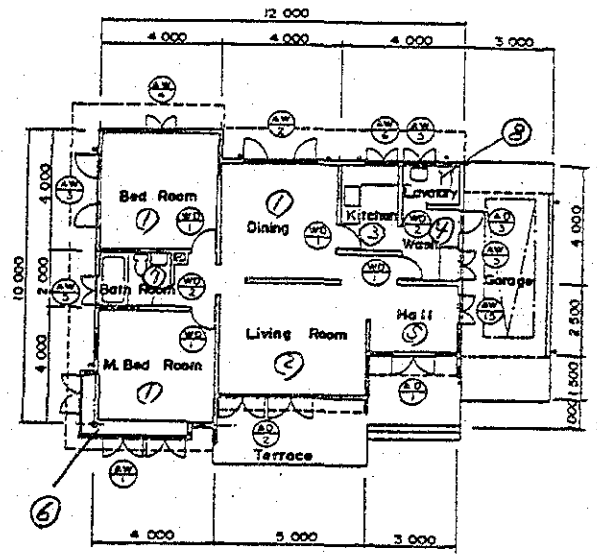
Working Division: RESIDENCE TYPE-B

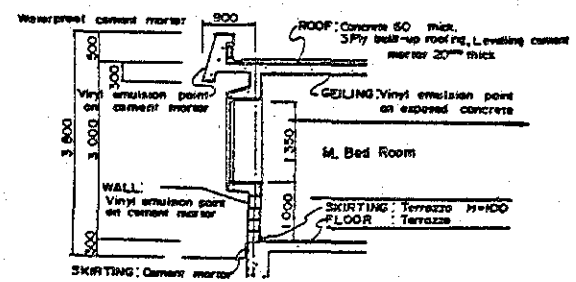
Description	Calculation Details	Unit	Quantity	Remarks
2)-3 & -4	wall 41.2 x 0.3 = 12.36			
	Bow window 0.8 x 5.5 x 2 = 8.8			
	" 1.1 x 1.4 x 2 = 3.08			
	" 5.0 x 0.4 x 1 = 2.0			
	Floor 44.6 x 0.15 = 6.69			
	" 10.0 x 1.2 = 12.0			
	" 8.5 x 0.9 = 7.65			
	" 3.0 x 0.6 = 1.8			
	584.77 m²	m²	584.77	
2)-4	Exposed surface			
	93.31 + 28.32 = 121.63 m²	m²	121.63	
	(P.58) (P.62)			
2)-3	Plastering surface			
	584.77 - 121.63 = 463.14	m²	463.14	
2)-5	Reinforcing bar 84.06 x 0.12 = 10.1 ton			
		ton	10.1	
Interior Finish				(See DWG. NO. A-005)
Floor	Terrazzo			
① 5)-1	Bed room 3.85 x 3.85 x 3 = 44.47			Item 5)-1
②	Living 4.85 x " = 18.67			86.46 + 24.45 = 110.91 m²
③	Kitchen 1.85 x 2.85 = 5.27			(P.59)
④	Wash room 1.85 x 2.35 = 4.35			
⑤	Hall 2.85 x 2.35 = 6.7			
	1.35 x 1.85 = 2.5			
	2.0 x 1.0 = 2.0			
⑥	window 3.5 x 0.5 = 1.75			

Working Division: RESIDENCE TYPE-B

Description	Calculation Details	Unit	Quantity	Remarks
	window 1.5 x 0.5 = 0.75			
	Ⓐ 86.46	m^2	86.46	
6)-1	Mosaic tile			
⑦	2.35 x 1.85 = 4.35 m^2		Ⓑ	
⑧	1.85 x 1.35 = 2.5	m^2	6.85	
5)-2	Terrazzo block to skirting			
	H = 100			
	(15.4 x 3 + 17.4 + 9.4 + 10.0 + 8.8 + 6.4			
	+ 2.0) − (2.75 + 3.07 + 0.8 x 8 + 0.7 x 2			
	+ 0.85 x 14)			
	= 100.2 − 26.32 = 73.88	m	73.88	
7)-4	Wall, Cement mortar plaster			
8)-2	VEP paint			
	Bed room 15.4 x 2.75 x 2 = 84.7			
	6.4 x 2.75 = 17.6			
	Living 17.4 x 3.15 = 54.81			
	Dining 15.4 x " = 48.51			
	Hall 10.4 x 2.75 = 28.6			
	5.4 x 2.75 = 14.85			
	Kitchen 9.4 x 2.75 = 25.85			
	Wash room 8.4 x " = 23.1			
	Bow window 0.5 x 1.32 x 2 = 1.35			
	" 0.5 x 5.0 = 2.5			
	AD-1 △2.75 x 2.4 = △6.6			
	-2 △3.07 x 2.75 = △8.44			



GROUND FL PLAN 1/100 SCALE A



SECTION DETAIL 1/50 SCALE B

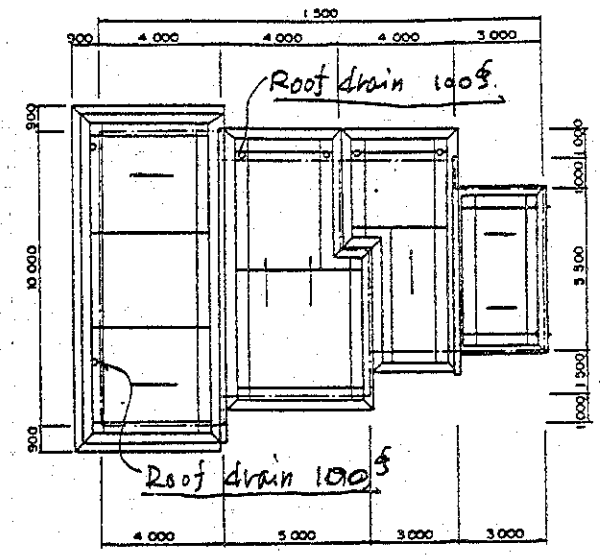
Working Division: RESIDENCE TYPE-B

Description	Calculation Details	Unit	Quantity	Remarks
7)-4	AD-3 × 0.8 × 2.0 = △1.6			
8)-2	AW-1 △5.5 × 1.35 = △7.43			
	AW-2 △2.35 × 2.15 = △5.05			
	-3 〃 × 1.55 = △3.64			
	-4 △1.0 × 〃 = △1.55			
	-5 △1.0 × 0.95 × 2 = △1.9			
	-6 △1.0 × 0.6 = △0.6			
	WD-1 △0.8 × 2.0 × 8 = △12.8			
	-2 △0.7 × 2.0 × 2 = △2.8			
	open △0.85 × 2.4 × 14 = △28.56			
	220.9	m^2	220.9	
6)-2	Wall, Ceramic tile			
	Bath room 8.4 × 2.85 = 23.94			
	Toilet 6.4 × 〃 = 18.24			
	AW-5 △1.0 × 0.95 × 2 = △1.9			
	WD-2 △0.7 × 2.1 × 2 = △2.94			
	37.34	m^2	37.34	
8)-2	Ceiling, Exposed concrete VEP paint			
2)-4	Page 57 Ⓐ + Ⓑ			
	86.46 + 6.85 = 93.31	m^2	93.31	
13)-2	Kitchen sink $l = 3.0^m$	set	1	

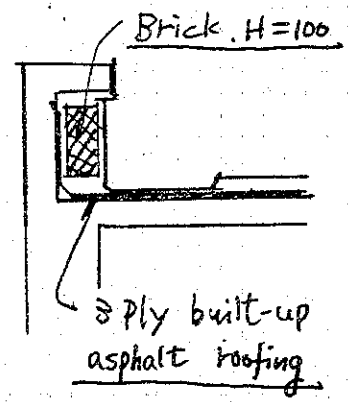
Description	Calculation Details	Unit	Quantity	Remarks
9)-1	Blind box			
	AW-1 5.6 m			
	AW-2 2.45			
	-3 2.45			
	-4 1.1			
	AD-2 3.17			
	14.77	m	14.77	
8)-1	Oil paint 14.77 x 0.6 = 8.86	m²	8.86	Item 8)-1 8.86 + 24.15 = 33.01 m² (P.64)
13)-4	Venetian blind			
	AW-1 5.5 x 1.35 = 7.43 m²			
	-2 2.35 x 2.15 = 5.05			
	-3 〃 x 1.55 = 3.64			
	-4 1.0 x 〃 = 1.55			
	AD-2 3.07 x 2.85 = 8.75			
	26.42			
	26.42 x 1.15 = 30.38	m²	30.38	
Exterior	Finish			(See DWG. NO. A-005)
7)-7	Floor, concrete trowel finish			
	3.0 x 8.15 = 24.45 m²			
	△0.15 x 5.65 = △0.85	m²	23.6	
5)-1	Floor, Terrazzo block			
	5.15 x 2.2 = 11.33 m²			
	3.0 x 2.8 = 8.4			
	11.8 x 0.4 = 4.72	m²	24.45	to page 56

Working Division: RESIDENCE TYPE-B

Description	Calculation Details	Unit	Quantity	Remarks
7)-1	Base cement mortar plaster			Item 4)-1
4)-1	3 ply asphalt roofing, concrete trowel finish for roofing			120.04 + 28.76 = 148.8 m²
	4.68 x 11.5 = 53.82 m²			
	3.85 x 9.2 = 35.42		(A)	
	3.85 x 8.0 = 30.8	m²	120.04	
2)-1	Concrete "class F"			
	120.04 x 0.06 = 7.20	m³	7.20	
7)-5	Waterproof cement mortar to roof gutter 2.85 x 5.35 = 15.25	m²	15.25	
3)-2	Brick masonry			
	(32.36 + 26.1 + 23.7) x 0.3			
	= 82.16 x 0.3 = 24.65	m²	24.65	
4)-1	3 ply asphalt roofing			
	82.16 x 0.35 = 28.76	m²	28.76	
7)-6	Waterproof cement mortar to roof parapet			
	32.36 x 0.7 = 22.65			
	4 0.15 x 10.65 = 4 1.6			
	26.1 x 0.7 = 18.27			
	4 0.15 x 9.5 = 4 1.43			
	23.7 x 0.7 = 16.59			



ROOF PLAN 1/100 SCALE A



Working Division: RESIDENCE TYPE - B

Description	Calculation Details	Unit	Quantity	Remarks
7)-6	△ 0.15 x 7.2 = △ 1.08			
	5.35 x 0.3 = 1.61			
	11.05 x 0.5 = 5.53			
	17.8 x 0.35 = 6.23			
	66.77	m^2	66.77	
7)-3	Wall, Cement mortar plaster			
8)-2	VEP paint			
	Garage 5.95 x 2.3 = 13.69 m^2			
	" 5.65 x 1.85 = 10.45			
	" 2.85 x 1.55 x 2 = 8.84			
	Right side 5.65 x 1.85 = 10.45			
	" 0.75 x 3.9 = 2.93			
	" 1.15 x 3.9 = 4.49			
	" 1.0 x 3.4 = 3.4			
	" 5.65 x 1.6 = 9.04			
	Center 0.7 x 2.85 = 2.0			
	" 2.0 x " = 5.7			
	" 0.6 x 3.25 = 1.95			
	" 1.5 x " = 4.88			
	" 1.0 x " = 3.25			
	" 0.6 x 2.85 = 1.71			
	Left side 10.15 x 2.85 = 28.93			
	Upper/Lower 4.0 x 2.85 x 2 = 22.8			
	" 5.15 x 3.25 = 16.74			
	" 4.15 x " = 13.49			
	" 3.0 x 2.85 = 8.55			
	" 4.0 x " = 11.4			

Working Division: RESIDENCE TYPE-B

Description	Calculation Details	Unit	Quantity	Remarks
	wall 10.65 x 0.5 = 5.33			
	" 9.0 x " = 4.5			
	parapet 21.71 x 1.1 = 23.88			
	" 17.5 x 1.1 = 19.25			
	Bow window 0.5 x 1.7 x 2 = 1.7			
	" " x 5.5 x 2 = 5.5			
	open AD & AW 4.39.38			
	205.47 m^2	m^2	205.47	
2)-4	Eaves, exposed surface, VEP paint			
& 8)-2	19.4 x 0.8 = 15.52 m^2			
	8.0 x 1.0 = 8.0			
	8.0 x 0.6 = 4.8			
	28.32	m^2	28.32	
8)-2	Vinyl emulsion paint			
	220.9 + 93.31 + 205.47 + 28.32			
	(P.58) (P.58) (P.62) (P.62)			
	= 548.0	m^2	548.0	
12)-1	Roof drain φ100 mm	nos	8	
13)-1	Downspout φ100 mm			
	2.3 x 2 = 4.6			
	3.3 x 4 = 13.2			
	3.7 x 2 = 7.4	m	25.2	

