

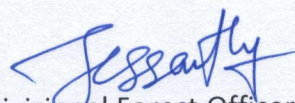
Summary of Plantation & Nursery Cost for 100 saplings of Road Side Plantation including camp hut for laying of Optical Fibre Cable by Telesonic Networks Ltd through Songsak & Rongrenggre Reserve Forest by diverting 0.40458 Ha

Proposal No	FP/ML/OFC/143459/2021
Area Diverted	0.40458 Ha

Plantation & Nursery Summary		
Items	Quantity	Unit
No of Saplings to be planted	100	Saplings
Approved Plantation & Nursery CA Norms with 10 years of maintenance	2564	Mandays Per Ha or per 1000 Saplings
Laying of Grazing proof bamboo basket around the saplings to protect the Road Side plantations, inclusive of material cost	2	Mandays per Saplings
Minimum spacing for Road side plantation	4	Metre
Wage Rate	₹ 343	
Total Plantation Cost	₹ 1,56,546	

Item of works	Cost	Remarks
Cost of Plantation & Nursery with 10 years of Maintainance	₹ 1,56,546	Estimates Enclosed
Cost of Camp Hut at Plantation Area	₹ 3,00,000	Estimates Enclosed
Cost of Toilet	₹ 1,50,000	Estimates Enclosed
Cost of Ring well	₹ 2,50,000	Estimates Enclosed
Cost of Solar Lighting System at camp hut	₹ 50,000	
Cost of GPS Device	₹ 50,000	
Total CA Cost	₹ 9,56,546	

Rupees Nine Lakh Fifty Six Thousand Five Hundred Forty Six Only


 Divisional Forest Officer
 East & North Garo Hills(T) Division
 Williamnagar
 Divisional Forest Officer,
 East & North Garo Hills (T) Division
 Williamnagar.

**NORMS FOR UNDERTAKING COMPENSATORY AFFORESTATION
SCHEMES**

**Wage Rate = Current Wage Rate (notified wage rate by labour department on
the date of payment by User Agency)**

PRELIMINARY WORKS

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Survey and demarcation including fixing of boundary marks at strategic points	2.00	2.00
2	Jungle clearance, burning, land preparation including staking, pit digging, hoeing, etc	24.00	24.00
3	<u>Fencing</u> With 3 strand barbed wire and wooden fencing posts including cost of staples, fixing, fitting, etc, complete	64.00	64.00
4	Cost of collection of seeds	5.00	5.00
5	Construction of camp hut and inspection paths	4.00	4.00
6	Purchase of tools and plants	2.00	2.00
7	Supervisory staff to be engaged on casual basis from amongst the local people	12.00	12.00
8	Raising of polypot nursery for 2 beds per hectare to cover for mortality rate of plants in the plantation site	61.00	61.00
9	Provision for signboards, documentation, upkeep of records and other miscellaneous works	30.00	30.00
	Sub Total in the Preliminary year	204.00	204.00
10	Soil & Moisture conservation measures in the plantation area @ 15%	30.60	30.60
11	Monitoring & Evaluation @ 2%	4.08	4.08

12	Adding 15% contingency due to escalation cost and revision of wages rate etc.	35.80	35.80
	Total in the preliminary year	274.48	274.48

CREATION AND 1ST YEAR MAINTENANCE

Wage Rate is

1.12 times current wage
rate

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Planting of nursery seedlings including carriage from nursery centres to plantation sites and proper ramming after planting etc.	20.00	22.40
2	Cost of manure and bio- fertilizer	40.00	44.80
3	Mulching and 3 times weeding	50.00	56.00
4	Fire protection during dry and windy season (i) Wages of fire watchers from November of the creation year to April of the following year	10.00	11.20
	(ii) Fire line clearance including controlled burning form November in the creation year to April of the following year	10.00	11.20
5	2 nd year maintenance of poly pot nursery	3.20	3.58
6	Maintenance of camp hut, signboard, documentation, protection from grazing, upkeep of records and other miscellaneous works	30.00	33.60
7	Supervision cost	12.00	13.44
	Sub total	175.20	196.22

8	Soil & Moisture conservation measures in the plantation area @ 15% of total cost of 1 st year creation	26.28	29.43
9	Monitoring & Evaluation @ 2%	3.50	3.92
10	Adding 8.5% being contingency due to escalation cost of materials etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	17.42	19.51
	Total for 1st year creation and maintenance	222.41	249.10

SECOND YEAR OF PLANTATION

Wage Rate is 1.26 times current wage rate

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Vacancy filling by one year old seedlings in mortality areas	5.00	6.30
2	Climber cutting and weedings 3 times	45.00	56.70
3	Fire Protection	10.00	12.60
	(i) Wages of fire watchers (ii) Fire line clearance including controlled burning	10.00	12.60
4	Maintenance of camp hut, signboard, inspection paths, fencing, protection from grazing, documentation, upkeep of records and other miscellaneous works	30.00	37.80
5	Supervision cost	12.00	15.12
	Sub total	112.00	141.12
6	Provision for soil & moisture conservation measures in the plantation area @ 15%	16.80	21.17

7	Monitoring & Evaluation @ 2%	2.24	2.82
	Adding 8.5% being contingency due to escalation cost etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	11.14	14.03
	Total in the 2nd year	142.18	179.14

THIRD YEAR OF PLANTATION

Wage Rate is

1.41 times current wage
rate

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Vacancy filling wherever necessary	4.00	5.64
2	Climber cutting and weeding 3 times	45.00	63.45
3	<u>Fire Protection</u>		
	(i) Wages of fire watchers	10.00	14.10
	(ii) Fire line clearance including controlled burning	10.00	14.10
4	Maintenance of camp hut, signboard, fencing, inspection paths, protection from grazing, documentation, upkeep of records and other miscellaneous works	30.00	42.30
5	Supervision cost	12.00	16.92
	Sub total	111.00	156.51
6	Provision for soil & moisture conservation measures in the plantation area @ 15%	16.65	23.48
7	Monitoring & Evaluation @ 2%	2.22	3.13
8	Adding 8.5% being contingency due to escalation cost etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	11.04	15.56

Total in the 3rd year	140.91	198.68
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FOURTH YEAR OF PLANTATION

Wage Rate is **1.58 times current wage rate**

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Vacancy filling wherever necessary	2.00	3.16
2	Climber cutting and three times weeding	45.00	71.10
3	(i) Wages of fire watchers	10.00	15.80
	(ii) Fireline clearance including controlled burning, etc	10.00	15.80
4	Maintenance of camp hut, signboard, fencing, inspection paths, protection from grazing, documentation, upkeep of records and other miscellaneous works	30.00	47.40
5	Supervision cost	12.00	18.96
	Sub total	109.00	172.22
6	Provision for soil & moisture conservation measures in the plantation area @ 15%	16.35	25.83
7	Monitoring & Evaluation @ 2%	2.18	3.44
8	Adding 8.5% being contingency due to escalation cost etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	10.84	17.13
	Total in the 4th year	138.37	218.62

