

TIMISI	DIMENSION	SQUARING	UNIT	ITEM
				1
1	25	400	M ²	1.1
	16			
				1.2
1	15.62	62.5581	M ³	1.2.1
	13.35			
	0.3			
1	16	20.8	M ³	1.2.2
	3.25			
	0.4			
		83.3581	M ³	
				1.3
2	2	18	M ³	1.3.1
	2			
	2.25			
4	1.8	29.16	M ³	1.3.2
	1.8			
	2.25			
5	1.5	25.3125	M ³	1.3.3
	1.5			
	2.25			
1	2.5	6.375	M ³	1.3.4
	1.5			
	1.7			
		78.8475	M ³	
				1.4
1	59.956	50.9626	M ³	1.4.1
	1			
	0.85			
1	43.5			
	1			

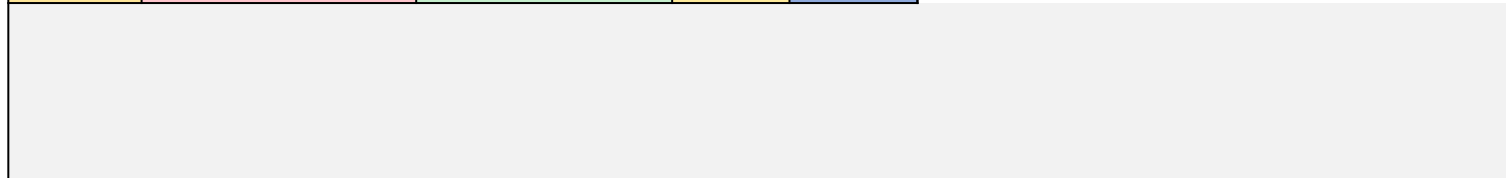
	0.95			
		41.325	M ³	1.4.2
		92.2876	M ³	
		334.4932	M ³	
				1.5
				1.5.1
2	3.3			
	0.5			
	0.8	2.64		
			M ³	1.5.2
4	2.9			
	0.5			
	0.8	4.64		
			M ³	1.5.3
5	2.3			
	0.5			
	0.8	4.6		
			M ³	1.5.4
1	2.3			
	0.5			
	0.8	0.92		
			M ³	1.5.5
		12.8	M ³	
2				1.6
	1.85			
	0.3			
	0.2	0.222		
			M ³	1.6.1
4	1.85			
	0.3			
	0.2	0.444		
			M ³	1.6.2
5	1.9			
	0.3			
	0.2	0.57		
			M ³	1.6.3
1	1.5			
	0.3			
	0.2	0.09		
			M ³	1.6.4
		1.326	M ³	

		14.126	M³	
		64.7215	M³	
1	4.7	6.204	M³	1.7.1
	3.3			
	0.4			
1	4.65	6.138	M³	1.7.2
	3.3			
	0.4			
1	2.4	0.4032	M³	1.7.3
	0.42			
	0.4			
1	2.4	2.592	M³	1.7.4
	2.7			
	0.4			
1	2.4	0.96	M³	1.7.5
	1			
	0.4			
1	4.65	4.464	M³	1.7.6
	2.4			
	0.4			
1	2.7	0.8424	M³	1.7.7
	0.78			
	0.4			
1	3.9	1.56	M³	1.7.8
	1			
	0.4			
1	4.65	7.254	M³	1.7.9
	3.9			
	0.4			
1	4.16	4.4928	M³	1.7.10
	2.7			
	0.4			
	1			

1	1			
	0.4	0.4		
			M ³	1.7.11
		35.3104	M ³	
1	2.525			
	2			
	0.4	2.02		
			M ³	1.8.1
1	4.2			
	2			
	0.4	3.36		
			M ³	1.8.2
1	4.35			
	2			
	0.4	3.48		
			M ³	1.8.3
1	2.825			
	2			
	0.4			
		2.26	M ³	1.8.4
		11.12	M ³	
		46.4304	M ³	
1	59.956			
	0.5			
	0.85	25.4813		
			M ³	1.9.1
1	43.5			
	0.5			
	0.95	20.6625		
			M ³	1.9.2
		46.1438	M ³	
		110.8653	M ³	
		157.2957		
				1.11
		334.4932	M ³	1.11.1
				1.12
1	59.956			
	0.5			
	1.2			
		35.9736		
			M ³	1.12.1
	43.5			

1	0.5	26.1	M ³	1.12.2
	1.2			
		62.0736	M ³	
				3
1	5	4.5	M ³	1.13
	3.6			
	0.25			
1	4.95	4.455	M ³	1.13.1
	3.6			
	0.25			
1	2.7	0.621	M ³	1.13.2
	0.92			
	0.25			
1	3	2.025	M ³	1.13.3
	2.7			
	0.25			
1	2.7	1.215	M ³	1.13.4
	1.8			
	0.25			
1	4.95	3.34125	M ³	1.13.5
	2.7			
	0.25			
1	3	0.7875	M ³	1.13.6
	1.05			
	0.25			
1	4.2	1.89	M ³	1.13.7
	1.8			
	0.25			
1	4.95	5.1975	M ³	1.13.8
	4.2			
	0.25			
1	4.61			
	3			

	0.25	3.4575	M ³	1.13.9
1	1.8			
	1.3			
	0.25	0.585	M ³	1.13.10
1	2.925			
	2.6			
	0.25	1.90125	M ³	1.13.11
1	4.3			
	2.6			
	0.25	2.795	M ³	1.13.12
1	4.55			
	2.6			
	0.25	2.9575	M ³	1.13.13
1	3.225			
	2.6			
	0.25	2.09625	M ³	1.13.14
		99.89835	M ³	



				2.1
2	2			
	2			
		8	M ²	2.1.1
4	1.8			
	1.8	12.96	M ²	2.1.2
5	1.5			
	1.5	11.25	M ²	2.1.3
1	2.5			
	1.5	3.75	M ²	2.1.4
1	59.956	59.956		
	1			
			M ²	2.1.5

1	43.5	43.5	M ²	2.1.6
	1			
1	5	18	M ²	2.1.7
	3.6			
1	4.95	17.82	M ²	2.1.8
	3.6			
1	2.7	2.484	M ²	2.1.9
	0.92			
1	3	8.1	M ²	2.1.10
	2.7			
1	2.7	4.86	M ²	2.1.11
	1.8			
1	4.95	13.365	M ²	2.1.12
	2.7			
1	3	3.15	M ²	2.1.13
	1.05			
1	4.2	7.56	M ²	2.1.14
	1.8			
1	4.95	20.79	M ²	2.1.15
	4.2			
1	4.61	13.83	M ²	2.1.16
	3			
1	1.8	2.34	M ²	2.1.17
	1.3			
1	2.925	7.605	M ²	2.1.18
	2.6			
1	4.3	11.18	M ²	2.1.19
	2.6			
	4.55		M ²	

1	2.6	11.83		
				2.1.20
1	3.225		M ²	2.1.21
	2.6	8.385		
		194.799		
		290.715	M2	
				2.2
2	1.5			
	1.5			
	0.3			
		1.35	M ³	2.2.1
4	1.3			
	1.3			
	0.2	1.352		
			M ³	2.2.2
5	1			
	1			
	0.2	1		
			M ³	2.2.3
1	2			
	1			
	0.15	0.3		
			M ³	2.2.4
		4.002	M ³	
2	2.3			
	0.3			
	0.2	0.276		
			M ³	2.2.5
4	2.3			
	0.3			
	0.2	0.552		
			M ³	2.2.6
5	2.4			
	0.3			
	0.2	0.72		
			M ³	2.2.7
1	0.95			
	0.3			
	0.2	0.057		
			M ³	2.2.8
		1.605 M3		
		5.607	M3	

3	10.65	2.556	M ³	2.2.9
	0.2			
	0.4			
1	12.8	1.024	M ³	2.2.10
	0.2			
	0.4			
1	11.3	0.904	M ³	2.2.11
	0.2			
	0.4			
1	2.345	0.1876	M ³	2.2.12
	0.2			
	0.4			
1	4.705	0.3764	M ³	2.2.13
	0.2			
	0.4			
1	7.145	0.5716	M ³	2.2.14
	0.2			
	0.4			
1	13.065	1.0452	M ³	2.2.15
	0.2			
	0.4			
1	5.95	0.476	M ³	2.2.16
	0.2			
	0.4			
1	2.7	0.216	M ³	2.2.17
	0.2			
	0.4			
2	16	2.56	M ³	2.2.18
	0.2			
	0.4			
5	2.6	1.04		
	0.2			
	0.4			

			M³	2.2.19
		10.9568	M³	
1	5	1.8	M³	2.2.20
	3.6			
	0.1			
			M³	
1	4.95	1.782	M³	2.2.21
	3.6			
	0.1			
			M³	
1	2.7	0.2484	M³	2.2.22
	0.92			
	0.1			
			M³	
1	3	0.81	M³	2.2.23
	2.7			
	0.1			
			M³	
1	2.7	0.486	M³	2.2.24
	1.8			
	0.1			
			M³	
1	4.95	1.3365	M³	2.2.25
	2.7			
	0.1			
			M³	
1	3	0.315	M³	2.2.26
	1.05			
	0.1			
			M³	
1	4.2	0.756	M³	2.2.27
	1.8			
	0.1			
			M³	
1	4.95	2.079	M³	2.2.28
	4.2			
	0.1			
			M³	
1	4.61	1.383	M³	2.2.29
	3			
	0.1			
			M³	

1	1.8	0.234	M ³	2.2.30
	1.3			
	0.1			
1	2.925	0.7605	M ³	2.2.31
	2.6			
	0.1			
1	4.3	1.118	M ³	2.2.32
	2.6			
	0.1			
1	4.55	1.183	M ³	2.2.33
	2.6			
	0.1			
1	3.225	0.8385	M ³	2.2.34
	2.6			
	0.1			
		15.1299	M ³	
		31.6937	M ³	

4	1.5	1.8	M ²	3.1.1
	0.3			
4	1.3	1.56	M ²	3.1.2
	0.3			
4	1	1.2	M ²	3.1.3
	0.3			
2	2	1.2	M ²	3.1.4
	0.3			
2	1	0.6	M ²	3.1.5
	0.3			
		6.36	M ²	
6	2.3	4.14		
	0.3			

			M²	3.2.1
6	2.3	2.76		
	0.2			
			M²	3.2.2
2	2.76	1.656		
	0.3			
			M²	3.2.3
2	2.76	1.104		
	0.2			
			M²	3.2.4
		9.66		
6	4.9	11.76		
	0.4			
			M²	3.2.5
6	4.85	11.64		
	0.4			
			M²	3.2.6
2	1.35	1.08		
	0.4			
			M²	3.2.7
2	4.1	3.28		
	0.4			
			M²	3.2.8
2	2.345	18.76		
	4			
			M²	3.2.9
2	3.5	2.8		
	0.4			
			M²	3.2.10
2	4.1	3.28		
	0.4			
			M²	3.2.11
2	2.345	1.876		
	0.4			
			M²	3.2.12
2	3.5	2.8		
	0.4			
			M²	3.2.13
2	2.345	1.876		
	0.4			
			M²	3.2.14
2	3.205	2.564		
	0.4			

			M²	3.2.15
2	1.695	1.356		
	0.4			
			M²	3.2.16
2	5.75	4.6		
	0.4			
			M²	3.2.17
2	1.485	1.188		
	0.4			
			M²	3.2.18
2	4.11	3.288		
	0.4			
			M²	3.2.19
2	2.6	2.08		
	0.4			
			M²	3.2.20
2	3.5	2.8		
	0.4			
			M²	3.2.21
2	1.995	1.596		
	0.4			
			M²	3.2.22
2	4.85	3.88		
	0.4			
			M²	3.2.23
2	2.345	1.876		
	0.4			
			M²	3.2.24
4	16	22.4		
	0.35			
			M²	3.2.25
10	2.6	9.1		
	0.35			
			M²	3.2.26
		127.64	M²	

6	4.9	11.76		
	0.4			
			M²	4.1.1
6	4.85	11.64		
	0.4			
			M²	4.1.2
	1.35			

2	0.4	1.08	M ²	4.1.3
2	4.1	3.28	M ²	4.1.4
	0.4			
2	2.345	18.76	M ²	4.1.5
	4			
2	3.5	2.8	M ²	4.1.6
	0.4			
2	4.1	3.28	M ²	4.1.7
	0.4			
2	2.345	1.876	M ²	4.1.8
	0.4			
2	3.5	2.8	M ²	4.1.9
	0.4			
2	2.345	1.876	M ²	4.1.10
	0.4			
2	3.205	2.564	M ²	4.1.11
	0.4			
2	1.695	1.356	M ²	4.1.12
	0.4			
2	5.75	4.6	M ²	4.1.13
	0.4			
2	1.485	1.188	M ²	4.1.14
	0.4			
2	4.11	3.288	M ²	4.1.15
	0.4			
2	2.6	2.08	M ²	4.1.16
	0.4			
2	3.5	2.8	M ²	4.1.17
	0.4			
	1.995			

2	0.4	1.596		
			M ²	4.1.18
2	4.85			
	0.4	3.88		
			M ²	4.1.19
2	2.345			
	0.4	1.876		
			M ²	4.1.20
4	16			
	0.35	22.4		
			M ²	4.1.21
10	2.6			
	0.35	9.1		
			M ²	4.1.22
		127.64	M2	



Timising	Dimension	Squering	Unit	Item
9	0.3			
	0.2			
	2.76	1.4904		
			M ³	5.1.1
9	0.3			
	0.2			
	2.81	1.5174		
			M ³	5.1.2
2	3.14			
	0.3			
	2.76	5.19984		
			M ³	5.1.3
2	0.3			
	0.2			
	2.81	0.3372		
			M ³	5.1.4
1	3.14			
	0.3			
	2.76	2.59992		
			M ³	5.1.5
1	3.14			
	0.3			
	2.81	2.64702		

			M³	5.1.6
2	3.14 0.3 2.76	5.19984	M³	5.1.7
14	0.2	1.316	M³	5.1.8
	0.2			
	2.35			
			M³	
1		20.30762	M³	
3	10.6	1.908	M³	5.2.1
	0.3			
	0.2			
			M³	
1	5.4 0.3 0.2	0.324	M³	5.2.2
1	5.15 0.4 0.15	0.309	M³	5.2.3
1	4.71 0.3 0.2	0.2826	M³	5.2.4
1	4.1 0.3 0.2	0.246	M³	5.2.5
2	11.41 0.3 0.2	1.3692	M³	5.2.6
2	3.2 0.4 0.15	0.384	M³	5.2.7
		6.7308	M³	
2	10.6 0.25	1.325	M³	
	0.25			5.3.1
	11.575			

2	0.25 0.25	1.446875	M ³	5.3.2
1	4.025 0.25 0.25	0.2515625	M ³	5.3.3
1	2.9 0.25 0.25	0.18125	M ³	5.3.4
2	11.4 0.25 0.25	1.425	M ³	5.3.5
1	12.205 0.25 0.25	0.7628125	M ³	5.3.6
1	1.105 0.25 0.25	0.0690625	M ³	5.3.7
2	15.8 0.2	1.264	M ³	5.3.8
	0.2			5.3.9
5	2.8 0.2 0.2	0.56	M ³	5.3.10
2	2.4 0.2 0.2	0.192	M ³	5.3.11
2	2 0.2 0.2	0.16	M ³	5.3.12
1		7.6375625 12.4603625	M ³ M ³	
1	5 3.6 0.17	3.06		5.4.1

			M³	5.4.2
1	4.95 3.6 0.17	3.0294	M³	
			M³	5.4.3
1	2.7 1.8 0.17	0.8262	M³	
			M³	5.4.4
1	4.95 2.6 0.17	2.1879	M³	
			M³	5.4.5
1	5 4.2 0.27	5.67	M³	
			M³	5.4.6
1	4.95 4.1 0.17	3.45015	M³	
			M³	5.4.7
1	2.3 1.52 0.17	0.59432	M³	
			M³	5.4.8
1	4.13 0.8 0.17	0.56168	M³	
			M³	5.4.9
1		19.37965	M³	
2	3.1 1.3 0.17	1.3702	M³	
			M³	5.5.1
18	1.3 0.3 0.17 0.5	0.5967	M³	
			M³	5.5.2
1	2.6 1.3 0.17	0.5746	M³	
			M³	5.5.3

		2.5415	M³	
		112.036605	M³	
		143.730305	M³	



18	0.3	14.904	M²	6.1.1
	2.76			
18	0.2	9.936	M²	6.1.2
	2.76			
22	0.3	18.546	M²	6.1.3
	2.81			
22	0.2	12.364	M²	6.1.4
	2.81			
3	3.14	7.79976	M²	6.1.5
	0.3			
	2.76			
1	3.14	2.64702	M²	6.1.6
	0.3			
	2.81			
2	3.14	5.19984	M²	6.1.7
	0.3			
	2.76			
40	0.2	18.8	M²	6.1.8
	2.35			
16	0.2	7.52	M²	6.1.9
	2.35			
		97.71662	M²	6.2.1
2	10.55	6.33		
	0.3		M²	
1	11.41	3.423	M²	6.2.2
	0.3			
	4.1			

1	0.3	1.23	M ²	6.2.3
2	3.2 0.15	0.96	M ²	6.2.4
1	4.71 0.3	1.413	M ²	6.2.5
2	3.6 0.13	0.936	M ²	6.2.6
2	2.6 0.13	0.676	M ²	6.2.7
2	4.1 0.13	1.066	M ²	6.2.8
3	5 0.13	1.95	M ²	6.2.9
2	3.1 0.3	1.86	M ²	6.2.10
2	1.7 0.13	0.442	M ²	6.2.11
4	4.5 0.13	2.34	M ²	6.2.12
4	5 0.2	4	M ²	6.2.13
3	4.5 0.2	2.7	M ²	6.2.14
1	4.5 0.4	1.8	M ²	6.2.15
3	3.6 0.2	2.16	M ²	6.2.16
1	2.6 0.2	0.52		

