

Office of the Chief Engineer LSGD

AEROBIC BIN COMPOSTING UNIT (THUMBOORMUZHY MODEL) 2 BINS -  
MODEL ESTIMATE

Detailed Estimate

(Cost Index Applied for this estimate is 44.12%)

Sl No	Description	No	L	B	D	CF	Quantity	Remark
<b>1 Appendix. A. Construction of Sheet roofing shed ( plinth area 16.64 sq.m or 179.11 sq.feet</b>								
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	A. allround	1	16.200	0.400	0.300		1.944	
	Total Quantity						1.944 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						1.944 cum	
	Say 1.944 cum @ Rs 181.52 / cum						<b>Rs 352.87</b>	
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	A. allround	1	16.200	0.400	0.100		0.649	
	Flooring hall	1	4.7500	2.7500	0.075		0.980	
	Total Quantity						1.629 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						1.629 cum	
	Say 1.629 cum @ Rs 6453.91 / cum						<b>Rs 10513.42</b>	
3	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	for fixing the GI pipe ( foun.portion )	2*3	0.300	0.300	0.500		0.270	
	Deduction							
	GI pipe portion - 2x3x3.14/4x0.05x0.05 x0.50	4.7	0.050	0.050	0.500		-0.005	

	Total Quantity						0.270 cum	
	Total Deducted Quantity						-0.005 cum	
	Net Total Quantity						0.265 cum	
	Say 0.265 cum @ Rs 7900.59 / cum						<b>Rs 2093.66</b>	
4	5.9.1 Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete							
	Foundation	2*3	1.200	0.500			3.600	
	Total Quantity						3.600 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						3.600 sqm	
	Say 3.600 sqm @ Rs 279.52 / sqm						<b>Rs 1006.27</b>	
5	50.6.2.1 Solid block masonry using pre cast solid blocks (Factory made) of size 30x20x15 cm or nearest available size confirming to IS 2185 part I of 1979 for foundation and plinth with thickness 15cm in: CM 1:6 ( 1 cement :6 coarse sand) etc complete							
	A. all round wall ( Foundation & Basement )	1	16.200	0.300	0.500		2.430	
	A. super structure	1	16.200	0.150	0.450		1.094	
	step	1	1.200	0.300	0.150		0.054	
	Deductions							
	GI post foundation basement	2*3	0.300	0.300	0.500		-0.270	
	- do - super structure (2x3x3.14/4x.05x.05x 0.45)	4.71	0.050	0.050	0.450		-0.005	
	Total Quantity						3.578 cum	
	Total Deducted Quantity						-0.275 cum	
	Net Total Quantity						3.303 cum	
	Say 3.303 cum @ Rs 5465.05 / cum						<b>Rs 18051.06</b>	
6	13.1.1 12 mm cement plaster of mix:1:4 ( 1 cement : 4 fine sand)							
	Outer basement length wise	2	5.350	0.300			3.210	
	- do - width wide	2	3.350	0.300			2.010	

	- do - super structure	2	5.200	0.450			4.681	
	- do - - do -	2	3.200	0.450			2.881	
	hall inner	1	15.600	0.450			7.020	
	super structure - top	2	5.200	0.200			2.080	
	- do - -do-	2	2.900	0.200			1.160	
	step	1	1.200	0.450			0.540	
	- do - sides	2	0.300	0.150			0.090	
	Deductin							
	door	1	1.200	0.450			-0.540	
	Total Quantity						23.672 sqm	
	Total Deducted Quantity						-0.540 sqm	
	Net Total Quantity						23.132 sqm	
	Say 23.132 sqm @ Rs 249.26 / sqm						<b>Rs 5765.88</b>	
7	10.16.1 Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes							
	65 mm dia GI pipe for supporting post (2x3 )	2*3	3.500			5.03	105.631	
	80 x 40 x 2.60 mm Rect.hollow section for wall plate	2	6.000			4.55	54.600	
	- do - - do -	2	3.100			4.55	28.210	
	60x40x2.60 mm - do - Common rafter	2*3	2.600			3.73	58.188	
	50x25x2 mm - do - Collar	3	1.200			2.15	7.740	
	25x25x2.60 mm - do - square - do - purlin	2*3	6.100			1.36	49.776	
	Total Quantity						304.145 kg	
	Total Deducted Quantity						0.000 kg	
	Net Total Quantity						304.145 kg	
	Say 304.145 kg @ Rs 130.07 / kg						<b>Rs 39560.14</b>	
8	12.50 Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+0.05%), total coated thickness with zinc coating 120 grams							

