

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
B	BILL NO.1 WATER RETICULATION FOR MPILO PROVINCIAL HOSPITAL MICROBIOLOGY LAB				
	Site Clearance				
B1.1	Clear vegetation and trees of girth up to 1m,measuring 1m above ground level (width of line maximum 1m)	m ²	425		
B2.1	Excavation Excavation in all materials for trenches backfill and compact depth between 0.5m-1.5m for pipes i.50mm PVC class 12 pipes	m ³	78		
B2.2	Extra-over all excavations For i.Hard material excavations ii.Hard rock excavations	m ³ m ³	8 4		
B2.3	Pipe Bedding Supply and place bedding material as directed by the Engineer and measured compacted for i.Selected granular/sand material.	m ³	37		
B2.4	Allow for alternative concrete bedding under roadways and shallow areas. i.Grade 15 concrete	m ³			
B2.5	Allow for carting away and disposing of unsuitable or surplus material from trench	m ³ /km	37		
B2.6	Allow for pumping of trenches to remove excess water in excavations	sum	1		
B2.7	Pipe Laying Supply,handle and lay Pvc pipes complete with fluid-tight joints i.50mm PVC class 12 pipes ii.75mm PVC class 16pipes	m m	425 18		
	FITTINGS Supply,lay,bed and joint,including cut pipes to length where required,test and include for CISC joints Supply and fix the following fittings:				
B2.8	Gate valves clockwise closing i.50mm dia	No	2		
B2.9	Fire Hydrant i.50mm dia	No	2		
B3.0	PVC Bends i.50*90 degree bends ii.50*45degree bends iii.50*22.5degree bends iv.50*11.25 degree bends	No No No No	1 1 1 1		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
B3.0	PVC tees i.50mm*50mm equal tees.	No	2		
B3.1	End Caps i.50mm PVC class 12 pipes	No	2		
B3.2	50mm Non-return valve	No			
B3.3	Supply and fix precast chambers as detailed for the following fittings with C.I covers				
	i.Gate valves	No	2		
	ii.Non-return valve	No	0		
	iii.Fire hydrant	No	2		
B3.4	Supply and fix marker posts for the following fittings as detailed.				
	i.Gate valves	No	2		
	ii.Non-return valve	No	0		
	iii.Fire hydrant	No	2		
B3.5	Allow a provisional sum for any other fittings not specified above	SUM	1		
	Water Tank and Concrete Plinth				
B3.6	Supply and construct concrete plinth with reinforcement	SUM	1		
B3.7	Supply and fix 10 000litre plastic water tank with necessary fittings	SUM	1		
B3.8	Supply and instal 1 pump houses with neccessary fittings	SUM	1		
	Ancillaries				
B3.9	Anchor/Thrust blocks and pedestals including formwork where required				
	ii.Grade 20 concrete	m ³	0.5		
	Pressure testing of water mains				
B4.0	Allow for all costs for pressure testing as specified or directed by the Engineer.	SUM	1		
	Disinfect pipelines				
B4.1	Allow for all cost of flushing and sterilizing of pipelines as specified or directed by the Engineer	SUM	1		
	Solar System				
B4.2	Allow for solar powered pump	SUM	1		
B4.3	Allow for Palisade fence to protect solar system	SUM	1		
	Total carried forward				

[illegible]

