

RURAL WORKS DEPARTMENT



GOVERNMENT OF BIHAR

CIRCLE – R.W.D. works Circle, Chapra

DIVISION – R.W.D. works Division, Marhaura

Name of Work - Motrable of Road from SHILHORI PAHARPUR
PMGSY PATH TO PASCHIM TOLA POKHRA TAK

Block - Marhaura

Estimated cost - Rs 285649.00

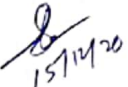
Year : 2020-21

ABSTRACT OF COST

Name of Work - Motrable of Road from SHILHORI PAHARPUR PMGSY PATH TO PASCHIM TOLA POKHRA TAK

Block - Marhaura

S.L No.	Particulars	Amount (In Rs.)
A	Cost of Restoration work	Rs 252787.00
B	Add 12 % GST on (A)	Rs 30334.00
C	Add 1 % L. Cess on (A)	Rs 2528.00
	Total Cost	Rs 285649.00


J.E.
RWD
Marhaura


A.E.
R.W.D
Marhaura

E.E.
R.W.D
Marhaura

T/S for Rs. 2,85,649/- (Two Lac Eighty five thousand six hundred forty nine) only.


20-12-20
S.E.

Name of work :-

Detailed Estimate

Motable of Road from SHILHORI PAHARPUR PMGSY PATH TO PASCHIM TOLA POKHRA TAK

SI No	Item	No	Length	Width	Avg.H/D	Qty	Unit	Rate	Amount
1	Providing laying and spreading brick bats in Road ditches all complete as per approved design, specifications and direction of E/I	1	4.00	5.00	1.40	28.00			
		1	6.00	5.00	1.20	36.00			
		1	20.00	1.50	1.50	45.00			
		1	14.00	1.00	1.50	21.00			
		Total				130.00	cum	1909.87	248282.00
2	Filling and spreading local sand over brick bats as per drawing and technical specification Clause 305.3.9	1	4.00	5.00	0.10	2.00			
		1	6.00	5.00	0.10	3.00			
		1	20.00	1.50	0.10	3.00			
		1	14.00	1.00	0.10	1.40			
		Total				9.40	cum	479.27	4505.00
TOTAL								252787.00	

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ANALYSIS FOR CARRIAGE OF MATERIAL

(A) Name of the Work :- Motable of Road from SHILHORI PAHARPUR PMGSY PATH TO PASCHIM TOLA POKHRA TAK

(B) Haulage Charge By 8 T Capacity Truck

- (i) For Surface Road :- Rs. 7.52 Per t per K.M
(ii) For Unsurface Toad :- Rs. 9.04 Per t per K.M
(iii) For Kutcha Road :- Rs. 18.19 Per t per K.M

1 CARRIAGE COST OF BAMBOO 62 MM TO 75 MM OF 6 To 8 M LONG

Lead as per Quarry Chart :-

$$5 \text{ P} + 5 \text{ K}$$

$$\text{Haulage Cost} = \frac{8}{3.00} \times [(7.52 \times 5.00) + (18.19 \times 5.00)] = 206.09$$

Loading & Unloading =

$$\begin{aligned} &= \frac{2224.00}{2430.09} \\ \text{Total per \% Nos} &= \frac{2430.09}{3.47} \\ \text{Total per m} &= 3.47 \end{aligned}$$

2 CARRIAGE COST OF STONE BOULDER

Lead as per Quarry Chart :-

$$180 \text{ P} + 0 \text{ K}$$

$$\text{Haulage Cost} = \frac{8}{4.80} \times [(7.52 \times 180.00) + (18.19 \times 0.00)] = 2256.00$$

Loading & Unloading =

$$\begin{aligned} &= 196.13 \\ \text{Total per M}^3 &= 2452.13 \end{aligned}$$

3 CARRIAGE COST OF GSB Material

Lead as per Quarry Chart :-

$$180 \text{ P} + 0 \text{ K}$$

$$\text{Haulage Cost} = \frac{8}{4.99} \times [(7.52 \times 180.00) + (18.19 \times 0.00)] = 2170.10$$