	per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling/self tapping screws of size (5.5x55mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.						
	Roof	2	6.300	2.700			34.020
	Total Quantity						34.020 sqm
	Total Deducted Quantity						0.000 sqm
	Net Total Quantity						34.020 sqm
	Say 34.020 sqm @ Rs 793.24 / sqm						<b>Rs 26986.02</b>
9	12.51.1 Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+ 0.05%) total coated thickness, zinc coating 120 grams per sqm as per IS:mm(+0.05%) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/self tapping screws complete:Ridges plain (500-600 mm)						
	Ridge	1	6.500				6.500
	Total Quantity						6.500 metre
	Total Deducted Quantity						0.000 metre
	Net Total Quantity						6.500 metre
	Say 6.500 metre @ Rs 519.48 / metre						<b>Rs 3376.62</b>
10	11.37 Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc., complete.						
	Flooring						
	Hall	1	5.100	3.100			15.810
	step	1	1.200	0.450			0.540
	- do -	2	0.300	0.150			0.090
	Deduction						
	bin pillar portion	2*4	0.200	0.200			-0.320
	Total Quantity						16.440 sqm
	Total Deducted Quantity						-0.320 sqm
	Net Total Quantity						16.120 sqm
	Say 16.120 sqm @ Rs 992.05 / sqm						<b>Rs 15991.85</b>

11	10.25.2 Item Shifted to head 14 as item 14.74 Steel work welded in built up sections/framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works							
	Supplying and laying MS angles and rods for fencing on the bricks walls							
	20x20x3 mm angle iron & 5 mm dia MS rods for nets	2	5.200	2.550	8.400		222.768	
	- do - - do - width wise including door portion	2	3.100	2.550	8.400		132.804	
	Door addl. portion of wall	1	1.200	0.450	8.400		4.537	
	Total Quantity						360.109 kg	
	Total Deducted Quantity						0.000 kg	
	Net Total Quantity						360.109 kg	
	Say 360.109 kg @ Rs 123.87 / kg						<b>Rs 44606.70</b>	
12	13.44.1 Finishing walls with water proofing cement paint of required shade: New work (Two or more coats applied @ 3.84 kg/10 sqm)							
	Outer basement length wise	2	5.350	0.300			3.210	
	- do - width wide	2	3.350	0.300			2.010	
	- do - super structure	2	5.200	0.450			4.681	
	- do - - do -	2	3.200	0.450			2.881	
	hall inner	1	15.600	0.450			7.020	
	super structure - top	2	5.200	0.200			2.080	
	- do - - do -	2	2.900	0.200			1.160	
	Total Quantity						23.042 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						23.042 sqm	
	Say 23.042 sqm @ Rs 84.74 / sqm						<b>Rs 1952.58</b>	
13	13.50.3 Applying priming coat: With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron /steel works							
	Grill area length wise	2	5.200	2.550			26.520	
	- do - width wise	2	3.100	2.550			15.810	

	Door addl. portion	1	1.200	0.450			0.540	
	Total Quantity						42.870 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						42.870 sqm	
	Say 42.870 sqm @ Rs 41.94 / sqm						<b>Rs 1797.97</b>	
<b>Service Tax Amount Rs 0.0</b>								
<b>Total with Service Tax Rs 172055.04</b>								
Sl No	Description	No	L	B	D	CF	Quantity	Remark
<b>2 Appendix. B. Construction of an aerobic bin</b>								
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil							
	pillar	2*4	0.400	0.400	0.600		0.769	
	Total Quantity						0.769 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						0.769 cum	
	Say 0.769 cum @ Rs 181.52 / cum						<b>Rs 139.59</b>	
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	pillar	2*4	0.400	0.400	0.100		0.129	
	Total Quantity						0.129 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						0.129 cum	
	Say 0.129 cum @ Rs 6453.91 / cum						<b>Rs 832.55</b>	
3	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	For pillar fixing	2*4	0.400	0.400	0.500		0.641	
	deduction							
	pillar portion	2*4	0.200	0.200	0.500		-0.160	
	Total Quantity						0.641 cum	

