

PMAY-G MODEL NO.9

SIMPLE RCC HOUSE – FULL RCC FRAME STRUCTURE



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

MODEL NO. 9 – SIMPLE RCC HOUSE

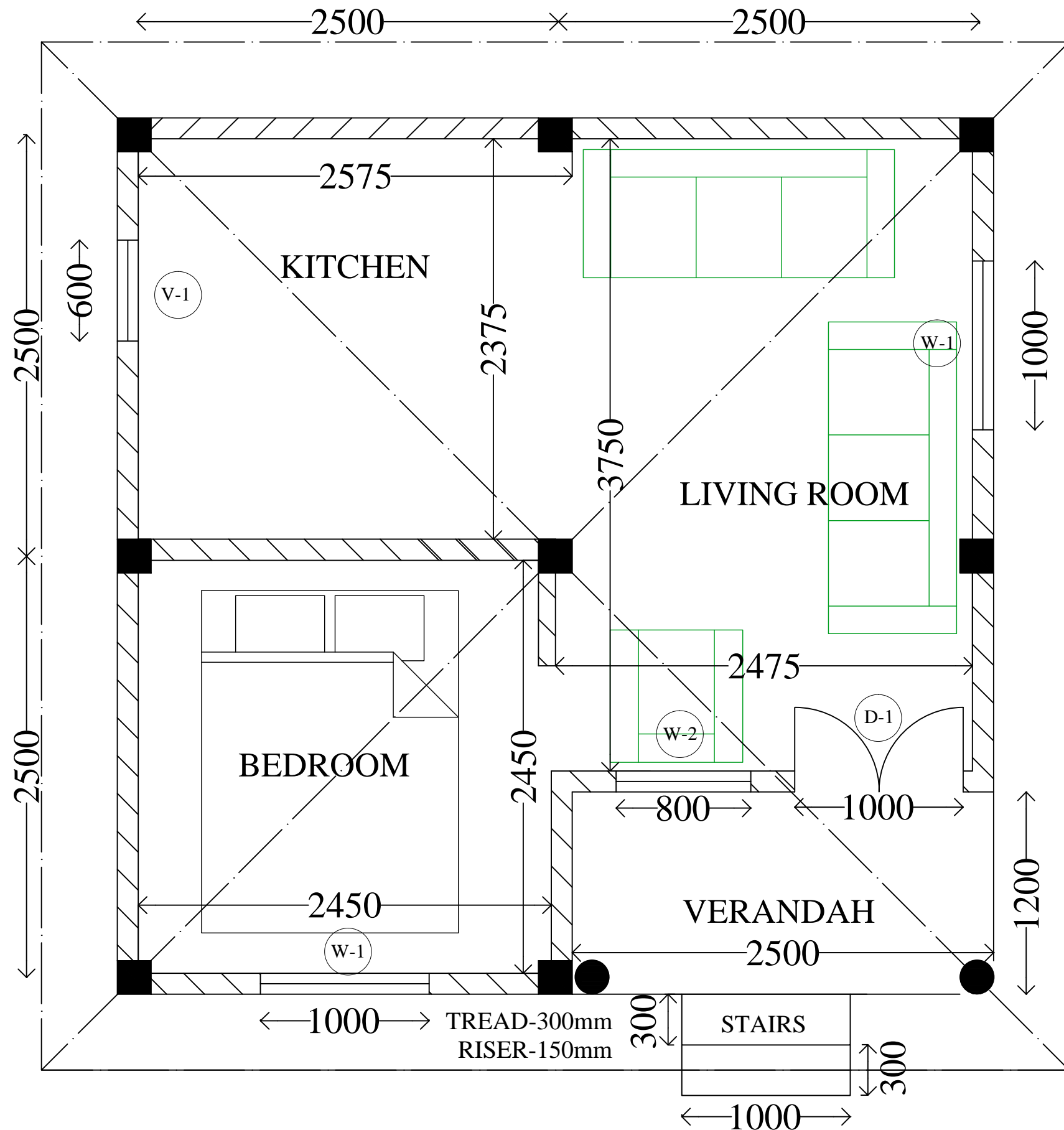
S.No.	GENERAL SPECIFICATIONS:-	DESCRIPTIONS
1.	Foundation	Isolated footings as per designed.
2.	Plinth Walls	Stone Masonry plinth wall.
3.	Columns	200mm x 200mm RCC Columns.
4.	Superstructure	RCC frame Structure as per designed.
5.	Wallings	125mm thick brick wall at a height of 3 metres frm P.L.
6.	Doors	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/ bamboo 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.
12.	Finishing	External and interior painted with acrylic washable distemper of approved shade for columns and lintels.

