

INDEX TO BILL OF QUANTITIES**SECTION 1 PRELIMINARIES AND GENERAL****PART AA PRELIMINARIES****PART AB GENERAL SPECIFICATIONS****PART AH OCCUPATIONAL HEALTH and SAFETY****SECTION 2 STORMWATER UPGRADE****PART B SITE CLEARANCE****PART DB EARTHWORKS FOR PIPE TRENCHES****PART ED ROAD ASPHALT****PART EF KERBS AND HAUNCHES****PART PG NON PRESSURE PIPELINES and PC CULVERTS****PART PH MANHOLES and APPURTENANT DRAINAGE WORKS****SECTION 3 GABION PROTECTION WORKS****PART B SITE CLEARANCE****PART DA EARTHWORKS : BULK****PART DC EARTHWORKS FOR CONCRETE LINED CANALS****PART EL DUMPROCK SUBGRADE IMPROVEMENT****PART F PROTECTION WORKS****SECTION 4 REINSTATEMENT****PART S REINSTATEMENT**

BILL OF QUANTITIES

SECTION 1 PRELIMINARIES AND GENERAL

PART AA PRELIMINARIES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	GCC 2015	GENERAL CONDITIONS OF CONTRACT (GCC 2015) READ IN CONJUNCTION WITH THE CONTRACT DATA Fixed Charge obligations	sum	1		
2	GCC 2015	Time Related obligations	sum	1		
3	C1.2.3.1	COMMUNITY LIAISON OFFICER Allow for a CLO to be appointed.	PC Sum	66560	1.00	66,560.00
4	C1.2.3.1	% Mark-up for item 5 above	%	66560		
5	C1.2.3.4	LOCAL LABOUR Allow for the weekly submission of proof of employment of local labour	sum	1		
6	SANS 1921-1	SANS 1921-1 : GENERAL ENGINEERING AND CONSTRUCTION WORKS READ IN CONJUNCTION WITH THE ASSOCIATED SPECIFICATION DATA IN THE SCOPE OF WORKS Fixed Charge Items	sum	1		
7	SANS 1921-1 & SABS 1200A	Time Related Items	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARIES AND GENERAL

R

PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.14	Setting out	sum	1		
2	AB.4	Contractor's Camp Site / Store Yard	sum	1		
3	AB.5/PS.AB.5	Notice Board	sum	1		
4	AB.7	Road Deviations and Traffic control	sum	1		
5	AB.7	Initial supply of all signs, barricades and delineators	sum	1		
6	AB.7	Maintenance of all signs, barricades and delineators	sum	1		
7	PS.AB.10	Survey for, and Preparation of, 'As-Built' Drawings	sum	1		
8	PS.11	Site Security	sum	1		
9	PS.AB.15	Stream Deviation	sum	1		
10	C1.2.3.7	Excepted Risk: De-establishment	sum	1		

Stormwater Upgrade at Bankford Grove, Phoenix, Ward 49

Part Continued **PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
11	C1.2.3.7	Excepted Risk: Establishment	sum	1		
12	PS.AB.7	Initial supply of plant, materials, labour and services required by the contractor	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARIES AND GENERAL R

PART AH OCCUPATIONAL HEALTH and SAFETY

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AH.14.1 /PS.10	Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
2	AH.14.2 /PS.10	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	sum	1		
3	AH.14.3 /PS.10	Submission of the Health and Safety File	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARIES AND GENERAL R

SECTION 2 STORMWATER UPGRADE**PART B SITE CLEARANCE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance and grubbing within a servitude/working area.	m2	354		
2	B.8.2	General clearance and grubbing in contractor's camp site	m2	100		
3	B.8.2	General clearance and grubbing in temporary stockpile area	m2	100		
4	B.8.10	Removal of unreinforced concrete	m3	10		
5	B.8.11	Removal of underground reinforced concrete	m3	8		
6	B.8.4	Removal of trees of girth exceeding 1,5 m	no.	1		
7	B.8.9	Removal of brickwork	m2	44		
8	B.8.5	Removal of 1,5 m high precast concrete fence tip to nearest dump site	m	15		
9	B.8.5	Removal of 1.5 m high wire mesh fence and spoil at tip Rate to include all haulage	m	10		
10	B.8.19	Removal of disused pipes, 300 - 375 mm diameter and spoil at tip. Rate to include all haulage	m	55		
11	B.8.16	Removal of kerb and channel/fillet to tip	m3	5		
12	B.8.14	Removal of roadways to tip	m3	10		
13	B.8.15	Removal of asphalt sidewalks & driveway to tip	m3	15		