FIFTH YEAR OF PLANTATION

Wage Rate is

1.77 times current wage
rate

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
	Climber cutting including silvicultural works and two times weedings	30.00	53.10
2	(i) Wages of fire watchers	10.00	17.70
	(ii) Maintenance of fireline including controlled burning etc	10.00	17.70
3	Maintenance of camp hut, signboard, fencing, inspection paths, protection from grazing, documentation, upkeep of records and other miscellaneous works	30.00	53.10
4	Supervision cost	12.00	21.24
	Sub total	92.00	162.84
5	Provision for soil & moisture conservation measures in the plantation area @ 15%	13.80	24.43
6	Monitoring & Evaluation @ 2%	1.84	3.26
			0.00
	Adding 8.5% being contingency due to escalation cost etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	9.15	16.19
	Total in the 5th year	116.79	206.72

SIXTH YEAR OF PLANTATION

Wage Rate is

1.98 times current wage
rate

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Climber cutting including silvicultural works	20.00	39.60
2	(i) Wages of fire watchers	10.00	19.80
	(ii) Maintenance of fireline including controlled burning etc	10.00	19.80
3	Maintenance of camp hut, signboard, fencing, inspection paths, protection from grazing, documentation, upkeep of records and other miscellaneous works	30.00	59.40
4	Supervision cost	12.00	23.76
	Sub total	82.00	162.36
	Provision for soil & moisture conservation measures in the plantation area @ 15%	12.30	24.35
	Monitoring & Evaluation @ 2%	1.64	3.25
	Adding 8.5% being contingency due to escalation cost etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	8.15	16.15
	Total in the 6th year	104.09	206.11

SEVENTH YEAR OF PLANTATION

Wage Rate is

2.22 times current wage rate

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Climber cutting including silvicultural works	16.00	35.52

2	(i) Wages of fire watchers	10.00	22.20
	(ii) Maintenance of fireline including controlled burning etc	10.00	22.20
3	Maintenance of camp hut, signboard, fencing, inspection paths, protection from grazing, documentation, upkeep of records and other miscellaneous works	30.00	66.60
4	Supervision cost	12.00	26.64
	Sub total	78.00	173.16
	Provision for soil & moisture conservation measures in the plantation area @ 15%	11.70	25.97
	Monitoring & Evaluation @ 2%	1.56	3.46
	Adding 8.5% being contingency due to escalation cost etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	7.76	17.22
	Total in the 7th year	99.02	219.82

EIGHT YEAR OF PLANTATION

Wage Rate is

2.49 times current wage rate

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Climber cutting including silvicultural works	14.00	34.86
2	(i) Wages of fire watchers	10.00	24.90
	(ii) Maintenance of fireline including controlled burning etc	10.00	24.90
3	Maintenance of camp hut, signboard, fencing, inspection paths, protection from grazing, documentation, upkeep of records and other miscellaneous works	30.00	74.70
4	Supervision cost	12.00	29.88

	Sub total	76.00	189.24
5	Provision for soil & moisture conservation measures in the plantation area @ 15%	11.40	28.39
6	Monitoring & Evaluation @ 2%	1.52	3.78
	Adding 8.5% being contingency due to escalation cost etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	7.56	18.82
	Total in the 8th year	96.48	240.23

NINTH YEAR OF PLANTATION

Wage Rate is **2.79 times current wage rate**

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Climber cutting including silvicultural works	12.00	33.48
2	(i) Wages of fire watchers	10.00	27.90
	(ii) Maintenance of fireline including controlled burning etc	10.00	27.90
3	Maintenance of camp hut, signboard, fencing, inspection paths, protection from grazing, documentation, upkeep of records and other miscellaneous works	30.00	83.70
4	Supervision cost	12.00	33.48
	Sub total	74.00	206.46
5	Provision for soil & moisture conservation measures in the plantation area @ 15%	11.10	30.97
6	Monitoring & Evaluation @ 2%	1.48	4.13
7	Adding 8.5% being contingency due to escalation cost etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	7.36	20.53
	Total in the 9th year	93.94	262.09

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TENTH YEAR OF PLANTATION

Wage Rate is

**3.12 times current wage
rate**

Sl. No.	Item of works	Mandays	Mandays considering annual increase of 12% in wage rate
1	Climber cutting including silvicultural works	10.00	31.20
2	(i) Wages of fire watchers	10.00	31.20
	(ii) Maintenance of fireline including controlled burning etc	10.00	31.20
3	Maintenance of camp hut, signboard, inspection paths, protection from grazing, documentation, upkeep of records and other miscellaneous works	30.00	93.60
4	Supervision cost	12.00	37.44
5	Misc. expenditure e.g. salvaging of fencing materials from the plantation center wherever fencing is no longer necessary	6.00	18.72
	Sub total	78.00	243.36
5	Provision for soil & moisture conservation measures in the plantation area @ 15%	11.70	36.50
6	Monitoring & Evaluation @ 2%	1.56	4.87
			0.00
	Adding 8.5% being contingency due to escalation cost etc. after ascertaining the rate of interest due to accrue from CA money to be deposited by User Agency.	7.76	24.20
	Total in the 10th year	99.02	308.93

COST ABSTRACT FOR COMPENSATORY SCHEMES

Sl. No.	Year	Man Days	Mandays considering annual increase of 12% in wage rate
1	Preliminary year	274.48	274.48
2	First year creation & maintenance	222.41	249.10
3	Second year maintenance	142.18	179.14
4	Third year maintenance	140.91	198.68
5	Fourth year maintenance	138.37	218.62
6	Fifth year maintenance	116.79	206.72
7	Sixth year maintenance	104.09	206.11
8	Seventh year maintenance	99.02	219.82
9	Eight year maintenance	96.48	240.23
10	Ninth year maintenance	93.94	262.09
11	Tenth year maintenance	99.02	308.93
	Grand total per hectare	1527.68	2563.93

Grand total per hectare is	2564 man days
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**DETAILED ESTIMATE FOR CONSTRUCTION OF CAMP HUT WITH STORAGE ROOM AT
PERMANENT NURSERIES OF EAST & NORTH GARO HILLS (T) DIVISION, WILLIAMNAGAR.**

