

PMAY-G MODEL NO.3
RCC FRAME STRUCTURE WITH HALF MUD BLOCK
& HALF BAMBOO MAT WALLING
(WITH CROOSS-HIPPED CGI SHEET ROOF COVERING)



PROPOSED PRADHAN MANTRI AWAAS YOJANA (PMAY-G) RURAL HOUSE MODELS

**MODEL NO.3 - RCC FRAME STRUCTURE WITH HALF MUD BLOCK AND HALF BAMBOO MAT WALLING
(CROSS-HIPPED ROOF)**

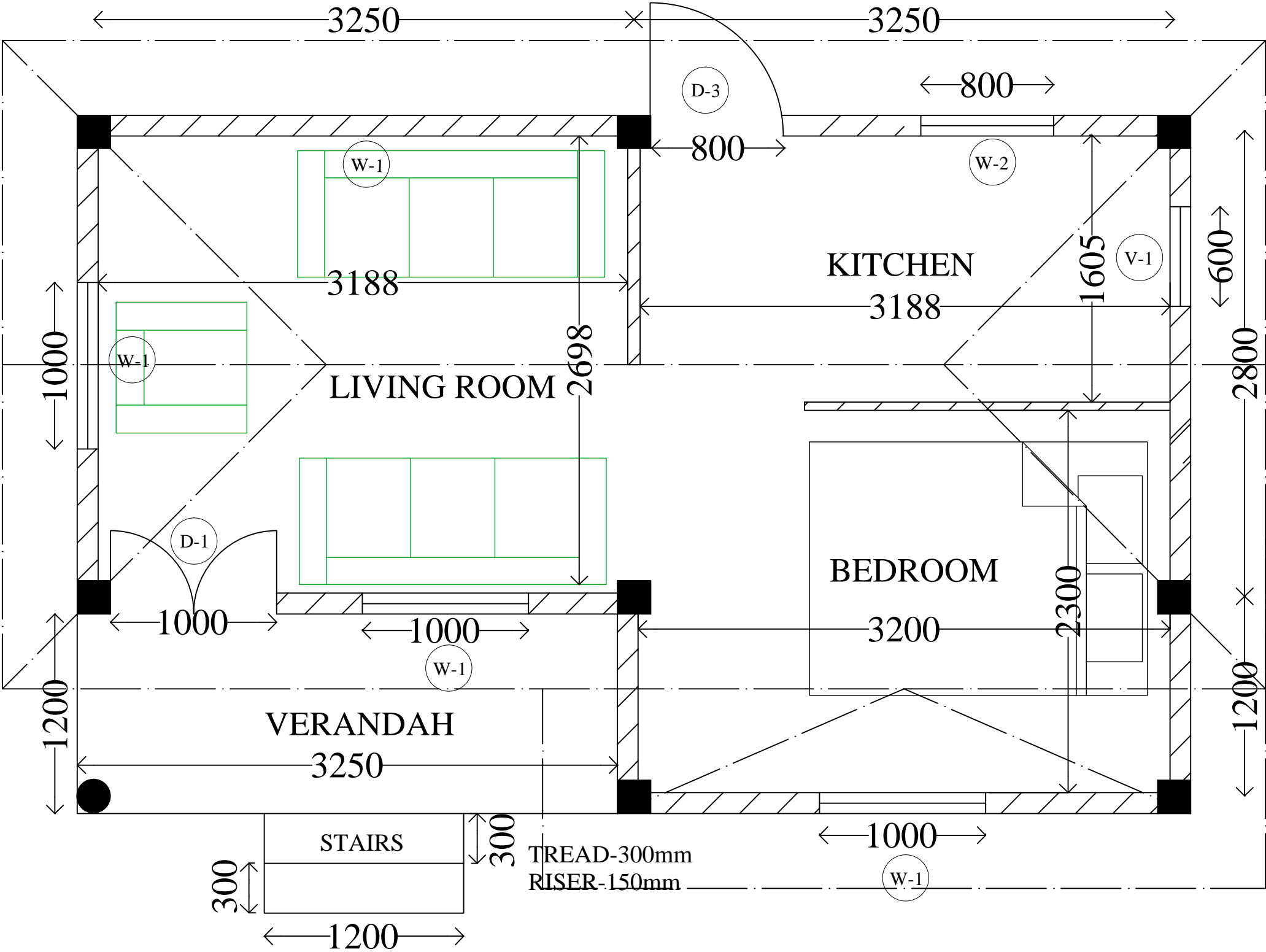
S.No.	GENERAL SPECIFICATIONS:-	DESCRIPTIONS
1.	Foundation	Isolated & combined footing as per designed.
2.	Plinth Walls	Stone Masonry plinth wall.
3.	Columns	200mm x 200mm RCC Columns.
4.	Superstructure	RCC frame Structure as per designed.
5.	Wallings	Stabilized adobe Mud Block 115mm thick at a height of 1 metres from P.L. & upper portions of bamboo mat wall at a height of 1.9 metres. [Note: Brick wall can also be used in place of Mud Blocks]
6.	Doors	Local wood/ Timber framed full panelled doors.
7.	Windows	Local wood/ Timber frame with glass panes.
8.	Ventilators	Local wooden frame ventilators with glass panes.
9.	Flooring	Plain cement flooring over RCC bed on a back filled plinth stone masonry walls.
10.	Roof Structure	Hipped/ Gable Roof with local wooden roofing members (Rafters, ties and purlins) with an angle of slope of 30 degrees.
11.	Roof Cover	CGI Sheets used as roof cover and are fastened using J-bolts.

