

SUMMARY OF BILL OF QUANTITIES

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Section

SUB TOTAL

R _____

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

R _____

TOTAL CARRIED TO FORM OF TENDER

R _____

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- PART 1206 C12.6 MECH STABILISED FILL AND GABIONS**

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	3		
2	C1.2.1.2 PS.C1.2.1.2	Dedicated environmental officer	months	3		
		<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	3		
		<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	3		
		<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	0.105		
8	C1.2.3.4	Collection of rubbish / litter	km	1		
		<u>Stakeholder Management & Liaison</u>				
9	C1.2.4 PS.24	Stakeholder Management and Liaison	months	3		
		<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	3		
12	C1.2.6.1	Work adjacent to properties: Survey of adjacent properties	no	7		
13	C1.2.6.2	Preventive and/or mitigation measures	PC Sum	20000	1.00	20 000.00
14	C1.2.6.3	Handling cost, profit and all other charges in respect of item C1.2.6.2	%	20000		
		<u>Community Liaison Officer</u>				
15	PS.25	Allow for CLO to be appointed	PC Sum	70000	1.00	70 000.00

PHASE 01_ROAD 03 EXTENSION OF TRK 74034, WARD 05_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	%	70000		
		<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	3		

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	3		
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	20000	1.00	20 000.00
2	PS.19	Handling costs and profit in respect of item above	%	20000		
3	PS.21	Allowance for the additional survey required by the Engineer	PC Sum	20000	1.00	20 000.00
4	PS.21	Handling costs in respect of item above	%	20000		
5	PS.23	Allowance for Laboratory Acceptance testing as required by the Engineer	PC Sum	20000	1.00	20 000.00
6	PS.23	Handling costs in respect of item above	%	20000		

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	3		

PHASE 01_ ROAD 03 EXTENSION OF TRK 74034, WARD 05_OUTER WEST

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	3		
		<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	15		
4	C1.5.7.1(b)	Delineators including mounting bases and ballast: Double sided, reversible left or right (1200mm x 250mm)	no	15		
5	C1.5.7.3	Flagmen	man-day	100		
6	C1.5.7.4	Traffic controllers	man-day	60		
7	C1.5.7.5 (c)	(c) Illuminated road sign – R & TR series (900mm)	no	3		
8	C1.5.7.9	Cleaning of traffic control facilities	months	3		
9	C1.5.8 PS.1.3.4	Traffic safety officer	months	3		
		<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	15		
		<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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BILL OF QUANTITIES SECTION SUMMARY

SECTION 1 PRELIMINARY AND GENERAL ITEMS

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TOTAL CARRIED TO FINAL SUMMARY		

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	8		
4	C1.2.8.2€	Construction equipment : (e) Tractor loader backhoe	hour	8		
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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BILL OF QUANTITIES SECTION SUMMARY

SECTION 2 DAY WORKS

PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS	
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TOTAL CARRIED TO FINAL SUMMARY	
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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	0.15		
2	C1.6.1.2	Clearing with hand labour only when labour enhanced work is specified	ha	0.06		
		<u>Grubbing</u>				
3	C1.6.2.1	Grubbing with machines and some hand labour where necessary	ha	0.15		
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	0.06		
		<u>Removal</u>				
5	C1.6.4.1 PS.C1.6.4.1	Removal of structures: Demolition of brickwork of Manholes, inlets and Headwalls. Depth 0.0m to 1.0m	m ³	5		
6	C1.6.4.1 PS.C1.6.4.1	Removal of Stormwater manholes and inlet; covers and frames. Spoil at tip, including haulage.	no	1		
7	C1.6.4.1 PS.C1.6.4.1	Removal of Stormwater Pipes, Diameter 300mm-600mm. Spoil at tip, including haulage.	m	15		
8	C1.6.4.1 PS.C1.6.4.1	Cast in situ concrete: Strength concrete (class C): Seal Pipe ends (a) Concrete 15/26	m ³	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>Hauling material for use in the Works</u>				
1	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	m ³ * km	30		
		<u>Hauling material to spoil</u>				
2	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)	m ³	15		

PHASE 01_ ROAD 03 EXTENSION OF TRK 74034, WARD 05_OUTER WEST

Part Continued PART 0107 C1.7 LOADING AND HAULING

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	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	50		
4	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	10		

