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SUB TOTAL	**R** _____
ADD VAT (15%) - (only if a registered VAT Vendor)	**R** _____
TOTAL CARRIED TO FORM OF TENDER	**R** _____

BILL OF QUANTITIES

SECTION 1 PRELIMINARY AND GENERAL ITEMS

PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Environmental Management				
1	C1.2.1.1 PS.C1.2.1.1	Monitoring of compliance with and reporting on the EMP	months	5		
2	C1.2.1.2 PS.C1.2.1.2	Dedicated environmental officer	months	5		
		Programming and Reporting				
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	5		
		Other Documentation				
6	C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation, including reporting on local labour	months	5		
		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				
7	C1.2.3.1	Grass cutting	ha	0.3		
8	C1.2.3.4	Collection of rubbish / litter	km	1.5		
		Stakeholder Management & Liaison				
9	C1.2.4 PS.24	Stakeholder Management and Liaison	months	5		
		Health and Safety				
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	5		
12	C1.2.6.1	Work adjacent to properties:Survey of adjacent properties	no	6		
13	C1.2.6.2	Preventive and/or mitigation measures	PC Sum	25000	1.00	25,000.00
14	C1.2.6.3	Handling cost, profit and all other charges in respect of item C1.2.6.2	%	25000		
		Community Liaison Officer				
15	PS.25	Allow for CLO to be appointed	PC Sum	120000	1.00	120,000.00

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	%	120000		
		Additional Security				
17	PS.11	Provision of security on site to guard against any disruption of the works throughout the duration of the contract	months	5		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS **R**

PART 0103 C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND

Item	Clause	Description	Unit	Quantity	Rate	Amount
		The Contractor's General Obligations				
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	5		
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 **R**

PART 0104 C1.4 FACILITIES FOR THE ENGINEER

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Services at Site Offices, Laboratories and Site Accommodation				
1	PS.19	Allowance for Progress Photographs every month, digital and aerial	PC Sum	70000	1.00	70,000.00
2	PS.19	Handling costs and profit in respect of item above	%	70000		
3	PS.21	Allowance for the additional survey required by the Engineer	PC Sum	50000	1.00	50,000.00
4	PS.21	Handling costs in respect of item above	%	50000		
5	PS.23	Allowance for Laboratory Acceptance testing as required by the Engineer	PC Sum	50000	1.00	50,000.00
6	PS.23	Handling costs in respect of item above	%	50000		

TOTAL CARRIED TO SECTION 1 SUMMARY: PRELIMINARY AND GENERAL ITEMS **R**

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	5		

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	5		
		Temporary Traffic Control Facilities				
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	176		
6	C1.5.7.4	Traffic controllers	man-day	88		
7	C1.5.7.5 (c)	(c)Illuminated road sign – R & TR series (900mm)	no	16		
8	C1.5.7.9	Cleaning of traffic control facilities	months	5		
9	C1.5.8 PS.1.3.4	Traffic safety officer	months	5		
		Traffic Safety Officer: Penalties				
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		
		Provision of Safety Equipment for Visitors				
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 **R**

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	20		
2	C1.2.8.1(b)	Personnel: (b) Semi-skilled labourer	hour	20		
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		

Part Continued **PART 0102 C1.2 GENERAL REQUIREMENTS AND PROVISIONS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
5	C1.2.8.4(a)	Materials - Procurement of materials	PC Sum	50000	1.00	50,000.00
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)	%	50000		

TOTAL CARRIED TO SECTION 2 SUMMARY: DAY WORKS **R**

SECTION 3 SITE CLEARANCE

PART 0106 C1.6 CLEARING AND GRUBBING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Clearing				
1	C1.6.1.1	Clearing with machines and some hand labour where necessary	ha	0.24		
2	C1.6.1.2	Clearing with hand labour only when labour enhanced work is specified	ha	0.06		
		Grubbing				
3	C1.6.2.1	Grubbing with machines and some hand labour where necessary	ha	0.28		
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	0.08		
5	C1.6.2.4	Grubbing with hand for service trenches (over the agreed width required)	m2	100		
		Removal and Grubbing of Large Trees and Tree Stumps				
6	C1.6.3.1	Girth equal to or exceeding 1,0 m up to and including 2,0 m	no	5		
7	C1.6.4.1 PS.C1.6.4.1	Removal of structures: Demolition of brickwork of Manholes and inlets. Depth 0.0m to 1.0m	m3	3		
8	C1.6.4.1 PS.C1.6.4.1	Removal of Stormwater manholes and inlet; covers and frames. Store on site.	no	1		
9	C1.6.4.1 PS.C1.6.4.1	Removal of Stormwater manholes and inlet; covers and frames. Spoil at tip, including haullage.	no	2		
10	C1.6.4.1 PS.C1.6.4.1	Removal of Stormwater Pipes, Diameter 300mm-600mm. Store on site and re-use, including haullage.	m	5		
11	C13.3.1.1(a) PS.C1.6.4.1	Cast in situ concrete: Strength concrete (class C): Seal Pipe ends (a) Concrete 15/26	m3	2		