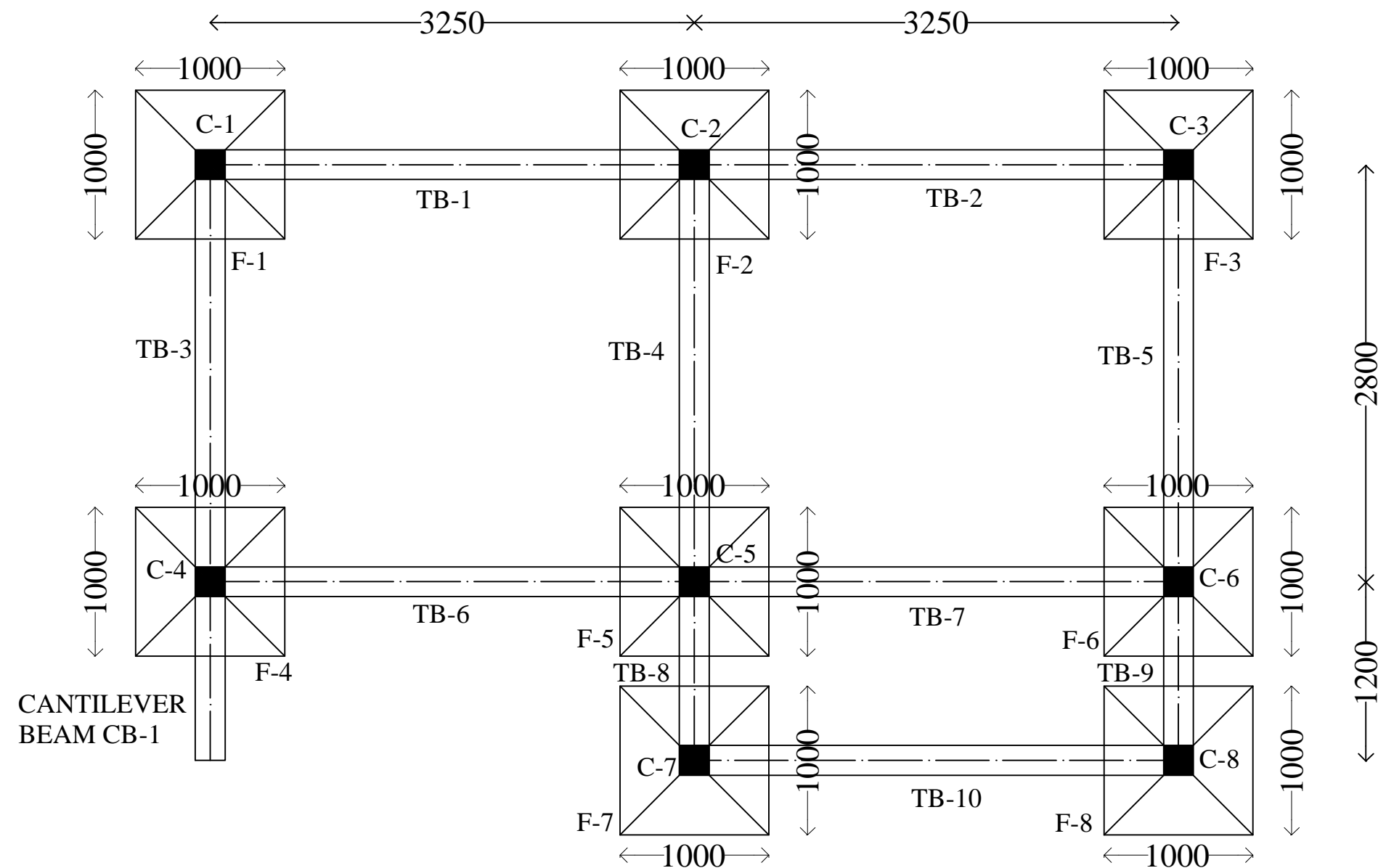
	Description	Area (Sq.m)	Amount (In Rupees)
1.	Ground Floor	26	Rs.2,02,600.00
	Total		Rs.2,02,600.00