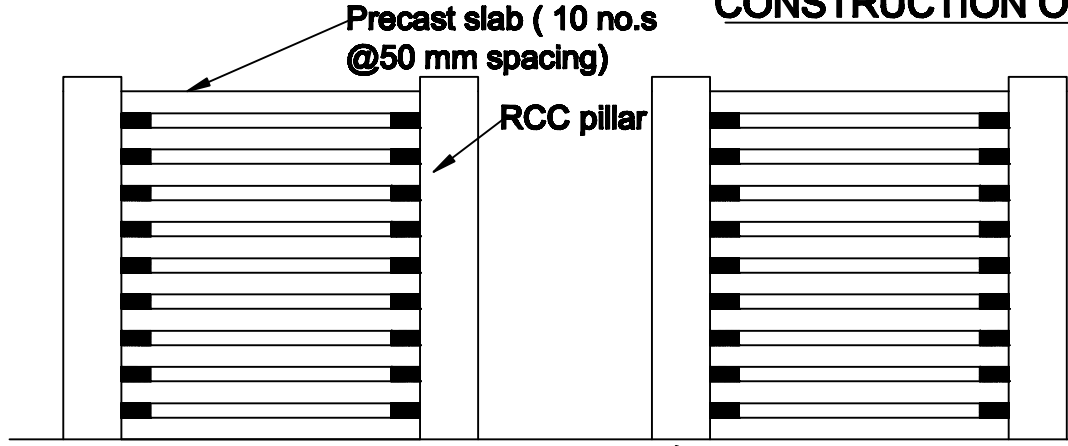
		Total Deducted Quantity					-0.160 cum	
		Net Total Quantity					0.481 cum	
		Say 0.481 cum @ Rs 7900.59 / cum					<b>Rs 3800.18</b>	
4	<p>5.16 Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in shelves including setting in cement mortar 1:3 ( 1 cement : 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)</p>							
	Pillar for bins	2*4	0.200	0.200	1.700		0.544	
	Slab / concrete reeper	2*10*4	0.075	0.030	1.090		0.197	
	block for slab gape	2*18*4	0.100	0.030	0.050		0.022	
		Deduction						
	Grooves portion of pillar	2*8	0.035	0.035	1.200		-0.023	
		Total Quantity					0.763 cum	
		Total Deducted Quantity					-0.023 cum	
		Net Total Quantity					0.740 cum	
		Say 0.740 cum @ Rs 18341.50 / cum					<b>Rs 13572.71</b>	
5	<p>5.22.1 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Mild steel and Medium Tensile steel bars</p>							
		Pillar size 1x0.20x0.20x1.70						
	6 mm dia main bar	5*8	1.650			0.22	14.520	
	6 mm dia distribution	12*8	0.650			0.22	13.729	
		Total Quantity					28.249 kg	
		Total Deducted Quantity					0.000 kg	
		Net Total Quantity					28.249 kg	
		Say 28.249 kg @ Rs 79.70 / kg					<b>Rs 2251.45</b>	
6	<p>5.21 Extra for providing and fixing expanded metal mesh of size 20x60 mm and strands 3.25 mm wide 1.6 mm thick weighing 3.64 kg per sqm for encasing or rolled steel sections in beams, columns and grillages excluding cost of hangers.</p>							
	bin face	2*4	1.200	1.200			11.520	
		Total Quantity					11.520 sqm	
		Total Deducted Quantity					0.000 sqm	
		Net Total Quantity					11.520 sqm	