Part Continued **PART 0106 C1.6 CLEARING AND GRUBBING**

Item	Clause	Description	Unit	Quantity	Rate	Amount
12	C1.6.9.1	Conservation of topsoil: Stockpiling topsoil	m3	75		

TOTAL CARRIED TO SECTION 3 SUMMARY: SITE CLEARANCE **R**

PART 0107 C1.7 LOADING AND HAULING

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C1.7.1.1	Loading from stockpile using machines and some hand labour where necessary	m3	1245		
		Hauling material for use in the Works				
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	80		
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	100		
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	1100		
		Hauling material to spoil				
5	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	145		

TOTAL CARRIED TO SECTION 3 SUMMARY: SITE CLEARANCE **R**

SECTION 4 SERVICES

PART 0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Location, Identification, Protection and Relocation of Existing Services				
1	C2.1.1.1	Contractor's obligation	Lump sum	1		
		Relocation of Services by Others:				
		Water				
2	C2.1.1.2 PS.3	Permanent services relocation or protection work by others: Water	PC Sum	180000	1.00	180,000.00
3	C2.1.1.3 PS.3	Handling costs and profit in respect of item C2.1.1.2 above	%	180000		

Part Continued **PART 0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Electricity				
4	C2.1.1.2 PS.6	Permanent services relocation or protection work by others: Electricity	PC Sum	50000	1.00	50,000.00
5	C2.1.1.3 PS.6	Handling costs and profit in respect of item C2.1.1.2 above	%	50000		
		Proving By Hand				
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	30		
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	20		
		Cable Ducts				
8	C2.1.6.1(a) PS.C2.1.6	Trench excavation (in soft material): Trenches up to 1,0 m wide (a) Up to 1,0 m deep	m3	20		
9	C2.1.6.1(b) PS.C2.1.6	Trench excavation (in soft material): Trenches up to 1,0 m wide (b) Over 1,0 m and up to 2,0 m deep	m3	5		
10	C2.1.6.2(a) PS.C2.1.6	Trenches over 1,0 m and up to 2,0 m wide: (a) Up to 1,0 m deep	m3	10		
11	C2.1.6.2(b) PS.C2.1.6	Trenches over 1,0 m and up to 2,0 m wide: (b) Over 1,0 m and up to 2,0 m deep	m3	10		
12	C2.1.7.1	Extra over item for excavating in hard material irrespective of depth	m3	10		
13	C2.1.11.1(a) PS.C2.1.6	Backfilling of trenches: Backfill compacted to 93 % (100 % for sand) of MDD (areas subject to traffic loads) using material: (a) From the excavated trench material	m3	30		
14	C2.1.11.1(b) PS.C2.1.6	Backfilling of trenches: Backfill compacted to 93 % (100 % for sand) of MDD (areas subject to traffic loads) using material: (b) From other excavations on Site	m3	10		
15	C2.1.11.1(d) PS.C2.1.6	Backfilling of trenches: Backfill compacted to 93 % (100 % for sand) of MDD (areas subject to traffic loads) using material: (d) From sources provided by the Contractor	m3	10		

Part Continued **PART 0201 C2.1 GEN REQMENTS AND TRENCHING SERVICE**

Item	Clause	Description	Unit	Quantity	Rate	Amount
16	C2.1.14.2	Extra over items C2.1.11, C2.1.12 and C2.1.13 for additional compaction of backfill:Compaction increased from 93 % of MDD to 95 % of MDD	m3	10		
17	C2.1.17.2	Removal and disposal of spoil material from trench excavations:To spoil sites or dumping areas provided by the Contractor	m3	10		
18	C2.1.19.1	Dealing with surface water	Lump sum	1		
19	C2.1.19.2	Dealing with subsurface water	Lump sum	1		

