

MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

BILL OF QUANTITIES

SECTION 1 Preliminary and General

PART AA PRELIMINARIES

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Preliminaries:</u>				
1	PS.AA.8	Contractor fixed obligations	sum	1		
2	PS.AA.9	Time Related Obligations	months	24		
3	PS.AA.12	Provision for CLO as per Engineers instruction (Proof of hours worked to be attached to claim) Allow for a CLO to be appointed	PC Sum	270000	1.00	270,000.00

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

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PART AB GENERAL SPECIFICATIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.AB.10	Contractors superintendance including transport and communication	months	24		
2	PS.AB.11	Provide security	months	24		

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

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PART AH OCCUPATIONAL HEALTH and SAFETY

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

TOTAL CARRIED TO SECTION 1 SUMMARY: Preliminary and General

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 2 Asphalt Surface Repairs (Roads and Sidewalks)

PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
<u>Repairs to Road</u>						
1	PS.ED.9	Category 'B' full depth repair 150mm crusher run 160mm asphalt for greater than 5m ²	m ²	100		
2	PS.ED.9	Category 'B' full depth repair 150mm crusher run 160mm asphalt for less than 5m ²	m ²	100		
3	PS.ED.9	Category 'C' full depth repair 150mm crusher run 80mm asphalt for greater than 5m ²	m ²	1250		
4	PS.ED.9	Category 'C' full depth repair 150mm crusher run 80mm asphalt for less than 5m ²	m ²	1250		
5	PS.ED.9	Category 'D' full depth repair 150mm crusher run 50mm asphalt for greater than 5m ²	m ²	1250		
6	PS.ED.9	Category 'D' full depth repair 150mm crusher run 50mm asphalt for less than 5m ²	m ²	1250		
7	PS.ED.9 and 10	Replacement of existing asphalt surface only at 160mm depth for areas greater than 5m ²	m ²	200		
8	PS.ED.9 and 10	Replacement of existing asphalt surface only at 160mm depth for areas less than 5m ²	m ²	200		
9	PS.ED.9 and 10	Replacement of existing asphalt surface only at 80mm depth for areas greater than 5m ²	m ²	1250		
10	PS.ED.9 and 10	Replacement of existing asphalt surface only at 80mm depth for areas less than 5m ²	m ²	1250		
11	PS.ED	Replacement of existing asphalt surface only at 50mm depth for areas greater than 5m ²	m ²	1250		
12	PS.ED.9 and 10	Replacement of existing asphalt surface only at 50mm depth for areas less than 5m ²	m ²	1250		
<u>Repairs to Sidewalks</u>						
13	EG.5.1	Category 'E' full depth repair 100mm crusher run 25mm asphalt for greater than 5m ²	m ²	500		
14	EG.5.1	Category 'E' full depth repair 100mm crusher run 25mm asphalt for less than 5m ²	m ²	500		

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Part Continued **PART ED ROAD ASPHALT**

Item	Clause	Description	Unit	Quantity	Rate	Amount
15	PS.ED.9 and 10	Replacement of existing asphalt surface only at 25mm depth for areas greater than 5m ²	m ²	500		
16	PS.ED.9 and 10	Replacement of existing asphalt surface only at 25mm depth for areas less than 5m ²	m ²	500		
17	PS.ED.9	Extruded asphalt haunch/kerb 150mm high profile	m	100		
18	PS.ED	Supply of Cold mix and/or hot mix for repairs of potholes less than 1m ²	m ²	200		
19	PS.ED.11	Saw cutting in asphalt where instructed by the Engineer 50mm - 100mm depth	m	500		
20	PS.ED	Application of weed killer per Engineer instructions	m ²	500		

TOTAL CARRIED TO SECTION 2 SUMMARY: Asphalt Surface Repairs (Roads and Sidewalks)

