

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount
	<b>SABS 1200 A</b>	<b><u>SECTION A: PRELIMINARY AND GENERAL</u></b>				
A1		<b>Fixed charge items:</b>				
A 1.1	8.3.1	<b>Contractual requirements</b>	Sum	1		
A 1.2	8.3.2	<b><u>Establishment of Facilities on the Site</u></b>				
	8.3.2.1	<b><u>Facilities for Engineer</u></b>				
A 1.3		a) Furnished office for Resident Engineer suitable for site meetings	Sum	1		
A 1.4		b) One Cellular phone (remains the property of the contractor)	Sum	1		
A 1.5		c) Nameboard as per drawing	Sum	1		
A 1.7		e) One Carport as specified	Sum	1		
A 1.8		f) Provision of monthly as-built" records to the Engineer"	Sum	1		
A 1.9		g) Ablution and latrine facilities	Sum	1		
A 1.10		h) Laptop & Printer - 2.6 GHZ Processor, 6 GB RAM,320 Gig HD,CD/DVD Drive with USB port min. Core i7 or similarly approved, complete with Windows 7 operating system & MS Office Basic and 3G Modem (remains the property of the contractor)	Sum	1		
	8.3.2.2	<b><u>Facilities for Contractor</u></b>				
A 1.15		a) Offices and storage sheds	Sum	1		
A 1.16		b) Workshops	Sum	1		
A 1.17		d) Living accommodation	Sum	1		
A 1.18		e) Ablution and latrine facilities	Sum	1		
A 1.19		f) Tools and equipment	Sum	1		
A 1.20		g) Water supplies, electric power and communications	Sum	1		
A1.21		h) Dealing with water	Sum	1		
A 1.23		i) Digital camera to take digital photographs of existing structures, roads and obstructions on the pipeline routes and submit to the Engineer (remains the property of the contractor)	Sum	1		
A1.24		Removal of Site Establishment after successful completion of the project	Sum	1		
		<b>Carried forward/.....</b>				

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount
		<b>Brought Forward/.....</b>				
		<b>SCHEDULED TIME-RELATED ITEMS</b>				
A 1.25	8.3.1	Contractual Requirements	Month			
		<b><u>Operation and Maintenance of Facilities on Site, for Duration of Construction, except where otherwise stated</u></b>				
	8.4.2.1	<b><u>Facilities for Engineer</u></b>				
A 1.26		a) Furnished office for Resident Engineer suitable for site meetings	Month			
A 1.27		b) One Cellular phone	Month			
A 1.28		c) Nameboard as per drawing	Month			
A 1.30		d) One Carport as specified	Month			
A 1.31		e) Provision of monthly as-built" records to the Engineer"	Month			
A 1.32		f) Ablution and latrine facilities	Month			
	8.4.2.2	<b><u>Facilities for Contractor</u></b>				
A 1.34		a) Offices and storage sheds	Month			
A 1.35		b) Workshops	Month			
A 1.36		c) Living accommodation	Month			
A 1.37		d) Ablution and latrine facilities	Month			
A 1.38		e) Tools and equipment	Month			
A 1.39		f) Water supplies, electric power and communications	Month			
A 1.40		g) Dealing with water	Month			
A 1.41		h) Access	Month			
A 1.44	8.4.3	Supervision for Duration of Construction	Month			
A 1.45	8.4.4	Company and Head Office Overhead Costs for the Duration of the Contract	Month			
A 1.46	8.4.5	Other Time-related Obligations (Specify)	Sum			
		<b>Carried to Forward</b>				

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount
		<b>Brought Forward/.....</b>				
		<b>Survey Beacons/pegs</b>				
A 1.47	8.5.5	Search for, record, reference and protect survey stations, bench marks, boundary pegs and other reference pegs and expose on completion of works	Sum			R 50 000,00
A 1.48		Provisional sum for specialised geotechnical investigations	Provisional Sum			R 50 000,00
A 1.49		Contractor's charges and profit on Item A 1.48 (state percentage and extend as an amount)	.....%		R 50 000,00	
	8.7	<b>Dayworks</b>				
		<b>a) Plant</b>				
A 1.50		(i) Air compressor, 4m <sup>3</sup> /min, complete with drills, jack hammer etc.	hr	100		
A 1.51		(ii) 25 l/s Pump including all necessary hoses	hr	100		
A 1.52		(iii) Truck 10m <sup>3</sup> with operator	hr	100		
A 1.53		(iv) Concrete mixer 0.5m <sup>3</sup>	hr	150		
A 1.54		(v) Excavator 25T	hr	250		
A 1.55		(vi) Watercart 10 kl	hr	100		
A 1.56		(vii)Pneumatic roller	hr	150		
A 1.57		(viii)Padfoot roller	hr	100		
A 1.58		(ix)Grader	hr	100		
		<b>b) Labour</b>				
A 1.59		(i) Unskilled	hr	300		
A 1.60		(ii) Artisans	hr	250		
A 1.61		(iii) Survey assistants	hr	50		
	8.5	<b>SUMS STATED PROVISIONIALLY BY ENGINEER</b>				
A 1.64		(Paid only on discretion of the Employer)				
A 1.65		a) Relocation of existing services	Prov Sum			R 30 000,00
A 1.66		b) Overheads, charges and profit on item above A 1.65	.....%	R 30 000,00		
A 1.67		c) Accredited Training	Prov Sum			R 30 000,00
A 1.68		d) Overheads, charges and profit on item above A 1.67	.....%			
		<b>Carried to Forward</b>				

SCHEDULE OF QUANTITIES

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount
		<b>Brought Forward/.....</b>				R
	8,6	<b>PRIME COST ITEMS</b>				
A 1.69		a) Additional quality control test by approved laboratory instructed by the Engineer. (The cost of tests not conforming to standards shall not be included for payment)	P C Sum			R 15 000,00
A 1.70		b) Contractor's superintendence and administration of item above A 1.69	%		R 15 000,00	