TOTAL CARRIED TO SECTION 4 SUMMARY: SERVICES **R**

PART 0202 C2.2 DRY SERVICES

Item	Clause	Description	Unit	Quantity	Rate	Amount
1	C2.2.1.1(a) PS.C2.2.1.1	U-PVC, type N450, with push fit couplings. (a) 110 mm diameter	m	25		
2	C2.2.1.1(b) PS.C2.2.1.1	U-PVC, type N450, with push fit couplings. (b) 160 mm diameter	m	160		
3	C2.2.4.1	Bedding for ducts compacted to 93 % of MDD (100 % for sand) using material: Selected from the excavated trench material	m3	10		
4	C2.2.4.5(a)	Bedding for ducts compacted to 93 % of MDD (100 % for sand) using material: From commercial sources : (a) Clean Coarse Sand	m3	10		
5	C2.2.5.1	Concrete for bedding of ducts: Concrete bedding (Class 20/26)	m3	20		
6	C2.2.6.1	Duct accessories: Duct markers (230 x 250 x 50)	no	12		
7	C2.2.6.3	Duct accessories: Draw wires	m	120		
8	C2.2.6.4	Duct accessories: End caps or plugs (U-PVC for 110mm dia)	no	6		
9	C2.2.6.4	Duct accessories: End caps or plugs (U-PVC for 160mm dia)	no	6		
10	C2.2.7.2(a)	Manholes (Standard Manhole): (a)1,0 m and up to 1,5 m deep	no	6		
11	C2.2.7.4 PS.C2.2.7.4	Cable duct headwalls (230mm brickwork). Drawing: 38581	m2	20		

TOTAL CARRIED TO SECTION 4 SUMMARY: SERVICES **R**

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: Excavatting all material situated within the following depth ranges below the surface level using conventional methods: (a) 0 m to 1.5 m	m3	12		
2	C3.1.18	Backfilling of drains with selected material (G2) compacted to 97% of MDD prior to construction of concrete lining and/or stone pitched lining	m3	12		
3	C3.1.18	Backfilling behind V-drains with selected material (G7) compacted to 93% of MDD after construction of v-drain	m3	16		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE **R**

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	55		
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	88		
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	20		
		Backfilling: **Pipes**				
4	C3.2.2.1	Backfilling: Using the excavated material	m3	115		
5	C3.2.2.2(a)	Backfilling: Using imported selected material: (a) From commercial sources (Using granular material)	m3	29		
6	C3.2.3.3 PS.C3.2.3.2	Concrete pipe culverts, Spigot and Socket: On Class C bedding (900mm diameter concrete Class 100D)	m	90		
7	C3.2.8	Concrete backfill or encasement for culverts (Grade 20/26)	m3	10		

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

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Excavation: **Manholes, Inlets and Headwalls**				
8	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	10		
9	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	25		
10	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	m3	15		
		Backfilling: **Manholes, Inlets and Headwalls**				
11	C3.2.2.1	Backfilling: Using the excavated material	m3	10		
12	C3.2.2.2(a)	Backfilling: Using imported selected material: (a) From commercial sources	m3	5		
		Headwalls				
13	PS.C3.2.9	Inlets and outlets to culverts: Headwalls, Type A, for 900mm pipes	no	3		
14	PS.C3.2.15.2	Inlet: Type S2, heavy duty concrete cover; Depth: Exceeding 0,0m and up to 1,5m	no	1		
15	PS.C3.2.15.2	Inlet: Type S2, heavy duty concrete cover; Depth: Exceeding 1,5m and up to 2,0m	no	1		
16	PS.C3.2.15.2	Inlet: Type D3, heavy duty concrete cover; Depth: Exceeding 0,0m and up to 1,5m	no	1		
		Compaction				
17	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	40		
18	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	15		

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

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Chutes				
19	C3.3.6.1	Prefabricated concrete chutes (minimum size 0.4m wide x 0.15m depth)	m	50		
		Driveways				
20	PS..26	Construction of affected driveways to original or better conditions. (Rate is to include excavation, preparation of subbase, provision and compaction of granular base material, supply of all materials, shiuttering, formwork, expansion joints, reinforcing Mesh REF 193 and weedkiller) The driveway is to be constructed with a 100mm thick x 3.0m wide concrete pavement with a 150mm - 250mm concrete lip above the final road level ege to cater for stormwate drainage.	no	8		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE **R**

