

BILL OF QUANTITIES FOR THE PROPOSED FOOT BRIDGE AND ASSOCIATED WORKS AT MMUST

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<u>1.0 PRELIMINARIES (ALL PROVISIONAL)</u>				
	Description of works				
	The works to be carried out under this contract include the construction of a foot bridge at Masinde Muliro University of Science and Technology complete with approach walkways and associated works				
1	Construction and maintenance of site office	ITEM	1	.....	.....
2	Site location clause	ITEM			
3	Firm price contract clause	ITEM			
4	Prime cost and provisional sum clause (insert profit and attendance which is a percentage of expended PC or provisional sum.)	ITEM	1	.....	.....
5	Performance bond of 10% of contract sum and bid Bond of 2% of tender sum clause	ITEM	1	.....	.....
6	Adherence to Government Legislation and Regulations	ITEM			
7	Insurance company Fees	ITEM	1	.....	.....
8	Samples and Materials Generally clause and cost of testing	ITEM	1	.....	.....
9	Allow sum for the contractor's administrative costs	ITEM	1	.....	.....
	<i>Preliminaries summary carried to main collection page</i>				.....

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	2.0 SUBSTRUCTURE (ALL PROVISIONAL)				
	Site Preparation				
1	clearing site of vegetation undergrowth grubbing up roots and disposal offsite as directed	SM	1400		
2	Cut trees of girth not exceeding 900mm cart offsite as directed	No	15		
	A. Excavation and earthworks.				
3	Excavate over site average 150mm deep to remove vegetable top soil and cart away.	SM	1200		
4	Excavate the pad foundation bases in wet area near river to depth not exceeding 3000mm deep starting from reduced level and stock pile on site as directed by project manager.	CM	160		
5	Cut to level and trim column bases.	SM	75		
6	Return fill and ram selected excavated material around foundations.	CM	102		
7	Allow for planking of sides and keeping foundations free of water.	ITEM	1		
	B. Concrete works.NB all cement for concrete works shall be Ordinary Portland Cement (OPC)				
	Blinding concrete class 15(20) 1:3:6				
	50mm thick below column and retaining wall bases	SM	75		
	Vibrated reinforced concrete class30(20) 1:1:2 to BS 8110 as described, using Ordinary Portland Cement (OPC) 42.5N, including all necessary, construction joints, additives, etc, in accordance with specifications and drawings				
8	Column bases.	CM	12		
9	Columns.	CM	6		
10	Retaining wall base	CM	8		
11	Retaining wall	CM	7		
	<i>Substructure page total carried forward to next page</i>				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	<i>Substructure page total carried from previous page</i>				
	B1. Reinforcement				
	High tensile ribbed bar reinforcement to BS 4461 including cutting, bending, tying and spacers.				
1	8mm dia bars	KG	64		
2	10mm bars	KG	520		
3	12mm dia bars.	KG	374		
4	16mm dia bars	KG	2463		
5	20mm dia bars	KG	4824		
	B2. Sawn timber.				
	Sawn formwork on sides to;				
6	Vertical sides of column bases	SM	10		
7	Vertical sides of round column	SM	91		
8	Vertical sides of retaining wall base	SM	11		
9	Vertical sides of retaining wall	SM	30		
	B3. Steel Caissons for the Pad Footings				
	Steel caissons of G16 mild steel plate reinforced at all the corners with 50x50x2 mm SHS and 25x25x2 mm SHS at intermediate support and any other reinforcement necessary for sufficient strength adequately welded to hold concrete and keep the footing foundation free from water during concreting for the columns and column bases B1, B2 and C1,C2 respectively. The caissons will be left in place after concreting				
10		SM	54		
	<i>Substructure summary carried to main collection page</i>				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	3.0 SUPERSTRUCTURE (ALL PROVISIONAL)				
	A. Reinforced concrete.				
	Vibrated reinforced concrete class30(20) 1:1:2 to BS 8110 as described, using Ordinary Portland Cement (OPC) 42.5N, including all necessary, construction joints, additives, etc, in accordance with specifications and drawings FARE FACE FINISH as described in:				
1	Columns - Circular	CM	19		
2	Beams	CM	15		
3	150 to 300mm Slab deck at an average of 6.5m above ground level wood float finish to the Project Managers approval	SM	130		
4	Retaining wall	CM	4.8		
5	Slanting Buttresses to columns 300mm diameter 300mm high bollards as detailed	CM	3		
6	B. Reinforcement.	CM	1		
	High yield steel reinforcement bars to BS 4461 including cutting, bending, tying and spacers.				
7	8mm dia bars	KG	900		
8	12mm dia bars	KG	1876		
9	16mm dia bars	KG	2260		
10	25mm dia bars	KG	1850		
11	25mm diameter mild steel dowel bars 900mm long fixed as detailed D. Sawn timber.	NO	18		
	Sawn timber formwork to:				
12	Vertical sides of round columns	SM	14.4		
13	Vertical sides of retaining wall	SM	20		
14	Sides and soffits of horizontal suspended beams	SM	55		
15	Soffits and side of suspended deck	SM	150		
	<i>Superstructure summary carried to main collection page</i>				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	4.0 FINISHES AND FITTINGS (ALL PROVISIONAL)				
	A. Balustrades.				
1	Fix ballustrades fabricated out of MS steel sections including applying 1 coat of First Grade Undercoat primer and 2 coats of First Grade gloss paint as directed by the project manager consisting of 50mm dia. 3mm thick CHS top rail, 40mm by 3mm thick vertical members at 1.0m C/C and 40x40 x3mm bottom at 150mm above the deck , and 16mm dia. mild steel bar welded at the top and bottom all as detailed	LM	220		
2	Allow for 32mm heavy PVC storm water ducts at 3000c/c on deck slab as described in the drawing.	NO	36		
3	25mm plaster (1:3) cement: sand with approved waterproofing as shall be directed by the project manager.	SM	220		
	<i>Finishing summary carried to main collection page</i>				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	5.0 SOLAR SECURITY/STREET LIGHTING		30		
	Supply, assemble, erect, and commission automated operation (automatic on/off) from dusk to dawn solar lighting complete with 2No. Additional lamps for replacement as "PHILIPS" or approved equivalent described as follows:				
	i) The Support Pole - 5.0 metres above the ground/deck level, 150mm diameter rigid aluminum pole fixed in 500x500x500mm mass concrete foundation and Die cast aluminium lamp fixture on bridge decks.	NO	30		
	ii) Solar Panel - poly crystalline solar panel and Battery - tabular construction with 75% depth discharge covered in polymer/galvanised battery box with three (3No) days autonomy as backup during a cloudy day. All fixed at the topmost of the pole				
	iii) Lamp - weather proof 90w LED version lamp				
	iv) Charge controller - highly efficient to charge the battery with intelligent microprocessor controlled algorithms autonomously determine sunrise and sunset . all fixed at the topmost of the pole				
	<i>Solar security/street lighting summary carried to main collection page</i>				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	6.0 APPROACH WALKWAYS (Provisional)				
1	Excavate average 100mm to remove vegetable top soil and cart away. Compact the surface to receive murrum	SM	900		
2	Fill and ram murrum average depth 100mm	SM	900		
3	Vibrated mass concrete 1:2:4 walkway slab average depth 75mm wood float finish to the Project Manager's approval	SM	900		
4	Precast concrete channels 100x125mm complete with haunching all layed as per the drawing	LM	500		
5	Shallow Invert block drains 150x750x600mm placed complete with haunching all as per the drawing	LM	500		
	<i>APPROACH WALKWAYS SUMMARY</i>				
	<i>CARRIED TO MAIN COLLECTION PAGE</i>				