A 1.71		c) Community Liaison Services (The Rate includes a R500 Airtime and Data)	Month		R8 000,00	
A 1.72		d) Project Steering Committee Allowance (6 @ R500 per Month and Siting)	Month		R3 000,00	
		<b>ADDITIONAL SURVEY</b>				
A 1.73		a) As instructed by the Engineer	P C Sum	1		R 20 000,00
A 1.74		b) Overheads, charges and profit on item (a) above A 1.73	.....%	R 20 000,00		
A 1.75		Site finishing	Sum	1		
	PS 11	<b>HEALTH AND SAFETY</b>				
A 1.76		Compliance with OHS Act and regulations (incl. the construction regulations, 2003)				
A 1.77		Allow for the cost compiling a Safety Plan as required in the specifications for the Principal Contractor / Contractor (All appointed sub - contractors to provide safety plans)	Sum	1		
A 1.78		Allow for the cost of the Notification of Construction Work by the Principal Contractor / Contractor	Sum	1		
A 1.79		Allow for the cost of a copy of OHS Act 85 of 1993 (Book or poster form. To be displayed in the site office)	Sum	1		
A 1.80		Allow for the costs of required Risk Assessments and method statements (Risk Assessments must include all Safe Work Procedures).	Sum	1		
A 1.81		Allow for the costs to compile all Health and Safety Inspection Registers for required tasks.	Sum	1		
	PS 11	<b>HEALTH AND SAFETY TRAINING</b>				
A 1.82		Allow for the costs of all relevant training on site.	Sum	1		
A 1.83		General Safety Induction Training of all employees on site	Sum	1		
A 1.84		First Aid Training	No.	2		
A 1.85		Fire Fighting Training	No.	2		
A 1.86		Weekly Toolbox Talks (to be conducted by Health and Safety Representative).	Sum	1		
A 1.87		Public Safety near construction site (to be conducted by Health and Safety Representative and CLO).	No.	1		
	PS 11	<b>ACCREDITED TRAINING OFF SITE</b>				
A 1.88		First Aid Level 1	No.	5		
A 1.89		Fire Fighting Level 1	No.	2		
A 1.90		Health and Safety Representative	No.	5		
		<b>Carried to Forward</b>				

SCHEDULE OF QUANTITIES

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
A 1.91		Medical Certificates of Fitness for mobile plant / Construction vehicle operators	No.	15		
A 1.92		Medical Certificates of Fitness for all Construction workers	No.	50		
A 1.93		Drivers Certificates of Competency for mobile plant / construction vehicle operators	No.	15		
	PS 11	<b><u>SAFETY EQUIPMENT REQUIRED ON SITE</u></b>				
A 1.94		First Aid Box (fully stocked)	No.	2		
A 1.95		9.2.9Kg Dc STP Fire Extinguishers	No.	2		
A 1.96		Dust Masks	No.	100		
A 1.97		Safety Goggles	No.	100		
A 1.98		Gloves (leather/PVC)	No.	100		
A 1.99		Hard hats	No.	50		
A 1.100		Barrier tape (Netting)	m	2000		
A 1.101		Reflective Vests	No.	100		
A 1.102		Traffic Control Sign Boards	No.	10		
A 1.103		Prohibitive Symbolic Signs (near Diesel / Flammable Fluid Storage).	No.	5		
A1.104		Acomadation for the <b>Engineers</b> staff				
A1.105		An allowance has to be paid for Engineers accomadation.	Month		R 10 000,00	
A1.109		Contract charges and profit on item A 1.105.(State persentage and extrent as anamount)	.....%			
A1.110		Allowance for training of a student on site	Months		R10 500,00	
A1.111		Contractors charges and Profit on Item A1,110	%			
A1.112		Allowance for 24 hour security guards at water treatment plant, operators houses and the three pump stations	Months			
A1.113		Contractors charges and Profit on Item A1,112	%			
A1.114		Appointment of APP to compile the permit to inpound for Port ST John's dam. Only as ordered by the Engineer	Prov Sum			R 100 000,00
		Contractors charges and Profit on Item A1.114	%		R100 000,00	
<b>Carried to Summary</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount
		<b>Section B : Gabions and Pitching</b>				
B1	SANS 1200 K	<b>Surface preparation</b>				
B1.1	8.2.1(a)	Cavities filled with approved excavated rock material	m <sup>2</sup>	20		
B1.2	8.2.1(b)	Cavities filled with 15Mpa/19mm concrete	m <sup>2</sup>	10		
B2	8.2.2	<b>Gabions</b>				
B2.1		Supply and deliver to site mesh type 80 with 2,7mm Class A Galvanised wire (1m x 1m x 1m)	m <sup>3</sup>	20		
B3		Installation of Gabion units, including unfolding, placing, filling, lacing and bracing	m <sup>3</sup>	20		
B4		Rock fill of Gabions with 150 to 200 mm diameter stones	m <sup>3</sup>	20		
B5	8.2.3	Packing selected stone for exposed face	m <sup>2</sup>	20		
B6	8.2.4	<b>Geotextiles</b>				
B6.1		Supply and deliver to site including unrolling, cutting and placing continuous polyester filament Double Needle-Punched AG 200 Geotextile	m <sup>2</sup>	100		
B7		<b>Reno Mattresses</b>				
B7.1	8.2.2	Supply and deliver to site 60 mm with 2,2 mm Class A Galvanised wire (2 x 1 x 0,3)	0 m <sup>3</sup>	30		
B8	8.2.1(a) 8.2.1(b)	Surface preparation for bedding of Reno Mattresses	m <sup>2</sup>	30		
B9		Installation of Reno Mattresses including unfolding, placing, filling and lacing	m <sup>3</sup>	30		
B10		Rock fill of Gabions with 150 mm to 200 mm diameter stones	m <sup>3</sup>	30		
B11 B11.1	8.2.4	<b>Geotextiles</b> Supply and deliver to site including unrolling, cutting and placing continuous polyester filament Double Needle-Punched AG 200 Geotextile	m <sup>2</sup>	100		
Carried to Summary/...						