			M²	6.2.17
1	2.6 0.4	1.04	M²	6.2.18
3	4.1 0.2	2.46	M²	6.2.19
1	4.13 0.17	0.7021	M²	6.2.20
2	0.95 0.17	0.323	M²	6.2.21
		44.6611	M²	
1	10.55 0.17	1.7935	M²	6.3.1
1	6.42 0.25	1.605	M²	6.3.1
1	12.365 0.25	3.09125	M²	6.3.2
1	3.7 0.25	0.925	M²	6.3.3
2	1.12 0.25	0.56	M²	6.3.4
1	3.15 0.25	0.7875	M²	6.3.5
1	4.41 0.25	1.1025	M²	6.3.6
1	4.13 0.25	1.0325	M²	6.3.7
1	0.95 0.25	0.2375	M²	6.3.8
7	3.55 0.25	6.2125		

			M²	6.3.9
10	2.65 0.25	6.625	M²	6.3.10
7	4.16 0.25	7.28	M²	6.3.11
2	0.95 0.25	0.475	M²	6.3.12
1	3.63 0.25	0.9075	M²	6.3.13
10	4.95 0.25	12.375	M²	6.3.14
10	4.9 0.25	12.25	M²	6.3.15
2	0.67 0.25	0.335	M²	6.3.16
		57.59475	M²	
1	5 3.6	18	M²	6.4.1
1	4.95 3.6	17.82	M²	6.4.2
1	2.7 2.1	5.67	M²	6.4.3
1	4.95 2.6	12.87	M²	6.4.4
1	5 4.2	21	M²	6.4.5
1	4.95 4.1	20.295	M²	6.4.7
1	2.3 1.52	3.496		

			M ²	6.4.8
1	0.8 4.13	3.304	M ²	6.4.9
1	2.6 1.3	3.38	M ²	6.4.10
1	3.1 2.6	8.06	M ²	6.4.11
18	1.3 0.17	3.978	M ²	6.4.12
4	3.1 0.34	4.216	M ²	6.4.13
		122.089	M ²	
1		315.73147	M ²	

7 C†

18	0.3 2.76	14.904	M ²	7.1.1
18	0.2 2.76	9.936	M ²	7.1.2
22	0.3 2.81	18.546	M ²	7.1.3
22	0.2 2.81	12.364	M ²	7.1.4
3	3.14 0.3 2.76	7.79976	M ²	7.1.5
1	3.14 0.3 2.81	2.64702	M ²	7.1.6
2	3.14 0.3 2.76	5.19984		

			M2	7.1.7
40	0.2 2.35	18.8	M²	7.1.8
16	0.2 2.35	7.52	M²	7.1.9
		97.71662	M2	
2	10.55 0.3	6.33	M²	7.2.1
1	11.41 0.3	3.423	M²	7.2.2
1	4.1 0.3	1.23	M²	7.2.3
2	3.2 0.15	0.96	M²	7.2.4
1	4.71 0.3	1.413	M²	7.2.5
2	3.6 0.13	0.936	M²	7.2.6
2	2.6 0.13	0.676	M²	7.2.7
2	4.1 0.13	1.066	M²	7.2.8
3	5 0.13	1.95	M²	7.2.9
2	3.1 0.3	1.86	M²	7.2.10
2	1.7 0.13	0.442	M²	7.2.11
4	4.5 0.13	2.34	M²	7.2.12
	5			

4	0.2	4	M ²	7.2.13
3	4.5	2.7	M ²	7.2.14
	0.2			
1	4.5	1.8	M ²	7.2.15
	0.4			
3	3.6	2.16	M ²	7.2.16
	0.2			
1	2.6	0.52	M ²	7.2.17
	0.2			
1	2.6	1.04	M ²	7.2.18
	0.4			
3	4.1	2.46	M ²	7.2.19
	0.2			
1	4.13	0.7021	M ²	7.2.20
	0.17			
2	0.95	0.323	M ²	7.2.21
	0.17			
		44.6611	M2	
1	10.55	1.7935	M ²	7.3.1
	0.17			
1	6.42	1.605	M ²	7.3.2
	0.25			
1	12.365	3.09125	M ²	7.3.3
	0.25			
1	3.7	0.925	M ²	7.3.4
	0.25			
2	1.12	0.56	M ²	7.3.5
	0.25			
1	3.15	0.7875	M ²	7.3.6
	0.25			

1	4.41 0.25	1.1025	M ²	7.3.7
1	4.13 0.25	1.0325	M ²	7.3.8
1	0.95 0.25	0.2375	M ²	7.3.9
7	3.55 0.25	6.2125	M ²	7.3.10
10	2.65 0.25	6.625	M ²	7.3.11
7	4.16 0.25	7.28	M ²	7.3.12
2	0.95 0.25	0.475	M ²	7.3.13
1	3.63 0.25	0.9075	M ²	7.3.14
10	4.95 0.25	12.375	M ²	7.3.15
10	4.9 0.25	12.25	M ²	7.3.16
2	0.67 0.25	0.335	M ²	7.3.17
1		57.59475	M ²	
1	5 3.6	18	M ²	7.4.1
1	4.95 3.6	17.82	M ²	7.4.2
1	2.7 2.1	5.67	M ²	7.4.3
1	4.95 2.6	12.87		

			M ²	7.4.4
1	5 4.2	21	M ²	7.4.5
1	4.95 4.1	20.295	M ²	7.4.6
1	2.3 1.52	3.496	M ²	7.4.7
1	0.8 4.13	3.304	M ²	7.4.8
1	2.6 1.3	3.38	M ²	7.4.9
1	3.1 2.6	8.06	M ²	7.4.10
18	1.3 0.17	3.978	M ²	7.4.11
4	3.1 0.34	4.216	M ²	7.4.12
		122.089	M ²	
1		315.73147	M ²	
1	27.2 2.76	75.072	M ²	8.1.1
1	6.16 2.89	17.8024	M ²	8.1.2
1	32.29 2.81	90.7349	M ²	8.1.3
1	10.58 3.06	32.3748	M ²	8.1.4
		215.9841	M ²	
	10.07			

1	2.76	27.7932	M ²	8.2.1
1	0.5 2.89	1.445	M ²	8.2.2
1	3 2.81	8.43	M ²	8.2.3
		37.6682	M ²	
		253.6523	M ²	
		60.8202	M ²	
		192.8321	M ²	
1	2.09 2.08 2.89	12.563408	M ²	8.3.1
1	9.88 2.76	27.2688	M ²	8.3.2
1	1.2 2.89	3.468	M ²	8.3.4
1	14.28 2.81	40.1268	M ²	8.3.5
1	18.62 3.06	56.9772	M ²	8.3.6
		140.404208	M ²	
		60.8202	M ²	
		79.584008	M ²	
2	15 3	90	M ²	8.4.1
2	2.6 2.4	12.48	M ²	8.4.2
2	0.4 2.6 0.5	1.04	M ²	8.4.3
1		103.52	M ²	

		17.13	M ²	
		86.39	M ²	
5	2.6 2.6	33.8	M ²	8.5.1
1	0.8 2.1	1.68	M ²	8.5.2
1		32.12	M ²	
4	2.4 2.6	24.96	M ²	8.6.1
1	1 1.4	1.4	M ²	8.6.2
1	0.8 2.4	1.92	M ²	8.6.3
1		3.32 21.64	M ²	
1	51.08 0.3	15.324	M ²	8.7.1
1		300.8621	M ²	
1		111.704008	M ²	
1	11.67 6.12	71.4204	M ²	9.1.1
				9.1.2
1	11.67 6.12	71.4204	M ²	9.1.3
1				9.1.4
		5100.8735362	M ²	
1	9.91 2.91	28.8381	M ²	9.2.1

1				9.2.2
1	12.37 3.21	39.7077	M ²	9.2.3
				9.2.4
1				
		68.5458	M ²	
1	9.91 2.91	28.8381	M ²	9.3.1
1	12.37 3.21	39.7077	M ²	9.3.2
1				9.3.3
1				9.3.4
1				9.3.5
4	3.7 2.76	40.848	M ²	9.3.6
1	2.4 0.9	2.16	M ²	9.3.7
4	5 2.76	55.2	M ²	9.3.8
2	3.05 1.2	7.32	M ²	9.3.9
1	5.2 2.76	14.352	M ²	9.3.10
1	0.9 2.1	1.89	M ²	9.3.11
	0.9			

1	2.76	2.484	M ²	9.3.12
1	1.5	1.5	M ²	9.3.13
1				9.3.14
1	9.92 2.76	27.3792	M ²	9.3.15
1	0.9	0.9	M ²	9.3.16
1	0.91	0.91	M ²	9.3.17
1	1.9	1.9	M ²	9.3.18
1	5.21 2.76	14.3796	M ²	9.3.19
1			M ²	9.3.20
1	1.94 2.89	5.6066	M ²	9.3.21
1	11.22 3.06	34.3332	M ²	9.3.22
3	1.2 2.89	10.404	M ²	9.3.23
1	0.8 0.6	0.48	M ²	9.3.24
1	5.48 2.89	15.8372	M ²	9.3.25
1	0.9 2.5	2.25	M ²	9.3.26

1	9.92 2.81	27.8752	M ²	9.3.27
1	0.9 2.1	1.89	M ²	9.3.28
2	4.95 2.81	27.819	M ²	9.3.29
2	1.2	2.4	M ²	9.3.30
1	16.32 2.81	45.8592	M ²	9.3.31
2	1.2	2.4		9.3.32
1	2.38 3.06	7.2828	M ²	9.3.33
1	0.9 2.1	1.89	M ²	9.3.34
1				9.3.35
1				9.3.36
2		412.566108	M2	
		825.132216	M2	



1	16 2.6	41.6	M ²	10.1.1
1				10.1.2
1	16 3.2	19.2	M2	10.1.3
	3			

1	2.6	7.8	M ²	10.1.4
1	3 2.6	7.8	M ²	10.1.5
2	3 0.6 0.5	1.8	M2	10.1.6
12	2.6 2.4	74.88	M ²	10.1.7
1	0.8 2.16	1.728	M ²	10.1.8
1	14.85	14.85	M ²	10.1.9
1			M ²	10.1.10
1			M ²	10.1.11
4	2.4 2.4	23.04	M ²	10.1.12
1	1 1	1	M ²	10.1.13
4	2 2.4	19.2	M ²	10.1.14
1	70.23 2.76	193.8348	M ²	10.1.15
1	14.07 2.89	40.6623	M ²	10.1.16
1			M ²	10.1.17
	69.19			

1	2.81	194.4239	M ²	10.1.18
1	36.41 2.89	105.2249	M ²	10.1.20
1			M ²	10.1.21
1		746.0439	M2	10.1.22



1	5 3.7	18.5	M ²	11.1.1
1	5.71 4.95	28.2645	M ²	11.1.2
1	5.2 3.75	19.5	M ²	11.1.3
1	2.6 1.3	3.38	M ²	11.1.4
2	2.4 1.3	6.24	M ²	11.1.5
2	1.3 0.17	0.442	M ²	11.1.6
1	2.42 2.76	6.6792	M ²	11.1.7
1	2.46 1.83	4.5018	M ²	11.1.8
1	1.2 1.2	1.44	M ²	11.1.9
1	1.83 1.26	2.3058	M ²	11.1.10

1		12.8	M ²	11.1.11
1		5.45	M ²	11.1.12
1		7.65	M ²	11.1.13
1		5.8	M ²	11.1.14
1		2.65	M ²	11.1.15
1		10.25	M ²	11.1.16
1		23	M ²	11.1.17
1		27.85	M ²	11.1.18
1		14.6	M ²	11.1.19
1		31.85	M ²	11.1.20
1		7	M ²	11.1.21
1		3.25	M ²	11.1.22
1		4.25	M ²	11.1.23
1		7.9	M ²	11.1.24

1		10.05	M ²	11.1.25
1		8.75	M ²	11.1.26
1		4.7	M ²	11.1.27
1			M ²	11.1.28
1		123.8645	M ²	11.1.29
1		37.4058	M ²	11.1.30
1		31.4	M ²	11.1.31
		14.6		11.1.32
		61.533		11.1.33



1	5 3.7	18.5	M ²	12.1.1
1	5.71 4.95	28.2645	M ²	12.1.2
1	5.2 3.75	19.5	M ²	12.1.3
1	2.6 1.3	3.38	M ²	12.1.4
2	2.4 1.3	6.24	M ²	12.1.5
2	1.3 0.17	0.442	M ²	12.1.6

1	2.42 2.76	6.6792	M ²	12.1.7
1	2.46 1.83	4.5018	M ²	12.1.8
1	1.2 1.2	1.44	M ²	12.1.9
1	1.83 1.26	2.3058	M ²	12.1.10
1		12.8	M ²	12.1.11
1		5.45	M ²	12.1.12
1		7.65	M ²	12.1.13
1		5.8	M ²	12.1.14
1		2.65	M ²	12.1.15
1		10.25	M ²	12.1.16
1		23	M ²	12.1.17
1		27.85	M ²	12.1.18
1		31.85	M ²	12.1.19
1		7	M ²	12.1.20

1		3.25	M ²	12.1.21
		228.8033	M ²	
1		4.25	M ²	12.1.22
1		7.9	M ²	12.1.23
1		10.05	M ²	12.1.24
1		8.75	M ²	12.1.25
1		4.7	M ²	12.1.26
1		4	M2	12.1.27
		39.65	M ²	
1		264.4533	M2	12.1.28



1	14.56		M ²	13.1.1
1	11.45		M ²	13.1.2
1	16.56		M ²	13.1.3
1	6.18		M ²	13.1.4
1	4.14		M ²	13.1.5
1	12.94		M ²	13.1.5
1	10.56		M ²	13.1.6
1	8.56		M ²	13.1.7
1	13.44		M ²	13.1.8

1	8.8		M ²	13.1.9
1	4.38		M ²	13.1.10
1	10.79		M ²	13.1.11
1	5.2		M ²	13.1.12
1	17.57		M ²	13.1.13
1	14.45		M ²	13.1.14
1	6.53		M ²	13.1.15
1			M ²	13.1.16
1	6.9		M ²	13.1.17
1	6.13		M ²	13.1.18
1	10.43		M ²	13.1.19
1	11.98		M ²	13.1.20
1	11.11		M ²	13.1.21
1	8		M ²	13.1.22
1	10.96		M ²	13.1.23
1		231.62	M2	13.1.24
				14.1
1	1.83 2.5	4.575	M ²	14.1.1
2	1.2	6	M ²	14.1.2
	2.5			
2	1.2			
	1.69			

		4.056	M²	14.1.3
2	0.84			
	0.51			
		0.4284	M²	14.1.4
2	0.92			
	2.52			
		2.3184	M²	14.1.5
1	0.8			
	1.23			
		0.984	M²	14.1.6
1	0.6			
	0.7			
		0.42	M²	14.1.7

5	0.9 2.1	9.45	M²	14.2.1
4	0.8 2.1	6.72	M²	14.2.2
		22.17		14.2.3
1	0.6 0.7	0.42	M²	14.2.4
1	1.53 2.4	3.672	M²	14.2.5
2	0.8 2.4	3.84	M²	14.2.6
1	0.9	2.16	M²	14.2.7
	2.4			
1	1.89 1.4	2.646	M²	14.2.8
1	1.5 1.4	2.1	M²	14.2.9
1	1.08 0.9	0.972	M²	14.2.10

1	1	0.9	M ²	14.2.11
	0.9			
		0.9	M ²	14.2.11
		17.13		14.2.12
		39.3		14.2.13

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1		60.8202	M ²	15.1.1
1		17.13	M ²	15.1.2
1		5.15	M ²	15.1.3
1		83.1002		15.1.4

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1	10.35 12.61	130.5135		16.1.1
2	5.2 10.35	107.64	M ²	16.1.2
1	16.4 3.2	52.48	M ²	16.1.3
2	3.45 3.4	23.46	M ²	16.1.4
1		261.6135		16.1.5

DESCRIPTION

A 1 SUB STRUCTURE

EARTH WORK AND EXCAVATION

SITE CLEARANCE

(Clear and remove the top soil at the depth of 200 mm for the site plan)
--

there is no working space

BULK EXCAVATION

with depth of 30cm and with working space 25cm including half of footing width
--

For service with depth of 40cm

total bulk excavation for both main and service building
--

PITE EXCAVATION

Pit excavaton for F1 with depth of 2.25m including 25cm working space

for footing 2 (F2) with working space 25cm in both sides
--

for footing 3 (F3) with working space 25cm in both sides
--

Chiminy wit depth of 1.7m with working space 25cm in both sides

Total volume of pite excavation

TRENCH EXCAVATION

trench excavation for main building Including 0.25 m working space with both sides and depth 85cm (120cm-40cm+50mm lean concrete)

trench excavation for service building Including 0.25 m working space with both side
--

total volume of trench excavation both main and service building
total volume of excavation(site clearance+bulk+pit+trench excavation)
VOLUME OF BACK FILL
volume of masonry around pit
Volume of masonry around pit for footing one (F1) with its depth
Volume of masonry around pit for footing two(F2) with its depth
Volume of masonry around pit for footing three(F3) with its depth
Volume of masonry around pit for chimney footing with its depth 80cm For chimney
Total masonry around pit (F1+F2+F3+Chimney)
volume of concrete in/around pit
Volume of concrete around pit for F1
Volume of concrete around pit for F2
Volume of concrete around pit for F3
Volume of concrete around pit for chimney
Total volume of concrete around pit

Total volume of concrete + Total volume of masnory
Back fill around pit = Total excavation of pit - (Total volume of concrete
Back fill under Hard core for main building area one (A1)
Back fill under Hard core for main building area two (A2)
Back fill under Hard core for main building area three (A3)
Back fill under Hard core for main building area four (A4)
Back fill under Hard core for main building area five (A5)
Back fill under Hard core for main building area six (A6)
Back fill under Hard core for main building area seven (A7)
Back fill under Hard core for main building area eight (A8)
Back fill under Hard core for main building area nine (A9)
Back fill under Hard core for main building area ten (A10)

