS				
11.9	8.4.2	Blinding Layer: Class 15/19, minimum 50mm thick	m <sup>3</sup>	14		
11.10	8.4.3	Strength Concrete: Class 20/19 (i) Floors / Foundations/Walls	m <sup>3</sup>	65		
11.11		(iv) Concrete Thrust Blocks	m <sup>3</sup>	2		
11.12		(vi) Inlet Concrete Block Class 20/8	m <sup>3</sup>	4		
11.13		(i) Benching in boxes	m <sup>3</sup>	2		
	8.4.4	Unformed surface finishes: Wood-floated finishes to:				
11.14		(i) Floors / Foundations	m <sup>2</sup>	80		
11.15		(ii) Trust Blocks	m <sup>2</sup>	2		
		Steel floated finishes to:				
11.16		(i) Floors / Foundations	m <sup>2</sup>	80		
11.17		(ii) Benching in Boxes	m <sup>2</sup>	6		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
12	SANS 1200	SEWERS				
		EXCAVATION				
12.1 <sup>LIC</sup>	PSDB 1	(a) Excavate in soft materials for trenches, Exceeding 0m but not 1.0m	m	750		
12.2 <sup>LIC</sup>		Exceeding 1.0m but not 2.0m	m	0		Rate Only
12.3	8.3.2 PSDB1	Extra over for excavations in hard rock	m <sup>3</sup>	75		
12.4	8.3.2	Excavate and dispose of unsuitable material	m <sup>3</sup>	75		
12.5	8.3.3.1	Make up deficiency in backfill material obtained from site	m <sup>3</sup>	75		
12.6	8.3.3.3	Compaction in road reserves	m <sup>3</sup>	20		
	SABS 1200LB	BEDDING (PIPES)				
	8.2.1	Provision of Class C bedding material				
12.7		(a) Selected granular material	m <sup>3</sup>	75		
12.8		(b) selected fill material	m <sup>3</sup>	322		
	8.2.2.3	Imported from commercial sources				
12.9		(a) Selected granular material	m <sup>3</sup>	68		
12.10	PSLB 3	Crushed stone bedding, from commercial sources, 19mm single size stone (Provisional)	m <sup>3</sup>	20		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	SABS 1200	PIPELINES				
	PSL 4.1	Supply, handle, lay and bed (Class C bedding) complete with couplings, test and disinfect the following pipes:				
12.11 <sup>LIC</sup>		DN 200mmØ uPVC Pipe Class 9	m	103		
12.12 <sup>LIC</sup>		DN 110mmØ uPVC Pipe Class 9	m	171		
12.13 <sup>LIC</sup>		DN 90mmØ uPVC Pipe Class 9	m	475		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	SANS 1200 L	SPECIAL AND FITTINGS				
	PSL 8.2.2	Extra over PSL 8.2.1 for supplying, laying, bedding of the following fittings:				
		Bends				
12.14		200mmØ 45° uPVC bend Class 12	No.	3		
12.15		110mmØ 45° uPVC bend Class 12	No	1		
12.16		90mmØ 45° uPVC bend Class 12	No	2		
12.17		200mmØ 90° uPVC bend Class 12	No	5		
12.18		110mmØ 90° uPVC bend Class 12	No	3		
12.19		90mmØ 90° uPVC bend Class 12	No	3		
12.20		200mmØ 22.5° uPVC bend Class 12	No	2		
12.21		110mmØ 22.5° uPVC bend Class 12	No	1		
12.22		90mmØ 22.5° uPVC bend Class 12	No	2		
		EQUAL TEES				
12.23		200 x 200mmØ equal tee Class 12	No.	1		
12.24		110 x 110mmØ equal tee Class 12	No.	1		
12.25		90 x 90mmØ equal tee Class 12	No.	1		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
		LINE CONTROL VALVES				
		Supply and install the following valves, (Min. 1MPa working pressure)				
12.26		110mmØ Class 16 wedge gate valve with cap top	No.	2		
12.27		200mmØ Class 16 wedge gate valve with cap top	No.	3		
		NON-RETURN VALVES				
		Supply and install the following valves, (Min. 1MPa working pressure)				
12.28		200mmØ Class 16 or better non-return valve	No.	2		
12.29		110mmØ Class 16 or better non-return valve	No.	2		
12.30		90mmØ Class 16 or better non-return valve	No.	1		
		ANCHOR/THRUST BLOCKS				
12.31		Supply all materials, labour, plant and construct 25MPa concrete Anchor/Thrust blocks and pedestals	m <sup>3</sup>	4		
		PUDDLE FLANGES				
12.32		200mmØ mild steel puddle flange	No.	8		
12.33		110mmØ mild steel puddle flange	No.	5		
12.34		90mmØ mild steel puddle flange	No.	4		
12.35	8.2.9	MARKER POSTS	No.	25		
12.36	8.2.10	Permanent Plug Stoppers (Provisional)	No.	4		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	8.2.5	CAST IN-SITU CONCRETE,FORMORK, AND STEEL REINFORCING				
	SANS 1200	CONCRETE (SMALL WORKS)				
		Formwork				
12.37	8.2.1	Rough	m <sup>2</sup>	220		
12.38	8..2.2	Smooth	m <sup>2</sup>	110		
12.39	8.2.3	Narrow Widths	m	100		
	8.3	Reinforcing				
	8.3.1	Steel Bars				
12.40		Mild Steel	t	4		
12.41		High Tensile	t	1		
12.42	8.3.2	Weld Mesh - Ref 193	m <sup>2</sup>	210		
12.43	8.4.2	Blinding layer in 15/19 MPa Concrete (75mm thick)	m <sup>2</sup>	300		
	8.4.3	Strength Concrete				
12.44		(i) 20/19 concrete	m <sup>3</sup>	90		
	8.2.9	a) Brickwork				
12.45 <sup>SMME</sup>		1) 220 mm brickwork	m <sup>2</sup>	30		
12.46 <sup>SMME</sup>		2) 110mm brickwork	m <sup>2</sup>	30		
12.47 <sup>SMME</sup>		b) Plaster - 12mm	m <sup>2</sup>	60		
12.48 <sup>SMME</sup>		c) Benching	m <sup>2</sup>	20		
		STEEL FRAME AND COVERS TO CHAMBERS				
		Using 6mm thick flats, all galvanised, with angle frame consisting of 40x40x5, fixed to concrete with 2no hinges, and locking mechanism				
12.49		(i) 2x2 chamber opening	No	22		
Total Carried Forward To Summary						

