



**NAROK COUNTY GOVERNMENT**

**DEPARTMENT OF ROADS**

**PROPOSED CONSTRUCTION OF LENANA-MAJENGOBRIDGE  
(15M SPAN)**

**BILLS OF QUANTITIES**

**DATE: 9TH SEPTEMBER 2024**

**PROPOSED CONSTRUCTION OF LENANA-MAJENGO BRIDGE (15M SPAN)**  
**CONTRACT NO: NCG**

**BILL NO. 1. PRELIMINARIES AND GENERAL ITEMS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.02	Provide or rent and maintain Engineer's Representative's office as shown on the drawings or as instructed by the Engineer for use during the duration of the Contract, ownership to revert to the Contractor at the end of the Contract	LS	1.00	1,000,000.00	1,000,000.00
1.03	Provide Laptop PC HP ENVY 16-h1023dx 13th Gen Intel Core i9-13900H 16" screen, 16GB RAM 1TB SSD 8GB NVIDIA GeForce RTX 4060 GPU approved with Microsoft Windows professional, for use during the duration of the Contract.	NO	2.00		
1.04	Provide oa Lump Sum for Material Testing	LS	1.00	500,000.00	500,000.00
1.13	Allow a Prime Cost Sum of Kshs. 500,000 for the RE's miscellaneous account to be spent in whole or part as directed by the RE against receipts.	PC Sum	1.00	500,000.00	500,000.00
1.14	E.O. item 1.13 for Contractor's overheads and profits.	%	1.00		
1.15	Allow a Prime Cost Sum of Kshs. 300,000 for attendance upon the Resident Engineer' staff.	PC Sum	1.00	300,000.00	300,000.00
1.16	E.O. item 1.15 for Contractor's overheads and profits.	%			
1.17	Provide, erect and maintain publicity signs as directed by the Engineer.	No	2.00	25,000.00	50,000.00
1.18	Allow a Prime Cost Sum of Kshs. 200,000.00 for relocation of services as instructed or directed by the Engineer.	PC Sum	1.00	200,000.00	200,000.00
1.19	E.O. item 1.18 for Contractor's overheads and profits.	Item	1.00		
<b>Bill No. 1 Total Carried Forward to Grand Summary</b>					



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**BILL NO. 4 : SITE CLEARANCE AND TOP SOIL STRIPPING**

	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<i>Note: No separate payments shall be made for gravel for blinding or hauling to spoil unsuitable excavation materials and the cost of such shall be included in the rates and prices</i>				
4.01	Clear site on road reserve including removal of all growths, bushes,hedges, trees, stumps, grub up roots, and other deleterious materials and back-fill and compact to 100% MDD(AASHTO T99) with approved material as directed by the Engineer.	SUM	1.00		
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.	m3	1,500.00		
4.03	Provide Provisional Sum of KShs. 200,000 for the removal of structures and obstructions to be paid on dayworks basis	Prov. Sum	1.00		
<b>Bill No. 4 Total Carried Forward to Grand Summary</b>					



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**BILL NO. 7 : EXCAVATION AND FILLING OF STRUCTURES**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<i>Note: No separate payments shall be made for gravel for blinding or hauling to spoil unsuitable excavation materials and the cost of such shall be included in the rates and prices</i>				
7.01	Excavate to spoil in soft materials.	m <sup>3</sup>	1,163.00		
7.02	As item 7.01 but in hard material.	m <sup>3</sup>	234.00		
7.03	Provide,place and compact rockfill below and around strucures.	m <sup>3</sup>	123.00		
7.04	Provide and place 150mm thick stone pitching as directed by the Engineer including cement grouting	m <sup>2</sup>	456.00		
7.05	Excavate for gabions in soft material.	m <sup>3</sup>	645.00		
7.06	Provide and place gabion boxes and mattresses where directed by the Engineer.	m <sup>2</sup>	91.00		
7.07	Rockfill to gabions.	m <sup>3</sup>	62.00		
7.08	Filter fabric behind gabion boxes.	m <sup>2</sup>	41.00		
7.09	Provide and backfill approved material around new structures, compact 100% MDD (AASHTO T99) in layers not exceeding 150mm.	m <sup>3</sup>	765.00		
7.10	Allow for protection of structures pursuant to Section 708 of the specifications	LS	1.00		
<b>Bill No. 7 Total Carried Forward to Grand Summary</b>					-