Working Division: RESIDENCE TYPE-B

Description	Calculation Details	Unit	Quantity		Remarks
7)-2	Cement mortar plaster to skirting				
	H=300 mm				
	12.15 + 8.15 + 10.15 + 4.6 + 11.6				
	= 46.65	m	46	65	
3)-1	Concrete block wall t=150 mm				
	H=3,000 4.15 x 4 = 16.6				
	8.0 x 3 = 24.0				
	2.0 x 2 = 4.0				
	3.85 x 6 = 23.1				
	1.85 x 3 = 5.55				
	2.85 x 1 = 2.85				
	3.0 x 1 = 3.0				
	3.5 x 1 = 3.5				
	82.6 x 2.4 = 198.24				
	5.6 x 1 x 1.7 = 9.52				
	AD △17.31				
	AW △22.07				
	WD △9.66				
	H=3,500 4.85 x 3 x 0.5 = 7.28				
	open △1.8 x 2.0 = △3.6				
	" △0.8 x 2.0 x 2 = △3.2				
	159.2	m²	159	20	

Working Division: RESIDENCE TYPE-B

Description	Calculation Details	Unit	Quantity	Remarks
10)-1	Wooden door leave			See DWG. NO. A-005
	WD-1 0.8 x 2.1 x 4 = 6.72			
	-2 0.7 x 2.1 x 2 = 2.94	m^2	9.66	
10)-2	Aluminium door			See DWG. NO. A-005
	AD-1 2.75 x 2.5 x 1 = 6.88			
	-2 3.07 x 2.85 x 1 = 8.75			
	-3 0.8 x 2.1 x 1 = 1.68			
	17.31	m^2	17.31	
10)-3	Aluminium window			See DWG. NO. A-005
	AW-1 5.5 x 1.35 x 1 = 7.43			
	-2 2.35 x 2.15 x 1 = 5.05			
	-3 2.35 x 1.55 x 1 = 3.64			
	-4 1.0 x 1.55 x 1 = 1.55			
	-5 1.0 x 0.95 x 4 = 3.8			
	-6 1.0 x 0.6 x 1 = 0.6			
	22.07	m^2	22.07	
8)-1	Oil paint to wooden surface			See DWG. NO. A-005
	WD-1 0.8 x 2.1 x 2.5 x 4 = 16.8			
	-2 0.7 x 2.1 x 2.5 x 2 = 7.35	m^2	24.15	
11)-1	Plate glass 5mm			See DWG. NO. A-005
	AD-1 2.75 x 1.9 x 1 = 5.23			
	" 2.75 x 0.4 x 1 = 1.1			
	AD-2 3.07 x 1.9 x 1 = 5.83			
	" " x 0.85 x 1 = 2.61			

Working Division: RESIDENCE TYPE-B

Description	Calculation Details	Unit	Quantity	Remarks
11)-1	AW-1 5.5 x 1.35 = 7.43			See DWG. NO. A-005
	-2 2.35 x 2.05 = 4.82			
	-3 " x 1.55 = 3.64			
	-4 1.0 x 1.55 = 1.55			
	-5 1.0 x 0.95 x 2 = 1.9			
	34.11	m^2	34.11	
11)-2	Figured glass 4 mm			See DWG. NO. A-005
	AD-3 0.65 x 0.8 = 0.52			
	AW-5 1.0 x 0.95 x 2 = 1.9			
	-6 1.0 x 0.6 = 0.6			
	WD-1 0.65 x 0.8 x 4 = 2.08			
	-2 0.55 x 0.8 x 2 = 0.88			
	5.98	m^2	5.98	
12)-1	Roof drain	nos	8	
13)-1	PVC downspout φ100 mm			
	2.3 x 2 = 4.6			
	3.3 x 4 = 13.2 } 25.2			
	3.7 x 2 = 7.4	m^2	25.2	
13)-2	Venetian blind			
	AW-1 5.5 x 1.35 = 7.43			
	-2 2.35 x 2.15 = 5.05 } 26.42			
	-3 " x 1.55 = 3.64 } +1.15			
	-4 1.0 x " = 1.55 } = 30.38			
	AD-2 3.07 x 2.85 = 8.75	m^2	30.38	

Description	Calculation Details	Unit	Quantity	Remarks
B10.5/01	Building works			
1)	Earth work			
1)-1	Excavation			1)-1 F1 GL, FG1 GL (650, 800, 650, 570)
	F1 111.0 × 0.8 × 0.65 = 57.72			
	FG1 1.7 × 0.59 × 0.65 × 3 = 1.96			
	" 1.2 × " × " × 1 = 0.46			
	60.14 m³	m³	60 14	
1)-2	Backfill			
	Excavation − disposal			
	60.14 − 20.74 = 39.4 m³	m³	39 40	
1)-3	Disposal			
	Level conc. 2.89			
	Foundation conc. 21.26			
	△111.0 × 0.19 × 0.15 = △3.16			
	△8.74 × " × " = △0.25			
	20.74 m³	m³	20 74	
1)-4	Gravel bedding			1)-4 see, DWG, NO. A-006
	Floor 155.01 × 0.15 = 23.25			
	△111.0 × 0.19 × 0.15 = △3.16			
	△8.74 × " × " = △0.25			
	19.84 m³	m³	19 84	
2)-1	Level concrete F1 111.0 × 0.5 × 0.05 = 2.78			Item 2)-1 2.89 + 7.8 (P.73) = 10.69 m³
	FG1 2.0 × 0.29 × 0.05 × 3 = 0.09			
	" 15 × " × " = 0.02	m³	2 89	see, DWG. NO. A-012 & A-014

Working Division: RESIDENCE TYPE-C

Description	Calculation Details	Unit	Quantity	Remarks
2)-2	Concrete class A			2)-2 Concrete class A
①	F1 14.0			See, DWG. NO. A-012 & A-014
②	4.0 x 7 = 28.0			
③	3.0 x 2 = 6.0			
④	5.0 x 3 = 15.0			
⑤	10.5			
⑥	7.5 x 2 = 15.0			
⑦	10.0			
⑧	6.0			
⑨	2.0 x 2 = 4.0			
⑩	2.5			
	111.0			
	111.0 x 0.4 x 0.18 = 7.99 m^3			
	111.0 x 0.19 x 0.57 = 12.02 m^3			
	FG1 2.31 x 0.19 x 0.75 x 3 = 0.99)			
	1.81 x 0.19 x 0.75 x 1 = 0.26) 1.25 m^3			
	RG1 111.0 x 0.15 x 0.45 = 7.49)			
	△30.5 x " x " = △2.06) 5.43 m^3			
	RG2 19.2 x 0.25 x 0.45 = 2.16 m^3			
	S1 16.15 x 10.15 = 163.92)			
	5.15 x 0.6 = 3.09) 155.01			
	△2.0 x 2.0 = △4.0)			
	△4.0 x 2.0 = △8.0)			
	155.01 x 0.15 = 23.15 m^3			

Working Division: RESIDENCE TYPE-C

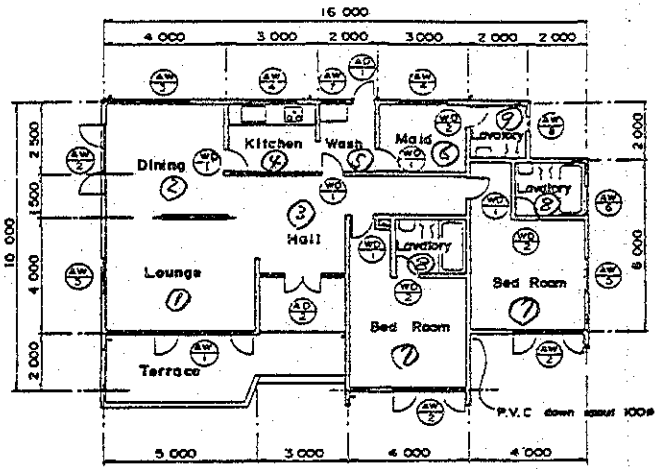
Description	Calculation Details	Unit	Quantity	Remarks
2)-2	Parapet 72.4 x 0.5 x 0.15 = 5.43			
	" x 0.15 x 0.12 = 1.30			
	8.0 x " x " = 0.14			
	17.5 x 0.2 x 0.15 = 0.53			
	7.4 m^3			
	Wall 8.6 x 0.45 x 0.15 = 0.58 m^3			
	Floor S1 155.01 x 0.15 = 23.25			
	3.0 x 0.45 x 0.2 = 0.27			
	2.6 x 0.45 x 0.15 = 0.57			
	24.03 m^3			
	Total of concrete class A	m^3	84 "	
2)-3 & -4	Form			2)-3 & -4
	F1 111.0 x 1.5 = 166.5 m^2			Form See. DWG. NO. A-012 & A-014.
	FG1 2.31 x 1.5 x 3 = 10.4			
	" 1.81 x 1.5 = 2.72			
	RG1 111.0 x 0.9 = 99.9			
	" △30.5 x 0.9 = △27.45			
	RG2 19.2 x 0.9 = 17.28			
	S1 155.01 x 1 = 155.01			
	" 74.1 x 0.15 = 11.12			
	Parapet 72.4 x 1.15 = 83.26			
	" 8.0 x 0.3 = 2.4			
	" 17.5 x 0.4 = 7.0			

Working Division: RESIDENCE TYPE-C

Description	Calculation Details	Unit	Quantity	Remarks
2)-3 & -4	wall 8.6 x 0.9 = 7.74			
	Floor 53.8 x 0.15 = 8.07			
	" 3.0 x 0.6 = 1.8			
	" 7.6 x 1.2 = 9.12			
	Total of Form 55.87 m^2			
2)-4	Exposed surface			
	115.66 + 11.98 = 127.64	m^2	127.74	
	(P.71) (P.74)			
2)-3	Plastering surface			
	55.87 - 127.64 = 427.23	m^2	427.23	
2)-5	Reinforcing bar			
	84.11 x 0.12 kg/m^3 = 10.1 ton			
	from page 75 655 kg	ton	10.8	
Interior Finish				See DWG. NO. A-006
5)-1	Terrazzo block on floor			
①	Lounge 4.85 x 3.85 = 18.67 m^2			
	" 0.15 x 4.0 = 0.6			
②	Dining 3.85 x 3.85 = 14.82			
	" 0.15 x 1.35 = 0.2			
③	Hall 2.85 x 2.0 = 5.7			
	" 2.85 x 1.35 = 10.6			

Working Division: RESIDENCE TYPE-C

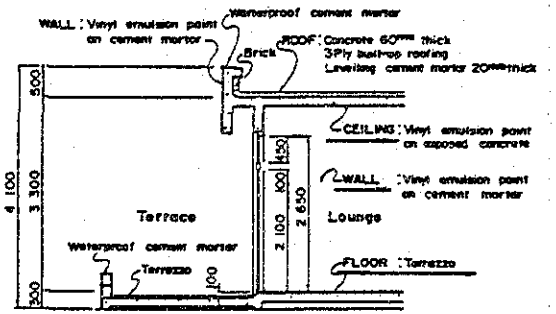
Description	Calculation Details	Unit	Quantity	Remarks
④ 5)-1	Kitchen 2.85 x 2.35 = 6.7			
	0.15 x 1.0 = 0.15			
⑤	Wash room 1.85 x 2.35 = 4.35			
⑥	Maid room 2.85 x 2.35 = 6.7			
⑦	Bed room 3.85 x 5.85 x 2 = 45.05			
	" △2.5 x 2.0 x 2 = △10.0		Ⓐ	
	103.54	m^2	103.54	
6)-1	Mosaic tile on floor			
⑧	Bath room 2.35 x 1.85 x 2 = 8.7		Ⓑ	
⑨	Toilet 1.85 x 1.85 = 3.42	m^2	12.12	
5)-2	Terrazzo block to skirting H=100			
	Lounge 14.0 − 2.65 = 11.35			
	Dining 12.15 − 0.8 = 11.35			
	Hall 5.35 + 13.2 − (0.8x3 + 2.85) = 13.3			
	Kitchen 9.7 − 0.8 = 8.9			
	wash room 7.4 − (0.8x3) = 5.0			
	maid room 10.4 − (0.8+0.7) = 8.9			
	Bed room {19.4 − (0.8+0.7)} x 2 = 35.8			
	94.6	m	94.6	
6)-2	Ceramic tile to wall			
	Bath room 8.4 x 2.85 x 2 = 47.88			
	WD-2 △0.7 x 2.1 x 2 = △2.94			
	AW-6 △1.0 x 1.45 = △1.45			
	Toilet 7.4 x 2.85 = 21.09			
	WD-2 △0.7 x 2.1 = △1.47			
	AW-8 △0.5 x 1.05 = △0.53	m^2	62.58	



GROUND FL PLAN 1/100 SCALE A

Working Division: RESIDENCE TYPE-C

Description	Calculation Details	Unit	Quantity	Remarks
7)-3	Cement mortar plaster, VEP paint			Item 8)-2
& 8)-2	Living, Dining & kitchen			303.55 + 115.66 + 196.81 + 11.98
	35.85 x 3.05 = 109.34			(P.71) (P.74) (P.74)
	Hall 9.35 x 2.75 = 25.71			= 628.0 m²
	" 9.2 x 3.05 = 28.06			
	Wash room 4.2 x 2.75 = 11.55			
	" 3.2 x 3.05 = 9.76			
	maid & bed room			
	49.2 x 2.75 = 135.3			
	WD-1 △ 0.8 x 2.0 x 10 = △ 16.0			
	-2 △ 0.7 x 2.0 x 3 = △ 4.2			
	AD-1 △ 0.8 x 2.0 = △ 1.6			
	-2 △ 2.75 x 2.55 = △ 7.01			
	AW △ 30.24			
	AW-1 3.1 x 0.1 = 0.31			
	-6 1.0 x 1.45 = 1.45			
	-8 0.5 x 1.05 = 0.53			
	wall 12.15 x 1.1 = 13.37			
	303.55	m²	303.55	
2)-4	Ceiling, exposed surface, VEP paint			
& 8)-2	page 70 Ⓐ 103.54			
	Ⓑ 12.12			
	115.66	m²	115.66	
13)-1	Kitchen sink ℓ = 2,800	set	1	