1/1.1	<u>Earth work in excavation in foundation, trenches etc.</u>					
	<u>Column foundation</u>					
F	6	x	0.80	x	0.80 x 1.00	= 3.84 m ³
	<u>Plinth wall</u>					
	7	x	2.20	x	0.10 x 0.10	= 0.15 m ³
				T	=	3.99 m ³
	@ Rs. 179 / m ³					= Rs. 714.93
2/4.5	<u>Providing 100mm thick soling with approved quality of stones.</u>					
F	6	x	0.80	x	0.80	= 3.84 m ²
	@ Rs. 391 / m ²					= Rs. 1,501.44
5/4.2	<u>Providing and laying c.c in prop. 1:3:6 corresponding to M100 etc.</u>					
F	6	x	0.80	x	0.80 x 0.05	= 0.19 m ³
Plinth	7	x	2.20	x	0.15 x 0.05	= 0.12 m ³
				T	=	0.31 m ³
	@ Rs. 6377 / m ³					= Rs. 1,960.93
4/17.1(a)	<u>Providing T.S reinforcement in RCC work including cutting, bending, cranking, etc.</u>					
	<u>Column footing, 10mm dia.</u>					
F	6	x	2	x	0.70 x 4	= 33.60 m
						= (33.60x0.62)qtl
						= 0.20 qtl
	<u>Column upto plinth.</u>					
	<u>12mm</u>					
	C ₁ ...C ₆	4	x	6	x 0.80	= 19.20 m
	Lapping	4	x	3	x 0.08	= 0.96 m
						= 20.16 m
						= (20.16x0.89)qtl
						= 0.17 qtl
	<u>Column stirrups upto plinth</u>					
	<u>8mm C₁...C₆</u>					
		6	x	16	x 0.65	= 62.40 m
						= (62.40x0.39)qtl
						= 0.24 qtl
	<u>Plinth beam</u>					
	<u>12mm</u>					
		7	x	2.40	x 4	= 67.20 m
	Lapping	7	x	1	x 0.08	= 0.70 m
						= 67.90
						= (67.90x0.89)qtl
						= 0.60 qtl

C.O. Rs. 4,177.29

Plinth beam stirrups

B.F. Rs. 4,177.29

<u>8mm</u>	7	x 16	x 0.65	= 72.80	m
				= 72.80	m
				= (72.80x0.39)qtl	
				= 0.28	qtl

Ground column

<u>12mm</u>	C ₁ ...C ₆	6	x 6	x 2.80	= 100.80	m
	Lapping	6	x 3	x 0.08	= 1.44	m
					= 102.24	m
					= (102.24x0.89)qtl	
					= 0.90	qtl

Column stirrups ground floor

<u>8mm</u>	C ₁ ...C ₆	8	x 18	x 0.65	= 93.60	m
					= (93.60x0.39)qtl	
					= 0.36	qtl

Ground Floor beam

<u>12mm</u>		7	x 2.40	x 4	= 67.20	m
	Lapping	7	x 1	x 0.08	= 0.70	m
					= 67.90	
					= (67.90x0.89)qtl	
					= 0.60	qtl

Ground floor beam stirrups

<u>8mm</u>	7	x 16	x 0.65	= 72.80	m
				= (72.80x0.39)qtl	
				= 0.28	qtl

LintelGround floor (10mm)

	7	x 2.40	x 4	= 67.20	m
Lapping	7	x 1	x 0.050	= 0.06	m
				= 67.26	m
				= (67.26x0.62)qtl	
				= 0.41	qtl

Ground Lintel stirrups (8mm)

7	x 16	x 0.25	= 28.00	m
			= (28.00x0.39)qtl	
			= 0.10	qtl

@ Rs. 9724 / qtl T = 4.14 qtl
= Rs. 40,257.36

C.O. Rs. 44,434.65

B.F. Rs.44,434.65

5/2.65(b) Providing and laying cement in proportion 1:1.5:3

Corresponding to M200 including, curing, etc.

Column footing

F	6	x	0.80	x	0.80	x	0.10	=	0.38	m ³
	6	x	0.10	x	0.10	x	0.15	=	0.18	m ³
								=	0.56	m ³

Column upto plinth

C	6	x	0.20	x	0.20	x	0.80	=	0.19m ³
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Plinth beam

	7	x	2.50	x	0.10	x	0.10	=	0.18m ³
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Ground floor column

C	6	x	0.20	x	0.20	x	2.80	=	0.67m ³
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Ground floor beam

	7	x	2.50	x	0.10	x	0.10	=	0.18m ³
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Ground floor

	7	x	2.50	x	0.05	x	0.05	=	0.04m ³
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Lintel

$$T = 0.82m^3$$

@ Rs. 10293/m³

=

Rs.18, 751.27

7/2.9 Providing shuttering including centering

(a) Wooden

Column footing

F	6	x	4	x	0.80	x	0.15	=	2.88	m ²
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Column upto P.L

C	6	x	4	x	0.90	x	0.15	=	3.24m ²
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Plinth beam

	2	x	7	x	2.50	x	0.15	=	5.25m ²
--	---	---	---	---	------	---	------	---	--------------------

Ground floor column

C	6	x	4	x	0.20	x	2.80	=	13.44	m ²
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Ground floor beam

	2	x	7	x	2.50	x	0.10	=	3.50m ²
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Lintel

<u>Ground floor</u>	2	x	7	x	2.50	x	0.05	=	1.15	m ²
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$$T = 30.06m^2$$

@ Rs. 350 / m²

=

Rs.10,521.00

C.O. Rs.73,706.92

B.F. Rs.73,706.92

8.4.3 Providing 1st class work in cement mortar 1:6

(d) Below plinth

$$7 \times 2.20 \times 0.10 \times 0.10 = 0.15 \text{ m}^3$$

$$\text{@ Rs. 10293/m}^3 =$$

Rs.1,128.20

9/4.4 (d) For Walling in superstructure

Outer wall

$$6 \times 1.80 \times 2.00 = 21.60 \text{ m}^2$$

$$2 \times 0.60 \times 2.00 = 2.40 \text{ m}^2$$

$$\text{Deduct (D) } 1 \times 0.90 \times 2.10 = -1.89 \text{ m}^2$$

$$\text{Deduct (W) } 4 \times 1.00 \times 1.20 = -4.80 \text{ m}^2$$

$$\text{Deduct (v) } 5 \times 1.00 \times 0.50 = -2.25 \text{ m}^2$$

$$= 15.06 \text{ m}^2$$

$$\text{@ Rs. 7660/m}^3 =$$

Rs.1,15,359.60

10/4.6 (a) (iv) For 12.5cm thick wall

Partition wall

$$1 \times 1.80 \times 2.00 = 3.60 \text{ m}^2$$

$$\text{Deduct (D) } 1 \times 0.75 \times 2.00 = -1.58 \text{ m}^2$$

$$= 2.02 \text{ m}^2$$

$$\text{@ Rs. 861/m}^3 =$$

Rs.1,739.22

11/1.4.1 (b) Earth work in filling with available excavated earth (excluding rock)

$$\text{Qty. Of filling} = \frac{2}{3} \text{ of cutting}$$

$$= \frac{2}{3} \times 3.99$$

$$(\text{cutting from item 1/1.1 (d)})$$

$$= 2.66 \text{ m}^3$$

$$\text{@ Rs. 210/m}^3 =$$

Rs.558.60

12/17.4 Providing, fitting, hoisting and fixing of roof trusses including purlins fabricated using iron Hollow section, etc.

