

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

---

**INDEX TO BILL OF QUANTITIES**

**SECTION 1 Preliminary and General**

PART AA PRELIMINARIES  
 PART AB GENERAL SPECIFICATIONS  
 PART AH OCCUPATIONAL HEALTH and SAFETY

**SECTION 2 Site Clearance**

PART B SITE CLEARANCE

**SECTION 3 Earthworks**

PART DA EARTHWORKS : BULK  
 PART DB EARTHWORKS FOR PIPE TRENCHES  
 PART DD EARTHWORKS FOR STRUCTURES

**SECTION 4 Stormwater Pipe works**

PART PG NON PRESSURE PIPELINES and PC CULVERTS  
 PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

**SECTION 5 Culvert Works**

PART C CONCRETE WORK  
 PART PG NON PRESSURE PIPELINES and PC CULVERTS

**SECTION 6 Protection Works**

PART F PROTECTION WORKS

**SECTION 7 Road Works**

PART EB GRADED CRUSHED STONE  
 PART ED ROAD ASPHALT  
 PART EF KERBS AND HAUNCHES  
 PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS  
 PART EH STEEL GUARDRAILS & CONC. MEDIAN BARRIERS  
 PART EL DUMPROCK SUBGRADE IMPROVEMENT  
 PART TA ROAD SIGNS  
 PART TB ROAD MARKINGS

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

---

**SECTION 8 Reinstatement**

**PART S REINSTATEMENT**

**SECTION 9 Dayworks**

**PART AB GENERAL SPECIFICATIONS**

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

**BILL OF QUANTITIES**

**SECTION 1 Preliminary and General**

**PART AA PRELIMINARIES**

<b>Item</b>	<b>Clause</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate</b>	<b>Amount</b>
1	GCC 2015	GCC 2015 FIXED CHARGE ITEMS AS A % OF THE CONTRACT VALUE WHERE THE CONTRACT VALUE IS:				
2	GCC 2015	Less than < R1m	%	1,000,000		
3	GCC 2015	Greater than R1m and less than R3m	%	3,000,000		
4	GCC 2015	Greater than R3m and less than R6m	%	6,000,000		
5	GCC 2015	Greater than R6m and less than R10m	%	10,000,000		
6	GCC 2015	Greater than R10m	%	20,000,000		
7	GCC 2015	GCC 2015 TIME RELATED ITEMS AS A % OF THE CONTRACT VALUE WHERE THE CONTRACT VALUE IS:				
8	GCC 2015	Less than < R1m	%	1,000,000		
9	GCC 2015	Greater than R1m and less than R3m	%	3,000,000		
10	GCC 2015	Greater than R3m and less than R6m	%	6,000,000		
11	GCC 2015	Greater than R6m and less than R10m	%	10,000,000		
12	GCC 2015	Greater than R10m	%	20,000,000		
13	SANS 1921-1	SANS 1921-1 & SANS 1200 FIXED CHARGE ITEMS AS A % OF THE CONTRACT VALUE , WHERE THE CONTRACT VALUE IS :				
14	SANS 1200 & SANS 1921-1	Less than < R1m	%	1,000,000		
15	SANS 1200 & SANS 1921-1	Greater than R1m and less than R3m	%	3,000,000		
16	SANS 1200 & SANS 1921-1	Greater than R3m and less than R6m	%	6,000,000		
17	SANS 1200 & SANS 1921-1	Greater than R6m and less than R10m	%	10,000,000		
18	SANS 1200 & SANS 1921-1	Greater than R10m	%	20,000,000		
19	SANS 1200 & SANS 1921-1	SANS 1921-1 & SANS 1200 TIME RELATED ITEMS AS A % OF THE CONTRACT VALUE , WHERE THE CONTRACT VALUE IS :				
20	SANS 1200 & SANS 1921-1	Less than < R1m	%	1,000,000		
21	SANS 1200 & SANS 1921-1	Greater than R1m and less than R3m	%	3,000,000		
22	SANS 1200 & SANS 1921-1	Greater than R3m and less than R6m	%	6,000,000		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