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PART S REINSTATEMENT

Item	Clause	Description	Unit	Quantity	Rate	Amount
<u>C.P.M Trench Reinstatement (Asphalt Only)</u>						
1	PS.ED.12	Category 'A' C.P.M repair 240mm asphalt only for areas greater than 5m ²	m ²	100		
2	PS.ED.12	Category 'A' C.P.M repair 240mm asphalt only for areas less than 5m ²	m ²	100		
3	PS.ED.12	Category 'B' C.P.M repair 160mm asphalt only for areas greater than 5m ²	m ²	100		
4	PS.ED.12	Category 'B' C.P.M repair 160mm asphalt only for areas less than 5m ²	m ²	100		
5	PS.ED.12	Category 'C' C.P.M repair 80mm asphalt only for areas greater than 5m ²	m ²	100		
6	PS.ED.12	Category 'C' C.P.M repair 80mm asphalt only for areas less than 5m ²	m ²	100		
7	PS.ED.12	Category 'D' C.P.M repair 50mm asphalt only for areas greater than 5m ²	m ²	100		
8	PS.ED.12	Category 'D' C.P.M repair 50mm asphalt only for areas less than 5m ²	m ²	100		
9	PS.ED.12	Category 'E' C.P.M repair 30mm asphalt only for areas greater than 5m ²	m ²	100		
10	PS.ED.12	Category 'E' C.P.M repair 30mm asphalt only for areas less than 5m ²	m ²	100		
<u>Trench Reinstatement including crusher run</u>						
11	PS.ED.12	Category 'A' repair 240mm asphalt and 150mm G2 for areas greater than 5m ²	m ²	100		

MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

Part Continued **PART S REINSTATEMENT**

Item	Clause	Description	Unit	Quantity	Rate	Amount
12	PS.ED.12	Category 'A' repair 240mm asphalt and 150mm G2 for areas less than 5m2	m2	100		
13	PS.ED.12	Category 'B' repair 160mm asphalt and 150mm G2 for areas greater than 5m2	m2	100		
14	PS.ED.12	Category 'B' repair 160mm asphalt and 150mm G2 for areas less than 5m2	m2	100		
15	PS.ED.12	Category 'C' repair 80mm asphalt and 150mm G2 for areas greater than 5m2	m2	100		
16	PS.ED.12	Category 'C' repair 80mm asphalt and 150mm G2 for areas less than 5m2	m2	100		
17	PS.ED.12	Category 'D' repair 50mm asphalt and 150mm G2 for areas greater than 5m2	m2	100		
18	PS.ED.12	Category 'D' repair 50mm asphalt and 150mm G2 for areas less than 5m2	m2	100		
19	PS.ED.12	Category 'E' repair 25mm asphalt and 100mm G2 for areas greater than 5m2	m2	100		
20	PS.ED.12	Category 'E' repair 25mm asphalt and 100mm G2 for areas less than 5m2	m2	100		

TOTAL CARRIED TO SECTION 2 SUMMARY: Asphalt Surface Repairs (Roads and Sidewalks)

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 3 Concrete and Paving Repairs

PART EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Sidewalks, Footpaths and Median Areas:</u>				
1	EG.5.2	Replacement of precast concrete slabs (from 450mm x 450mm to 610mm x 610mm)	m2	200		
2	EG.5.3	Supply and lay clay brick pavers	m2	200		
3	EG.5.3	Supply and lay concrete brick pavers	m2	200		
4	EG.5.3	Supply and lay concrete rumble stones	m2	100		
5	EG.5.3	Supply and lay concrete cobble stones	m2	20		
6	EG.5.3	Supply and lay brick margins	m	20		
7	EG.5.3	Supply and lay broadwalk pavers (220mm x 220mm)	m2	20		
8	EG.5.3	Supply and lay shepstone pavers (440mm x 440mm)	m2	20		
9	EG.5.2	Supply and lay exposed aggregate slabs (from 450mm x 450mm to 600mm x 600mm)	m2	200		
10	PS.ED.	Supply and place exposed aggregate bollards	no.	500		
11	PS.ED.15	Supply and lay precast concrete barrier kerb (Fig.6)	m	1000		
12	PS.ED.16	Supply and lay precast concrete barrier kerb (Fig.8)	m	100		
13	PS.ED.14	Cast in-situ concrete (25/19) 100mm thick wood floated finish and jointed to suit surrounding	m2	500		
14	PS.ED.14	Cast in situ concrete (100mm wide) fillet	m2	1000		
15	PS.ED.14	Cast in situ concrete (300mm wide)	m2	1000		
16	PS.ED.13	Saw cut to 100mm depth in concrete paving where necessary	m	500		
17	EG.8.3	Repair / replace expansion joints in concrete or brick paved areas to a depth of 100mm, including all cutting and sealing	m	100		
		<u>Reset as follows:</u>				
18	PS.ED.17	Reset precast concrete slabs	m2	500		
19	PS.ED.17	Reset pavers, all types	m2	500		
20	PS.ED.17	Reset exposed aggregate slabs	m2	500		