Loading & Unloading =

$$\begin{aligned} &= 196.13 \\ \text{Total per M}^3 &= 2366.23 \end{aligned}$$

4 CARRIAGE COST OF HUME PIPE (1000 MM DIA)

Lead as per Quarry Chart :-

$$55 \text{ P} + 0 \text{ K}$$

$$\text{Haulage Cost} = \frac{8}{22.5} \times [(7.52 \times 55.00) + (18.19 \times 0.00)] = 330.88$$

Loading & Unloading =

$$\begin{aligned} &= \frac{76.58}{407.46} \\ \text{Total per M} &= 407.46 \end{aligned}$$

5 CARRIAGE COST OF HUME PIPE (600 MM DIA)

Lead as per Quarry Chart :-

$$55 \text{ P} + 0 \text{ K}$$

$$\text{Haulage Cost} = \frac{8}{52.50} \times [(7.52 \times 55.00) + (18.19 \times 0.00)] = 63.02$$

Loading & Unloading =

$$\begin{aligned} &= \frac{32.82}{95.84} \\ \text{Total per M} &= 95.84 \end{aligned}$$

(C) Haulage Charge By 3.60 t Tractor capacity

- (i) For Surface Road :- Rs. 18.70 Per t per K.M
(ii) For Unsurface Toad :- Rs. 23.30 Per t per K.M
(iii) For Kutcha Road :- Rs. 29.20 Per t per K.M

1 CARRIAGE COST OF BRICK BAT

Lead as per Quarry Chart :-

$$\text{Haulage Cost} = \frac{3.60}{2.25} \times [(18.70 \times 7 \text{ P} + 1 \text{ K}) + (29.20 \times 1.00)] = 256.16$$
$$\text{Unloading} = \frac{65.38}{\text{Total per 1000 Nos.} = 321.54}$$

2 CARRIAGE COST OF LOCAL SAND

Lead as per Quarry Chart :-

$$\text{Haulage Cost} = \frac{3.60}{2.25} \times [(18.70 \times 2 \text{ P} + 1 \text{ K}) + (29.20 \times 1.00)] = 106.56$$
$$\text{Unloading} = \frac{40.81}{\text{Total per M}^3 = 147.37}$$

3 CARRIAGE COST OF STEEL

Lead as per Quarry Chart :-

$$\text{Haulage Cost} = \frac{3.60}{3.60} \times [(18.70 \times 5 \text{ P} + 0 \text{ K}) + (29.20 \times 0.00)] = 93.50$$
$$\text{Loading \& Unloading} = \frac{325.46}{\text{Total per Mt} = 418.96}$$

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SUMMARY OF CARRIAGE COST OF MATERIAL

Motable of Road from SHILHORI PAHARPUR PMGSY PATH TO PASCHIM TOLA
POKHRA TAK

Name of work :-

S.I No.	Name of material	Unit	Source	Mode of Transport	Carriage Charge by Road	Total Carriage up to site
1	2	3	4	5	7	8
1	Bricks Bats	per m ³	Local Kiln	By Road	321.54	
2	Fine sand	per m ³	Local source	By Road	147.37	
3	Steel	per mt	Local	By Road	418.96	
4	Boulder	per m ³	Sheikhpura	By Road	2452.13	
5	Stone metal <50 mm	per m ³	Sheikhpura	By Road	2366.23	
6	Hume pipe (1000 mm dia)	Per metre	Hajipur	By Road	407.46	
7	Hume pipe (600 mm dia)	Per metre	Hajipur	By Road	95.84	
8	Bamboo of 62 to 75 mm dia	Per metre	Local	By Road	3.47	3.47