SCHEDULE M: PUMPS MECHANICAL AND ELECTRICAL EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
13		Supply, install and commission pumps and mechanical equipment, complete with MCC panels - Refer Particular Specifications of the Scope of Works	Prov Sum	1	1	R13 205 516.40
		INLET WORKS				
13.1		Provisional Sum for Inlet Works mechanical equipment	Prov Sum			
13.2		Puddle pipes for inlet works inlet	No			
13.3		Overflow weir plate	No			
13.4		Course Screen / bar screen manual rake 30 mm bar spacings	No			
13.5		Channel gate penstock + handwheel (inlet splitter box)	No			
13.6		Fine Screen / bar screen (15 - 20mm bar spacing)	No			
13.7		Incinerator	No			
13.8		Rag Catcher	No			
13.9		Grits Channels Sluice Gates	No			
13.10		Grits Channel Special degritting pipe work	No			
13.11		Flume 6 Inch	No			
13.12		Ultrasonic Flow Meter	No			
13.13		Puddle pipes for inlet work and splitter box DN315 PN10	No			
13.14		Sluice gates for Overflows	No			
13.15		RSV Gate valves degritting	No			
13.16		Sluice gates (MH 1 and 2) with Hand wheels	No			
13.17		Puddle Flange pipes for 2 MH before Primary Settlers	No			
Total Carried Forward						

SCHEDULE M: PUMPS MECHANICAL AND ELECTRICAL EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
		PRIMARY SETTLERS				
		Effluent Delivery Manifold	No			
13.18		Rotating Bridge Drive Motor	No			
13.19		End carriage	No			
13.20		Weir plates	No			
13.21		Scum box	No			
13.22		Centre column	No			
13.23		Sterling Well	No			
13.24		Bottom scraper	No			
13.25		Feeder cables (excluding trenching and back fill)	Sum			
13.26		RSV Gate Valves	No			
13.27		Puddle pipes	No			
		BIOLOGICAL FILTERS				
		Provisional Sum for Biofilter mechanical equipment	Sum			
13.28		Rotating Sprinkler Arms (As per specifications)	No			
13.29		RSV Gate Valves	No			
		CLARIFIERS				
		Puddle pipe inlet of Clarifier DN 160	No			
13.30		Rotating Bridge Drive Motor	No			
13.31		End carriage	No			
13.32		Weir plates	No			
13.33		Scum box	No			
Total Carried Forward						