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**BILL NO. 17. CONCRETE WORKS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<b>BRIDGES AND BOX CULVERTS</b>				
	<b>Concrete</b>				
17.01	Provide, place and compact Class 20(20) concrete blinding as instructed by the Engineer	m <sup>3</sup>	300.00		
17.02	Provide, place and compact concrete class 25(20) to aprons, wingwalls, abutments and piers, walls and slabs for the Box culverts and bridges as shown in drawings.	m <sup>3</sup>	500.00		
17.03	Provide, place and compact concrete class 30(20) to main beams, cross-beams ,deck and approach slabs as shown in drawings.	m <sup>3</sup>	600.00		
	<b><u>Reinforcement: Provide, cut, bend &amp; fix into position steel reinforcement as shown in the drawings or as instructed by the Engineer</u></b>				
17.04	High yield reinforcement steel bars to BS 4461 equal to or less than 16mm diameter bar size	kg	46,765.00		
17.05	High yield bond strength reinforcement steel to BS 4461 greater than 16mm diameter bar size	kg	37,664.00		
	<b><u>Formwork : Provide,erect and afterwards dismantle and remove all the formwork as specified by the Engineer</u></b>				
17.16	Provide & fix in place vertical formwork to achieve class F1 finish	m <sup>2</sup>	1,200.00		
17.17	Vertical formwork to achieve class F3 finish	m <sup>2</sup>	1,876.00		
<b>Bill No. 17 Total Carried Forward to Grand Summary</b>					



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<b>BILL NO. 20: ROAD FURNITURE</b>					
<b>ITEM</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>RATE</b>	<b>AMOUNT</b>
20.01	Provide and erect concrete posts for guardrails complete with spacers (size and interval) as per specifications or as directed by the Engineer	No.	38		
20.02	Provide and erect flex-beam guardrails complete with connections as shown on the drawings or as directed by the Engineer	m	97		
<b>Bill No. 20 Total Carried Forward to Grand Summary</b>					



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**BILL NO. 21: MISCELLANEOUS BRIDGE WORKS**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
21.03	Form 75-100 mm weepholes sloped to suit in abutments and structural walls of structures	No	123		
21.04	Form holes 75-100mm dia in deck slab and insert heavy duty PVC 100mm diameter 600mm long, top sealed with perforated steel grating	No	74		
21.05	Provide and install elastomeric bearings LEB IRHD size 500 x 450 x100 mm thick,	No	18		
21.07	Providing and placing bitumen emulsion or cutback bitumen or bitumen/rubber latex emulsion to all structural concrete in contact with fill material or cut soil.	m <sup>2</sup>	165		
21.15	Provide and place into position handrails along the edge of the carriageway as per drawings and as instructed by the Engineer.	m	140		
21.16	Provide and place into position galvanised flexi-beam guardrails including end pieces,nuts and bolts along the approaches to the bridges as per drawings and as instructed by the Engineer	m	140		
21.17	Provide and place a 0.5m wide drainage layer of class 20/20 mm to structural concrete in contact with fill material.	m <sup>3</sup>	34		
<b>Bill No. 21 Total Carried Forward to Grand Summary</b>					



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**BILL NO. 25: ENVIRONMENTAL MITIGATION MEASURES & HIV AIDS CAMPAIGN**

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
25.01	All for a prime cost sum for of KShs 200,000 for ESIA study and report, Compliance Audits and environmental monitoring.	PC sum	1	200,000.00	200,000.00
25.02	E.O for Item 25.01 for Contractor's Oveheads and Profit	Item			
25.03	Allow for engagement of a HIV/AIDS specialist subcontractor to deal with prevention, awareness activities as per programme to be approved by the Engineer	Months	6	200,000.00	1,200,000.00
25.04	Allow for the availability of male and female condoms to workers and staff strategically and socially presented for the duration of the contract	Months	6		
<b>Bill No. 25 Total Carried Forward to Grand Summary</b>					



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**GRAND SUMMARY OF BILL OF QUANTITIES**

BILL ITEM	DESCRIPTION	AMOUNT(KShs)
1	Preliminaries and General Items	
4	Site Clearance and Top Soil Stripping	
7	Excavation and Filling of Structures	
17	Concrete Works	
20	Road Furniture	
21	Miscellaneous Bridge works	
25	HIV/AIDS, Gender & Social Issues, Local Participation	
( A )	SUB-TOTAL ( 1 )	
( B )	Add 0% VARIATION OF PRICE of sub total ( 1 )	
( C )	Add 2.5% CONTIGENCIES of sub total ( 1 )	
( D )	SUB-TOTAL ( 2 ) = ( A + B + C )	
( E )	Add ...16% VAT of sub-total ( 2 )	
<b>TOTAL ( D+ E )</b>		



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