TOTAL CARRIED TO SECTION 2 SUMMARY: STORMWATER UPGRADE

R

PART DB EARTHWORKS FOR PIPE TRENCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.5	Excavate and backfill in all material for 450 mm diameter pipe where depth is :- - Over 0,0 m and not exceeding 1,5 m	m	60		
2	DB.8.5	Excavate and backfill in all material for 450 mm diameter pipe where depth is :- - Over 1,5 m and not exceeding 2,0 m	m	70		
3	DB.8.5	Excavate and backfill in all material for 450 mm diameter pipe where depth is :- - Over 2,0 m and not exceeding 2,5 m	m	40		
4	DB.8.5	Excavate and backfill in all material for 600 mm diameter pipe where depth is :- - Over 0,0 m and not exceeding 1,5 m	m	60		
5	DB.8.5	Excavate and backfill in all material for 600 mm diameter pipe where depth is :- - Over 1,5 m and not exceeding 2,0 m	m	70		

Stormwater Upgrade at Bankford Grove, Phoenix, Ward 49

Part Continued **PART DB EARTHWORKS FOR PIPE TRENCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
6	DB.8.5	Excavate and backfill in all material for 600 mm diameter pipe where depth is :- - Over 2,0 m and not exceeding 2,5 m	m	60		
7	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 0,0 m and not exceeding 1,5 m	m3	35		
8	DB.8.8	Excavation of unsuitable material from trench bottom	m3	35		
9	DB.8.10	Placing and compacting of Class C bedding for 450 mm diameter pipe	m	170		
10	DB.8.10	Placing and compacting of Class C bedding for 600 mm pipe bedding	m	190		
11	DB.8.13	Provision of selected backfill material for pipe trenches from commercial or off-site source	m3	35		
12	DB.8.9	Provision of selected fill for pipe bedding from a commercial or off- site source	m3	52		
13	DB.8.15	Disposal of unsuitable or surplus material from trench excavation	m3	35		
14	DB.8.13	Provision of unspecified base crushed stone from commercial or off-site source	m3	32		
15	DB.8.20	Trench shoring to remain in excavation	m2	140		
16	PS.DB.8.21	Disposal of unsuitable material	m3	10		

TOTAL CARRIED TO SECTION 2 SUMMARY: STORMWATER UPGRADE

R

PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.ED.8.5	Saw Cut existing road edge	m	500		

TOTAL CARRIED TO SECTION 2 SUMMARY: STORMWATER UPGRADE

R

PART EF KERBS AND HAUNCHES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EF.8.1	Type C mountable kerb and fillet	m	260		
2	EF.8.1	Type E semi-mountable kerb and channel	m	70		

TOTAL CARRIED TO SECTION 2 SUMMARY: STORMWATER UPGRADE

R

PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.2	Supply,deliver and install 450 mm diameter Concrete Class100D	m	170		

Stormwater Upgrade at Bankford Grove, Phoenix, Ward 49

Part Continued **PART** PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
2	PG.8.2	Supply, deliver and install 600 mm diameter Concrete Class100D	m	190		

TOTAL CARRIED TO SECTION 2 SUMMARY: STORMWATER UPGRADE

R

PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PH.8.5.2	Excavate and backfill minor drainage structures	m3	22		
2	PH.8.2	230 mm brick for dogbone drain including concrete base	m2	72		
3	PH.8.5.6	Supply and lay precast concrete dogbone slab	no.	300		
4	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	1		
5	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	2		
6	PH.8.2	Manhole type A with inlet type cover S2. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	3		
7	PH.8.2	Manhole type A with inlet type cover S2. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	4		
8	PH.8.2	Manhole type A with inlet type cover S2. Depth :- - Over 2,0 m and not exceeding 2,5 m	no.	2		
9	PH.8.2	Manhole type A with inlet type cover D3. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	1		
10	PH.8.2	Manhole type A with inlet type cover D3. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	2		
11	PS.PH.8.10	Construct standard outlet headwall as per drawing no. [38576]	no.	3		

TOTAL CARRIED TO SECTION 2 SUMMARY: STORMWATER UPGRADE

R

Stormwater Upgrade at Bankford Grove, Phoenix, Ward 49

SECTION 3 GABION PROTECTION WORKS**PART B SITE CLEARANCE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	B.8.2	General clearance and grubbing within a servitude/working area	m2	60		
2	B.8.2	General clearance and grubbing in temporary stockpile area	m2	100		