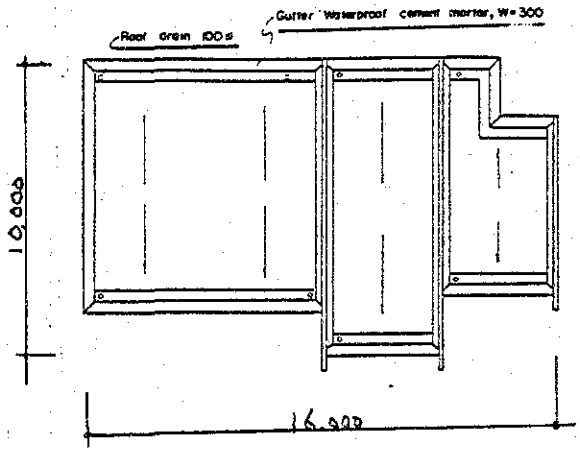
SECTION DETAIL 1/50 SCALE B

Working Division: RESIDENCE TYPE-C

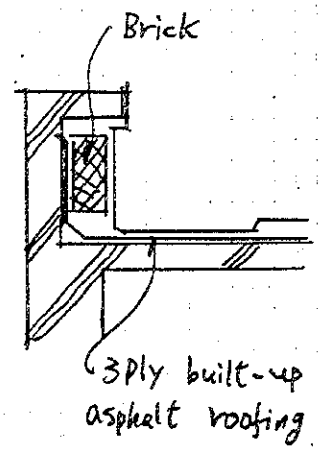
Description	Calculation Details	Unit	Quantity	Remarks
9)-1	Blind box			
	AW-1 3.2			
	-2 2.4×3 = 7.2			
	-3 1.6			
	-4 1.6			
	-5 1.3×2 = 2.6			
	16.2	m	16.2	
8)-1	Oil paint			Item 8)-1
	16.2×0.6 = 9.72	m^2	9.72	9.72 + 32.03 = 41.75 m^2 (P.76)
13)-4	Venetian blind			
	AW-1 3.1 × 2.65 = 8.22			
	-2 2.3 × 1.45 × 3 = 10.01			
	-3 1.5 × 1.75 = 2.63			
	-4 1.5 × 1.45 = 2.18			
	-5 1.2 × 1.45 × 2 = 3.48			
	26.52			
	26.52 × 1.15 = 30.5	m^2	30.5	
Exterior Finish				See DWG. NO. A-006
7)-1	Base cement mortar plaster, 3 ply			Item 4)-1
7)-7	asphalt roofing, concrete trowel			129.92 + 29.14 = 159.06 m^2 (P.73)
4)-1	finish			
	7.85 × 8.38 = 65.78			
	3.85 × 9.85 = 37.92			
	〃 × 7.85 = 30.22		Ⓐ	
	42.0 × 2.0 = 84.0	m^2	129.92	

Working Division: RESIDENCE TYPE-C

Description	Calculation Details	Unit	Quantity	Remarks
2)-1	Concrete "class F"			
	Ⓐ 129.92 x 0.06 = 7.8	m^3	7.80	
3)-2	Brick masonry			
	Ⓑ 32.46 + 27.2 + 23.2 = 83.26			
	83.26 x 0.3 = 24.98	m^2	24.98	
4)-1	3 ply built-up asphalt roofing			
	Ⓑ 83.26 x 0.35 = 29.14	m^2	29.14	
7)-6	Waterproof cement mortar plaster			
	24.08 x 0.7 = 16.86			
	8.38 x 0.9 = 7.54			
	7.7 x 0.7 = 5.39			
	9.85 x 1.05 = 10.34			
	9.85 x 0.9 = 8.87			
	7.85 x 0.75 = 5.89			
	5.85 x 0.9 = 5.27			
	3.85 x 0.7 x 2 = 5.39			
	2.0 x 0.7 = 1.4			
	66.95	m^2	66.95	
5)-1	Terrazzo block on floor			
	2.85 x 2.0 = 5.7			
	8.0 x 1.7 = 13.6			
	4.8 x 0.7 = 3.36 } 23.86			
	3.0 x 0.4 = 1.2	m^2	23.86	



ROOF PLAN 1/100 SCALE A



Working Division: RESIDENCE TYPE-C

Description	Calculation Details	Unit	Quantity	Remarks
7)-4	Cement mortar plaster to wall			
& 8)-2	Upper 8.15 x 3.8 = 30.97			
	" 8.0 x 3.5 = 28.0			
	Right 1.85 x 3.5 = 6.48			
	" 7.5 x 3.7 = 27.75			
	" 3.2 x 3.7 = 11.84			
	Center 2.68 x 4.1 = 10.99			
	" 2.53 x 3.15 = 7.97			
	" 2.75 x 3.15 = 8.66			
	Left 8.68 x 3.8 = 32.98			
	Lower 7.85 x 3.15 = 24.73			
	" 3.85 x 3.5 x 2 = 26.95			
	parapet 8.0 x 1.4 = 11.2			
	Terrace 7.5 x 1.0 = 7.5			
	AD, AW △39.21			
	196.81	m^2	196.81	to page 71
2)-4	Eaves, exposed surface, VEP paint			
& 8)-2	0.8 x 7.85 = 6.28			
	2.85 x 2.0 = 5.7	m^2	11.98	to page 71
12)-1	Roof drain φ100 mm	no	8	
13)-1	PVC downspout φ100 mm			
	3.6 x 4 = 14.4			
	3.3 x 4 = 13.2	m	27.6	

Working Division: RESIDENCE TYPE-C

Description	Calculation Details	Unit	Quantity	Remarks
(2)-2	Stainless steel door mat	no	1	
3)-1	Concrete block wall t=150 mm			
	1F 38.3 × 2.7 = 103.41			
	" 55.3 × 2.4 = 132.72			
	" 7.7 × 1.1 = 8.47			
	open 452.02			
	192.58	m²	192.58	
2)-5	Reinforcing bar			
	192.58 × 3.4 kg/m³ = 655 kg	kg	655	to page 69
7)-2	Cement mortar plaster to skirting			
	H = 300 mm			
	16.15 + 10.7 + 10.7 + 8.15 + 1.1 + 0.6			
	+1.3 + 6.0 = 54.7	m	54.7	

Working Division: RESIDENCE TYPE-C

Description	Calculation Details	Unit	Quantity	Remarks
10)-1	Wooden door leave			See DWG. NO. A — 006
	WD-1 0.8 x 2.1 x 5 = 8.4			
	-2 0.7 x " x 3 = 4.41			
	12.81 m²	m²	12.81	
10)-2	Aluminium door			See DWG. NO. A - 006
	AD-1 0.8 x 2.1 x 1 = 1.68			
	-2 2.75 x 2.65 x 1 = 7.29			
	8.97 m²	m²	8.97	
10)-3	Aluminium window			See DWG. NO. A - 006
	AW-1 3.1 x 2.65 x 1 = 8.22			
	-2 2.3 x 1.45 x 3 = 10.01			
	-3 1.5 x 1.75 x 1 = 2.63			
	-4 1.5 x 1.45 x 1 = 2.18			
	-4' 1.5 x 0.6 x 1 = 0.9			
	-5 1.2 x 1.45 x 2 = 3.48			
	-6 1.0 x 1.45 x 1 = 1.45			
	-7 0.7 x 1.2 x 1 = 0.84			
	-8 0.5 x 1.05 x 1 = 0.53			
	30.24 m²	m²	30.24	
8)-1	Oil paint to wooden surface			See DWG. NO. A-006
	WD-1 0.8 x 2.1 x 2.5 x 5 = 21.0			
	-2 0.7 x " x " x 3 = 11.03			
	32.03 m²	m²	32.03	

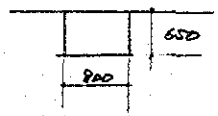
Working Division: RESIDENCE TYPE-C

Description	Calculation Details	Unit	Quantity	Remarks
11)-1	Plate glass 5mm			See DWG. No. A-006
	AW-1 3.1 x 2.65 x 1 = 8.22			
	-2 2.3 x 1.45 x 3 = 10.01			
	-3 1.5 x 1.75 x 1 = 2.63			
	-4 1.5 x 1.45 x 1 = 2.18			
	-5 1.2 x 1.45 x 2 = 3.48			
	-7 0.7 x 1.2 x 1 = 0.84			
	AW-1 △3.1 x 0.1 x 1 = △0.31			
	AD-2 △2.75 x 0.1 x 1 = △0.28			
	34.06 m²	m²	34.06	
11)-2	Figured glass 4 mm			See DWG. No. A-006
	AW-4' 1.5 x 0.6 x 1 = 0.9			
	-6 1.0 x 1.45 x 1 = 1.45			
	-8 0.5 x 1.05 x 1 = 0.53			
	WD-1 0.65 x 0.8 x 5 = 2.6			
	-2 0.55 x 0.8 x 3 = 1.32			
	6.8 m²	m³	6.80	
12)-1	Roof drain φ100 mm	nos	8	
13)-1	PVC downspout φ100 mm			
	3.6 x 4 = 14.4			
	3.3 x 4 = 13.2	m	27.6	

Working Division: RESIDENCE TYPE-C

Description	Calculation Details	Unit	Quantity	Remarks
13)-4	Venetian blind			
	AW-1 3.1 x 2.65 = 8.22			
	-2 2.3 x 1.45 x 3 = 10.01			
	-3 1.5 x 1.75 = 2.63			
	-4 1.5 x 1.45 = 2.18			
	-5 1.2 x 1.45 x 2 = 3.48			
	26.52			
	26.52 x 1.15 = 30.5	m^2	30.5	

Working Division: B10.6 GUARD HOUSE

Description	Calculation Details	Unit	Quantity	Remarks
B10.6/01	Building works			
1)	Earth work			
1)-1	Excavation			1)-1 F1 
	F1 33.8 x 0.8 x 0.65 = 17.58	m^3	17.58	
1)-2	Backfill			
	Excavation – disposal			
	17.58 - 6.03 = 11.55	m^3	11.55	
1)-3	Disposal			
	Level conc. 0.85			
	Foundation conc. 6.16			
	△34.43 x 0.19 x 0.15 = △0.98	m^3	6.03	
1)-4	Gravel bedding			1)-4 see. DWG. NO. A-005
	Floor 34.9 x 0.15 = 5.24			
	△34.43 x 0.19 x 0.15 = △0.98	m^3	4.26	
				2)-1 see. DWG. NO. A-012 & A-014
2)-1	Level concrete (class F)			Item 2)-1
	F1 33.8 x 0.5 x 0.05 = 0.85	m^3	0.85	0.85 + 2.14 = 2.99 m^3 (P.84)
2)-2	Concrete class A			2)-2 Concrete class A
	F1 5.9 + 2.9 + 5.4 + 4.4 + 2.6 x 2			see. DWG. NO. A-012 & A-014
	+ 3.6 + 1.6 x 4 = 33.8			
	33.8 x 0.4 x 0.18 x 1 = 2.43 m^3			
	FG1 5.69 + 2.69 + 5.19 + 4.19 + 2.81 x 2			
	+ 3.81 + 1.81 x 4 = 34.43			
	34.43 x 0.19 x 0.57 = 3.73 m^3			

Working Division: GUARD HOUSE

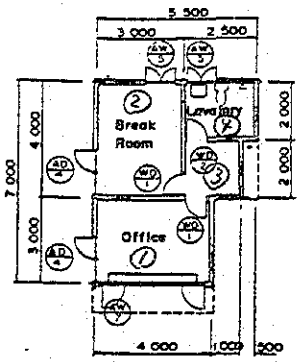
Description	Calculation Details	Unit	Quantity	Remarks
2)-2	G1 5.65 + 2.65 + 3.15 + 4.15 + 2.85 x 2			
	+ 3.85 + 1.85 x 4 = 34.55			
	34.55 x 0.15 x 0.45 x 1 = 2.33 m^3			
	S1 5.65 x 4.15 + 4.15 x 3.93 = 39.76			
	39.76 x 0.15 x 1 = 5.96 m^3			
	Parapet 26.85 x 0.5 x 0.15 = 2.01			
	" x 0.15 x 0.12 = 0.48			
	2.49 m^3			
	Wall 8.05 x 0.5 x 0.15 = 0.6 m^3			
	Column 0.15 x 0.15 x 2.0 = 0.05 m^3			
	AW7 4.0 x 0.15 x 0.2 = 0.12 m^3			
	Counter 4.15 x 0.3 x 0.15 = 0.19 m^3			
	Floor 4.15 x 3.0 = 12.45			
	5.15 x 2.0 = 10.30 } 34.90			
	5.65 x 2.15 = 12.15			
	34.90 x 0.15 = 5.24 m^3			
	Total of concrete class A	m^3	23.14	
2)-3 & -4	Form			2)-3 & -4
	F1 33.8 x 0.36 x 1 = 12.17 m^2			Form . See. DWG. NO A-012 & A-014
	FG1 34.43 x 1.14 x 1 = 39.25			
	G1 34.55 x 0.9 x 1 = 31.1			