		Tendered Bill of Quantities				
Item	Payment	Description	Unit	Quantity	Rate	Amount
<b>SECTION C: Building works</b>						
<b>Abstraction Manifold chamber</b>						
C1	SABS 1200 DB 8.3.1	<b>Excavation</b> (a) Remove topsoil to nominal depth 150mm, stockpile and maintain	m <sup>2</sup>	44		
C2		(b) Excavate in all materials and use for embankment or backfill or dispose	m <sup>3</sup>	130		
C3		(c) Extra over C2 above for:				
C3.1		1) Intermediate excavation	m <sup>3</sup>	0		
C3.2		2) Hard rock excavation	m <sup>3</sup>	26		
C4		Supply and compacted G5/G6 Fill material to 95% MAMDD	m <sup>3</sup>	5		
C5		General backfill around manhole and compacted in layers of 150mm and compacted to 93% MAMDD	m <sup>3</sup>	66		
C6	SABS 1200 G	<b>CONCRETE STRUCTURAL</b>				
C6.1	8.2 8.2.2	<b>SCHEDULED FORMWORK ITEMS</b> <b>Smooth Formwork</b>				
C6.1.1		200mm high vertical formwork for base of chamber	m <sup>2</sup>	4		
C6.1.2		Vertical formwork for wall of chamber	m <sup>2</sup>	80		
C6.1.3		Horizontal for slab of chamber	m <sup>2</sup>	13		
C7	8.3 8.3.1	<b>SCHEDULED REINFORCEMENT ITEMS</b> <b>Steel bars</b>				
C7.1		High Tensile steel bars for Manhole	t	1,709		
C7.2		Mild steel bars for chamber	t	0,043		
C8	8,4 1200G	<b>SCHEDULED CONCRETE ITEMS</b> <b>Class 30/19 Mpa concrete in:</b>				
C8.1		(a) Chamber base, walls and Cover Slab 30 Mpa	m <sup>3</sup>	19		
C9		<b>Manhole Covers</b>				
C9.1		Supply and install 560mm dia extra heavy duty concrete lockable manhole cover	No	1		
C9.2		Supply and install 1070x1070mm concrete manhole cover as per Drg 1415-0-1200	No	2		
C10	PS11	<b>Box out Holes</b>				
C10.1		For box out hole 500x500mm	No	1		
C10.2		For box out hole 400x400mm	No	1		
C11		Supply and install Gantry for Abstraction pump station	Sum	1		
C12		Supply and install double 2,05m high double galvanised leaf gates	No	2		
C13		Supply and install Type A Transformer room door 815mm x 2030mm fully louvered AVA	No	1		
C14		Supply and install Type D Transformer room door 1830mm x 2440mm fully louvered DVA	No	1		
<b>TOTAL CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
C16	PS11	<b>Fencing at off channel Dam</b>				
C16.1		Corner Post as per Drg 1415-0-2102B	No	2		
C16.2		Straining Post as per Drg 1415-0-2101B	No	4		
C16.3		Droppers as per Drg 1415-0-2101B	No	36		
C16.4		Y-Standards as per Drg 1415-0-2101B, 2.5kg/m	No	8		
C16.5		Barb Wire installed as per Drg 1415-0-2101B, double stand, 2mm thick	m	800		
C17	PSY8-2	<b>Gates</b> (a) Supply and install 2.05m high double leaf gates and straining and anchor post ( including excavations concrete and backfill )	No	1		
C18		<b>Booster Pump Stations and Water Treatment Works</b> Site clearance,bushes, grass cutting and disposal off	m <sup>2</sup>	4000		
C19	PSQB 13.10.1	Painting of building complete with 2 coats, colour to client specification (Interior and Exterior)	m <sup>2</sup>	500		
C20	PS11	450mm wide retagrid for cable trenches, including 25x25x5mm angle iron	m	120		
C21		<b>Burglar bars for Water Treatment building and Guard house</b>				
C21.1		Supply and install burglar bars for timber frame windows (1,5m width x 0.9m height)	No	11		
C21.2		Supply and install burglar bars for timber frame windows (1m width x 0.9m height)	No	2		
C21.3		Supply and install burglar bars for timber frame windows (0.5m width x 0.6m height)	No	2		
C22		<b>Septic tank lid</b>				
C22.1		Cast and install reinforced concrete slab with mesh REF395 (1.5m x 1.4m), including 0.4m x 0.4m lids	m <sup>3</sup>	1		
C23		<b>PROCESS CONTROLER QUARTERS</b>				
C23.1	13.10.1	<b>Painting</b>				
C23.1.1		1 Coat plaster primer	m <sup>2</sup>	290		
C23.1.2		2 Coats acrylic PVA internally	m <sup>2</sup>	290		
C24	SPEC QB	<b>Tiling and flooring</b>				
C24.1	13.8.4	Wall tiling 150 x150 mm white glazed tiles to kitchen	m <sup>2</sup>	18		
C24.2		Skirtings	m	50		
C24.3		Quadrants	m	150		
C24.4		Supply and install 200 x 75 mm precast concrete channel	m	200		
C25	SPEC QB	<b>Burglar bars, pelmets and blind curtains for these windows</b>				
C25.1	13.7.2	HA5F (2033 X 1454)	No	4		
C25.2		HE 6 (600X630)	No	2		
C25.3		HG15 (1500X1215)	No	14		
C26		<b>Frosted glazing glasses</b>				
C26.1		HE 6 (600X630)	No	3		
C26.2		HG15 (1500X1215)	No	2		
C27		<b>Electrical</b>				
C27.1		Supply and install compact fluorescent light	No	12		
C28		<b>Transparent glazing</b>				
C28.1		HG15 (1500X1215)	No	2		
C29		Mirrors: 400 x 400 mm fixed to walls (Bathroom)	No	2		
C30		Soap dish	No	2		
C31		Supply 75mm PVC Down pipes including all fittings and fixing	m	40		
C32	PS 11	<b>Miscellaneous</b>				
C32.1		Supply and install three plate electrical stove	No	2		
<b>TOTAL SECTION C CARRIED TO SUMMARY</b>						



Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
<b>SECTION D: Refurbishment of pipe lines and reservoirs</b>						
<b>Pump main to Dam and Water Treatment Works</b>						
<b>Site Clearance</b>						
D1		Clear and grub site	m <sup>2</sup>	150		
D2	SABS 1200 DB	<b>EARTHWORKS</b>				
D2.1	8.3.2	<b>Excavation</b>				
	PSD8-1	Excavate in all materials, including backfill, compact and dispose of surplus material for pipe up to 400mm diameter				
	PSD8-2	for depths:				
	PSD8-3	Over and Up to				
D2.1.1	PSDB8-2 PSDB8-3	0,0m and 1,2m	m	100		
D2.1.2	PSDB8-5	1,2m and 2,0m	m	1		Rate Only
D3	8.3.2(b)	Extra over for item D2.1.1 and D2.1.2 hard rock excavations	m <sup>3</sup>	200		
D4	PSDB8-1	<b>Treatment of trench bottoms to main pipelines</b>				
D5		Compaction of in-situ material	m <sup>2</sup>	100		
D6		<b>Excavation extra's</b>				
D6.1	8.3.3.1	Backfill by importation from commercial or off site sources selected by Contractor	m <sup>3</sup>	80		
D6.2	8.3.2	Stockpile, on site bedding material from excavations	m <sup>3</sup>	20		
D6.3	8.3.3.3	Compaction of road reserve to 95% MAMDD	m <sup>3</sup>	50		
D7	1200LB	<b>Bedding</b>				
	8.2.1	Provision of bedding from excavations for flexible pipes:				
D7.1	PSLB8-1 PSLB8-2	Selected granular material	m <sup>3</sup>	20		
D7.2		Selected fill blanket	m <sup>2</sup>	60		
D7.3	8.2.3	Commercial sources ( Only when ordered by the Engineer) Selected granular material	m <sup>3</sup>	80		
D7.4		Selected fill blanket	m <sup>3</sup>	60		
D8	1200L 8.2.1	<b>Pipework</b>				
D8.1	PSL8-1	Supply, lay, joint, bed and test pipes				
D8.1.1		400mm (uPVC Class 9)	m	100		
D9	8.2.2	<b>Extra over for supplying, laying, jointing, bedding and testing of uPVC pipe specials</b>				
D9.1	8.2.2	400mm x 22,5 deg.	No	2		
D9.2		400mm x 11,25 deg.	No	2		
D9.3	8.2.2	400 mm ø flange adaptor for 400 mm ø uPVC pipes	No	2		
D9.4	8.2.2	200 mm dia flange adaptor	No	1		
D9.5		250mm reflux valve, flanged, class25	No	1		