Part Continued **PART AA PRELIMINARIES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
23	SANS 1200 & SANS 1921-1	Greater than R6m and less than R10m	%	10,000,000		
24	SANS 1200 & SANS 1921-1	Greater than R10m	%	20,000,000		
25	C.1.2.3.1	COMMUNITY LIAISON OFFICER Allow for a CLO to be appointed.	PC Sum	673920		
26	C.1.2.3.1	% Mark-up for item 25 above.Tenderer to state % Mark-up (Mark-up =.....%)	%	673920		
27	C.1.2.3.4	LOCAL LABOUR + PS.13 Allow for the weekly submission of proof of employmrrny of local labour	months	12		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

R

**PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	AB.4	Contractor's Camp Site / Store Yard	months	12		
2	AB.5	Notice Board	months	12		
3	AB.7/PS.15.1	Temporary Stream diversion	months	12		
4	AB.7/PS.15.2	Road Deviations	months	12		
5	AB.7	Initial supply of all signs, barricades and delineators	no.	12		
6	AB.7	Maintenance of Pedestrian and Traffic Facilities	months	12		
7	AB.7	Maintenance of all signs, barricades and delineators	months	12		
8	PS.14.3	Survey coordination of existing valves, manholes, catchpits, and cable duct markers	no.	12		
9	PS.16	Allow for the following Additional Items which the tenderer requires to be priced separately :-  a)	sum	1		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

Part Continued **PART AB GENERAL SPECIFICATIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
10	AB.6/PS.17	Cost of Samples and Contractor's Preliminary and Site Control Testing. Acceptance testing for material to be undertaken by a SANAS accredited Specialist Materials Testing Laboratory as directed by Engineer on Site	sum	1		
11	PS.14.3	Setting Out	hr	8784		
12	PS.11	Site Security	months	12		
13	PS.14.4	Survey for, and Preparation of, 'As-Built' Drawings	no.	12		
14	PS.21	Allowance for Geotechnical Engineer for investigations and testing, design, detail, supervision and stability certificate	PC Sum	200,000	1.00	200,000.00
15	PS.21	%Mark-up for item 14 above.Tenderer to state % Mark-up (Mark-up=.....%)	%	200,000		
16	PS.22	Temporary structure for road crossing	sum	1		
17	PS.23	Provisional sum for protection and repair of municipal infrastructure	PC Sum	250,000	1.00	250,000.00
18	C.1.2.3.6	Expected Risk: De-establishment	no.	12		
19	C.1.2.3.6	Expected Risk: Re-establishment	no.	12		
20	PS.24	Hire of 30 ton excavator	months	12		
21	PS.25	Low bed hire	months	12		
22	PS.26	6"(inch) pump hire	months	12		
23	PS.27	Front end loader hire	months	12		
24	PS.28	Polymer manhole covers	no.	12		
25	PS.29	CCTV Camera survey of stormwater pipes	m	200		
26	PS.30	High Pressure Jetting of stormwater pipes	m	200		

**TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary 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	no.	12		
2	AH.14.2+PS.10	Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	no.	12		
3	AH.14.3+PS.10	Submission of the Health and Safety File	no.	12		

**TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General R**

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

**SECTION 2 Site Clearance**

**PART B SITE CLEARANCE**

<b>Item</b>	<b>Clause</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate</b>	<b>Amount</b>
1	B.8.2	General clearance and grubbing in road reserve	m2	1000		
2	B.8.2	General clearance and grubbing within a servitude	m2	500		
3	B.8.2	General clearance and grubbing in contractor's camp site	m2	1000		
4	B.8.2	General clearance and grubbing in temporary stockpile area	m2	1000		
5	B.8.4	Removal of trees of girth exceeding 1,5 m	no.	20		
6	B.8.5	Removal of 1.8 m high steel palisade fence and store on site for re-use	m	15		
7	B.8.9	Removal of brickwork	m3	200		
8	B.8.10	Removal of unreinforced concrete	m3	50		
9	B.8.11	Removal of reinforced concrete	m3	50		
10	B.8.14	Removal of roadways to tip	m2	200		
11	B.8.15	Removal of asphalt sidewalks/medians to tip	m2	200		
12	B.8.16	Removal of kerb and channel/fillet to tip	m	200		
13	B.8.19	Removal of disused pipes, 0 - 800 mm diameter as directed by the engineer. Rate to include all haulage	m	100		
14	B.8.19	Removal of disused pipes, greater than 800 mm diameter as directed by the engineer. Rate to include all haulage	m	50		
15	PS.B.8.23	Removal of manhole covers and store on site for re-use	no.	20		
16	B.8.5	Removal of 1.5 - 2.1 m high wire mesh fence and store on site for re-use	m	300		
17	B.8.6	Removal of guardrail and posts and store on site for re-use	m	100		
18	B.8.7	Removal of street/traffic signs and posts and store on site for re-use	no.	30		
19	PS.B.8.25	Removal of existing water loffelstein type retaining wall to stockpile on site for re-use(rate to include stockpile handling)	m2	100		