SCHEDULE M: PUMPS MECHANICAL AND ELECTRICAL EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
13.34		Centre column	No			
13.35		Sterling Well	No			
13.36		Bottom scraper	No			
13.37		Feeder cables (excluding trenching and back fill)	Sum			
13.38		RSV Gate Valves	No			
13.39		Puddle pipes	No			
13.40		Effluent Delivery manifold	No			
13.41		CLARIFIER EFFLUENT RECYCLE PUMP SUMP Submersible Pumps Clarifier Effluent Recycle to Biofilter, approved pump with guide rails (12m Head at 55l/s 14.5kW energy requirement) as per mechanical specifications	No			
13.42		Puddle pipe inlet of PS DN 160 mm	No			
13.43		250mm Non return valves	No			
13.44		Eccentric reducers to match selected pump outlet manifold to 250mm Dia	No			
13.45		250mm to pump inlet diameter eccentric reducer FBE Puddle pipe DN 250 mm Pump Sump to pump	No No			
13.46		250mm 90 deg Bends FBE	No			
13.47		250mm RSV	No			
13.48		250mm Tees FBE	No			
13.49		250 mm uPVC adapter	No			
13.50		Miscellaneous Fittings	Sum			
13.51		Gantry with 1 tone cradler block	No			
13.52		Effluent to Clarifiers puddle pipes DN160 PN10	No			
13.53		Recirculated flow feed puddle pipes DN250 PN10	No			
Total Carried Forward						

SCHEDULE M: PUMPS MECHANICAL AND ELECTRICAL EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
13.54		Level controls for pumps	No			
13.55		Feeder cables to equipment (excluding trenching and back fill)	Sum			
		CHLORINE DOSING				
13.56		Booster / Dosing Chlorine Pump (duty and standby)	No			
13.57		Chlorine Dosing system with change over: Sized for 1 ML/day (1 tone cylinders) injection points and load cells Connections and all safety equipment for SABS approval	No			
13.58		Chlorine mixer	No			
13.59		Scales	No			
13.60		Chlorine contact chamber sludge pump	No			
13.61		Gantry Crane (1 tone with chain block)	No			
13.62		Ventilation (forced draft 30min)	No.			
13.63		Feed puddle pipes DN200 PN10	No			
13.64		Rectangular Overflow weir	No			
13.65		Feed puddle pipes DN200 PN10	No			
13.66		Ultrasonic Flow Meter with data logger	No			
13.67		Feeder cables (excluding trenching and back fill)	Sum			
Total Carried Forward						

SCHEDULE M: PUMPS MECHANICAL AND ELECTRICAL EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
		EMERGENCY STORAGE PONDS				
13.74		Feed puddle pipes DN90 PN10	No			
13.75		Floating Mixer	No			
13.76		Submersible Pumps Effluent Return from Emergency Storage Ponds to Inlet Works, approved pumps with guide rails (13m Head at 8 l/s 4kW energy requirement) as per mechanical specifications	No			
13.77		90mm Tees FBE	No			
13.78		90mm 90 deg Bends FBE	No			
13.79		90mm Gate Valve	No			
13.80		90mm Puddle Pipe	No			
13.81		90mm Non return valves	No			
13.82		90mm Eccentric reducer FBE to suit pump outlet	No			
13.83		90mm Eccentric reducer FBE to suit pump inlet	No			
13.84		90 uPVC adapter	No			
13.85		90mm Puddle pipe Sump inlet	Sum			
13.86		Miscellaneous Fittings	Sum			
13.87		Gantry with 1 tone cradler block	No			
13.88		Feed puddle pipes DN90	No			
13.89		Delivery manifold	No			
13.90		Valves (RSV +NRV)	No			
13.91		Ultrasonic Flow Meter	No			
13.92		Feeder cables to equipment (excluding trenching and back fill)	Sum			
Total Carried Forward						

SCHEDULE M: PUMPS MECHANICAL AND ELECTRICAL EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
		<b>DRYING BEDS</b>				
13.93		Submersible Pumps Drying Bed Supernatant Recycle Flyght or similar approved with guide rails (16m Head at 6 - 10 l/s 5kW energy requirement) as per mechanical specifications	No			
13.94		110mm Tees FBE	No			
13.95		110mm 90 deg Bends FBE	No			
13.96		110mm Gate Valve	No			
13.97		110mm Puddle Pipe	No			
13.98		110mm Non return valves	No			
13.99		110mm Eccentric reducer FBE to suit pump outlet	No			
13.100		110mm Eccentric reducer FBE to suit pump inlet	No			
13.101		110 uPVC adapter	No			
13.102		Drying Bed Inlet RSV	No			
13.103		Puddle pipe Sump inlet	Sum			
13.104		Miscellaneous Fittings	Sum			
13.105		Gantry with 1 tone cradler block	No			
13.106		Feeder cables to equipment (excluding trenching and back fill)	Sum			
13.107		RSV Valves	No			
		<b>ELECTRICAL</b>				
		Design and install complete as per specifications and requirements with equipment suppliers All items below consist of both supply and installation costs				
13.108		Motor Control Cabinet (MCC)	Sum			
13.109		Low Voltage Distribution boards	Sum			
13.110		Automation	Sum			
13.111		Install Cabling	Sum			
Total Carried Forward						