Back fill under Hard core for main building area eleven (A11)
total back fill under hardcore for main building
Back fill under Hard core For service area one (A1)
Back fill under Hard core For service area two (A2)
Back fill under Hard core For service area three (A3)
Back fill under Hard core For service area four (A4)
total volume of backfill under hard core for service area four (A4)
total volume of backfill of under hard core for both main and service areas
Volume of back fill around trench for main building
Volume of back fill around trench for main building
Volume of back fill around trench For service area four (A4)
Total volume of back fill around trench for main and service areas
total back fill around footing and trench
Total volume of back fill
CARTAWAY
cartaway = total excavation because we use selected material
MASONRY WORK
for main house

For service
total volume of masnary for main and service building
HARD CORE
Volume of hard core for main building for area one A1 with dept
Volume of hard core for main building for area two (A2) with dep
Volume of hard core for main building for area three (A3) with dep
Volume of hard core for main building for area four (A4) with dep
Volume of hard core for main building for area five (A5) with dep
Volume of hard core for main building for area six (A6) with dept
Volume of hard core for main building for area seven (A7) with de
Volume of hard core for main building for area eight (A8) with dep
Volume of hard core for main building for area nine (A9) with dep

Volume of hard core for main building for area ten (A10) with dep
Volume of hard core for main building for area eleven(A11) with de
Volume of hard core for service building for area one (A1) with dep
Volume of hard core for main building for area two (A2) with dep
Volume of hard core for main building for area three (A3) with dep
Volume of hard core for main building for area four (A4) with dep
Total volume of hard core

CONCRETE WORK

lean concrete
lean concrete under footing pad F1
lean concrete under footing pad F2
lean concrete under footing pad F3
lean concrete under footing column chimney
total lean concrete under masonry for main building

lean concrete under masonry for service
lean concrete under hardcore for main building in area one
lean concrete under hardcore for main building in area two
lean concrete under hardcore for main building in area three
lean concrete under hardcore for main building in area four
lean concrete under hardcore for main building in area five
lean concrete under hardcore for main building in area six
lean concrete under hardcore for main building in area seven
lean concrete under hardcore for main building in area eight
lean concrete under hardcore for main building in area nine
lean concrete under hardcore for main building in area ten
lean concrete under hardcore for main building in area eleven
lean concrete under hardcore for service building in area one
lean concrete under hardcore for service building in area two

lean concrete under hardcore for service building in area three
lean concrete under hardcore for service building in area four (A4)
total lean concrete
total volume of concrete for footing column and footing pad
Structural Concrete (C-25)
volume of Structural Concrete for footing pad one (F1)
volume of Structural Concrete for footing pad two (F2)
volume of Structural Concrete for footing pad three (F3)
volume of Structural Concrete for footing pad of Chimney
TOTAL VOLUME OF CONCRETE FOR FOOTING PAD
volume of Structural Concrete for footing column C1
volume of Structural Concrete for footing column C2
volume of Structural Concrete for footing column C3
volume of Structural Concrete for footing column for Chimney
total volume of Structural Concrete for footing column for Chimney
total volume of concrete for footing column and footing pad

Volume of concrete for grade beam GB-1 & GB-2 for main bu

GB-3

GB-4

GB-5

GB-6

GB-1'

GB-3'

GB-3''

GB-5'

For service grade beam GB-8

GB-9	
total volume of structural concrete for grade beam	
volume of concrete for ground floor for A1 with the thickness	
	A2
	A3
	A4
	A5
	A6
	A7
	A8
	A9
	A10

A11
For service A1
A2
A3
A4
total volume of concrete for ground floor for main and service bu
total volume of concrete

3 Form work

Form work for footing pad F1
F2
F3
Chiminy
Chiminy
total formwork for pad

For foundation column /Footing column F1,F2,AND F3
F1,F2,AND F3
For chimney footing column 2.76*0.3
For chimney footing column 2.76*0.2
total formwork for footing pad
Form work for grade beam (x/05) GB-1 Y/01 to Y/02 and GB-2
GB-1 Y/02 to Y/03 and GB-2 Y/01 to Y/02
X/05, X/04 & X/03 AND GB-2 Y/02 toY/03
GB-3 Y/02 X'/01 to X/01
GB-3 (Y/02) From X/031to X/03
GB-3 (Y/02)form x/03 to x/03
GB-3 X/04 to X/05
GB-4 (Y/03) From X/01 to X/03
GB-4 (X/03 to X/04)
GB-4 (X/04 to X/04)
FORM WORK GB-6 (Y/01') frpm X/03 to X/04

GB-6 (X/01) From (Y/01 to X/01
GB-6 (X/01) From (Y/01 to X/02)
GB-3'' (Y/01') From X/01 to X/04
GB-3' Y/01' From Y/01 to Y/02
GB-3' (Y/01) From Y/02 to Y/03
GB-3 From Y/03 to Y/04
GB-3 From Y/04 to Y/05
GB-1' (From Y/01' to Y/02)
GB-1' From Y/02 to Y/03
GB-5' Y/01' From X/03 to X/04
For service GB-8
GB-9
total formwork for gread beam
4 CHISELING WORK
area of chiseling for grade beam (x/05)
GB-1 Y/01 to Y/02 and GB-2 Y/01 to Y/02
GB-1 Y/02 to Y/03 and GB-2 Y/01 to Y/02
X/05, X/04 & X/03 AND GB-2 Y/02 toY/03

GB-3 Y/02 X'/01 to X/01
GB-3 (Y/02) From X/031to X/03
GB-3 (Y/02)form x/03 to x/03
GB-3 X/04 to X/05
GB-4 (Y/03) From X/01 to X/03
GB-4 (X/03 to X/04)
GB-4 (X/04 to X/04)
GB-6 (Y/01') frpm X/03 to X/04
GB-6 (X/01) From (Y/01 to X/01
GB-6 (X/01) From (Y/01 to X/02)
GB-3'' (Y/01') From X/01 to X/04
GB-3' Y/01' From Y/01 to Y/02
GB-3' (Y/01) From Y/02 to Y/03
GB-3 From Y/03 to Y/04
GB-3 From Y/04 to Y/05

GB-1' (From Y/01' to Y/02)

GB-1' From Y/02 to Y/03

GB-5' Y/01' From X/03 to X/04

For service GB-8

GB-9

total chiseling area for sub structure gread beam

B 5 Super Structure Concrete Work

Discription

Structural Concrete for elevation column

C1 for G floor and F floor

for first floor elevation column

C2 circular column for Ground floor elevation

for first floor C2 elevation column at 3.06 to 6.12 m

C3 for G floor elevation column 0.00 to 3.06m

for first floor elevation column C3 3.06 to 6.12m
C4 0.00 to 3.06
for service elevation column and gourd house column C
Total volume of concrete for elevation column
Stractural concrete for Intermidete (beam first floor bea
FB-1 on axis X/05, X/04 and x/01'
FB-1' from Y/01 to Y/02
FB-1' from Y/02 to Y/03
FB-2
FB-2'
FB-3 floor beam on axis Y/02& Y/03
SMB-1 at 3.06 and at 1.53 height for internale and external
TOTAL VOLUME OF CONCRETE FORINTERMIDATE BEAM
TOP tle Beams for main buiding
TB-1 on axis X/05 and X/01'

TB-2 on axis X/04
TB-3 on axis X/05'
TB-4 on axis Y/01'
TB-5 on axis Y/01 & Y/02
TB-6 on axis Y/03
TB-7 on axis between X/03 to X/05
for service buliding volume of C-25 concrete
TB-1 Beam for X/01 and X/06 or from Y/04 to Y/08
TB-2 Beam Y/04 -Y/08 from X/06 to X/07
TB-1 For gourd house beam
TB-2 for gourd house beam
TOTAL VOLUME OF CONCRETE FOR TOP TILE BEAM
Total volume of concrete for beam
C-25 for for first floor slab

Volume of concrete for first floor Area 1(A1) with a thickness of 150mm
Volume of concrete for first floor Area 2(A2) with a thickness of 150mm
Volume of concrete for first floor Area 3(A3) with a thickness of 150mm
Volume of concrete for first floor Area 4(A4) with a thickness of 150mm
Volume of concrete for first floor Area 5(A5) with a thickness of 150mm
Volume of concrete for first floor Area 6(A6) with a thickness of 150mm
Volume of concrete for first floor Area 7(A7) with a thickness of 150mm
Volume of concrete for first floor Area 8(A8) with a thickness of 150mm
Total volume of concrete for slab
Concrete for stair for flight (west)
for steep (traead and riser) 30 & 17cm
Volume of concrete for landing

total volume of concrete for stair	
total volume of concrete	
total	
6 FORMWORK	
Area of formwork for ground floor elevation column	
at 0.00 to 3.06m height in the side of 30cm width	
Area of formwork for ground floor elevation column	
for both C1 and C2 in first floor elevation clumn	
at elevation b?n 3.06 + 6.12m in the side of 30cm	
for both C1 and C2 in first floor elevation clumn	
at elevation b?n 3.06 + 6.12m in the side of 20cm	
Area of formwork for circular shape column C2 and C3	
at elevation of 0.00 to 3.06m	
C3 at elevation of 3.06 to 6.12	
C4 0.00 to 3.06	
Area of formwork for service bulding elevation column	
formwork for gourd house column	
total formwork for elevation column	
formwork for beam FB-1 first floor beam on axis X/05 and X	
in the external direction at 3.06 elevation	
FB-3 on axis Y/03 for external side at 3.06	

on axis Y/01 b/n X/05 to OX/04 FB-2'
SMB -1 and 2 for external formwork for stair beam at elevation of 1.53m and 3.06m
on axis Y/01 b/n X/03 to X/01' FB-2
for internal beam formwork for FB-3 b/n X/05 TO X/04 on axis
for internal beam formwork for FB-3 b/n X/04 to X/03 on axis
for internal beam formwork for FB-3 b/n X/03 to X/01' on axis
FB-1 and FB-1' on axis X/04 ,X/03 and X/01' b/n Y/01 to Y/02 intern
External formwork for FB-1 and FB-1' on axis X/04 and X/03 b/n Y/
Internal formwork for FB-1 and FB-1' on axis X/04 and X/03 b/n Y/
internal formwork for beam on axis X/04,X/05 and X/01' b/n Y/0
formwork for bottom of beam for axis X/05,X/04,X/03 and X/01' b/n
on axis X/05,X/04 and X/01' b/n Y/02 to Y/03
on axis X/03 b/n Y/02 to Y/03
bottom formwork for beam on axis Y/01,Y/02 and Y/03 b/n X/05

on axis Y/02 and Y/03 b/n X/04 to X/03
SMB on axis Y/01' b/n X/04 to X/03
on axis Y/01 ,Y/02 and Y/03 b/n X/03 to X/01'
for cantiliver slab edge formwork binid at axis Y/03 for bath and t
for cantiliver slab edge formwork binid at axis Y/03 for bath and t
total intermidate beam formwork
external formwork for Top tie beam TB-1 on axis X/01' at level 0.0
external formwork on axis X/05
external formwork for TB-6 on axis Y/03 at level 3.06 and 0
externale formwork on axis Y/01 b/n X/05 to X/02
external formwork for TB-2 extended for stair on axis X/04 an
External TB-4 b/n X/04 to X/03
External formwork for TB-5 on axis Y/01 b/n X/03 to X/0
for cantiliver beam edge formwork behind axis Y/03
for cantiliver beam edge formwork behind axis Y/03

internal and bottom beam formwork for axis Y/01,Y/02 and Y/03 b/n
internal and bottom beam formwork for axis Y/01,Y/02 and Y/03 b/n
internal and bottom beam formwork for axis Y/01,Y/02 and Y/03 b/n
cantiliver bottom beam behind axis Y/03 for bath and toilet
internal cantiliver beam behind axis Y/03
bootom and internal formwork for axis X/05,X/04,X/03 and X/01' b/n
bootom and internal formwork for axis X/05,X/04,X/03 and X/01' b/n
cantiliver beam for stair on axis X/04 and X/03 extended for
total top tie beam form work
formwork for first floor slab for Area one A1 (5.00 * 3.6
A2 (4.95 * 3.55)
A3
A4
A5
A6

A7
A8
formwork for stair landing
formwork for stair soffit
formwork for riser
formwork for edge of stair (side formwork for stair)
total formwork for first floor slab and stair
Total FORMWORK
CHISELING WORK FOR SUPPER STRUCTURE
chiseling area for ground floor elevation column at 0.00 to 3.06m height in the side of 30cm width
chiseling area for ground floor elevation column at (30 - 20) height in the side of 20cm width
chiseling area for both C1 and C2 in first floor elevation cl at elevation b?n 3.06 + 6.12m in the side of 30cm
chiseling area for both C1 and C2 in first floor elevation clu at elevation b?n 3.06 + 6.12m in the side of 20cm
chiseling area for circular shape column C2 and C3 at elevation of 0.00 to 3.06m
chiseling area C3 at elevation of 3.06 to 6.12

chiseling area for C4 0.00 to 3.06
chiseling area for service bulding elevation column
chiseling area for gourd house column
total chiseling area for elevation column
chiseling area FB-1 first floor beam on axis X/05 and X/04 in the external direction at 3.06 elevation
FB-3 on axis Y/03 for external side at 3.06
on axis Y/01 b/n X/05 to OX/04 FB-2'
SMB -1 and 2 for external chiseling area for stair beam at elevationof 1.53m and 3.06m
on axis Y/01 b/n X/03 to X/01' FB-2
for internal beam chiseling area for FB-3 b/n X/05 TO X/04 on a
for internal beam chiseling area for FB-3 b/n X/04 to X/03 on a
for internal beam chiseling area for FB-3 b/n X/03 to X/01' on a
FB-1 and FB-1' on axis X/04 ,X/03 and X/01' b/n Y/01 to Y/02 chis
chiseling area for FB-1 and FB-1' on axis X/04 and X/03 b/n Y/01
chiseling area for FB-1 and FB-1' on axis X/04 and X/03 b/n Y/01
chiseling area for beam on axis X/04,X/05 and X/01' b/n Y/02 t

chiseling area for botum of beam for axis X/05,X/04,X/03 and X/01' b/n Y/01 and Y/02
chiseling area on axis X/05,X/04 and X/01' b/n Y/02 to Y/03
on axis X/03 b/n Y/02 to Y/03
chiseling area for beam on axis Y/01,Y/02 and Y/03 b/n X/05 to X/03
on axis Y/02 and Y/03 b/n X/04 to X/03
SMB on axis Y/01' b/n X/04 to X/03
on axis Y/01 ,Y/02 and Y/03 b/n X/03 to X/01'
for cantiliver slab edge chiseling area binid at axis Y/03 for bath and kitchen
for cantiliver slab edge chiseling area binid at axis Y/03 for bath and kitchen
total intermidate beam chiseling area
chiseling areafor Top tie beam TB-1 on axis X/01' at level 0.00 / 0.00
chiseling area on axis X/05
chiseling area for TB-6 on axis Y/03 at level 3.06 and 6.10
chiseling area on axis Y/01 b/n X/05 to X/02
external chiseling area for TB-2 extended for stair on axis X/04 to X/03
External chiseling area TB-4 b/n X/04 to X/03

External chiseling area for TB-5 on axis Y/01 b/n X/03 to X/05
for cantiliver beam edge chiseling area behind axis Y/03
for cantiliver beam edge chiseling area behind axis Y/03
internal and bottom beam chiseling area for axis Y/01,Y/02 and Y/03 b/n X/05 to X/04
internal and bottom beam chiseling area for axis Y/01,Y/02 and Y/03 b/n X/04 to X/03
internal and bottom beam chiseling area for axis Y/01,Y/02 and Y/03 b/n X/03 and X/01'
chiseling area for cantiliver bottom beam behind axis Y/03 for bath and toilet room
chiseling area for internal cantiliver beam behind axis Y/03
bottom and internal chiseling area for axis X/05,X/04,X/03 and X/01' b/n Y/01 and y/02
bottom and internal chiseling area for axis X/05,X/04,X/03 and X/01' b/n Y/02 and y/03
chiseling area for cantiliver beam for stair on axis X/04 and X/03 extended form TB-2
total top tie beam form work
chiseling area for first floor slab for Area one A1 (5.00 * 3.55)
chiseling area A2 (4.95 * 3.55)
chiseling area A3

chiseling area A4
chiseling area A5
chiseling area A6
chiseling area A7
chiseling area A8
chiseling area for stair landing
chiseling area for stair soffit
chiseling area for riser
chiseling area for edge of stair (side formwork for stair)
total formwork for first floor slab and stair
Total chiseling area
8 Block Work (WALL)
External wall 20cm width below intermidate beam h 30cm $3.06-0.3=\text{height } 2.76$ on ground floor of main building intermidate
External wall 20cm width below first floor slab (slab depth 17cm)
External wall 20cm width below Top tie beam on first floor
below celing /Roof
TOTAL EXTERNAL 20CM HCB

internal wall 20cm width HCB below intermidate beam
internal wall 20cm width HCB below first floor slab
internal wall 20cm width HCB below Top tie beam
TOTAL INTERNAL 20CM HCB
TOTAL 20CM CB
DIDUCT DOOR AND WINDOW
TOTAL
External wall 15 HCB width below first floor slab
internal partition wall 15 cm HCB width below intermidat b
internal partition wall 15 cm HCB width below first floor s
internal partition wall 15 cm HCB width below Top tie bea
internal partition wall 15 cm HCB width below out of bea
Total HCB 15cm
DEDUCT DOOR AND WINDOW
External HCB 20cm for sevice buliding in the front & rea side of the building with it paraprat wall
right side & left side HCB wall area
for trianglar shape wall in the right & left side of service bul
total area of 20cm HCB wall for external side

