

SUMMARY OF BILL OF QUANTITIES

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**PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST**

SUB TOTAL

R

ADD VAT (15%) - (only if a registered VAT Vendor)

R

TOTAL CARRIED TO FORM OF TENDER

R

PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES, WARD 2 OUTER WEST

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BILL OF QUANTITIES

SECTION 1 PRELIMINARY AND GENERAL ITEMS

PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Environmental Management</u>				
1	C1.2.1.1 PS.C1.2.1.1	Monitoring of compliance with and reporting on the EMP	months	8		
2	C1.2.1.2 PS.C1.2.1.2	Dedicated environmental officer	months	8		
		<u>Programming and Reporting</u>				
3	C1.2.2.3 PS.1.1 PS.C1.2.2.3	Submission of a Scheme 2 Initial Programme	Lump sum	1		
4	C1.2.2.4 PS.C1.2.2.3	Submission of a Scheme 2 Full Programme	Lump sum	1		
5	C1.2.2.5 PS.C1.2.2.5	Reviewing and updating a Scheme 2 programme every month	months	8		
		<u>Other Documentation</u>				
6	C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation, including reporting on local labour	months	8		
		<u>Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of the Works which are used as detours</u>				
7	C1.2.3.1	Grass cutting	ha	0.3		
8	C1.2.3.4	Collection of rubbish / litter	km	0.3		
		<u>Stakeholder Management & Liaison</u>				
9	C1.2.4 PS.24	Stakeholder Management and Liaison	months	8		
		<u>Health and Safety</u>				
10	C1.2.5.1 PS.10	Health and safety plan	Lump sum	1		
11	C1.2.5.2 PS.10	Implementation of health and safety plan	months	8		
12	C1.2.6.1	Work adjacent to properties: Survey of adjacent properties	no	8		
13	C1.2.6.2	Preventive and/or mitigation measures	PC Sum	50000	1.00	50,000.00
14	C1.2.6.3	Handling cost, profit and all other charges in respect of item above	%	50000		
		<u>Community Liaison Officer</u>				
15	PS.25	Allow for CLO to be appointed	PC Sum	160000	1.00	160,000.00

**PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST**

Part Continued PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
16	PS.25	Handling costs and profit in respect of PS.25	%	160000		
		<u>Additional Security</u>				
17	PS.11	Provision of security on site to guard against any disruption of the works throughout the duration of the contract	months	8		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS

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PART 0103 C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>The Contractor's General Obligations</u>				
1	C1.3.1.1 PS.C1.3.1	Fixed obligations	Lump sum	1		
2	C1.3.1.2 PS.C1.3.1	Value-related obligations	Lump sum	1		
3	C1.3.1.3 PS.C1.3.1	Time-related obligations	months	8		
4	C1.3.2 PS.C1.3.2	Contract sign boards (as per drawing)	no.	1		
5	PS.17	Submission of As-Built Data	sum	1		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS

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PART 0104 C1.4 FACILITIES FOR THE ENGINEER

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Services at Site Offices, Laboratories and Site Accommodation</u>				
1	PS.19	Allowance for Progress Photographs every month, digital and aerial	PC Sum	5000	1.00	5,000.00
2	PS.19	Handling costs and profit in respect of item above	%	5000		
3	PS.21	Allowance for the additional survey required by the Engineer	PC Sum	30000	1.00	30,000.00
4	PS.21	Handling costs in respect of item above	%	30000		
5	PS.23	Allowance for Laboratory Acceptance testing as required by the Engineer	PC Sum	35000	1.00	35,000.00
6	PS.23	Handling costs in respect of item above	%	35000		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS

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PART 0105 C1.5 ACCOMMODATION OF TRAFFIC

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C1.5.1.1 PS.1.3	Accommodation of pedestrian and non-motorised traffic	months	8		

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Part Continued **PART** 0105 C1.5 ACCOMMODATION OF TRAFFIC