PART 0303 C3.3 CONCRETE KERBING AND CHANNELING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Kerb and Channel / Fillet for Roadway				
1	C3.3.2.1, PS.C3.3.2.1	Prefabricated kerbing, cast in-situ channeling: Type D Barrier Kerb, Fig. 6, with 150mm channel, Drawing 38577	m	490		
2	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	20		
3	C3.3.3.1, PS.C3.3.2.1	Extra over items 1 and 2 for concrete kerbing and channeling on curves of radii more than or equal to 2,0 m but less than 25 m	m	10		
4	C3.3.3.1	Extra over items 1 and 2 for concrete kerbing or concrete kerbing and channeling on curves of radii more than or equal t40,0 m but less than 200 m	m	10		
5	C3.3.4	Extra over item C3.3.2 for drop kerbs and channel / Fillet at pedestrian crossings and driveways (Drawing 38579)	m	10		
		Scoops				
6	C13.4.11	Cast in situ concrete for Pedestrian / Vehicular Scoop (Grade 20/13)	m3	24		

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

Item	Clause	Description	Unit	Quantity	Rate	Amount
7	C3.3.6.2	Cast in situ chutes (v drains 1m wide x 200mm deep as per drawing). Item to include formation, backfill and comaction. Concrete reinforced and formwork	m	80		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE **R**

PART 1206 C12.6 MECH STABILISED FILL AND GABIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Reno Mattress and Gabions for Headwalls				
1	C12.6.14.1(a)	Foundation trench excavation: Excavating all material for gabions and reno mattress situated within the following depth ranges (a) 0 m to 1,5 m	m3	49		
2	C12.6.14.1(b)	Foundation trench excavation: Excavating all material for gabions and reno mattress situated within the following depth ranges (b) Exceeding 1,5 m and up to 3,0 m	m3	5		
3	C12.6.15	Surface preparation for bedding the reno mattress	m2	125		
4	C12.6.16.2	Reno mattress: PVC coated gabion boxes (2.0mx1.0mx0.3m)	m3	33		
5	C12.6.17, PS.C12.6.17	Geotextile (Filtertation and separation for use with reno mattress, min Grade 7)	m2	163		

TOTAL CARRIED TO SECTION 5 SUMMARY: DRAINAGE **R**

SECTION 6 EARTHWORKS

PART 0402 C4.2 CUT MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Excavation to Stockpile or Fill				
1	C4.2.3.1 PS.C4.2	Excavating of materials in cuttings for use in the works, material obtained from: Soft excavation	m3	1800		
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	200		
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	110		

Part Continued **PART 0402 C4.2 CUT MATERIALS**

Item	Clause	Description	Unit	Quantity	Rate	Amount
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	10		
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	3600		
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	491		
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	120		
8	C1.7.1.1	Loading from stockpile using machines and some hand labour where necessary	m3	120		
		Finishing of Banks				
9	C4.2.12.1(a)	Finishing the side slopes of Cuttings: (a) In soft material	m2	1510		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS **R**

PART 0403 C4.3 EXISTING ROAD MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Saw-cut				
1	C4.3.4.1(a)	Saw-cutting existing materials within the following average depth ranges: Asphalt: (a) Up to 50 mm	m	60		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS **R**

PART 0404 C4.4 COMMERCIAL MATERIALS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Import Fill Material				
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	150		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS **R**

PART 0502 C5.2 FILL

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Processing and Compaction				
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	150		
2	C5.2.3	Side-cut to fill compacted to 93 % of MDD in compacted layer thicknesses of 200 mm and less	m3	70		
3	C5.2.11.1	Finishing-off fill slopes	m2	1850		

TOTAL CARRIED TO SECTION 6 SUMMARY: EARTHWORKS **R**

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 G7	m3	840		

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	420		

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		
2	C5.3.2.1(b)	Construction of layers: Upper selected subgrade layer (G7) compacted to 95 % of MDD	m3	840		
3	PS.EG.6.1	Asphalt Sidewalks / Footpath with 100mm G2 graded crushed stone overlaid by 25mm Sa-S7 (Rate to include Tack Coat and Weedkiller)	m2	250		

