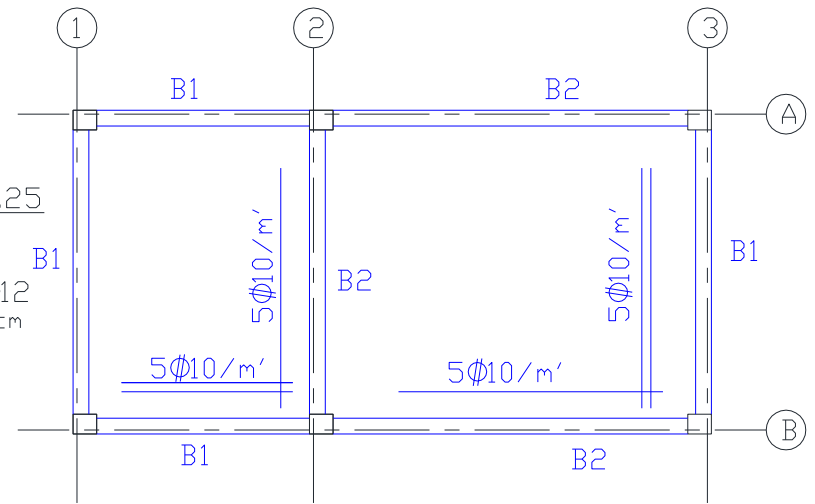
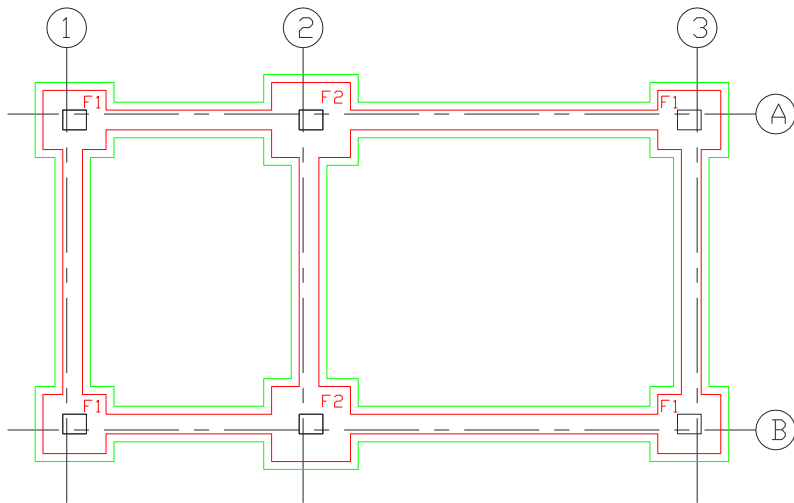


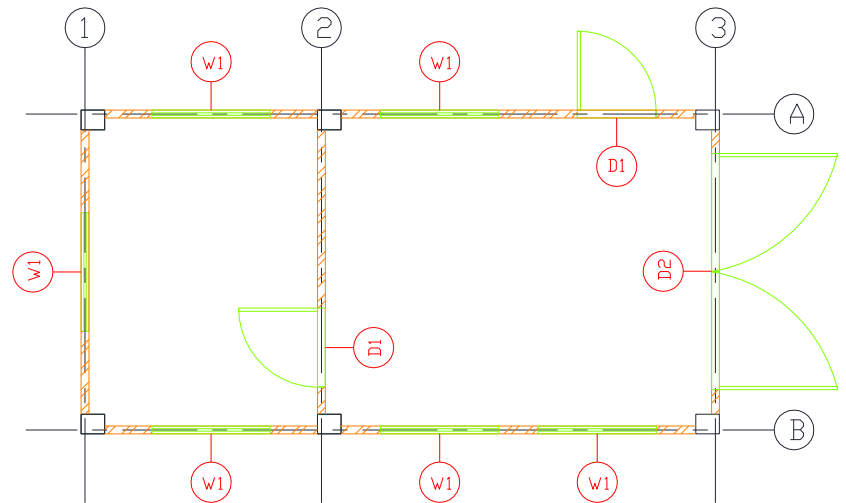
Columns & Axes



Roof



Foundations



Arch. Plan

Footing	Dimensions			Reinforcement	
	L	W	H	Long direction	Short Direction
F1	0.8	0.75	0.5	5 $\phi$ 12	5 $\phi$ 12
F2	1.00	0.95	0.5	6 $\phi$ 12	6 $\phi$ 12