Item	Clause	Description	Unit	Quantity	Rate	Amount
2	C1.5.2 PS.1.3	Accommodation of vehicular traffic	months	8		
		<u>Temporary Traffic Control Facilities</u>				
3	C1.5.7.1(a)	Delineators including mounting bases and ballast: Single sided, reversible left or right (1200mm x 250mm)	no	20		
4	C1.5.7.1(b)	Delineators including mounting bases and ballast: Double sided, reversible left or right (1200mm x 250mm)	no	20		
5	C1.5.7.3	Flagmen	man-day	264		
6	C1.5.7.4	Traffic controllers	man-day	132		
7	C1.5.7.5 (c)	(c)Illuminated road sign – R & TR series (900mm)	no	8		
8	C1.5.7.9	Cleaning of traffic control facilities	months	8		
9	C1.5.8 PS.1.3.4	Traffic safety officer	months	8		
		<u>Traffic Safety Officer: Penalties</u>				
10	A1.5.3.7 PS.1.4	(a) Fixed Penalty per occurrence, R2000 per day	RateOnly	0		RATE ONLY
11	A1.5.3.7 PS.1.4	(b) Time-Related Penalty, R1000 per hour	RateOnly	0		RATE ONLY
12	C1.5.7.2	Traffic cones, minimum height 750 mm	no	10		
		<u>Provision of Safety Equipment for Visitors</u>				
13	C1.5.11.1	Provision of reflective safety vests for visitors	no	5		
14	C1.5.11.2	Provision of hard hats for visitors	no	5		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS

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**PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST**

SECTION 2 DAY WORKS

PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C1.2.8.1(a)	Personnel: (a) Unskilled labourer	hour	10		
2	C1.2.8.1(b)	Personnel: (b) Semi-skilled labourer	hour	10		
3	C1.2.8.1 (c)	Personnel: (c) Skilled labourer	hour	10		
4	C1.2.8.2€	Construction equipment : (e) Tractor loader backhoe	hour	10		
5	C1.2.8.4(a)	Materials - Procurement of materials	PC Sum	25000	1.00	25,000.00
6	C1.2.8.4(b)	(b) Contractor's handling costs, profit and all other charges in respect of item C1.2.8.4(a)	%	25000		

TOTAL CARRIED TO SECTION 2 SUMMARY: DAY WORKS

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**PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
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SECTION 3 SITE CLEARANCE

PART 0106 C1.6 CLEARING AND GRUBBING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Clearing</u>				
1	C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	0.5		
2	C1.6.1.2	Clearing with hand labour only when labour enhanced work is specified	ha	0.1		
		<u>Grubbing</u>				
3	C1.6.2.1	Grubbing with machines and some hand labour where necessary	ha	0.5		
4	C1.6.2.2	Grubbing with hand labour when labour enhancement work is specified or it is not practical to use a machine	ha	0.1		
		<u>Removal and Grubbing of Large Trees and tree stumps</u>				
5	C1.6.4.1 PS.C1.4.1	Girth equal to or exceeding 1.0m up to and including 2.0m	no	5		

TOTAL CARRIED TO SECTION 3 SUMMARY: SITE CLEARANCE

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PART 0107 C1.7 LOADING AND HAULING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Loading</u>				
1	C1.7.1.1	Loading from stockpile using machines and some hand labour where necessary	m3	700		
		<u>Hauling material for use in the Works</u>				
2	C1.7.2.1(a)	Hauling material for use in the Works and off-loading it on the site of the Works: (a) Soil, gravel, crushed stone and pavement layer material	m3-km	100		
		<u>Hauling material to spoil</u>				
3	C1.7.2.2(a) PS.C1.7.2.2	Hauling material to spoil in sites designated by the Contractor: (a) Cleared and grubbed material (organic matter and all other unsuitable or waste material)	m3	50		
4	C1.7.2.2(b) PS.C1.7.2.2	Hauling material to spoil in sites designated by the Contractor: (b) Soil and gravel material	m3	350		

Part Continued PART 0107 C1.7 LOADING AND HAULING

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	C1.7.2.2(c) PS.C1.7.2.2	Hauling material to spoil in sites designated by the Contractor: (c) Boulders and hard material	m3	100		

TOTAL CARRIED TO SECTION 3 SUMMARY: SITE CLEARANCE

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PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
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SECTION 4 SERVICES