	Say 11.520 sqm @ Rs 535.77 / sqm						<b>Rs 6172.07</b>	
7	13.39.1 Colour washing such as green, blue or buff to give an even shade:New work ( two or more coats) with a base coat of white washing with lime							
	pillar face (2x4)	8	0.800	1.200			7.680	
	Grooves	16*2	0.030	1.200			1.152	
	pillar top	2*4	0.200	0.200			0.321	
	slab or reeper all round	80	1.090	0.210			18.312	
	Total Quantity						27.465 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						27.465 sqm	
	Say 27.465 sqm @ Rs 34.01 / sqm						<b>Rs 934.08</b>	
<b>Service Tax Amount</b>								<b>Rs 0.0</b>
<b>Total with Service Tax</b>								<b>Rs 27702.64</b>
SI No	Description	No	L	B	D	CF	Quantity	Remark
<b>3 Engaging man madzoor for arranging the pre-cast items</b>								
Lump-Sum Total							<b>Rs 500.00</b>	
	SI No	Description	No	L	B	D	CF	Quantity
Remark	<b>4 Providing Drainage facility,Soak pitt and necessary fitting etc.complete</b>							
Lump-Sum Total							<b>Rs 2500.00</b>	
	SI No	Description	No	L	B	D	CF	Quantity
Remark	<b>5 Providing Name board and locking arrangement</b>							
Lump-Sum Total							<b>Rs 2500.00</b>	
	SI No	Description	No	L	B	D	CF	Quantity
Remark	<b>6 Unforseen if any</b>							
Lump-Sum Total							<b>Rs 742.00</b>	
<b>TOTAL Rs 206000.00</b>								
<b>Rounded Total Rs 2,06,000</b>								
Rupees Two Lakh Six Thousand Only								