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Part Continued **PART** EG **SIDEWALKS, FOOTPATHS and MEDIAN AREAS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
21	EG.5.3	Supply and Lay interlocking paving	m2	500		

TOTAL CARRIED TO SECTION 3 SUMMARY: Concrete and Paving Repairs

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 4 Crack sealing

PART ED ROAD ASPHALT

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>LONGITUDINAL AND TRANSVERSE CRACKS</u>				
1	B48.14	Blowing/cleanng the cracks with compressed air, supply and application of all materials specified and of sealent CH-E1 (<3mm)	m	1500		
2	B48.14	Blowing/cleanng the cracks with compressed air, supply and application of all materials specified and of sealent CH-E1 (3-10mm)	m	1500		
3	B48.14	Blowing/cleanng the cracks with compressed air, supply and application of all materials specified and of sealent CH-E1 (11-20mm)	m	1500		
		<u>BLOCK CRACKS</u>				
4	B48.15	Cleanng cracks with compressed air and sealing of cracks using CH-E1 sealant	m2	1500		

TOTAL CARRIED TO SECTION 4 SUMMARY: Crack sealing

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 5 Stormwater Infrastructure Repairs

PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Remove damaged covers to spoil including lids and splays:</u>				
1	PS.PH.8.1	a) Heavy duty	no.	200		
2	PS.PH.8.1	b) Light duty	no.	200		
		<u>Remove damaged:</u>				
3	PS.PH.8.1	a) Bollards to spoil	no.	200		
4	PS.PH.8.1	b) Kerb to spoil	no.	200		
		<u>Reset as follows:</u>				
5	PS.PH.8.1	a) 1200mm x 1200mm heavy duty cover	no.	200		
6	PS.PH.8.1	b) 1200mm x 1200mm light duty cover	no.	100		
7	PS.PH.8.1	c) Heavy duty splay (Left and Right)	no.	100		
8	PS.PH.8.1	d) Light duty splay (Left and Right)	no.	200		
9	PS.PH.8.1	e) Heavy duty lid	no.	200		
10	PS.PH.8.1	f) Light duty lid	no.	200		
11	PS.PH.8.1	g) Reset Bollard	no.	200		
		<u>Lowering or Raising of covers:</u>				
12	PS.PH.8.1	a) Lowering or raising of 1200mm x 1200mm cover to match the sidewalk level maximum 200mm	no.	20		
13	PS.PH.8.1	b) Lowering or raising of 300mm x 300mm cover to match the sidewalk level .Rate to include changing cast iron cover and frame to polymer (supplied by Contractor) maximum 100mm	no.	20		
14	PS.PH.8.1	c) Lowering or raising of 600mm x 600mm cover to match the sidewalk level .Rate to include changing cast iron cover and frame to polymer (supplied by Contractor) maximum 100mm	no.	20		
15	PS.PH.8.1	d) Lowering or raising of 750mm x 750mm cover to match the sidewalk level .Rate to include changing cast iron cover and frame to polymer (supplied by Contractor) maximum 100mm	no.	20		
		<u>Supply and place 1200mm x 1200mm pre-cast covers to existing or modified stormwater inlets including lids:</u>				
16	PS.PH.8.1	a) Heavy duty	no.	450		

MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

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

Item	Clause	Description	Unit	Quantity	Rate	Amount
17	PS.PH.8.1	b) Light duty	no.	450		
		<u>Lids only:</u>				
18	PS.PH.8.1	a) Heavy duty	no.	450		
19	PS.PH.8.1	b) Light duty	no.	450		
20	PS.PH.8.1	c) Replace light duty lids with lockable nylon locks (no metal)	no.	10		
21	PS.PH.8.1	d) Replace heavy duty lids with lockable nylon locks (no metal)	no.	10		
		<u>Supply and place left or right pre-cast concrete splays to existing or modified stormwater inlets:</u>				
22	PS.PH.8.1	a) Heavy duty	no.	200		
23	PS.PH.8.1	b) Light duty	no.	200		
24	PS.PH.8.1	c) Supply and place concrete support beams to stormwater inlets	no.	100		
25	PS.PH.8.1	d) Supply and place standard pre-cast concrete bollards	no.	100		
26	PS.PH.8.1	e) Supply and place kerb to match existing	no.	50		
27	PS.PH.8.1	f) Supply and place light duty 2 x 2 (760mm x 760mm) manhole cover and lid	no.	50		
28	PS.PH.8.1	g) Supply and place heavy duty 2 x 2 (760mm x 760mm) manhole cover and lid	no.	50		
		<u>Supply and place polymer elements to match where required:</u>				
29	PS.PH.8.1	a) 1200mm x 1200mm polymer cover	no.	20		
30	PS.PH.8.1	b) 1200mm x 1200mm polymer cover (lockable lids with nylon lock)	no.	20		
31	PS.PH.8.1	c) Polymer kerb piece	no.	20		
32	PS.PH.8.1	d) Left or right polymer splays to stormwater inlets	no.	20		
		<u>Supply and place Polymer frames and lids:</u>				
33	PS.PH.8.1	a) 300mm x 300mm (medium duty)	no.	20		
34	PS.PH.8.1	b) 450mm x 450mm (medium duty)	no.	20		
35	PS.PH.8.1	c) 600mm x 600mm (medium duty)	no.	20		
36	PS.PH.8.1	d) 750mm x 750mm (medium duty)	no.	20		

MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

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

Item	Clause	Description	Unit	Quantity	Rate	Amount
37	PS.PH.8.1	e) 300mm x 300mm lockable	no.	20		
38	PS.PH.8.1	f) 450mm x 450mm lockable	no.	20		
39	PS.PH.8.1	g) 600mm x 600mm lockable (medium duty)	no.	20		
40	PS.PH.8.1	h) 750mm x 750mm lockable (medium duty)	no.	20		
41	PS.PH.8.1	i) Supply with T Handle Alan Key	no.	20		
		<u>Supply and place polymer lids including nylon lock:</u>				
42	PS.PH.8.1	a) 300mm x 300mm lockable	no.	20		
43	PS.PH.8.1	b) 450mm x 450mm lockable	no.	20		
44	PS.PH.8.1	c) 600mm x 600mm lockable (medium duty)	no.	20		
45	PS.PH.8.1	d) 750mm x 750mm lockable (medium duty)	no.	20		
		<u>Supply and place polymer lids without lock:</u>				
46	PS.PH.8.1	a) 300mm x 300mm	no.	10		
47	PS.PH.8.1	b) 450mm x 450mm	no.	10		
48	PS.PH.8.1	c) 600mm x 600mm	no.	10		
49	PS.PH.8.1	d) 750mm x 750mm	no.	10		
50	PS.PH.8.1	e) Supply and place type 2A Stormwater cover and frame (compression moulded)	no.	10		
51	PS.PH.8.1	f) Supply and place type 2B Stormwater cover and frame (compression moulded)	no.	10		
52	PS.PH.8.1	g) Supply and place Heavy Duty (DN9) Polymer frame and lid	no.	10		
53	PS.PH.8.1	h) Items above 50,51 and 52 (labour only)	no.	10		
54	PS.PH.8.1	i) Brickworks as required	no.	10		
		<u>Supply and place compression moulded polymer as follows:</u>				
55	PS.PH.8.1	a) 1200mm x 1200mm polymer cover	no.	10		
56	PS.PH.8.1	b) 1200mm x 1200mm polymer lids	no.	10		
57	PS.PH.8.1	c) Left or right polymer splays to stormwater inlets	no.	10		
58	PS.PH.8.1	d) Polymer kerb piece	no.	10		
59	PS.PH.8.1	e) Type 2A Stormwater cover and frame	no.	10		

MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

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

Item	Clause	Description	Unit	Quantity	Rate	Amount
60	PS.PH.8.1	f) Type 2B Stormwater cover and frame	no.	10		
61	PS.PH.8.1	g) DN9 Polymer frame and lid	no.	10		
62	PS.PH.8.1	Grid inlet	no.	10		
63		Supply and install 100mm cast iron pipes	m	10		
64		Supply and install cast iron couplers for 100mm pipe	no.	10		

TOTAL CARRIED TO SECTION 5 SUMMARY: Stormwater Infrastructure Repairs

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 6 Stormwater Cleaning

PART PH MANHOLES and APPURTENANT DRAINAGE WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Cleaning of blocked stormwater manholes:</u>				
1	PS.SM.8.1	0.0 - 1.5m depth	no.	1000		
2	PS.SM.8.1	1.5m - 3m depth	no.	1000		
3	PS.SM.8.1	3m - 5m depth	no.	100		
4	PS.SM.8.1	5m - 10m depth	no.	10		
		<u>Cleaning of Blocked pipes:</u>				
5	PS.SM.8.1	0mm - 450mm diameter pipe	no.	2000		
6	PS.SM.8.1	450mm - 600mm diameter pipe	no.	2000		
7	PS.SM.8.1	600mm - 900mm diameter pipe	no.	500		
8	PS.SM.8.1	Cleaning of pipe culvert	m3	50		
9	PS.SM.8.1	Cleaning of box/portal culvert	m3	50		
10	PS.SM.8.1	Cleaning of lined open drains	m3	300		

TOTAL CARRIED TO SECTION 6 SUMMARY: Stormwater Cleaning

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 7 Road Sign Maintenance

PART TA ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Road Signs maintenance as instructed:</u>				
1	PS.TA.8.8.9	Installation/Straighting/replacement of road signs and the supply of hot dipped Galvanised Brackets and fasteners with bolts and nuts for double sided and single sided signs (include skew for signs). (The rate paid shall be cost +10% of material).	no.	200		
2	PS.TA.8.8.10	Supply and installation of Creosote post 125-150mm of diameter up to 3300mm length	no.	200		
3	PS.TA.8.8.10	Supply and installation of 76mm diameter hot dipped galvanised post up to 3300mm length	no.	200		
4	PS.TA.8.8.11	Removal of damaged posts/signs	no.	200		

TOTAL CARRIED TO SECTION 7 SUMMARY: Road Sign Maintenance

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 8 Sand Cleaning

PART B SITE CLEARANCE

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Site Clearance:</u>				
1	PS.B.8.2.1	Removal of sand from road channels and edges	m	100000		
2	PS.B.8.2.2	Trimming of encroachments on road edges and sidewalks	m	30000		
		<u>Removal of Rubble from road reserve:</u>				
3	PS.B.8.2.3	<1m3	m3	400		
4	PS.B.8.2.3	1-3m3	m3	300		
5	PS.B.8.2.3	>3m3	m3	200		
6	PS.B.8.2.4	Spraying of weed killer on road edges and channels (not exceeding 0.5m)	m	10000		
7	PS.B.8.2.4	Spraying of weed killer on sidewalks and harden surfaces	m2	10000		

TOTAL CARRIED TO SECTION 8 SUMMARY: Sand Cleaning

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 9 Road Marking

PART TB ROAD MARKINGS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	PS.TB.8.4	Remove existing lane, edge and painted island lines by grit blasting	m2	5000		
2	PS.TB.8.5	Setting out and premarking for lines	m	5000		
3	PS.TB.8.1.1	Painted road lines 100mm wide (White)	m	30000		
4	PS.TB.8.1.1	Painted road lines 100mm wide (yellow)	m	5000		
5	PS.TB.8.1.1	Painted road lines 100mm wide (red)	m	3000		
6	PS.TB.8.1.1	Painted road lines 150mm wide (white)	m	5000		
7	PS.TB.8.1.1	Painted road lines 150mm wide (yellow)	m	2000		
8	PS.TB.8.1.1	Painted road lines 150mm wide (red)	m	2000		
9	PS.TB.8.1.1	Painted road lines 200mm wide (white)	m	5000		
10	PS.TB.8.6	Removal of lines by black painting	m	1500		
11	PS.TB.8.1.1	Tranverse lines and islands	m	2000		
12	PS.TB.8.1.1	Lettering and symbols (regardless of the color)	m2	2000		
13	PS.TB.8.1.1	Painting of speed humps	m2	500		