TOTAL CARRIED TO SECTION 3 SUMMARY: SITE CLEARANCE

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BILL OF QUANTITIES SECTION SUMMARY

SECTION 3 SITE CLEARANCE

PART 0106 C1.6 CLEARING AND GRUBBING

PART 0107 C1.7 LOADING AND HAULING

TOTAL CARRIED TO FINAL SUMMARY

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	25000	1.00	25 000.00
3	C2.1.1.3 PS.3	Handling costs and profit in respect of item C2.1.1.2 above	%	25000		
		<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	10		
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	10		

TOTAL CARRIED TO SECTION 4 SUMMARY: SERVICES

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BILL OF QUANTITIES SECTION SUMMARY

SECTION 4 SERVICES

PART 0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE

TOTAL CARRIED TO FINAL SUMMARY

PHASE 01_ ROAD 03 EXTENSION OF TRK 74034, WARD 05_OUTER WEST

SECTION 5 DRAINAGE**PART 0301 C3.1 DRAINS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C3.1.1.1(a)	Excavation for open drains: Excavating all material situated within the following depth ranges below the surface level using conventional methods:(a) 0 m to 1,5 m	m3	115		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

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PART 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Excavation: Pipes				
1	C3.2.1.1(a) PS.C2.1.6 PS.C3.2.1.1	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	25		
2	C3.2.1.1(b) PS.C2.1.6 PS.C3.2.1.1	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	5		
3	C3.2.1.4 PS.C2.1.6	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material,irrespective of depth	m3	5		
		Backfilling: Pipes				
4	C3.2.2.1	Backfilling: Using the excavated material	m3	10		
5	C3.2.2.2(a)	Backfilling: Using imported selected material: (a) From commercial sources (Using granular material)	m3	5		
6	C3.2.3.3 PS.C3.2.3.2	Concrete pipe culverts, Spigot and Socket: On Class C bedding (450mm diameter concrete Class 100D)	m	15		
		Excavation: Manholes, Inlets and Headwalls				
7	C3.2.1.1(a) PS.C2.1.6	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	15		

PHASE 01_ROAD 03 EXTENSION OF TRK 74034, WARD 05_OUTER WEST

Part Continued **PART** 0302 C3.2 CULVERTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
8	C3.2.1.1(b) PS.C2.1.6	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	5		
9	C3.2.1.4 PS.C2.1.6	Extra over sub-item C3.2.1.1(b) for excavation in hard or boulder material,irrespective of depth Backfilling: Manholes, Inlets and Headwalls	m3	5		
10	C3.2.2.1	Backfilling: Using the excavated material	m3	5		
11	C3.2.2.2(a)	Backfilling: Using imported selected material: (a) From commercial sources Headwalls	m3	5		
12	PS.C3.2.9	Inlets and outlets to culverts: Headwalls, Type A, for 450mm pipes	no	1		
13	PS.C3.2.15.2	Inlet: Type S2, heavy duty concrete cover; Depth: Exceeding 0,0m and up to 1,5m Compaction	no	1		
14	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	5		
15	C1.7.2.2(c) PS.C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil area: (c) Boulders and hard material	m3	5		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

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PART 0303 C3.3 CONCRETE KERBING AND CHANNELING

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C3.3.2.1, PS.C3.3.2.1	Prefabricated kerbing, cast in-situ channeling: Type F Mountable Kerb, Fig. 6, with 150mm channel, Drawing 38577	m	180		
2	C3.3.2.1, Ps. C3.3.2.1	Prefabricated kerbing, cast in-situ channeling: Fig. 12 edge restraint as per Drawing 38577	m	55		
3	C3.3.3.1	Extra over items 1 for concrete kerbing or concrete kerbing and channeling on curves of radii more than or equalo 40,0 m but less than 200 m	m	30		