Working Division: GUARD HOUSE

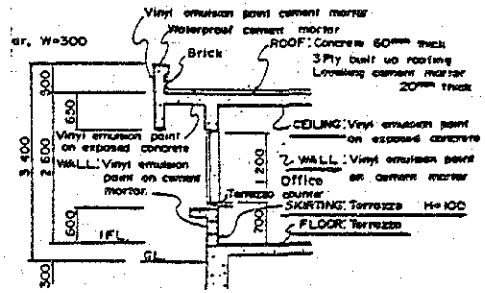
Description	Calculation Details	Unit	Quantity	Remarks
2)-3&-4	S1 39.76 × 1.0 = 39.76 m^2			
	" 27.45 × 0.15 = 4.12			
	Parapet 26.85 × 1.0 = 26.85			
	" " × 0.15 = 4.03			
	wall 8.05 × 1.0 = 8.05			
	column 0.6 × 2.0 = 1.2			
	AW7 4.0 × 0.4 = 1.6			
	counter 4.15 × 0.3 = 1.25			
	Floor 25.6 × 0.15 = 3.84			
	Total of Form 173.22 m^2			
2)-4	Exposed surface			
	29.71 + 3.65 = 33.36 m^2	m^2	33.36	
	(P.83) (P.85)			
2)-3	Plastering surface			
	173.22 − 33.36 = 139.86 m^2	m^2	139.86	
2)-5	Reinforcing bar			
	23.14 × 0.12 = 2.8 ton			
	from page 85 193 kg	ton	3.00	

Working Division: GUARD HOUSE

Description	Calculation Details	Unit	Quantity	Remarks
Interior Finish				See DWG. NO. A-005
5)-1	Terrazzo block on floor			
①	3.85 x 2.85 = 10.97			
②	2.85 x 3.85 = 10.97			
③	1.85 x 1.85 = 3.42		Ⓐ	
	25.36	m^2	25.36	
6)-1	Mosaic tile on floor		Ⓑ	
④	2.35 x 1.85 = 4.35	m^2	4.35	
5)-2	Terrazzo block to skirting			
	H = 100 mm			
	13.4 + 13.4 + 7.4 = 34.2			
	4 (0.8 x 6 + 0.7) = 4 5.5	m	28.7	
7)-3	Cement mortar plaster to wall			
& 8)-2	VEP paint			
	34.2 x 2.35 = 80.37			
	AD-4 4 0.8 x 2.0 x 2 = 4 3.2			
	" 4 0.77 x 1.1 = 4 0.85			
	AW-5 4 1.0 x 0.95 = 4 0.95			
	AW-7 4 3.5 x 1.2 = 4 4.2			
	WD-1 4 0.8 x 2.0 x 4 = 4 6.4			
	-2 4 0.7 x 2.0 = 4 1.4			
	63.37	m^2	63.37	



GROUND FL PLAN 1/10



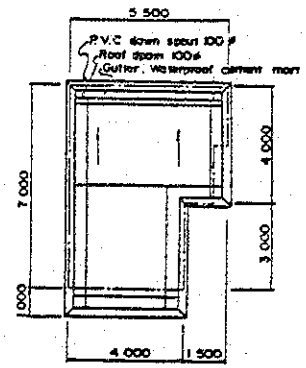
SECTION DETAIL 1/50 SCALE B

Working Division: GUARD HOUSE

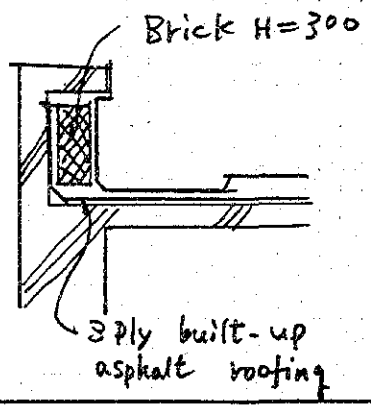
Description	Calculation Details	Unit	Quantity	Remarks
6)-2	Ceramic tile			
	8.4 x 2.45 = 20.58			
	AW-5 △ 1.0 x 0.95 = △ 0.95			
	WD-2 △ 0.7 x 2.1 = △ 1.47	m^2	18.16	
2)-4	Ceiling, exposed surface, VEP			
& 8)-2	Ⓐ 25.36			
	Ⓑ 4.35 } 29.71	m^2	29.71	to page 81
5)-5	Terrazzo counter ℓ=3,000			Item 5)-5
	3 x 0.45 = 1.35	m^2	1.35	1.35 + 1.87 = 3.22 m^2
9)-1	Blind box			
	1.1 + 3.6 = 4.7	m	4.70	
8)-1	Oil paint			Item 8)-1
	4.7 x 0.6 = 2.82	m^2	2.82	2.82 + 12.08 = 14.9 m^2 (P.87)
13)-2	Venetian blind			
	AW-5 1.0 x 0.95 = 0.95			
	-7 3.5 x 1.2 = 4.2			
	5.15			
	5.15 x 1.15 = 5.92	m^2	5.92	

Working Division: GUARD HOUSE

Description	Calculation Details	Unit	Quantity	Remarks
Exterior	Finish			See DWG. NO. A - 065
4)-1	Base cement mortar plaster			Item 4)-1
7)-1	3 ply asphalt roofing, concrete trowel finish			35.72 + 9.19 = 44.91 m^2
	5.35 x 7.28 = 41.62		Ⓐ	
	4.15 x 3.93 = 45.9 } 35.72	m^2	35.72	
2)-1	Concrete "class F"			
	Ⓐ 35.72 x 0.06 = 2.14	m^3	2.14	to page 79
3)-2	Brick masonry			
	26.26 x 0.3 = 7.88	m^2	7.88	
4)-1	Parapet, 3 ply asphalt roofing			
	26.26 x 0.35 = 9.19	m^2	9.19	
7)-6	Parapet, waterproof cement mortar plaster			
	26.26 x 0.7 = 18.38	m^2	18.38	
7)-4	Wall, cement mortar plaster VEP paint			
	(4.15 + 2.5) x 2.45 = 16.29			
	(5.65 + 2.15 + 1.0 + 3.0 + 7.15) x 3.1 = 58.75			
	(5.21 + 2.35) x 1.4 = 11.28			
	open AD & AW 4(3.36 + 7.95) = 4 11.31	m^2	75.01	
	75.01 m^2			



SCALE A ROOF PLAN 1/100



Working Division: GUARD HOUSE

Description	Calculation Details	Unit	Quantity	Remarks
2)-4	Ceiling, exposed surface VEP paint			
& 8)-2	3.85 x 0.78 = 3.0			
	1.85 x 0.35 = 0.65	m^2	3.65	to page 81
12)-1	Roof drain Φ100 mm	nos	2	
13)-1	PVC downspout Φ100 mm			
	2.9 x 2 = 5.8	m	5.80	
5)-5	Terrazzo counter			
	4.15 x 0.45 = 1.87	m^2	1.87	
7)-2	Cement mortar plaster to skirting			
	H = 300 mm			
	(5.69 + 7.19) x 2 = 25.76	m	25.76	
3)-1	Concrete block wall t = 150 mm			
	5.5 x 2 x 2.1 = 23.1			
	7.0 x 2 x " = 29.4			
	3.85 x 2 x " = 16.17			
	1.85 x 1 x " = 3.89			
	AD-4 △0.8 x 2.1 x 2 = △3.36			
	" △0.77 x 1.1 x 2 = △1.69			
	AW-5 △1.0 x 0.95 x 2 = △1.9			
	-7 △3.5 x 1.2 = △4.2			
	WD-1 △0.8 x 2.1 x 2 = △3.36			
	-2 △0.7 x 2.1 = △1.47			
	56.73	m^2	56.73	
2)-5	Reinforcing bar 56.73 x 3.4 = 193 kg	kg	193	

Working Division: GUARD HOUSE

Description	Calculation Details	Unit	Quantity	Remarks
10)-1	Wooden door leave			See DWG. NO. A-005
	WD-1 0.8 x 2.1 x 2 = 3.36			
	-2 0.7 x " x 2 = 1.47	m^2	4.83	
10)-2	Aluminium door			See DWG. NO. A-005
	AD-4 0.8 x 2.1 x 2 = 3.36	m^2	3.36	
10)-3	Aluminium window			See DWG. NO. A-005
	AW-5 1.0 x 0.95 x 1 = 0.95			
	" 1.0 x 0.95 x 1 = 0.95			
	AW-7 3.5 x 1.2 x 1 = 4.2			
	AD-4 0.77 x 1.2 x 2 = 1.85			
	7.95	m^2	7.95	
11)-1	Plate glass 5mm			See DWG. NO. A-005
	AW-5 1.0 x 0.95 x 1 = 0.95			
	AW-7 3.5 x 1.2 x 1 = 4.2			
	AD-4 0.77 x 1.2 x 2 = 1.85			
	" 0.65 x 0.8 x 2 = 1.04			
	8.04	m^2	8.04	
11)-2	Figured glass 4mm			See DWG. NO. A-005
	AW-5 1.0 x 0.95 x 1 = 0.95			
	WD-1 0.65 x 0.8 x 2 = 1.04			
	-2 0.55 x 0.8 x 1 = 0.44			
	2.43	m^2	2.43	

Working Division: GUARD HOUSE

Description	Calculation Details	Unit	Quantity	Remarks
B)-1	Oil paint to wooden surface			See DWG. NO. A-005
	WD-1 0.8×2.1×2.5×2 = 8.4			
	-2 0.7×2.1×2.5×1 = 3.68			
	12.08	m^2	12.08	

Working Division: B10.7 ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
B10.7/01	Building works			
1)	Earth works			
1)-1	Excavation			1)-1 F1 FG1
	F1 175.0 x 0.8 x 0.65 = 91.0			
	FG1 4.2 x 0.59 x " = 1.61	m^3	92.61	
1)-2	Backfill			
	Excavation – disposal			
	92.61 – 31.56 = 61.05	m^3	61.05	
1)-3	Disposal			
	Level conc. 4.45			
	Foundation conc. 32.24			
	△175.0 x 0.19 x 0.15 = △4.99			
	△4.81 x " x " = △0.14	m^3	31.56	
1)-4	Gravel bedding			1)-4 See. DWG. NO. A-007
	Floor 254.03 x 0.15 = 38.1			
	△179.81 x 0.19 x 0.15 = △5.12	m^3	32.98	
2)-1	Leveling concrete "class F"			2)-1 See. DWG. NO. A-012 & A-014
	F1 175.0 x 0.5 x 0.05 = 4.38			
	FG1 4.5 x 0.29 x " = 0.07			
	Roof concrete			
	Ⓟ 243.97 x 0.06 = 14.64	m^3	19.09	
	(P. 96)			

Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
2)-2	Concrete class A			2) - 2 concrete class A
①	F1 120 x 3 = 36.0			see. DWG. NO. A-012 & A-014
②	18.0 x 2 = 56.0			
③	8.0 x 2 = 16.0			
④	11.0 x 4 = 44.0			
⑤	7.5 x 2 = 15.0			
⑥	4.0 x 2 = 8.0			
	175.0			
	175.0 x 0.4 x 0.18 = 12.6 m^3			
	" x 0.19 x 0.57 = 18.95 m^3			
	FG1 4.81 x 0.19 x 0.75 = 0.69 m^3			
	① ② ③			
	G1, 2G1 12.0 + 28.0 + 3.5 x 5 + 4.0 x 2			
	①' ②' ③' = 65.5			
	RG1 12.0 + 28.0 + 3.5 x 5 = 57.5			
	123.0			
	123.0 x 0.15 x 0.45 = 8.3 m^3			
④	G2, 2G2 28.0 x 2 = 56.0			
⑤	7.5 x 4 = 30.0			
⑥	6.5 x 2 = 13.0			
④'	RG2 28.0 x 2 = 56.0			
⑤'	7.5 x 4 = 30.0			
⑥'	6.5 x 2 = 13.0			
	198.0			
	198.0 x 0.25 x 0.45 = 22.28 m^3			

Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
2)-2	B1 0.3 x 0.45 x 4.25 x 12 = 6.89			
	" x " x 1.3 x 2 = 0.35			
	7.24 m^3			
	S1.2S1 28.15 x 7.65 = 215.35			
	4.15 x 1.0 = 4.15			
	12.15 x 3.5 = 42.53			
	△ 2.85 x 1.5 = △ 4.28			
	RS1 28.15 x 7.65 = 215.35			
	12.15 x 3.5 = 42.53			
	515.63			
	515.63 x 0.15 = 77.34 m^3			
	W15 10.15 x 2.4 x 0.15 = 3.65			
	1.5 x 3.0 x " = 0.68			
	4.33 m^3			
	wall 7.85 x 0.45 x 0.15 x 2 = 1.06			
	" x 0.15 x " x 1 = 0.18			
	Handrail 6.0 x 0.8 x 0.15 = 0.72			
	7.85 x " x " = 1.88			
	1.5 x 1.1 x " = 0.25			
	3.85 x 0.8 x " x 2 = 0.92			
	5.01 m^3			
	Parapet			
	93.0 x 0.5 x 0.15 = 6.98			
	" x 0.15 x 0.12 = 1.67 } 8.9 m^3			
	14.0 x 0.15 x 0.12 = 0.25			

