

PROPOSED CABRO PAVING OF MATUGA-MNG'ONGONI PHASE II IN WAA/NG'OMBENI WARD					
BILL OF QUANTITIES: No.1 PRELIMINARIES & GENERAL ITEMS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT RATE (Kshs)	TOTAL
1.01	Allow for Ksh 30,000 Material testings and reagents for the contract duration	PC Sum	1.00		-
1.02	E.O. item 1.02 for Contractor's overheads and profits.	% of item			-
1.03	Provide, erect and maintain publicity signs as directed by the Engineer.	No.	1.00		-
Bill No. 1 Total Carried Forward to Grand Summary					-
BILL OF QUANTITIES: No.4 SITE CLEARANCE AND TOP SOIL STRIPPING					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT RATE (Kshs)	TOTAL
4.01	Clear site on road reserve including removal of all growths, bushes,hedges, trees, stumps, grub up roots, vegetation and/or deleterious organic materials, level site and back-fill with approved material to 100% MDD(AASHTO T99) in accordance with the specifications or as directed by the Engineer.	M ²	1,610		-
4.02	Strip top soil upto 0.2m in thickness along alignment or material sites including removal of all grass and other vegetation,transport to spoil and spread or stock pile for re-use as directed by the Engineer.	m ³	322		-
Bill No. 4 Total Carried Forward to Grand Summary					-
BILL OF QUANTITIES: No.5 EARTHWORKS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT RATE (Kshs)	TOTAL
	<i>NOTE:All costs and charges connected with haulage are to be included within the unit rates entered against the items described in this Bill of Quantities. No overhaul shall be paid for this items and shall be deemed to have been included in the Contractor's rates</i>				
5.01	Excavate in soft materials to reduced levels upto 0.3m from the stripped level as per instructions by the Engineer	m ³	414		-
5.02	Excavate material, transport over any distance spread, water and compact gravel sub grade, all in accordance with the specifications or as directed by the Engineer.	m ³	270		-
Bill No. 5 Total Carried Forward to Grand Summary					-
BILL OF QUANTITIES: No.8 CULVERTS AND DRAINAGE WORKS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT RATE (Kshs)	TOTAL
	<i>Note: No separate payments shall be made for gravel, for blinding, hauling to spoil unsuitable excavation materials, reinforcement of concrete with BRC, excavations and Backfilling of culverts with gravel and the cost of such shall be included in the rates and prices</i>				
8.01	Excavation in soft material for pipe culverts,headwalls, wingwalls, apron,toewalls, inlet drains, Outlet drains and compact as directed by the Engineer	m ³			-
8.02	As per item 8.04, but for hard material	m ³			-
8.03	Provide, lay and join 600mm inner dia concrete culverts and place and compact class 25/20 concrete for surround,headwalls,wingwalls,aprons,and toewalls to pipe culvert including all form work and the provision and placing of reinforcement as shown in the drawings	mt			-