D95.6		Supply and install 210mm dia galvanised goose neck inlet pipe with 380mm height flanged both ends incl bolts, washers and nuts	No	1		
D9.		Leveldex float control valve including all fittings for connection 210mm diameter inlet		2		
D10	1200GE 8.2.1	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D10.1	8.2.2	680mm x 980mm with lifting hooks, 25Mpa Concrete, including mesh ref 395	No	7		
D10.2	8.2.3.1	980mm x 980mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	1		
D10.3	8.2.4	670mm x 670mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	4		
D10.4	8.2.5	630mm x 630mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	27		
D11	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D11.1		25mm dia galvanised steel riser piece flanged, 400mm long	No	9		
D11.2		25mm dia flanged ball valve, class 25	No	13		
D11.3		50mm dia flanged ball valve, class 25	No	12		
<b>TOTAL CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D11.4		25mm Vent o Mat air valve RBX series, 1/4 BSP test cock and end plug, flanged, class 25	No	13		
D11.5		50mm dia Vent o Mat air valve RBX series, 1/4 BSP test cock and end plug, flanged, class 25	No	12		
D12	8.2.1 8.2.2 8.2.3.1	<b>Steel Pipe specials for scour valve chamber, supply and install</b>				
D12.1	8.2.4	110mm short radius bend galvanised, one end flanged	No	2		
D12.2	8.2.5	110mm upvc to 100mm galvanised steel adaptor	No	2		
D13		<b><u>Gravity Main to Ntile Village</u></b>				
D13.1	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D13.1.1		670mm x 670mm with lifting hooks, 25 Mpa concrete, including mesh ref 395	No	8		
D13.1.2		680mm x 980mm with lifting hooks, 25 Mpa concrete, including mesh ref 395	No	1		
D14	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D14.1		25mm dia galvanised steel pipe riser, 400mm long, screwed type	No	8		
D14.2		25mm dia screwfix ball valve, class 25	No	8		
D14.3		25mm dia Vent o Mat RBX series air valve, 1/4 BSP test cock connection and end plug, class 25	No	8		
D14.4		Leveldex float control valve including all fittings for connection on Atlas 10kl storage tank	No	1		
D14.5		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved )	No	6		
D15	PSY 8-1	<b>Fencing</b>				
D15.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D15.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D15.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D15.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D16	SABS 1200 DB 8.3.2	<b><u>Gravity Main to Nozozo Village</u></b>				
D16.1		<b>Excavation</b>				
	PSD8-1	Excavate in all materials, including backfill, compact and dispose of surplus material for pipe up to 63mm diameter				
	PSD8-2	for depths:				
	PSD8-3	Over and Up to				
D16.1.1	PSDB8-2 PSDB8-3 PSDB8-5	0,0m and 1,2m	m	200		
D16.1.2		1,2m and 2,0m	m	1		Rate Only
D17		Extra over for item D16.1.1 and D16.1.2 hard rock excavations	m³	10		
D18	PSDB8-1	<b>Treatment of trench bottoms to main pipelines</b>				
D18.1		Compaction of in-situ material	m²	133		
D19		<b>Excavation extra's</b>				
D19.1	8.3.3.1	Backfill by importation from commercial or off site sources selected by Contractor	m³	90		
D19.2	8.3.2	Stockpile, on site bedding material from excavations	m³	20		
D19.3	8.3.3.3	Compaction of road reserve to 95% MAMDD	m³	10		
D20	1200LB	<b>Bedding</b>				
D20.1	8.2.1 PSLB8-1	Provision of bedding from excavations for flexible pipes:				
D20.1.1	PSLB8-2	Selected granular material	m³	20		
D20.1.2		Selected fill blanket	m³	48		
D20.1.3	8.2.3	Commercial sources ( Only when ordered by the Engineer) Selected granular material	m³	5		
D20.1.4		Selected fill blanket	m³	5		
<b>TOTAL CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D21	1200L 8.2.1	<b>Pipework</b>				
D21.1	PSL8-1	Supply, lay, joint, bed and test pipes				
D21.1.1		63mm (uPVC Class 9)	m	100		
D22	1200L 8.2.2	<b>Air valve chamber</b>				
D22.1		Construct air valve chamber complete with manhole frame and concrete cover, air vent, lifting rings, excavation, formwork and reinforcing as shown on Drg 1215/40	No	1		
D23	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D23.1		670mm x 670mm with lifting hooks 25 Mpa concrete, including mesh ref 395	No	2		
D24	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D24.1		25mm dia galvanised steel riser pipe, 400mm long, screwfix	No	8		
D24.2		25mm dia ball valve screwfix class 16	No	8		
D24.3		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	8		
D24.4		63 mm dia plain ended butterfly valve, class 16	No	2		
D24.5		Leveldex float control valve including all fittings for connection on Atlas 10kl storage tank	No	1		
D25	PSY 8-1	<b>Fencing</b>				
D25.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D25.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D25.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D25.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D26	PS11	Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved)	No	4		
D27		<b>Gravity main to Gqubeni Village</b>				
D28	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D28.1		670mm x 670mm with lifting hooks, 25 Mpa concrete, including mesh ref 395	No	14		
D28.2		680mm x 980mm with lifting hooks, 25 Mpa concrete, including mesh ref 395	No	1		
D29	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D29.1		25mm dia galvanised steel riser pipe, 400mm long, screwfix	No	7		
D29.2		25mm dia ball valve screwfix class 16	No	10		
D29.3		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	10		
D29.4		63mm dia plain ended butterfly valve class 16	No	2		
D29.5		Leveldex float control valve including all fittings for connection on Atlas 10kl storage tank	No	1		
D30	PSY 8-1	<b>Fencing</b>				
D30.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D30.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D30.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D30.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D31		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved )	No	5		
D32		<b>Gravity main to Ngqotsini Village</b>				
D33	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D33.1		670mm x 670mm with lifting hooks, 25 Mpa concrete, including mesh ref 395	No	2		
D33.2		680mm x 980mm with lifting hooks, 25 Mpa concrete, including mesh ref 395	No	1		
<b>TOTAL CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D34	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D34.1		25mm dia galvanised steel riser pipe, 400mm long, screwfix	No	1		
D34.2		25mm dia ball valve screwfix class 16	No	2		
D34.3		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	2		
D34.4		63mm plain ended butterfly valve, class 16	No	2		
D35	PSY 8-1	<b>Fencing</b>				