	Description	Area (Sq.m)	Amount (In Rupees)
1.	Ground Floor	25	Rs.2,56,000.00
	Total		Rs.2,56,000.00

(Rupees Two Lakhs And Fifty Six Thousand Only)

PREPARED BY:

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



SCHEDULED OF DOORS & WINDOWS

All Dimensions Are in mm

Doors	WXH	Sill
D-1	1000X2100	0
Window	WXH	Sill
W-1	1000X1500	1000
W-2	800X1500	1000
Ventilation	WXH	Sill
V-1	600X1200	1000

PROJECT : MODEL-NO.9
PROPOSED PMAY-G RURAL HOUSE
(RCC HOUSE- RCC COLUMNS WITH
CGI SHEET COVER)

CONTENTS :
PLAN LAYOUT

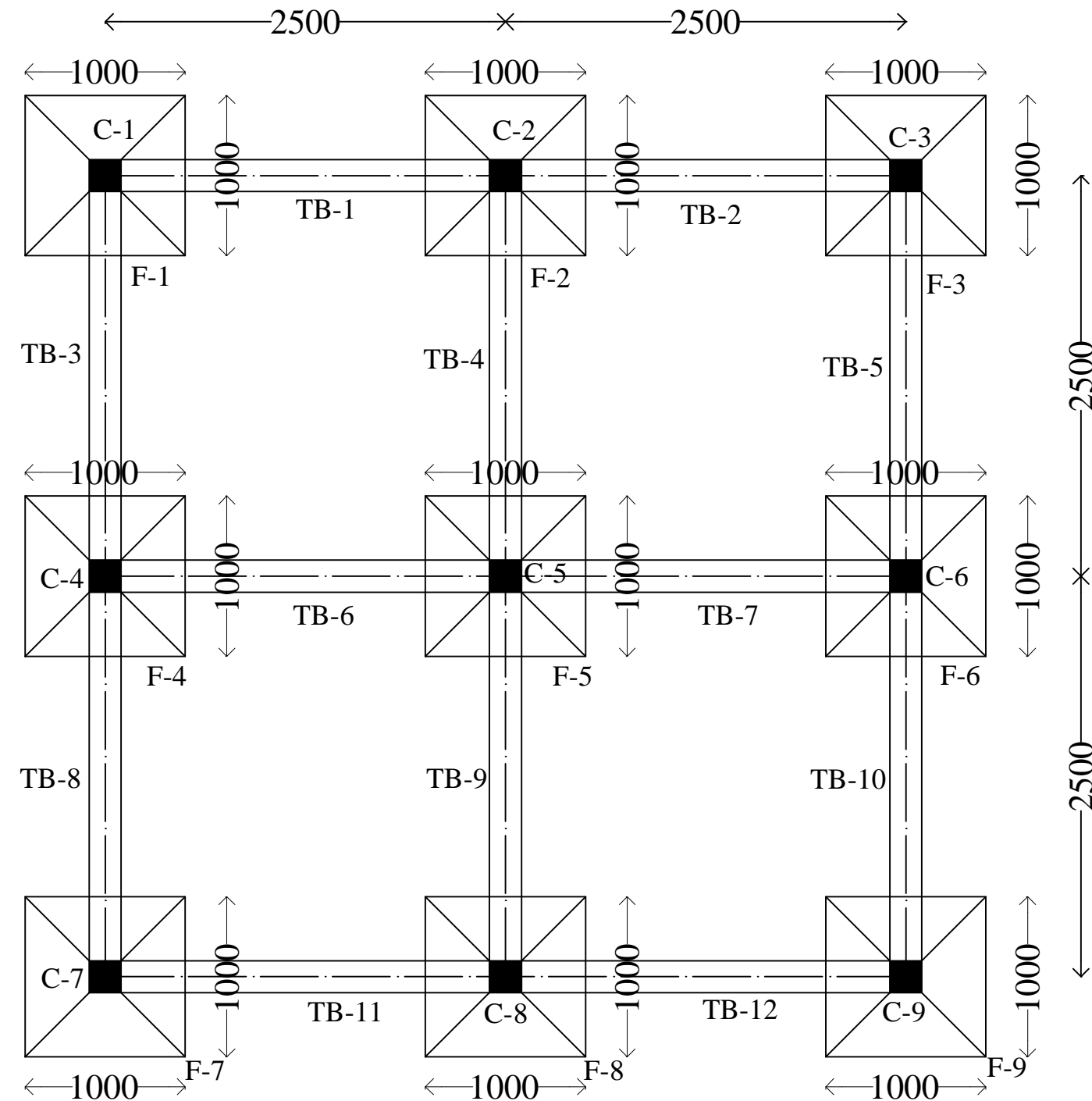
PLINTH AREA: 25 sq.m (268.75 Sq.ft.)