Working Division: ENGINEER'S OFFICE

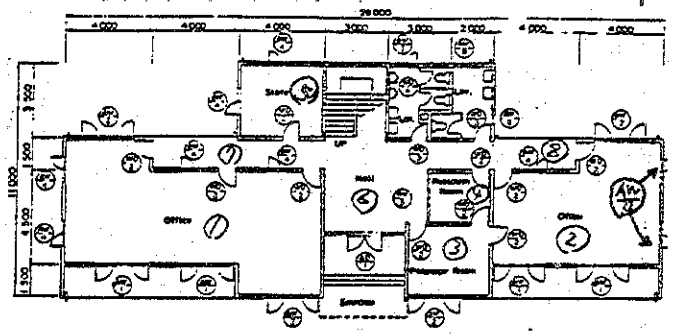
Description	Calculation Details	Unit	Quantity	Remarks
2)-2	Stair 1.5 x 2.0 x 0.23 x 2 = 1.38 m^3			
	Floor 28.15 x 7.65 = 215.35			
	△ 3.85 x 1.0 = △ 3.85			
	12.15 x 3.5 = 42.53			
	254.03			
	254.03 x 0.15 = 38.1 m^3			
	Floor 3.85 x 0.45 x 0.2 = 0.35			
	15.7 x 0.45 x 0.15 = 1.06			
	1.41 m^3			
	Total of concrete class A	m^3	206.53	
2)-3 & -4	Form			2)-3 & -4
	F1 175.0 x 1.5 = 262.5 m^2			Form See. DWG. NO A-012 & A-014
	FG1 48.1 x 1.5 x 1 = 7.22			
	G1 123.0 x 0.9 x 1 = 110.7			
	G2 198.0 x 0.9 x 1 = 178.2			
	B1 0.9 x 4.25 x 12 = 45.9			
	" " x 1.3 x 2 = 2.34			
	S1 515.63 x 1.0 = 515.63			
	W15 10.15 x 4.8 x 1 = 48.72			
	" 1.5 x 6.0 x 1 = 9.0			
	slab 79.6 x 0.15 x 2 = 23.88			
	wall 7.85 x 0.9 x 2 = 14.13			
	" " x 0.3 x 1 = 2.36			

Working Division: ENGINEER'S OFFICE

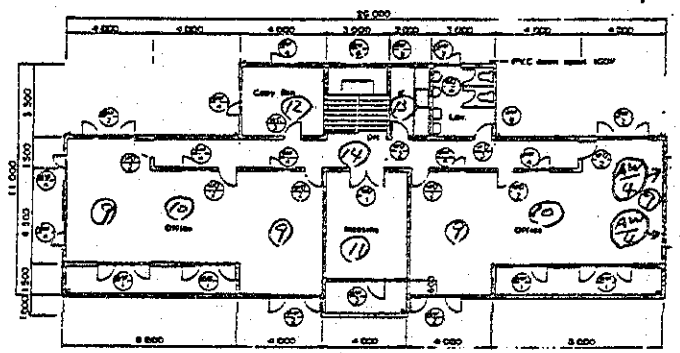
Description	Calculation Details	Unit	Quantity	Remarks
2)-3 & -4	Handrail 6.0 x 1.6 x 1 = 9.6			
	" 7.85 x 1.6 x 2 = 25.12			
	" 1.5 x 2.2 x 1 = 3.3			
	" 3.85 x 1.6 x 2 = 12.32			
	Parapet 93.0 x 1.0 x 1 = 93.0			
	" " x 0.15 x 1 = 13.95			
	" 140 x 0.3 x 1 = 42			
	Stair 1.5 x 2.0 x 2 = 6.0			
	" 3.0 x 1.5 x 1 = 4.5			
	Floor 80.6 x 0.15 x 1 = 12.09			
	" 3.85 x 0.6 x 1 = 2.31			
	" 15.7 x 1.2 x 1 = 18.84			
	Total of Form	m^2	1,425.81	
2)-4	Exposed surface			
	403.61 + 60.87 = 464.48 m^2	m^2	464.48	
	(P. 96) (P. 98)			
2)-3	Plastering surface			
	1,425.81 - 464.48 = 961.33	m^2	961.33	
2)-5	Reinforcing bar			
	206.53 x 0.12 = 24.8 ton			
	(P. 99) 402.98 x 3.4 = 1,370 kg	ton	26.17	

Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
Interior Finish				See DWG. NO. A-007
5)-1	Terrazzo block on floor			
(1)	1F Office left 3.85 x 5.85 = 22.52			
	" 4.15 x 4.35 = 18.05			
	" 3.85 x 5.85 = 22.52			
(2)	" right 4.0 x 4.35 = 17.4			
	" 3.85 x 585 = 22.52			
(3)	manager R. 3.85 x 3.35 = 12.9			
(4)	Guard R. 2.85 x 2.35 = 6.7			
(5)	Store R. 3.85 x 3.35 = 12.9			
(6)	Hall " x 4.35 = 16.75			
	" 1.0 x 3.85 = 3.85			
	" 2.85 x 3.5 = 9.98			
(7)	Corrider 8.0 x 1.43 = 11.44			
(8)	" 7.0 x " = 10.01			
	Ⓐ 187.54 m²			
(9)	2F. office 3.85 x 5.85 x 4 = 90.09			
(10)	" 4.15 x 4.35 x 2 = 36.11			
(11)	meeting 3.85 x 4.85 = 18.67			
(12)	copy R. 3.85 x 3.35 = 12.9			
(13)	Kitchen 1.85 x " = 6.2			
(14)	corrider 19.85 x 1.35 = 26.8			
	Ⓑ 190.77 m²			
	Stair 2.85 x 3.5 = 9.98 }			
	" 1.4 x 3.0 = 4.2 } 14.18	m²	392.49	



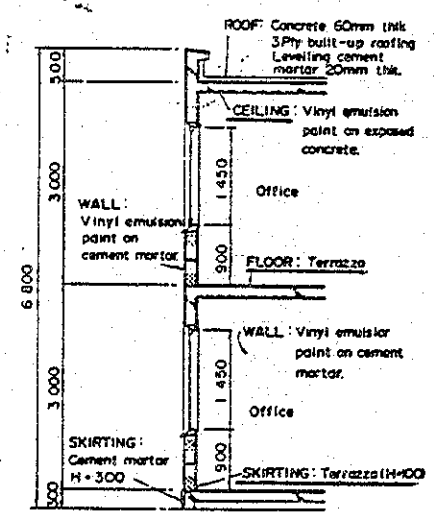
GROUND FL. PLAN 1/100 (SCALE: A)



1ST FL. PLAN 1/100 (SCALE: A)

Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
6)-1	Mosaic tile on floor			
	Lavatory 4.7 x 3.35 = 15.75			
	" 2.85 x 3.35 = 9.55			
	© 25.30 m²	m²	25.3	
5)-2	Terrazzo block to skirting			
	H=100 m			
	1F, Office left 38.4 - (2.4x2) = 33.6			
	" right 27.4 - (2.4x2) = 22.6			
	manager R. 14.4			
	guard R. 10.4			
	Store R. 14.4			
	hall 22.7 - 3.75 = 18.95			
	corridor 25.3			
	2F, office (38.4x2) - (2.4x4) = 67.2			
	meeting 17.4 - 3.75 = 13.65			
	copy room 14.4			
	kitchen 10.4			
	corridor 39.55			
	stair 7.6			
	WD-1 △1.6 x 2 = △3.2			
	-2 △0.8 x 36 = △28.8			
	-3 △0.7 x 3 = △2.1			
	stair 2.5 x 4 = 10.0			
	268.35 m²	m²	268.35	



SECTION DETAIL 1/50

(SCALE: B)

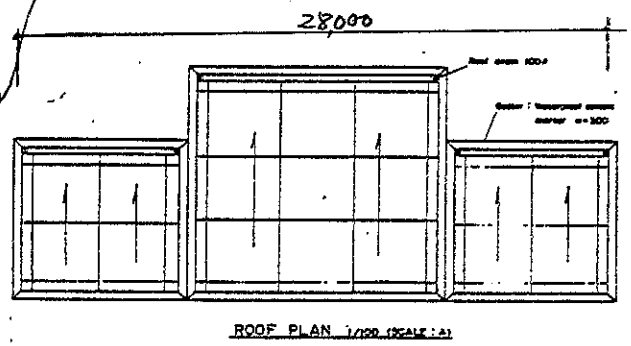
Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
6)-2	Wall, Ceramic tile			
	1F, Lavatory 25.8 x 2.85 = 73.53			
	2F, " 12.4 x " = 35.34			
	AW-7 △1.2 x 1.05 x 2 = △2.52			
	-8 △0.7 x 1.05 x 3 = △2.21			
	WD-3 △0.7 x 2.1 x 3 = △4.41			
	99.73	m^2	99 73	
7)-3	Cement mortar plaster to wall			Item 8)-3
8)-3	VEP paint			746.16 + 403.61 (P.96) + 10.71 (P.96) + 485.69 (P.98)
	1F, 153.0 x 2.75 = 420.75			+ 60.87 (P.98) = 1,707.04 m^2
	" 3.85 x 0.45 x 2 = 3.47			
	2F, 158.55 x 2.75 = 436.01			
	" 9.85 x 3.0 = 29.55			
	AD-1 △3.75 x 2.25 = △8.44			
	AW-1 △2.4 x 2.25 x 8 = △43.2			
	-2 △2.4 x 1.45 x 8 = △27.84			
	-3 △3.75 x 2.25 = △8.44			
	-4 △1.2 x 1.45 x 26 = △45.24			
	-5 △2.25 x 1.45 x 2 = △6.53			
	-6 △1.2 x 1.2 = △1.44			
	-8 △0.7 x 1.05 = △0.74			
	open 2F △3.85 x 1.5 x 2 = △11.55			
	stair 4.0 x 1.0 = 4.0			
	" 1.5 x 1.2 = 1.8			
	" 2.0 x 4.0 x 1/2 = 4.0			
	746.16 m^2	m^2	746 16	

Working Division: ENGINEER'S OFFICE

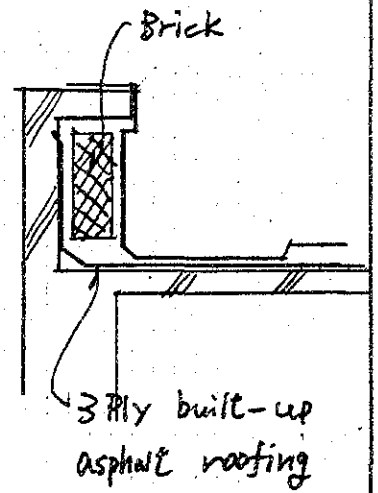
Description	Calculation Details	Unit	Quantity	Remarks
7)-6	Ceiling, cement mortar, VEP paint			
& 8)-3	2.85 x 1.3 = 3.71			
	1.4 x 2.5 x 2 = 7.0 } 10.71	m^2	10.71	
8)-3	Ceiling, VEP paint			
2)-4	floor Ⓐ 187.54 m^2			
	" Ⓑ 190.77			
	" Ⓒ 25.3			
	403.61	m^2	403.61	
5)-5	Terrazzo coping w = 200	m	4.0	
Exterior	Finish			See DWG. NO. A-007
4)-1	Base cement mortar plaster,			Item 4)-1
& 7)-1	3 ply asphalt roofing, concrete			243.97 + 37.17 = 281.14 m^2
	trowel finish for roof			(P97)
	7.85 x 7.35 x 2 = 115.4			
	11.85 x 10.85 = 128.57			
	Ⓓ 243.97	m^2	243.97	
2)-1	Concrete "class F"			
	Ⓓ 243.97 x 0.06 = 14.64	m^3	14.64	
3)-2	Brick masonry			
	30.4 x 0.3 x 2 = 18.24			
	45.4 x 0.3 = 13.62			
	31.86	m^2	31.86	

to page 88



Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
4)-1	Parapet, 3 ply asphalt roofing			
	106.2 x 0.35 = 37.17	m^2	37.17	
7)-9	Waterproof cement mortar plaster to eaves			
	7.85 x 1.35 x 2 = 21.2			
	3.85 x 1.55 = 5.97	m^2	27.17	
5)-1	Terrazzo block on floor			
	7.85 x 1.5 x 2 = 23.55			
	" x 0.4 x 2 = 6.28			
	3.85 x 0.4 x 2 = 3.08			
	3.85 x 2.5 = 9.63			
	" x 0.4 = 1.54			
	44.08	m^2	44.08	
7)-8	Waterproof cement mortar plaster parapet H=100 mm			
	30.4 x 0.7 x 2 = 42.56			
	45.4 x 0.7 = 31.78			
	△0.15 x 7.35 x 2 = △2.21			
	72.13	m^2	72.13	
7)-2	Cement mortar plaster to skirting H = 300 mm			
	(28.15 + 11.15) x 2 = 78.6			
	△(7.85 x 2 + 3.85 x 3) = △27.25	m	51.35	



Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
7)-5	Cement mortar plaster to wall			
& 8)-3	VEP paint			
	1F & 2F 50.45 x 6.5 = 327.93			
	center 4.15 x 6.5 x 2 = 53.95			
	1F & 2F 11.0 x 2.85 x 4 = 125.4			
	1F hall 9.85 x 2.85 = 28.07			
	2F, meeting R. 5.45 x 2.85 = 15.53			
	parapet 7.85 x 1.2 x 2 = 18.84			
	" 3.85 x 1.2 = 4.62			
	eaves 6.15 x 1.0 = 6.15			
	balcony 7.85 x 2.6 x 2 = 40.82			
	" 5.8 x 2.6 = 15.08			
	open AD & AW △133.8			
	AW-4 1.2 x 1.45 x 7 = 12.18			
	-5 2.25 x 1.45 = 3.26			
	open △3.85 x 1.8 x 2 = △13.86			
	" △ " x 2.4 x 2 = △18.48			
	485.69	m^2	485.69	to page 95
7)-4	Waterproof cement mortar to skirting			
	H=100 mm			
	18.4 x 2 + 10.8 = 47.6	m	47.6	
8)-3	Eaves, VEP paint			
& 2)-4	1, 2F 7.85 x 1.35 x 4 = 42.39			
	1F hall 3.85 x 4.0 = 15.4			
	3.85 x 0.8 = 3.08	m^2	60.87	to page 92 & page 95

Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
3)-1	Concrete block wall t=150 mm			
	1F 122.5 x 2.4 = 294.0			
	2F 127.5 x 2.1 = 267.75			
	Kitchen 3.35 x 1.1 = 3.69			
	Toilet 〃 x 2 x 1.1 = 7.37			
	〃 1.8 x 1.1 = 1.98			
	open △171.81			
	402.98	m²	402.98	

Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
9)-1	Wooden blind box			
	AW1 2.5x8 = 20.0			
	-2 2.5x8 = 20.0			
	-3 3.85x1 = 3.85			
	-4 1.3x19 = 24.7			
	-5 2.35			
	70.9	m	70.9	
8)-2	Oil paint 70.9 x 0.6 = 42.54	m²	42.54	Item 8)-2 42.54 + 95.03 = 137.57 m² (P.102)
10)-1	Wooden door leave			
	WD-1 1.6 x 2.1 x 1 = 3.36			
	-2 0.8 x 2.1 x 18 = 30.24			
	-3 0.7 x 2.1 x 3 = 4.41			
	38.01	m²	38.01	
10)-2	Plastic laminated plywood			
	10.0 x 1.8 = 18.0	m²	18.0	
10)-3	Aluminium door			See DWG. NO. A-007
	AD-1 3.75 x 2.35 = 8.81	m²	8.81	
10)-4	Aluminium window			See DWG. NO. A-007
	AW-1 2.4 x 2.35 x 8 = 45.12			
	-2 2.4 x 1.45 x 8 = 27.84			
	-3 3.75 x 2.35 x 1 = 8.81			
	-4 1.2 x 1.45 x 19 = 33.06			
	-5 2.25 x 1.45 x 1 = 3.26			
	-6 1.2 x 1.2 x 1 = 1.44			

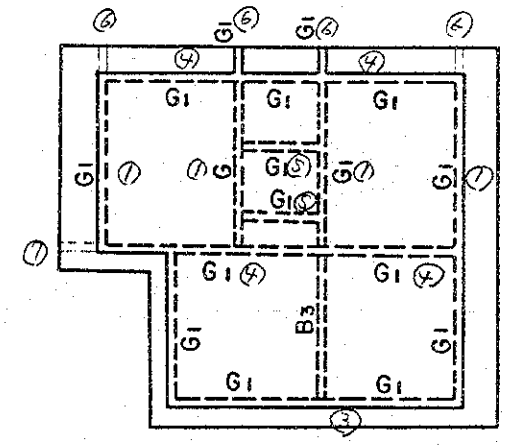
Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity	Remarks
10)-4	AW-7 12 x 1.05 x 2 = 2.52			See DWG. NO. A-007
	-8 0.7 x 1.05 x 4 = 2.94			
	124.99	m^2	124.99	
11)-1	Plate glass 5 mm			See DWG. NO. A-007
	AD-1 3.75 x 2.25 = 8.44			
	AW-1 2.4 x 2.25 x 8 = 43.2			
	AW-2 2.4 x 1.45 x 8 = 27.84			
	-3 3.75 x 2.25 x 1 = 8.44			
	-4 1.2 x 1.45 x 19 = 33.06			
	-5 2.25 x 1.45 x 1 = 3.26			
	-6 1.2 x 1.2 x 1 = 1.44			
	125.68	m^2	125.68	
11)-2	Figured glass 4 mm			See DWG. NO. A-007
	AW-7 1.2 x 1.05 x 2 = 2.52			
	-8 0.7 x 1.05 x 4 = 2.94			
	WD-2 0.65 x 0.8 x 18 = 9.36			
	-3 0.55 x 0.8 x 3 = 1.32			
	15.14	m^2	15.14	
12)-1	Roof drain φ100 mm	nos	7	
12)-2	Steel pipe handrail φ50 mm			
	7.85 x 2 = 15.7			
	3.85 x 2 = 7.7 } 29.2 m			
	5.8	m	29.2	
8)-1	Oil paint 29.2 x 0.3 = 8.76	m^2	8.76	

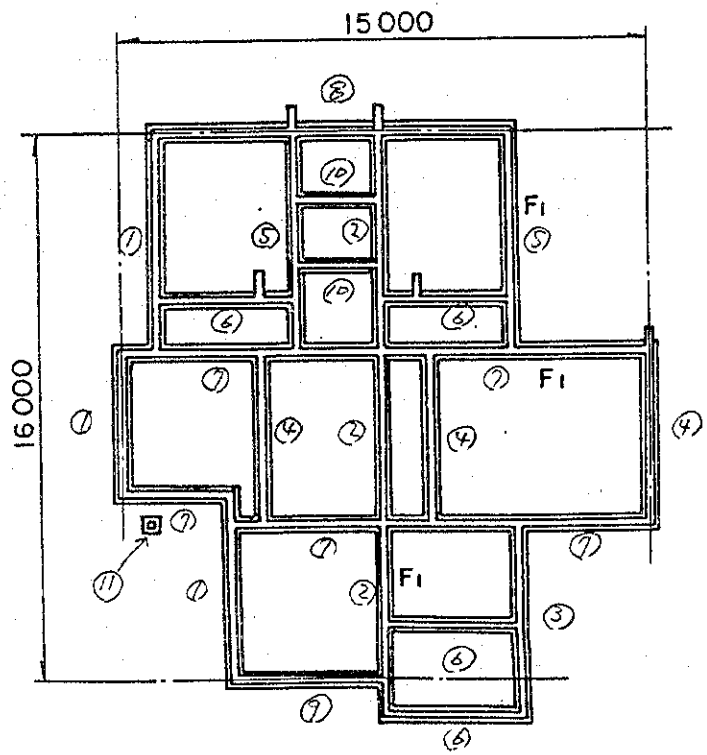
Working Division: ENGINEER'S OFFICE

Description	Calculation Details	Unit	Quantity		Remarks
12)-4	Stainless steel nosing w/non-slip rubber				
	1.4 × 17 = 23.8	m	23	8	
13)-1	PVC down spout φ100 mm				
	6.3 × 6 = 37.8				
	3.3 } 41.1 m	m	41	1	
13)-4	Venetian blind				
	AW-1 ~ AW-5				
	118.09 × 1.15 = 135.8	m²	135	80	
8)-2	Oil paint to wooden surface				
	WD-1 1.6 × 2.1 × 2.5 = 8.4				
	-2 0.8 × 2.1 × " × 18 = 75.6				
	-3 0.7 × 2.1 × " = 11.03				
	95.03	m²	95	03	

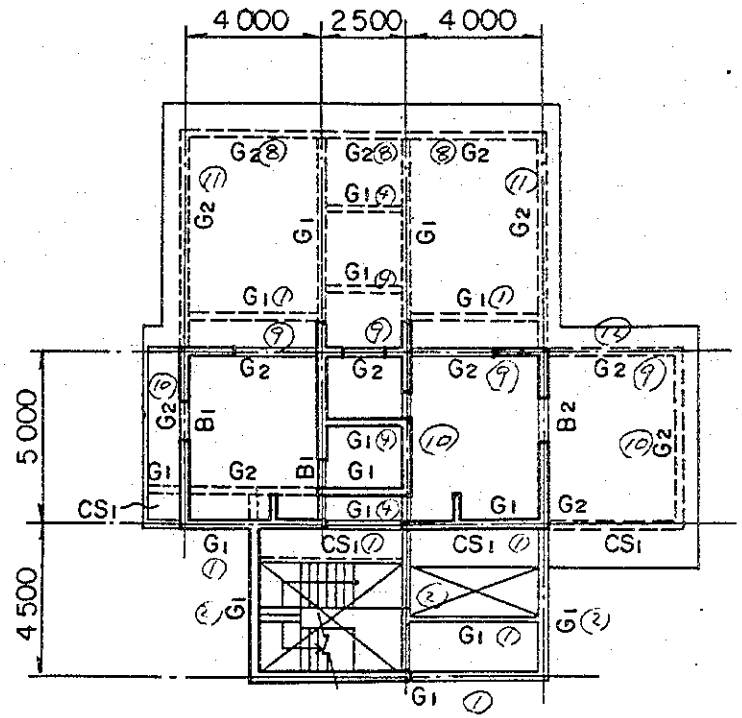
UTILITY BUILDING Ⓐ



ROOF PLAN

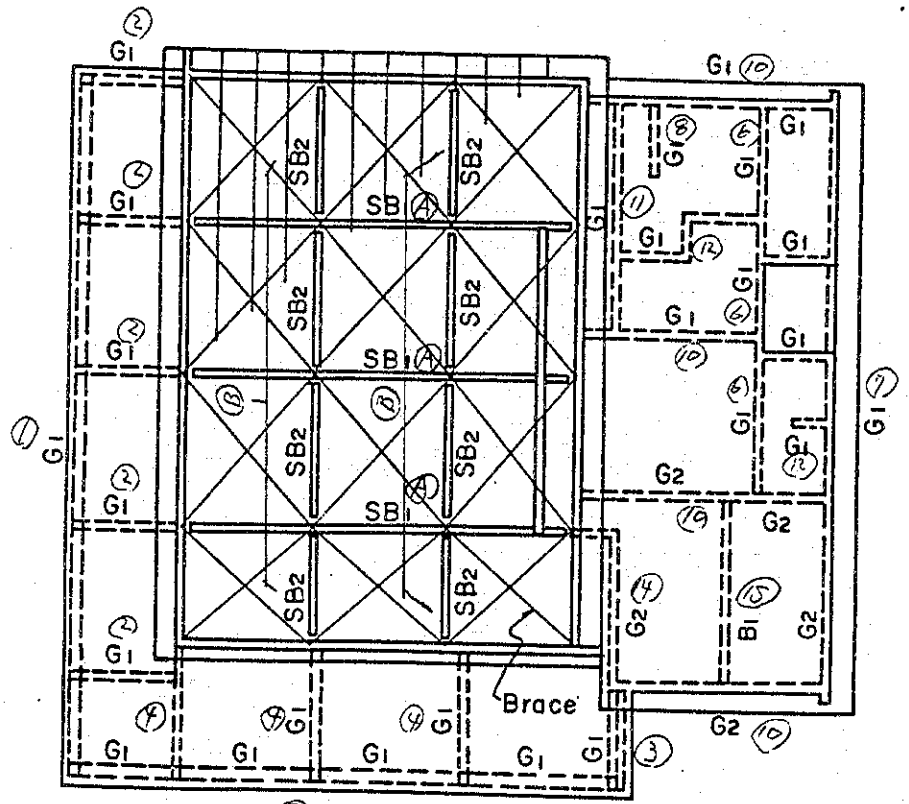


FOUNDATION PLAN



1st FL PLAN

UTILITY BUILDING (B)