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 concrete pavement (JCP) (Excluding texturing and curing). Flexural strength 3.8MPa (40MPa compressive strength) JC no transverse dowels: (b) Labour enhanced construction 150mm thickness	m2	1500		
2	C6.1.2.3	Additional concrete placed to thicken up the slab at joints as specified in the Contract Documentation	m3	45		
3	C6.1.8.2	150 mm cores drilled from pavement for testing of compressive strength	no	5		
4	C6.1.6.1	Expansion joints complete (excluding dowels)	m	600		
5	C6.1.6.2(a)	Longitudinal hinge joints: Sealed hinge joints to be keyed and tied with dowels	m	240		
6	C6.1.7.5(a)	Tie-bars: installed in new concrete should be Y10 (deformed bars), 500mm in length @750mm intervals	no	960		

TOTAL CARRIED TO SECTION 7 SUMMARY: LAYERWORKS **R**

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	60		
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 3,81 m systems: Concrete"	no	2		
4	C11.4.6.2	Reflective Plastic plates	no	20		
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 1105 C11.5 FENCING

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Wire Mesh Fence - Drawing 38583				
1	C11.5.1.3	Diamond mesh	m2	150		
2	C11.5.1.9(a)(i)	Straining posts, stays and anchors:(a) Vertical (Concrete straining post)	no	30		

Part Continued **PART 1105 C11.5 FENCING**

Item	Clause	Description	Unit	Quantity	Rate	Amount
3	C11.5.2 PS.C11.5.4.1	New gates (Vehicular)	no	5		
4	C11.5.10.1	Disposal of existing fencing materials: Security Fences	m	50		
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**

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	4		
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	5		

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)	m2	4.5		
		Broken and Unbroken Lines				
2	C11.7.1.1 PS.C11.7.1	Thermoplastic Road marking, broken or unbroken (White, 100mm wide)	km	0.04		
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	145		
2	C11.8.3.3(b)	Preparing the areas for grassing: (b) Topsoil obtained from commercial sources by the Contractor	m3	35		
3	C11.8.4.3(a)	Hydroseeding: (a) Providing an approved seed mixture for hydroseeding	kg	36		
4	C11.8.4.3(c)	(c) Hydroseeding	ha	0.12		
5	C11.8.6	Watering the already planted grass, trees and shrubs during the growing season	kl	4.8		

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	0.3		

TOTAL CARRIED TO SECTION 8 SUMMARY: ANCILLARY ROAD WORKS **R**

SECTION 9 RETAINING WALLS

PART 1206 C12.6 MECH STABILISED FILL AND GABIONS

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Gabions				
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	64		
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	C12.6.15	Surface preparation for bedding the gabions	m2	30		
4	C.12.6.16.2	Gabions and mattresses: PVC coated gabion boxes (1.0m x 1.0m x1.0m)	m3	160		
5	C12.6.16.2	Gabions and mattresses: PVC coated gabion boxes (1.0m x 1.0m x 2.0m)	m3	320		
6	C12.6.17, PS.C12.6.17	Geotextile (Filtertation and separation for use with gabions, min Grade 7)	m2	670		

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

Item	Clause	Description	Unit	Quantity	Rate	Amount
		Segmented Block walls (Geolock or similar approved)				
7	C12.6.2	Excavation for wall base foundation	m3	21		
8	C12.6.3	Concrete for wall base foundation (25/26)	m3	10		
9	C12.6.7	Metallic reinforcing mesh (Mesh Ref. 245)	m2	15		
10	C12.6.12.2	Facings (Geolock wall as per drawing for wall 2m-3m): For concrete block wall facing	m2	40		
11	C12.6.13	Drainage (50mm weepholes installed inclusive of all elements as per drawing)	no	15		
12	C12.6.11	Backfill (Cement stabilised backfill as per drawing)	m3	125		
13	C12.6.11	Backfill (compacted to 95%MDD)	m3	125		
14	C12.6.17	Geotextile (Drainage A3)	m2	85		
15	C12.6.3	Concrete for wall Top blocks of wall (25/26)	m3	5		
16	C3.1.9.1	Pipes in subsoil drainage systems: U-PVC pipes and fittings, normal duty, complete with couplings (state size and whether or not perforated or slotted)	m	30		
17	C3.3.6.2	Precast concrete chutes (catchwater drain, minimum 300mm wide by 150mm deepm as per drawing) Item to include all materials, formation, backfill and installation.	m	10		

TOTAL CARRIED TO SECTION 9 SUMMARY: RETAINING WALLS **R**