DRAWN BY:

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

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.



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PROPOSED PMAY-G RURAL HOUSE
 (RCC HOUSE- RCC COLUMNS WITH
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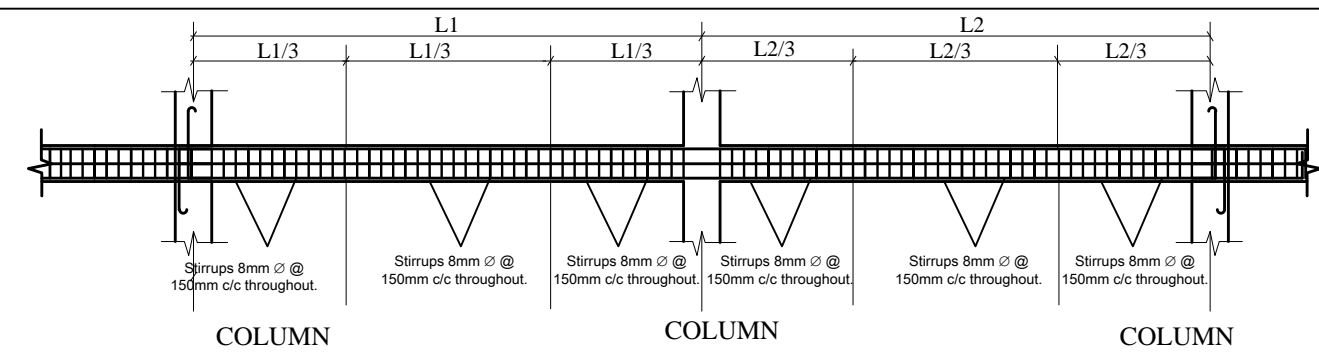
CONTENTS :
FOOTING LAYOUT

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

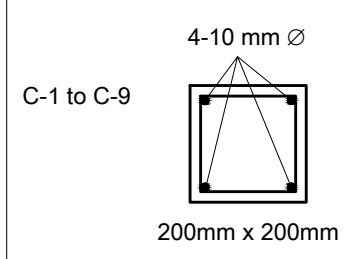
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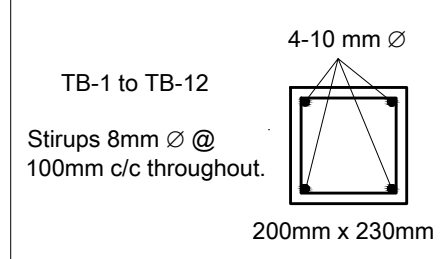
TYPICAL LONG SECTION OF PLINTH BEAM



