

# **Estimating & Costing -1**

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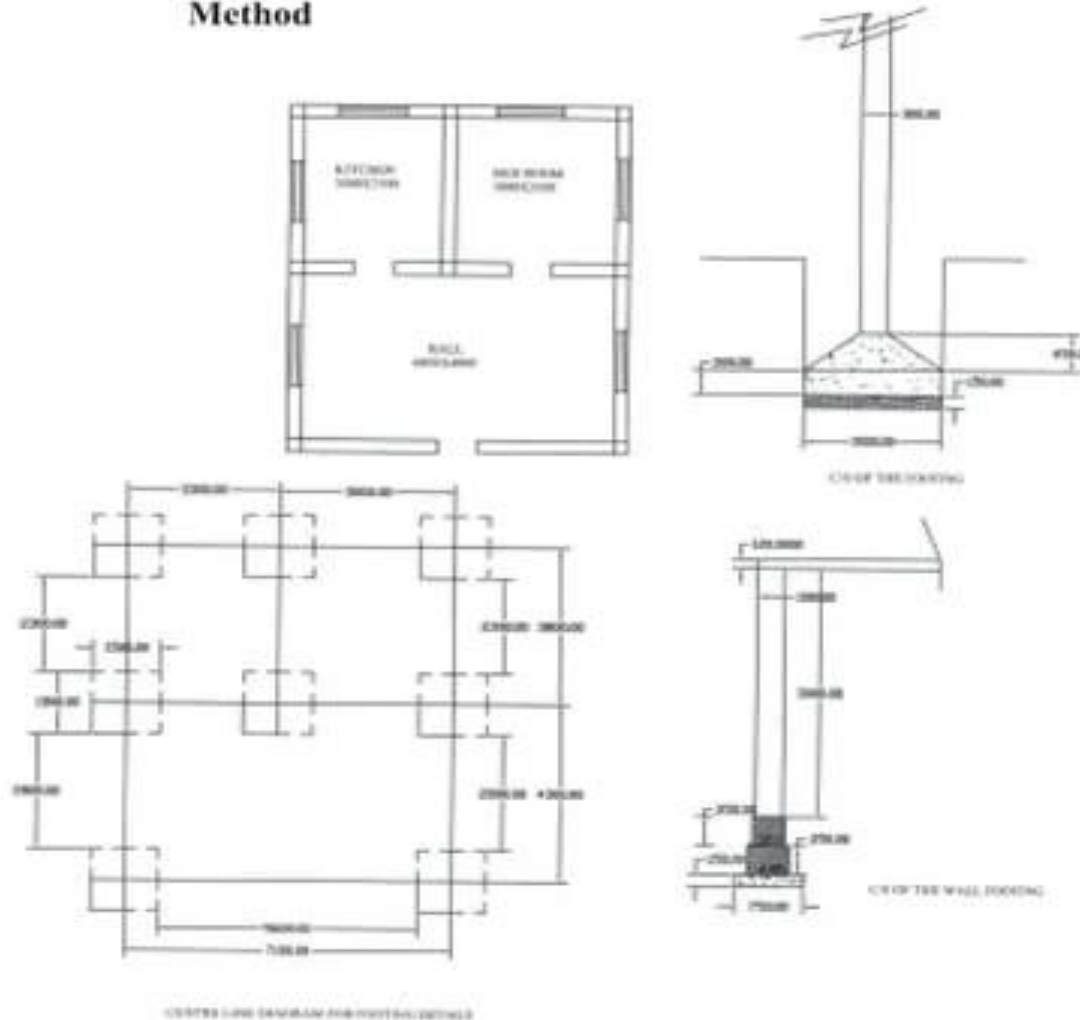
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*Estimation and Costing*

**Example 4:- From the given figure below calculate the details and abstract estimate for the single storeid residential building with no.of rooms (Framed Structured type) by Centre Line Method**