(Rupees Two Lakhs Two Thousand And Six Hundred Only)

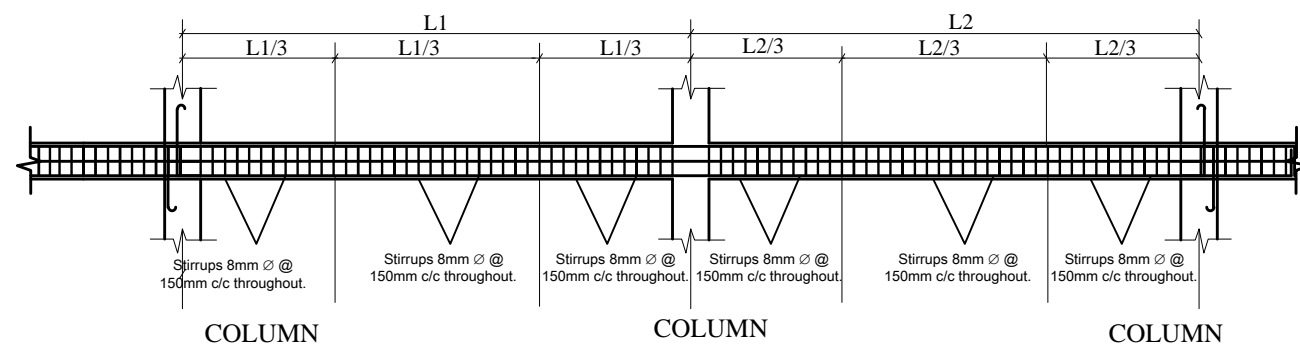
PREPARED BY:

**ASSISTANT ENGINEER (PMAY-G)
DIRECTORATE of C&RD
MEGHALAYA, SHILLONG.**





CANTILEVER
BEAM CB-1



TYPICAL LONG SECTION OF PLINTH BEAM

SCHEDULED OF DOORS & WINDOWS

All Dimensions Are in mm

Doors	WXH	Sill
D-1	900X2100	0
Window	WXH	Sill
W-1	800X1500	1000
Ventilation	WXH	Sill
V-1	600X1200	1000

PROJECT : MODEL-NO.3
PROPOSED PMAY-G RURAL HOUSE
(RCC COLUMN WITH HALF MUD
BLOCKS & HALF BAMBOO MAT
WALLING WITH CROSS HIPPED
ROOF CGI SHEET COVER ON TOP)

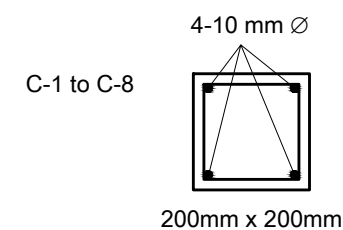
CONTENTS :
FOOTING PLAN

PLINTH AREA: 25 sq.m (268.75 Sq.ft.)

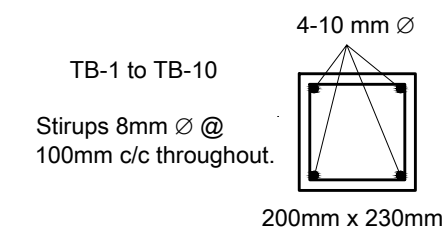
DRAWN BY:

Assistant Engineer (PMAY-G)
Directorate of C&RD
Meghalaya, Shillong.