SCHEDULED OF COLUMNS

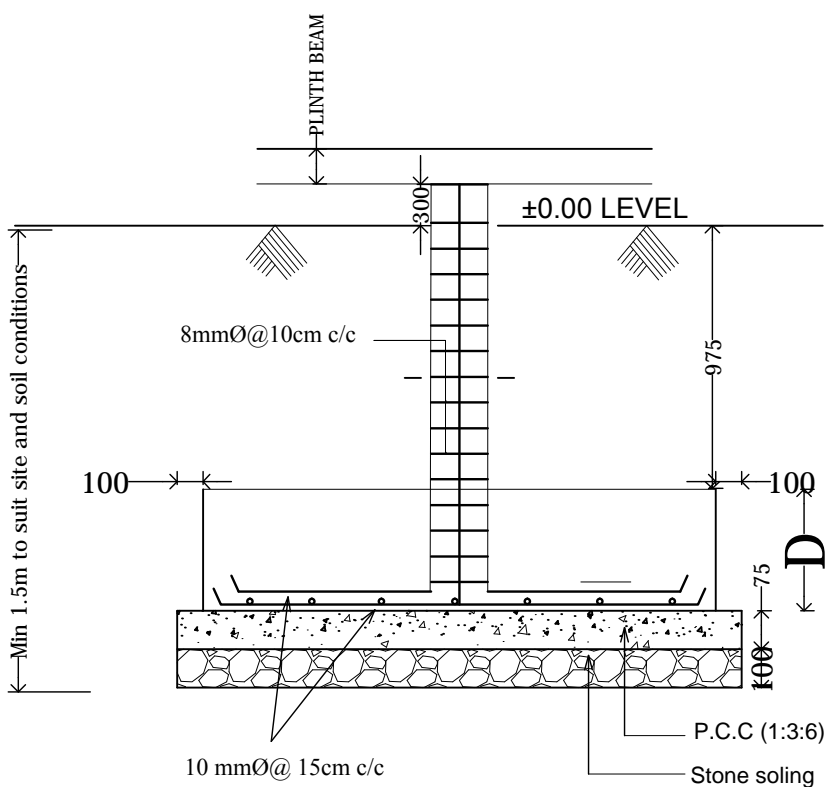


SCHEDULED OF TIE BEAMS

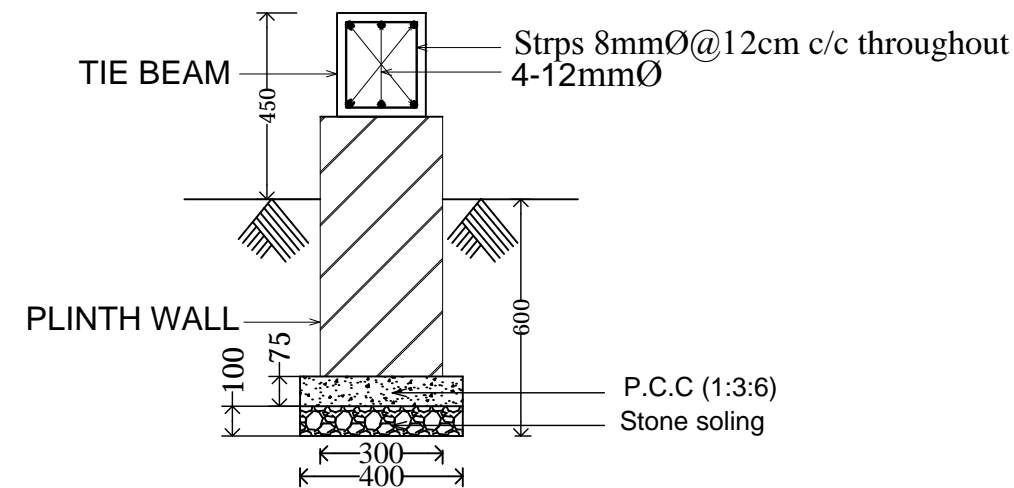


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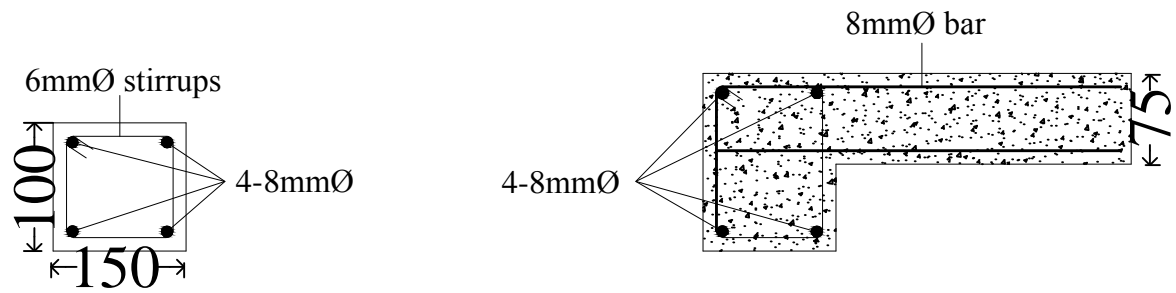
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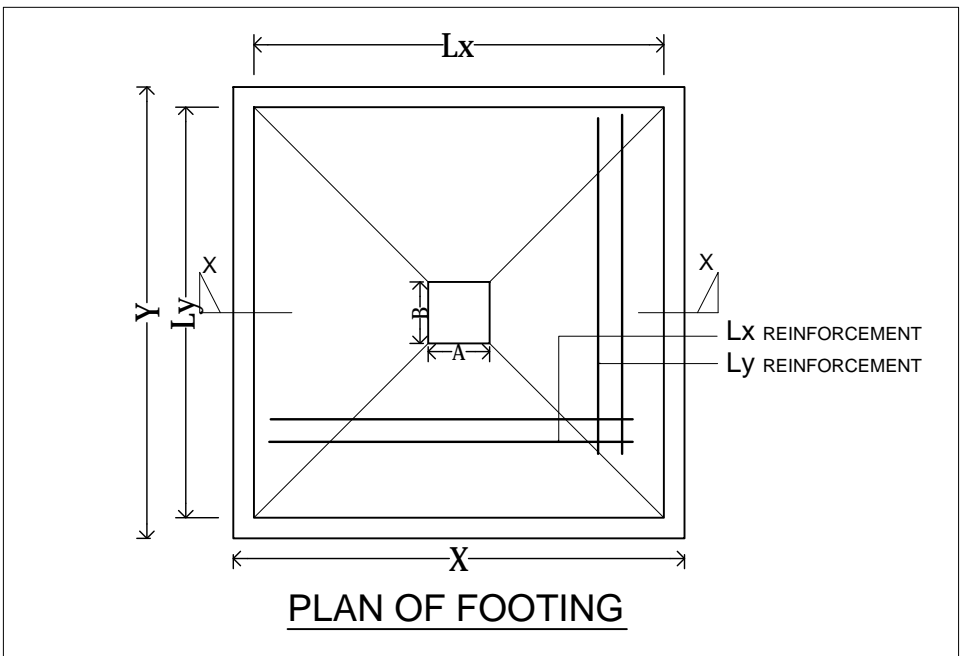
TYPICAL COLUMN SECTION



DETAIL OF PLINTH WALL



SECTION OF ALL LINTELS



PLAN OF FOOTING

TABLE SHOWING DETAILS OF COLUMN FOOTINGS					
FOOTING NO.	A x B (mm x mm)	D (mm)	X (mm)	Y (mm)	Reinforcement (Jali)
F-1 upto F-9	200 x 200	300	1000	1000	10 mmØ @ 12 cm c/c