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FDR Analysis

Sr. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1.1	Loading and Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Manual Means				
(i)	Loading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m				
	Unit = cum				
	Taking output = 5.5 cum				
a)	Labour				
	Mate	day	0.02	305.00	6.10
	Mazdoor (Unskilled)	day	0.50	287.00	143.50
b)	Machinery				
	Truck	hour	0.50	934.30	467.15
c)	Overheads on (a+b)				
	=@	6%			37.01
d)	Contractor's profit on (a+b+c)				65.38
	=@	10%			719.13
	Cost for 5.5 cum = a+b+c+d				
	Rate per cum = (a+b+c+d)/5.5				130.75
(ii)	Loading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m				
	Unit = cum				
	Taking output = 5.5 cum				
a)	Labour				
	Mate	day	0.01	305.00	3.05
	Mazdoor (Unskilled)	day	0.25	287.00	71.75
b)	Machinery				
	Truck	hour	0.25	934.30	233.58
c)	Overheads on (a+b)				
	=@	6%			18.50
d)	Contractor's profit on (a+b+c)				32.69
	=@	10%			359.57
	Cost for 5.5 cum = a+b+c+d				
	Rate per cum = (a+b+c+d)/5.5				65.38
(iii)	Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m				
	Unit = cum				
	Taking output = 5.5 cum				
a)	Labour				
	Mate	day	0.01	305.00	3.05
	Mazdoor (Unskilled)	day	0.25	287.00	71.75
b)	Machinery				
	Truck	hour	0.25	934.30	233.58
c)	Overheads on (a+b)				
	=@	6%			18.50
d)	Contractor's profit on (a+b+c)				32.69
	=@	10%			359.57
	Cost for 5.5 cum = a+b+c+d				
	Rate per cum = (a+b+c+d)/5.5				65.38

(iv) Unloading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m

Unit = cum

Taking output = 5.5 cum

a) Labour				
Mate				1.53
Mazdoor (Unskilled)				35.88
b) Machinery				
Truck				155.09
c) Overheads on (a+b)				11.55
d) Contractor's profit on (a+b+c)				20.40
Cost for 5.5 cum = a+b+c+d				224.45
Rate per cum = (a+b+c+d)/5.5				40.81

1.3

1.3 Loading, Unloading and Stacking of Bricks by Manual Means

(i) Loading of Bricks by manual means including a lead upto 30 m

Unit = 1000 Nos.

Taking output = 2000 Nos.

a) Labour				
Mate				3.05
Mazdoor (Unskilled)				71.75
b) Machinery				
Truck				308.32
c) Overheads on (a+b)				22.99
d) Contractor's profit on (a+b+c)				40.61
Cost for 2000 Nos. = a+b+c+d				446.72
Rate for 1000 bricks = (a+b+c+d)/2				223.36

(ii) Unloading and Stacking of Bricks by manual means including a lead upto 30 m

Unit = 1000 Nos.

Taking output = 2000 Nos.

a) Labour				
Mate				3.05
Mazdoor (Unskilled)				71.75
b) Machinery				
Truck				308.32
c) Overheads on (a+b)				22.99
d) Contractor's profit on (a+b+c)				40.61
Cost for 2000 Nos. = a+b+c+d				446.72
Rate for 1000 bricks = (a+b+c+d)/2				223.36

1.5 Loading and Unloading of Structural Steel and Steel Bars by manual means

(i) Loading of Structural Steel, Steel Bars by manual means including a lead upto 30 m

Unit = t

Taking output = 10 t

a) Labour				
Mate				21.35
Mazdoor (Unskilled)				516.60
b) Machinery				
Truck				934.30
c) Overheads on (a+b)				88.34
d) Contractor's profit on (a+b+c)				156.06

Cost for 10 t = a+b+c+d
Rate per tonnes = (a+b+c+d)/10

1716.64
171.66

(ii) Unloading of Structural Steel, Steel Bars by manual means including a lead upto 30 m

Unit = t

Taking output = 10 t

a) Labour					
Mate					
Mazdoor (Unskilled)					
b) Machinery					
Truck					
c) Overheads on (a+b)					
d) Contractor's profit on (a+b+c)					
Cost for 10 t = a+b+c+d					
Rate per t = (a+b+c+d)/10					

1.9 Loading and Unloading of Hume Pipes

(i) Loading of RCC Hume pipes by mechanical means including a lead upto 30 m

A. 1000 / 1200 mm dia Hume pipe

Unit = per pipe

Taking output = 9 pipes

a) Labour					
Mate					
Mazdoor (Unskilled)					
b) Machinery					
Truck					
Crane					
c) Overheads on (a+b)					
d) Contractor's profit on (a+b+c)					
Cost for 9 pipes = a+b+c+d					
Rate per pipe = (a+b+c+d)/9					
Rate per M = (a+b+c+d)/2.50					