TOTAL CARRIED TO SECTION 9 SUMMARY: Road Marking

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 10 Retaining structures

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C.8.1	Construct concrete edge beams (class 30MPa/19mm)	m3	200		
2	F.8.4	Supply and lay grouted stone pitching	m2	400		
3	F.8.6	Supply and lay PVC coated gabion boxes	m3	400		
4	F.8.6	Supply and lay PVC coated reno mattresses	m3	200		
5	PS.F.8.9	Supply and lay geofabric for item 3 and 4 (A4 or equivalent)	m2	500		
6	PS.F.4	supply and lay stackable TB300 loffelstein blocks (or approved equivalent) inclusive of sand filling as per detail 12:1 cement stabilised geofabric extended into fill and laid under 3rd row. Kaymatt U44 or approved weepholes at 1.0m c/c. Base type B including Mesh Ref 245, excavation and compaction of subgrade to 95% MOD A.A..S.H.T.O	m2	200		
7	PS.F.4	supply and lay stackable TB500 loffelstein blocks (or approved equivalent) inclusive of sand filling as per detail 12:1 cement stabilised geofabric extended into fill and laid under 3rd row. Kaymatt U44 or approved weepholes at 1.0m c/c. Base type B including Mesh Ref 245, excavation and compaction of subgrade to 95% MOD A.A..S.H.T.O	m2	200		
8		Dismantle existing gabion structure and recover handstone for re-use	m3	200		

TOTAL CARRIED TO SECTION 10 SUMMARY: Retaining structures

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MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SECTION 11 Fencing

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Remove existing damaged section of fencing</u>				
1	PS B.8.5.1	(i) Diamond mesh wire fence	m	10		
2		(ii) remove barb wire	m	10		
3	PS B.8.5.2	(iii) Concrete panels	no.	10		
4	PS B.8.5.3	(iv) Concrete palisade fence	m	10		
5	PS B.8.5.4	(v) Nylofor 3-M fence	m	10		
6	PS B.8.5.5	(j) Concrete posts for diamond mesh wire fence (including major posts, intermediate posts, and stays)	no.	10		
		<u>Remove existing damaged fence posts</u>				
7	PS B.8.5.6	(ii) Concrete posts for palisade fence	no.	10		
8	PS B.8.5.7	(iii) Concrete posts for panel fence	no.	10		
9	PS B.8.5.8	(iv) Bekafix posts for Nylofor 3-M fence	no.	10		
		<u>Supply and install as follows:</u>				
10	PS F.8.9	Supply all material and fix 2m high fence (2m x 63mm x 3.15mm plastic coated diamond mesh) including straining wire	m	10		
11	PS F.8.10	Supply all material and fix 1.8m high plastic coated diamond mesh fence including straining wire	m	10		
12	PS F.8.11	Supply and fix 50mm x 50mm x 1,8m high Class 'A' diamond mesh wire fence	m	10		
13	PS F.8.12	Supply and erect 3000mm x 2430mm Nylofor 3-M galvanised and PVC coated fence as per Drawing No. IPR.8212cd	m	10		
14	PS F.8.13	Supply and erect pre-stressed major concrete posts (100mm x 100mm x 3100mm), including excavation and concreting	no.	10		
15	PS F.8.14	Supply and erect pre-stressed major concrete posts (100mm x 100mm x 2900mm), including excavation and concreting	no.	10		
16	PS F.8.15	Supply and erect concrete stays (75mm x 75mm x 2700mm), including excavation and concreting	no.	10		
17	PS F.8.16	Supply and erect concrete intermediate posts (75mm x 75mm x 2700mm), including excavation and concreting	no.	10		

MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

Part Continued **PART F PROTECTION WORKS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
18	PS F.8.17	Supply and erect concrete concrete intermediate posts (75mm x 75mm x 3100mm), including excavation and concreting	no.	10		
19	PS F.8.18	Supply and erect 3200mm high galvanised and PVC coated Bekafix posts, including cap, metal fixators, excavation and concreting as per Drawing No. IPR.8212cd	no.	10		
		<u>Reset existing fencing posts</u>				
20	PS F.8.19	(i) Concrete posts for diamond meshwire fence	no.	10		
21	PS F.8.20	(ii) Concrete posts for palisade fence	no.	10		
22	PS F.8.21	(iii) Concrete posts for panel fence	no.	10		
23	PS F.8.22	(iv) Bekafix posts for Nylofor 3-M fence	no.	10		
24	PS.F.8.23	Supply fully galvanised 2,5mm barbed wire	m	10		
		<u>Supply and fix fully galvanised razor coil</u>				
25	PS F.8.24	(i) 500mm outside diameter	m	10		
26	PS F.8.25	(ii) 700mm outside diameter	m	10		
27	PS F.8.26	(iii) 900mm outside diameter	m	10		
		<u>Supply and fix fully galvanised razor wire</u>				
28	PS F.8.27	(i) 500mm flat wrap	m	10		
29	PS F.8.28	(ii) 700mm flat wrap	m	10		
30	PS F.8.29	(iii) 900mm flat wrap	m	10		
31	PS F.8.30	Supply and erect 2,4m high palisade fence including posts, pales, rails, excavation and concreting	m	10		
32	PS F.8.31	Supply and erect concrete posts (2.4m x 125mm x 135mm) for concrete panel fence including all excavations and concreting	no.	10		
33	PS F.8.32	Supply and erect concrete fence panels	no.	10		
		<u>Supply and erect gates</u>				
34	PS F.8.33	(i) Supply and erect pedestrian gates, including posts and stays, complete as per Drawing No. 38583	no.	10		
35	PS F.8.34	(ii) Supply and erect vehicular security gates, including posts and stays, complete as per Drawing No. 38583	no.	10		

MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

PART F PROTECTION WORKS

Item	Clause	Description	Unit	Quantity	Rate	Amount
TOTAL CARRIED TO SECTION 11 SUMMARY: Fencing						R

MAINTENANCE REPAIRS OF ROADS AND STORMWATER INFRASTRUCTURE AS AND WHEN REQUIRED IN THE ABM AREAS LOCATED WITHIN THE NORTH REGION OF ETHEKWINI MUNICIPALITY FOR 24 MONTHS

SUMMARY OF BILL OF QUANTITIES

1	Preliminary and General		R	_____
	AA PRELIMINARIES	R		
	AB GENERAL SPECIFICATIONS	R		
	AH OCCUPATIONAL HEALTH and SAFETY	R		
2	Asphalt Surface Repairs (Roads and Sidewalks)		R	_____
	ED ROAD ASPHALT	R		
	S REINSTATEMENT	R		
3	Concrete and Paving Repairs		R	_____
	EG SIDEWALKS, FOOTPATHS and MEDIAN AREAS	R		
4	Crack sealing		R	_____
	ED ROAD ASPHALT	R		
5	Stormwater Infrastructure Repairs		R	_____
	PH MANHOLES and APPURTENANT DRAINAGE WORKS	R		
6	Stormwater Cleaning		R	_____
	PH MANHOLES and APPURTENANT DRAINAGE WORKS	R		
7	Road Sign Maintenance		R	_____
	TA ROAD SIGNS	R		
8	Sand Cleaning		R	_____
	B SITE CLEARANCE	R		
9	Road Marking		R	_____
	TB ROAD MARKINGS	R		
10	Retaining structures		R	_____
	F PROTECTION WORKS	R		
11	Fencing		R	_____
	F PROTECTION WORKS	R		
	SUB TOTAL		R	_____
	ADD VAT (15%) - (only if a registered VAT Vendor)		R	_____
	TOTAL CARRIED TO FORM OF TENDER		R	_____