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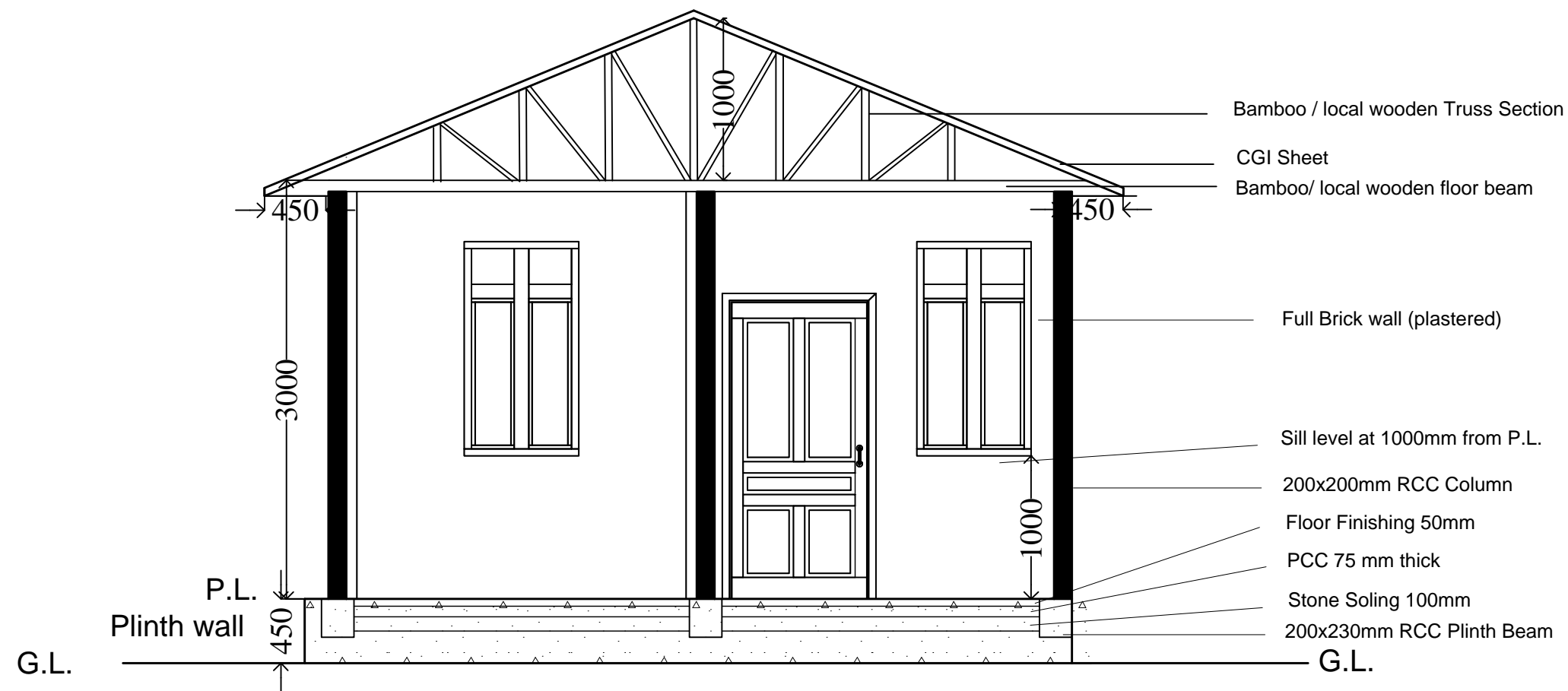
CONTENTS :
 DETAILS OF FOOTING, TYPICAL
 COLUMN SECTION, PLINTH WALL
 & LINTELS

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

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**SCHEDULED OF
DOORS & WINDOWS**

All Dimensions Are in mm

Doors	WXH	Sill
D-1	1000X2100	0
Window	WXH	Sill
W-1	1000X1500	1000
W-2	800X1500	1000
Ventilation	WXH	Sill
V-1	600X1200	1000

PROJECT : MODEL-NO.9
PROPOSED PMAY-G RURAL HOUSE
(RCC HOUSE- RCC COLUMNS WITH
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CONTENTS :
SECTION ELEVATION

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

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3D VIEW



FRONT VIEW



LEFT VIEW



RIGHT VIEW

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

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CONTENTS :
FRONT, LEFT, RIGHT & 3D VIEWS