C. 600/450 mm dia Hume pipe

Unit = per pipe

Taking output = 21 pipe

a) Labour					
Mate					
Mazdoor (Unskilled)					
b) Machinery					
Truck					
Crane					
c) Overheads on (a+b)					
d) Contractor's profit on (a+b+c)					
Cost for 21 pipes = a+b+c+d					
Rate per pipe = (a+b+c+d)/21					
Rate per M = (a+b+c+d)/2.5					

A. 1000/1200 mm dia Hume pipe

Taking output = 9 pipes

a) Labour

Mate

Mazdoor (Unskilled)

b) Machinery

Truck

Crane

c) Overheads on (a+b)

d) Contractor's profit on $(a+b+c)$

Cost for 9 pipes = $a+b+c+d$

Rate per M = $(a+b+c+d)/9$
$$\text{Rate per pipe} = (a+b+c+d)/9$$
Rate per M = $(a+b+c+d)/9$

C. 600/450 mm dia Hume pipe

Unit = per pipe

Taking output = 21 pipes

a) Labour

Mate

Mazdoor (Unskilled)

b) Machinery

Truck

Truck Crane

c) Overheads on (a+b)

c) Over means on (a+b)

d) Contractor's profit on (a+b+c)

Cost for 21 pipes = $a+b+c+d$

$$\text{Rate per pipe} = (a+b+c+d)/21$$
Rate per M = $(a+b+c+d)/9$

BY Truck

1.10 Haulage excluding Loading & Unloading

Haulage of materials by tipper excluding cost of loading, unloading and stacking.

Unit = t.km

Taking output 10 t load and lead 10 km = 100 t.km.

Case-I : Surfaced Road

Speed with load: 25 km per hour

Speed while returning empty: 35 km per hour

a) Machinery

Tipper 10 t capacity

Haulage with load

Empty return trip

b) Overheads on (a)

c) Contractor's profit on $(a+b)$

Cost for 100 t.km = $a+b+c$

$$\text{Rate per t.km} = (a+b+c)/100$$

7.52

Case-II: Unsurfaced Gravel Road

Speed with load: 20 km/hour

Speed for empty return trip: 30 km/hour

a) Machinery**Tipper 10 t capacity**

Haulage with load

Empty return trip

b) Overheads on (a)**c) Contractor's profit on (a+b)**

Cost for 100 t.km = a+b+c

Rate per t.km = (a+b+c)/100

	hour	0.50	934.30	467.15
	hour	0.33	934.30	308.32
	6%			46.53
	10%			82.20
				904.20
				9.04

Case-II: Katcha Track and Track in River Bed/Nallah Bed and Choe Bed

Speed with load: 10 km per hour

Speed while returning empty: 15 km per hour

a) Machinery**i) Tipper 10 t capacity**

Haulage with load

Empty return trip

b) Overheads on (a)**c) Contractor's profit on (a+b)**

Cost for 100 t.km = a+b+c

Rate per t.km = (a+b+c)/100

	hour	1.00	934.30	934.30
	hour	0.67	934.30	625.98
	6%			93.62
	10%			165.39
				1819.29
				18.19

BY Tractor**1.10****Haulage excluding Loading & Unloading**

Haulage of materials by tractor excluding cost of loading, unloading and stacking.