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	7.0 PROVISIONAL SUMS				
1	Allow a provisional Sum of KShs.600,000.00 (Kenya Shillings Six Hundred Thousands) only for Contingencies to be spent only with approval of Project Manager	<i>l</i>	<i>SUM</i>		<i>500,000.00</i>
2	Allow a provisional Sum of KShs.100,000.00 (Kenya Shillings One Hundred Thousands) only for Project Manager's Stationery Expenses	<i>l</i>	<i>SUM</i>		<i>100,000.00</i>
3	Allow a provisional sum of KShs. 500,000.00 (Kenya Shillings Four Hundred Thousands) only for Civil Works and landscaping.	<i>l</i>	<i>SUM</i>		<i>500,000.00</i>
4	Allow a Provisional sum of Kenya Shillings Four Hundred Fifty Thousand (Kshs.450,000) only for Project Management costs	<i>l</i>	<i>SUM</i>		<i>450,000.00</i>
	<i>Provisional sums summary carried to main collection page</i>				<i>1,550,000.00</i>

ITEM	DESCRIPTION				AMOUNT
	GRAND COLLECTION PAGE				
1	<i>PRELIMINARIES</i>				
2	<i>SUBSTRUCTURE</i>				
3	<i>SUPERSTRUCTURE</i>				
4	<i>FINISHING</i>				
5	<i>5.0 SOLAR SECURITY/STREET LIGHTING</i>				
6	<i>6.0 APPROACH WALKWAYS</i>				
7	<i>PROVISIONAL SUMS</i>				<i>1,550,000.00</i>
	GRAND TOTAL				.....

amount in words

tenderer and stamp:

Address:

Sign:

IN Number:

certificate number:

Date:

Witness Name:

Witness Signature: