

ESTIMATE OF FOREST LINE QUARTER

(Total Area = 2843 sq. ft. + Court Yard 940 sq feet)

1. C/C length of walls = $94.75 \times 3 + 29.25 \times 9 + 7.5 \times 4$ running feet
= 577.5 running feet
= 176.02 running meter
2. C/C length of court yard walls = $94.75 \times 1 + 9.25 \times 5$ running feet
= 141 running feet
= 42.98 running meter
3. No. of columns in quarter = 36
4. No. of columns in courtyard = 9
5. Size of each column = 9 inches x 9 inches
6. Plinth = 0.5 meter above ground level
7. Beam at plinth level = 9 inches x 9 inches
8. Beam at door level = 9 inches x 6 inches
9. Beam at slab level = 9 inches x 9 inches
10. Thickness of slab = 4 inches

Estimate of different works

1. Excavation:

- (i) For columns = $(36 + 9) \times 1.0 \times 1.0 \times 1.2$ meter
= 54.000 cubic meter
- (ii) For walls = $[(176.02 + 42.98) - 120 \times 0.5] \times 0.3 \times 0.5$
= 23.850 cubic meter
- (iii) For pavement block = $89 \times 0.45 = 40.05$ sqm
- (iv) Total excavation = 117.90 cubic meter

2. Filling foundation with 1:3:6 (M-10) cement concrete:

- (i) For columns = $(36 + 9) \times 1.0 \times 1.0 \times 0.1$
= 4.500 cubic meter
- (ii) For walls = $(176.02 + 42.98) \times 0.3 \times 0.1$
= 6.570 cubic meter
- (iii) For flooring in rooms = $28.88 \times 9 \times 0.1$
= 25.992 cubic meter
- (iv) Total CC = 37.062 cubic meter

3. R.C.C. work in 1:1.5:3 (M-20) in columns, beams, chajjas & slab:

- (i) Columns footing = $45 \times (1 \times 1 + 0.22 \times 0.22) / 2 \times 0.3$
= 7.077 cubic meter
- (ii) Columns up to plinth level = $45 \times 1.2 \times 0.22 \times 0.22$
= 2.614 cubic meter
- (iii) Column up to roof level = $36 \times 0.22 \times 0.22 \times 3.1$
= 5.401 cubic meter
- (iv) Column in court yard = $9 \times 0.22 \times 0.22 \times 1.8$
= 0.783 cubic meter
- (v) Beam at plinth level = $(176.02 + 42.98) \times 0.22 \times 0.22$
= 10.599 cubic meter
- (vi) Beam at door level = $176.02 \times 0.22 \times 0.15$
= 5.809 cubic meter
- (vii) Beam at door level = $176.02 \times 0.22 \times 0.22$
= 8.519 cubic meter
- (vii) Chajjas = $8 \times 0.6 \times 1.5 \times 0.1$
= 0.72 cubic meter
- (viii) Slab = $(28.88 \times 9.00) \times 0.1$
= 25.992 cubic meter

(ix) Total RCC = 67.514 cubic meter

4. **Steel required in RCC** = 1.25 % of volume of RCC
= 6625 kg

5. **Masonry in foundation/plinth** = $(176.02 + 42.98) \times 0.22 \times 0.9$
= 43.362 cubic meter

6. **Masonry in superstructure:**

(i) In main building = $176.02 \times 0.22 \times 2.85$
= 110.364 cubic meter

(ii) In courtyard = $42.98 \times 0.22 \times 1.8$
= 17.020 cubic meter

(iii) In parapet = $75 \times 0.75 \times 0.22$
= 12.375 cubic meter

(iv) Deduction for doors/windows = $(12 \times 1.07 \times 2.1 + 16 \times 0.838 \times 2.1 + 4 \times 1.5 \times 1.35 + 8 \times 1.2 \times 1.35 + 8 \times 0.6 \times 0.45) \times 0.22$
= 17.235 cubic meter

(v) Total Masonary = 122.524 cubic meter

7. **Plaster in 1:6 cement mortar**

(i) In main building = $2 \times 176.02 \times 3.0$
= 1056.12 square meter

(ii) In courtyard = $2 \times 42.98 \times 1.8$
= 154.728 square meter

(iii) In parapet wall = $2 \times 75 \times 0.75$
= 112.50 square meter

(iv) In roof = 28.88×9
= 259.920 square meter

(iv) Deduction for doors/windows = $2 \times (12 \times 1.07 \times 2.1 + 16 \times 0.838 \times 2.1 + 4 \times 1.5 \times 1.35 + 8 \times 1.2 \times 1.35 + 8 \times 0.6 \times 0.45)$
= 156.682 square meter

(v) Total plaster = 1426.586 square meter

8. Centering and shuttering:

(i) For Columns in main building = $36 \times 4 \times 0.22 \times 4.6$
= 145.728 square meter

(ii) For columns in courtyard = $9 \times 4 \times 0.22 \times 3.3$
= 26.136 square meter

(iii) For beam at plinth level = $(176.02 + 42.98) \times 0.3$
= 65.700 square meter