DIDUCT
NET TOTAL WALL
internal wall 15cm HCB for service
deduct toilet door 0.8m *2.10
Total 15cm HCB for service building
External HCB 20cm for guard house
deduct guard house window
guard house door
TOTAL DUDUCT
total HCB for guard house
stone parafete wall area for main building
Total 20cm HCB wall for main,service & guard house build
Total 15cm HCB wall formain & service building
9 FINSHING WORK
External plastering for main house on the front side
diduct door & window area in the front side
Total plastering area in front side
rear side plastering for main house
diduct door & windows area in rear side
Total plastering area in rear side
right side plastering for main building from at level ±0.00 to

deduct the area of door & window in the right side
right side plastering for main building from at level 2.91 to 6.12-2.91= 3.21

deduct door & window area to the right side
Total plastering area in the right side

left side plastering area for main building at elevation ± 0.00 to ± 2.91

left side plastering area for main building at elevation ± 2.91 to ± 6.12

deduct the area of door & window locket in the left side

Total area of plastering in the left side

Total area of external wall column & beam plastering

internal plastering for dinning & kitchen in 3.70m side

deduct window & door

5.00 mside for dinning room & living room

deduct arch door oppening in the living side,window 1.2

internal kitchen plastering area

deduct

total internal plastering area for kitchen and dinning
internal plastering for living room in 5.71 direction
deduct arch door opening and window
internal plastering for corridor
deduct arch door oppening in the livingroom side
behind stair case and in the landing side
for toilet
deduct window and door 60cm width window and 80cm doorfo
for toilat in the longer side by adding stair side wall and parking
deduct door in the parking side

internal plastering for first floor house master bed room with in the
deduct door in the stair corridor side 0.90m in the shorter
in the shorter side
deduct door in dressing corider and window behind verer
internal plastering for bed room beyond parking for below topt
deduct two window
plastering bed room 2
deduct door for bed room it self
total area of plastering for bed room
plastering for double bed room below toptie beam
Total PLASTERING AREA
Total PLASTERING
SCARTTER

10 service building plastering

for external plastering for service house in front side
deduct door and window area
rear side

right side
left side
for beyond rectangular wall trianguiar shape parapet external total area of plastering
external plastering area for service building below ceiling for toilat,laundry,local kictin
deduct door in the toilet
ring area for toilat,loundary,maids room,local kicthen,store and garden tools stor
deduct door and window in the front side
total plastering area
for guard house external plastering area
deduct door and window area
internal plastering diduct
internal plastering for main buildig internal plastering for ground width floor at elen 0.00 to 3.06 below intermideat beam inclu room that locate in the building by adding all horizontal
below first floor slab
duduct all window and door that locate in those room wa plastering for internal and partion walls in first floor which

below toptie beam. By adding all internal wall size we get 6

below celing or roof

dudect all internal door and external window that locate in th

total

11 floor finish for grond floor

for dinning room floor finish parquate tile area

parquate tile flor finsh for living room

ceramic tile floor finish for kichen

marbile tie floor finish for stair conding

0.30cm inboth flighet $0.30 \times 8 = 2.4$

marbile tile floor finish for stair riser

marbile tilr for loor finish for corridor stair wecan say area

marbile floor finsh infront of main enterance we can say are

marbile tile for cooridor infront of toilat we can say area th

ceramic tile floor finish for toilet

floor finish parquet for bed room
bath room and toilet in front of corridor ceramic tile
parquet tile for both location in behind dressing room
floor finish parquet tile for dressing room
floor finish ceramic tile for bath corridor 2.65cm
floor finish for lobby or stair corridor marble tile
parquet floor finish for bed room located behind stair with
parquet floor finish for master bed room
for parking or car port concrete tile
for external veranda floor finish marble tile
for first floor veranda floor finish marble tile
ceramic tile floor finish for service toilet
laundry floor finish ceramic tile
maids room floor finish terrazzo tile

local kichen floor finsh terazone tile
store floor finsh terrazone tile
for gardon tools stoor terazon tile floor finsh
for garden house terazone tile floor finsh
total parquet tile
total ceramic tile
total terazone tile
total concrey tile
total for marbile
12 CEILLING
chipwood ceilling area for dinning room
chipwood ceilling area for living room
chipwood ceilling area for kichen
chipwood ceilling area for stair conding
chipwood ceilling area 0.30cm inboth flighet $0.30 \times 8 = 2.4$
chipwood ceilling area for stair riser

chipwood ceiling area for corridor stair we can say area of

chipwood ceiling area in front of main entrance we can say area of

chipwood ceiling area for corridor in front of toilet we can say area of

chipwood ceiling area for toilet

chipwood ceiling area bed room

bath room and toilet in front of corridor chipwood ceiling area

chipwood ceiling area for both location in behind dressing room

chipwood ceiling area for dressing room

chipwood ceiling area for bath corridor 2.65cm

chipwood ceiling area for lobby or stair corridor marble

chipwood ceiling area for bed room locate behind stair well

chipwood ceiling area for master bed room

for external veranda chipwood ceiling area

for first floor veranda chipwood ceiling area

chipwood ceiling area for service toilet
total ceiling area of chipwood for main building
boundary chipwood ceiling area
maids room chipwood ceiling area
local kitchen chipwood ceiling area
store chipwood ceiling area
for garden tools store chipwood ceiling area
for garden chipwood ceiling area
total ceiling area for guard and service building
TOTAL CHIPWOOD CEILING AREA
13 SKIRTING
for kitchen at main building
for dining at main building
for corridor and stair at main building
Toilet for main building
for living room
external for veranda
first floor bath area of 7.65 m ²
first floor bath area of 5.45m ²
for first floor bed room 12.80m ²

for derssing room	
coridor b/n bath and derssing	
for coridor infront of stair in the first floor	
landing	
masterbed room	
bed room	
first floor verenda	
total for main building	
for servic building toilet	
laundry 4.25m2	
maids room	
lockal kichen	
store	
garden tools store	
external skerting for servic building	
total	
14 GLAZING WORK	
door and windoow in the front side	
main enterance door	
front side french window	

front side triangle and rectangle shape bed room windows french
External door on ground floor in the front side main entrance and
Rear side door & window for ground floor kitchen
F.F window for dressing room
left side window G.F Toilet room

14.2 internal door

Internal door & window for kitchen ,dinning ground floor & first floor Bath,Bed
for ground floor toilet & first floor dressing room Bath room
total window & door FOR MAIN BUILDING
door & windows for toilet window
laundry room
for garden tools store room & maids room door
for local kitchen room door
for main room window
local kitchen window
store window

garden tools store window

TOTAL DOOR AND WINDOW FOR SERVICE BUILDING

TOTAL DOOR AND WINDOW

15 CARPENTRY AND JOINNERY

for main buliding

for service buliding

for guard house buliding

total

16 ROOF WORK

roof truss area for main building

roof cover for main building

roof truss area for service building

roof cover for service building

total

YIKERENAL PLEAS EDIT IN HERE

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CHIMINY WORK
CHISLLING
CARPENTRY AND JOUUNERY
MASONARY
SKERTING
GLAZING

Location

Footing pad F1

Footing pad F2

F3

Chiminy

Chiminy

F1,F2,F3 Footing column

F1,F2,F3 Footing column

For chiminy footing column

Grade beam GB-1

Grade beam GB-1

GB-2

GB-2

GB-3

GB-3

GB-3

GB-3

GB-4
GB-4
GB-5
GB-5
Grade beam GB-1'
GB-1'
GB-3''
GB-3''
GB-3'
GB-3'
GB-3'
GB-3'
GB-6
GB-6
Grade beam for service GB-8
GB-8
GB-8
GB-8
GB-9
GB-9
Stairup for footing column F1,F2,F3

Stairup for Grade Beam GB-1 & GB-2
GB-3
GB-4
GB-5
GB-6
GB-1'
GB-3''
GB-3'
GB-3
GB-3'
For service GB-8
GB-9
Ground floor horizontal A1
A2
A3

A4
A5
A6
A7
A8
A9
A10
A11
Ground floor for revers direction A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
Ground floor bar for longtiudenal at A1
A2
A3

for circular C3

elevation column for servise building at level 0.00

elevation column for guard house

t beam FB-1 on axis X/05,X/04 and X/01' at level 0

ermidet beam FB-1' on axis X/03 at level 0.00 & ±3

FB-2 on axis Y/01 at level ± 0.00 and ± 3.06

FB-2' on axis Y/01 b/n X/04 & X05

axis Y/02 and Y/05 at level 0.00 & 3.06 b/n X/01 a

MB-1 on axis Y/01 at 0.00 and 3.06 b/n X/03 & X/04

for main building TB-1 ON AXIS X/05 & X/01' at leve

TB-2 on axis X/04 & X/03 at level 0.00 & 6.16

TB-3 on axis X/05' at level 0.00 & 3.06

-4 on axis Y/01' at level +0.00 & 6.16 b/n X/03 & Y/

TB-7 at level +0.00 & 6.12 b/n X/03 & X/05

TB-5 on axis T/01 & Y/02 at level +0.00 & 6.16

TB-6 on axis Y/03 at level ± 0.00 & 6.12

le beam for Service building for TB-1 on axis X/01 & X/02

TB-2 on axis Y/04,Y/05,Y/06,Y/07 & Y/08

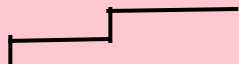
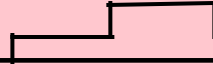
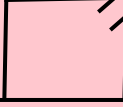
TOP tile beam for guard house

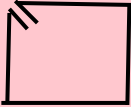
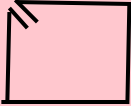
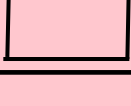
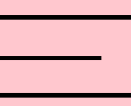
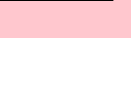
first floor slab logtiudnale direction

first floor slab intravers

Sub-Str

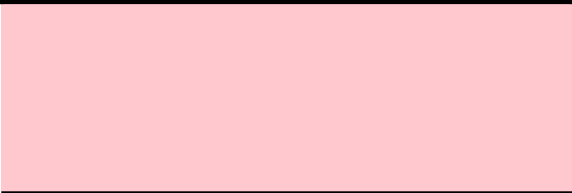
Shape	Diameter	Length
	12	1.9
	10	1.7
	10	1.2
	10	2.1
	10	1.1
	16	4
	14	4
	14	11.2
	12	10.5
	16	11.2
	16	10.5
	14	6.35
	14	7
	12	7.75
	12	5.8

	14	11.75
	12	11.05
	16	3.55
	16	2.85
	16	8.045
	12	7.345
	14	6.65
	12	5.95
	14	8.55
	12	6.12
	14	8.48
	12	7.13
	14	6.365
	12	5.67
	14	10.81
	14	6.69
	12	8.2
	12	8.8
	14	3.75
	12	3.15
	8	0.9

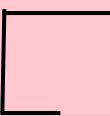
	8	1.1
	8	1.1
	8	1.1
	8	1.1
	8	1.1
	8	1.1
	8	1.1
	8	1.1
	8	1.7
	8	0.27
	8	1
	8	1
	8	3.6
	8	3.6
	8	2.7

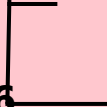
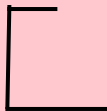
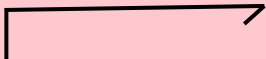
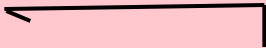
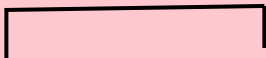
_____	8	2.7
_____	8	2.7
_____	8	2.7
_____	8	1.05
_____	8	4.2
_____	8	4.2
_____	8	4.16
_____	8	1.3
_____	8	5
_____	8	4.95
_____	8	0.92
_____	8	3
_____	8	1.8
_____	8	4.95
_____	8	3
_____	8	1.8
_____	8	4.95
_____	8	3
_____	8	1.8
_____	8	2.6
_____	8	2.6
_____	8	2.6

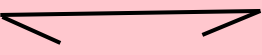
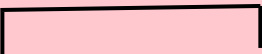
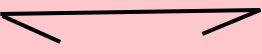
	8	2.6
	8	2.925
	8	4.3
	8	4.55
	8	3.225

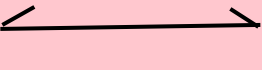
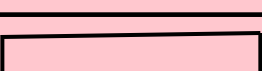
		
		
		

Super-St

shape	Diameter	length
	16	3.66
	14	3.66
	16	3.66
	14	3.66
	14	3.81
	16	3.21
	14	3.21
	14	3.21

	16	3.21
to 2.6 	14	3.35
	14	3.35
	14	2.6
	16	11
	16	10.5
	16	2.6
	16	1.88
	16	7.05
	16	11
	16	10.5
	16	2.6
	16	5.35
	16	4.45

	16	4.05
	16	4.25
	16	3.85
	14	5.3
	16	11.755
	16	11.255
	14	1.9
	14	2.2
	12	3.555
	12	3.054
	14	3
	14	10.9
	12	10.5
	14	2.35
	14	3

	14	1.5
	14	11.92
	12	11.52
	12	4.48
	12	4.08
	12	3.45
	12	3.05
	14	1.55
	12	1.15
	14	11.505
	12	11.105
	14	2.6
	14	7.4
	14	6.6
	12	7.5

	12	5
	12	10.7
	12	6.5
	12	7.83
	12	8.37
	12	3.55
	12	3.15
	12	2.85
	12	2.85
	8	6
	8	11.92
	12	3
	12	4

	8	9.04
	12	3
	8	3.61
	8	6.99
	8	9.27
	8	8.47
	8	5.1
	12	2.2
	12	1.8
	8	6
	8	5.47
	8	5.47
total length (m)		

unit weight (kg/	
weight (kg)	

ucture

N#	Bar	ember of b	Total	
			6	8
18		2		
20		4		
10		5		
11		1		
5		1		
12		11		
6		11		
3		1		
3		1		
3		2		
3		2		
3		1		
3		1		
3		1		
3		1		

3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	1			
3	2			
3	2			
3	2			
3	2			
3	5			
3	5			
16	11		158.4	

49	3		161.7	
64	1		70.4	
56	1		61.6	
15	1		16.5	
27	1		29.7	
37	1		40.7	
30	1		33	
56	1		61.6	
8	1		13.6	
8	1		2.16	
78	2		156	
16	5		80	
16	1		57.6	
16	1		57.6	
12	1		32.4	

12	1		32.4	
12	1		32.4	
12	1		32.4	
5	1		5.25	
18	1		75.6	
18	1		75.6	
18	1		74.88	
6	1		7.8	
26	1		130	
21	1		103.95	
5	1		4.6	
13	1		39	
8	1		14.4	
21	1		103.95	
13	1		39	
8	1		14.4	
21	1		103.95	
13	1		39	
8	1		14.4	
14	1		36.4	
14	1		36.4	
14	1		36.4	

14	1		36.4	
16	1		46.8	
23	1		98.9	
24	1		109.2	
17	1		54.825	
total length (m)		0	2431.3	0
unit weight(kg/m)		0.222	0.394	0.617
weight (kg)		0	957.92	0

Structure

no.bar	no.of member	6	8	10
4	9			
2	9			
4	3			
2	3			
6	2			
4	11			
2	11			
4	1			

[illegible]

3	1			
2	1			
2	1			
2	2			
2	2			
2	2			
2	2			
2	2			
2	2			
4	1			
4	1			
1	2			
2	2			
3	2			
1	2			
1	2			

1	2			
2	2			
3	2			
2	1			
2	1			
2	1			
2	1			
3	1			
2	1			
3	2			
3	2			
1	1			
2	1			
2	1			
3	1			

3	1			
3	2			
3	2			
3	2			
3	2			
2	5			
2	5			
2	4			
2	4			
7	1		42	
36	1		429.12	
36	1			
30	1			

30	1		271.2	
45	1			
9	1		32.49	
30	1		209.7	
20	1		185.4	
48	1		406.56	
39	1		198.9	
22	1			
73	1			
30	1		180	
20	1		109.4	
11	1		60.17	
1)			2124.94	0

m)	0.222	0.394	0.616
	0	837.226	0

length		
12	14	16
RE		
		528
	264	
	33.6	
31.5		
		67.2
		63
	19.05	
	21	
23.25		
17.4		

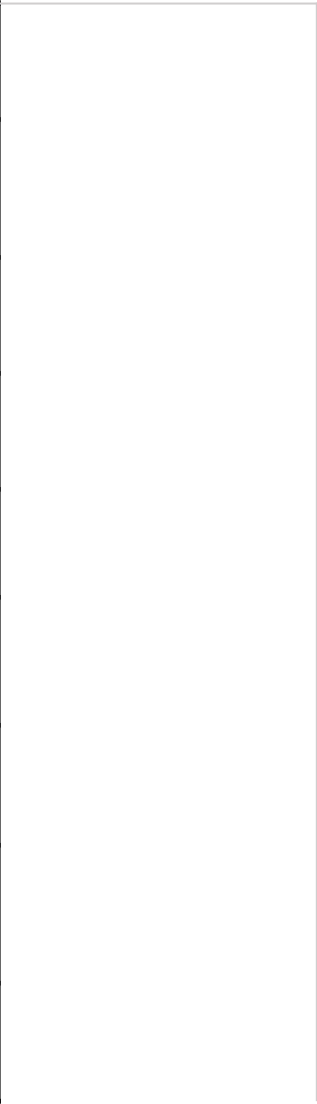
	35.25	
33.15		
		10.65
		8.55
		24.135
22.035		
	19.95	
17.85		
	25.65	
18.36		
	25.44	
21.39		
	19.095	
17.01		
	64.86	
	40.14	
49.2		
52.8		
	56.25	
47.25		

[illegible]

[illegible]

351.195	624.285	701.535
0.888	1.209	1.579
311.8612	754.761	1107.72
12	14	16
		234.24
	65.88	
		234.24
	21.96	
	45.72	
		205.44
	70.62	
	12.84	

0 0 0



		102.72
	134	
	53.6	
	23.4	
		352
		336
		166.4
		60.16
		225.6
		352
		336
		83.2
		171.2
		142.4

		194.4
		136
		123.2
	21.2	
		376.16
		360.16
	7.6	
	8.8	
14.22		
12.216		
	6	
	43.6	
63		
	4.7	
	6	

	3	
	47.68	
69.12		
8.96		
8.16		
6.9		
6.1		
	4.65	
2.3		
	69.03	
66.63		
	2.6	
	14.8	
	13.2	
22.5		