SCHEDULE M: PUMPS MECHANICAL AND ELECTRICAL EQUIPMENT

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
13.112		Stand by Power	Sum			
13.113		Cableways	Sum			
13.114		Low Voltage Reticulation	Sum			
13.115		Lightning Installation	Sum			
13.116		Small Power Installation	Sum			
13.117		Lighting Protection and Earthing	Sum			
PROVISIONAL ALLOWANCES						
13.118		(i) Upgrade of main feeder supply	Prov Sum			
DENITRIFICATION TANK 200m3						
Supply, install and commission pumps and						
13.119		Sluice Gates	No			
13.120		Puddle pipe into tank DN160 PN10 FOE	No			
13.121		Mixers	No			
13.122		Adjustable Overflow Reactor Weir Plates	No			
13.123		MBBR Biological Media	m3			
13.124		Puddle pipe tank outlet DN160mm PN10	No			
13.125		Gate Valve 160mm	No			
13.126		Additional items required to allow for effective operations and maintenance of the Tank	Sum			
13.127		Puddle pipe into tank DN315 PN10 FBE	No			
Total Carried Forward To Summary						

SCHEDULE N - OPERATION AND MAINTANANCE

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
14		OPERATION AND MAINTENANCE	Prov Sum	1	1	R2 103 000.00
		Existing Works				
14.1		Temporary maintaining the existing works during	Sum			
		New Works				
14.2		Operate and maintain the works from commission to handing over of entire site, (operator class 2)	month			
14.4		Transport and removal of sludge to commercial landfill.	m <sup>3</sup>			
14.5		The supply of chlorine to the dosing unit.	kg			
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
15 <sup>SMME</sup>		ON SITE BUILDINGS				
		Construct complete on site buildings as per drawings				
15.1 <sup>SMME</sup>		Office Building	m <sup>2</sup>	70		
15.2 <sup>SMME</sup>		Care Taker House	m <sup>2</sup>	180		
15.3 <sup>SMME</sup>		Chlorine Storage and Dosing Building	m <sup>2</sup>	40		
15.4 <sup>SMME</sup>		MCC Pannel Control Building	m <sup>2</sup>	36		
15.5 <sup>SMME</sup>		Guard Hut	m <sup>2</sup>	16		
		PROVISIONAL ITEMS				
15.6 <sup>SMME</sup>		(a) Provisional allowance for providing security locks with master keys for all buildings	Prov Sum	1	1 500.00	R1 500.00
15.7 <sup>SMME</sup>		(b) Provisional allowance for the supply of furniture and safety equipment.	Prov Sum	1	52 470.00	R52 470.00
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
16	SANS 1200C	SITE CLEARANCE				
16.1 <sup>SMME/LIC</sup>	8.2.1	Clear and grub road reserve using labour intensive methods (areas defined by engineer)	m <sup>2</sup>	8 690		
16.2 <sup>SMME</sup>	SABS 1200DM	EARTHWORKS (ROADS,SUB-GRADE)  (a) Roadbed preparation and compaction of material to 90% MOD AASHTO to a depth of 150mm  (b) In place treatment of roadbed in hard material	m <sup>3</sup>	1 000		
16.3 <sup>SMME</sup>		(1) Ripping	m <sup>3</sup>	100		
16.4 <sup>SMME</sup>	8.3.4	Cut to fill, borrow to fill				
16.5 <sup>SMME</sup>	8.3.4	(a) (i) Cut to fill formation level and compacted to 93% MOD AASHTO max. density measured in fill	m <sup>3</sup>	200		
16.6 <sup>SMME</sup>	8.3.4	(ii) Borrow to fill for formation and undercuts from stockpile	m <sup>3</sup>	250		
16.7 <sup>SMME/LIC</sup>	8.3.6	Extra over item 8.3.4 for excavation and breaking down material in hard rock	m <sup>3</sup>	10		
16.8 <sup>SMME</sup>	8.3.7	Cut to spoil or stockpile from undercuts / embankments.				
16.9 <sup>SMME</sup>		(a) soft excavation	m <sup>3</sup>	20		
16.10 <sup>SMME</sup>		(b) Hard excavation	m <sup>3</sup>	0		
16.9 <sup>SMME</sup>	SANS 1200 GA	CONCRETE (SMALL WORKS)  (a) 15 MPa mass concrete	m <sup>3</sup>	0		Rate Only
16.10 <sup>SMME</sup>		(b) 20 MPa concrete edge beam	m <sup>3</sup>	0		Rate Only
16.11 <sup>SMME</sup>	SANS 1200 ME  PSME 3	SUB-BASE  Construct the subbase course with material obtained from commercial sources:  (a) 150mm G5 layer compacted to 95% MOD AASHTO Density in Roadway	m <sup>3</sup>	1 000		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	SANS 1200 MF	BASE				
16.12 <sup>SMME</sup>	8.3.3	Construct Base with material from commercial sources  (a) Stabilised Base course using a 150mm G6 gravel layer compacted to 98% MOD AASHTO Density in Roadway	m <sup>3</sup>	0		
16.13 <sup>SMME</sup>	8.3.5	Process Base material by:  (d) Stabilization	m <sup>3</sup>	0		
16.14 <sup>SMME</sup>	8.3.8	Stabilizing agent  (a) Road Lime	t	0		Rate Only
16.15 <sup>SMME</sup>		(b) Portland Cement	t	0		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	SANS 1200 LC	SECTION : CABLE DUCTS				
	8.2.2	EXCAVATION				