TOTAL CARRIED TO SECTION 3 SUMMARY: GABION PROTECTION WORKS

R

PART DA EARTHWORKS : BULK

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.2	Excavate topsoil and stockpile This is a test Of the number of lines	m3	8		
2	PS.DA.8.4 and PS.DA.5	Import suitable fill material from contractor's off-site source inclusive of haulage and royalties	m3	15		
3	DA.8.5	Compact imported fill material to 93% Mod. A.A.S.H.T.O.	m3	15		
4	DA.8.6	Trimming of embankments	m2	45		
5	DA.8.9	Formation	m2	90		
6	DA.8.3	Excavate in all suitable material to stockpile on site for re-use	m3	10		

TOTAL CARRIED TO SECTION 3 SUMMARY: GABION PROTECTION WORKS

R

PART DC EARTHWORKS FOR CONCRETE LINED CANALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DC.8.2	Excavate in all unsuitable material for gabions to spoil at an approved tip (Rate to include all haulage and royalties)	m3	8		
2	DA.8.2	Excavate in all suitable material for gabions to stockpile (Rate to include all stockpile handling)	m3	10		
3	DC.8.2	Extra over for excavating in all material	m3	5		
4	DC.8.4	Overhaul	m3km	5		
5	DC.8.3	Backfilling and compaction using material from stockpile	m3	10		
6	DC.8.3	Backfilling and compaction using material from contractor's own source. Rate to include all haulage and royalties	m3	10		

TOTAL CARRIED TO SECTION 3 SUMMARY: GABION PROTECTION WORKS

R

Stormwater Upgrade at Bankford Grove, Phoenix, Ward 49

PART EL DUMPROCK SUBGRADE IMPROVEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EL.8	Dumprock subgrade improvement, 150 mm thick	m3	12		

TOTAL CARRIED TO SECTION 3 SUMMARY: GABION PROTECTION WORKS

R

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	F.8.1	Topsoiling from stockpile	m2	7		
2	PS.F.8.6	Supply and install PVC coated galvanised Gabion boxes : 500 mm depth	m3	8		
3	PS.F.8.6	Supply and install PVC coated galvanised Gabion boxes : 1000 mm depth	m3	45		
4	PS.F.8.6	Supply and install PVC coated galvanised Gabion mattresses, 300 mm thick	m3	18		
5	PS.F.8.9	Supply and place general grade geofabric for gabions	m2	170		

TOTAL CARRIED TO SECTION 3 SUMMARY: GABION PROTECTION WORKS

R

SECTION 4 REINSTATEMENT

PART S REINSTATEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	S.8.1	Reinstatement of ground surface on pipeline route	m2	90		
2	S.8.2	Road Category C - Permanent road reinstatement 80mm mix D, 150 mm Crusher run, Trench backfill with CBR 7 or more	m2	20		
3	S.8.3	Reinstatement of type B kerb and channel/fillet	m	50		
4	S.8.4	Reinstatement of wire or plastic coated mesh fence, 1,5 m high	m	20		
5	S.8.4	Reinstatement of precast concrete fence 1,5 m high	m	21		
6	S.8.2	Permanent reinstatement 150 mm sub base 25 mm Asphalt sidewalk Private Plant	m2	425		

TOTAL CARRIED TO SECTION 4 SUMMARY: REINSTATEMENT

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SUMMARY OF BILL OF QUANTITIES

Section

1 PRELIMINARIES AND GENERAL		R	_____
AA PRELIMINARIES	R		_____
AB GENERAL SPECIFICATIONS	R		_____
AH OCCUPATIONAL HEALTH and SAFETY	R		_____
2 STORMWATER UPGRADE		R	_____
B SITE CLEARANCE	R		_____
DB EARTHWORKS FOR PIPE TRENCHES	R		_____
ED ROAD ASPHALT	R		_____
EF KERBS AND HAUNCHES	R		_____
PG NON PRESSURE PIPELINES and PC CULVERTS	R		_____
PH MANHOLES and APPURTENANT DRAINAGE WORKS	R		_____
3 GABION PROTECTION WORKS		R	_____
B SITE CLEARANCE	R		_____
DA EARTHWORKS : BULK	R		_____
DC EARTHWORKS FOR CONCRETE LINED CANALS	R		_____
EL DUMPROCK SUBGRADE IMPROVEMENT	R		_____
F PROTECTION WORKS	R		_____
4 REINSTATEMENT		R	_____
S REINSTATEMENT	R		_____
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SUB TOTAL		R	_____
ADD VAT (15%) - (only if a registered VAT Vendor)		R	_____
TOTAL CARRIED TO FORM OF TENDER		R	_____