15		
64.2		
39		
46.98		
50.22		
35.5		
31.5		
22.8		
22.8		
108		
120		

135			
48.4			
131.4			
1150.906	680.88	4191.52	

0.888	1.209	1.579		
1022.0045	823.1839	6618.41		

0

0

0

0

0

0

0

TIMISING	DIMENSION	SQURING	UNIT	ITEM
				1
1	1.83 2.5	4.575	M ²	1.1
1	0.9 2.5	2.25	M ²	1.2
2	1.2 2.5	6	M ²	1.3
2	1.2 1.69	4.056	M ²	1.4
2	0.84 0.51	0.4284	M ²	1.5
		17.3094	M2	
2	1.2 2.29	2.748	M ²	1.6
2	0.92 2.52	2.3184	M ²	1,7
		22.3758	M ²	
				2
1	0.9 2.76	2.484	M ²	2.1
1	1.5 1.56	2.34	M ²	2.2
1	1.5 1.1	1.65	M ²	2.3
1	1.22 1.12	1.3664	M ²	2.4
1	1.5 1.67	2.505	M ²	2.5
		10.3454	M ²	2.6
				3
	0.91			

1	2.5	2.275	M ²	
	0.9			
1	2.5	2.25	M ²	3.1
1	2.4			
	2.5	6	M ²	3.2
1	0.8			
	1.23	0.984	M ²	3.3
	0.6			
1	0.7	0.42	M ²	3.4
1		11.929	M2	
				4
5	0.9			
	2.1	9.45	M ²	4.1
4	0.8			
	2.1	6.72	M ²	4.2
		60.8202	M2	
				5
1	0.6			
	0.7	0.42	M ²	5.1
1	1.53			
	2.4	3.672	M ²	5.2
2	0.8			
	2.4	3.84	M ²	5.3
1	0.9			
	2.4	2.16	M ²	5,4
1	1.89			
	1.4	2.646	M ²	5.5
1	1.5			
	1.4	2.1	M ²	5.6
1	1.08			
	0.9	0.972	M ²	5.7

1	1	0.9	M ²	5.8
	0.9			
		0.9	M ²	
		17.13	M2	
		77.9502	M2	
	1.13	0.1017	M2	6.1
1	0.09			
	2.4			
2	1.2			
		5.76	M2	6.2
	3.1	5.58	M2	6.3
2	0.9			
			M2	
		11.4417		
		83.6319		

DISCRIPTION

door and windoow in the front side

main enterance door



for parking in the front side

front side french window

front side triangle and rectangle shape bed room windows frinch windows

Externaldoor on ground floor in thefront side main enterance and m.bed
total area od door

behind for parking in to toilet

Raer side door & window for ground floor kitchen
total
in the rear side

for first floor bath window

for first floor bath window & toilet window

for first floor bed room window

Ground floor door in the kichen

on the right side ground floor freench window for living room

total in the rear side

in the right side

for G.F living room
for living room in the ground
G.F for dinning room
F.F window for dressing room
left side window G.F Toilet room
Total area of window & door for External direction in the right side
internal door
internaldoor & window for kichen ,dinning ground floor & first floor Bath,Bed,Master bed & c
for ground floor toilet & first floor dressing room Bath room
total window & door FOR MAIN BUILDING
FOR SERVICES
door & windows for toilet window
loundary room
for garder tools stare room & maids room door
for local kitchen room door
for main room window
local kitchen window
store window

garden tools store window

TOTAL DOOR AND WINDOW FOR SERVICE BUILDING

TOTAL DOOR AND WINDOOW

HAND RAIL IN THE RIGHT SIDE OF TE BUILDING

for stair hand rail

for verendah

TOTAL METAL AREA

TIMISING	DIMENSION	SQUARING	UNIT	unit
1	9		150	pcs
1	6		125	pcs
1	1		700	pcs
1	8		120	pcs
1	35		2500	pcs
1	8		125	pcs
1	2		185	pcs
1	1		700	pcs
1	1		300	pcs
1	17		210	pcs
1	22		2500	pcs
1	6		125	pcs
1	5		185	pcs
1	1		300	pcs
1	1		700	pcs
1	15		210	pcs
1	9		220	pcs
1	14		220	pcs
1	2			pcs
	3			PCS
1	3		1290	pcs
1	6		2000	pcs
1	3		1500	pcs
1	3		70	pcs
1	2	no		pcs
1	1	no		pcs
1	4		400	m
1	4		180	m
1	4		250	m
1	4		500	m

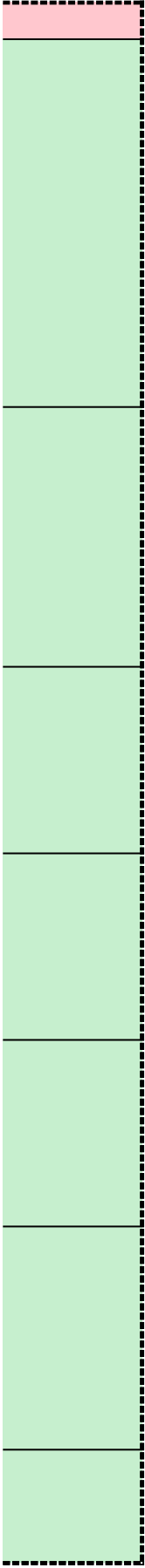
1	36	pcs	60	pcs
1	11	pcs	80	pcs
1	2	pcs	100	pcs
1	37	pcs	70	pcs
1	2	pcs	120	pcs
1	11	pss	2000	pcs
1	6	pss	2900	pcs
1	1	pss	500	pcs
1	2	pss	50	pcs
1	4	pss	450	pcs
1	10	pss	456	pcs
1	4	m	550	m
1	4	m	150	m
1	4	m	120	m

DESCRIPTION
for service
lighiting point single switch automatic circiut breker 63AMP three phase socket
for ground
lighiting point single switch duble switch automatic circiut breker 63AMP three phase 3 phase swich socket twin
for first floor
lighiting point single switch duble switch 3 phase swich automatic circiut breker 63AMP three phase socket twin with tv
from riser diagram for water supply
gate valve single gate valve b.t KS sink h.w w.c fd 100 lwh 50 Lwh
instalation water supplyy pvc pipe for water supply with different diameter
diamter 25 4M LONG 1PPR PIPE diamter 20 4M LONG 1PPR PIPE diamter 15 4M LONG 1PPR PIPE PPR11/4 4M LONG 1PPR PIPE 32 mm diameter

pvc pipe connector
elbow
tee
reducer
union
y-trap
riser diagram for waste water
for service
for main building
hand washe
water closet
L.S
F.D
B.T
V.P
instalation water pvc pipe for waste water with different diameter
diamter 110
diamter 65
diameter 50

Timizing	Dimensio	Squaring	Unit
1	2.6 2 5.5		
		28.6	m ³
1	1 0.8 0.8		
		0.64	m ³
1	2.6 2 5.5		
		28.6	m ³
1	2 5.5		
		11	m ²
1	0.2 2 4.5		
		1.8	m ³
1	13 0.5 2		
		13	m ³
5	1 0.25		
		1.25	m ³

Description
A) SANITARY WORK 1. <u>Excavation And Earth Work</u> 1.1 <u>Excavation for septic tank</u> Excavation of Septic tank for a depth of neded and including 250mm working space both sides. Total Septic tank excavation. 1.2 <u>Excavation for Manhole</u> Excavation of Manhole for a depth of neded and including 250mm working space both sides. Total Manhole excavation. 1.3 <u>Cart Away for Septic Tank</u> Total Volume of Cart Away. 2. <u>Concrete Work</u> 2.1 <u>Lean Concrete (C-5)</u> Total lean concrete for Septic tank. 2.2 <u>C-25 Concrete</u> Concrete work for Septic tank slabs Total C-25 Concrete For Septic tank Slabs. 3. <u>Masonry Work</u> 3.1 <u>For Septic Tank</u> 3.2 <u>For Manhole</u>



Project: Construction of G+1 residential
Location: Wolaita Sodo
Employer: tekleab alemu and estifanos
Consultant: henok simon and bezawite
Contractor: daniel ammanuel , frehiwot

PROJECT: EXCAVATION AND EARTH WORK.
WORK ITEM: (1.1)Clearing of 40 cm thick top organic soil
TOTAL QANTITY OF WORK ITEM: 1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Total (1:-01)			

A= Materials Unit Cost Birr/m2

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: EXCAVATION AND EARTH WORK.
WORK ITEM: (1.2) Bulk excavation in ordinary soil
TOTAL QANTITY OF WORK ITEM: 1 m3

Material Cost (1:01)

Type of Material	Unit	Qty *	Rate
Total (1:-01)			

A= Materials Unit Cost 0 Birr/m3

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: EXCAVATION AND EARTH WORK.
 WORK ITEM: (1.3) Pit excavation Ordinary soil
 TOTAL QANTITY OF WORK ITEM: 1 m3

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Total (1:-01)			

A= Materials Unit Cost 0 Birr/m3

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: EXCAVATION AND EARTH WORK.
WORK ITEM: (1.4) Trench excavation to the neded depth
TOTAL QANTITY OF WORK ITEM: 1 m3

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Total (1:-01)			

A= Materials Unit Cost 0 Birr/m3

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: EXCAVATION AND EARTH WORK.
WORK ITEM: (1.6) Back fill around footing and masonry for
TOTAL QANTITY OF WORK ITEM: 1 m3

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Selected material	m3	1.5	30
Total (1:-01)			

A= Materials Unit Cost 45 Birr/m3

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

***: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: EXCAVATION AND EARTH WORK.
 WORK ITEM: (1.45) 25cm thick hard core.
 TOTAL QANTITY OF WORK ITEM: 1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Basaltic stone	m3	1	53.5
Total (1:-01)			

A= Materials Unit Cost 53.5 Birr/m2

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: EXCAVATION AND EARTH WORK.
WORK ITEM: (1.38) Back fill around footing and masonry for
TOTAL QANTITY OF WORK ITEM: 1 m3

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Total (1:-01)			

A= Materials Unit Cost 0 Birr/m3

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: EXCAVATION AND EARTH WORK.
WORK ITEM: (1.38) cart away
TOTAL QANTITY OF WORK ITEM: 1 m3

Material Cost (1:01)

Type of Material	Unit	Qty *	Rate
Total (1:-01)			

A= Materials Unit Cost 0 Birr/m3

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: CONCRETE WORK

WORK ITEM:_ (2.1) C-5 Concrete (mechanical mix) lear

TOTAL QUANTITY OF WORK ITEM: 1m³

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Cement	Qtl..	0.14	360.00
Sand	m3	0.55	400.00
Gravel (02)	m3	0.82	570.00
Water	m3	0.126	15.00

Total (1:-01)			

A=Materials Unit Cost

738.55 Birr/m³

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC

**.: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF

PROJECT: CONCRETE WORK

WORK ITEM: (2.32)

C-25 Concrete (mechanical mix)

TOTAL QUANTITY OF WORK ITEM: 1m³

1 m³

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Cement	Qtl..	3.55	360.00
Sand	m ³	0.5	400.00
Gravel (02)	m ³	0.75	570.00
Water	m ³	0.1	30.00
Total (1:-01)			

A= Materials Unit Cost

1908.50 Birr/m3

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT : REINFORCEMENT BARS

WORK ITEM: Diameter 8 mm deformed reinforcement Bars

TOTAL QANTITY OF WORK ITEM: 1 kg.

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Dia. 8 mm deformed bars	kg	1.05	49.00
1.5 mm black annealed wire	"	0.02	10.00
Total (1:-01)			

A= Materials Unit Cost

17.48 birr/kg

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT : REINFORCEMENT BARS
 WORK ITEM: Diameter 10 mm deformed reinforcement Bars
 TOTAL QANTITY OF WORK ITEM: 1 kg.

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Dia. 10 mm deformed bars	kg	1.05	20.59
1.5 mm black annealed wire	"	0.02	10.00
Total (1:-01)			

A= Materials Unit Cost 21.82 birr/kg

Remark _____

UF: UTILIZATION FACTOR
 *: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.
 **: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT : REINFORCEMENT BARS
 WORK ITEM: Diameter 12 mm deformed reinforcement Bars
 TOTAL QANTITY OF WORK ITEM: 1 kg.

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Dia. 12 mm deformed bars	kg	1.05	16.76
1.5 mm black annealed wire	"	0.02	10.00

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.
 **: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT : REINFORCEMENT BARS
 WORK ITEM: Diameter 16 mm deformed reinforcement Bars
 TOTAL QANTITY OF WORK ITEM: 1 kg.

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Dia. 16 mm deformed bars	kg	1.05	12.77
1.5 mm black annealed wire	"	0.02	10.00
Total (1:-01)			

A= Materials Unit Cost 13.61 birr/kg

Remark _____

UF: UTILIZATION FACTOR
 *: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.
 **: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT : REINFORCEMENT BARS
 WORK ITEM: Diameter 20 mm deformed reinfor 20 mm defforr
 TOTAL QANTITY OF WORK ITEM: 1 kg.

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Dia. 14 mm deformed bars	kg	1.05	10.88

1.5 mm black annealed wire	"	0.02	10.00
Total (1:-01)			

A= Materials Unit Cost 11.62 birr/kg

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

***: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

***: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: FORMWORKS

WORK ITEM: (4.4) Zigba form work for foundation column

TOTAL QUANTITY OF WORK ITEM: 1

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Eucalyptus wood 8cm diameter	m	1.05	100.00
form work 2.5cm local wood	m	1.05	15.00
Eucalyptus wood 4cm diameter	m	1.05	35.00
Eucalyptus wood 6cm diameter	m	1.05	50.00
nails of different size	kg	0.5	205.00
mould oil	lit	0.06	10.00
Total (1:01)			

A= Materials Unit Cost 313.10 Birr/m2

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: FORMWORKS

WORK ITEM: (4.5) Zigba form work for solid slab

TOTAL QUANTITY OF WORK ITEM: 1

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Eucalyptus wood 8cm diameter	M	1.05	100.00
form work 2.5cm local wood	m3	1.05	15.00
Eucalyptus wood 6cm diameter	m	1.05	50.00
nails of different size	kg	0.5	205.00
mould oil	lit	0.06	10.00
Total (1:01)			

A= Materials Unit Cost 276.35 Birr/m2

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: FORMWORKS

WORK ITEM: (4.6)

Zigba form work for elevation column

TOTAL QUANTITY OF WORK ITEM:

1

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Eucalyptus wood 8cm diameter	M	1.05	100.00
form work 2.5cm local wood	m	1.05	15.00
Eucalyptus wood 4cm diameter	m	1.05	35.00
Eucalyptus wood 6cm diameter	m	1.05	50.00
nails of different size	kg	0.5	23.45
mould oil	lit	0.06	10.00
Total (1:01)			

A= Materials Unit Cost

222.33 Birr/m2

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: FORM WORKS

WORK ITEM: (4.7)

Zigba form work for beams

TOTAL QUANTITY OF WORK ITEM:

1

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Eucalyptus wood 8cm diameter	M	1.05	100.00
form work 2.5cm local wood	m3	1.05	15.00
Eucalyptus wood 4cm diameter	m	1.05	35.00
Eucalyptus wood 6cm diameter	m	1.05	50.00

nails of different size	kg	0.5	205.00
mould oil	lit	0.06	10.00
Total (1:01)			

A= Materials Unit Cost 313.10 Birr/m²

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

***: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: FORMWORKS

WORK ITEM: (4.1) Zigba form work for footing .

TOTAL QUANTITY OF WORK ITEM: 1

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Eucalyptus wood 4cm diameter	m	1.05	35.00
formwork 2.5cm - local wood/rente	m ²	1.05	15.00
Eucalyptus wood 6cm diameter	m	1.05	50.00
nails of different size	Kg	0.25	205.00
Total (1:01)			

A= Materials Unit Cost 156.25 Birr/m²

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: FINISHING WORKS

WORK ITEM : (11.5)

Second coat of ce

TOTAL QUANTITY OF WORK ITEM:

1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Cement	qt.	0.058	360.0
Sand	m3	0.014	400.0
Water	m3	0.007	2.00
Total (1:-01)			

A=Material unit cost

26.60 Birr/m2

Direct Cost

Remark : _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: FINISHING WORKS

WORK ITEM : (11.6)

Final coat of cement plastering ceiling :

TOTAL QUANTITY OF WORK ITEM:

1 m2

Material Cost (1:01)			
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Type of Material	Unit	Qty *	Rate
Cement	qt.	0.022	360.0
Sand	m3	0.002	400.0
Water	m3	0.01	2.00
Total (1:-01)			

A= Material unit cost 8.51 Birr/m2

Direct Cost

Remark : _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT- Block work

WORK ITEM: (6.14) 20 cm. thick class -A solid H.C.B Wall E

TOTAL QANTITY OF WORK ITEM: 1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	U.P
20 cm. Thick solid H.C.B	Pcs.	11	15.00
Cement	Qt.	0.1	360.00
Sand	m3	0.028	400.00
Water	m3	0.02	2.00
Total (1:-01)			

A=Materials Unit Cost 212.24 Birr/m2

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT- Block work

WORK ITEM: (6.14) 15cm. thick class -A solid H.C.B Wall B

TOTAL QUANTITY OF WORK ITEM: 1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	U.P
20 cm. Thick solid H.C.B	Pcs.	15	10.00
Cement	Qt.	0.1	360.00
Sand	m3	0.028	400.00
Water	m3	0.02	2.00
Total (1:-01)			

A=Materials Unit Cost 197.24 Birr/m2

UF: UTILIZATION FACTOR

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** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: ROOFING WORKS

WORK ITEM : (7.14)

0.40 mm thick Galvanized EGA 400 roof sheet

TOTAL QANTITY OF WORK ITEM:

1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
0.40 mm thick EGA-400	ml	1.61	192.00
J- bolt and nut with washer	No.	5	60.00
Total (1:-01)			

A= Material unit cost

609.12 Birr/m2

Direct Cost

Remark : _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

** : INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: glazing WORKS

WORK ITEM : (7.14)

glazing

TOTAL QANTITY OF WORK ITEM:

1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
glass	m2	1.61	192.00
stoco	ml	5	60.00

Total (1:-01)			

A= Material unit cost 609.12 Birr/m²

Direct Cost

Remark : _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: ROOF WORK

WORK ITEM :(9.6)

ROOF TRUSS

TOTAL QANTITY OF WORK ITEM:

1 m²

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
BATTEN	m	1.05	125.00
purlin	M	1.05	56.00
nail	kg	0.5	205.00
Total (1:-01)			

A= Material unit cost= 292.55 Birr/m²

Direct Cost

Remark : _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: HAND RAIL
 WORK ITEM: (13.19) HAND RAIL
 TOTAL QANTITY OF WORK ITEM: 1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
RHS	M	1.05	150.00
OHS	M	1.05	150.00
GRAPHITE	PCS	0.13	70.00
BLACK WIRE	KG	0.125	10.00
Total (1:-01)			

A= Materials Unit Cost 325.00 Birr/m2

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

***: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: PAINTING.
 WORK ITEM: (13.23) Three coats of Mica paint to plastered s
 TOTAL QANTITY OF WORK ITEM: 1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Mica paint	lit	0.18	50.00
Gypsum	kg	1	15.00
glue	kg	0.13	17.39
Sand paper	pcs	2	3.50
Total (1:-01)			

A= Materials Unit Cost 33.17 Birr/m²

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: carpentry and joinnery

WORK ITEM: (13.23)

TOTAL QANTITY OF WORK ITEM: 1 m²

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
pin joinnery	pcs	4	50.00
nail	kg	0.25	205.00
lock	pcs	1.00	17.39
pivot joint	pcs	1	3.50
graphite	pcs	1	70.00
Total (1:-01)			

A= Materials Unit Cost

342.14 Birr/m²

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: ceiling work

WORK ITEM: (13.23)

TOTAL QANTITY OF WORK ITEM:

1 m²

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
chipwood	lit	0.18	50.00
Gypsum	kg	0.03	15.00
nail	kg	0.25	205.00
glue	kg	0.01	17.39
Sand paper	No	0.2	3.50
sherera	m	1.05	120.00
triangulary	m	1.05	80
Total (1:-01)			

A= Materials Unit Cost

271.62 Birr/m²

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT:	PLASTERING WORK
WORK ITEM: (13.23)	Three coats of plastering.
TOTAL QANTITY OF WORK ITEM:	1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
cement	bag	0.3	50.00
sand	m3	1.2	15.00
water	lit	0.05	17.39
Total (1:-01)			

A= Materials Unit Cost	33.87 Birr/m2
------------------------	---------------

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

**: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT:	METAL WORK
WORK ITEM: (13.19)	METAL WORK
TOTAL QANTITY OF WORK ITEM:	1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
RHS 20cmx4cmx6mx1.5mm	M	1.05	300.00
OHS	M	1.05	240.00
GRAPHITE	PCS	0.13	70.00

BLACK WIRE	KG	0.125	10.00
NAIL	KG	0.25	205.00
Total (1:-01)			

A= Materials Unit Cost 628.25 Birr/m2

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

***: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

PROJECT: finishing work
 WORK ITEM: (13.23) floor finishing
 TOTAL QANTITY OF WORK ITEM: 1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
cement	bag	0.3	50.00
sand	m3	1.2	15.00
water	lit	0.05	17.39
ceramic tile 40cmx40cm 9mm thic	m2	1	580.00
marble	m2	1	
parqute tile	m2	1	
terazo tile skerte	m2	1	
Total (1:-01)			

A= Materials Unit Cost 613.87 Birr/m2

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.
 **: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: chiesel work
 WORK ITEM: (13.23) chiseling of concrete work
 TOTAL QANTITY OF WORK ITEM: 1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
Total (1:-01)			

A= Materials Unit Cost 0.00 Birr/m2

Remark _____

UF: UTILIZATION FACTOR
 *: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.
 **: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME

PROJECT: finishing work
 WORK ITEM: (13.23) skerting
 TOTAL QANTITY OF WORK ITEM: 1 m2

Material Cost (1:01)			
Type of Material	Unit	Qty *	Rate
cement	bag	0.3	50.00
sand	m3	1.2	15.00
water	lit	0.05	17.39

marble chips m2	m2	1	580.00
spacer	pkt	1	45.00
Total (1:-01)			

A= Materials Unit Cost 658.87 Birr/m2

Remark _____

UF: UTILIZATION FACTOR

*: INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

***: INCLUSIVE OF BENEFITS, TRAVEL SUBSIDIES AND COST OF OVERTIME

QTY	DIMENSION	UNIT PRICE	unit
1	9	150	pcs
1	6	30	pcs
1	1	450	pcs
1	8	40	pcs
1	35	2500	pcs
1	8	30	pcs
1	2	50	pcs
1	1	450	pcs
1	1	60	pcs
1	17	40	pcs
1	22	2500	pcs
1	6	30	pcs
1	5	50	pcs
1	1	60	pcs
1	1	450	pcs
1	15	40	pcs
			from riser
1	9	220	pcs
1	14	220	pcs

	1	2		pcs
		3		PCS
	1	3	1290	pcs
	1	6	2000	pcs
	1	3	1500	pcs
	1	3	70	pcs
	1	2	no	pcs
	1	1	no	pcs
			105	instalation v
	1	4	75	115
	1	4	100	m
	1	4		m
	1	4	60	m
			80	pv
	1	36	100	pcs
	1	11	70	pcs
	1	2	120	pcs
	1	37		pcs
	1	2		pcs
				riser dia
			2000	
			2900	f
	1	11	500	pcs
	1	6	50	pcs
	1	1	450	pcs
	1	2	456	pcs
	1	4		pcs
	1	10	550	pcs
			150	er pvc pipe
	1	4	120	m
	1	4		m
	1	4		m

al building

s adugna

e alemayehu

abebe and kalkidan gobena

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abebe and kalkidan gobena

abebe and kalkidan gobena

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

nic soil

LABOUR HOURLY OUTPUT
EQUIPEMENTOUT PUT
RESULT:

nic soil

LABOUR HOURLY OUTPUT
EQUIPEMENTOUT PUT
RESULT:

nic soil

EQUIPEMENTOUT PUT :
RESULT:

RESULT:

	Labor Cost (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
	Forman	1	0.5	200	100
	L.Operator	1	1	300	100
	D/L	8	1	120	960
	Total (1:02)				1160

B= Manpower Unit Cost	3.8666667 Birr/m2	C= Equipm
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B= Manpower Unit Cost	3.8666667 Birr/m2	C= Equipm
-----------------------	-------------------	-----------

B= Manpower Unit Cost	3.8666667 Birr/m2	C= Equipm
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Total of (1:02)

Daily Output:

Direct Cost of Work Item = A+B+C =

Over head cost :	15%
------------------	-----

Over head cost :	15%
------------------	-----

Profit Cost:	10%
--------------	-----

Profit Cost:	10%
--------------	-----

Total :

VAT:	15%
------	-----

VAT:	15%
------	-----

Total Unit Cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR HOURLY OUTPUT

EQUIPEMENT OUT PUT :

RESULT:

	Labor Cost (1:02)
--	-------------------

Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
0	DL	5	1	120	600
0	Site .E	1	0.50	230	115
0	Forman	1	0.5	200	100
0					0
0					0
0	Total (1:02)				815

B= Manpower Unit Cost 2.72 Birr/m3 C= Equipm

Total of (1:02)

Daily Output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 10%

Total :

VAT: 15%

Total Unit Cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

150cm

LABOUR HOURLY OUTP
EQUIPEMENTOUT PUT :
RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
0	DL	8	1	120	960
0	Site enginer	1	1	230	230
0	Forman	1	0.5	200	100
0					0
0					0
0	Total (1:02)				1290

B= Manpower Unit Cost 11.73 Birr/m3 C= Equipm

Total of (1:02)

Daily output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%
 Profit Cost: 10%
 Total :
 VAT: 15%
 Total Unit Cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR HOURLY OUTPUT
 EQUIPEMENTOUT PUT :
 RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
0	DL	10	1	120	1200
0	site engineer	1	1	230	230
0	Forman	1	0.25	200	50
0					0
0					0
0	Total (1:02)				1480

B= Manpower Unit Cost 29.60 Birr/m3 C= Equipm
 Total of (1:02)
 Daily output:
 Direct Cost of Work Item = A+B+C =
 Over head cost : 15%
 Profit Cost: 10%
 Total :
 VAT : 15%
 Total Unit Cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR HOURLY OUTPUT
 EQUIPEMENTOUT PUT :
 RESULT:

oundation from borrowpit

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
45	DL	10	1	120	1200
0	site enginer	1	1	230	230
0	Forman	1	0.25	200	50
0					0
0					0
45	Total (1:02)				1480

B= Manpower Unit Cost 296.00 Birr/m3 C= Equipm

Total of (1:02)

Daily output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 10%

Total :

VAT : 15%

Total Unit Cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR HOURLY OUTP
EQUIPEMENTOUT PUT :
RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
53.5	Mason-II	2	1	250	500.00
	DL-II	9	1	120	1080
0	forman	2	0.25		0
0					0
53.5	Total (1:02)				1580

B= Manpower Unit Cost 112.86 Birr/m2 C=Equipme

Total of (1:02)

Daily output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%
Profit Cost: 10%
Total :
VAT: 15%
Total Unit Cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

Foundation from the site LABOUR HOURLY OUTPUT
EQUIPEMENTOUT PUT :
RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
0	DL	3	1	120	360
0	SE	1	0.5	230	115
0	Forman	1	0.25	200	50
0					0
0					0
0	Total (1:02)				525

B= Manpower Unit Cost 175.00 Birr/m3 C= Equipm
Total of (1:02)
Daily output:
Direct Cost of Work Item = A+B+C =
Over head cost : 15%
Profit Cost: 10%
Total :
VAT : 15%
Total Unit Cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR HOURLY OUTPUT
EQUIPEMENTOUT PUT :
RESULT:

Labor Cost (1:02)					
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Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
0	DL	8	1	120	960
0	SE	1	0.1	230	23
0	Forman	1	0.25	200	50
0					0
0					0
0	Total (1:02)				1033

B= Manpower Unit Cost 229.56 Birr/m3 C= Equipr

Total of (1:02)

Daily output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 10%

Total :

VAT : 15%

Total Unit Cost :

RELATED TO TARGETED OUTPUT.

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

1 concrete

LABOR DAILY OUTP
EQUIPMENT DAILY
RESULT:

Labor (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed Daily Cost	Daily Cost
50.40	Foreman	2	0.25	200	100
220.00	Carpenter	1	1	350	350
466.26	DL II	6	1	120	720
1.89	Vibrator Ope.	1	1	150	150
	Mixer Ope.	1	1	200	200

					0
					0
738.55	Total (1:02)				1520.00

B=Manpower Unit Cost

95.00 Br./m³

Total of (1:02)

Daily Output

Direct Cost of work item = A+B+C =

Overhead Cost: 15%

Profit Cost: 20%

Total :

vat 15%

Total unit cost:

C.

F OVERTIME RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOR DAILY OUTPUT:
EQUIPMENT DAILY OUT
RESULT:

Labor (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed Daily Cost	Daily Cost
1278.00	Foreman	2	0.25	200	100
200.00	Plasterer I	2	1	250	500
427.50	Carpenter	1	1	350	350
3.00	Bar bender	1	1	350	350
	DL II	8	1	120	960
	Vibrator Ope.	1	1	150	150
	Mixer Ope.	1	1	200	200
	mason	1	1	250	250
					0
1908.50	Total (1:02)				2860.00

B=Manpower Unit Cost 238.33 Br./m3
 Total of (1:02)
 Daily Output
 Direct Cost of work item = A+B+C =
 Overhead Cost: 15%
 Profit Cost: 20%
 Total :
 vat 15%
 Total unit cost:

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
 EQUIPEMENT DAILY OUTPUT
 RESULT:

Labor (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed Daily Cost	Daily Cost
17.28	Forman	1	0.25	200	50.00
0.2	Bar bender II	1	1	300	300.00
0	Bar bender I	1	1	350	350.00
0	Helper	2	1	250	500.00
0					0.00
0					0.00
17.48	Total (1:02)				1200.00

B= Manpower Unit Cost 3.87 Birr/kg.
 Total of (1:02)
 Daily out put:
 Direct Cost of Work Item = A+B+C =
 Over head cost : 15%
 Profit Cost: 20%
 Total :
 vat 15%
 Total unit cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT:

	Labor (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed Daily Cost	Daily Cost
21.62	Forman	1	0.25	200	50.00
0.2	Bar bender II	1	1	350	350.00
0	Helper	1	1	250	250.00
0					0.00
0					0.00
0					0.00
21.82	Total (1:02)				650.00

B= Manpower Unit Cost

2.10 Birr/kg.

Total of (1:02)

Daily out put:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 20%

Total :

vat 15%

Total unit cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT:

	Labor (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed Daily Cost	Daily Cost
17.59	Forman	1	0.25	200	50.00
0.2	Bar bender II	2	1	350	700.00
0	Bar bender I	1	1	300	300.00

0	Helper	2	1	250	500.00
0					0.00
0					0.00
17.79	Total (1:02)				1550.00

B= Manpower Unit Cost

3.69 Birr/kg.

Total of (1:02)

Daily out put:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 20%

Total :

vat 15%

Total unit cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT

EQUIPEMENT DAILY OUTPUT

RESULT:

Labor (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed Daily Cost	Daily Cost
15.48	Forman	1	0.25	200	50.00
0.2	Bar bender I	2	1	350	700.00
0	Bar bender	1	1	300	300.00
0	Helper	2	1	250	500.00
0					0.00
0					0.00
15.68	Total (1:02)				1550.00

B= Manpower Unit Cost

3.69 Birr/kg.

Total of (1:02)

Daily out put:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 20%

Total :

vat 15%%

Total unit cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT:

	Labor (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed Daily Cost	Daily Cost
13.41	Forman	1	0.25	200	50.00
0.2	Bar bender I	2	1	350	700.00
0	Bar bender	1	1	200	200.00
0	Helper	2	1	250	500.00
0					0.00
0					0.00
13.61	Total (1:02)				1450.00

B= Manpower Unit Cost

4.68 Birr/kg.

Total of (1:02)

Daily out put:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 20%

Total :

Total unit cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT:

	Labor (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed Daily Cost	Daily Cost
11.42	Forman	1	0.25	200	50.00

0.2	Bar bender I	2	1	350	700.00
0	Bar bender	1	1	300	300.00
0	Helper	2	1	250	500.00
0					0.00
0					0.00
11.62	Total (1:02)				1550.00

B= Manpower Unit Cost

3.69 Birr/kg.

Total of (1:02)

Daily out put:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 20%

Total :

vat 15%%

Total unit cost :

RELATED TO TARGETED OUTPUT.

Vat:

Total unit cost:

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOR DAILY OUTPUT:

EQUIPMENT DAILY OUTPUT:

RESULT:

m2

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
105.00	Foreman	1	0.25	200	50.00
15.75	Carpenter II	3	1	350	1050.00
36.75	DL	5	1	120	600.00
52.50					0.00
102.50					0.00
0.60					0.00
0					0.00
313.10	Total (1:02)				1700.00

B= Manpower Unit Cost

34.00 Birr/m2

C=Equip

Total of (1:02)

Daily output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%
 Profit Cost: 10%
 Total:
 Vat: 15%
 Total unit cost:

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOR DAILY OUTPUT:
 EQUIPMENT DAILY OUT
 RESULT:

m2

	Labor Cost (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
105.00	Foreman	1	0.25	200	50.00
15.75	Carpenter II	2	1	350	700.00
52.50	Helper	3	1	250	750.00
102.50					0.00
0.60					0.00
0					0.00
					0.00
276.35	Total (1:02)				1500.00

B= Manpower Unit Cost 150.00 Birr/m2 C=Equip

Total of (1:02)

Daily output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%
 Profit Cost: 10%
 Total:
 Vat:
 Total unit cost:

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

m2

LABOR DAILY OUTPUT:
EQUIPMENT DAILY OUT
RESULT:

	Labor Cost (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
105.00	Foreman	1	0.25	200	50.00
15.75	Carpenter II	3	1	350	50.00
36.75	Helper	5	1	250	40.00
52.50					0.00
11.73					0.00
0.60					0.00
0.00					0.00
222.33	Total (1:02)				
					140.00

B= Manpower Unit Cost

9.33 Birr/m2

C=Equip

Total of (1:02)

Daily output:

Direct Cost of Work Item = A+B+C =

Over head cost :

15%

Profit Cost:

10%

Total:

Vat:

Total unit cost:

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

m2

LABOR DAILY OUTPUT:
EQUIPMENT DAILY OUT
RESULT:

	Labor Cost (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
105.00	Foreman	1	0.25	400	100.00
15.75	Carpenter II	1	1	250	50.00
36.75	Helper	2	1	100	40.00
52.50					0.00

102.50					0.00
0.60					0.00
0.00					0.00
313.10	Total (1:02)				105.00

B= Manpower Unit Cost 23.33 Birr/m2 C=Equip

Total of (1:02)

Daily output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 10%

Total:

Vat:

Total unit cost:

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOR DAILY OUTPUT:

EQUIPMENT DAILY OUT

RESULT:

m2

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
36.75	Foreman	1	0.25	200	50.00
15.75	Carpenter II	1	1	350	50.00
52.50	Helper	2	1	250	40.00
51.25	DL	2	1	120	240.00
0.00					0.00
0.00					0.00
0.00					0.00
156.25	Total (1:02)				380.00

B= Manpower Unit Cost 54.29 Birr/m2 C=Equip

Total of (1:02)

Daily output:

Direct Cost of Work Item = A+B+C =

Over head cost : 25%

Profit Cost: 30%

Total:

Vat:

Total unit cost:

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

ment plastering ceiling surface (1:3)

LABOUR DAILY OUTPUT

EQUIPMENT DAILY OUTPUT

RESULT :

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
20.99	Foreman	1	0.25	200	50.00
5.60	Plasterer	1	1	250	250.00
0.01	D/L	1	1	120	120.00
26.60	Total (1:02)				420.00

B=Manpower Unit Cost

52.50 Birr/m2

Total of (1:02)

Daily Output

of work item = A + B + C =

96.60

Overhead Cost :

15%

14.49

Profit Cost:

20%

19.32

Total:

130.41

Total Unit Cost :

130.41

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

surface (1:3)

LABOUR DAILY OUTPUT

EQUIPMENT DAILY OUTPUT

RESULT :

Labor Cost (1:02)					
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Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
7.7	Forman	1	0.1	200	20.00
0.76	Plasterer	1	1	250	250.00
0.01	D/L	2	1	120	240.00
8.51	Total (1:02)				510.00

B=Manpower Unit Cost 45.54 Birr/m2
 Total of (1:02)
 Daily Output
 of work item = A + B + C = 55.84
 Overhead Cost : 15% 8.38
 Profit Cost: 20% 11.17
 Total: 75.38

 Total Unit Cost : 75.38

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

Both Sides Left For Plastering. LABOUR DAILY OUTPUT
 EQUIPEMENT DAILY OUTPUT
 RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
165.00	Forman	1	0.25	200	50.00
36.00	Mason	2	1	250	500.00
11.20	assistant mason	2	1	200	400.00
0.04	daily labor	3	1	120	240
212.24	Total (1:02)				1190.00

B= Manpower Unit Cost 56.67 Birr/m2
 Total of (1:02)

Daily Output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 20%

Total :

Total Unit Cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

both Sides Left For Plastering.

