

Bill of Quantity - Pulka Transitional Mudbrick Shelter (3.3x6.5m, 2.3m height), all inclusive

No.	Description	Unit	Quantity	Remarks
Perimeter blockwork				
1	Sandcrete hollow blocks: 6"x 18"x 9" (150x450x230mm) -- for perimeter blockwork (floor plinth), one course below and one course above NGL, to be filled with mud, and for front doorsteps	pcs	102.00	
2	Cement in 50Kg bags -- for blockwork and blinding. Two bags for the mortar and three bags for the blinding.	Bags	5.00	Mix in approx 1:3:3 ratio for the foundation blinding (1 part cement, 3 parts sand, 3 parts aggregate), and 1:6 cement to sand ratio for the mortar for blockwork.
3	Sharp sand for blockwork and blinding, inclusive of transport to site. 0.4m ³ (6 wheelbarrows) for mortar, 0.3m ³ (4 wheelbarrows) for blinding.	CuM	0.70	
4	Aggregates for blockwork and blinding, inclusive of transport to site. 0.3m ³ (4 wheelbarrows) for blinding.	CuM	0.30	
5	Damp proof membrane (DPM). Plastic sheet high puncture resistance extremely durable water & vapour resistant polythene, 1mm thickness. To cover a perimeter of 23m with 300mm width per shelter. To be laid over plinth to protect walls from water capillarity.	SqM	7.00	
Subtotal perimeter blockwork				
Superstructure (walls)				
6	Locally hand-made Mud Bricks (150x150x450mm), including preparation and screening of soil of agreed grain composition, mixing with water and vegetable fibres, labour for moulding. To be moulded on site or including transport to site.	pcs	700.00	12 courses of bricks above the plinth to reach 2.3m above NGL, plus overhead course above wall plate on long sides. Including internal partition and gables. Bricks to be molded with local workers where possible, including direct shelter beneficiaries.
7	Earth-based mortar (mud) for laying of mudbricks wall, soil and water to be delivered and mixed at construction site.	CuM	1.50	
8	External earth-based plaster, 15mm thickness, mixture of soil, sharp sand, boiled bitumen and used engine oil, to be applied in at least two coats. Inclusive of all required materials for the mixture, water and labour costs.	SqM	50.00	
Subtotal walls				
Timbers and roofing sheets				
9	Obeche Timber poles, 2x6 inches - full length 330cm	Pcs	7.00	For ridge beam (2pcs), lintel for front windows (1pcs) and wall plates (4pcs) at 2.3m above NGL. To be secured with langalanga to the brick walls at least three courses below.
10	Obeche Timber poles, 2x4 inches - full length 330cm	Pcs	14.00	5pcs of 100 cm length - for tie collar; 10pcs rafters (230cm); 4pcs for door frames
11	Obeche Timber poles, 2x3 inches - 330 cm length	Pcs	28.00	For purlins (20pcs) and for doors/windows panels and bracing (8pcs)

12	Timber plank , 1x6 inches - 330cm length - for fascia board along the whole perimeter of the roof	Pcs	8.00	
13	CGI Sheet (2.4m x 0.6m x 0.2mm thick)	Pcs	33.00	30 pcs full length for roof. Plus 3pcs for doors/windows
14	Aluzinc ridge cap , 0.35mm thick * 400mm wide, folded at the centre	m	8.00	
	Subtotal			
	Doors and windows hinges and latches			
30	100 mm (4 inch) Door hinges, three per door	Pair	3.00	
31a	125mm Internal Door latches	Nos	2.00	
31b	125mm External Door latches	Nos	2.00	
32	75 mm (3 inch) Window hinges	Pair	2.00	
33	100mm (4 inches) Tower bolts for windows (inside)	Nos	2.00	
	Subtotal doors and windows			
	Fixings			
35	Nails - 5 inch	Kg	8.00	Fixing thicker wooden poles together
36	Nails - 4 inch	Kg	4.00	Fixing thicker wooden poles together
37	Nails - 3 inch	Kg	8.00	Fixing wooden poles together (mainly doors and window frames)
38	Nails - 1 1/2 inch	Kg	4.00	For fixing langalangas and battens
39	Wind security (Langa langa) - 1m length	Pcs	30.00	For key connections including tying of purlins and rafters to the superstructure, and tying of wall plate to walls
40	Cap nails	Packet	2.00	Fixing the CGI roof
	Subtotal fixings			
41	Labour (masonry and carpentry)	LS	1.00	Masonry: Setting out, excavation, bricklaying and external plastering. Carpentry: Assembling of doors/windows, roof structure and covering. Brick molding and plaster labour costs excluded. Workforce to be employed locally where available.
42	Transport of materials (excluding mud bricks, soil, sand and water)	LS	1.00	Excluding transport of bricks, soil and sand which are included in the materials above