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Detailed Estimate Cost of Proposed PMAY-G Rural House Model No.9
(Simple RCC House)
Rate As Per Govt. of Meghalaya (P.W.D) Schedule Of Rates For Building Works 2015-2016
(Khasi Hills Rate)

<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 hard soil.								
	Footing	9	1	1	1.00	1.00	1.20	10.80	
	Plinth wall	8	1	1	1.50	0.30	0.60	2.16	
							Total =	12.96	
						@	Rs. 231.00	Per Cum	Rs. 2,993.76
2/1.4	Earthwork in filling including necessary carriage,watering,ramming etc. complete as directed and specified								
(b)							deduct soling ,pcc,rubble stone =	9.76	
							Total =	6.80	
						@	Rs. 210.00	Per Cum	Rs. 1,428.00
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	9	1	1	1.00	1.00	0.08	0.68	
	Plinth wall	8	1	1	1.50	0.40	0.08	0.36	
							Total =	1.04	
						@	Rs. 5,688.00	Per Cum	Rs. 5,915.52
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	5.00	5.00	-	25.00	
							Total =	25.00	
						@	Rs. 354.00	Per Sqm	Rs. 8,850.00
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)								
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,walls of 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	9	1	1	1.00	1.00	0.20	1.80	

Item.no	Description of items	No			L	B	H	Quantity	Area Content
	Column from top of footing upto top of PL	9	1	1	0.20	0.20	1.65	0.59	
	Plinth Beam	8	1	1	1.50	0.20	0.23	0.55	
							Total =	2.94	
						@	Rs. 7,514.00	Per Cum	Rs. 22,091.16
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	6	1	1	0.20	0.20	3.00	0.72	
	lintel	1	1	1	11.50	0.15	0.10	0.17	
							Total =	0.89	
						@	Rs. 7,692.00	Per Cum	Rs. 6,845.88
7/2.8	Supplying, fitting and fixing in position reinforcement bars upto 1st floor level, conforming to relevant i.s code for rcc work/R.B walling including straightening, cleaning, cutting and bending 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, lapping, 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	9	10	2	1.00	-	0.62	111.60	
	Column from footing upto top of PL	9	4	1	1.65	-	0.62	36.83	
	Stirrups	9	13	1	0.64	-	0.39	29.20	
	Plinth beam	12	4	1	2.50	-	0.62	74.40	
	Stirrups	12	20	1	0.86	-	0.39	80.50	
	Column from top of PL upto top of 1st floor	9	4	1	3.00	-	0.62	66.96	
	Stirrups	9	24	1	0.64	-	0.39	53.91	
	Lintel	1	4	1	11.50	-	0.39	17.94	
	Stirrups	1	92	1	0.24	-	0.22	4.86	
							Total =	476.20	
							Say =	4.76	
						@	Rs. 9,191.00	Per Qtl	Rs. 43,767.54
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:								

Item.no	Description of items	No			L	B	H	Quantity	Area Content
(a)	Foundation, footings, bases of columns, pile cap, raft and mass concrete works etc.								
	Footing	9	2	1	1.00	-	0.20	3.60	
							Total =	3.60	
						@	Rs. 339.00	Per Sqm	Rs. 1,220.40
2.10(b)	Plinth Beam	12	2	1	2.50	-	0.23	13.80	
							Total =	13.80	
						@	Rs. 421.00	Per Sqm	Rs. 5,809.80
2.10(c)	Column from top of footing upto top of PL	9	2	1	0.20	-	1.65	5.94	
	Column from top of PL upto top of 1st floor	9	2	1	0.20	-	3.00	10.80	
							Total =	16.74	
						@	Rs. 573.00	Per Sqm	Rs. 9,592.02
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	9	1	1	1.00	1.00	-	9.00	
	Plinth wall	8	1	1	1.50	0.40	-	4.80	
	Flooring	1	1	1	5.00	5.00	-	25.00	
							Total =	38.80	
						@	Rs. 378.00	Per Sqm	Rs. 14,666.40
14/4.11.	Stone masonry work in retaining wall, wing wall, abutment, foundation, steps, plinth etc....								
(b)(ii)	Plinth wall	8	1	1	2.30	0.45	0.60	4.97	
	Steps	1	2	1	0.90	0.30	0.15	0.08	
							Total =	5.05	
						@	Rs. 4,344.00	Per cum	Rs. 21,937.20
10/4.6	Brick nogged wall with 1st class brick in cement mortar including racking out joints and curing complete as directed in superstructure above plinth up to 1st floor level (protruding M.S rod/Tor steel of column to be embedded in cement mortar and will be measured and paid separately)								
	(a) Half Brick (~112mm) thick 1st class brick nogged wall								
	(iv) In proportion 1:6 (1 cement : 6 sand)								
		1	1	1	21.40	-	3	64.20	
	Deduct door & Window								