16.16 <sup>SMME</sup>		(a) Excavate in all materials for trenches, backfill, compact and dispose of surplus	m <sup>3</sup>	0		
16.17 <sup>SMME</sup>		(b) Extra-over item (a) above for: Hard rock excavation	m <sup>3</sup>	0		
16.18 <sup>SMME</sup>		(c) Excavate unsuitable material from trench bottom and dispose of it	m <sup>3</sup>	0		
	8.2.5	SUPPLY, LAY, BED, AND PROVE DUCTS				
16.19 <sup>SMME</sup>		(a) 110 diameter ducts for electrical	m	0		
16.20 <sup>SMME</sup>	8.2.6	Imported Bedding, where ordered (Selected granular material)	m <sup>3</sup>	0		
	8.2.8	CABLE MARKERS				
16.21 <sup>SMME</sup>		(b) Kerb marks	No	0		
	SANS 1200 LE	STORMWATER DRAINAGE				
	8.3.2	(a) Excavate in all materials for trenches, compacted to 90% MOD AASHTO and dispose of surplus material (labour intensive methods)				
	SABS 1200DB	EARTHWORKS (PIPES TRENCHES)				
		(i) For 600 diameter pipes				
16.22 <sup>SMME/LIC</sup>		(b) Exceeding 1.0m but not 2.0m	m	40		
16.23 <sup>SMME/LIC</sup>		(c) Exceeding 2.0m but not 3.0m	m	5		
	SABS 1200DK	GABIONS				
16.24 <sup>SMME</sup>	8.2.1	Surface preparation for bedding of gabions / Reno mattress	m <sup>2</sup>	0		Rate Only
16.25 <sup>SMME</sup>		(a) Construct 150mm thick reno mattress	m <sup>3</sup>	0		Rate Only
16.26 <sup>SMME</sup>	8.2.4	Geofabric U24 or similar approved	m <sup>2</sup>	0		Rate Only
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
16.27 <sup>SMME</sup>	8.2.5	Pitching (a) 100mm grouted stone pitching in maximum 1:1.5 slopes	m <sup>2</sup>	0		
16.28 <sup>SMME</sup>	8.2.1	Provision of bedding material from trench excavations				
16.29 <sup>SMME</sup>	SABS 1200LB	BEDDING (PIPES) (a) Selected granular material	m <sup>3</sup>	5		
16.30 <sup>SMME</sup>	8.2.2.3	Imported from commercial sources (a) Selected granular material	m <sup>3</sup>	54		
16.31 <sup>SMME</sup>	SABS 1200LE	STORMWATER DRAINAGE PIPES PSLE 2 Supply,handle,lay and bed `ogee` pipes to SABS 677 on class C bedding (a) 600mm diameter class 100D	m	64		
16.32 <sup>SMME</sup>	8.2.6.1	Inlet, outlet, transition and similar structures (c) Manhole (Constructed complete as per details on Drawing) (e) Headwalls for the following items constructed complete as per details on drawing)	No	2		
16.33 <sup>SMME</sup>		(i) 600 diameter pipes	No	7		
16.34 <sup>SMME</sup>	8.2.7	Trimming of Excavations for concrete-lined open drains in: (a) Soft material	m <sup>2</sup>	1 063		
16.35 <sup>SMME</sup>	8.28	Cast-In-situ concrete lining to open drains (20/19 concrete)	m <sup>3</sup>	320		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
16.36 <sup>SMME</sup>	8.2.9	Formwork to Cast-In-situ Concrete lining of open drains (i) Concrete V Drains (a) To sides with formwork on both internal and external faces	m <sup>2</sup>	473		
16.37 <sup>SMME</sup>		(b) To ends of slabs	m <sup>2</sup>	20		
16.38 <sup>SMME</sup>	8.2.12	Sealed joints in concrete lining of open drains	m	120		
16.39 <sup>SMME</sup>	8.2.12	Steel Reinforcement (mesh Ref. 193)	kg	6 176		
SUB-SOIL DRAINAGE						
16.40 <sup>SMME</sup>		110 diameter slotted PVC pipe as under-drain in no fines concrete	m	300		
16.41 <sup>SMME</sup>		Bidum A2 to underdrains	m <sup>2</sup>	900		
16.42 <sup>SMME</sup>		External underdrain	m	92		
16.43 <sup>SMME</sup>		Bidum A2 to external drain	m <sup>2</sup>	300		
16.44 <sup>SMME</sup>		External drain, 110mm diameter PVC slotted	m	100		
16.45 <sup>SMME</sup>		PVC perforated 250 Micron Polyethylene sheeting bond breaker (sliding layer ) on 10mm mortar skim on 90mm blinding concrete	m <sup>2</sup>	1 010		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
17 <sup>SMME</sup>		FENCING				
	PSAA 4.1	Clear fence route				
17.1 <sup>SMME</sup>		a) WWTW Site	m	800		
17.2 <sup>SMME</sup>	PSSA 4.3	Supply and Erect concrete palisade posts standard duty complete including concrete footings as per Drawing	m	800		
	PSAA 4.4	Supply and Erect of Pedestrian gate as per Drawing				
17.3 <sup>SMME</sup>		a) WWTW Site	No	1		
	PSAA 4.5	Supply and Erect of Vehicular gate as per Drawing				
17.4 <sup>SMME</sup>		a) WWTW Site	No	1		
		Supply galvanised locking chain 600mm long with 50mm links				
17.5 <sup>SMME</sup>		a) WWTW Site	No	1		
		Supply 63mm brass five tumbler padlock with four keys				
17.6 <sup>SMME</sup>		a) WWTW Site	No	1		
17.7 <sup>SMME</sup>		Remove existing wire mesh fencing and re-install as directed by the Engineer	m	20		
Total Carried Forward To Summary						