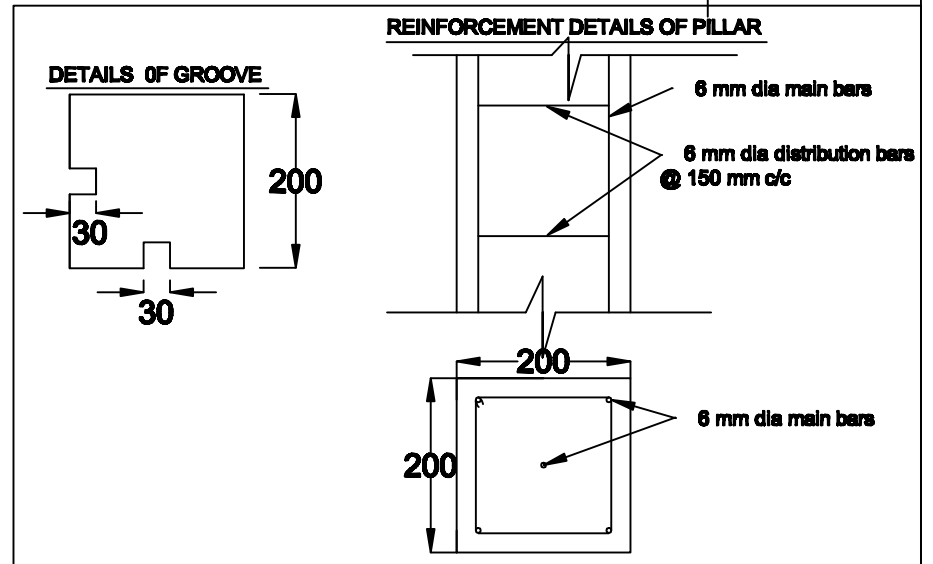
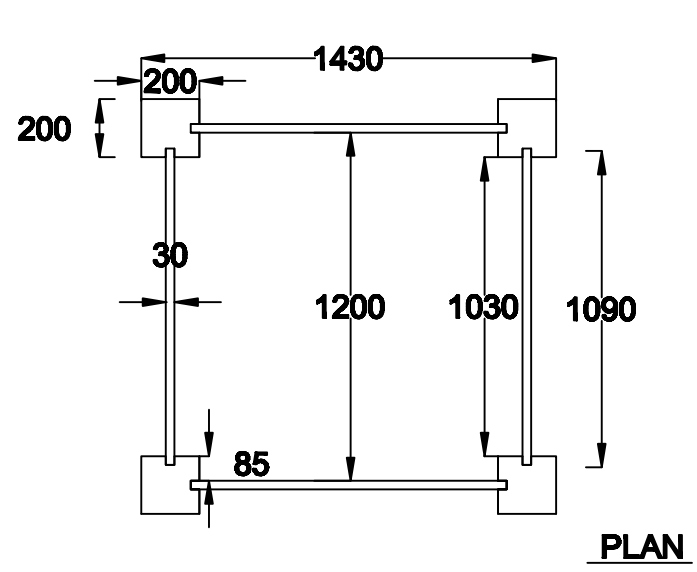
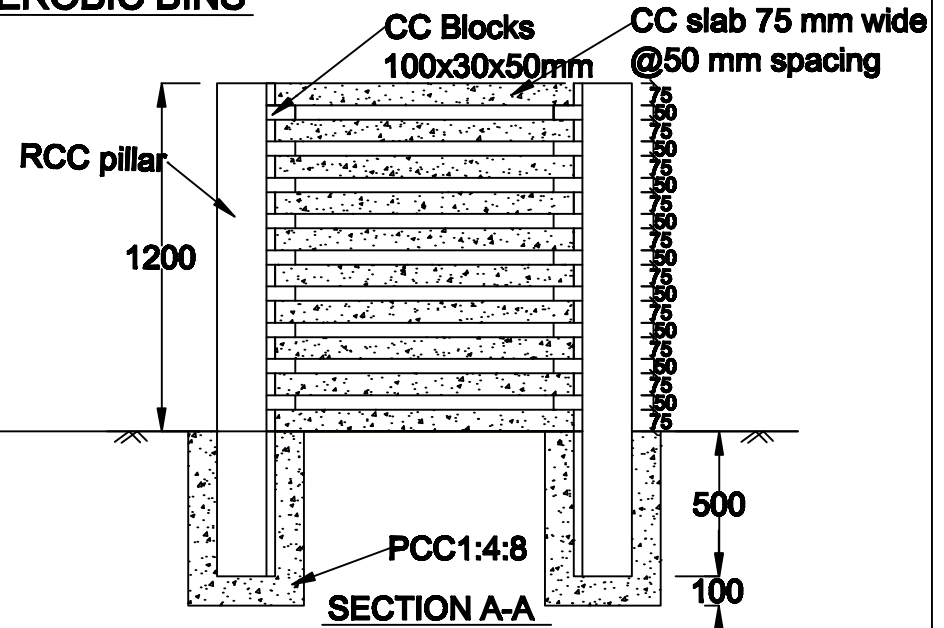
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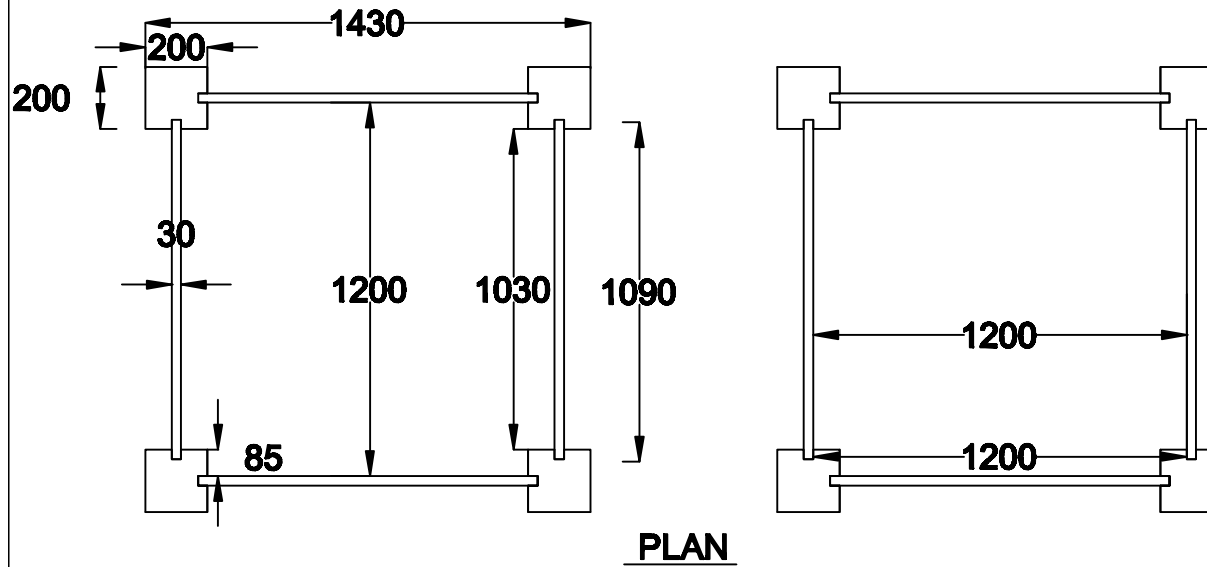
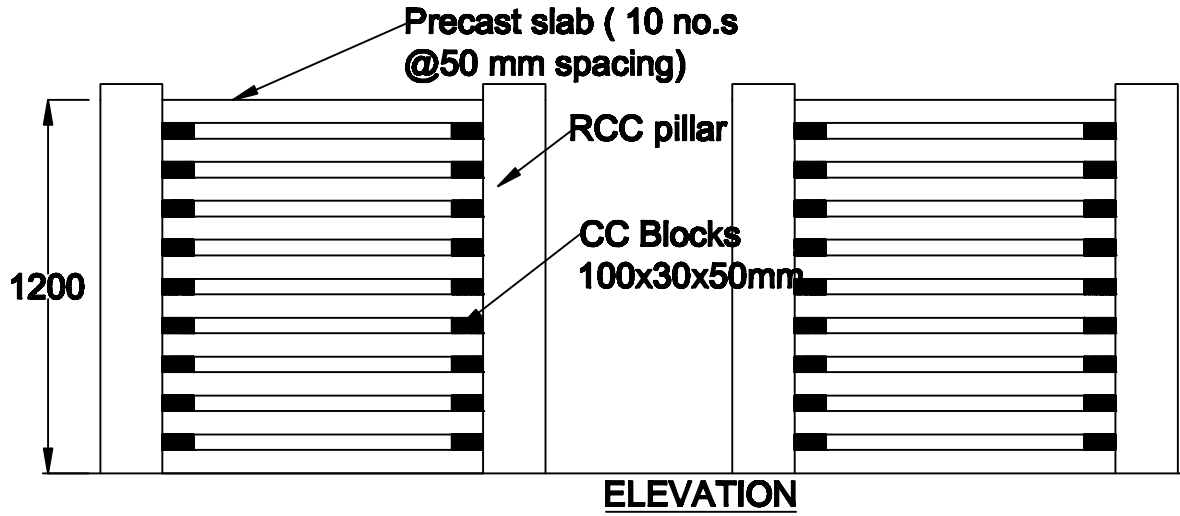
# CONSTRUCTION OF AEROBIC BINS