**TOTAL CARRIED TO SECTION 2 SUMMARY: Site Clearance**

**R**

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

**SECTION 3 Earthworks**

**PART DA EARTHWORKS : BULK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DA.8.2	Excavate topsoil and stockpile. Rate to include all haulage and royalties	m3	1000		
2	DA.8.2	Excavate topsoil and spoil at tip. Rate to include all haulage and royalties	m3	1000		
3	DA.8.3	Excavate soft material and place directly into fill. Rate to include all haulage and royalties	m3	500		
4	DA.8.3	Extra over above for excavation in hard material to fill	m3	200		
5	DA.8.3	Excavate soft material to stockpile. Rate to include all haulage and royalties	m3	250		
6	DA.8.3	Extra over for excavation in hard material to stockpile	m3	200		
7	DA.8.3	Excavate in soft material to spoil	m3	250		
8	DA.8.3	Extra over above for excavation of hard material to spoil	m3	50		
9	DA.8.3	Excavate unsuitable material below embankments or formation and spoil at tip	m3	100		
10	DA.8.4	Import suitable fill material from contractor's off-site source inclusive of haulage and royalties	m3	1000		
11	DA.8.5	Compact soft material from site to 95% Mod. A.A.S.H.T.O.	m3	250		
12	DA.8.5	Compact hard material from site to 95% Mod. A.A.S.H.T.O.	m3	50		
13	DA.8.5	Compact imported fill material to 95% Mod. A.A.S.H.T.O.	m3	500		
14	DA.8.6	Trimming of embankments	m2	1000		
15	DA.8.7	Stockpile handling of all material to fill	m3	500		
16	DA.8.9	Formation	m2	1000		
17	PS.F.8.9/PS.D A.3	Supply and place general grade geofabric	m2	2000		

**TOTAL CARRIED TO SECTION 3 SUMMARY: Earthworks**

**R**

**PART DB EARTHWORKS FOR PIPE TRENCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DB.8.4	Excavate topsoil to stockpile for re-use. Depth 100 mm	m2	1000		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**
**Part Continued PART DB EARTHWORKS FOR PIPE TRENCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
2	DB.8.5	Excavate and backfill in all material where depth is:- - Over 0,0 m and not exceeding 1,5 m	m	500		
3	DB.8.5	Excavate and backfill in all material where depth is:- - Over 1,5 m and not exceeding 2,0 m	m	500		
4	DB.8.5	Excavate and backfill in all material where depth is:- - Over 2,0 m and not exceeding 2,5 m	m	500		
5	DB.8.5	Excavate and backfill in all material where depth is:- - Over 2,5 m and not exceeding 3,0 m	m	500		
6	DB.8.5	Excavate and backfill in all material where depth is:- - Over 3,0 m and not exceeding 3,5 m	m	500		
7	DB.8.6	Extra over item 1 - 7 for hard material/rock	m3	50		
8	DB.8.14	Extra over item 1 - 7 for cement stabilised backfill	m3	100		
9	DB.8.9	Provision of selected fill for pipe bedding from a commercial or off-site source	m3	1000		
10	DB.8.9	Provision of 19 mm stone material for pipe bedding from commercial or off-site source	m3	200		
11	DB.8.10	Placing and compacting of Class B pipe bedding.	m	1000		
12	DB.8.10	Placing and compacting of Class C pipe bedding.	m	1000		
13	DB.8.10	Placing and compacting of flexible pipe bedding.	m	1000		
14	DB.8.12	Encasing of pipes in concrete grade 20/19	m3	100		
15	DB.8.13	Provision of selected backfill material for pipe trenches from commercial or off-site source	m3	1000		
16	DB.8.15	Disposal of unsuitable or surplus material from trench excavation	m3	200		
17	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 0,0 m and not exceeding 1,5 m	m3	100		
18	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 1,5 m and not exceeding 2,0 m	m3	100		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**
**Part Continued PART DB EARTHWORKS FOR PIPE TRENCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
19	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 2,0 m and not exceeding 2,5 m	m3	100		
20	DB.8.19	Prove existing services by hand excavation (provisional), where depth is: - - Over 2,5 m and not exceeding 3,0 m	m3	100		
21	DB.8.19	Prove existing services by hand excavation (provisional), where depth is :- - Over 3,0 m and not exceeding 3,5 m	m3	100		
22	PS.DB.8.9/PS. DD.8.6	Lateral support system	sum	1		
23	DB.8.8	Excavation of unsuitable material from trench bottom and spoil at tip	m3	300		
24	DB.8.20	Trench shoring for excavation deeper than 1.5m depths	sum	1		

**TOTAL CARRIED TO SECTION 3 SUMMARY: Earthworks**
**R**
**PART DD EARTHWORKS FOR STRUCTURES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	DD.8.2	Excavate in all material for culvert to stockpile	m3	300		
2	DD.8.2	Excavate in all material for culvert to spoil	m3	600		
3	DD.8.2	Extra over item 1 for hard material	m3	600		
4	DD.8.2	Extra over item 1 for excavation in excess of planned depth [provisional]	m3	100		
5	DD.8.3	Backfill and compact using material from stockpile	m3	500		
6	DD.8.3	Backfill and compact using imported material from contractor's own source. Rate to include all haulage and royalties	m3	500		
7	PS.DD.8.6	Design, installation and removal of a ground lateral support system to secure the excavated surfaces	sum	1		

**TOTAL CARRIED TO SECTION 3 SUMMARY: Earthworks**
**R**

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

**SECTION 4 Stormwater Pipe works**

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

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.2	375 mm diameter concrete Class 100D	m	100		
2	PG.8.2	450 mm diameter concrete Class 100D	m	250		
3	PG.8.2	600 mm diameter concrete Class 100D	m	250		
4	PG.8.2	750 mm diameter concrete Class 100D	m	250		
5	PG.8.2	900 mm diameter concrete Class 100D	m	250		
6	PG.8.2	1200 mm diameter concrete Class 100D	m	250		
7	PG.8.2	1500 mm diameter concrete Class 100D	m	250		
8	PG.8.2	400mm diameter HDPE 4KN/m2 structured wall	m	250		
9	PG.8.2	600mm diameter HDPE 4KN/m2 structured wall	m	250		
10	PG.8.2	800mm diameter HDPE 4KN/m2 structured wall	m	250		
11	PG.8.2	900mm diameter HDPE PN10 solid wall	m	100		
12	PG.8.2	400mm diameter HDPE PN10 solid wall	m	100		
13	PG.8.2	600mm diameter HDPE PN10 solid wall	m	250		
14	PG.8.2	800mm diameter HDPE PN10 solid wall	m	250		
15	PG.8.2	900mm diameter HDPE PN10 solid wall	m	250		
16	PG.8.2	But-fusion weld HDPE pipes (400mm - 900mm)	no.	200		
17	PG.8.2	Welded Spigot and socket HDPE joint collars (400mm - 900mm)	no.	200		
18	PG.8.2	150mm diameter subsoil pipe	m	100		

**TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater Pipe works**

**R**

**PART PH MANHOLES and APPURTENANT DRAINAGE WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PH.8.2	Manhole type A with inlet type cover S1. Depth :- Over 0,0 m and not exceeding 1,5 m	no.	10		
2	PH.8.2	Manhole type A with inlet type cover S3. Depth :- Over 0,0 m and not exceeding 1,5 m	no.	10		
3	PH.8.2	Manhole type A with inlet type cover S3. Depth :- Over 1,5 m and not exceeding 2,0 m	no.	10		
4	PH.8.2	Manhole type A with inlet type cover D3. Depth :- Over 0,0 m and not exceeding 1,5 m	no.	10		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**
**Part Continued PART PH MANHOLES and APPURTENANT DRAINAGE WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	PH.8.2	Manhole type A with inlet type cover D3. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
6	PH.8.2	Break into existing brick manhole wall for 400 - 800 mm diameter pipe and make good	no.	10		
7	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		
8	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
9	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 2,0 m and not exceeding 2,5 m	no.	10		
10	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 2,5 m and not exceeding 3,0 m	no.	10		
11	PH.8.2	Manhole type A with light duty concrete cover. Depth :- - Over 3,0 m and not exceeding 3,5 m	no.	10		
12	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		
13	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
14	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 2,0 m and not exceeding 2,5 m	no.	10		
15	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 2,5 m and not exceeding 3,0 m	no.	10		
16	PH.8.2	Manhole type A with heavy duty concrete cover. Depth :- - Over 3,0 m and not exceeding 3,5 m	no.	10		
17	PH.8.5.6	Precast concrete light duty manhole cover and frame	no.	10		
18	PH.8.5.6	Precast concrete heavy duty manhole cover and frame	no.	10		
19	PH.8.5.6	Precast concrete light duty inlet splay	no.	10		
20	PH.8.5.6	Precast concrete heavy duty inlet splay	no.	10		
21	PH.8.5.4	Benching	m3	25		
22	PH.8.2	Manhole type A with inlet type cover S1. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

Part Continued **PART PH MANHOLES and APPURTENANT DRAINAGE WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
23	PH.8.2	Manhole type A with inlet type cover S1. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
24	PH.8.2	Manhole type A with inlet type cover S2. Depth :- - Over 0,0 m and not exceeding 1,5 m	no.	10		
25	PH.8.2	Manhole type A with inlet type cover S2. Depth :- - Over 1,5 m and not exceeding 2,0 m	no.	10		
26	PH.8.2	345 mm brickwork to [manhole/ headwall]	m2	500		
27	PH.8.5.3	230 mm brickwork to [manhole/ headwall]	m2	500		
28	PS.PH.8.10	Construct standard inlet headwall as per drawing no. 38576	no.	10		
29	PS.PH.8.10	Construct standard outlet headwall as per drawing no. 38576	no.	10		
30	PH.8.5.6	Heavy duty cast iron manhole cover and frame	no.	10		
31	PH.8.7	Raise/lower existing manhole with concrete cover and frame in paved area by :- - 0 to 500 mm	no.	10		
32	PH.8.5	Break into existing brick manhole wall for 400 - 800 mm diameter pipe and make good	no.	10		

**TOTAL CARRIED TO SECTION 4 SUMMARY: Stormwater Pipe works**

**R**

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

**SECTION 5 Culvert Works**

**PART C CONCRETE WORK**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Grade 15/19 concrete blinding of thickness 75 mm	m2	200		
2	C.8.1	Grade 25/19 concrete	m3	25		
3	C.8.1	Grade 30/19 concrete	m3	100		
4	C.8.1	Grade 40/19 concrete	m3	25		
5	C.8.2	Mild steel reinforcement	t	0.5		
6	C.8.2	High tensile steel reinforcement	t	5		
7	C.8.3	Class 1 shuttering	m2	50		
8	C.8.3	Class 3a shuttering	m2	150		
9	PS.C.8.4	Sealant in expansion joint (polysulfied or similar approved)	m	50		
10	PS.C.8.5	Construct 75 mm dia. P.V.C weepholes inclusive of no fines concrete plug	no.	25		
11	C.8.2	High tensile steel fabric reinforcement ref: 617	t	1		
12	C.8.2	High tensile steel fabric reinforcement ref : 193	t	1		
13	PS.C.8.4	Adhesive tape to expansion joints	m	100		
14	PS.C.8.6	Dowelling	no.	20		

**TOTAL CARRIED TO SECTION 5 SUMMARY: Culvert Works**

**R**

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

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PG.8.7	Standard precast concrete portal culvert Class C - 1800 x 1800 mm	m	100		
2	PG.8.7	Standard precast concrete portal culvert Class C - 2100 x 2100 mm	m	100		
3	PG.8.7	Standard precast concrete portal culvert Class C - 2400 x 2400 mm	m	100		
4	PG.8.7	Standard precast concrete portal culvert Class C - 3000 x 3000 mm	m	100		
5	PG.8.7	Standard precast concrete portal culvert Class C - 2100 x 1200 mm	m	100		
6	PG.8.7	Standard precast concrete portal culvert Class C - 2100 x 1500 mm	m	100		
7	PG.8.7	Standard precast concrete portal culvert Class C - 2400 x 1500 mm	m	100		
8	PG.8.7	Standard precast concrete portal culvert Class C - 3000 x 1500 mm	m	100		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