(iv) For beam at door level = 176.02×0.525
= 92.410 square meter

(v) For beam at roof level = 176.02×0.66
= 116.173 square meter

(vi) For chajjas = $8 \times 0.6 \times 1.5$
= 7.200 square meter

(vii) For slab = 28.88×9
= 259.92 square meter

(viii) Total shuttering = 713.267 square meter

9. Filling foundation with stone dust = $28.88 \times 9 \times 0.5 + 89 \times 0.030$
= 156.66 cubic meter

10. Wood required for frames = $0.0635 \times 0.127 \times (12 \times 5.334 + 16 \times 5.105)$
= 1.174 cubic meter

11. Frame work for doors/window = $(12 \times 1.07 \times 2.1 + 16 \times 0.838 \times 2.1)$
= 55.12 square meter

12 Flooring = 28.88×9
= 259.92 square meter

13 Pavement Block = $29 \times 3.05 = 89$ sqm

Estimate of expenditure for Forest Line Quarter

Sr.	CSR item no.	Description of the work	Quantity	Rate in Rs.		Amount
				Amount	Unit	
1	2.2	Clearing jungle including uprooting of rank vegetation, grass, brush wood etc	320	4.14	Sqm	1325
2	2.6.	Earth work in excavation in all kinds of soil	117.9	129.00	Cum	15209
3	4.1.1.4	Filling foundation- Providing and laying in position cement concrete of M-10 grade with 20 mm nominal size graded stone aggregate	37.062	3890.00	Cum	144171
4	5.1.1	Providing and laying in position M-20 grade of reinforced cement concrete with 20 mm nominal size graded stone aggregate excluding cost of centering/shuttering/steel	67.514	6153.00	Cum	415414
5	5.16.6	Reinforcement for RCC work including straightening, cutting, bending etc with TMT bars	6625	80.00	Kg	530000
6	6.5.2	Brick work with well burnt open bhatta bricks with crushing strength no less than 25 kg/sq.cm and absorption not more than 20% in 1:6 cement mortar	43.362	4155.00	Cum	180169
7	6.6.2	Brick work with well burnt chimney bricks with crushing strength no less than 25 kg/sq.cm and absorption not more than 20% in 1:6 cement mortar	122.524	4350.00	Cum	532979
8	13.2.2	15 mm thick plaster in 1:6 cement mortar	1426.586	128.00	Sqm	182603
9	5.9.1	Centering and shuttering including removal in beams, columns, slab etc	713.267	190.60	Sqm	135949
10	2.26	Supplying and filling in plinth with Stone dust including ramming, watering etc	156.66	672.00	Cum	105276
11	9.1.2	Providing wood work in frames of doors and fixed in position with sal wood	1.174	71309.00	Cum	83717
12	9.5.2.2	Providing and fixing panelled shutters for doors with prelaminated board with decorative lamination on one side and balancing lamination on other side	55.12	1956.00	Sqm	107815

Sr.	CSR item no.	Description of the work	Quantity	Rate in Rs.		Amount
				Amount	Unit	
13	11.78.1.1	Providing and laying vitrified floor tiles laid on 20 mm thick cement mortar in 1:4 with 600 mm x 600 mm x 9 mm size tiles (additional 10% for skirting)	285.82	1104.00	Sqm	315545
14	11.66	Concrete interlocking paver stock. Infront of building (i/c porch)	89.00	586.00	Sqm	52154
15		Cost of window grills (As per market rate)	460	80.00	Kg	36800
16		Aluminium window frame 3 track sliding (2 Glass+ 1 Mosquito mesh shutter) and fly proof outer doors	LS			76000
17		Cost of septic tank of size 5 feet x 5 feet x 5 feet; 4 no.	LS			120000
18		Miscellaneous Exp-	LS			40000
		Total				3075125
19		Add 5% for electrification				153756
20		Add 5% for sanitary fittings including 500 liter tank for each quarter				153756
21		Add for tile work in bath/toilets	LS			40000
22		Add 5% for white washing (with 2 coats of cement based putty and emulsion)				153756
23		Add for covered shade in court yard with flagstone flooring	LS			80000
24		Add for the cost of 02 kota stone covered almira of size 7 feet high, 4 feet wide and 20 inches deep in each room in quarter	04 quarter			60000
		Total				3716394
25		Add for GST	18.00%			668951
		Total				4385345
26		Add 1% for labour welfare tax				43853
		Total				4429198
27		Provision for Boundarywall (100 rmt)				400000
		Grand Total		or 48,30,000		4829198