Item.no	Description of items	No			L	B	H	Quantity	Area Content
	D1	2	1	1	1.00	-	2.10	-4.20	
	W1	3	1	1	1.00	-	1.50	-4.50	
	V1	1	1	1	0.60	-	1.20	-0.72	
							Total =	54.78	
						@	Rs. 825.00	Per sqm	Rs. 45,193.50
11/3.2	25mm thick cement concrete topping etc...								
	Flooring	1	1	1	5.00	5.00	-	25.00	
							Total =	25.00	
						@	Rs. 322.00	Per Sqm	Rs. 8,050.00
12/5.2	15mm thick cement plaster etc...								
	Wall with deduction of doors, windows, ventilators	1	2	1	1.00	54.78	-	109.56	
	Column	9	2	1	0.20	3.00	-	10.80	
	Lintel	1	2	1	11.50	0.10	-	2.30	
							Total =	122.66	
						@	Rs. 215.00	Per Sqm	Rs. 26,371.90
13/15.18	Distempering with dry distemper etc..								
	Wall with deduction of doors, windows, ventilators	1	2	1	1.00	54.78	-	109.56	
	Column	9	2	1	0.20	3.00	-	10.80	
	Lintel	1	2	1	11.50	0.10	-	2.30	
							Total =	122.66	
						@	Rs. 126.00	Per Sqm	Rs. 15,455.16
15/8.2	Providing wood work in frame(chowkats) of doors, windows, clerestory windows etc...								
(d)	D1	1	1	1	5.10	0.13	0.08	0.05	
	W1	3	1	1	5.00	0.13	0.08	0.14	
	V1	1	1	1	3.60	0.13	0.08	0.03	
							Total =	0.22	
						@	Rs. 56,179.00	Per cum	Rs. 12,359.38
16/8.19	Providing, fitting and fixing full panelled doors/windows etc...								
(d)35mm thick	Ground floor								
	D1	1	1	1	1.00	2.10	-	2.10	

<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>
							<i>Total =</i>	2.10	
						@	Rs. 3,420.00	<i>Per Sqm</i>	Rs. 7,182.00
17/13.1	Providing and fixing clear sheet glass etc...								
(a)	W1	3	1	1	1.00	1.50	-	4.50	
	V1	1	1	1	0.60	1.20	-	0.72	
							<i>Total =</i>	5.22	
						@	Rs. 1,221.00	<i>Per Sqm</i>	Rs. 6,373.62
18*	providing bomboo post and purlin including labour for fitting etc...								
	Bamboo Purlins	10	1	1	5.20	1.00	-	52.00	
	Truss Section	13	1	1	1.00	1.00	-	13.00	
							<i>Total =</i>	65.00	
						@	Rs. 167.00	<i>Per nos.</i>	Rs. 10,855.00
19/7.3	providing corrugated galvanised iron sheet etc....								
(a)	0.45mm Thick	1	1	1	5.45	5.45	-	29.70	
							<i>Total =</i>	29.70	
						@	Rs. 817.00	<i>Per Sqm</i>	Rs. 24,264.90
								Total =	Rs. 3,01,223.14
							Deduct 15% contractor profit =		Rs. 2,56,039.67
								Say =	Rs. 2,56,000.00
(Rupees Two Lakhs And Fifty Six Thousand Only)									

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