---

Part Continued PART PG NON PRESSURE PIPELINES and PC CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
9	PG.8.9	Form recess for portal legs	m	250		

TOTAL CARRIED TO SECTION 5 SUMMARY: Culvert Works

R

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

**SECTION 6 Protection Works**

**PART F PROTECTION WORKS**

<b>Item</b>	<b>Clause</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate</b>	<b>Amount</b>
1	F.8.1	Imported topsoil: thickness 150 mm	m2	500		
2	F.8.3	Grass planting	m2	500		
3	F.8.6	Supply and lay Galvanised PVC coated Terramesh Gabion boxes: 1000 mm depth	m3	150		
4	F.8.6	Supply and lay Galvanised PVC coated Gabion boxes: 1000 mm depth	m3	500		
5	F.8.6	Supply and lay Galvanised PVC coated Gabion boxes: 500 mm depth	m3	150		
6	F.8.6	Supply and lay Galvanised PVC coated Gabion mattresses, 300 mm thick	m3	150		
7	F.8.6	Extra over item 3,4,5 for non- standard shape gabion boxes and mattresses	m3	10		
8	PS.F.8.9	GEOPIPE OR SIMILAR APPROVED	m	100		
9	PS.F.8.3	Drainage grade Geofabric	m2	500		
10	PS.F.8.3	Unpacking and packing of gabion boxes using on site gabion stones	m3	100		
11	PS.F.8.11	Supply,deliver and install interlocking water loffelstein blocks	m2	100		
12	PS.F.8.12	Installaion of post and rail	m	100		

**TOTAL CARRIED TO SECTION 6 SUMMARY: Protection Works**

**R**

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

**SECTION 7 Road Works**

**PART EB GRADED CRUSHED STONE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EB.8.1 EB1234 EB12345 EB123456	Supply, lay and compact Graded crushed stone, 150 mm thick G2 material compacted to 98% MOD A.A.S.H.T.O	m3	70		
2	EB.8.1 EB1234 EB12345 EB123456	Supply, lay and compact Graded crushed stone, 150 mm thick G5 material compacted to 95% MOD A.A.S.H.T.O	m3	70		
3	EB.8.1 EB1234 EB12345 EB123456	Supply, lay and compact Graded crushed stone, 200 mm thick G7 material compacted to 93% MOD A.A.S.H.T.O	m3	70		
4	EB.8.1	Provision of 19 mm stone from commercial or off-site source	m3	70		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

**PART ED ROAD ASPHALT**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	ED.8.1	Private Plant Asphalt Sa-V14. Bitumen content % as per mix design entered at time of use.	t	50		
2	ED.8.1, P.ED.9-14	Private Plant Asphalt Sa-H20. Bitumen content % as per mix design entered at time of use.	t	50		
3	ED.8.3.1	Transverse joints	m	25		
4	ED.8.3.2	Longitudinal joints	m	70		
5	ED.8.4	Tack Coat 0.3litres/m2	m2	400		
6	PS.ED.8.6	Prime Coat 0.6litres/m2	m2	400		
7	PS.ED.8.5	Saw Cut existing road edge	m	250		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

**PART EF KERBS AND HAUNCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.EF.8.4	Excavation for kerb and channel/ fillet in existing asphalt layers	m3	25		
2	EF.8.1	Type B barrier kerb and channel	m	150		
3	EF.8.1	Type B barrier kerb and fillet	m	150		
4	EF.8.1	Extra over item 2 & 3 for curves of radius less than 25 m	m	25		
5	EF.8.1	Scoop kerb and channel (Type C - mountable) including transition kerb	m	25		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**
**Part Continued PART EF KERBS AND HAUNCHES**

Item	Clause	Description	Unit	Quantity	Rate	Amount
6	EF.8.2	Additional concrete to kerb foundation where road layer thickness exceeds standard	m3	10		
7	EF.8.1	Supply and install figure 6 kerb Type A barrier kerb	m	100		
8	EF.8.1	Supply and install figure 8 kerb Type C	m	100		

**TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works**
**R**
**PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EG.8.1, PS.EG.3 EG187.7 EG1567	Asphalt sidewalk 25mm - Asphalt Private Plant	m2	50		
2	EG.8.5, PS.EG.3	Asphalt commercial vehicular access scoop 80mm - Asphalt Private Plant	m2	25		
3	EG.8.6, PS.EG.3	Concrete commercial vehicular access scoop	m2	25		

**TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works**
**R**
**PART EH STEEL GUARDRAILS & CONC. MEDIAN BARRIERS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EH 8.1	Straight steel guard rails	m	100		
2	EH 8.1	Curved steel guardrails	m	50		
3	EH.8.1	Precast concrete posts	no.	30		
4	EH.8.1	End wings	no.	8		
5	EH.8.2	In-situ concrete foundation [including channel / fillet]	m3	150		

**TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works**
**R**
**PART EL DUMPROCK SUBGRADE IMPROVEMENT**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	EL.8, PS.EL.3, PS.EL.9, PS.EL.10	Dumprock subgrade improvement, 300 mm thick	m3	100		
2	PS.EL.8.1	Supply and place structural grade geofabric blanket to surround dumprock	m2	750		

**TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works**
**R**
**PART TA ROAD SIGNS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TA.8.4	Concrete grade 20/19 for road sign footings	m3	5		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

Part Continued **PART TA ROAD SIGNS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
2	TA.8.1	Supply and erect road sign boards, area not exceeding 2m2	m2	25		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

**PART TB ROAD MARKINGS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	TB.8.1.1 AA.TB.1	Painted road lines 100mm wide (white), including setting out and premarking	m	100		
2	TB.8.1.1 AA.TB.1	Painted road lines 100mm wide (yellow), including setting out and premarking	m	100		
3	TB.8.1.1 AA.TB.1	Painted road lines 100mm wide (red), including setting out and premarking	m	100		
4	TB.8.1.2	Road Marking for lettering, symbols and traffic islands (white), including setting out lettering, symbols and traffic island markings.	m2	25		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Works

R

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

**SECTION 8 Reinstatement**

**PART S REINSTATEMENT**

<b>Item</b>	<b>Clause</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate</b>	<b>Amount</b>
1	S.8.1	Reinstatement of ground surface	m2	500		
2	S.8.2	Road Category C-Permanent road reinstatement 80 mm Mix D, 150mm Crusher run, Trench backfill with CBr 4 or more	m2	800		
3	S.8.4	Reinstatement of wire/plastic coated fence, 1,2 m - 2.1m high	m	200		
4	S.8.4	Reinstatement of guard rail and posts	m	200		
5	S.8.4	Reinstatement of bollards	m2	20		
6	S.8.2	Reinstatement of asphalt sidewalk 25mm- Asphalt Private Plant	m2	200		
7	S.8.2	Reinstatement of concrete sidewalk/ median - Precast slabs	m2	200		
8	S.8.2	Reinstatement of in-situ concrete access scoop	m2	100		
9	S.8.2	Reinstatement of paved areas	m2	80		
10	PS.S.8.7	Reinstatement of eroded embankment	m3	200		
11	PS.S.8.8	Reinstatement of fibre glass handrails	m	100		
12	PS.S.8.10	Reinstatement of water loffestein blocks from stockpile (rate to include stockpile handling)	m2	100		
13	PS.S.8.11	Reinstatement of road reserve	m2	100		

**TOTAL CARRIED TO SECTION 8 SUMMARY: Reinstatement**

**R**

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR  
THE WEST REGION FOR A PERIOD OF 3 YEARS**

**SECTION 9 Dayworks**

**PART AB GENERAL SPECIFICATIONS**

<b>Item</b>	<b>Clause</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate</b>	<b>Amount</b>
1		Personnel: (a) Unskilled labourer	hr	40		
2		Personnel: (b) Semi-skilled labourer	hr	40		
3		Personnel: (c) Skilled labourer	hr	40		
4		Personnel: (e) Foreman	hr	40		
5		Construction equipment: (e) Excavator	day	1		
6		Construction Equipment: TLB	day	1		

**TOTAL CARRIED TO SECTION 9 SUMMARY: Dayworks**

**R**

**BILL OF QUANTITIES SECTION SUMMARY**

**SECTION 1 Preliminary and General**

PART AA	PRELIMINARIES	
PART AB	GENERAL SPECIFICATIONS	
PART AH	OCCUPATIONAL HEALTH and SAFETY	
TOTAL CARRIED TO FINAL SUMMARY		