SCHEDULE R - SEWER PIPELINES TO NEW ELEMENTS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
18	SANS 1200	SEWERS				
	8.3.2	EARTHWORKS (PIPE TRENCHES)				
		(a) Excavate in soft materials for trenches, backfill, compact and dispose of surplus/unsuitable material for pipes:				
18.1		Exceeding 0m but not 1.0m	m	0		
18.2		Exceeding 1.0m, but not 2.0m	m	1 425		
18.3		Exceeding 2.0m but not 3.0m	m	427		
18.4		Exceeding 3.0m but not 4.0m	m	0		Rate Only
18.5		Exceeding 4.0m but not 5.0m	m	0		Rate Only
18.6	8.3.2	Extra over for excavations in hard rock	m <sup>3</sup>	315		
18.7	8.3.2	(c) Excavate and dispose of unsuitable material in trench bottom (Provisional)	m <sup>3</sup>	315		
18.8	8.3.3.1	Make up deficiency in backfill, material obtained from site	m <sup>3</sup>	315		
18.9	8.3.3.3	Compaction in road reserves	m <sup>3</sup>	10		
	SABS 1200LB	BEDDING (PIPES)				
	8.2.1	Provision of flexible bedding material from trench excavations				
18.10		(a) Selected granular material	m <sup>3</sup>	158		
18.11		(b) selected fill material	m <sup>3</sup>	544		
	8.2.2.3	Imported from commercial sources				
18.12		(a) Selected granular material	m <sup>3</sup>	140		
18.13		Crushed stone bedding, from commercial sources, 19mm single size stone (Provisional)	m <sup>3</sup>	100		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	SABS 1200 L	PIPELINES				
	8.2.1	Supply, handle, lay and bed (Class C bedding) complete with couplings, test and disinfect the following pipes:				
18.14 <sup>LIC</sup>		DN 315mmØ uPVC Pipe Class 51	m	80		
18.15 <sup>LIC</sup>		DN 250mmØ uPVC Pipe Class 51	m	40		
18.16 <sup>LIC</sup>		DN 200mmØ uPVC Pipe Class 51	m	119		
18.17 <sup>LIC</sup>		DN 160mmØ uPVC Pipe Class 51	m	458		
18.18 <sup>LIC</sup>		DN 110mmØ uPVC Pipe Class 51	m	430		
	SANS 1200 L	SPECIAL AND FITTINGS				
	8.2.2	Extra over 8.2.1 for supplying, laying, bedding of the following fittings:				
		Bends				
18.19		315mmØ 45° uPVC bend Class 12	No.	2		
18.20		200mmØ 45° uPVC bend Class 12	No.	1		
18.21		160mmØ 45° uPVC bend Class 12	No.	9		
18.22		110mmØ 45° uPVC bend Class 12	No.	4		
18.23		315mmØ 90° uPVC bend Class 12	No.	1		
18.24		200mmØ 90° uPVC bend Class 12	No.	8		
18.25		160mmØ 90° uPVC bend Class 12	No.	6		
Total Carried Forward						