40NB-M

$$\text{Supporting Pole } 2 \times 1.00 = 2.00 \text{ m}$$

$$\text{Tie } 2 \times 4.60 = 9.20 \text{ m}$$

$$\text{Principal Rafter } 3 \times 2.60 = 7.80 \text{ m}$$

$$= 19.00 \text{ m}$$

$$= (19.00 \times 9.86) \text{ kg}$$

$$= 1.80 \text{ qtl}$$

C.O. Rs.1,92,492.54

B.F. Rs.1,92,492.54

25NB-M

Purlin	4	x	1.00	=	4.00	m
King Post	1	x	1.50	=	0.50	m
Strut	4	x	0.12	=	0.48	m
				=	4.98	m
				=	(4.98x3.86)kg	
				=	0.19	qtl
		T		=	<u>1.99</u>	m

@ Rs. 12626/m³

=

Rs.25,125.74

13/7.3 Providing corrugated galvanized iron sheet roofing including fitting and fixing necessary bolts and nuts, etc.

(b) 0.50 mm thick 2 x 3.00 x 4.50 = 27.00 m²

@ Rs. 888/m³

=

Rs.23,976.00

14/1.4.1 (b) Sand filling in plinth in layers not exceeding 15cm

2 x 1.80 x 1.80 = 6.48 m²
= 6.48 m²

@ Rs. 210/m³

=

Rs.1,360.00

15/4.1 (a) Providing 75mm thick brick soling etc.

Same qty. As item No.12/1.4.1 = 6.48 m²

@ Rs. 554/m²

=

Rs.3,589.92

16.8.2 Providing dressed and rebated wood works, frames of doors

(a) Sal wood

(D) 1 x (2x2.1+0.90) = 5.10 m²
(D1) 1 x (2x2.1+0.75) = 4.95 m²
= 10.05 m²
= (10.05x0.125x0.08)m³
= 0.100 m³

@ Rs. 126200/m³

=

Rs.12,620.00

17.8.18 Providing and fixing flush door with solid door with solid core, made according to IS 220 (part-I) 1983

(b) 35mm thick door shutter

(D) 1 x 0.70 x 1.80 = 5.10 m²
(D1) 1 x 0.50 x 1.80 = 0.90 m²
= 2.16 m²

@ Rs. 5533/m³

=

Rs.11,951.00

C.O. Rs.2,71,115.2

B.F. Rs.2,71,115.20

19/3.4 Providing C.C. floor 65mm thick in prop.1:3:6 to the proper level and Slopes etc.

Qty. Same as item No.12/4.1	=	6.48	m ²
@ Rs. 710/m ²	=		Rs.4, 600.80

21/5.1 Providing 12mm thick cement plaster including cleaning the surface

(b) Prop 1:4

(A) Inside plaster:

Wall

		6	x	1.80	x	2.60	=	28.08	m ²
		2	x	0.60	x	2.60	=	3.12	m ²
Deduct	(D)	1	x	2.10	x	0.90	=	-1.89	m ²
Deduct	(D1)	1	x	0.90	x	0.75	=	-0.68	m ²
Deduct	(W)	4	x	1.00	x	1.20	=	-4.80	m ²
Deduct	(v)	5	x	1.00	x	0.45	=	-2.25	m ²
							=	21.58	m ²

Ceiling

2	x	2.00	x	2.00	=	8.00	m ²
2	x	2.00	x	0.80	=	3.20	m ²
					=	11.20	m ²

	T	=	32.78	m ²
@ Rs. 196/m ²	=			Rs.6,424.88

(B) Outside Plaster

Wall

		6	x	1.80	x	2.60	=	28.08	m ²
		2	x	0.60	x	2.60	=	3.12	m ²
Deduct	(D)	1	x	2.10	x	0.90	=	-1.89	m ²
Deduct	(W)	4	x	1.20	x	1.20	=	-5.76	m ²
Deduct	(v)	5	x	1.20	x	0.45	=	-2.70	m ²
							=	20.85	m ²

	T	=	20.85	m ²
@ Rs. 196/m ²	=			Rs.4,086.60


C.O. Rs.2,86,227.48

B.F. Rs.2,86,227.48

22/3.1	<u>Providing CC topping in prop.1:1:2 corresponding to M250 to the Proper level and slopes etc.</u> <u>(b) 20mm thick topping</u>	2	x	1.80	x	1.80	=	6.48	m ²	
		@ Rs. 378/m ²					=			Rs.2,449.44
23/12.2	<u>Providing and laying, fixing sliding door bolts</u> <u>(a) Aluminium</u> <u>(ii) 250mm x16mm dia</u>	2			x	5	=	10	Nos.	
		@ Rs. 360 /each					=			Rs.3,600.00
24/12.2	<u>Providing & fixing aluminium handles</u> <u>(c) (ii) Aluminium 100m long</u>	2			x	5	=	10	Nos.	
		@ Rs. 72 /each					=			Rs.720.00
25/15.23	<u>Distempering with acrylic washable distemper</u> <u>(a) Two coats</u> <u>Inside wall and ceiling</u>	Qty. Same as item No.19/5.1(A)					=	32.78	m ²	
		@ Rs. 60 /m ²					=			Rs.1,966.80
26/15.56	<u>Providing wall at the ground floor level with approval water proof</u> <u>Cement paint</u> <u>(b) Two coats</u> <u>Outside wall</u>	Qty. Same as item No.19/5.1(B)					=	20.85	m ²	
		@ Rs. 257 /m ²					=			Rs.5,358.45
27/15.62	<u>Applying mixed priming coat of approved brand</u> <u>(a) Wood work</u> <u>Door</u>	(D) 1 x 2 x 0.80 x 2.10 = 3.36 m ² (D1) 1 x 2 x 0.65 x 2.10 = 2.73 m ² = 6.09 m ² @ Rs. 36 /m ²					=			Rs.219.24
		Grand total					=			Rs.3,00,541.41
		Say					=			Rs. 3,00,000.00

Rupees three lacs only.