Unit = t.km

Taking output 3.60 t load and lead 10 km = 36 t.km

Case-I : Surfaced Road

Speed with load: 15 km per hour

Speed while returning empty: 25 km per hour

a) Machinery**Tractor 3.60 t capacity**

Haulage with load

Empty return trip

b) Overheads on (a)**c) Contractor's profit on (a+b)**

Cost for 36 t.km = a+b+c

Rate per t.km = (a+b+c)/36

	hour	0.667	542.00	361.51
	hour	0.40	542.00	216.80
	6%			34.70
	10%			61.30
				674.31
				18.73

Case-II: Unsurfaced Gravel Road

Speed with load: 12 km/hour

Speed for empty return trip: 20 km/hour

a) Machinery**Tractor 3.60 t capacity**

Haulage with load

Empty return trip

b) Overheads on (a)**c) Contractor's profit on (a+b)**

Cost for 100 t.km = a+b+c

	hour	0.833	542.00	451.49
	hour	0.50	542.00	271.00
	6%			43.35
	10%			76.58
				842.42

Case-II Katcha Track and Track in River Bed/Nallah Bed and Choe Bed

Speed with load: 10 km per hour

Speed while returning empty: 15 km per hour

a) Machinery

i) Tractor 3.60 t capacity

Haulage with load

Empty return trip

hour	1.00	542.00	542.00
hour	0.667	542.00	361.51

b) Overheads on (a)

=@

6%			54.21
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c) Contractor's profit on (a+b)

=@

10%			95.77
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Cost for 100 t.km = a+b+c

1053.50

Rate per t.km = (a+b+c)/36

29.26

3.3 Construction of Embankment with Material Obtained from Roadway Cutting

Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical Specification Clause 301.5

Unit = cum

Taking output = 120 cum

a) Labour

Mate

day	1.80	305.00	549.00
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Mazdoor (Unskilled)

day	45.00	287.00	12915.00
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b) Machinery

Tractor with trolley @ 2.50 cum per trip

hour	12.00	542.00	6504.00
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c) Overheads on (a+b)

=@

6%			1198.08
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d) Contractor's profit on (a+b+c)

=@

10%			2116.61
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Rate for 120 cum = a+b+c+d

23282.69

Rate per cum = (a+b+c+d)/120

194.02

Add royalty with compensation charge Rs.23.65 / cum

23.65

FINISHED RATE

217.67

4.1 Granular Sub-base with Well Graded Material (Table 400.1)

(A) By Mix in Place Method

Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.

(ii) For Grading II Material

Unit = cum

Taking output = 300 cum

a) Labour

Mate

day	0.48	305.00	146.40
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Mazdoor (Skilled)

day	2.00	364.00	728.00
-----	------	--------	--------

Mazdoor (Unskilled)

day	10.00	287.00	2870.00
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b) Machinery

Motor Grader 110 HP @ 50 cum per hour

hour	6.00	2,786.00	16716.00
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Three wheel 80-100 kN static roller @ 10 cum per hour

hour	30.00	803.00	24090.00
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Tractor with Rotavator 25 cum per hour

hour	12.00	573.20	6878.40
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Water tanker 6 kl capacity

hour	5.00	184.00	920.00
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c)	Material								
	Well graded granular sub-base material as per Table 400.1								
	River bed materials Grade-II	cum	134.00	210.35	28186.90				
	Water	kl	30.00	40.00	1200.00				
d)	Overheads on (a+b+c)	=@ 6%			4904.14				
e)	Contractor's profit on (a+b+c+d)	=@ 10%			8663.98				
	Cost for 300 cum = a+b+c+d+e				95303.83				
	Rate per cum = (a+b+c+d+e)/300				317.68				
f)	Carriage								
	GSB Material	cum	1.28	2,366.23	3028.77				
	FINISHED RATE	CUM			3346.45				

9.3 Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row

Providing and laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets Clause 1106.

Unit = m

Taking output = 7.5 m

(3 pipes of 2.5 m length each)

(B) 1000 mm dia

a)	Labour								
	Mate	day	0.09	305.00	27.45				
	Mason (1st Class)	day	0.25	388.00	97.00				
	Mazdoor (Unskilled)	day	2.00	287.00	574.00				
b)	Material								
	Sand at site	cum	0.04	0.00	0.00				
	Cement at site	t	0.03	0.00	0.00				
	RCC pipe NP3 concrete pipe including collar at site	m	7.50	2,744.50	20,583.75				
c)	Overheads on (a+b)	=@ 6%			1276.93				
d)	Contractor's profit on (a+b+c)	=@ 10%			2255.91				
	Cost for 7.5 m = a+b+c+d				24,815.05				
	Rate per m = (a+b+c+d)/7.5				3,308.67				
	FINISHED RATE	M			3,308.67				