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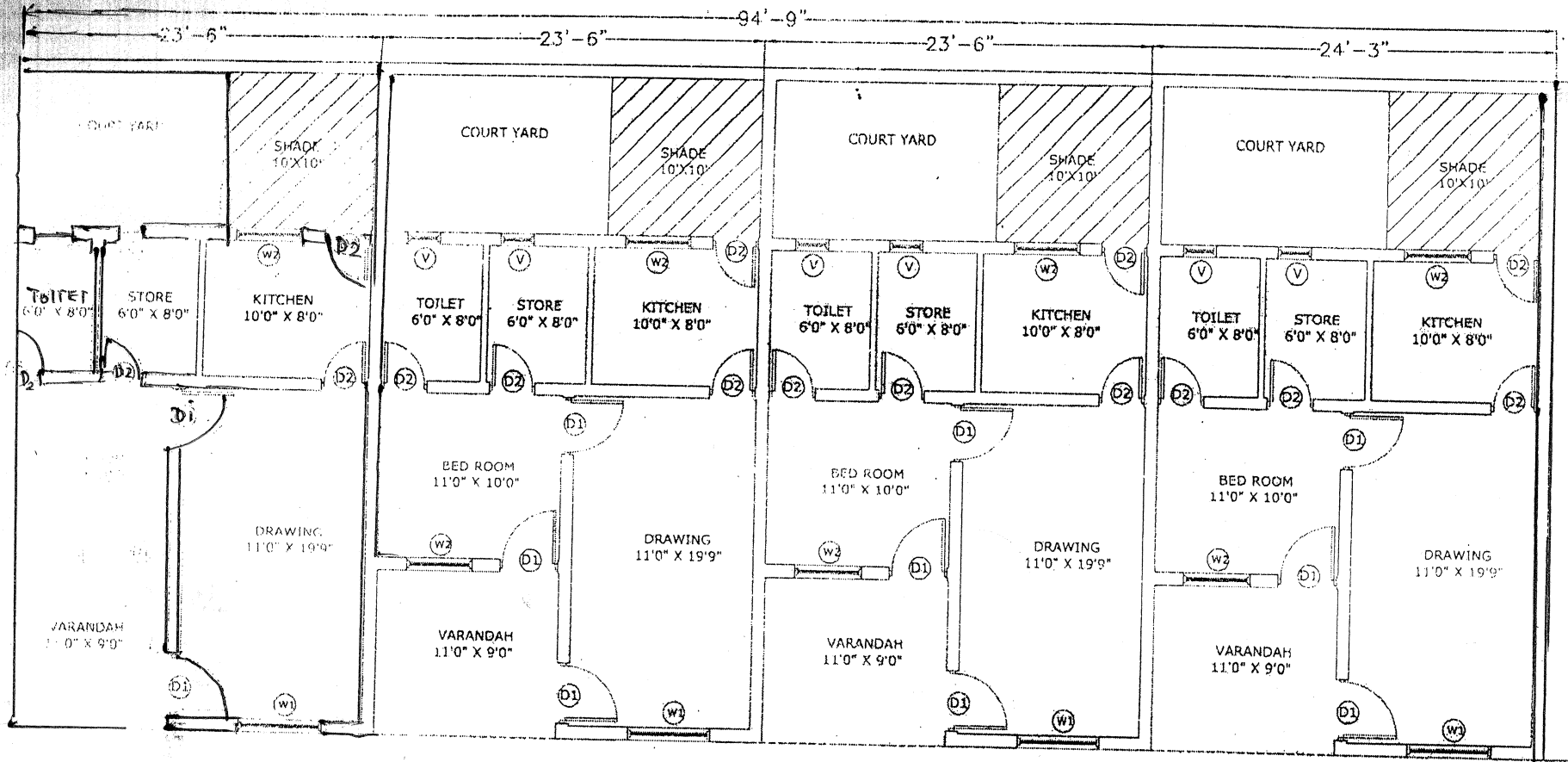
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Estimate of Quantities of line quarter

Sr.	Description of the work	Quantity	Cement (Bag)	Sand (cu m)	Aggregate (cu m)	Brick	Steel in kg	Stone Dust (cu
1	M-10 grade CC	37.062 cu.m	164	16.9	33.8	0	0	0
2	M-20 CC	67.514 cu.m	550	27.988	55.976	0	0	0
3	Steel	6625 kg	0	0	0	0	6625	0
4	Brick work (41.47 cum mortar)	165.886 cu.m	191	41.47	0	91237	0	0
5	Plaster (25.67 cum mortar)	1426.586 sq.m	118	25.67	0	0	0	0
6	Stone Dust	156.66 cu.m	0	0	0	0	0	156.66
7	Tiles Flooring	285.22	123	12.3	0	0	0	0
		Total	1146	124.328	89.776	91237	6625	156.66



W/O LINE QUARTERS FOUR FQ QUARTER

W/O UNIT SIZE - 24'3" X 30'0" = 726.9 SQFT. + COURT YARD

W/O UNIT SIZE - 94'0" X 30'0" = 2842.5 SQFT. + COURTYARD

NOTE- WALL THICKNESS 9" & 4.5"

SPECIFICATION OF DOOR & WINDOW (EACH UNIT)

D1-	3'6" X 7'0"	=	3NOS.
D2-	2'9" X 7'0"	=	4NOS.
W1-	5'0" X 4'6"	=	1NOS.
W2-	4'0" X 4'6"	=	2NOS.
V-	2'0" X 1'6"	=	2NOS.

(147)

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