D35.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	38		
D35.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D35.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	6		
D35.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	2		
D35.5		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved )	No	1		
D36		<b>Gravity main to Mgugwane village</b>				
D37		<b>Air valve chamber</b>				
D37.1	PS11	Construct air valve chamber complete with manhole frame and concrete cover, air vent, lifting rings, excavation, formwork and reinforcing as shown on Drg 1215/40	No	1		
D38	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D38.1		670mm x 670mm with lifting hooks,25 Mpa Concrete, including mesh ref 395	No	3		
D38.2		680mm x 980mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	1		
D39	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D39.1		25mm dia ball valve screwfix class 16	No	2		
D39.2		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	2		
D39.3		63mm plain ended butterfly valve, class 16	No	2		
D40	SABS 1200 DB	<b>EARTHWORKS</b>				
D40.1	8.3.2 PSDB-1 PSDB-2 PSDB-3	<b>Excavation</b> Excavate in all materials, including backfill, compact and dispose of surplus material for pipe up to 400mm diameter for depths:				
D40.1.1	PSDBB-2 PSDBB-3	Over and Up to 0,0m 1,2m	m	250		
D40.1.2	PSDBB-5	1,2m 2,0m	m	1		Rate Only
D41	8.3.2(b)	Extra over for item D40.1.1 and D40.1.2 hard rock excavations	m³	20		
D42	PSDBB-1	<b>Treatment of trench bottoms to main pipelines</b> Compaction of in-situ material	m²	166		
D43	8.3.3.1	<b>Excavation extra's</b> Backfill by importation from commercial or off site sources selected by Contractor	m³	171		
D44	8.3.2	Stockpile, on site bedding material from excavations	m³	20		
D45	8.3.3.3	Compaction of road reserve to 95% MAMDD	m³	30		
D46	1200LB 8.2.1	<b>Bedding</b>				
D46.1	PSLB8-1 PSLB8-2	Provision of bedding from excavations for flexible pipes:				
<b>TOTAL CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D46.1.1		Selected granular material	m³	42		
D46.1.2		Selected fill blanket	m³	98		
D47		Commercial sources ( Only when ordered by the Engineer)				
D47.1		Selected granular material	m³	21		
D47.2		Selected fill blanket	m³	49		
D48	1200L 8.2.1	<b>Pipework</b>				
D48.1	PSL8-1	Supply, lay, joint, bed and test pipes				
D48.1.1		63mm (uPVC Class 12)	m	250		
D49		<b>Air valve chamber</b>				
D49.1	PS11	Construct air valve chamber complete with manhole frame and concrete cover, air vent, lifting rings, excavation, formwork and reinforcing as shown on Drg 1215/40	No	1		
D50	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D50.1		670mm x 670mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	3		
D50.2		680mm x 980mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	1		
D60	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D60.1		25mm dia ball valve screwfix class 16	No	2		
D60.2		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	2		
D60.3		63mm plain ended butterfly valve, class 16	No	2		
D61	PSY 8-1	<b>Fencing</b>				
D61.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured separately)	m	38		
D61.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	6		
D61.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	2		
D61.5	PS11	Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved)	No	1		
D62		<b>Gravity main to Nyazi Village</b>				
D63	SABS 1200 DB	<b>EARTHWORKS</b>				
D63.1	8.3.2 PSDB-1 PSDB-2 PSDB-3	<b>Excavation</b> Excavate in all materials, including backfill, compact and dispose of surplus material for pipe up to 400mm diameter for depths:				
D63.1.1	PSDB8-2 PSDB8-3 PSDB8-5	Over and Up to 0,0m 1,2m	m	300		
D63.1.2		1,2m 2,0m	m	1		Rate only
D64	8.3.2(b)	Extra over for item D63.1.1 and D63.1.2 hard rock excavations	m³	20		
D65	PSDB8-1	<b>Treatment of trench bottoms to main pipelines</b> Compaction of in-situ material	m²	300		
D66	8.3.3.1	<b>Excavation extra's</b> Backfill by importation from commercial or off site sources selected by Contractor	m³	206		
D67	8.3.2	Stockpile, on site bedding material from excavations	m³	25		
<b>TOTAL CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D68	8.3.3.3	Compaction of road reserve to 95% MAMDD	m <sup>3</sup>	30		
D69	1200LB 8.2.1	<b>Bedding</b>				
D69.1	PSLB 8-1 PSLB 8-2	Provision of bedding from excavations for flexible pipes:				
D69.1.1		Selected granular material	m <sup>3</sup>	24		
D69.1.2		Selected fill blanket	m <sup>3</sup>	60		
D70	8.2.3	Commercial sources ( Only when ordered by the Engineer)				
D70.1		Selected granular material	m <sup>3</sup>	25		
D70.2		Selected fill blanket	m <sup>3</sup>	60		
D71	1200L 8.2.1	<b>Pipework</b>				
D71.1	PSLB-1	Supply, lay, joint, bed and test pipes				
D71.1.1		63mm (uPVC Class 12)	m	300		
D72	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D72.1		670mm x 670mm with lifting hooks, 25 Mpa concrete, including mesh ref 395	No	13		
D73	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D73.1		25mm dia ball valve screwfix class 16	No	8		
D73.2		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16				
D73.3		25mm dia galvanised steel riser pipe, 400mm long, screwfix	No	11		
D74	PSY 8-1	<b>Fencing</b>				
D74.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	38		
D74.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D74.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	6		
D74.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	2		
D75	1200G	<b>Concrete encasement of pipe for river crossing</b>				
D75.1		Place 25 Mpa/19mm concrete including excavations, formwork and backfilling as per Drg No 1215/45	No	1		
D75.2		Leveldex float control valve including all fittings for connection 100mm diameter inlet	No	1		
D76		<b><u>Gravity main to Dukulweni Village</u></b>				
D77	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D77.1		670mm x 670mm with lifting hooks, 25 Mpa concrete, including mesh ref 395	No	10		
D78	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D78.1		25mm dia ball valve screwfix class 16	No	7		
D78.2		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16				
D78.3		25 mm dia galvanised steel riser pipe, 400mm long, screwfix	No	7		
D79		<b>Fencing</b>				
D79.1		Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D79.2		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved)	No	6		
<b>TOTAL CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D80		<b><u>Gravity main to Mbiza Village</u></b>				
D81	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D81.1		670mm x 670mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	17		
D82	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D82.1		25mm dia ball valve screwfix class 16	No	1		