(C) 600 mm dia

a)	Labour								
	Mate	day	0.04	305.00	12.20				
	Mason (1st Class)	day	0.12	388.00	46.56				
	Mazdoor (Unskilled)	day	0.96	287.00	275.52				
b)	Material								
	Sand at site	cum	0.024	0.00	0.00				
	Cement at site	t	0.018	0.00	0.00				
	RCC pipe NP3 concrete pipe including collar at site	m	7.50	2,058.38	15,437.85				
c)	Overheads on (a+b)	=@ 6%			946.33				
d)	Contractor's profit on (a+b+c)	=@ 10%			1671.85				
	Cost for 7.5 m = a+b+c+d				18,390.30				
	Rate per m = (a+b+c+d)/7.5				2,452.04				
	FINISHED RATE	M			2,452.04				

**5.7.7 Providing and cutting of 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc.
WRD complete job as per specification and direction of E/I.**

Unit =Per M

Taking output = 30.50 m

(Assuming 20 nos. pile sunk 1.525 m deep)

a) Labour					
Carpenter Gr II					
Unskilled mazdoor for piling					
b) Materials					
Bamboo of 62 mm to 75 mm dia					
c) Overheads on (a+b)					
d) Contractor's profit on (a+b+c)					
Cost for 30.50 m = a+b+c+d					
Rate per m = (a+b+c+d)/30.5					
c) Carriage					
Bamboo of 62 mm to 75 mm dia					
FINISHED RATE					

5.7.8 Providing, fitting and fixing split bamboo woven chachari in position with 20 swg G.I. wire or 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/I.

Unit =Per sqm

Taking output = 9.30 sqm

(Assuming strip of 3.05X3.05 = 9.30 sqm)

a) Labour					
Carpenter Gr II					
Unskilled mazdoor					
b) Materials					
75 mm to 100 mm long nails					
Bamboo of 62 mm to 75 mm dia					
c) Overheads on (a+b)					
d) Contractor's profit on (a+b+c)					
Cost for 9.30 sqm = a+b+c+d					
Rate per sqm = (a+b+c+d)/9.30					
e) Carriage					
75 mm to 100 mm long nails					
Bamboo of 62 mm to 75 mm dia					
FINISHED RATE					

5.7.9 Providing, fitting and fixing 62 mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I. wire including cost of G.I. wire or nails complete job as per specification and direction of E/I.

Unit =Per m

Taking output = 30.50 m

a) Labour					
Carpenter					
Unskilled mazdoor					
b) Materials					
150 mm long nails					
Bamboo of 62 mm to 75 mm dia					
c) Overheads on (a+b)					

d) Contractor's profit on (a+b+c)	=@	10%	80.48
Cost for 30.50 m = a+b+c+d			885.23
Rate per m = (a+b+c+d)/30.50			29.02
e) Carriage			
150 mm long nails			0.01
Bamboo of 62 mm to 75 mm dia	:	Kg	0.42
		M	3.47
FINISHED RATE		M	134.91

5.7.40 Providing and filling empty cement bags with local sand, stitching the bags and placing including WRD supply of sutli etc. all complete as per approved design, specifications and direction of E/I

Unit = Per nos

Taking output = 100 nos

a) Labour			
Unskilled mazdoor		day	5.00
			287.00
b) Materials			1435.00
Sand bag (cost of sand + empty cement bag)		Nos	100.00
Sutali		Kg	0.50
			8.46
			19.75
c) Overheads on (a+b)	=@	6%	137.45
d) Contractor's profit on (a+b+c)	=@	10%	242.83
Cost for 100 bags = a+b+c+d			2671.16
Rate per bags = (a+b+c+d)/100			26.71
e) Carriage			
Fine Sand		cum	0.028
			0.00
FINISHED RATE		Nos	26.71

5.7.40 Providing and filling empty cement bags with rubbish / Brick bats (Type-B), stitching the bags and placing including supply of sutli etc. all complete as per approved design, specifications and

