Bill of Quantities for the Construction of One Family Pit Latrine and Shower - Mud brick walling (1.2 x 0.9 x 2.15m deep pit)								
S/N	**DESCRIPTION**	**UNIT**	**Quantity**	**Unit cost (NGN)**	**Total cost (NGN)**	**Total cost (USD)**	**Remarks**	
A	**Excavation and earthworks**							
1	Clear site and excavate 1.8 x 2.1m x 2.05m depth pit for the latrine	m^3	7.75		-	-		
2	Backfill and compact already completed side of pit with the soil, and backfill and compact front of the latrine and the whole of shower area.	m^3	4.52		-	-	The remaining excavated soil can be spread or used for backfilling of the shelter	
	Total of section A carried to summary				-	-		
B	**Sub structure**							
3	**Plain in situ concrete for foundation footing** (concrete mix 1:2:4 – 20mm aggregate). For footing of pit lining, shower, front of latrine blockwork and separating wall.	m^3	0.537		-	-		
4	**Block work**: hollow sand:concrete block work bedded and jointed in cement and sand mortar (mix 1:6), 150mm thickness filled with cement sand mortar for pit lining, other foundation works, and soak pit from shower.	m^2	17.83		-	-		
5	**Reinforced precast concrete floor slabs** (1:2:4- 20mm aggregate) reinforced with Y12mm bars @ 150 c/c both ways. Slab 1 (1200x1500mm x 100mm thick) with one internal beam of 1200x150mm x100mm; and Slab 2 detachable service slab (1200x600mm x80mm thick) with two tie rod lifting handles	m^3	0.2376		-	-		
6	**Sawn form work** to Sides of slabs, using timber planks.	m^2	0.99		-	-	Formwork to be reused minimum four times.	
7	**Plain in situ concrete slab for shower floor** (concrete mix 1:2:4 – 20mm aggregate). 1.35x1.5m x 50mm thick;	m^3	0.235		-	-		
8	**External step** built with sandcrete blockwork as formwork and filled with sand-cement mix (ratio 1:6). 175mm rise x 300mm landing x 1.8m width	m^3	0.095		-	-		
9	**Provide and install 50mm diameter PVC floor drain** in shower area, connected to 50mm diameter drain pipe to be embedded in concrete slab and channelled to the shower soak pit.	LS	1		-	-		
10	**Soak pit** of 450mm long x 400mm width (in to in) x 500mm deep, filled with gravel stones of 3 inches thick to collect waste water from drain pipe (refer drawing)	m3	0.09		-	-		
11	**Plastering of blockwork above ground level.** Sand-cement plastering of external blockwork above ground level and internal blockwork above slabs (ratio 1:6 cement to plaster sand. Batching is 1 cement bag for 3 wheelbarrows of sand).	m^2	6.80		-	-		
	Total of section B carried to summary				-	-		
C	**Superstructure and Roofing**							
12	**Walling:** Construct mudbrick walling 150mm thickness. (mudbrick size 150mm thick x 150mm wide x 300-350mm length, locally molded and sun baked, if possible employing local labour). In Sand cement mix mortar.	m^2	16.064		-	-	Including separating wall on boundary line (refer to floor plan)	
13	**Internal and external earth-based plastering:** 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.	m^2	29.518		-	-	Including separating wall on boundary line (refer to floor plan)	
14	**Provide and fix wire mesh** with fly screen net on all sides of the structure, as ventilation opening.	m^2	3.03		-	-		
15	**Roof**: 0.20mm gauge corrugated Zinc roofing sheets (1800mm x 600mm) on 4No. 75mm x 50mm x 3200mm purlins on 5No. 100mm x 50mm x 1600mm timber Hardwood treated Taraba timber rafters on 2No. 100mm x 50mm Hardwood taraba treated timber wall plate (upper) and 2No. 150mm x 50mm Hardwood taraba treated timber wall plate (lower). With 25x125mm timber plank fascia board along the whole perimeter. All fastened with langalanga to the wall and both rafters with purlins at joints. see detail design.	m^2	5.76		-	-		
16	Hardwood treated Taraba timber 100mm x 50mm x 3100mm full lenght outer bracing laid on blockwork with langalanga and fastened to vertical timber studs to provide for fixing of net. Bottom and top chords	Pcs	6		-	-		
17	Hardwood treated Taraba timber 100mm x 50mm x 3100mm full lenght cut into pieces of 400mm-350mm-300mm for vertical timber studs fastened to horizontal bracing for fixing of net. Kindly note that additional four offcuts will be sourced from the remains from outer bracing. To make it 12 pieces in all.	Pcs	1		-	-	2pcs of 350mm (sides). 5pcs of 400mm (front). 5pcs of 300mm (rear).	
18	**Vent pipe:** Complete length 3m*100mmØ uPVC blue vent pipes with fulbora guard cover at the top, placed in detachable slab and firmly fastened to wall with metal strap bracket or langalanga at three points, tilted to avoid contact with the roofing (refer to drawing).	No.	1		-	-		
19	**Doors:** Purpose made IOM branded CGI sheet door sizes 650mm x 1920mm high, with 2x6 timber frame and 2x3 timber panel/leaf, installed complete with hinges, staples, padlocks and keys.	No.	2		-	-		
	Total of section C carried to summary				-	-		
	SUMMARY							
1	**Section A Excavation**				-	-		
2	**Section B Sub – structure**				-	-		
3	**Section C Super structure**				-	-		
4	**Contingency (1% of subtotal cost)**				-	-	Provisional sum to cover for any minor variation, unexpected events and improvements or upgrades for people with disability.	
	Grand Total for One Family Pit Latrine and Shower	**No.**	**1**		-	-		
	Grand Total for 35 Family Pit Latrines and Showers	**No.**	**35**		-	-		