8.04	Provide, lay and join 300mm inner dia concrete culverts and place and compact class 25/20 concrete for surround, headwalls, wingwalls, aprons, and toe walls to pipe culvert including all form work and the provision and placing of reinforcement as provision for service duct	mt			-
8.05	Excavate, provide, lay and join 300mm diameter invert block drains (IBDs) with single course side slabs including class 20/20 concrete for haunching as directed by the Engineer	m			-
8.06	Provide, Lay and join 600x225x75mm single course side slabs at both sides of the drainage ditch	m ²			-
8.07	Provide and place class 20/20 concrete for blinding and haunching in accordance with the specifications including excavation, bedding, reinforcement and backfilling with necessary materials as directed by the Engineer	m ³	5		-
	Bill No. 8 Total Carried Forward to Grand Summary				-
BILL OF QUANTITIES: No.10 GRADING & GRAVELLING WORKS					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT RATE (Kshs)	TOTAL
	Note: No overhaul will be paid for separately under these items as it shall be deemed to have been included in the Contractor's rates				
10.01	Heavy grading without watering and compaction as instructed by the Engineer	m ²	13500		
	Bill No. 10 Total Carried Forward to Grand Summary				-
BILL OF QUANTITIES: No.12 NATURAL MATERIAL SUB-BASE AND BASE					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT RATE (Kshs)	TOTAL
	<i>No overhaul will be paid for separately under this item and the cost of hauling will be deemed to have been included in the rates. The rates inserted shall include for all costs for acquiring, site clearance, overburden removal, excavation and hauling to site.</i>				
12.01	Provide approved hardcore for 150mm thick subbase, handpack and compact including all treatments to specifications or as per Engineer's instructions	m ³	207		
12.02	Provide, spread, water and compact 100mm thick gravel from an approved borrow pit including all treatments for base layer as directed by the Engineer	m ³	138		-
12.03	Provide and spread 50mm thick base quarry dust from an approved quarry as blinding for 80mm concrete paved blocks as directed by the Engineer	m ³	69		-
	Bill No. 12 Total Carried Forward to Grand Summary				-
BILL OF QUANTITIES: No.20 ROAD FURNITURE					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT RATE (Kshs)	TOTAL
	<i>Note: No separate payments shall be made for concrete blinding and the cost of such shall be included in the rates and prices</i>				
20.01	Provide lay and join precast concrete kerbs including haunching with concrete				-
	(a) Straight	m	475		-
	(b) Radius 1-5 m	m	0.00		-
20.02	Provide lay and join precast concrete channels	m	18		-
20.03	Provide, deliver, paint and mark the road as specified or as directed by the Engineer, with white reflectionized thermoplastic paint from an approved supplier.	m ²	48		-
20.04	As item 20.03 but for yellow reflectionized thermoplastic paint	m ²	24		-
	Bill No. 20 Total Carried Forward to Grand Summary				-
BILL OF QUANTITIES: No.23 PAVED CONCRETE SURFACES					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT RATE (Kshs)	TOTAL
	<i>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 will be deemed to have been included in the rates</i>				
23.01	Provide and place 80mm heavy duty paving blocks well compacted for main carriageways. provide and spread river sand on top of the paved surface to fill in the joints as instructed by the Engineer.	m ²	1,380		-
	Bill No. 23 Total Carried Forward to Grand Summary				-

BILL OF QUANTITIES: No.25 ENVIRONMENTAL IMPACT ASSESSMENT AND MITIGATION MEASURES					
ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT RATE (Kshs)	TOTAL
25.01	Allow for Ksh 80,000 for Environmental and Social Impact Assessment(ESIA) Study/Summary Project Report and Environmental Management Plans as per the Directions by the Engineer	Sum	1		-
25.02	E.O item 25.01 for contractor's overhead and profit	%			-
25.03	Allow for Kshs 50,000 for Environmental and Soil Erosion Mitigation Measures as priced in the appendix attached or as per the Directions by the Engineer	PC sum	1		-
25.04	E.O item 25.01 for contractor's overhead and profit	%			-
	Bill No. 25 Total Carried Forward to Grand Summary				-
	SUMMARY				
ITEM	DESCRIPTION				AMOUNT KSHS.
1	Preliminaries and General Items				-
4	Site Clearance and Top Soil Stripping				-
5	Earth Works				-
8	Culverts and Drainage Works				-
10	Grading and Gravelling Works				-
12	Natural Gravel Base and Subbase				-
20	Road Furniture				-
23	Concrete Surface Paving Blocks				-
25	Environmental Impact Assessment And Mitigation Measures				-
(A)	Sub-total (1)				-
(B)	Add 3% CONTIGENCIES of sub total (1)				-
(C)	Sub-total (2) = (A + B)				-
(D)	Add ...16% VAT of sub-total (2)				-
	GRAND TOTAL CARRIED FORWARD TO FORM OF TENDER				-
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	APPENDIX TO BILLNo.25: ENVIRONMENTAL MITIGATION MEASURES ITEM 25.03				
	DESCRIPTION	UNIT	QUANTITY	RATE (KSHS)	AMOUNT (KSHS)
	1. Environmental and Soil Erosion Mitigation Measures				
A	Construction of Scour Checks	No	0		-
B	Gabions Installation	No	0		-
C	Trees Planting with watering untill established	No	0		-
D	Topsoiling and grassing	SM	0		-
E	Stone pitching	SM	0		-
F	Provision of waste disposal/Dust bins	No	0		-
G	Provision of Personal Protective Equipment	No	50		-
	Total carried to Bill Item 25.03				-