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
C	BILL NO.2 WATER RETICULATION FOR BULAWAYO VET				
	Site Clearance				
C1.1	Clear vegetation and trees of girth up to 1m,measuring 1m above ground level (width of line maximum 1m)	m ²	300		
C2.1	Excavation Excavation in all materials for trenches backfill and compact depth between 0.5m-1.5m for pipes i.50mm PVC class 12 pipes	m ³	46		
C2.2	Extra-over all excavations For i.Hard material excavations ii.Hard rock excavations	m ³ m ³	6 3		
C2.3	Pipe Bedding Supply and place bedding material as directed by the Engineer and measured compacted for i.Selected granular/sand material.	m ³	26		
C2.4	Allow for alternative concrete bedding under roadways and shallow areas. i.Grade 15 concrete	m ³			
C2.5	Allow for carting away and disposing of unsuitable or surplus material from trench	m ³ /km	26		
C2.6	Allow for pumping of trenches to remove excess water in excavations	sum	1		
C2.7	Pipe Laying Supply,handle and lay Pvc pipes complete with fluid-tight joints i.50mm PVC class 12 pipes ii.75mm PVC class 16pipes	m m	300 15		
	FITTINGS Supply,lay,bed and joint,including cut pipes to length where required,test and include for CISC joints Supply and fix the following fittings:				
C2.8	Gate valves clockwise closing i.50mm dia	No	1		
C2.9	Fire Hydrant i.50mm dia	No	4		
C3.0	PVC Bends i.50*90 degree bends	No	10		
C3.1	PVC tees i.50mm*50mm equal tees.	No	3		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
C3.2	End Caps i.50mm PVC class 12 pipes	No	4		
C3.3	50mm Non-return valve	No			
C3.4	Supply and fix precast chambers as detailed for the following fittings with C.I covers				
	i.Gate valves	No	0		
	ii.Non-return valve	No	0		
	iii.Fire hydarnt	No	4		
C3.5	Supply and fix marker posts for the following fittings as detailed.				
	i.Gate valves	No	0		
	ii.Non-return valve	No	0		
	iii.Fire hydarnt	No	4		
C3.6	Allow a provisional sum for any other fittings not specified above	SUM	1		
	Water Tank and Tank Stand				
C3.7	Supply and fix 3m tank stand	SUM	1		
C3.8	Supply and fix 10 000litre plastic water tank with necessary fittings	SUM	1		
	Ancillaries				
C4.0	Anchor/Thrust blocks and pedestals including formwork where required				
	ii.Grade 20 concrete	m ³	0.5		
	Pressure testing of water mains				
C4.1	Allow for all costs for pressure testing as specified or directed by the Engineer.	SUM	1		
	Disinfect pipelines				
C4.2	Allow for all cost of flushing and sterilizing of pipelines as specified or directed by the Engineer	SUM	1		
	Solar System				
C4.3	Allow for solar powered pump	SUM	1		
C4.4	Allow for Palisade fence to protect solar system	SUM	1		
	Borehole Drilling				
C4.3	Site and Install boreholes with all necessary fittings	No	1		
C4.4	Allow for yield test	No	1		
C4.5	Allow for water quality test	No	1		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
C4.6	Total carried brought forward Allow for borehole flushing	No	1		
	Total for Bill no.2 carried to summary				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
D	<u>BILL NO.3</u> WATER RETICULATION FOR MASVINGO VET MICROBIOLOGY LAB				
	Site Clearance				
D1.1	Clear vegetation and trees of girth up to 1m,measuring 1m above ground level (width of line maximum 1m)	m ²	115		
D2.1	Excavation Excavation in all materials for trenches backfill and compact depth between 0.5m-1.5m for pipes i.50mm PVC class 12 pipes	m ³	19		
D2.2	Extra-over all excavations For i.Hard material excavations ii.Hard rock excavations	m ³ m ³	2 1		
D2.3	Pipe Bedding Supply and place bedding material as directed by the Engineer and measured compacted for i.Selected granular/sand material.	m ³	10		
D2.4	Allow for alternative concrete bedding under roadways and shallow areas. i.Grade 15 concrete	m ³			
D2.5	Allow for carting away and disposing of unsuitable or surplus material from trench	m ³ /km	10		
D2.6	Allow for pumping of trenches to remove excess water in excavations	sum	1		
D2.7	Pipe Laying Supply,handle and lay Pvc pipes complete with fluid-tight joints i.50mm PVC class 12 pipes ii.75mm PVC class 16pipes	m m	115 25		
	FITTINGS Supply,lay,bed and joint,including cut pipes to length where required,test and include for CISC joints Supply and fix the following fittings:				
D2.8	Gate valves clockwise closing i.50mm dia	No	1		
D2.9	Fire Hydrant i.50mm dia	No	4		
D3.0	PVC Bends i.50*90 degree bends	No	7		
D3.1	PVC tees i.50mm*50mm equal tees.	No	3		