PART 0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Location, Identification, Protection and Relocation of Existing Services</u>				
1	C2.1.1.1	Contractor's obligation	Lump sum	1		
		<u>Relocation of Services by Others:</u>				
		<u>Water</u>				
2	C2.1.1.2 PS.3	Permanent services relocation or protection work by others: Water	PC Sum	30000	1.00	30,000.00
3	C2.1.1.3 PS.3	Handling costs and profit in respect of item C2.1.1.2 above	%	30000		
		<u>Electricity</u>				
4	C2.1.1.2 PS.6	Permanent services relocation or protection work by others: Electricity	PC Sum	30000	1.00	30,000.00
5	C2.1.1.3 PS.6	Handling costs and profit in respect of item C2.1.1.2 above	%	30000		
		<u>Proving By Hand</u>				
6	C2.1.2.5 PS.2.2	Using hand excavation to locate, expose and verify services, Depth of 0.0m to 1.5m. (Prov)	m3	160		
7	C2.1.2.5 PS.2.2	Using hand excavation to locate, expose and verify services, Depth of 1.5m to 2.0m (Prov)	m3	50		
8	C2.1.19.1	Dealing with surface water	Lump sum	1		
9	C2.1.19.2	Dealing with subsurface water	Lump sum	1		

TOTAL CARRIED TO SECTION 4 SUMMARY: SERVICES

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PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST

SECTION 5 DRAINAGE

PART 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Excavation: Pipes</u>				
1	C3.2.1.1(a)	Excavation for culvert structures for pipes: in all material situated within the following depth ranges below the surface level:(a) 0 m to 1,5 m	m3	450		
2	C3.2.1.1(b)	Excavation for culvert structures for pipes: in all material situated within the following depth ranges below the surface level:(b) Exceeding 1.5 m and up to 3,0 m	m3	150		
3	C3.2.1.1(b)	Excavation for culvert structures for pipes: in all material situated within the following depth ranges below the surface level:(b) Exceeding 3.0 m and up to 4,5 m	m3	200		
4	C3.2.1.4	Extra over sub-items above for excavation in hard or boulder material, irrespective of depth	m3	10		
		<u>Backfilling: Pipes</u>				
5	C3.2.2.1	Backfilling: Using the excavated material	m3	600		
6	C3.2.2.2(a)	Backfilling: Using imported selected material:(a) From commercial source(granular material)	m3	860		
7	C3.2.3.3	Concrete pipe culverts, Spigot and Socket: On Class C bedding (900mm diameter concrete Class 100D)	m	450		
8	C3.2.8	Concrete backfill or encasement structures (grade 20/26)	m3	10		
		<u>Excavation: Manholes, Inlets and Headwalls</u>				
9	C3.2.1.1(a)	Excavation for culvert structures for Manholes Inlets and Headwalls: in all material situated within the following depth ranges below the surface level:(a) 0 m to 1,5 m	m3	200		
10	C3.2.1.1(b)	Excavation for culvert structures for Manholes Inlets and Headwalls: in all material situated within the following depth ranges below the surface level:(b) Exceeding 1.5 m and up to 3,0 m	m3	150		
11	C3.2.1.1(b)	Excavation for culvert structures for Manholes Inlets and Headwalls: in all material situated within the following depth ranges below the surface level:(b) Exceeding 3.0 m and up to 4,5 m	m3	50		

PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
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Part Continued **PART** 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
12	C3.2.1.4	Extra over sub-items above for excavation in hard or boulder material, irrespective of depth <u>Backfilling: Manholes, Inlets and Headwalls</u>	m3	10		
13	C3.2.2.1	Backfilling: Using the excavated material	m3	20		
14	C3.2.2.2(a)	Backfilling: Using imported selected material:(a) From commercial sources (State type) <u>Headwalls</u>	m3	15		
15	C3.2.9	Inlets and outlets to culverts, Type A for 900mm diameter pipes <u>Manholes and Inlets</u>	no	7		
16	C3.2.15.2	Manholes: Type A with a heavy duty concrete cover, Depth:- 0.0m to 1,5m	no	2		
17	C3.2.15.2	Manholes: Type A with a heavy duty concrete cover, Depth: Exceeding 1.5m to 3.0m	no	2		
18	C3.2.15.2	Manholes: Type A with a heavy duty concrete cover, Depth: Exceeding 3.0m to 4.5m	no	1		
19	C3.2.15.2	Inlet Type S2, heavy duty concrete cover, Depth:- 0.0m to 1,5m	no	6		
20	C3.2.15.2	Inlet Type S2, heavy duty concrete cover, Depth: Exceeding 1.5m to 3.0m	no	4		
21	C3.2.15.2	Inlet Type S2, heavy duty concrete cover, Depth: Exceeding 3.0m to 4.5m	no	2		
22	C3.2.15.2	Inlet Type D3, heavy duty concrete cover, Depth:- 0.0m to 1,5m <u>Compaction</u>	no	2		
23	C3.2.24.1	Compaction of bedding for inlets, outlets, manholes and catchpits: Preparation and compaction of in situ bedding material to 90% of MDD (depth 150mm)	m3	20		
24	C1.7.2.2 (c)	Hauling material to spoil and off-loading it at a designated spoil area: (c) Boulders and hard materials	m3	30		
25	C3.3.6.1	Prefabricated concrete chutes (minimum size 0.4m wide x 0.15m depth)	m	50		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