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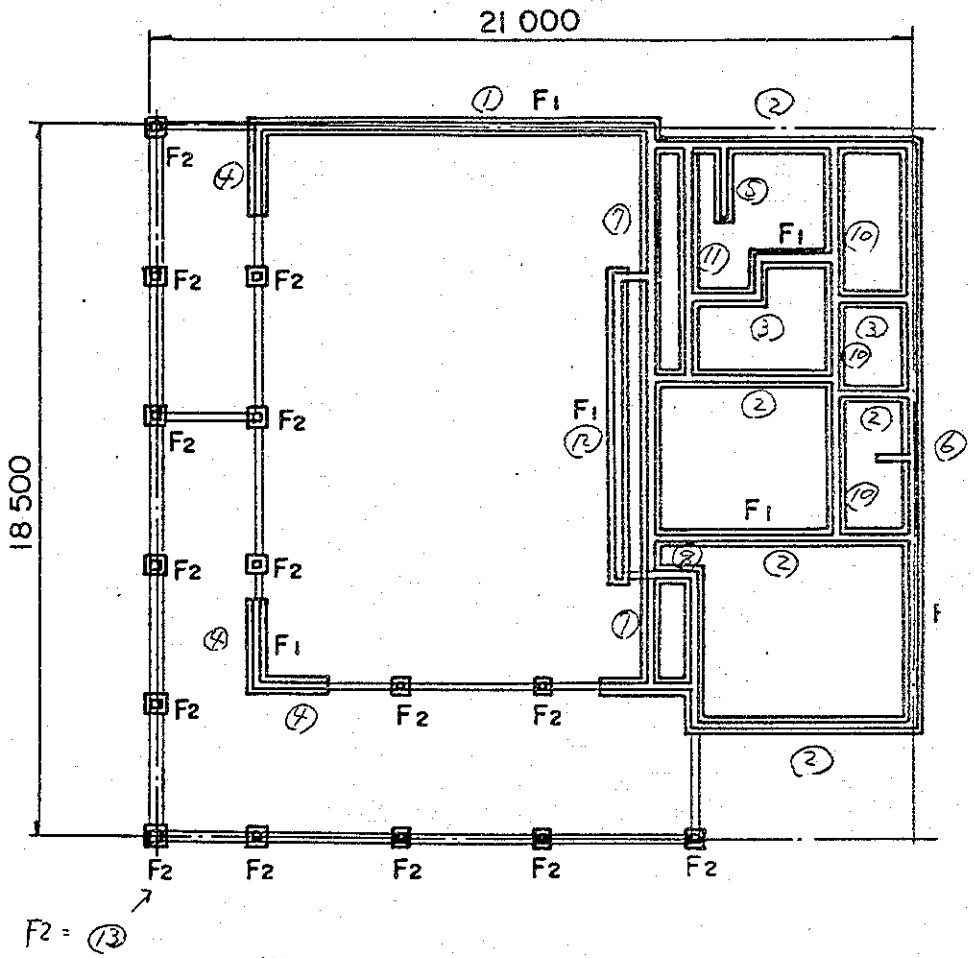
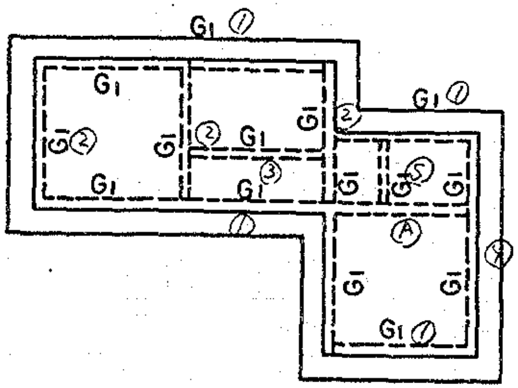


FOUNDATION PLAN

RESIDENCE TYPE-A



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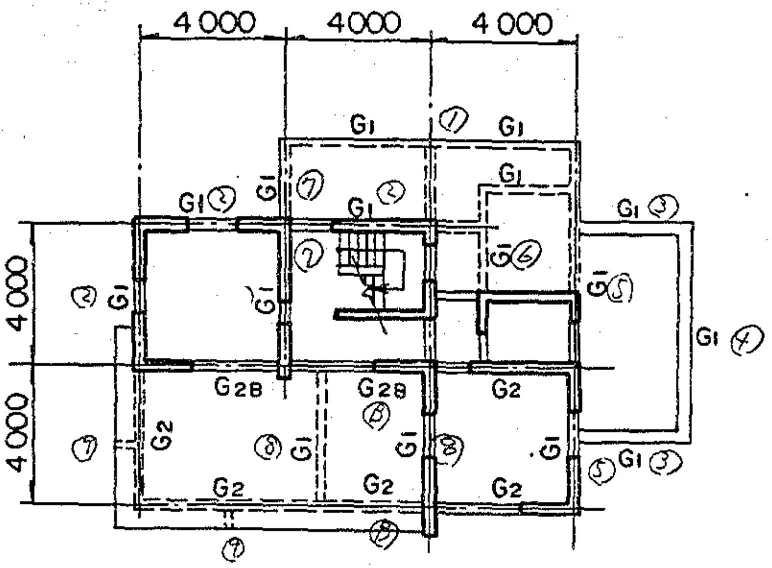
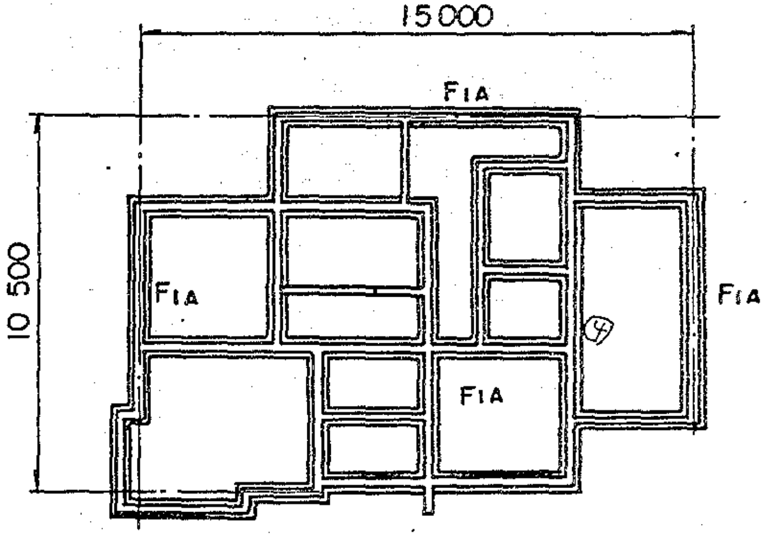
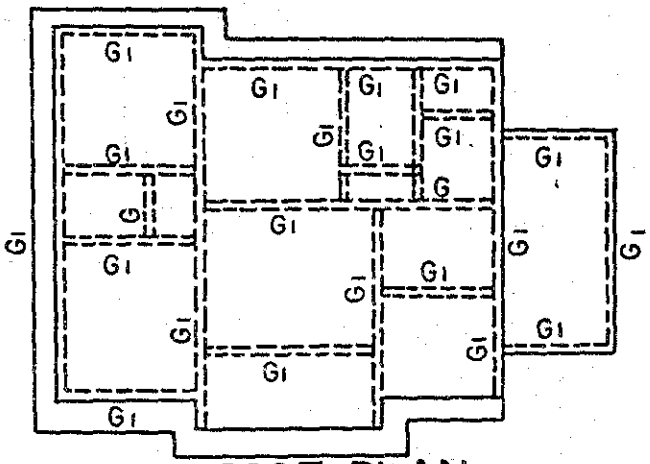


1st FL PLAN



FOUNDATION PLAN

RESIDENCE TYPE-B



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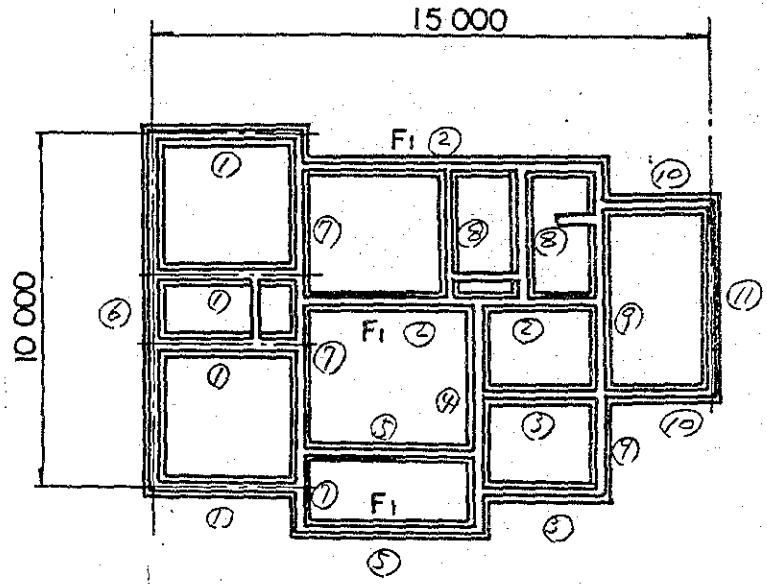
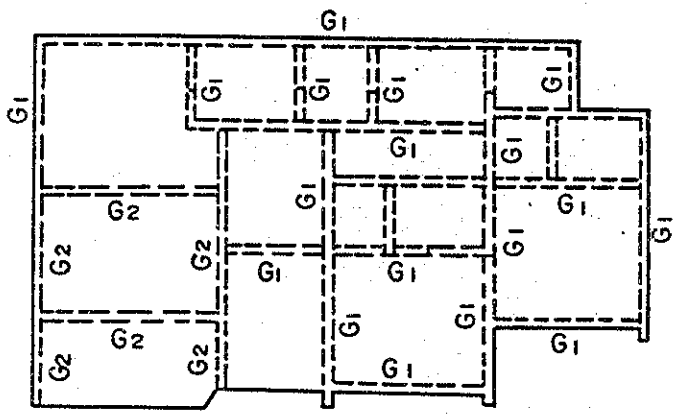


FOUNDATION PLAN

102-5

RESIDENCE TYPE-C



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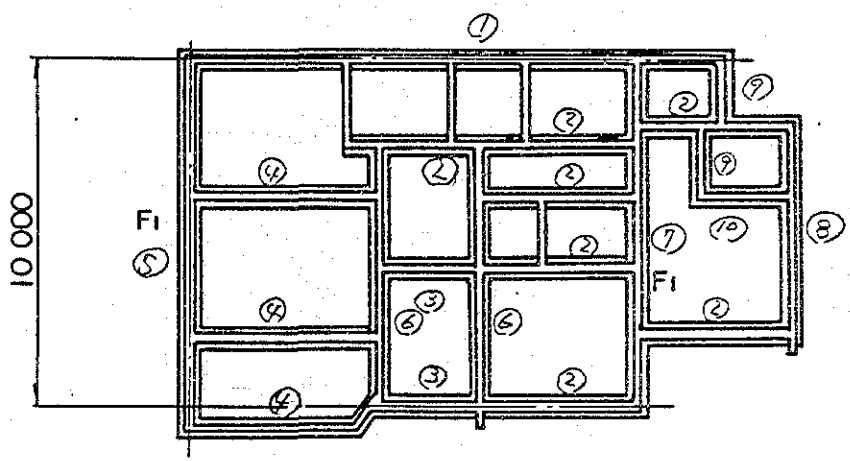
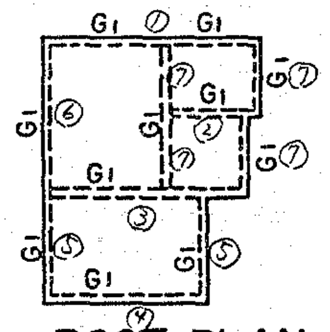


FOUNDATION PLAN

GUARD HOUSE



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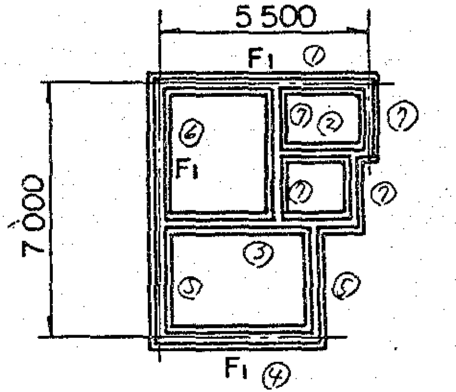
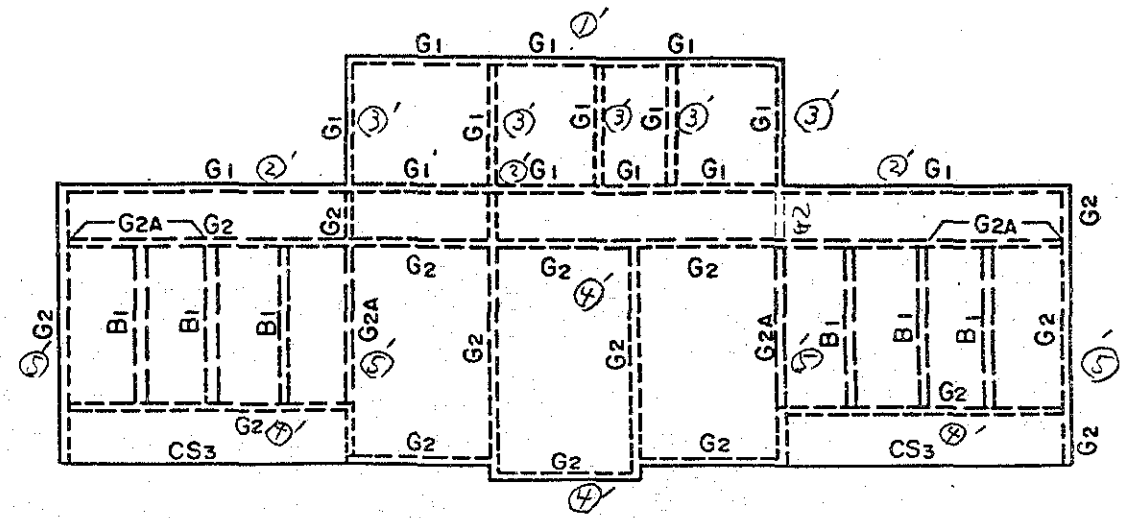