OR TAMBO DISTRICT MUNICIPALITY  
 QUMBU WASTE WATER TREATMENT WORKS AND SEWER RETICULATION

SCHEDULE R - SEWER PIPELINES TO NEW ELEMENTS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
18.26		200mmØ 22.5° uPVC bend Class 12	No.	2		
18.27		160mmØ 22.5° uPVC bend Class 12	No.	4		
18.28		110mmØ 22.5° uPVC bend Class 12	No.	2		
		Equal Tee's				
18.29		200 x 200mmØ reducer tee Class 12	No.	5		
18.30		160 x 160mmØ equal tee Class 12	No.	4		
		Reducers				
18.31		315 x 200mmØ reducer Class 12	No.	1		
		LINE CONTROL VALVES				
		Supply and install the following valves, (Min. 1MPa working pressure)				
18.32		200mmØ Class 16 wedge gate valve with cap top	No.	1		
		NON-RETURN VALVES				
		Supply and install the following valves, (Min. 1MPa working pressure)				
18.33		200mmØ Class 16 or better non-return valve	No.	1		
18.34		110mmØ Class 16 or better non-return valve	No.	3		
18.35		315mmØ Class 16 or better non-return valve	No.	0		Rate Only
18.36		110mmØ Class 16 or better non-return valve	No.	0		Rate Only
Total Carried Forward						