Prepared and Submitted by


Associate Engineer at Station
East & North Road, P. S. Station
Mumbai

Detailed Estimates of Sanitary Toilet
(Rates quoted as per the PWD Schedule of rate for building for the year 2015-16)

1/1.1 Earthwork in excavation in foundation trenches etc as directed

a) Ordinary soil

Toilet footing	4 x	0.50 x	0.50 x	0.90 =	0.900 m ³
Walls	2 x	0.90 x	0.50 x	0.50 =	0.450 m ³
	2 x	0.80 x	0.50 x	0.50 =	0.400 m ³
S.T	1 x	0.25 x	1.50 x	2.10 =	0.788 m ³
S.Pit	1 x	1.00 x	1.00 x	1.50 =	1.500 m ³
					<u>4.038</u>

@ ₹ 179.00 / m³

₹ 722.71

2/4.1 Providing brick soiling in foundation and under floor etc

(c) stone soiling 100 mm

Toilet footing	4 x	0.50 x	0.50 x	=	1.000 m ³
Walls	2 x	0.90 x	0.50 x	=	0.900 m ³
	2 x	0.80 x	0.50 x	=	0.800 m ³
S.T	1 x	2.50 x	1.50 x	=	3.750 m ³
					<u>6.450</u>

@ ₹ 391.00 / m³

₹ 2,521.95

3/2.1 Providing & laying C.C in proportion 1:3:6

(a)

	1 x	2.50 x	1.50 x	0.15 =	0.563 m ³
	4 x	0.50 x	0.50 x	0.1 =	0.100 m ³
	2 x	0.9 x	0.15 x	0.15 =	0.041 m ³
	2 x	0.8 x	0.15 x	0.15 =	0.036 m ³
					<u>0.739 m³</u>

@ ₹ 6,377.00 / m³

₹ 4,712.60

4/2.5.1 Providing and laying c.c in proportion 1:2:4

(a) M15 Prop 1:2:4

ST cover	1 x	2.50 x	1.50 x	0.10 =	0.375 m ³
ST floor	1 x	1.50 x	0.15 x	0.15 =	0.034 m ³
					<u>0.409</u>

@ ₹ 7,795.00 / m³

₹ 3,186.21

C/O

₹ 11,143.47

B/F

₹ 11,143.47

5/4.3 Brick works in cement mortar with 1st Class bricks etc

(d) In prop 1:6

S.T Walls	2 x	2.50 x	0.13 x	1.50 =	0.938 m ³
	2 x	1.40 x	0.13 x	1.50 =	0.525 m ³
P wall	1 x	1.00 x	0.125 x	1.30 =	0.163 m ³
B/Wall	1 x	1.00 x	0.13 x	1.30 =	0.163 m ³
Soak pit	1 x	2.20 x	0.13 x	1.20 =	0.330 m ³
toilet plint walls	2 x	1.20 x	0.25 x	0.45 =	0.270 m ³
	2 x	1.20 x	0.25 x	0.45 =	0.270 m ³
					<u>2.658</u>

@ ₹ 7,326.00 / m³

₹ 19,468.85

6/2.10 (a) Providing shuttering including centering. etc

Toilet	4 x	4 x	2.5 x	0.15 =	1.5 m ²
P/bem	2 x	1.35 x	0.15 x	2 =	0.81 m ²
column	2 x	1.25 x	0.15 x	2 =	0.75 m ²
					<u>3.06 m²</u>

@ ₹ 350.00 / m³

₹ 1,071.00

CO

₹ 30,612.32

BF

₹ 30,612.32

7/2.8(a) Providing T/S reinforcement for RCC work, etc
10 mm dia

P beam	1 x	4 x	6.00 x	0.62 =	0.149 kg
Column	4 x	4 x	4.00 x	0.62 =	0.397 kg
<i>8mm dia</i>					
Toilet jali	4 x	8 x	0.60 x	0.39 =	0.075 Qntl
S/tank slab	1 x	14 x	2.50 x	0.39 =	0.137 Qntl
	1 x	24 x	1.50 x	0.39 =	0.140 Qntl
					0.897 Qntl

@ ₹ 9,618.00 / Qntl

₹ 8,631.00

8/2.8 (c) Providing MS reinforcement for RCC works

S/Tank, P beam, Stirrups - 6mm dia

	1 x	32 x	0.75 x	0.22 =	0.053 Qntl
column	4 x	22 x	0.55 x	0.22 =	0.106 Qntl
					0.159 Qntl

@ ₹ 8,029.00 / Qntl

₹ 1,278.86

9/2.5.1 Providing & laying CC in 1:2:4 etc

Footing	4 x	0.50 x	0.50 x	0.10 =	0.100 m ³
Trapezoidal portion	4 x	$1/2[(.50)^2 + (.15)^2]$	x	0.15 =	0.2 m ³
Column	4 x	0.15 x	0.15 x	3.25 =	0.293 m ³
S/tank, P/beam	2 x	1.50 x	0.250 x	0.150 =	0.113 m ³
Slab	2 x	1.40 x	0.25 x	0.15 =	0.105 m ³
					0.810 m ³

@ ₹ 7,795.00 / m³

₹ 6,313.95

10/4.4 (d) Providing 1st class brick work in cement mortar in 1:6 proportion etc

(b) Super structure	2 x	1.15 x	2 x	=	4.6 m ²
	2 x	1.15 x	2 x	=	4.600 m ²

Deduct for door opening(-)

1 x	0.8 x	2.1	-1.68
		T/	= 7.52 m ²

@ ₹ 7,660.00 / m²

₹ 57,603.00

11/5.1 Providing 10 mm thick cement plaster

(a) Prop 1:3

S.T Wall	2 x	1.4 x	1.8 =	5.04 m ²
	2 x	1.3 x	1.8 =	4.68 m ²
Floor	1 x	1.4 x	1.3 =	1.82 m ²
B/Wall	2 x	1.4 x	1.25 =	3.50 m ²
P/Wall	2 x	1.4 x	1.25 =	3.50 m ²
				18.54

(a) Prop 1:3

toilet inside walls	1 x	2(1.50+1.40)	x	2.35 =	13.63 m ²
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Plint wall Pastering

	1 x	2(1.75+1.65)	x	0.45	3.06 m ²
Floor	1 x	1.35 x	1.25		2.49 m ²
Steps	1 x	1 x	0.6		0.6 m ²
	1 x	1 x	0.3		0.3 m ²