**Detail & Abstract Estimates of Buildings**

S.No.	Particulars of Items	No	L	B	H	Q	Explanation
1	Earth work excavation for foundation for						
	a) pillars	8	1.5	1.5	1.80	32.4	
	b) around the building and cross walls	1	26.3	0.75	0.85	27.9	$L = 5.6 + 2.8 \times 2 + 2.3 \times 3 + (1.8 + 2.3) \times 2$
	<b>Total</b>					<b>60.3</b>	<b>m<sup>3</sup></b>
2.	C.C. (1:4:8) for						
	a) pillars	8	1.5	1.5	0.15	2.7	
	b) around the building and cross walls	1	38.3	0.75	0.15	4.3	$L = 3.5 \times 3 + 3 \times 2 + 3.5 \times 2 + 4 \times 2 + 6.8 = 38.3$
	<b>Total</b>					<b>7.0</b>	<b>m<sup>3</sup></b>
3.	Brick Masonry with C.M. (1:6) for						
	a) first footing	1	38.3	0.45	0.35	6.03	
	b) Second Footing	1	38.3	0.35	0.30	4.69	
	c) Superstructure	1	38.3	0.3	3.0	4.02	
	d) Parapet wall	1	30.4	0.3	0.6	5.47	$L = (7.1 + 8.1) \times 2 = 30.4$
	<b>Total</b>					<b>20.21</b>	<b>m<sup>3</sup></b>
	Deduction for opening						
	a) Doors	3	1.0	0.3	2.0	1.8	
	b) Windows	8	1.2	0.3	1.5	4.32	
	<b>Total</b>					<b>6.12</b>	<b>m<sup>3</sup></b>

*Estimation and Costing*

S.No.	Particulars of Items	No.	L	B	H	Q	Explanation
	Doors	3x2	1.0	---	2.0	12.0	
	windows	8x2	1.2	---	1.5	28.8	
					Total	<b>40.8</b>	
	Plastering for parapet wall (sides)	1x2	30.4	---	0.6	36.48	
	Top	1	30.4	0.3	---	9.12	
					Total	<b>45.60</b>	
	Net Plastring = $240.6 - 40.8 + 45.6 = 245.4 \text{ m}^2$						
6.	Flooring with 25mmth CC(1:2:4)						
	Kitchen	1	3.0	3.5	--	10.5	
	Bed	1	3.5	3.5	--	12.25	
	Hall	1	6.8	4.0	--	27.20	
	Sills of Doors	3	1.0	0.3	--	0.90	
					Total	<b>50.85</b>	
7.	Ceiling = Same as Flooring					50.85	
8.	white Washing = Same as Plastering for walls and ceiling $245.4 + 50.85 = 296.25 \text{ m}^2$						
9.	RCC(1:2:4) for						
	a) Slab	1	7.40	8.40	1.5	9.324	
	b) lintels over Doors	3	1.2	0.3	0.1	0.108	
	Windows	8	1.4	0.3	0.1	0.336	
	c) beams	1	40.7	0.3	0.3	3.663	
					Total	<b>13.431</b>	<b>m<sup>3</sup></b>

***Detail & Abstract Estimates of Buildings***

Abstract estimate of single storeyed residential building (framed structure type)

S.No.	Description of item	Quantity	Unit	Rate	Per	Amount
1.	Earth work excavation	60.30	m <sup>3</sup>	465	10m <sup>3</sup>	2804.00
2.	Cement concrete(1:4:8)	7.00	m <sup>3</sup>	1545	1m <sup>3</sup>	10815.00
3.	Brick masonry in country bricks of standard size in CM(1:5) Reefs columns	14.09	m <sup>3</sup>	2291	10m <sup>3</sup>	32250.20
4.	R.C.C. (1:2:4) for lintels, beams, columns etc.	15.237	m <sup>3</sup>	7405	m <sup>3</sup>	112830.00
5.	R.C.C.(1:2:4) for slabs,	9.324	m <sup>3</sup>	6030	m <sup>3</sup>	56223.70
6.	Cement concrete (1:5:10) for flooring	5.085	m <sup>3</sup>	1452	m <sup>3</sup>	7383.40
7.	Supplying and fixing of country wood for doors.	6.00	m <sup>3</sup>	1650	m <sup>2</sup>	9900.00
8.	Supplying and fixing of country wood for windows and ventilators.	14.40	m <sup>2</sup>	2300	m <sup>2</sup>	33120.00
9.	Plastering to all exposed surfaces of brick work and basement with C.M (1:5)	245.40	m <sup>2</sup>	582	10m <sup>2</sup>	14282.30
10	White washing with best shell lime	296.25	m <sup>2</sup>	116	10m <sup>2</sup>	3436.50
11	Flooring with spartek tiles set in C.M (1:3)	50.85	m <sup>2</sup>	4230	10m <sup>2</sup>	21509.50
12	Painting with ready mixed enamel paint	51.00	m <sup>2</sup>	335	10m <sup>2</sup>	1708.50
13	Provision for staircase	1 S	m <sup>2</sup>			50000.00