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PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST

PART 0303 C3.3 CONCRETE KERBING AND CHANNELING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Kerb and Channel/ Fillet for Roadway</u>				
1	C3.3.1.1	Prefabricated kerbing, cast in-situ channeling: Type D Barrier Kerb, Fig. 6, with 150mm channel, Drawing 38577	m	900		
2	C3.3.3.1	Extra over item above for concrete kerbing and channeling on curves of radii more than or equal to 2,0m but less than 25m	m	25		
3	C3.3.3.2	Extra over item above for concrete kerbing or concrete kerbing and channeling on curves of radii more than or equal to 40,0m but less than 200m	m	50		
4	C3.3.4	Extra over item C3.3.2 for drop kerbs and channel / Fillet at pedestrian crossings and driveways (Drawing 38579)	m	15		
		<u>Scoops</u>				
5		Cast in situ concrete for Pedestrian /Vehicular Scoop (Grade 20/13)	m3	5		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

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PART 1206 C12.6 MECH STABILISED FILL AND GABIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Reno Mattress and Gabions</u>				
1	C12.6.14.1(a)	Foundation trench excavation:Excavating all material for gabions situated within the following depth ranges (a) 0 m to 1,5 m	m3	100		
2	C12.6.14.1(b)	Foundation trench excavation:Excavating all material for gabions situated within the following depth ranges (b) Exceeding 1,5 m and up to 3,0 m	m3	50		
3	C12.6.14.1(b)	Foundation trench excavation:Excavating all material for gabions situated within the following depth ranges (c) Exceeding 3,0 m and up to 4,5 m	m3	50		
4	C12.6.15	Surface preparation for bedding the reno mattress	m2	100		
5	C12.6.16.2	Reno mattress: PVC coated gabion boxes (2.0mx1.0mx0.3m)	m3	30		
6	C12.6.15	Surface preparation for bedding the gabions	m2	100		

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Part Continued **PART** **1206 C12.6 MECH STABILISED FILL AND GABIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
7	C12.6.16.2	Gabions Box: PVC coated gabion boxes, 2.0m high wall (@2.5m ³ /m)	m ³	100		
8	C12.6.16.2	Extra over for Gabions Box: For radius between 15m and 25m.	m ³	5		
9	C12.6.17, PS.C12.6.17	Geotextile (Filtertation and separation foruse with reno mattress, min Grade 7)	m ²	800		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

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PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST

SECTION 6 EARTHWORKS

PART 0402 C4.2 CUT MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Excavation to Stockpile or Fill</u>				
1	C4.2.3.1 PS.C4.2	Excavating of materials in cuttings for use in the works, material obtained from: Soft excavation	m3	2400		
2	C4.2.3.4 PS.C4.2	Excavating of materials in cuttings for use in the works, material obtained from: Hard excavation (other than by blasting)	m3	300		
3	C4.2.4.1 PS.C4.2	Excavating of materials in box cuts for use in the works, material obtained from: Soft excavation	m3	1350		
		<u>Excavation to stockpile or Fill</u>				
4	C4.2.4.4 PS.C4.2	Excavating of materials in box cuts for use in the works, material obtained from: Hard excavation (other than by blasting)	m3	300		
5	C1.7.2.2(b) PS.C1.7.2.2	Hauling material to spoil in sites designated by the Contractor: (b) Soil and gravel material	m3	1000		
6	C1.7.2.2(c) PS.C1.7.2.2	Hauling material to spoil in sites designated by the Contractor: (c) Boulders and hard material	m3	500		
7	C1.7.2.1(a)	Hauling material for use in the Works and off-loading it on the site of the Works: (a) Soil, gravel, crushed stone and pavement layer material	m3 * km	300		
8	C1.7.1.1	Loading from stockpile using machines and some hand labour where necessary	m3	300		
		<u>Excavation to spoil</u>				
9	C4.2.9.1	Excavate material to spoil in sites designated by the Contractor, material obtained from: Soft excavation, overburden and unsuitable material	m3	800		
10	C4.2.12.1(a)	Finishing the side slopes of cuttings: (a) in soft material	m2	2700		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS

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PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
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PART 0403 C4.3 EXISTING ROAD MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Saw-cut</u>				
1	C4.3.4.1(a)	Saw-cutting existing materials within the following average depth ranges: Asphalt: (a) Up to 50 mm	m	20		
2	C4.3.9.2 PS.C4.2	Excavating material by using conventional road construction equipment to stockpile: Crushed stone and macadam materials	m3	50		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS

R

PART 0404 C4.4 COMMERCIAL MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C4.4.2.1(g)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material: Type G7	m3	1050		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS

R

PART 0502 C5.2 FILL

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Processing and Compaction</u>				
1	C5.2.2.1(a)	Fill construction: Normal fill material (G7) in compacted layer thicknesses of 200 mm and less: (a) Compacted to 95 % of MDD	m3	1050		
2	C5.2.3	Side-cut to fill compacted to 93 % of MDD in compacted layer thicknesses of 200 mm and less	m3	50		
3	C5.2.11.1	Finishing-off fill slopes	m2	2700		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS

R

PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST

SECTION 7 LAYERWORKS

PART 0404 C4.4 COMMERCIAL MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C4.4.2.1(g)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material: Type G5	m3	550		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

PART 0501 C5.1 ROADBED

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C5.1.1.2	Roadbed construction (150mm - 200mm compacted thickness) and compaction to 95 % of MDD	m3	550		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

PART 0503 C5.3 ROAD PAVEMENT LAYERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C5.3.1	Compiling and implementing M&U plans for the construction of all the pavement layers.	no	1		
		Processing and Compaction				
2	C5.3.2.1(k)	Construction of layers: Upper subbase (G5) layer compacted to 98% of MDD	m3	550		
3	C5.3.2.1(b)	Construction of layers: Upper selected (G7) layer compacted to 95% of MDD	m3	100		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

PART 0601 C6.1 PAVER LAID CONCRETE LAYERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C6.1.2.2(b)	Construction of jointed 40Mpa concrete pavement (JCP) (Excluding texturing and curing) JC with dowels: (b) Labour enhanced construction 150mm thickness	m2	3000		
2	C6.1.2.3	Additional concrete placed to thicken up the slab at joints as specified in the Contract Documentation	m3	60		
3	C6.1.8.2	150mm cores drilled from pavement for testing of compressive strength	no	8		
4	C6.1.6.1	Expansion joints complete (excluding dowels)	m	1250		
5	C6.1.6.2(a)	Longitudinal hinge joints: Sealed hinge joints to be keyed and tied with dowels	m	600		

Part Continued PART 0601 C6.1 PAVER LAID CONCRETE LAYERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
6	C6.1.7.5(a)	Tie-bars: installed in new concrete should be Y10 (deformed bars), 500mm in length @750mm intervals	no	1950		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

**PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST**

SECTION 8 ANCILLARY ROAD WORKS

PART 1104 C11.4 ROAD RESTRAINT SYSTEMS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.4.1.1(c) PS C11.4.1.1 ©	Erecting of double-height galvanized guardrail system, including all posts, rails, spacers, fasteners, and fittings at 3.81 m centres, fully compliant with SANS 1350. Rate to include supply, transport, handling, installation, and all associated works for a complete functional system Complete galvanized system compliant to SANS 1350: (c) on CONCRETE post (Drawing 38580)	m	950		
2	C11.4.1.2(b)	Terminal sections for 3,81 guardrails comprising of:(b) Bullnoses to SANS 1350	no	4		
3	C11.4.5.1	"Additional guardrail posts for 3,81 m systems: Concrete"	no	5		
4	C11.4.6.2	Reflective Plastic plates	no	140		
5	C11.4.4.1	Extra over C11.4.1 for horizontally curved guard rails factory bent to a radius of less than 45m	m	100		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