SCHEDULED OF COLUMNS

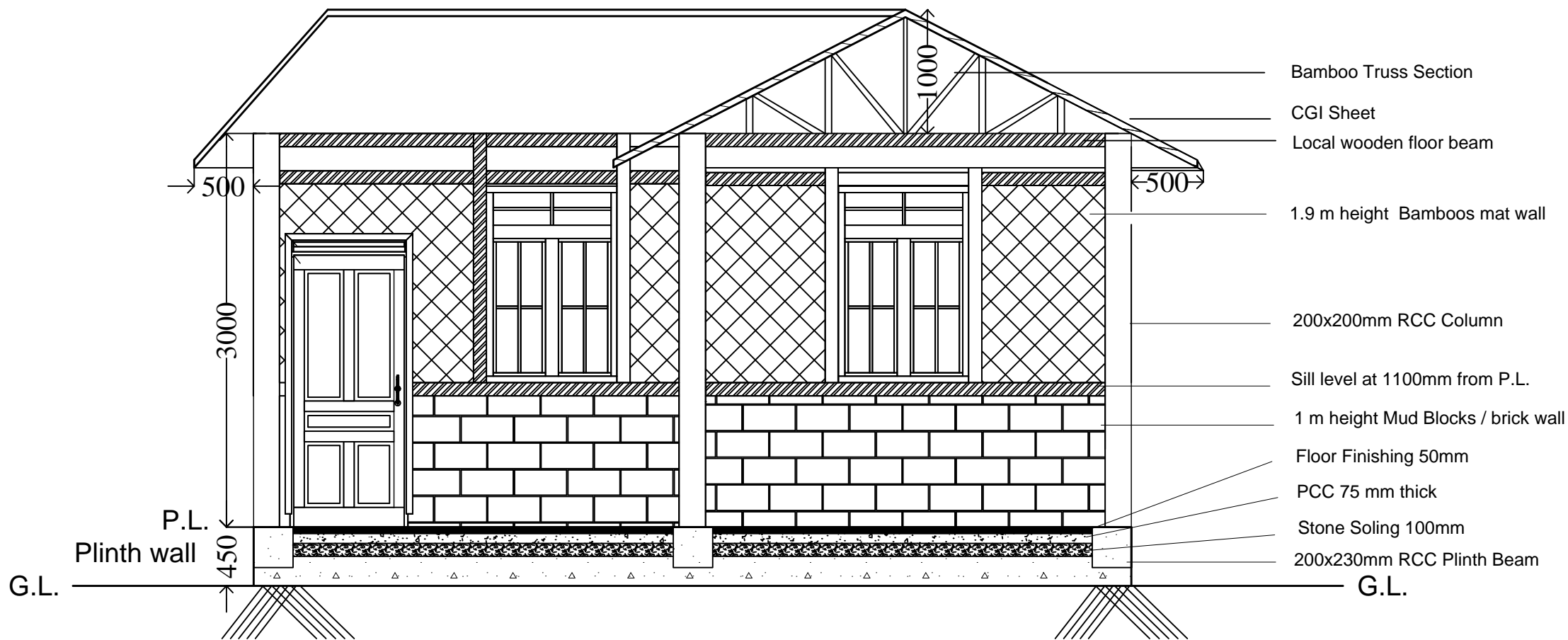


SCHEDULED OF TIE BEAMS



GENERAL NOTES:

1. ALL THE DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE MENTIONED.
2. STRUCTURAL DRAWINGS ARE NOT TO BE SCALED.
3. BEARING CAPACITY OF SOIL= 150 KN/SQ.M. HAS BEEN ADOPTED.
4. CONCRETE MIX SHALL BE M20 i.e. 1:1.5:3
5. ROOM HEIGHT 3 METRES FROM PLINTH LEVEL.



SCHEDULED OF DOORS & WINDOWS		
All Dimensions Are in mm		
Doors	WXH	Sill
D-1	1000X2100	0
D-2	800X2100	0
Window	WXH	Sill
W-1	1000X1500	1100
W-2	800X1500	1100
Ventilation	WXH	Sill
V-1	600X1200	1100

PROJECT : MODEL-NO.3
PROPOSED PMAY-G RURAL HOUSE
(RCC COLUMN WITH HALF MUD
BLOCKS & HALF BAMBOO MAT
WALLING WITH CROSS HIPPED
ROOF CGI SHEET COVER ON TOP)

CONTENTS :
SECTION ELEVATION

PLINTH AREA : 26 sq.m (279.7 Sq.ft.)

DRAWN BY:

Assistant Engineer (PMAY-G)
Directorate of C&RD
Meghalaya, Shillong.

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5. ROOM HEIGHT 3 METRES FROM PLINTH LEVEL.



FRONT VIEW



REAR VIEW



LEFT VIEW



3D VIEW

SCHEDULED OF DOORS & WINDOWS		
All Dimensions Are in mm		
Doors	WXH	Sill
D-1	1000X2100	0
D-2	800X2100	0
Window	WXH	Sill
W-1	1000X1500	1100
W-2	800X1500	1100
Ventilation	WXH	Sill
V-1	600X1200	1100

PROJECT : MODEL-NO.3
PROPOSED PMAY-G RURAL HOUSE
(RCC COLUMN WITH HALF MUD
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CONTENTS :
FRONT, BACK, LEFT & 3D VIEWS

PLINTH AREA : 26 sq.m (279.7 Sq.ft.)

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2. STRUCTURAL DRAWINGS ARE NOT TO BE SCALED.
3. BEARING CAPACITY OF SOIL= 150 KN/SQ.M. HAS BEEN ADOPTED.
4. CONCRETE MIX SHALL BE M20 i.e. 1:1.5:3
5. ROOM HEIGHT IS 3 METRES FROM PLINTH LEVEL.

Detailed Cost Estimate of Proposed PMAY-G Rural House Model No.3
(RCC Framed Structure with Half Mud Blocks & Half Bamboo Mat Wall {Cross-Hipped Roof})
Rate As Per Govt. of Meghalaya (P.W.D) Schedule Of Rates For Building
Works 2015-2016 For Khasi Hills.

<i>Item.no</i>	<i>Description of items</i>	<i>No</i>			<i>L</i>	<i>B</i>	<i>H</i>	<i>Quantity</i>	<i>Area Content</i>
1/1.1	Earthwork in excavation in foundation trenches including dressing of sides and ramming of bottom including stacking of serviceable stones and removal of excavated earth which lead upto 50m complete.....								
	a) In ordinary soil.								
	Footing	8	1	1	1.00	1.00	1.20	9.60	
	plinth wall	4	1	1	2.25	0.45	0.60	2.43	
		2	1	1	2.00	0.45	0.60	1.08	
							Total =	13.11	
						@	Rs. 179.00	Per Cum	Rs. 2,346.69
2/1.4	Earthwork in filling including necessary carriage,watering,ramming etc. complete as directed and specified								
(b)									
	Footing	8	1	1	1.00	1.00	1.20	9.60	
	Deduct Column	8	1	1	0.25	0.25	1.20	-2.40	
	Flooring	1	1	1	6.40	4.00	0.25	-1.60	
							Total =	5.60	
						@	Rs. 210.00	Per Cum	Rs. 1,176.00
3/2.1	Plain cement concrete works with coarse aggregates of sizes 13mm to 32mm in foundation bed for footing steps,walls,brick worketc.as directed and specified including dewatering if necessary,and curing complete(shuttering where necessary shall be measured and paid seperately)								
(b)	In prop 1:4:8								
	Footing	8	1	1	1.00	1.00	0.08	0.60	
							Total =	0.60	
						@	Rs. 5,688.00	Per Cum	Rs. 3,412.80
4/2.2	Plain cement concrete floor base in prop 1:3:6 laid in alternate bays as specified with coarse aggregates of size 13mm to 32mm including dewatering if necessary,and curing etc complete.								
(b)	50 mm thick In prop 1:3:6								
	Flooring	1	1	1	6.40	4.00	-	25.60	
							Total =	25.60	
						@	Rs. 354.00	Per Sqm	Rs. 9,062.40
5/2.5	Providing and laying concrete in reinforced cement concrete works using concrete mixture machine with coarse sand & 20mm down graded stone aggregate including dewatering if necessary,and curing complete but excluding formwork and reinforcement for reinforced cement concrete work(form work and reinforcement will be measured and paid seperately)								

Item.no	Description of items	No			L	B	H	Quantity	Area Content
5/2.5.1	in foundation and sub-structure including footing,columns with base,tie and plinth beam,pile cap,raft slab,base slab,rcc walls,retaining walls,wallsof septic tank,inspection pit and the likes and other works not less than 100mm thick up to plinth level.(witout using admixture,plasticiser)								
(a)	Footing	8	1	1	1.00	1.00	0.20	1.60	
	Column from top of footing upto top of PL	8	1	1	0.20	0.20	1.28	0.41	
	Plinth Beam	5	1	1	3.25	0.20	0.23	0.75	
		3	1	1	2.80	0.20	0.23	0.39	
		3	1	1	1.20	0.20	0.23	0.17	
							Total =	3.32	
						@	Rs. 7,514.00	Per Cum	Rs. 24,946.48
6/2.5.3	in columns,pillars,posts,struts,suspended floor,roof,landing,shelf and support,balcony,lintel,sill band,beam,girder,bressumer,cantiliver,staircase etc.above plinth level upto 1st floor level(without using admixture,plasticiser)								
(a)	M15 or prop 1:2:4								
	Column from top of PL upto top of 1st floor	8	1	1	0.20	0.20	3.00	0.96	
							Total =	0.96	
						@	Rs. 7,692.00	Per Cum	Rs. 7,384.32
7/2.8	Supplying,fitting and fixing in position reinforcement bars upto 1st floor level,conforming to relevent i.s code for rcc work/R.B walling including straightening,cleaning,cutting and bending to to proper shapes and length as per details,supplying and binding with 20G annealed black wire and placing in position with proper blocks,supports,chairs,spacers etc.complete.(rates inclusive of all wastage,lappage,hooks,chairs,anchorage etc.and no measurements for the same is required)								
(a)	From primary sources like TATA/SAIL/ESSAR/JINDAL/SHYAM/RINL								
(i)	TMT corrosion resistant steel.								
	Footing jelly	8	10	2	1.00	-	0.62	99.20	
	Column from footing upto top of PL	8	4	1	2.10	-	0.62	41.66	
	Stirrups	8	17	1	0.64	-	0.39	33.95	
	plinth beam	5	4	1	3.25	-	0.62	40.30	
	Stirrups	5	26	1	0.86	-	0.39	43.60	
		3	4	1	2.80	-	0.62	20.83	
	Stirrups	3	25	1	0.86	-	0.39	25.16	
		3	4	1	1.20	-	0.62	8.93	
	Stirrups	3	10	1	0.86	-	0.39	10.06	
	Column from top of PL upto top of 1st floor	8	4	1	3.00	-	0.62	59.52	
	Stirrups	8	24	1	0.64	-	0.39	47.92	
							Total =	431.13	
							Say =	4.31	
						@	Rs. 9,191.00	Per Qrl	Rs. 39,625.16

Item.no	Description of items	No			L	B	H	Quantity	Area Content
8/2.10	Providing formwork of ordinary timber planking of thickness not less than 25mm and removal of the same for concrete members so as to give a rough finish including centering,shuttering,strutting and propping etc..for height of propping and centering of supporting floor to the soffit of the concrete member not exceeding 4.0m as specified for the following items:								
(a)	Foundation,footings,bases of columns,pile cap,raft and mass concrete works etc.								
	Footing	8	2	1	1.00	-	0.20	3.20	
							Total =	3.20	
						@	Rs. 339.00	Per Sqm	Rs. 1,084.80
2.10(b)	Plinth Beam	5	2	1	3.25	-	0.23	7.48	
		3	2	1	2.80	-	0.23	3.86	
		3	2	1	1.20	-	0.23	1.66	
							Total =	13.00	
						@	Rs. 421.00	Per Sqm	Rs. 5,473.00
2.10(c)	Column from top of footing upto top of PL	8	2	2	0.20	-	1.60	10.24	
	Column from top of PL upto top of 1st floor	8	2	2	0.20	-	3.00	19.20	
							Total =	29.44	
						@	Rs. 573.00	Per Sqm	Rs. 16,869.12
9/4.1	Providing brick soling in foundation and under floor with stone/best quality picked jhama brick,sand packed and laid to level and in panel after preparing the subgrade as directed including all labour and materials and if necessary dewatering,complete..								
(c)	stone soling of thickness 100mm								
	Footing	8	1	1	1.00	1.00	-	8.00	
	Flooring	1	1	1	6.40	4.00	-	25.60	
							Total =	33.60	
						@	Rs. 378.00	Per Sqm	Rs. 12,700.80
10/4.11.	Stone masonry work in retaining wall,wing wall,abutment,foundation,steps,plinth etc....								
(b)(ii)	Plinth wall	4	1	1	2.25	0.45	0.60	2.43	
		2	1	1	2.00	0.45	0.60	1.08	
	Steps	1	2	1	1.00	0.30	0.15	0.09	
							Total =	3.60	
						@	Rs. 4,344.00	Per cum	Rs. 15,638.40
11*	Providing mud block etc.....								
	Wall	4	1	1	3.00	-	1	12.00	
		2	1	1	2.60	-	1	5.20	