Step Sides

	1 x	0.6 x	0.45	0.27 m ²
TOTAL	(A)	+	(B)	20.35 m ²
		18.18	20.35	38.53 m ²

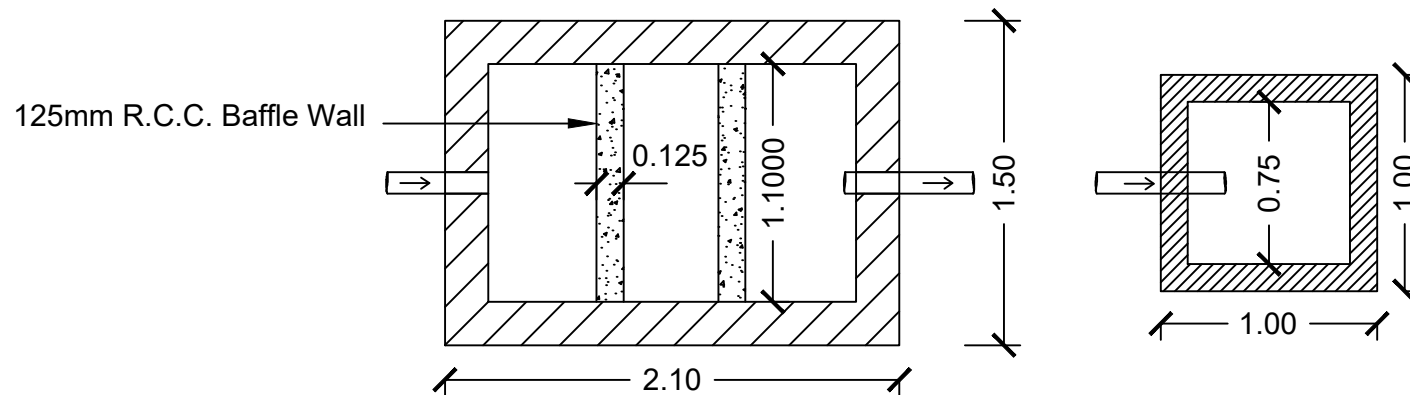
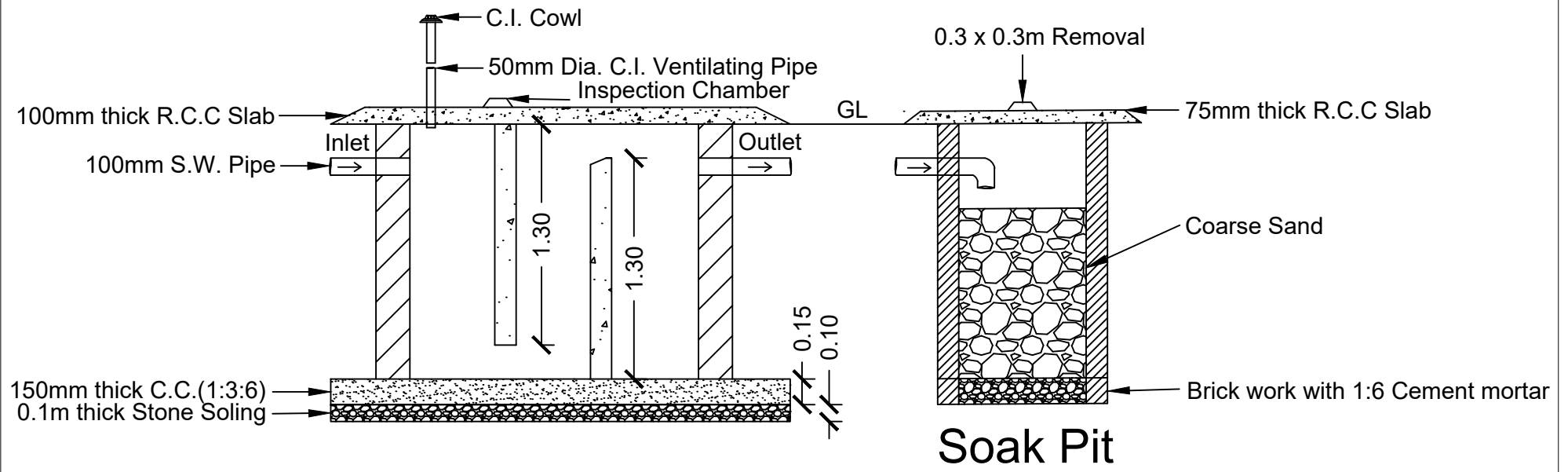
Net plastering = @ ₹ 270.00 / m²

C/O

₹ 10,403.00

₹ 1,14,842.13

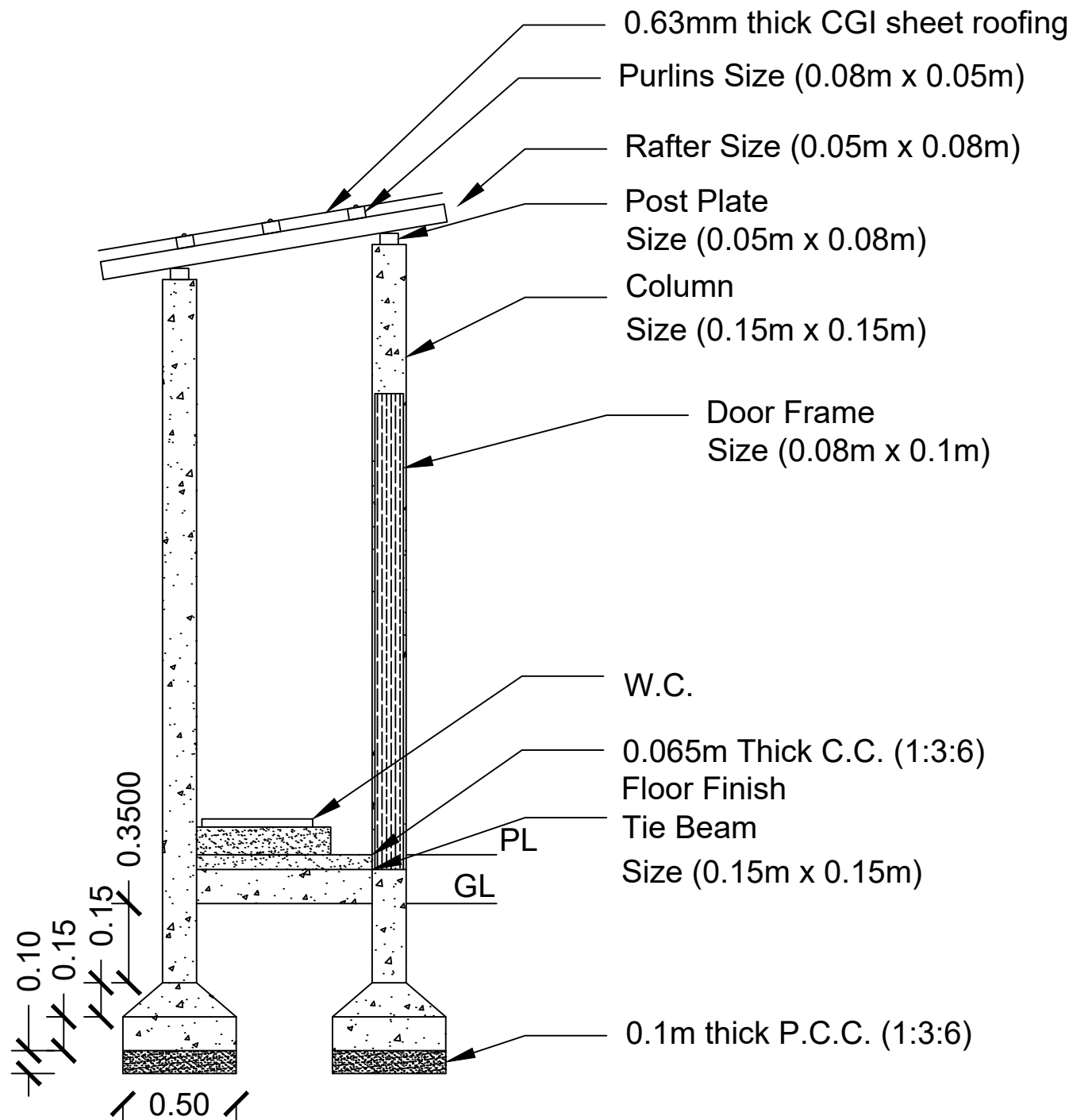
						B.F	114842.13
12/1.4.1	Erthwork in filling with available excavated earth, etc..						
	(b)						
Toilet	1 x	1.35 x	1.25 x	0.4 =	0.675 m ³	₹ 141.75	
	@	₹ 210.00 /	m ³				
13/4.1	Providing 100 mm thick stone soiling with approved quantity of stones etc						
Toilet	1 x	1.25 x	1.15	=	1.438 m ²	₹ 562.06	
	@	₹ 391.00 /	m ²				
14/3.4(a)	Providing C.C floor 65 mm thick in prop 1:3:6						
	1 x	1.35 x	1.25	=	1.688 m ²	₹ 1,198.13	
	@	₹ 710.00 /	m ²				
15/8.3	Providing undressed wood work in trusses, prlin, rafters ans post plate etc						
	(b) Local wood						
Rafter	3 x	2.50 x	0.05 x	0.08 =	0.030 m ³		
Post plate	2 x	1.70 x	0.05 x	0.08 =	0.014 m ³		
Purlins	3 x	2.20 x	0.080 x	0.05 =	0.026 m ³		
					<u>0.070 m³</u>	₹ 5,775.42	
	@	₹ 82,506.00 /	m ³				
16/8.2	Providing dressed wood work in door frames, windows etc etc						
	(b) Local wood						
	1 x	5.00 x	0.08 x	0.10 =	0.040 m ³		
					<u>0.040 m³</u>	₹ 442.12	
	@	₹ 11,053.00 /	m ³				
17/7.3	Providing CGI sheet roofing						
	(e).63mm thick						
	1 x	2.50 x	2.2	=	5.500 m ²	₹ 5,841.00	
	@	₹ 1,062.00 /	m ²				
18/8.18	Providing & fixing 35mm thick battend n braces shutters for doors & windows etc						
	(b) 1st class local wood						
	1 x	0.80 x	1.80	=	1.440 m ²		
					<u>1.440</u>	₹ 7,967.52	
	@	₹ 5,533.00 /	m ²				
19/34.50	Providing filter beds or soak pit with sand stone boulders etc						
Soak pit	1 x	0.50 x	0.50 x	1.00 =	0.250 m ³	₹ 1,730.75	
	@	₹ 6,923.00 /	m ³				
20/34.1	Providing & fixing in indian position Indian pattern W.C inc traps etc						
34.1.1 (a)	580x440mm	=	1 no			₹ 3,799.00	
	@	₹ 3,799.00 /	no				
21/34.35.1	HIC pipes incbolts & nuts and other fittings as directed						
(a) In exposed spaces or trenches (ii) 100 mm dia							
	1 x	1 =	0.5 m				
	1 x	1.3 =	1.6 m				
	1 x	1.8 =	1.15 m				
			<u>4.1 m</u>			₹ 4,280.40	
	@	₹ 1,044.00 /	Rm				
22/34.35.1	HIC pipes inc bolts & nuts and other fittings as directed						
(a) In exposed spaces or trenches (i) 50 mm dia							
	1 x	1.5 =	1.5 m			₹ 2,805.00	
	@	₹ 1,870.00 /	Rm				
Total Say						₹ 1,49,385.28	
						1,50,000.00	