**BILL OF QUANTITIES SECTION SUMMARY**

**SECTION 2    Site Clearance**

PART B	SITE CLEARANCE	
TOTAL CARRIED TO FINAL SUMMARY		

**BILL OF QUANTITIES SECTION SUMMARY**

**SECTION 3 Earthworks**

PART DA	EARTHWORKS : BULK	
PART DB	EARTHWORKS FOR PIPE TRENCHES	
PART DD	EARTHWORKS FOR STRUCTURES	
TOTAL CARRIED TO FINAL SUMMARY		

**BILL OF QUANTITIES SECTION SUMMARY**

**SECTION 4 Stormwater Pipe works**

PART	PG	NON PRESSURE PIPELINES and PC CULVERTS	
PART	PH	MANHOLES and APPURTENANT DRAINAGE WORKS	
TOTAL CARRIED TO FINAL SUMMARY			

**BILL OF QUANTITIES SECTION SUMMARY**

**SECTION 5    Culvert Works**

PART   C	CONCRETE WORK	
PART   PG	NON PRESSURE PIPELINES and PC CULVERTS	
TOTAL CARRIED TO FINAL SUMMARY		

**BILL OF QUANTITIES SECTION SUMMARY**

**SECTION 6    Protection Works**

PART F	PROTECTION WORKS	
TOTAL CARRIED TO FINAL SUMMARY		

**BILL OF QUANTITIES SECTION SUMMARY**

**SECTION 7 Road Works**

PART EB	GRADED CRUSHED STONE	
PART ED	ROAD ASPHALT	
PART EF	KERBS AND HAUNCHES	
PART EG	SIDEWALKS, FOOTPATHS and MEDIAN AREAS	
PART EH	STEEL GUARDRAILS & CONC. MEDIAN BARRIERS	
PART EL	DUMPROCK SUBGRADE IMPROVEMENT	
PART TA	ROAD SIGNS	
PART TB	ROAD MARKINGS	
TOTAL CARRIED TO FINAL SUMMARY		

**BILL OF QUANTITIES SECTION SUMMARY**

**SECTION 8 Reinstatement**

PART S	REINSTATEMENT	
TOTAL CARRIED TO FINAL SUMMARY		

**BILL OF QUANTITIES SECTION SUMMARY**

**SECTION 9 Dayworks**

PART AB	GENERAL SPECIFICATIONS	
TOTAL CARRIED TO FINAL SUMMARY		

**COASTAL STORMWATER AND CATCHMENT MANAGEMENT RATE BASED AS AND WHEN CONTRACT FOR THE WEST REGION FOR A PERIOD OF 3 YEARS**

**SUMMARY OF BILL OF QUANTITIES**

1	Preliminary and General		R	_____
	AA PRELIMINARIES	R		_____
	AB GENERAL SPECIFICATIONS	R		_____
	AH OCCUPATIONAL HEALTH and SAFETY	R		_____
2	Site Clearance		R	_____
	B SITE CLEARANCE	R		_____
3	Earthworks		R	_____
	DA EARTHWORKS : BULK	R		_____
	DB EARTHWORKS FOR PIPE TRENCHES	R		_____
	DD EARTHWORKS FOR STRUCTURES	R		_____
4	Stormwater Pipe works		R	_____
	PG NON PRESSURE PIPELINES and PC CULVERTS	R		_____
	PH MANHOLES and APPURTENANT DRAINAGE WORKS	R		_____
5	Culvert Works		R	_____
	C CONCRETE WORK	R		_____
	PG NON PRESSURE PIPELINES and PC CULVERTS	R		_____
6	Protection Works		R	_____
	F PROTECTION WORKS	R		_____
7	Road Works		R	_____
	EB GRADED CRUSHED STONE	R		_____
	ED ROAD ASPHALT	R		_____
	EF KERBS AND HAUNCHES	R		_____
	EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS	R		_____
	EH STEEL GUARDRAILS & CONC. MEDIAN BARRIERS	R		_____
	EL DUMPROCK SUBGRADE IMPROVEMENT	R		_____
	TA ROAD SIGNS	R		_____
	TB ROAD MARKINGS	R		_____
8	Reinstatement		R	_____
	S REINSTATEMENT	R		_____
9	Dayworks		R	_____
	AB GENERAL SPECIFICATIONS	R		_____
SUB TOTAL			R	_____
ADD VAT (15%) - (only if a registered VAT Vendor)			R	_____
TOTAL CARRIED TO FORM OF TENDER			R	_____