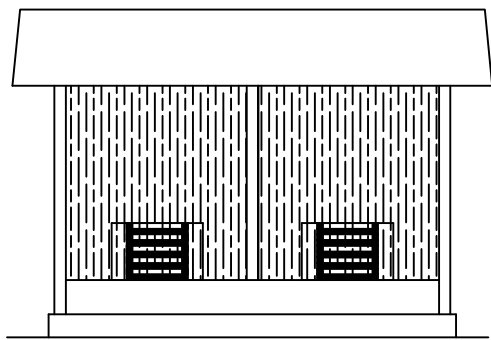
**ELEVATION**



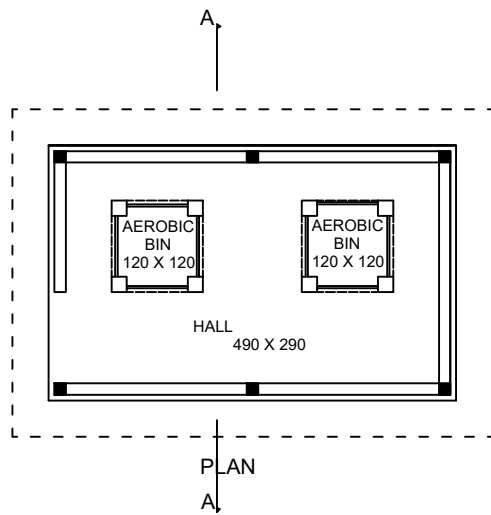
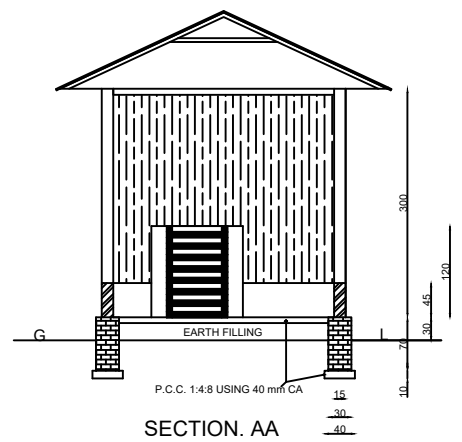
## CONSTRUCTION OF AEROBIC BINS



## AEROBIC COMPOSTING BIN WITH SHED (MODEL)



ELEVATION



PLINTH AREA - 16.64 sq.m  
 CARPET AREA - 14.21 sq.m  
 SCALE - 1 : 100  
 ALL DIMENSIONS IN CM