	Total carried forward				
ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
D3.2	End Caps i.50mm PVC class 12 pipes	No	4		
D3.3	50mm Non-return valve	No			
D3.4	Supply and fix precast chambers as detailed for the following fittings with C.I covers				
	i.Gate valves	No	1		
	ii.Non-return valve	No	0		
	iii.Fire hydarnt	No	4		
D3.5	Supply and fix marker posts for the following fittings as detailed.				
	i.Gate valves	No	1		
	ii.Non-return valve	No	0		
	iii.Fire hydarnt	No	4		
D3.6	Allow a provisional sum for any other fittings not specified above	SUM	1		
	Water Tank and Tank Stand				
D3.7	Supply and fix a 3m meter tank stand	SUM	1		
D3.8	Supply and fix 10 000litre plastic water tank with necessary fittings	SUM	1		
D3.9	Supply and instal 1 pump houses with neccessary fittings	SUM	1		
	Ancillaries				
D4.0	Anchor/Thrust blocks and pedestals including formwork where required				
	ii.Grade 20 concrete	m ³	0.5		
	Pressure testing of water mains				
D4.1	Allow for all costs for pressure testing as specified or directed by the Engineer.	SUM	1		
	Disinfect pipelines				
D4.2	Allow for all cost of flushing and sterilizing of pipelines as specified or directed by the Engineer	SUM	1		
	Solar System				
D4.3	Allow for solar powered pump	SUM	1		
D4.4	Allow for Palisade fence to protect solar system	SUM	1		
	Borehole Drilling				
D4.3	Site and Install boreholes with all necessary fittings	No	1		
	Total carried forward				

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ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
E	BILL NO.4 WATER RETICULATION FOR MASVINGO PROVINCIAL HOSPITAL MICROBIOLOGY LAB				
	Site Clearance				
E1.1	Clear vegetation and trees of girth up to 1m,measuring 1m above ground level (width of line maximum 1m)	m ²	40		
E2.1	Excavation Excavation in all materials for trenches backfill and compact depth between 0.5m-1.5m for pipes i.50mm PVC class 12 pipes	m ³	4		
E2.2	Extra-over all excavations For i.Hard material excavations ii.Hard rock excavations	m ³ m ³	2 1		
E2.3	Pipe Bedding Supply and place bedding material as directed by the Engineer and measured compacted for i.Selected granular/sand material.	m ³	4		
E2.4	Allow for alternative concrete bedding under roadways and shallow areas. i.Grade 15 concrete	m ³			
E2.5	Allow for carting away and disposing of unsuitable or surplus material from trench	m ³ /km	4		
E2.6	Allow for pumping of trenches to remove excess water in excavations	sum	1		
E2.7	Pipe Laying Supply,handle and lay Pvc pipes complete with fluid-tight joints i.50mm PVC class 12 pipes	m	40		
	FITTINGS Supply,lay,bed and joint,including cut pipes to length where required,test and include for CISC joints Supply and fix the following fittings:				
E2.8	Gate valves clockwise closing i.50mm dia	No	1		
E2.9	Fire Hydrant i.50mm dia	No	1		
E3.0	PVC Bends i.50*90 degree bends	No	2		
E3.1	PVC tees i.50mm*50mm equal tees.	No	0		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
E3.2	End Caps i.50mm PVC class 12 pipes	No	1		
E3.3	50mm Non-return valve	No			
E3.4	Supply and fix precast chambers as detailed for the following fittings with C.I covers				
	i.Gate valves	No	1		
	ii.Non-return valve	No	0		
	iii.Fire hydrant	No	1		
E3.5	Supply and fix marker posts for the following fittings as detailed.				
	i.Gate valves	No	1		
	ii.Non-return valve	No	0		
	iii.Fire hydrant	No	1		
E3.6	Allow a provisional sum for any other fittings not specified above	SUM	1		
	Water Tank and Tank Stand				
E3.7	Supply and fix 3m tank stand	SUM	1		
E3.8	Supply and fix 10 000litre plastic water tank with necessary fittings	SUM	1		
	Ancillaries				
E3.9	Anchor/Thrust blocks and pedestals including formwork where required				
	ii.Grade 20 concrete	m ³	0.5		
	Pressure testing of water mains				
E4.0	Allow for all costs for pressure testing as specified or directed by the Engineer.	SUM	1		
	Disinfect pipelines				
E4.1	Allow for all cost of flushing and sterilizing of pipelines as specified or directed by the Engineer	SUM	1		
	Solar System				
E4.2	Allow for solar powered pump	SUM	1		
E4.3	Allow for Palisade fence to protect solar system	SUM	1		
	Borehole Drilling				
E4.4	Site and Install boreholes with all necessary fittings	No	1		
E4.5	Allow for yield test	No	1		
	Total carried forward				