All ties are 25 x 50 cm have a top and bottom reinforcement 3  $\phi$  16 and stirrups  $\phi$  8 @20 cm

Foundation level -1.10 m

Plain concrete for foundations extends 10 from all ends of footings and ties and have a thickness of 15 cm

Roof finishing level +3.7 m

Internal floor finishing level +0.30 m

Window W1 is 1.50 x 1.0 m

Door D1 is 1.0 x 2.2 m

Door D2 is 3.0 x 2.5 m

Roof parapet height is 50 cm

Beam	Dimensions		Reinforcement			
	W	H	Top	Bottom	Hanging	Stirrups
B1	0.2	0.6	2 $\phi$ 16	2 $\phi$ 16	2 $\phi$ 12	$\phi$ 8 @20 cm
B2	0.2	0.6	3 $\phi$ 16	3 $\phi$ 16	2 $\phi$ 12	$\phi$ 8 @20 cm

Item	Description	No.	L	W	H	Add	Deduct	Total
Excavation	Footings F1	4	1.00	0.95	1.10	4.1800		
	Footings F2	2	1.20	1.15	1.10	3.0360		
	Ties axes 1 and 3	2	2.90	0.45	1.10	2.8710		
	Ties axis 2	1	2.70	0.45	1.10	1.3365		
	Ties axes A and B between axes 1 and 2	2	1.90	0.45	1.10	1.8810		
	Ties axes A and B between axes 2 and 3	2	3.70	0.45	1.10	3.6630		
								<b>16.9675</b>
Plain Concrete	Footings F1	4	1.00	0.95	0.15	0.5700		
	Footings F2	2	1.20	1.15	0.15	0.4140		
	Ties axes 1 and 3	2	2.90	0.45	0.15	0.3915		
	Ties axis 2	1	2.70	0.45	0.15	0.1823		
	Ties axes A and B between axes 1 and 2	2	1.90	0.45	0.15	0.2565		
	Ties axes A and B between axes 2 and 3	2	3.70	0.45	0.15	0.4995		
								<b>2.3138</b>
R.C. Foundations	Footings F1	4	0.80	0.75	0.50	1.2000		
	Footings F2	2	1.00	0.95	0.50	0.9500		
	Ties axes 1 and 3	2	3.10	0.25	0.50	0.7750		
	Ties axis 2	1	2.90	0.25	0.50	0.3625		
	Ties axes A and B between axes 1 and 2	2	2.10	0.25	0.50	0.5250		
	Ties axes A and B between axes 2 and 3	2	3.90	0.25	0.50	0.9750		
								<b>4.7875</b>
R.C. Skelton	Columns	6	0.30	0.25	3.83	1.7235		
	Slab	1	8.10	4.10	0.12	3.9852		
	Beams axes 1, 2 and 3	3	3.60	0.20	0.48	1.0368		
	Beams axes A and B between axes 2 and 3	2	4.50	0.20	0.48	0.8640		
	Beams axes A and B between axes 1 and 2	2	2.70	0.20	0.48	0.5184		
								<b>8.1279</b>

Bar #	Member & description	Bar diameter	No. of bars / member	No. of Members	Bar Shape	Total length of bar	W/m (kg)	Total weight of bars (kg)
1	Footing F1 short direction	12	5	4		1.52	0.888	27.00
2	Footing F1 Long direction	12	5	4		1.54	0.888	27.35
3	Footing F2 short direction	12	6	2		1.72	0.888	18.33
4	Footing F2 Long direction	12	6	2		1.74	0.888	18.54
5	Ties axes 1,2 & 3 (main rft. top & bottom)	16	6	3		4.1	1.58	116.60
6	Ties axes A and B between axes 1 and 2 (main rft. top & bottom)	16	6	2		3.3	1.58	62.57
7	Ties axes A and B between axes 2 and 3 (main rft. top & bottom)	16	6	2		5.1	1.58	96.70
8	Ties axes 1 and 3 (Stirrups)	8	16	2		1.34	0.394	16.89
9	Ties axis 2 (Stirrups)	8	15	1		1.34	0.394	7.92
10	Ties axes A and B between axes 1 and 2 (Stirrups)	8	11	2		1.34	0.394	11.62
11	Ties axes A and B between axes 2 and 3 (Stirrups)	8	20	2		1.34	0.394	21.12
12	Column dowels	12	6	6		1.1	0.888	35.16