<i>Item.no</i>	<i>Description of items</i>	<i>No</i>			<i>L</i>	<i>B</i>	<i>H</i>	<i>Quantity</i>	<i>Area Content</i>
		2	1	1	1.00	-	1	2.00	
	Deduct door								
	D1	1	1	1	1.00	-	1.00	-1.00	
	D2	1	1	1	0.80	-	1.00	-0.80	
							<i>Total =</i>	<i>17.40</i>	
						@	Rs. 1,450.00	<i>Per sqm</i>	Rs. 25,230.00
12/7.3	providing Bamboo mat sheet etc....								
	Bamboo Wall	4	1	1	3.00	1.90	-	22.80	
		2	1	1	2.60	1.90	-	9.88	
		2	1	1	1.00	1.90	-	3.80	
	Deduct door & Window								
	W1	2	1	1	1.00	-	1.50	-3.00	
	D1	1	1	1	1.00	-	1.90	-1.90	
							<i>Total =</i>	<i>31.58</i>	
						@	Rs. 100.00	<i>Per Sqm</i>	Rs. 3,158.00
13/8.2	Providing wood work in frame(chowkats) of doors, windows, clerestory windows etc...								
(d)	D1	1	1	1	5.20	0.13	0.08	0.05	
	D2	1	1	1	3.70	0.13	0.08	0.03	
	W1	3	1	1	5.00	0.13	0.08	0.14	
	W2	1	1	1	4.60	0.13	0.08	0.04	
	V1	1	1	1	3.60	0.13	0.08	0.03	
							<i>Total =</i>	<i>0.26</i>	
						@	Rs. 56,179.00	<i>Per cum</i>	Rs. 14,606.54
14/8.19	Providing, fitting and fixing full panelled doors/windows etc...								
(d)	35mm thick								
	D1	1	1	1	1.00	2.10	-	2.10	
	D2	1	1	1	0.80	2.10	-	1.68	
							<i>Total =</i>	<i>3.78</i>	
						@	Rs. 3,420.00	<i>Per Sqm</i>	Rs. 12,927.60
15/8.19	Providing and fixing clear sheet glass bedded in putty and fixed with/without wooden beading including necessary cutting of glass to the required size (payment for wooden bead shall be made separately)								

Item.no	Description of items	No			L	B	H	Quantity	Area Content
	(a) 3.00mm thick (Area of glass panes exceeding 400 sq.cm)								
	W1	3	1	1	1.00	-	1.50	4.50	
	W2	1	1	1	0.80	-	1.50	1.20	
	V1	1	1	1	0.60	-	1.20	0.72	
							Total =	6.42	
						@	Rs. 1,221.00	Per Sqm	Rs. 7,838.82
16*	providing bomboo post and purlin including labour for fitting etc...								
	Truss	25	1	1	1.00	1.00	-	25.00	
	Purlins	7	1	1	4.20	1.00	-	29.40	
							Total =	54.40	
						@	Rs. 167.00	Per nos.	Rs. 9,084.80
17/7.3	providing corrugated galvanised iron sheet etc....								
(a)	0.45mm Thick	1	1	1	7.00	4.50	-	31.50	
							Total =	31.50	
						@	Rs. 817.00	Per Sqm	Rs. 25,735.50
							Total =		Rs. 2,38,301.23
					Deduct 15% contractor profit =				Rs. 2,02,556.05
							Say =		Rs. 2,02,600.00
(Rupees Two Lakhs Two Thousand And Six Hundred Only)									

PREPARED BY:

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