D82.2		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	1		
D82.3		80mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	17		
D82.4	1200L 8.2.2	80mm plain ended butterfly valve, class 16	No	17		
D82.5		Leveldex float control valve including all fittings for connection on Atlas 10kl storage tank	No	1		
D83	PSY 8-1	<b>Fencing</b>				
D83.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D83.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D83.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D83.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D83.5		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved)	No	6		
D84		<b><u>Gravity Main to Taleni Village</u></b>				
D85	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D85.1		670mm x 670mm with lifting hooks, 25 Mpa Concrete	No	9		
D86	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D86.1		25mm dia ball valve screwfix class 16	No	9		
D86.2		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No			
D86.3		25 mm dia galvanised steel riser pipe, 400mm long, screwfix	No	10		
D87	PSY 8-1	<b>Fencing</b>				
D87.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D87.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D87.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D87.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D87.5		Leveldex float control valve including all fittings for connection 100mm diameter inlet	No	1		
D88		<b><u>Gravity main to Mswakazi village</u></b>				
D89	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D89.1		670mm x 670mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	2		
D89.2		680mm x 980mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	1		
D90		<b><u>Gravity main to Gemvale Village</u></b>				
D91	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D91.1		670mm x 670mm with lifting hooks, 25 Mpa Concrete	No	2		
D92	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
<b>TOTAL CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D92.1		80mm dia galvanized steel pipe riser, 400mm long flanged	No	1		
D92.2		80mm plain ended butterfly valve, class 25	No	2		
D92.3		80mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	1		
D93	PSY 8-1	<b>Fencing</b> Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D93.1						
D93.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D93.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D93.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D95		<b><u>Gravity to Mpato Village</u></b>				
D96	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D96.1		670mm x 670mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	2		
D97		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved )	No	6		
D98		<b><u>Gravity main to Lukhethe Villege</u></b>				
D99		<b>Air valve chamber</b>				
D99.1		Construct air valve chamber complete with manhole frame and concrete cover, air vent, lifting rings, excavation, formwork and reinforcing as shown on Drg 1215/40	No	1		
D100	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D100.1		670mm x 670mm with lifting hooks,25 Mpa Concerte, including mesh ref 395	No	3		
D101		1400mm precast manhole ring, 300mm high	No	1		
D102		<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D102.1		25mm dia ball valve screwfix class 16	No	2		
D102.2		25mm dia galvanised steel riser pipe, 400mm long, screwfix	No	2		
D102.3		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	2		
D103	1200G	<b>Reservoir Platform</b>				
D103.1		Construct reservoir platform 6000mm x 8000mm complete with all excavations compaction of in situ material formwork, 25 Mpa concrete, 200mm thick with a double layer of mesh 245	No	1		
D104	PSY 8-1	<b>Fencing</b> Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D104.1						
D104.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D104.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D104.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D104.5		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved)	No	6		
D105		<b><u>Gravity main to Kububile vilage</u></b>				
D106		620mm dia precast concrete manhole cover	No	3		
D107	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D107.1		680mm x 980mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	1		
D108	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D108.1		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	2		
<b>TOTAL SECTION D CARRIED TO SUMMARY</b>						



Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D109	PSY 8-1	<b>Fencing</b> Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D109.1						
D109.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D109.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D109.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D109.5		Leveldex float control valve including all fittings for connection 100mm diameter inlet	No	1		
D110		<b>Gravity Main to Nkomaze Village</b>				
D111	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D111.1		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	2		
D111.2		80mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	1		
D112	SABS 1200 DB	<b>EARTHWORKS</b>				
D112.1	8.3.1	<b>Excavation</b> Excavate in all materials, including backfill, compact and dispose of surplus material for pipe up to 400mm diameter				
	PSDB-1	for depths:				
	PSDB-2					
	PSDB-3					
D112.1.1	PSDBB-2	Over and Up to				
	PSDBB-3	0,0m 1,2m	m	100		
D112.2	PSDBB-5	1,2m 2,0m	m	1		Rate Only
D113	8.3.2(b)	Extra over for item D112.1.1 and D112.1.2 hard rock excavations	m³	10		
D114	PSDBB-1	<b>Treatment of trench bottoms to main pipelines</b>				
		Compaction of in-situ material	m²	100		
D115		<b>Excavation extra's</b>				
	8.3.3.1	Backfill by importation from commercial or off site sources selected by Contractors	m³	69		
D116	8.3.2	Stockpile, on site bedding material from excavations	m³	17		
D117	8.3.3.3	Compaction of road reserve to 95% MAMDD	m³	10		
D118	1200LB	<b>Bedding</b>				
	8.2.1	Provision of bedding from excavations for flexible pipes:				
D118.1	PSLB8-1	Selected granular material	m³	7		
D118.2	PSLB8-2	Selected fill blanket	m³	10		
D119	8.2.3	Commercial sources ( Only when ordered by the Engineer)				
D119.1		Selected granular material	m³	10		
D119.2		Selected fill blanket	m³	30		
D120	1200L 8.2.1	<b>Pipework</b>				
	PSL8-1	Supply, lay, joint, bed and test pipes				
D120.1		63mm (uPVC Class 12)	m	100		
D121	PSY 8-1	<b>Fencing</b> Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	38		
D121.1						
D121.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D121.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	6		
D121.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	2		