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ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
F	BILL NO.5 WATER RETICULATION FOR MUTARE VET MICROBIOLOGY LAB				
	Site Clearance				
F1.1	Clear vegetation and trees of girth up to 1m,measuring 1m above ground level (width of line maximum 1m)	m ²	140		
F2.1	Excavation Excavation in all materials for trenches backfill and compact depth between 0.5m-1.5m for pipes i.50mm PVC class 12 pipes	m ³	22		
F2.2	Extra-over all excavations For i.Hard material excavations ii.Hard rock excavations	m ³ m ³	3 1		
F2.3	Pipe Bedding Supply and place bedding material as directed by the Engineer and measured compacted for i.Selected granular/sand material.	m ³	12		
F2.4	Allow for alternative concrete bedding under roadways and shallow areas. i.Grade 15 concrete	m ³			
F2.5	Allow for carting away and disposing of unsuitable or surplus material from trench	m ³ /km	12		
F2.6	Allow for pumping of trenches to remove excess water in excavations	sum	1		
F2.7	Pipe Laying Supply,handle and lay Pvc pipes complete with fluid-tight joints i.50mm PVC class 12 pipes ii.75mm PVC class 16pipes	m m	140 7		
	FITTINGS Supply,lav,bed and joint,including cut pipes to length where required,test and include for CISC joints Supply and fix the following fittings:				
F2.8	Gate valves clockwise closing i.50mm dia	No	1		
F2.9	Fire Hydrant i.50mm dia	No	1		
F3.0	PVC Bends i.50*90 degree bends				
F3.1	PVC tees i.50mm*50mm equal tees.	No	0		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
F3.2	End Caps i.50mm PVC class 12 pipes	No	1		
F3.3	50mm Non-return valve	No			
F3.4	Supply and fix precast chambers as detailed for the following fittings with C.I covers				
	i.Gate valves	No	1		
	ii.Non-return valve	No	0		
	iii.Fire hydrant	No	1		
F3.5	Supply and fix marker posts for the following fittings as detailed.				
	i.Gate valves	No	1		
	ii.Non-return valve	No	0		
	iii.Fire hydrant	No	1		
F3.6	Allow a provisional sum for any other fittings not specified above	SUM	1		
	Water Tank and Tank Stand				
F3.7	Supply and fix 3m tank stand	SUM	1		
F3.8	Supply and fix 10 000litre plastic water tank with necessary fittings	SUM	1		
	Ancillaries				
F3.9	Anchor/Thrust blocks and pedestals including formwork where required				
	ii.Grade 20 concrete	m ³	0.5		
	Pressure testing of water mains				
F4.0	Allow for all costs for pressure testing as specified or directed by the Engineer.	SUM	1		
	Disinfect pipelines				
F4.1	Allow for all cost of flushing and sterilizing of pipelines as specified or directed by the Engineer	SUM	1		
	Solar System				
F4.2	Allow for solar powered pump	SUM	1		
F4.3	Allow for Palisade fence to protect solar system	SUM	1		
	Borehole Drilling				
F4.4	Site and Install boreholes with all necessary fittings	No	1		
F4.5	Allow for yield test	No	1		
F4.6	Allow for water quality test	No	1		
	Total carried forward				