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
150.00	Forman	1	0.25	200	50.00
36.00	Mason	2	1	250	500.00
11.20	assistant mason	2	1	200	400.00
0.04	daily labor	3	1	120	240
197.24	Total (1:02)				1190.00

B= Manpower Unit Cost 56.67 Birr/m2

Total of (1:02)

Daily Output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 20%

Total :

Total Unit Cost :

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT :

of cover.

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
309.12	Forman	1	0.25	200	50.00
300.00	Carpenter II	1	1	250	250.00
	helper	3	1	250	750.00
609.12	Total (1:02)				1050.00

B=Manpower Unit Cost 39.62 Birr/m2
 Total of (1:02)
 Daily Output
 of work item = A + B + C = 649.87
 Overhead Cost : 15% 97.48
 Profit Cost: 10% 74.74
 Total: 822.09
 Vat: 15% 123.31
 Total Unit Cost : 945.41

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT :

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
309.12	Forman	1	0.25	200	50.00
300.00	glaser	1	1	250	250.00
	helper	3	1	250	750.00

609.12	Total (1:02)				1050.00

B=Manpower Unit Cost 39.62 Birr/m2

Total of (1:02)

Daily Output

of work item = A + B + C = 652.52

Overhead Cost : 15% 97.88

Profit Cost: 10% 75.04

Total: 825.43

Vat: 15% 123.81

Total Unit Cost : 949.25

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
131.25	forman	2	0.25	200	100.00
58.80	carpenter	3	1	350	1050.00
102.50	dl	6	1	120	720.00
292.55	Total (1:02)				1870.00

B=Manpower Unit Cost = 0.00

Total of (1:02)

Daily output:

of work item = A + B + C = 292.55

Overhead Cost : 10% 29.26

Profit Cost: 15% 48.27

Total : 370.08

Vat: 15% 55.51

Total Unit Cost : 425.59

RELATED TO TARGETED OUTPUT.

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY O
RESULT:

	Labor Cost (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
157.50	Forman	1	0.25	200	50.00
157.50	WELDER	1	1	250	250.00
8.75	DL	1	1	120	120.00
1.25					0
					0
					0
325.00	Total (1:02)				420

B= Manpower Unit Cost	21.00 Birr/m2	C= Equipm
Total of (1:02)		
Daily Output:		
Direct Cost of Work Item = A+B+C =		
	Over head cost :	15%
	Profit Cost:	10%
	Total :	
	Vat	15%
	Total unit cost:	

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

soffit.

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY O
RESULT:

	Labor Cost (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
9.00	Forman	1	0.25	200	50.00
15.00	painter	1	1	150	150.00
2.17	DL	4	1	120	480.00
7.00					0
					0
					0
33.17	Total (1:02)				680

B= Manpower Unit Cost 35.79 Birr/m2 C= Equipm

Total of (1:02)

Daily Output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 10%

Total :

Vat 15%

Total unit cost:

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT:

	Labor Cost (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
200.00	Forman	1	0.25	200	50.00
51.25	painter	1	1	150	150.00
17.39	DL	4	1	120	480.00
3.50	welder	1	1	250	250
70.00					0
					0
342.14	Total (1:02)				930

B= Manpower Unit Cost 18.60 Birr/m2 C= Equipm
 Total of (1:02)
 Daily Output:
 Direct Cost of Work Item = A+B+C =
 Over head cost : 15%
 Profit Cost: 10%
 Total :
 Vat 15%
 Total unit cost:
 RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
 EQUIPEMENT DAILY OU
 RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
9.00	Forman	1	0.25	200	50.00
0.45	assistance carpente	2	1	250	500.00
51.25	carpentery	2	1	350	700.00
0.22	DL	4	1	120	480.00
0.70					0
126.00					0
84.00					0
271.62	Total (1:02)				1730

B= Manpower Unit Cost 91.05 Birr/m2 C= Equipm
 Total of (1:02)
 Daily Output:
 Direct Cost of Work Item = A+B+C =
 Over head cost : 15%
 Profit Cost: 10%
 Total :
 Vat 15%
 Total unit cost:
 RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OUTPUT
RESULT:

	Labor Cost (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
15.00	Forman	1	0.25	200	50.00
18.00	mason	2	1	250	500.00
0.87	DL	3	1	120	360.00
	a.mason	1	1	200	200
					0
					0
33.87	Total (1:02)				1110

B= Manpower Unit Cost	58.42 Birr/m2	C= Equipm
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Total of (1:02)

Daily Output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 10%

Total :

Vat	15%
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Total unit cost:

RELATED TO TARGETED OUTPUT.

ANALYSIS SHEET FOR DIRECT & INDIRECT COSTS

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY O
RESULT:

	Labor Cost (1:02)				
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
315.00	Forman	1	0.25	200	50.00
252.00	WELDER	1	1	250	250.00
8.75	DL	1	1	120	120.00

1.25					0
51.25					0
					0
628.25	Total (1:02)				420

B= Manpower Unit Cost 21.00 Birr/m2 C= Equipm

Total of (1:02)

Daily Output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 10%

Total :

Vat 15%

Total unit cost:

RELATED TO TARGETED OUTPUT.

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OU
RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
15.00	Forman	1	0.25	200	50.00
18.00	mason	2	1	250	500.00
0.87	DL	1	1	120	120.00
580.00	a.mason	1	1	200	200
0.00					0
0.00					
0.00					0
613.87	Total (1:02)				870

B= Manpower Unit Cost 45.79 Birr/m2 C= Equipm

Total of (1:02)

Daily Output:

Direct Cost of Work Item = A+B+C =

Over head cost : 15%

Profit Cost: 10%

Total :

Vat 15%

Total unit cost:

RELATED TO TARGETED OUTPUT.

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OL
RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
	Forman	1	0.25	200	50.00
	chisler	5	1	250	1250.00
					0.00
					0
					0
					0
0.00	Total (1:02)				1300

B= Manpower Unit Cost 1083.33 Birr/m2 C= Equipm
 Total of (1:02)
 Daily Output:
 Direct Cost of Work Item = A+B+C =
 Over head cost : 15%
 Profit Cost: 10%
 Total :
 Vat 15%
 Total unit cost:

RELATED TO TARGETED OUTPUT.

LABOUR DAILY OUTPUT
EQUIPEMENT DAILY OL
RESULT:

Labor Cost (1:02)					
Cost per Unit	Labor by Trade	No.	UF	** Indexed daily wage	Daily wage
15.00	Forman	1	0.25	200	50.00
18.00	mason	2	1	250	500.00
0.87	DL	1	1	120	120.00

580.00	a.mason	1	1	200	200
45.00					0
0.00					
0.00					0
658.87	Total (1:02)				870

B= Manpower Unit Cost 29.00 Birr/m2 C= Equipm
 Total of (1:02)
 Daily Output:
 Direct Cost of Work Item = A+B+C =
 Over head cost : 15%
 Profit Cost: 10%
 Total :
 Vat 15%
 Total unit cost:
 RELATED TO TARGETED OUTPUT.

DESCRIPTION

for service

lighiting point
 single switch
 bracker
 socket

for ground

lighiting point
 single switch
 duble switch
 bracker
 3 phase swich
 socket

for first floor

lighiting point
 single switch
 duble switch
 3 phase swich
 bracker
 socket

diagram for water supply

gate valve
 single gate valve

b.t
KS
sink
h.w
w.c
fd
100 lwh
50 Lwh

water supply pvc pipe for water supply with different diameter

m diamter 32

diamter 20

diamter 15

diamter 25

pvc pipe connector

elbow

tee

reducer

union

y-trap

Diagram for waste water

for service

for main building

hand washe

water closet

L.S

F.D

B.T

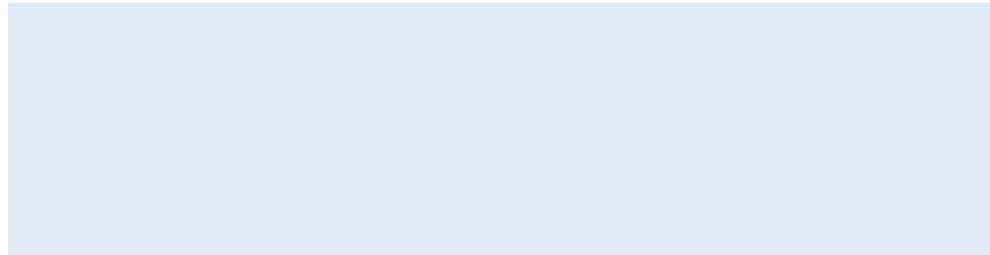
V.P

Diagram for waste water with different diameter

diamter 110

diamter 65

diameter 50



PUT: 300 m2/Dy
: 300 m2/Dy
10.47 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Loder	1	1000	1000
Total (1:03)			1000.00

ment Unit Cost 3.33 Birr/m2
Total of (1:03) 1000.00
Daily output: 300
7.20 Birr/m2
1.08 "
0.83 "
9.11 Birr/m2
1.37
10.47 Birr/m2

PUT: 300.00 m3/Dy
: 300.00 m3/Dy
66.02 Birr/m3

Equipment Cost (1:03)

Type of Equipment	No.	Daily Rental	Daily Cost
Excavator	1	7200	7200
			0
			0
			0
			0
Total (1:03)			7200

Unit Cost 42.67 Birr/m³
 Total of (1:03) 12800
 Daily Output: 300
 45.38 Birr/m³
 6.81 "
 5.22 "
 57.41 Birr/m³
 8.61
 66.02 Birr/m³

PUT: 110 m³/Dy
 : 210 m³/Dy
 88.67 Birr/m³

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Excavator	1	7200	7200
			0
			0
			0
			0
Total (1:03)			7200

Unit Cost 12800.00 Birr/m³
 Total of (1:03)
 Daily output: 210 m³/Dy
 60.95 Birr/m³

9.14 "

7.01 "

77.10 Birr/m3

11.57

88.67 Birr/m3

PUT: 50 m3/Dy

: 150 m3/Dy

252.54 Birr/m3

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Excavator	1	7200	7200
			0
			0
			0
			0
Total (1:03)			7200

ment Unit Cost 144.00 Birr/m3

Total of (1:03)

Daily output:

173.60 Birr/m3

26.04 "

19.96 "

219.60 Birr/m3

32.94

252.54 Birr/m3

PUT: 5 m3/Dy

: 5 m3/Dy

682.28 Birr/m3

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	2	70	140
sledge hammer/cor	1	500	500
			0
			0
			0
Total (1:03)			640

ent Unit Cost 128.00 Birr/m3

Total of (1:03)

Daily output:

469.00 Birr/m3

70.35 "

53.94 "

593.29 Birr/m3

88.99

682.28 Birr/m3

PUT: 14 m2/dy

: 14 m2/dy

267.89 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	4	70	280
			0
			0
Total (1:03)			280

ent Unit Cost 20.00 Birr/m2

Total of (1:03)

Daily output:

186.36 Birr/m2

27.95 "

18.64 "

232.95 Birr/m2

34.94

267.89 Birr/m2

PUT: 3 m3/Dy

: 3 m3/Dy

564.93 Birr/m3

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	2	70	140
sledge hammer	1	500	500
			0
			0
			0
Total (1:03)			640

ment Unit Cost 213.33 Birr/m3

Total of (1:03)

Daily output:

388.33 Birr/m3

58.25 "

44.66 "

491.24 Birr/m3

73.69

564.93 Birr/m3

PUT: 4.5 m3/Dy

: 250 m3/Dy

3829.23 Birr/m3

Equipment Cost (1:03)			
-----------------------	--	--	--

Type of Equipment	No.	Daily Rental	Daily Cost
Tools	2	70	140
dume truck	1	3472	3472
excavator	1	7200	7200
			0
			0
Total (1:03)			10812

ment Unit Cost 2402.67 Birr/m³

Total of (1:03)

Daily output:

2632.22 Birr/m³

394.83 "

302.71 "

3329.76 Birr/m³

499.46

3829.23 Birr/m³

PUT: 16 m³ / Dy

OUT PUT: 16 m³ / Dy

1459.04 Birr/m³

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
mixer	1	1200	1200
vibrator	1	500	500
			0
			0
			0

			0
			0
Total (1:03)			1700

C=Equipment Unit Cost 106.25 Br./m³

Total of (1:03)

Daily output:

939.80 Birr/m³

140.97 "

187.96 "

1268.73 Birr/m³

63.4365 Birr/m²

190.31

1459.04 Birr/m³

72.951975 Birr/m²

PUT:		12 m3 / Dy
		12 m3 / Dy
3684.48 Birr/m3		

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
mixer	1	1200	1200
vibrator	1	500	500
			0
			0
			0
			0
			0
			0
			0
Total (1:03)			1700

C=Equipment Unit Cost 141.6666666667 Br./m3

Total of (1:03)

Daily Output

2288.50 Birr/m3

343.28 "

457.70 "

3203.90 Birr/m3

480.58

3684.48 Birr/m3

T: 310 kg/Dy

IT PUT: 310 kg/Dy

33.85 Birr/kg.

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140
			0
			0
			0
			0
			0
Total (1:03)			140

C = Equipment Unit Cost 0.45 Birr/kg.

Total of (1:03)

Daily out put:

21.80 Birr/kg.

3.27 "

4.36 "

29.43 Birr/kg.

4.42

33.85 Birr/kg.

T: 310 kg/Dy
 JT PUT: 310 kg/Dy
 65.79 Birr/kg.

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140
			0
			0
			0
			0
			0
Total (1:03)			140

C = Equipment Unit Cost 0.45 Birr/kg.
 Total of (1:03)
 Daily out put:
 24.37 Birr/kg.
 3.66 "
 4.87 "
 32.90 Birr/kg.
 32.90
 65.79 Birr/kg.

T: 420 kg/Dy
 JT PUT: 420 kg/Dy
 33.87 Birr/kg.

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140
			0
			0

			0
			0
			0
Total (1:03)			140

C = Equipment Unit Cost 0.33 Birr/kg.

Total of (1:03)

Daily out put:

21.82 Birr/kg.

3.27 "

4.36 "

29.45 Birr/kg.

4.42

33.87 Birr/kg.

T: 420 kg/Dy

IT PUT: 420 kg/Dy

30.59 Birr/kg.

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140
			0
			0
			0
			0
			0
Total (1:03)			140

C = Equipment Unit Cost 0.33 Birr/kg.

Total of (1:03)

Daily out put:

19.70 Birr/kg.

2.96 "

3.94 "

26.60 Birr/kg.

3.99

30.59 Birr/kg.

T: 310 kg/Dy
 JT PUT: 310 kg/Dy
 44.22 Birr/kg.

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	10	20
			0
			0
			0
			0
			0
Total (1:03)			20

C = Equipment Unit Cost 0.06 Birr/kg.
 Total of (1:03)
 Daily out put:
 18.35 Birr/kg.
 2.75 "
 3.67 "
 24.77 Birr/kg.
 24.77 Birr/kg.

T: 420 kg/Dy
 JT PUT: 310 kg/Dy
 24.29 Birr/kg.

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140

			0
			0
			0
			0
			0
Total (1:03)			140

C = Equipment Unit Cost 0.33 Birr/kg.

Total of (1:03)

Daily out put:

15.65 Birr/kg.

2.35 "

3.13 "

21.12 Birr/kg.

3.17

24.29 Birr/kg.

0.00 Birr/m2

0.00 Birr/m2

50 m2/Dy.

PUT: 15 m2/Dy.

708.61 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140
			0
			0
			0
			0
			0
			0
			0
Total (1:03)			140

ment Unit Cost 140.00 Birr/m2

Total of (1:03)

Daily output:

487.10 Birr/m²
 73.07 Birr/m²
 56.02 Birr/m²
 616.18 Birr/m²
 92.43 Birr/m²
 708.61 Birr/m²

10 m²/Dy.

PUT:

5 m²/Dy.

620.70 Birr/m²

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140
			0
			0
			0
			0
			0
			0
Total (1:03)			1.6

ment Unit Cost

0.32 Birr/m²

Total of (1:03)

Daily output:

426.67 Birr/m²
 64.00 Birr/m²
 49.07 Birr/m²
 539.74 Birr/m²
 80.96 Birr/m²
 620.70 Birr/m²

PUT: 15 m²/Dy.
 6 m²/Dy.
 350.58 Birr/m²

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140
			0
			0
			0
			0
			0
			0
Total (1:03)			140

ment Unit Cost 9.33 Birr/m²
 Total of (1:03)
 Daily output:
 240.99 Birr/m²
 36.15 Birr/m²
 27.71 Birr/m²
 304.85 Birr/m²
 45.73 Birr/m²
 350.58 Birr/m²

PUT: 6 m²/Dy.
 4.5 m²/Dy.
 523.37 Birr/m²

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140
			0
			0
			0

			0
			0
			0
Total (1:03)			140

ment Unit Cost 23.33 Birr/m2

Total of (1:03)

Daily output:

359.77 Birr/m2

53.96 Birr/m2

41.37 Birr/m2

455.10 Birr/m2

68.27 Birr/m2

523.37 Birr/m2

7 m2/Dy.