D121.5		Leveldex float control valve including all fittings for connection 100mm diameter inlet	No	1		
<b>TOTAL SECTION D CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D122		<b><u>Gravity main to Noqhekwane village</u></b>				
D123	SABS 1200 DB 8.3.1	<b>EARTHWORKS</b>				
	PSD8-1	<b>Excavation</b>				
	PSD8-2	Excavate in all materials, including backfill, compact and dispose of surplus material for pipe up to 400mm diameter				
	PSD8-3	for depths:				
D123.1	PSDB8-2	Over and Up to				
	PSDB8-3	0,0m and 1,2m	m	400		
D123.2	PSDB8-5	1,2m and 2,0m	m	1		Rate Only
	8.3.2(b)	Extra over for item D123.1.1 and D123.1.2 hard rock excavations	m³	10		
D124		<b>Treatment of trench bottoms to main pipelines</b>				
		Compaction of in-situ material	m²	400		
D125		<b>Excavation extra's</b>				
		Backfill by importation from commercial or off site sources selected by Contractor	m³	275		
D125.1		Stockpile, on site bedding material from excavations	m³	30		
D125.2		Compaction of road reserve to 95% MAMDD	m³	10		
D126	1200LB	<b>Bedding</b>				
D126.1	8.2.1	Provision of bedding from excavations for flexible pipes:				
	PSLB8-1					
D126.1.1	PSLB8-2	Selected granular material	m³	20		
D126.1.2		Selected fill blanket	m³	59		
D127	8.2.3	Commercial sources ( Only when ordered by the Engineer)				
D127.1		Selected granular material	m³	46		
D127.2		Selected fill blanket	m³	100		
D128	1200L 8.2.1	<b>Pipework</b>				
D128.1	PSL8-1	Supply, lay, joint, bed and test pipes				
D128.1.1		63mm (uPVC Class 12)	m	400		
D129	1200L 8.2.2	<b>Steel pipe specials for Air valve chamber, supply and installation</b>				
D129.1		25mm Vent o Mat RBX air valve, 1/4 BSP test cock connected and end plug, Class 16	No	2		
D129.2	1200GE	650mm dia precast concrete cover	No	2		
D130	PSY 8-1	<b>Fencing</b>				
D130.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D130.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D130.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	6		
D130.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	2		
D130.5		Leveldex float control valve including all fittings for connection 100mm diameter inlet	No	1		
D131		<b><u>Gravity Main to Mfihlela Village</u></b>				
D132	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D132.1		680mm x 980mm with lifting hooks,25 Mpa concrete, including mesh ref 395	No	1		
D133	SABS 1200 DB	<b>EARTHWORKS</b>				
<b>TOTAL SECTION D CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D133.1	8.3.1 PSDB8-1 PSDB8-2 PSDB8-3 PSDB8-2 PSDB8-3 PSDB8-5	<b>Excavation</b> Excavate in all materials, including backfill, compact and dispose of surplus material for pipe up to 400mm diameter for depths: Over and Up to 0,0m 1,2m	m	60		Rate only
D133.2		1,2m 2,0m	m	1		
D133.3	8.3.2(b)	Extra over for item D133.1 and D133.2 hard rock excavations	m³	5		
D134	PSDB8-1	<b>Treatment of trench bottoms to main pipelines</b> Compaction of in-situ material	m²	60		
D135		<b>Excavation extra's</b>				
	8.3.3.1	Backfill by importation from commercial or off site sources selected by Contractor	m³	41		
D136	8.3.2	Stockpile, on site bedding material from excavations	m³	10		
D137	8.3.3.3	Compaction of road reserve to 95% MAMDD	m³	10		
D138	1200LB	<b>Bedding</b>				
D138.1	8.2.1 PSLB8-1	Provision of bedding from excavations for flexible pipes:				
D138.1.1	PSLB8-2	Selected granular material	m³	5		
D138.1.2		Selected fill blanket	m³	14		
D138.1.3	8.2.3	Commercial sources (Only when ordered by the Engineer)				
D138.1.4		Selected granular material	m³	5		
D138.1.5		Selected fill blanket	m³	10		
D139	1200L 8.2.1	<b>Pipework</b>				
D139.1	PSLB-1	Supply, lay, joint, bed and test pipes				
D139.1.1		63mm (uPVC Class 12)	m	60		
D140	PSY 8-1	<b>Fencing</b>				
D140.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D140.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D140.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D140.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D140.5		Leveldex float control valve including all fittings for connection 100mm diameter inlet	No	1		
D140.6		Supply and install concrete reservoir breather vents,	No	3		
D141		<b>Gravity to Umtweni Village</b>				
D141.1	PSY 8-2	Supply and erect 2,1m high Single gate complete as per drawings with two gate post and straining post		1		
D141.2		Leveldex float control valve including all fittings for connection 100mm diameter inlet	No	1		
D142		<b>Gravity main to Nggondwana Village</b>				
D142.1	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D142.1.1		670mm x 670mm with lifting hooks,25 Mpa concrete, including mesh ref 395	No	1		
D142.1.2		680mm x 980mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	1		
D143	PSY 8-1	<b>Fencing</b>				
D143.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D143.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
<b>TOTAL SECTION D CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D143.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D143.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D143.5		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved)	No	5		
D144		<b><u>Gravity main to Xhutha Village</u></b>				
D145	1200L	<b>Air valve chamber</b>				
D145.1	8.2.2	Construct air valve chamber complete with manhole frame and concrete cover, air vent, lifting rings, excavation, formwork and reinforcing as shown on Drg 1215/40	No	1		
D146	1200G	<b>Reservoir Platform</b>				
D146.1		Construct reservoir platform 6000mm x 8000mm complete with all excavations, compaction of in situ material formwork, 25 Mpa concrete, 200mm thick with a double layer of mesh 245	No	1		
D147	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D147.1		670mm x 670mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	2		
D148	PSY 8-1	<b>Fencing</b>				
D148.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D148.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D148.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D148.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D148.5		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved )	No	6		
D149		<b><u>Gravity Main to Pitsini Village</u></b>				
D150	1200GE	<b>Precast concrete manhole covers ( To be manufactured on site )</b>				
D150.1		670mm x 670mm with lifting hooks, 25 Mpa Concrete, including mesh ref 395	No	2		
D150.2		680mm x 980mm with lifting hooks , 25 Mpa Concrete, including mesh ref 395	No	1		
D151	PSY 8-1	<b>Fencing</b>				
D151.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	63		
D151.2	PSY 8-2	Supply and erect 2,1m high double gate complete as per drawings with two gate post and straining post	No	1		