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ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
G	BILL NO.6 WATER RETICULATION FOR MUTARE GENERAL HOSPITAL MICROBIOLOGY LAB				
	Site Clearance				
G1.1	Clear vegetation and trees of girth up to 1m,measuring 1m above ground level (width of line maximum 1m)	m ²	310		
G2.1	Excavation Excavation in all materials for trenches backfill and compact depth between 0.5m-1.5m for pipes i.50mm PVC class 12 pipes	m ³	48		
G2.2	Extra-over all excavations For i.Hard material excavations ii.Hard rock excavations	m ³ m ³	6 3		
G2.3	Pipe Bedding Supply and place bedding material as directed by the Engineer and measured compacted for i.Selected granular/sand material.	m ³	26		
G2.4	Allow for alternative concrete bedding under roadways and shallow areas. i.Grade 15 concrete	m ³			
G2.5	Allow for carting away and disposing of unsuitable or surplus material from trench	m ³ /km	26		
G2.6	Allow for pumping of trenches to remove excess water in excavations	sum	1		
G2.7	Pipe Laying Supply,handle and lay Pvc pipes complete with fluid-tight joints i.50mm PVC class 12 pipes ii.75mm PVC class 16pipes	m m	310 18		
	FITTINGS Supply,lay,bed and joint,including cut pipes to length where required,test and include for CISC joints Supply and fix the following fittings:				
G2.8	Gate valves clockwise closing i.50mm dia	No	1		
G2.9	Fire Hydrant i.50mm dia	No	1		
G3.0	PVC Bends i.50*90 degree bends iv.50*11.25 degree bends	No No	7 1		
G3.1	PVC tees i.50mm*50mm equal tees.	No	0		
	Total carried forward				

ITEM No	DESCRIPTION	UNIT	QNTY	RATE	AMOUNT
	Total brought forward				
G3.2	End Caps i.50mm PVC class 12 pipes	No	1		
G3.3	50mm Non-return valve	No			
G3.4	Supply and fix precast chambers as detailed for the following fittings with C.I covers				
	i.Gate valves	No	1		
	ii.Non-return valve	No	0		
	iii.Fire hydrant	No	1		
G3.5	Supply and fix marker posts for the following fittings as detailed.				
	i.Gate valves	No	1		
	ii.Non-return valve	No	0		
	iii.Fire hydrant	No	1		
G3.6	Allow a provisional sum for any other fittings not specified above	SUM	1		
	Water Tank and Concrete Plinth				
G3.7	Supply and fix 3m tank stand	SUM	1		
G3.8	Supply and fix 10 000litre plastic water tank with necessary fittings	SUM	1		
	Ancillaries				
G3.9	Anchor/Thrust blocks and pedestals including formwork where required				
	ii.Grade 20 concrete	m ³	0.5		
	Pressure testing of water mains				
G4.0	Allow for all costs for pressure testing as specified or directed by the Engineer.	SUM	1		
	Disinfect pipelines				
G4.1	Allow for all cost of flushing and sterilizing of pipelines as specified or directed by the Engineer	SUM	1		
	Borehole Drilling				
G4.2	Site and Install boreholes with all necessary fittings	No	1		
G4.3	Allow for yield test	No	1		
G4.4	Allow for water quality test	No	1		
G4.5	Allow for borehole flushing	No	1		
	Facilities for the Engineer				
G4.6	Allow for the project management cost	SUM			
Total Bill no.6 carried to summary					

COST ESTIMATES FOR CIVIL WORKS

SECTION	DESCRIPTION				AMOUNT
BILL 1	WATER RETICULATION FOR BULAWAYO IMPILO				
BILL 2	WATER RETICULATION FOR BULAWAYO VET				
BILL 3	WATER RETICULATION FOR MASVINGO VET				
BILL 4	WATER RET FOR MASVINGO PROVINCIAL HOSP				
BILL 5	WATER RETICULATION FOR MUTARE VET				
BILL 6	WATER RET FOR MUTARE GENERAL HOSP				
	SUBTOTAL				
	Add 10% Contingency				
	SUBTOTAL				
	ADD 15% VAT				
	TOTAL ESTIMATE				