PUT:

7 m2/Dy.

393.87 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	1.6
			0
			0
			0
			0
			0
			0
Total (1:03)			1.6

ment Unit Cost 0.23 Birr/m2

Total of (1:03)

Daily output:

210.76 Birr/m2

52.69 Birr/m2

79.04 Birr/m2

342.49 Birr/m2

51.37 Birr/m2

393.87 Birr/m²

T: 8 m²/Dy

PUT: 8 m²/Dy

130.41 Birr/m²

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Hand tools	2.00	70	140
			0
			0
			0
			0
Total (1:03)			140

C=Equipment Unit Cost 17.50 Birr/m²

Total of (1:03)

Daily output:

Birr/m²

Birr/m²

Birr/m²

Birr/m²

Birr/m²

T: 11.2 m²/Dy

PUT: 11.2 m²/Dy

75.38 Birr/m²

Equipment Cost (1:03)			
-----------------------	--	--	--

Type of Equipment	No.	Daily Rental	Daily Cost
Hand tools	2.00	10	20
			0
			0
			0
			0
Total (1:03)			20

C=Equipment Unit Cost 1.79 Birr/m2

Total of (1:03)

Daily output:

Birr/m2

Birr/m2

Birr/m2

Birr/m2

Birr/m2

T: 21 m2/Day.

IT PUT: 21 m2/Day.

365.60 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tool	4	10	40
Total (1:03)			40.00

C=Equipment Unit Cost 1.90 Birr/m2

Total of (1:03)

Daily output:

270.81 Birr/m2
40.62 "
54.16 "
365.60 Birr/m2

365.60 Birr/m2

T: 21 m2/Day.

IT PUT: 21 m2/Day.

345.35 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tool	4	10	40
Total (1:03)			40.00

C=Equipment Unit Cost 1.90 Birr/m2

Total of (1:03)

Daily output:

255.81 Birr/m2
38.37 "
51.16 "
345.35 Birr/m2

345.35 Birr/m2

T: 26.5 m²/Dy
 JT PUT: 26.5 m²/Dy
 945.41 Birr/m²

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tool	2.00	15	30
			0
			0
			0
			0
			0
Total (1:03)			30

C=Equipment Unit Cost 1.13 Birr/m²
 Total of (1:03)
 Daily output:
 Birr/m²
 Birr/m²
 Birr/m²
 Birr/m²
 Birr/m²
 Birr/m²

T: 26.5 m²/Dy
 JT PUT: 26.5 m²/Dy
 949.25 Birr/m²

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tool	2.00	50	100
			0
			0
			0

			0
			0
Total (1:03)			100

C=Equipment Unit Cost 3.77 Birr/m2

Total of (1:03)

Daily output:

Birr/m2

Birr/m2

Birr/m2

Birr/m2

Birr/m2

Birr/m2

T: 8m2./Day

IT PUT: 8m2./Day

425.59 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
tools	2	70	140.00
Total (1:03)			140.00

C=Equipment Unit Cost = 0.00

Total of (1:03)

Daily output:

Birr/m2

"

"

"

"

Birr/m2

T: 20 m2/Dy.
 IT PUT: 20 m2/Dy.
 500.97 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	1	50	50
			0
			0
			0
			0
			0
Total (1:03)			50

ment Unit Cost 2.50 Birr/m2
 Total of (1:03)
 Daily output:
 348.50 Birr/m2
 52.28 "
 34.85 "
 435.63 Birr/m2
 65.34 Birr/m2
 500.97 Birr/m2

T: 19 m2/Dy.
 IT PUT: 19 m2/Dy.
 102.92 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	1	50	50
			0
			0
			0
			0
			0
Total (1:03)			50

ment Unit Cost 2.63 Birr/m²

Total of (1:03)

Daily output: _____

71.59 Birr/m²

10.74 "

7.16 "

89.49 Birr/m²

13.42 Birr/m²

102.92 Birr/m²

T: 50 m²/Dy.

PUT: 50 m²/Dy.

530.64 Birr/m²

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	5	70	350
drill	1	70	70
			0
			0
			0
			0
Total (1:03)			420

Unit Cost 8.40 Birr/m²
 Total of (1:03)
 Daily output: _____
 369.14 Birr/m²
 55.37 "
 36.91 "
 461.42 Birr/m²
 69.21 Birr/m²
 530.64 Birr/m²

T: 19 m²/Dy.
 PUT: 19 m²/Dy.
 526.63 Birr/m²

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	1	70	70
			0
			0
			0
			0
			0
Total (1:03)			70

Unit Cost 3.68 Birr/m²
 Total of (1:03)
 Daily output: _____
 366.35 Birr/m²
 54.95 "
 36.64 "
 457.94 Birr/m²
 68.69 Birr/m²
 526.63 Birr/m²

T: 19 m2/Dy.
 IT PUT: 19 m2/Dy.
 137.96 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	1	70	70
			0
			0
			0
			0
			0
Total (1:03)			70

Unit Cost 3.68 Birr/m2
 Total of (1:03)
 Daily output: _____
 95.97 Birr/m2
 14.40 "
 9.60 "
 119.97 Birr/m2
 18.00 Birr/m2
 137.96 Birr/m2

T: 20 m2/Dy.
 IT PUT: 20 m2/Dy.
 936.89 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	1	50	50
			0
			0

			0
			0
			0
Total (1:03)			50

Unit Cost 2.50 Birr/m²

Total of (1:03)

Daily output:

651.75 Birr/m²

97.76 "

65.18 "

814.69 Birr/m²

122.20 Birr/m²

936.89 Birr/m²

1: 19 m²/Dy.

PUT: 19 m²/Dy.

953.56 Birr/m²

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	1	70	70
			0
			0
			0
			0
			0
Total (1:03)			70

Unit Cost 3.68 Birr/m²

Total of (1:03)

Daily output: _____

663.34 Birr/m²

99.50 "

66.33 "

829.18 Birr/m²

124.38 Birr/m²

953.56 Birr/m²

T: 1.2 m2/Dy.
 JT PUT: 1.2 m2/Dy.
 1641.15 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	1	70	70
			0
			0
			0
			0
			0
Total (1:03)			70

ent Unit Cost 58.33 Birr/m2
 Total of (1:03)
 Daily output: __ 1.2/m2
 1141.67 Birr/m2
 171.25 "
 114.17 "
 1427.08 Birr/m2
 214.06 Birr/m2
 1641.15 Birr/m2

T: 30 m/Dy.
 JT PUT: 30 m/Dy.
 992.17 Birr/m2

Equipment Cost (1:03)			
Type of Equipment	No.	Daily Rental	Daily Cost
Tools	1	70	70
			0
			0

PROJECT	G+RESIDENTIAL BUILDING	
LOCATION	WOLAYTA SODO	
OWNER	TEKLEAB ALEMU AND ESTIFANOS ADUGNA	
CONSULTANT	HENOK SIMON AND KALKIDAN GOBENA	
CONTRACTOR	DANIEL AMANUEL, FREHIWOT ABEBE AND BEZAWIT A	
ITEM	DESCRIPTION	UNIT
	A . SUB STRUCTURE	
1	EARTH WORK	
1.1	Clearing of site to remove top soil to a depth of 20cm.	M2
1.2	Bulk excavation to a depth of 40cm from reduced ground	M3
1.3	Excavation trenches for foundation to a depth of 95cm starting from the reduced ground level.	M3
1.4	pit excavation with the depth of 250cm.from reduced ground	M3
1.5	backfill around footing	M3
1.6	backfill around trenches	M3
1.7	backfill under hard core with selected materials & well compacted at every 20 cm. select material/soil/ from site	M3
1.8	cartaway	M3
	summary	
2	CONCRETE WORK	
	5cm thick lean concrete C-5(150kg cement /m3) under foundation masonry wall & footing pad .	
2.1	lean concrete under footing pad	M2
2.2	lean concrete under masonry wall	M2
2.3	lean concrete under hard core	M2
	summary	
2.4	concrete in C-25(360kg cement m3) filled into form work and vibrated around reinforcement steel. Form work measured separately.	M3
2.5	c-25 for foundation pad	M3
2.6	c-25 for foundation column	M3
2.7	c-25 for grade beam	M3
2.8	c-25 for ground floor slab	M3
	summary	
3	MASONRY WORK	
3.1	hard core	M2
3.2	masonry wall	M2

	Summary	
4	FORM WORK	
4.1	Form work for footing pad	M2
4.2	Form work for footing Coulmn	M2
4.3	Form work for grade Beams	M2
	summary	
5	STEEL REINFORCMENT BAR WORK	
	Steel reinforcement according to structural drawing. Price sahl include cutting. Bending , placing in position and tying wires.	
5.1	Steel Reinforcement Bar Diamatere 6 mm	kg
5.2	Steel Reinforcement Bar Diamater 8 mm	kg
5.3	Steel Reinforcement Bar Diamatere 10 mm	kg
5.4	Steel Reinforcement Bar Diamatere 12 mm	kg
5.5	Steel Reinforcement Bar Diamatere 14 mm	kg
5.6	Steel Reinforcement Bar Diamatere 16 mm	kg
5.7	Steel Reinforcement Bar Diamatere 20 mm	kg
	summary	
	TOTAL SUMMARY SUB STRUCTURE	
PROJECT: HOLISTIC LOCATION: WOLAITA SODO OWNER: TEKLEAB ALEMU AND ESTIFANOS ADUGNA CONSULTANT: HENOK SIMON AND KALKIDAN GOBENA CONTRACTOR: DANIEL AMANUEL, FREHIWOT ABEBE AND BEZAWIT A		
ITEM	DESCRIPTION	UNIT
	B, SUPER STRUCTURE	
1	FORM WORK	
1.1	Form work for elevation column	M²
1.2	Form work for top tie	M²
1.3	Form work for intermidiate beam	M²
1.4	Form work for first floor slab and stair	M²

	summary	
2	CONCRETE WORK	
	concrete in C-25(360kg cement m3) filled into form work and vibrated around reinforcement steel for elevation column,intermediat beam,tie beam first floorslab & stair. Form work measured	M³
2.1	c-25 for intermediate beam	M³
2.2	c-25 for tie beam	M³
2.3	c-25 for elevation column	M³
2.4	c-25 for first floor slab	M³
2.5	c-25 for stair	M³
	summary	
3	STEEL REINFORCMENT BAR WORK	
3.1	Steel reinforcement according to structural drawing. Price sahl include cutting. Bending , placing in position and tying wires.	
3.2	Steel Reinforcement Bar Diamatere 6 mm	kg
3.3	Steel Reinforcement Bar Diamater 8 mm	kg
3.4	Steel Reinforcement Bar Diamatere 10 mm	kg
3.5	Steel Reinforcement Bar Diamatere 12 mm	kg
3.6	Steel Reinforcement Bar Diamatere 14 mm	kg
3.7	Steel Reinforcement Bar Diamatere 16 mm	kg
3.8	Steel Reinforcement Bar Diamatere 20 mm	kg
	summury	
4	BLOCK & MASONARY WORK	
4.1	20*20*40cm thick hollow concrete block wall beded in cement sand mortar	M²
4.2	15*20*40cm thick hollow concrete block for internal wal	M²
	summary	
5	ROOFING WORK	
5.1	galvanaized EGA 400 roof cover	M²
5.3	truss work	M
	summary	
6	CARPENTARY& JOINARY WORK	
6.1	Supply & fix flush type wooden door and windoow for main building	M²

6.2	Supply & fix flush type wooden door and window for service building	M ²
6.3	Supply & fix flush type wooden door & window for guard house building	M ²
6.4	ceiling work for main building	M ²
6.5	ceiling work for service and guard house building	M ²
	summary	
7	METAL WORK	
7.1	metal work for door and window	M ²
7.2	metal work for handrail	M
	summary	
8	FINISHING WORK	
8.1	PLASTERING	
8.2	first, second and third coats of plastering for internal and external wall	M ²
	summary	
9	PAINTING WORK	
9.1	first and second coats of painting for internal and external wall	M ²
	summary	
10	FLOOR FINISHING WORK	
10.2	2cm thick marble, ceramic skirting bedded in cement mortar (1:3) on top of cement sand	M ²
	summary	
11	GLAZING WORK	
11.1	4mm thick clear glass	M ²
	summary	
12	CHISELING	
12.1	chiseling work	M ²
	summary	
13	SCARTING	
13.1	skirting work	M ²
	summary	
	TOTAL SUMMARY OF SUPER STRUCTURE	
PROJECT LOCATION	HOLISTIC WOLAYTA SODO	

OWNER:	TEKLEAB ALEMU AND ESTIFANOS ADUGNA	
CONSUI	HENOK SIMON AND KALKIDAN GOBENA	
CONTRA	DANIEL AMANUEL, FREHIWOT ABEBE AND BEZAWIT AI	
ITEM		
14	sanitary installation	
14.1	Supply & fix Hand wash basin	PCS
14.2	Supply & fix Gate Valves with dia. 32 mm	PCS
14.3	Supply and fix stainless steel KI TCHIN sink	PCS
14.4	Water Supply pipes and install P.V.C pipe to internal & external water distribution system as shown on the drawing, complete with the necessary accessories. (approved quality by the engineer)	
14.5	Diameter 15mm	M
	Diameter 20mm	M
	Diameter 25mm	M
14.6	Diameter 32mm	M
14.7	waste pipes and install P.V.C pipe to internal & external water distribution system as shown on the drawing, complete with the necessary accessories. (approved quality by the engineer)	
14.8	Diameter 50 mm	M
14.9	Diameter 65mm	M
14.11	Diameter 110 mm	M
	summary	
15	ELECTRICAL INSTALATION WORK	
15.2	electrical distribution board(MDB and SDB)BREKEI	pcs
15.6	light point for main bulding ground floor	pcs
15.6	light point for service	pcs
15.7	light point for service	pcs
	3 phase switch	pcs
15.8	double switch	pcs
	summary	
	TOTAL SANITERY AND ELECTRICAL	
	TOTAL PROJECT SUMMERY	

LEMAYEHU		page 1
QUANTITY	UNIT RATE	AMOUNT
400.00	10.47	4189.68
83.36	66.02	5503.42
92.29	252.54	23306.74
78.85	88.67	6991.45
64.72	682.28	44158.04
46.14	564.93	26067.92
46.43	682.28	31678.43
334.49	3829.23	1280849.82
		1422745.48
290.72	1459.04	424164.67
59.96	1459.04	87478.17
194.80	1459.04	284219.44
		795862.28
4.00	3684.48	14745.31
1.60	3684.48	5913.60
10.96	3684.48	40370.17
15.13	3684.48	55745.89
		116774.96
99.90	267.89	26761.61
62.07	267.89	16628.80

		43390.41
6.36	393.87	2504.99
9.66	708.61	6845.16
127.64	523.37	66803.02
		76153.16
0.00	22.18	0.00
957.92	33.85	32424.11
0.00	65.79	0.00
496.04	33.87	16800.87
754.76	30.59	23084.73
1821.11	44.22	80535.02
1107.72	24.29	26910.18
		179754.91
		1838818.93

LEMAYEHU

page 2

QUANTITY	UNIT RATE	AMOUNT
97.72	350.58	34257.75
57.59	523.37	30143.40
44.66	523.37	23374.30
122.09	620.70	75780.42

		163555.87
6.73	3684.48	24799.53
7.64	3684.48	28140.48
20.31	3684.48	74823.12
19.38	3684.48	71404.03
2.54	3684.48	9364.12
		208531.29
		0.00
837.23	33.85	28338.86
0.00	65.79	0.00
1022.00	33.87	34615.51
823.18	30.59	25177.50
6618.41	44.22	292686.53
0.00	24.29	0.00
		380818.40
300.86	365.60	109993.81
111.70	345.35	38576.47
		148570.28
107.64	945.41	101763.42
130.51	425.59	55544.86
		157308.28
60.82	530.64	32273.55

17.13	530.64	9089.84
5.15	530.64	2732.79
228.80	526.63	120495.64
39.65	526.63	566.28
		165158.11
77.95	936.89	73030.81
11.44	500.97	5731.93
		78762.75
2475.40	137.96	341514.94
		341514.94
1650.26	500.97	826730.91
		826730.91
231.62	953.56	220862.60
		220862.60
949.25	526.07	499370.89
		499370.89
315.73	1641.15	518161.39
		518161.39
231.62	992.17	229805.62
		229805.62
		3939151.31

LEMAYEHU		page 3
QUANTITY	UNIT RATE	AMOUNT
17.00	2000.00	34000.00
10.00	220	2200.00
3.00	687.93	2063.79
4.00	250	1000.00
4.00	180	720.00
4.00	400	1600.00
4.00	500	2000.00
4.00	120	480.00
4.00	150	600.00
4.00	550	2200.00
		80863.79
3.00	700.00	2100.00
35.00	2500	87500.00
9.00	150	1350.00
22.00	2500.00	55000.00
2.00	300.00	600.00
7.00	185.00	1295.00
		147845.00
		228708.79
		6006679.03

no of crevduration

250	1	2
400	2	0
80	1	1
80	1	1
9	10	72

9	10	52
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500	1	1
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200	1	1
200	1	0
200	1	1

10	1	0
10	1	0
10	1	1
10	1	2

5	5	100
7	4	35

<u>48.00</u>	2	0
<u>40.00</u>	2	0
<u>50.00</u>	3	8

70	2	0
75	1	13
95	9	0
95	9	47
95	9	72
95	9	173
95	9	105

<u>40.00</u>	10	24
<u>40.00</u>	10	14
<u>40.00</u>	10	11

10	1	1
10	1	1
8	1	3
10	1	2
10	1	0

70	2	0
75	1	11
95	9	0
95	9	97
95	9	78
95	9	627
95	9	0

8.00	1	38
8.00	1	14

24.00	1	4
61	1	2

2.00	1	30
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5	2	92
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7	2	22
7	3	5

16	15	2321
		#DIV/0!
		#DIV/0!

25	10	660
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20	4	46
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14	2	136
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3	1	6
12	1	1
2	1	2

4	1	1
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3	1	1
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3	1	1
98	1	0
2	1	2

22	1	0
20	1	2
20	2	1
20	1	1

20	1	0
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