D151.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	10		
D151.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	4		
D151.5		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved )	No	6		
D152		<b><u>Gravity main to Gqubeni 1</u></b>				
D153	PSY 8-1	<b>Fencing</b>				
D153.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	38		
D153.2	PSY 8-2	Supply and erect 2,1m high single gate complete as per drawings with two gate post and straining post	No	1		
D153.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	6		
D153.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	2		
D153.5		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved )	No	1		
D154		<b><u>Gravity main to Gqubeni 2</u></b>				
D155	PSY 8-1	<b>Fencing</b>				
D155.1		Supply and erect 2,1m high fencing complete as per the drawings ( post and gates measured seperately)	m	38		
<b>TOTAL SECTION D CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D155.2	PSY 8-2	Supply and erect 2,1m high single gate complete as per drawings with two gate post and straining post	No	1		
D155.3	PSY 8-3	Supply and erect straining and corner post for 2,1m high fence galvanised inside and outside	No	6		
D155.4	PSY 8-3	Supply and erect Y-standard post for 2,1m high fence	No	2		
D155.5		Supply and install 10kl potable water plastic tanks ( Atlas potable water tanks or similar approved )	No	1		
D155.6		Leveldex float control valve including all fittings for connection on Atlas 10kl storage tank	No	18		
D155.7	PSDB 8-1 8.3.1	Clear and grub including bush clearing as ordered by the Engineer	m²	4500		
D155.8		Supply and install 100mm dia galvanised goose neck inlet pipe with 580mm height flanged both ends incl bolts, washers and nuts	No	6		
D155.9		<b>Access road to the River abstraction, Water Treatment Works, Process controller quarters and village reservoirs</b>				
D155.9.1		Regravelling and construction of acces roads with a 150mm G5 gravel layer compacted 95% MAMMD, 5m wide	m	4000		
D156		<b>INTERNAL RETICULATION ALL AREAS</b>				
D157	SABS 1200 DB	<b>EARTHWORKS</b>				
D157.1	8.3.1	<b>Excavation</b>				
	PSDB8-1 PSDB8-2 PSDB8-3 PSDB8-2 PSDB8-3 PSDB8-5	Excavate in all materials, including backfill, compact and dispose of surplus material for pipe up to 90mm diameter for flexible pipes. for depths:				
D157.1.1		Over 0,0m and Up to 1,0m	m	2400		
D157.1.2	8.3.2(b)	Extra over for item D157.1 hard rock excavations	m³	10		
D158		<b>Treatment of trench bottoms to main pipelines</b>				
D158.1	PS11	Compaction of in-situ material 93% MAMDD	m²	1440		
D159		<b>Excavation extra's</b>				
D159.1	PS11	Backfill by importation from commercial or off site sources selected by Contractor	m³	400		
D159.2		Stockpile, on site bedding material from excavations	m³	150		
D159.3		Compaction of road reserve to 95% MAMDD	m³	20		
D160	1200LB	<b>Bedding</b>				
D160.1	8.2.1 PSLB8-1	Provision of bedding from excavations for flexible pipes:				
D160.1.1	PSLB8-2	Selected granular material	m³	50		
<b>TOTAL SECTION D CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D160.1.2		Selected fill blanket	m³	60		
D161	8.2.3	Commercial sources ( Only when ordered by the Engineer)				
D161.1		Selected granular material	m³	100		
D161.2		Selected fill blanket	m³	300		
D162		<b>Encasing of pipes in concrete:</b>				
D162.1	8.2.4	Class 25MPa/19 mm	m³	20		
D163		<b>Supply, lay, join, bed on class C bedding, complete with couplings and test pipes:</b>				
D163.1	1200L 8.2.1 PSL8-1	<b>HDPE Class 10 pipes for stated diameters:</b>				
D163.1.1		20 mm	m	300		
D163.1.2		25 mm	m	300		
D163.1.3		32 mm	m	300		
D163.1.4		40 mm	m	300		
D163.1.5		50 mm	m	300		
D163.1.6		63 mm	m	300		
D163.1.7		75 mm	m	300		
D163.1.8		90 mm	m	300		
D164	8.2.2	<b>Extra over for the supplying, laying, and bedding of HDPE specials complete with couplings:</b>				
D164.1	8.2.2	<b>Equal Tee for stated diameters:</b>				
D164.1.1	8.2.2	20 mm	No	3		
D164.1.2		25 mm	No	3		
D164.1.3		32 mm	No	3		
D164.1.4		40 mm	No	3		
D164.1.5		75mm	No	3		
D165	8.2.2	<b>Class 10 reducer coupling for stated diameters:</b>				
D165.1		40mmϕ x 25mmϕ	No	3		
D165.2		32mmϕ x 25mmϕ	No	3		
D165.3		50mmϕ x 40mmϕ	No	3		
D165.4		50mmϕ x 32mmϕ	No	3		
D165.5		40mmϕ x 32mmϕ	No	3		
D165.6		90mmϕ x 75mmϕ	No	3		
D165.7		63mmϕ x 40mmϕ	No	3		
D165.8		25mmϕ x 20mmϕ	No	3		
D166	8.2.2	<b>Reducing Tee for stated diameter:</b>				
D166.1		32-25-25	No	3		
D166.2		32-25-32	No	3		
D166.3		50-25-50	No	3		
D166.4		50-63-50	No	3		
<b>TOTAL SECTION D CARRIED FORWARD</b>						

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount R
		<b>Brought Forward/.....</b>				
D166.5		63-40-63	No	3		
D166.6		75-40-75	No	3		
D166.7		63-50-63	No	3		
D166.8		32-32-40	No	3		
D166.9		32-50-32	No	3		
D166.10		40-25-40	No	3		
D166.11		40-32-40	No	3		
D166.12		50-40-50	No	3		
D166.13		75-90-75	No	3		
D166.14		40-32-32	No	3		
D166.15		90-63-90	No	3		
D167	8.2.2	<b>90° HDPE bend:</b>				
D167.1		20mmϕ	No	3		
D167.2		25mmϕ	No	3		
D167.3		32mmϕ	No	3		
D167.4		40mmϕ	No	3		
D167.5		75mmϕ	No	3		
D168	8.2.2	<b>Construct tapstands as per drawing with the following fittings</b>				
D168.1		20 mm CI saddle with screw in ferrule	No	274		
D168.2		BSP male adaptor compression fitting, 20 mm	No	274		
D168.3		20 mm galvanised male elbows	No	274		
D168.4		20 mm x ¾" male adaptor	No	274		
D168.5		20 mm x 1.2 m long MGS pipe	No	274		
D168.6		20 mm socket	No	274		
D168.7		20 mm dole valve male/female threaded (Model GY) max flow 10l/min	No	274		
D168.8		90° Galvanised steel bend, 20 mm	No	274		
D168.9		20 mm brass tap male threaded, class 10	No	274		
D168.10		Galvanised steel clamps	No	548		
D168.11		Y-Section fence standard, 1,83 m long	No	274		
D168.12	PS11	Broken stone soakaway filled with 20 mm dia stone and 110 mm thick brick edges	No	274		
D169	8.2.3	<b>Isolating valves for standpipes (Type 3B plastic circular valve)</b>				
D169.1		20 mm isolating valve for 20 mm HDPE pipe	No	69		
D169.2		25 mm isolating valve for 25 mm HDPE pipe	No	69		
D169.3		32 mm isolating valve for 32 mm HDPE pipe	No	68		
D169.4		40 mm isolating valve for 40 mm HDPE pipe	No	68		
<b>TOTAL SECTION D CARRIED FORWARD</b>						

SCHEDULE OF QUANTITIES

Item No.	Payment Clause	Short Description	Unit	Quantity	Rate	Amount
		<b>Brought Forward/.....</b>				
D170	PS 11	Supply and install steel locking bar 75mm x 12mm x 900mm long, galvanized with lock, for steel manhole cover only	No	40		
D180	PS 11	Supply and install of any steel fittings and specials not measured in this BOQ and only when ordered by the Engineer	Prov Sum	1		R 400 000,00
D181		Contractors charges and Profit on Item A180	%	1		
<b>TOTAL SECTION D CARRIED TO SUMMARY</b>						