PART 1105 C11.5 FENCING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Wire Mesh Fence - Drawing 38583</u>				
1	C11.5.1.3	Diamond mesh	m2	30		
2	C11.5.1.9(a)(i)	Straining posts, stays and anchors:(a) Vertical (Concrete straining post)	no	2		
3	C11.5.2 PS.C11.5.4.1	New gates (Vehicular)	no	1		
4	C11.5.10.1	Disposal of existing fencing materials: Security Fences	m	20		
5	C11.5.3.1(d)	"Moving existing fences:(d) Security fences"	km	0.1		
6	C11.5.4.1(d)	"Dismantling existing fences:(d) Security fences"	km	0.1		
7	C11.5.9	Repairing existing fences : To match existing fencing on site as and when required	km	0.1		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

**PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST**

PART 1106 C11.6 ROAD SIGNS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.6.1.3(a)	Road signboards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class I retro-reflective material, where the sign board is constructed from: Prepainted galvanized steel plate: (a) Area 0 to 0,5 m2	m2	2		
2	C11.6.3.1	Road sign supports:Steel tubing (75m diameter), Galvanised	m	8		
3	C11.6.5.1	Excavation and backfilling for road sign supports:Excavating soft material and backfilling	m3	2		
4	C11.6.5.4	Extra over item C11.6.5.1 for hard material excavation	m3	2		
5	C13.4.11	Cast in situ concrete for road sign footings as directed by the Engineer (Grade 20/19)	m3	2		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

PART 1107 C11.7 ROAD MARKINGS AND ROAD STUDS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.7.1.4 P.S.C.11.7.1	White lettering and symbols (paint type indicated)	m2	5		
2	C11.7.1.4 P.S.C.11.7.1	Thermoplastic Road marking, broken or unbroken (White, 100mm wide)	km	0.01		
3	C11.7.1.4 P.S.C.11.7.1	Thermoplastic Road marking, broken or unbroken (White, 200mm wide)	km	0.01		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

PART 1109 C11.9 FINISHING ROAD AND ROAD RESERVE

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.9.1.2	Single carriageway road	km	0.8		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

**PHASE 01 OF THE UPGRADE TO TRK 83208 IN MKHIZWANE AREA FROM GRAVEL TO CONCRETE SURFACES,
WARD 2 OUTER WEST**

SECTION 9 RETAINING WALLS

PART 1206 C12.6 MECH STABILISED FILL AND GABIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C12.6.2	Excavation for all base foundation	m3	100		
2	C12.6.3	Concrete for wall base foundation (25/26)	m3	65		
3	C12.6.7	Metallic reinforcing mesh (Mesh Ref. 245)	m2	80		
4	C12.6.12.2	Facings (Geolock wall as per drawing for wall 2m-3m): For concrete block wall facing	m2	400		
5	C12.6.12.2	Facings (Geolock wall as per drawing for wall 3m-4m): For concrete block wall facing	m2	480		
6	C12.6.13	Drainage (50mm weepholes installed inclusive of all elements as per drawing)	no	130		
7	C12.6.11	Backfill (Cement stabilised backfill as per drawing)	m3	100		
8	C12.6.11	Backfill (compacted to 95% MDD)	m3	80		
9	C12.6.17	Geotextile (Drainage A3)	m2	1000		
10	C12.6.3	Concrete for wall Top blocks of wall (25/26)	m3	20		
11	C3.1.9.1	Pipes in subsoil drainage system: U-PVC pipes and fittings, normal duty, complete with couplings (state size and whether or not perforated or slotted)	m	160		
12	C3.3.6.2	Precast concrete chutes (catchwater drain, minimum 300mm wide by 150mm deep as per drawing) item to include all material, formation, backfill and installation	m	80		

TOTAL CARRIED TO SECTION 9 SUMMARY: RETAINING WALLS

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