SEPTIC TANK PLAN

All Dimensions are in Metre(m).

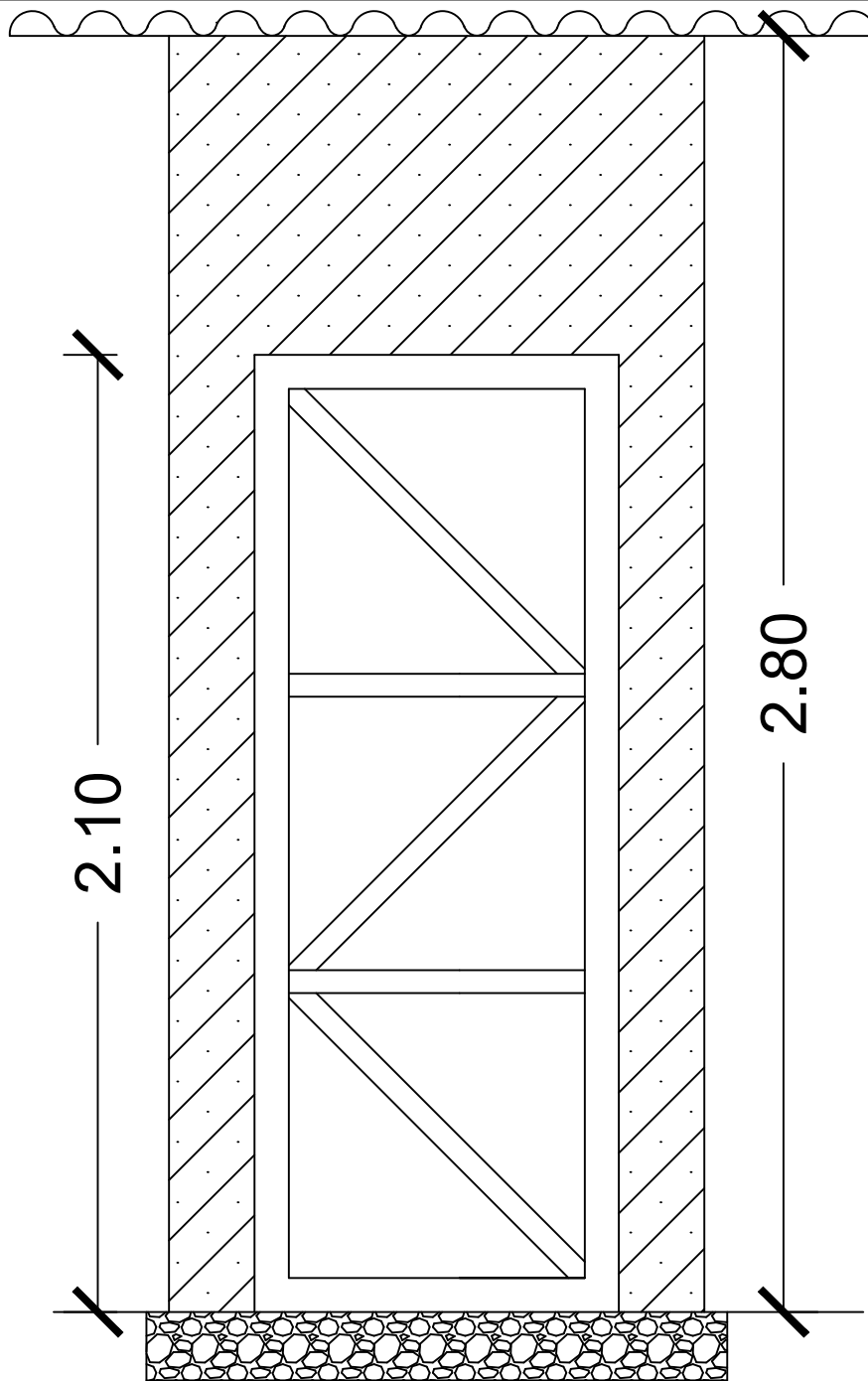
Scale 1:100



SECTION A-A

All Dimensions are in Metre(m).