OR TAMBO DISTRICT MUNICIPALITY  
 QUMBU WASTE WATER TREATMENT WORKS AND SEWER RETICULATION

SCHEDULE R - SEWER PIPELINES TO NEW ELEMENTS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	8.2.3	MANHOLES				
18.35 <sup>SMME</sup>		For 315mm dia. pipeline	No.	1		
18.36 <sup>SMME</sup>		For 300mm dia. pipeline	No.	10		
18.37 <sup>SMME</sup>		For 250mm dia. pipeline	No.	1		
18.38 <sup>SMME</sup>		For 160mm dia. pipeline	No.	3		
18.39 <sup>SMME</sup>		For 90mm dia. pipeline	No.	7		
	8.2.8	ANCHOR/THRUST BLOCKS				
		Supply all materials, labour, plant and construct 25MPa concrete Anchor/Thrust blocks and pedestals	m <sup>3</sup>	12		
	SANS LC 8.8.2	MARKER POSTS				
18.40 <sup>SMME</sup>	8.2.9	Marker Posts	No.	10		
18.41	8.2.10	Permanent Plug Stoppers (Provisional)	No.	10		
Total Carried Forward To Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
19 <sup>LIC</sup>	SANS 1200 DB	SITE CLEARANCE				
19.1 <sup>LIC</sup>		(a) Clear and grub vegetation, hedges, shrubs and trees not exceeding 200mm girth etc.	m <sup>2</sup>	3600		
19.2 <sup>LIC</sup>		(b) Digging up and removing rubbish, debris, vegetation, hedges, shrubs and trees not exceeding 1m girth etc.	No.	1.00		
	PSD	EXCAVATION				
	PSDB 1	(a) Excavate in soft materials for trenches, backfill, compact and dispose of surplus/unsuitable material for pipes for the following:				
19.3 <sup>LIC</sup>		Exceeding 0m but not 1.0m	m	1800		
19.4 <sup>LIC</sup>		Exceeding 1.0m but not 2.0m	m	0		Rate Only
19.5 <sup>LIC</sup>	8.3.2 PSDB1	Extra over for excavations in hard rock	m <sup>3</sup>	360		
19.6 <sup>LIC</sup>	8.3.2 PSD 1.1	Extra over for excavating in streams and environmentally sensitive areas	m <sup>3</sup>			Rate Only
19.7 <sup>LIC</sup>	8.3.2	Excavate and dispose of unsuitable material in trench bottom (Provisional)	m <sup>3</sup>	360		
19.8 <sup>LIC</sup>	8.3.3.1	Make up deficiency in backfill material obtained from site	m <sup>3</sup>	360		
19.9 <sup>LIC</sup>	8.3.3.3	Compaction in road reserves	m <sup>3</sup>	20		Rate Only
	SABS 1200LB	BEDDING (PIPES)				
	8.2.1	Provision of Class C bedding material from trench excavations				
19.1 <sup>LIC</sup>		(a) Selected granular material	m <sup>3</sup>	180		
19.11 <sup>LIC</sup>		(b) Selected fill material	m <sup>3</sup>	441		
	8.2.2.3	Imported from commercial sources				
19.12		(a) Selected granular material	m <sup>3</sup>	210		
19.13	PSLB 3	Crushed stone bedding, from commercial sources, 19mm single size stone (Provisional)	m <sup>3</sup>	36		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
	SABS 1200 L	PIPELINES				
	8.2.1	Supply, handle, lay and bed (Class C bedding) complete with couplings, test and disinfect the following pipes:				
19.14 LIC		DN 50mm Ø HDPE Pipe to SANS 4427-2 Class 10	m	1800		
19.15 LIC		DN 32mm Ø HDPE Pipe to SANS 4427-2 Class 10	m	300		
19.16 LIC		DN 20mm Ø HDPE Pipe to SANS 4427-2 Class 10	m	300		
	SANS 1200 L	SPECIAL AND FITTINGS				
	8.2.2	Extra over 8.2.1 for supplying, laying, bedding of the following fittings:				
		Bends				
19.17		50mmØ 90° uPVC bend Class 12	No.	20		
19.18		32mmØ 90° uPVC bend Class 12	No.	20		
19.19		20mmØ 90° uPVC bend Class 12	No.	20		
		Reducing Tee's				
19.20		50 x 32mmØ equal tee Class 12	No.	15		
19.21		32 x 20mmØ equal tee Class 12	No.	10		
19.22		20 x 15mmØ equal tee Class 12	No.	5		
Total Carried Forward						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
Brought Forward						
19.23		<p>LINE CONTROL VALVES</p> <p>Supply and install the following valves, (Min. 1MPa working pressure)</p> <p>50mmØ Class 16 wedge gate valve with cap top</p>	No.	3		
19.24 <sup>SMME</sup>		<p>BULK WATER METERS AND CHAMBERS</p> <p>Supply all materials and labour and construct water meter chamber complete inclusive of all fittings as per drawings</p> <p>AIR VALVE ASSEMBLY</p> <p>Supply, handle and install all fittings and pipework and complete chamber :-</p>	No.	1		
19.25		<p>50Ø Vent - O - Mat Air valve assembly on uPVC pipe complete as per Drawing.</p> <p>SCOUR VALVE ASSEMBLY</p> <p>Supply, handle and install all fittings and pipework and complete chamber :-</p>	No.	2		
19.26		<p>50Ø Scour valve assembly on uPVC pipe complete as per Drawing</p>	No.	2		
19.27 <sup>SMME</sup>	8.2.8	<p>ANCHOR/THRUST BLOCKS</p> <p>Supply all materials, labour, plant and construct 25MPa concrete Anchor/Thrust blocks and pedestals</p>	m <sup>3</sup>	1		
19.28 <sup>SMME</sup>	8.2.9	<p>Marker Posts</p>	No.	15		
19.29		<p>Stand pipes complete with 600X600mm apron slab</p>	No.	6		
Total Carried Forward To Summary						

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (R)
1	SCHEDULE A - PRELIMINARY AND GENERAL	
2	SCHEDULE B - SITE CLEARANCE	
3	SCHEDULE C: STRUCTURES - BULK EXCAVATIONS	
4	SCHEDULE D: STRUCTURES - INLETWORKS	
5	SCHEDULE E: STRUCTURES - PRIMARY SETTLERS	
6	SCHEDULE F: STRUCTURES - DENITRIFICATION TANK	
7	SCHEDULE G: STRUCTURES - BIO-FILTERS	
8	SCHEDULE H - CLARIFIERS	
9	SCHEDULE I - SLUDGE DRYING BEDS	
10	SCHEDULE J - NEW CHLORINE CONTACT TANK	
11	SCHEDULE K - PUMP SUMPS	
12	SCHEDULE L - MEDIUM PRESSURE PIPELINES	
13	SCHEDULE M: PUMPS MECHANICAL AND ELECTRICAL EQUIPMENT	R13 205 516.40
14	SCHEDULE N - OPERATION AND MAINTANANCE	R2 103 000.00
15	SCHEDULE O : NEW BUILDINGS	
16	SCHEDULE P - ROADS AND STORMWATER	
17	SCHEDULE Q - FENCING	
18	SCHEDULE R - SEWER PIPELINES TO NEW ELEMENTS	
19	SCHEDULE S - WATER RETICULATION	
	Total Carried Forward To Summary Of Schedules Sub-Total A	<hr/>
	Provisional Sum: Allowance for Contract Price Adjustment (0% of Sub-Total A)	<hr/>
	Sub-Total B	
	Provisional sum: Allowance for Contingencies (10% of Sub-Total B)	
	Total Construction Cost	
	Value Added Tax at 15%	
	Grand Total	