Unit = Per % nos

Taking output = 100 nos

a) Labour			
Unskilled mazdoor		day	5.00
			287.00
b) Materials			1435.00
Brick bats / Rubbish		cum	3.40
Empty cement bags		Nos	100.00
Sutali		Kg	0.50
			19.75
c) Overheads on (a+b)	=@	6%	321.06
d) Contractor's profit on (a+b+c)	=@	10%	567.21
Cost for 100 bags = a+b+c+d			6239.35
Rate per bags = (a+b+c+d)/100			62.39
e) Carriage			
Brick bats / Rubbish		cum	0.034
			321.54
FINISHED RATE		Nos	10.93
			73.32

5.7.40 Providing laying and spreading brick bats in Road ditches all complete as per approved design, WRD specifications and direction of E/I

Unit = Per cum

Taking output = 1 cum

a) Labour			
Mate			
Unskilled mazdoor		day	0.04
			305.00
b) Materials		day	1.00
			287.00
Brick bats		cum	1.00
			1,063.00
			1063.00

c) Overheads on (a+b)	=@	6%	81.73
d) Contractor's profit on (a+b+c)	=@	10%	144.39
Rate per cum = (a+b+c+d)			1588.33
e) Carriage			
Brick bats			
FINISHED RATE		1.00	321.54
		CUM	1909.87

11.2 Filling and spreading local sand over brick bats as per drawing and technical specification Clause 305.3.9

I. Fine sand filling				
Unit = cum				
a)	Labour			
	Mate	0.01	305.00	3.05
	Mazdoor (Unskilled)	0.30	287.00	86.10
b)	Material			
	Sand (assuming 20 per cent voids)	1.20	141.85	170.22
c)	Overheads on (a+b)			15.56
				@
d)	Contractor's profit on (a+b+c)			27.49
				@
	Rate per cum = a+b+c+d			302.43
e)	Carriage			
	Fine sand	1.20	147.37	176.84
	FINISHED RATE			479.27

5.7.46 Supplying and placing bamboo roll each roll of 4 nos uncleared full bamboo 75 mm dia 6 m to 8 m
(c) long at site blinding properly each other in bunch with annealed wire 20 to 25 SWG at least at 3 WRD places, lots filled with local sand in E.C bags 3nos- do---do---E/I

Taking output = 1 nos of bamboo roll

b) Materials					
Bamboo of 62 mm to 75 mm dia	Nos	4.25	141.47	601.25	160.72
Annealed wire 20 to 25 SWG	Kg	0.50	62.92	31.46	
B.A wire 8 to 10 SWG	Kg	1.13	62.92	70.79	
Sand bags	Nos	3.00	8.46	25.38	
c) Overheads on (a+b)	=@			53.38	
d) Contractor's profit on (a+b+c)	=@			94.30	
Rate per roll = (a+b+c+d)				1039.26	
e) Carriage					
Bamboo of 62 mm to 75 mm dia	M	29.750	3.47	103.28	
FINISHED RATE	Nos				1142.54

5.7.40.3 Providing and laying empty cement bags with local sand , stitching the bags and placing in Nylon WRD crate of size (1 m x 1 m x 1 m) with a lead of 150 M including supply of sutlii etc and placing the filled crates in water portion within a lead of 30 M, all complete as per approved design, specifications and direction of E/I

Unskilled mazdoor	day	1.55	287.00	444.85
Skilled mazdoor	day	0.30	364.00	109.20
Mate	day	0.11	305.00	33.55

b) Materials

Nylon crate

Sand bag (cost of sand + empty cement bag)

Sutali

c) Overheads on (a+b)

d) Contractor's profit on $(a+b+c)$

Cost for each N.C. = $a+b+c+d$

e) Carriage

Sand bags

FINISHED RATE

J.E

RWD

Marhaura

A.E

R.W.D

Marhaura

33

R.W.D

Marhaurā

Nos	1.00	39.85	39.85
Nos	25.00	8.46	211.50
Kg	0.125	19.75	2.47
6%			50.49
10%			89.19
			981.09

Nos	25.00	0.00	0.00
Nos			981.09

8/11/20