PHASE 01_ ROAD 03 EXTENSION OF TRK 74034, WARD 05_ OUTER WEST

Part Continued **PART** 0303 C3.3 CONCRETE KERBING AND CHANNELING

Item	Clause	Description	Unit	Quantity	Rate	Amount
4	C3.2.4	Extra over items 2 for concrete kerbing or concrete kerbing and channeling on curves of radii more than or equal 2,0 m but less than 00 m	m	30		
5	C3.3.4	Extra over item 1 for drop kerbs and channel / Fillet at pedestrian crossings and driveways (Drawing 38579)	m	25		
		<u>Scoops</u>				
6	C13.4.11	Cast in situ concrete for Pedestrian / Vehicular Scoop (Grade 20/13)	m ³	5		
		<u>Open Drains</u>				
7	C3.3.6.2	Cast in situ concrete chutes (V Drain - 1.5m wide X 200mm deep, as, as per drawing). Item to include formation, backfill and compaction. Concrete reinforcement and formwork.	m	180		

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 for Headwalls</u>				
1	C12.6.14.1(a)	Foundation trench excavation: Excavating all material for reno mattress situated within the following depth ranges (a) 0 m to 1,5 m	m ³	5		
2	C12.6.15	Surface preparation for bedding the reno mattress	m ²	5		
3	C12.6.16.2	Reno mattress: PVC coated gabion boxes (2.0mx1.0mx0.3m)	m ³	5		
4	C12.6.17, PS.C12.6.17	Geotextile (Filteration and separation for use with reno mattress, min Grade 7)	m ²	50		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE

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BILL OF QUANTITIES SECTION SUMMARY**SECTION 5 DRAINAGE**

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TOTAL CARRIED TO FINAL SUMMARY		

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	100		
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	35		
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	60		
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	30		
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	300		
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	100		
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	30		
8	C1.7.1.1	Loading from stockpile using machines and some hand labour where necessary	m3	90		
		<u>Excavation to Spoil</u>				
9	C4.2.9.1 PS.C4.2	Excavate material to spoil in sites designated by the Contractor, material obtained from: Soft excavation, overburden and unsuitable material	m3	10		
		<u>Finishing of Banks</u>				
10	C4.2.12.1(a)	Finishing the side slopes of Cuttings: (a) In soft material	m2	150		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS

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PHASE 01_ ROAD 03 EXTENSION OF TRK 74034, WARD 05_OUTER WEST

PART 0404 C4.4 COMMERCIAL MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Import Fill Material</u>				
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	20		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS

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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	20		
2	C5.2.3	Side-cut to fill compacted to 93 % of MDD in compacted layer thicknesses of 200 mm and less	m3	10		
3	C5.2.11.1	Finishing-off fill slopes	m2	340		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS

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BILL OF QUANTITIES SECTION SUMMARY

SECTION 6 EARTHWORKS

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TOTAL CARRIED TO FINAL SUMMARY		

PHASE 01_ROAD 03 EXTENSION OF TRK 74034, WARD 05_OUTER WEST

SECTION 7 LAYERWORKS**PART 0404 C4.4 COMMERCIAL MATERIALS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Import Layerworks</u>				
1	C4.4.2.1(b)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G2	m3	170		
2	C4.4.2.1(f)	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers: Pavement layer material:Type G5	m3	165		
3	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	10		

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 and compaction to 95 % of MDD	m3	160		

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		
		<u>Processing and Compaction</u>				
2	C5.3.2.1(k)	Construction of layers: Upper subbase (G2) layer compacted to 98 % of MDD	m3	170		
3	C5.3.2.1(j)	Construction of layers: Lower subbase (G5) layer compacted to 95 % of MDD	m3	165		
4	C5.3.2.1(b)	Construction of layers: Upper selected subgrade layer (G7) compacted to 95 % of MDD	m3	10		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

PHASE 01_ROAD 03 EXTENSION OF TRK 74034, WARD 05_OUTER WEST

PART 0901 C9.1 ASPHALT LAYERS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>Bond Coat (Tack)</u>				
1	C9.1.3.1 PS.C9.1	Application of bond coat: Stable –grade 30 % net bitumen emulsion as specified. Applied with a calibrated distributor	l	1575		
		<u>Asphalt Surface</u>				
2	C9.1.5.1(e) PS.C9.1	New construction (paver laid) (a) Stone skeletal mix – continuously graded (SA-S14) (40mm layer)	m2	1050		
3	C8.1.1.2	Prime coat: MC -30 cut-back bitumen. 0.8l/m2	l	840		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS

R

BILL OF QUANTITIES SECTION SUMMARY

SECTION 7 LAYERWORKS

PART 0404	C4.4 COMMERCIAL MATERIALS	
PART 0501	C5.1 ROADBED	
PART 0503	C5.3 ROAD PAVEMENT LAYERS	
PART 0901	C9.1 ASPHALT LAYERS	
TOTAL CARRIED TO FINAL SUMMARY		

PHASE 01_ ROAD 03 EXTENSION OF TRK 74034, WARD 05_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)	Erecting of guardrails at 3,81 m spacing: Complete galvanized system compliant to SANS 1350: (c) on CONCRETE post (Drawing 38580)	m	30		
2	C11.4.1.2(b)	Terminal sections for 3,81 guardrails comprising of: (b) Bullnoses to SANS 1350	no	2		
3	C11.4.5.1	"Additional guardrail posts for 3,81m systems: Concrete"	no	9		
4	C11.4.6.2	Reflective Plastic plates	no	5		
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	10		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

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	15		
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 PS.C.11.7.1	White lettering and symbols (Thermoplastic) <u>Broken and Unbroken Lines</u>	m2	4.5		
2	C11.7.1.1 PS.C11.7.1	Thermoplastic Road marking, broken or unbroken (White, 100mm wide)	km	0.01		

PHASE 01_ ROAD 03 EXTENSION OF TRK 74034, WARD 05_ OUTER WEST

Part Continued **PART** 1107 C11.7 ROAD MARKINGS AND ROAD STUDS

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	C11.7.1.1 PS.C11.7.1	Thermoplastic Road marking, broken or unbroken (White, 200mm wide)	km	0.01		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

PART 1108 C11.8 LANDSCAPING AND PLANTING PLANTS

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C11.8.3.3(a)	Preparing the areas for grassing: (a) Topsoil obtained from within the road reserve or borrow areas	m3	150		
2	C11.8.3.3(b)	Preparing the areas for grassing: (b) Topsoil obtained from commercial sources by the Contractor	m3	15		
3	C11.8.4.3(a)	Hydroseeding: (a) Providing an approved seed mixture for hydroseeding	kg	10		
4	C11.8.4.3(c)	(c) Hydroseeding	ha	0.105		
5	C11.8.6	Watering the already planted grass, trees and shrubs during the growing season	kl	5		

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	0.2		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS

R

BILL OF QUANTITIES SECTION SUMMARY

SECTION 8 ANCILLARY ROAD WORKS

PART 1104	C11.4 ROAD RESTRAINT SYSTEMS	
PART 1106	C11.6 ROAD SIGNS	
PART 1107	C11.7 ROAD MARKINGS AND ROAD STUDS	
PART 1108	C11.8 LANDSCAPING AND PLANTING PLANTS	
PART 1109	C11.9 FINISHING ROAD AND ROAD RESERVE	
TOTAL CARRIED TO FINAL SUMMARY		

SECTION 9 RETAINING WALLS**PART 1206 C12.6 MECH STABILISED FILL AND GABIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		<u>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	40		
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	20		
3	C12.6.15	Surface preparation for bedding the gabions	m2	25		
4	C12.6.16.2	Gabions and mattresses: PVC coated gabion boxes (1.0m x 1.0m x 2.0m)	m3	40		
5	C12.6.17, PS.C12.6.17	Geotextile (Filteration and separation for use with gabions, min Grade 7)	m2	255		
6	C12.6.11	Backfill (compacted to 95%MDD)	m3	50		
7	rht	Removal of existing gabion structure, including dismantling of existing gabion baskets and disposal of baskets to a spoil site designated by the Contractor. All gabion stones to be carefully removed and stockpiled on site for re-use as directed by the Engineer.	m3	90		
8	cv	Construction of new gabion baskets using gabion stones recovered from the existing gabion structure and stored on site for re-use, including assembly of baskets, placement of stones, geofabric, tying, and completion in accordance with the Drawings and Specification	m3	80		

TOTAL CARRIED TO SECTION 9 SUMMARY: RETAINING WALLS

R

BILL OF QUANTITIES SECTION SUMMARY

SECTION 9 **RETAINING WALLS**

PART 1206 C12.6 MECH STABILISED FILL AND GABIONS

TOTAL CARRIED TO FINAL SUMMARY