

**ADDENDUM NO. 01 FOR UPGRADING TO BITUMEN STANDARDS OF ISHIARA TOWN
ROADS NEGOTIATION NO 914382**

BILLS OF QUANTITIES					
UPGRADING TO BITUMEN STANDARDS OF ISHIARA TOWN ROADS PHASE 2					
BILL NO. 1: PRELIMINARIES AND GENERAL ITEMS					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.01	Provide, erect and maintain contract signboard as directed by the engineer	Nr	1		
1.02	Allow for testing of materials and samples by resident engineer's office at places other than laboratories on site	P.C sum	1	120,000.00	
1.03	Allow for profits and overheads for item 1.02	%	1		
1.04	Allow for attendance upon the Resident Engineer as directed by the Engineer in accordance with clause 137 of the standards specifications	P.C sum	1	420,000.00	
1.05	Allow for profits and overheads for item 1.04	%			-
1.06	Provide a PC Sum of One hundred and Fifty thousand kenya shillings(Kshs 150,000) for Engineer's miscellaneous accounts to be spent as directed by the Resident Engineer	P.C Sum	1	150,000.00	
1.07	Allow for profits and overheads for item 1.06	%			
1.08	Allow prime cost sum of Ksh 50,000 for Resident Engineer's airtime charges	PC	1	50,000	
1.09	E.O. Item 1.08 for the contractor's overheads and profit	%			
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BILL NO. 3 SETTING OUT					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3.01	Setting out of horizontal allignment	m	500		
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BILL NO. 4: SITE CLEARANCE AND TOPSOIL STRIPPING					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4.01	Clear site on road reserve including removal of hedges, bushes, vegetation and other deleterious materials in accordance to the specifications and as directed by the Engineer	M ²	250		
4.02	Top soil stripping to a maximum depth of 150mm in accordance with the specifications and as directed by the engineer	M ²	525		
4.03	Allow for removal of structures and obstructions within the road reserve as will be directed by the Engineer	L/SUM	1	50,000.00	
4.04	Tree cutting and stump removal	Nr.	2		
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BILL NO. 5 EARTHWORKS					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
5.01	Excavate in any material the existing ground to formation and cart away to spoil as directed by Engineer	M ³	400		
5.02	Cut, process and compact including watering of 300mm below formation level in cut areas to a minimum density of 100% MDD (AASHTO T99) as will be directed by the engineer	M ³	600		
5.03	E.O for item 5.02 for compaction of top 300mm of the formation to 98% MDD(AASHTO T99)	M ²	2,000		
5.04	Scarify, water, mix and compact the existing ground to minimum to 95% MDD(AASHTO T99) to a depth not exceeding 150mm	M ³	225		
	FILL				
5.05	Cut or borrow to fill in soft material, shape, water, roll, compact to 98% MDD (AASHTO T99) in layers not exceeding 150mm	M ³	263		
5.06	E.O for item 5.04 for compaction of top 300mm in fill to 98% MDD(AASHTO T99)	M ²	2,000		
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BILL NO. 7: EXCAVATION AND FILLING FOR STRUCTURES					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
7.01	Excavate in soft materials for pipe culverts, headwalls, wingwalls, aprons, toe walls, drop inlets and gabions to spoil or stockpile for re-use as directed by the engineer.	M ³	480		
7.02	E.O. items 7.01 in hard material	M ³	1		
7.02	Provide and place macaferri or equivalent gabion boxes(2x1x1) and mattresses as specified	M ²	0		
7.03	Provide and place rockfill to gabions	M ³	0		
7.04	E.O item 7.03 for cement grouting to gabion faces as directed by the Engineer	M ²	0		
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BILL NO.8 : CULVERTS AND DRAINAGE WORKS

Note: No separate payments shall be made for gravel for blinding or hauling to spoil unsuitable excavation material and the cost of such shall be included in rates and prices

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
8.01	Provide, lay and join 450 mm diameter concrete pipe culverts (PCC) for service ducts.	M	12		
8.02	Provide, lay and join 600 mm diameter concrete pipe culverts on the roadway	m	80		
8.03	Provide and place concrete class 15/20 to beds, surrounds and haunches	m ³	55		
8.04	Provide and place concrete class 20/25 to culvert headwalls/wingwalls and drainage crossing slabs including BRC mesh reinforcement	m ³	25		
8.05	Clean culverts of all sizes to free flow conditions	M	20		

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ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
8.06	Provide material and stone pitch the edge of the storm drain and other sloping surfaces including grouting with mortar(ratio 1:3) as directed by the engineer	m ²	60		
8.07	Provide and place invert block drains with one course side slab including bedding and backfilling with selected material as directed by the Engineer	m	265		
8.08	Provide and place invert block drains with maximum two course side slabs including bedding and backfilling with selected material as directed by the Engineer	m	350		
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BILL NO. 9: PASSAGE OF TRAFFIC					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
9.01	Maintain passage of traffic through the works	Months	6		
9.02	Provide and maintain signs, barriers and lights to the engineer's approval	Months	6		
9.03	Provide assistance to the public as far as passage of traffic is concerned.	Months	6		
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BILL No. 12 - NATURAL MATERIAL SUB-BASE AND BASE					
Item	Description	Unit	Qty	Rate	Amount
Measurements and payment by method 'A' as defined in the standard specifications. No separate payments shall be made for the overhaul of material and the cost of such haulage shall be included in the rates and or prices					
12.01	Excavate, transport, spread and compact natural gravel for 150mm sub base,walkway,bus bay and all access to 95% MDD (AASHTO T180) or as directed by the Engineer	M ³	525		
12.02	Excavate, transport, spread and compact natural gravel for 150mm base,walkway,bus bay and all access to 95% MDD (AASHTO T180) or as directed by the Engineer	M ³	525		
12.03	Restoration of quarries and borrow pits	Prov. sum	50,000		
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Bill No. 14: CEMENT AND LIME TREATED MATERIAL					
Item	Description	Unit	Qty	Rate	Amount
14.01	Provide, transport to site and spread cement(42.5N) on natural gravel material for base as specified and as directed by the Engineer at the rate of 2.0% -4.0% per Cubic Meter	TON.	23		
14.02	Allow for mixing in cement into natural gravel	M ³	525		
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BILL NO.15 : BITUMINOUS SURFACE TREATMENT AND SURFACE DRESSING

Note: No overhaul will be paid for bitumen and chippings and this shall be deemed to have been included in the rates.

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
15.01	Prepare surface of carriageway and shoulders, provide and apply MC-30 cutback bitumen at spray rate of 0.8-1.2 litres/M2 as prime coat or as directed by the Engineer	Litre	3,500		
15.02	Provide and spray KI-60 Anionic emulsion bitumen as a binding coat to roadway, footpath, cycle track, walkways, junctions and accesses at a rate of 0.8-1.0 litres/m2 or as directed by the Engineer	Litre	2,800		
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BILL NO.16 : BITUMINOUS MIXES					
Note: No overhaul will be paid for bitumen and chippings and this shall be deemed to have been included in the rates.					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
16.01	Provide, lay and compact asphalt concrete type I to a compacted thickness of 50mm with 6.5% nominal bitumen content and 0/14mm aggregates to roadways and bus bays.	M ³	175		
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BILL NO.22 ROAD FURNITURE					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
20.01	Provide, lay and joint 100mm x 125mm road channels along the edges of the carriageway including concrete bed and haunch (conc.mix 1:3:6), and any necessary excavation and disposal of surplus material	M	250		
20.02	Provide, lay and joint 250mm x 125mm road kerbs to edges of the carriageway and busbays including concrete bed and haunch (conc.mix 1:3:6), and any necessary excavation and disposal of surplus material	M	250		
20.03	Provide and apply 100mm thick thermoplastic paint on the road as directed by the Engineer	m ²	100		
20.04	Provide and erect permanent road signs where instructed by the engineer and in accordance with the specifications as follows;				
	(a)warning signs	Nr	1		
	(b)stardard informatory signs	Nr	1		
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BILL NO.25 : HIV/AIDS AND COVID-19 AWARENESS AND PREVENTION					
ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
25.01	Allow for engagement of a specialist to implement HIV/AIDS and COVID-19 sensitization and prevention awareness campaign amongst the staff, workers and the people in the surrounding areas for the duration of the contract.	Month	6		
25.02	Allow for the provision of condoms, face masks, sanitizers and hand washing points to workers, staff and the people in the surrounding areas for the duration of contract	Month	6		
25.03	Allow for the preparation and submission of monthly reports for HIV/AIDS and COVID-19 awareness and prevention activities to be stamped and signed by a qualified HIV/AIDS testing and counselling expert/consultant.	Month	6		
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ISHIARA TOWN ROADS PHASE 2 - SUMMARY PAGE		
ITEM	DESCRIPTION	Total Amount (KShs.)
1	Bill No. 1: Preliminaries and General items	
2	Bill No. 3: Setting out	
3	Bill No. 4: Site clearance and Topsoil stripping	
4	Bill No. 5: Earthworks	
5	Bill No. 7: Excavation and filling for structures	
6	Bill No. 8: Culvert and Drainage works	
7	Bill No. 9: Passage of traffic	
8	Bill No. 12: Natural materials for Sub-base and Base	
9	Bill No. 14: Cement and Lime Treated materials	
10	Bill No. 15 : Bituminous surface treatment	
11	Bill No. 16: Bituminous mixes	
12	Bill No. 20: Road Furniture	
13	HIV/AIDS and COVID-19 Awareness and prevention	
14	SUB-TOTAL 1	
15	Allow Provisional Sum of 2.5% of Sub - Total 1 for Contigencies To Be Expended Only With Express Approval Of The Engineer	
16	SUB-TOTAL 2	
17	Add 16% for V.A.T	
18	GRAND TOTAL CARRIED TO FORM OF TENDER	
19	ROAD LENGTH = 0.5KM	
20	ROAD CONSTRUCTION COST PER KILOMETRE	