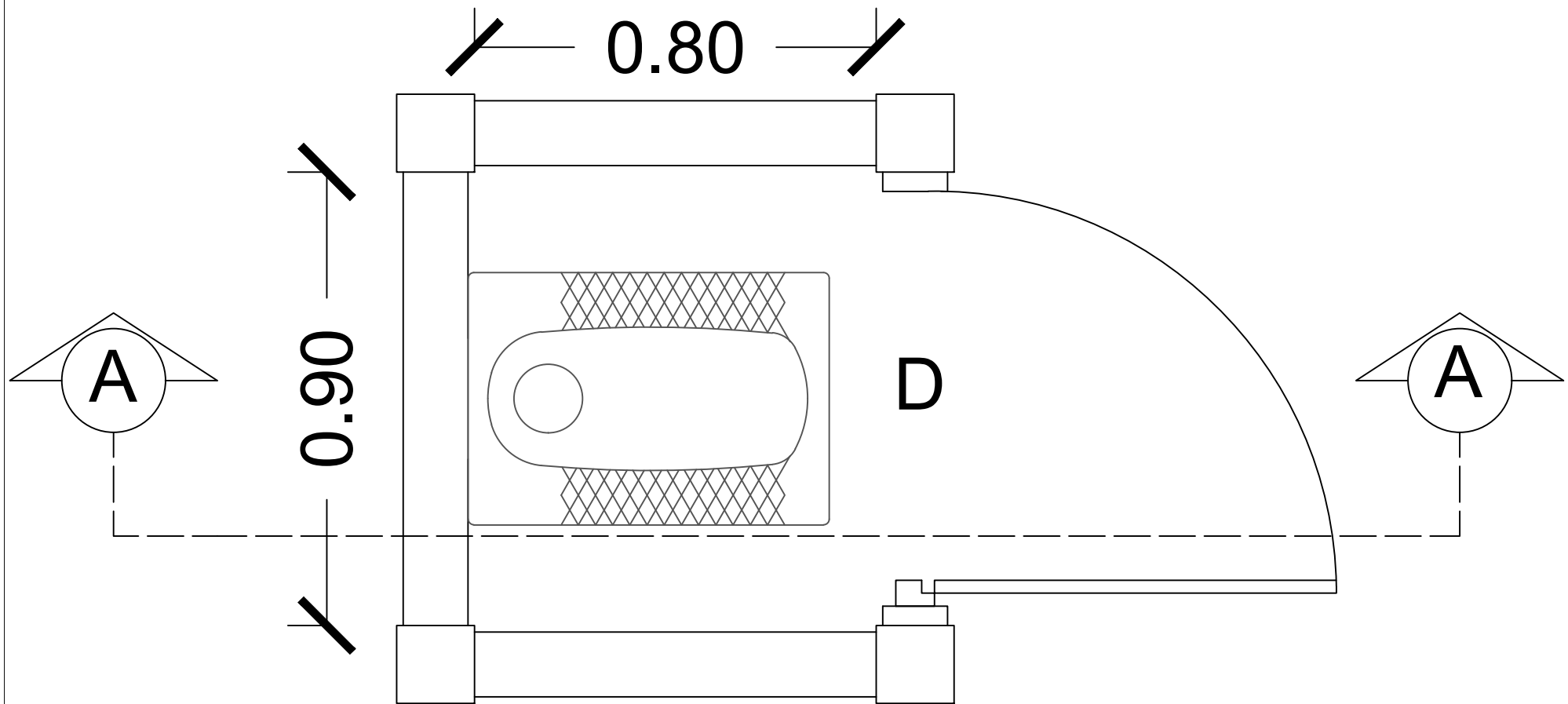
Scale 1:100



FRONT ELEVATION

All Dimensions are in Metre(m). Scale 1:100

Construction of Sanitary Latrine at DF0s Residence



PLAN

All Dimensions are in Metre(m).


Scale 1:100

**DETAIL ESTIMATE FOR CONSTRUCTION OF C.C RINGWELL FOR PERMANENT NURSERIES UNDER
EAST & NORTH GARO HILLS (T) DIVISION, WILLIAMNAGAR**

SI No	Description of Item of work	Quantity	Unit	Rate	Amount
1/38.24	Construction of R.C.C. ring well of 1200mm inside diameter including supplying necessary ring of 75mm thick and 500mm high of prop 1:2:4 reinforced with 8mm dia M.S. rod at 230mm c/c vertically and 5nos of 8mm dia bar horizontally along with R.C.C. well curb of size 400mm high and 100mm thick at top and 50mm thick at bottom in prop. 1:2:4 reinforced with 5nos of 8mm dia rod at 200mm c/c vertically including sinking of R.C.C. ring to a required depth bailing out water, mud etc. if necessary and fitting and fixing of R.C.C. kerb and ring in proper position with cement mortar of prop. 1:2 including with fitting in sides by sand in layer not more than 150mm and duly compacting the same up to the platform level complete as directed by the department. (a) For a depth up to 10.00m.	10 M	Rm	12,177.00	1,21,177.00
	(b) For a depth above 10.00m up to 15.00m.	5	Rm	13,395.00	66,975.00
2/38.8	Supplying fitting and fixing UPVC Pipes with all necessary fit tings (Using UPVC high pressure pipes & fittings of SUPREME/ PRINCE/ SFMC/ FUSION brand or equivalent) in exposed or in trenches including trenching and refilling the same etc. complete as directed (d) 32 mm diameter	75	Rm	216.00	16,200.00
3/38.17	Supplying, fitting and fixing suction m pipes plain/bevel ended, conforming to relevant IS codes of practice including supplying and fitting of accessories, lowering of assembly pipes concentrically in the casing pipes complete as directed. (b) 32mm diameter	30	Rm	530.00	15,900.00
4/38.22	Supplying fitting and fixing check valve (non return valve) including thread to pipes complete as directed by the Department. (b) 32mm diameter	2	Each	1,321.00	2,642.00
5/	Water pump connection for drawing water from the ring well as per specification Brand/Made as per quotation in the market.	1	each	22,000/-	22,000.00
6/	Providing roofing to ring well				5,106.00
	Grand Total =				2,50,000.00

Rupees Two lacs fifty thousand only

Prepared & Submitted by:


 Assistant Commissioner of Forests
 East & North Garo Hills (T) Division
 Williamnagar.