FOUNDATION PLAN

ENGINEER'S OFFICE



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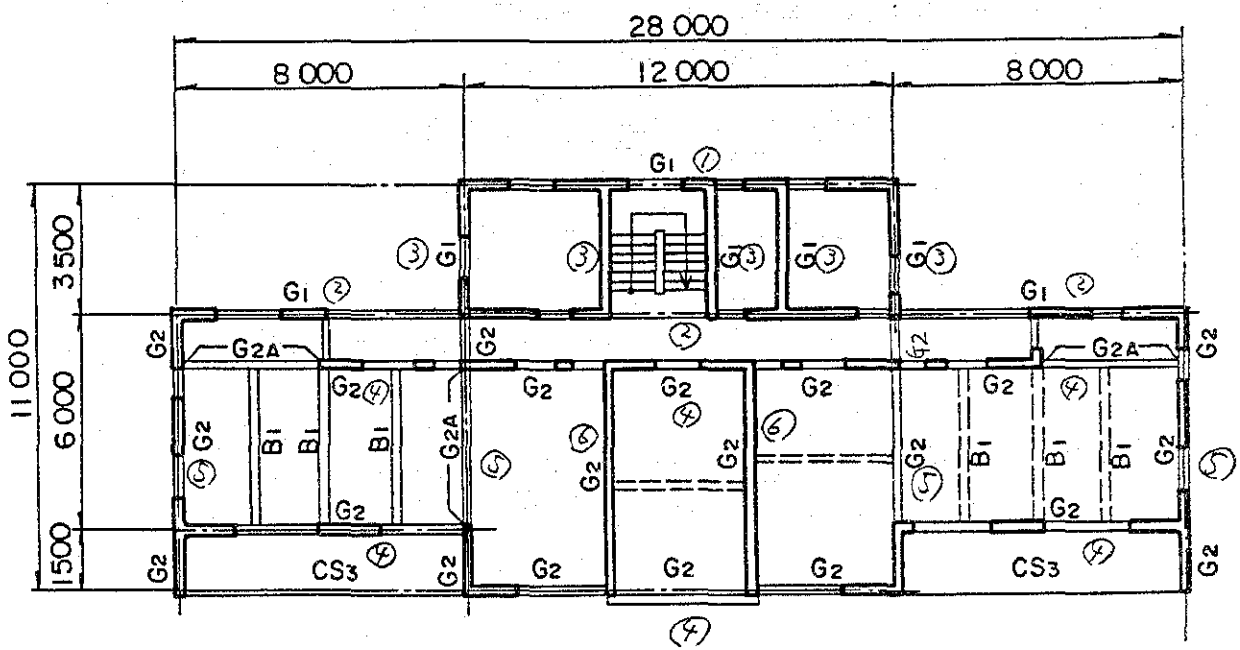
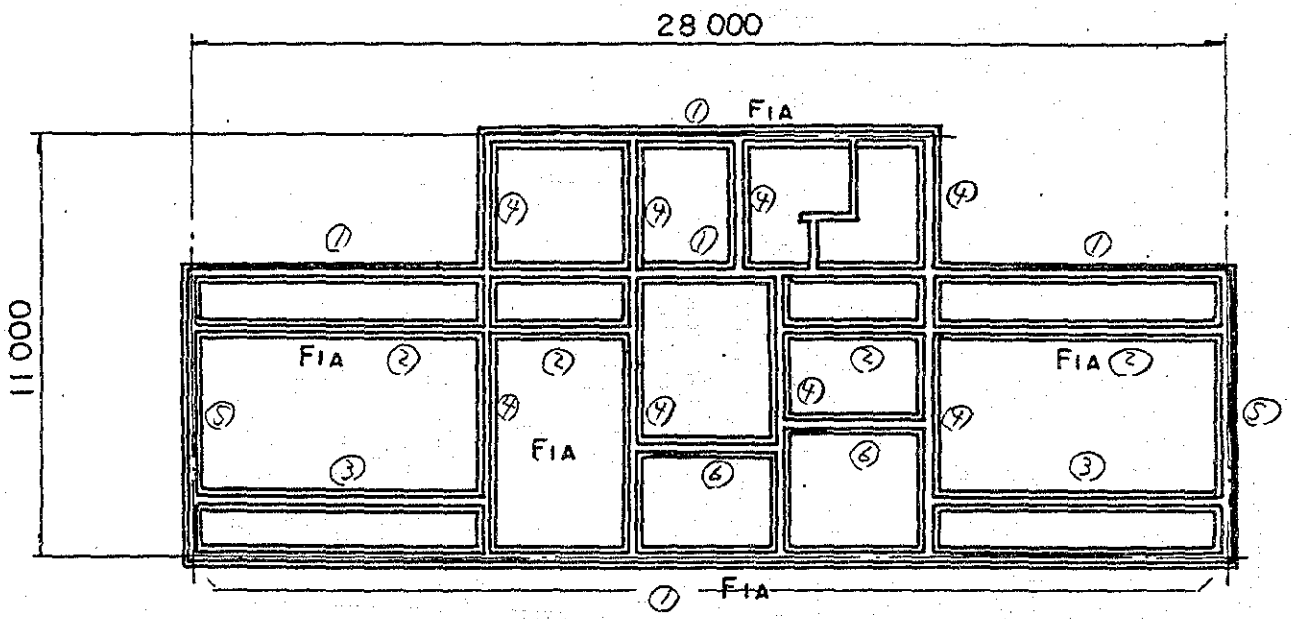


1st FL PLAN

ENGINEER'S OFFICE



FOUNDATION PLAN

Utility Building A Type

Water supply

Galvanized steel pipe (Same to Insulation)

50φ	1	×1.2	1 m
40φ	(8+1.5+11.5+4.5+4+1)	×1.2	37 m
32φ	2.5	×1.2	3 m
25φ	(2+1+3+3+2+3+1)	×1.2	18 m
20φ	(4+4+5+2+3+3+3+2+5+4+4 3+4+4+5+3)	×1.2	70 m

Gate valve.

50φ	1	1 ea
40φ	1	1 ea
20φ	4	4 ea

Valve casing 1 — 1 ea

Painting for pipe 20φ (3.2 × 4) ×1.2 — 15 m

Hot water supply

Copper tube (Same to Insulation)

20φ	(4+2.5+4.5+3.5+4+4+2.5 +4.5+3.0+3.5)	×1.2	43m

Painting for pipe

20φ	(3.2 × 4)	×1.2	15m

Drainage and Sewerage

P.V.C pipe

100φ	(8+5+12+13+6+6+7+5+10 10+10)	×1.2	110m
75φ	(5+5+5+6)	×1.2	25m
65φ	(3+3+3+3)	×1.2	15m
50φ	(2+2+2+2+2+5)	×1.2	18m
40φ	(2.5×4+2×4)	×1.2	22m

Ventilation works

Spiral duct

150φ	(3.5+2+3.5+2)	×1.1	12m

Utility Building B Type

Water supply

Galvanized steel pipe (Same to Insulation).

50φ	1	×1.2	1 m
40φ	(5+2+6)	×1.2	16 m
32φ	2.5	×1.2	3 m
25φ	(3+2+4+3)	×1.2	14 m
20φ	7+7+5+4+6+3+5+7+3	×1.2	56 m

Gate valve

50φ	1	1

Valve casing 1 — 1

Drainage and Sewerage

P.V.C pipe

100φ	(5+7+11+10+7+4+3+3)	×1.2	60m
75φ	(8+2+7+3)	×1.2	24m
65φ	5	×1.2	6m
50φ	(3+3+2+3+1.5)	×1.2	15m
40φ	(2×5+3)	×1.2	16m

Air conditioning works

Refrigerant copper tube (Same to Painting)

25.4φ	(3.5+4.5)	×1.2	10m
15.9φ	(3.5+4.5)	×1.2	10m

Drain piping

P.V.C pipe

25φ	(2+2)	×1.2	5m

Residence Type A

Water supply

Galvanized steel pipe (Same to Insulation)

40φ	(1+6)	×1.2	8m
32φ	(4+3.5)	×1.2	9m
25φ	(2+2)	×1.2	5m
20φ	(8+2+3+6+5+3+3+3.5 1.5+2.5+3.5+0.5)	×1.2	50m.

Gate valve

40φ	1	1 ea
32φ	1	1 ea
20φ	2	2 ea.

Valve casing 1

Painting for pipe

32φ	3.0	×1.2	4m
20φ	(3.5+3.5)	×1.2	8m

Hot water supply

Copper Tube (Same to Insulation)

20φ	(3.5+4+4+3.5)	×1.2	18m

Painting for pipe

20φ	(3.5+3.5)	×1.2	8m

Drainage and Sewerage

P.V.C pipe

100φ	(8+10+6+3+4+5+3.5+4 2+3+2)	×1.2	60m
75φ	(1+2+4+3)	×1.2	12m
65φ	(3+2)	×1.2	6m
50φ	(3+3+2+3+2+2)	×1.2	18m
40φ	(3+2+2)	×1.2	8m

Residence Type B

Water supply

Galvanized steel pipe (Same to Insulation)

40φ	1		1 m
32φ			
25φ	(11+6+2)	x 1.2	23 m
20φ	(1+4+7+3+4+3+2+2+2+2+3)	x 1.2	40 m

Gate valve

40φ	1		1 ea
20φ	1		1 ea

Valve casing 1 1 ea

Painting for pipe

20φ	1.5	x 1.2	2 m

Hot water supply

Copper Tube (Same to Insulation)

20φ	(2+3+5)	x1.2	12m

Painting for pipe

20φ	1.5	x1.2	2m

Drainage and Sewerage

P.V.C pipe

100φ	(13+11+7+7+6+6+5+5)	x1.2	72m
75φ	(5+1)	x1.2	7m
65φ	4	x1.2	5m
50φ	(2+2+1)	x1.2	6m
40φ	(3+3+1)	x1.2	8m

Residence Type C

Water supply

Galvanized steel pipe (Same to Insulation)

40φ	(1 + 3.5)	x1.2	5m
32φ			
25φ	(4+2+2+6)	x1.2	17m
20φ	(9+1+2+3+2+2+3+2+5 +4+4+2+6+2+2+1)	x1.2	60m

Gate valve

40φ	1	1 ea
20φ	2	2 ea

Valve casing 1 — 1 ea

Painting for pipe

20φ	(2+2)	x1.2	5m

Hot water supply

copper Tube (Same to Insulation)

20φ	(2+3.5+4+2+3.5+4)	x 1.2	22m

Painting for pipe

20φ	(2+2)	x 1.2	5m

Drainage and Sewerage

P.V.C pipe

100φ	(12+6+8+4+7+3+2+2 2+1)	x 1.2	56m
75φ	(5+6+2)	x 1.2	16m
65φ	2.5	x 1.2	3m
50φ	(3+2.5+1.5+4+1.5+1.5)	x 1.2	17m
40φ	(3.5+3+3+2)	x 1.2	14m

Ventilation work

spiral duct

150φ	5	x 1.2	6m

Guard House

Water supply

Galvanized steel pipe (Same to Insulation)

25φ	3		3m
20φ	(4+7+2.5+3)	×1.2	20m

Gate valve

25φ	1	1 ea

Valve casing	1	1 ea.

Drainage and Sewerage

P.V.C pipe

100φ	(3+4+2+3)	×1.2	15m
75φ	1		1m
50φ	(2+2)	×1.2	5m
40φ	2.5	×1.2	3m

Engineer's office

Water supply

Galvanized steel pipe (Same to Insulation)

50φ	3		3 m
40φ	3 + 2	x1.2	6 m
32φ	(1+1.5+1+3+1)	x1.2	8 m
25φ	(1+3)		4 m
20φ	(4+2+2+2+3+2+3+3+8 3+2+4+4)	x1.2	50 m

Gate valve

50φ	1	1 ea
32φ	1	1 ea

Valve casing 1 1 ea.

Drainage and Sewerage

P.V.C pipe

100$^{\phi}$	(6+6+6+3+3+5+2+3 +20+25)	x 1.2	95m
75$^{\phi}$	(2+5+1)	x 1.2	10m
65$^{\phi}$	3		3m
50$^{\phi}$	(3+2+2+1.5+1.5)	x 1.2	12m
40$^{\phi}$	(1+2+2+2+3+2)	x 1.2	14m

Out - side facility

Water supply

Galvanized steel pipe (Same to Insulation)

80φ	45	×1.2	54 m
65φ	(40+40+60+45+25)	×1.2	250 m
50φ	(28+120+50+20+55 +15+15+60+10	×1.2	450 m
40φ	(50+13+55+20+30+25 20+10+10)	×1.2	280 m
25φ	(13+3+50+15+20)	×1.2	120 m

Gate valve

80φ	1	1 ea
65φ	1+1+1	3 ea
50φ	1+1	2 ea
40φ	1	1 ea
25φ	1+1+1	3 ea

Valve casing 10 ea

Drainage and Sewerage

P.V.C pipe

150φ	(30+15+20+20+5 + 15+20)	x1.2	150m
100φ	(60+10+25+150+100+50 +5+20+10+55+20+10+10 +30+20+50+10+10+10+10)	x1.2	800m