ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

2021-22

FLOOD DAMAGED REPORT

Angar Kerai Path To Angar Kerai

DISTRICT	:-	Samastipur	
DIVISION	:-	Dalsingh Sarai	
BLOCK	:-	Ujiarpur	
TOTAL LENGTH OF ROAD	:-	0.791	KM
TOTAL COST OF SURFACE RENEUAL	:-	7.738	Lac
TOTAL COST OF PROJECT	:-	7.738	Lac

2.3	**Site Photographs**		
	NAME OF ROAD :- Angar Kerai Path Se Angar Kerai Path(Lilji)		
	BLOCK ;– Ujiyarpur	DISTRICT : Samastipur	
1		2	
3		4	
5		6	
7		8	

25/10/2021

25/10/21

FLOOD DAMAGED REPORT

GENERAL ABSTRACT OF COST

Block:-- Ujiarpur **District:- Samastipur**

Length of Road:-- 0.791 KM

Name of Road:-- Angar Kerai Path To Angar Kerai

SL. No.	Item of Work		Amount
A	TOTAL COST OF CONSTRUCTION	:	7.738 Lacs
	TOTAL	:	**8.344 Lacs**

25/10/21

Junior Engineer Asstt. Engineer Executive Engineer

SE
RWD

GENERAL ABSTRACT OF COST FOR MAINTENANCE OF ROAD

NAME OF ROAD : Angar Kerai Path To Angar Kerai
DISTRICT Samastipur
BLOCK Ujiarpur
DIVISION Dalsingh Sarai
LENGTH OF ROAD (in Km) 0.791

Sl. No.	DESCRIPTION	Amount	1 % Labour Cess	12 % GST	1% Labour Cess & 12% GST AMOUNT (LAKHS)
PART-A	INITIAL RECTIFICATION INCLUDING SURFACE RENEWAL				
1	Brick Bats	6.048	0.060	0.726	6.834
2	Supply For Bamboo	0.402	0.004	0.048	0.454
3	Bamboo Piles	0.184	0.002	0.022	0.208
4	Bamboo Waven Chachari	0.202	0.002	0.024	0.229
5	Bamboo Runers	0.012	0.000	0.001	0.014
	SUB TOTAL OF SURFACE RENEWAL	**6.848**	**0.068**	**0.822**	**7.738**
	TOTAL COST OF PROJECT IN LACS =	**6.848**	**0.068**	**0.822**	**7.738**

20/10/2021

JE
RWD

25/10/21

AE
RWD

EE
RWD

SL No.	SOR SL NO	NORD Ref.No	Description	Unit	NOS	LENGTH	WIDTH	HEIGHT	QUANTITY	RATE	AMOUNT (In Rs.)
1	3.2	301.4	**Brick Bats**								
			Providing brick bats including spreading laying hand packing and compacting with C.I. Hammer in layers not exceeding 75 mm thick including cost of light barriers, danger signals,chowkidar,taxes,royality etc.all complete job as per specification and direction of E/I including carriage cost of bricks.								
				Cum	1	30.00	1.5+2.5	2.50	150.00		
							2.0				
				Cum	1	30.00	1.2+1.5	2.00	81.00		
							2.0				
				Cum	1	45.00	1.0+1.5	1.50	84.38		
							2.0				
				Cum	1	6.00	1.0	1.00	6.00		
				Cum	1	3.00	1.0	0.75	2.25		
									323.63	1,868.70	6,04,758.00
2			**Supply For Bamboo**								
		A	**Vartical Bamboo**								
					132	x	4.00	=	528.00		
			Runers		105	x	2.00	=	210.00		
								=	738.00		
					738.00	/	6.00	=	123.00		
			Chachari				No.	=	**123.00**		
					105	x	2.00	=	210.00		
					210.00	/	1.413	=	148.62		
							No.	=	**148.62**		
							Total	=	**271.62**		
			5% Add Westage					=	**285.20**	141.00	40,213.33
3	5.7.7		**Bamboo Piles**								
			Labour for cutting 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc complete job as per specification and direction of E/I.								
			Vartical Bamboo	1	x	132	x	4	528.00		
									528.00	34.82	18,385.00

Sl. No.	SUB SL.NO	MORD Ref.No	Description	Unit	NOS	LENGTH	WIDTH	HEIGHT	QUANTITY	RATE	AMOUNT (In Rs.)
4	5.7.8		**Bamboo Waven Chachari**								
			Labour for fitting and fixing split bamboo woven chachari inn 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.								
						105	x	2	210.00		
				Sqm					**210.00**	96.37	20,237.00
			Bamboo Runers								
5	5.7.9		Labour for fitting and fixing 62 mm to 75 mm dia bamboo runers in position at every vertiacal 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.								
			For Vartical Bamboo	105	x	2			210.00		
			Total Bamboo						210.00	5.75	1,208.00
									A) SUB TOTAL OF CRUST =		**6,84,801.33**

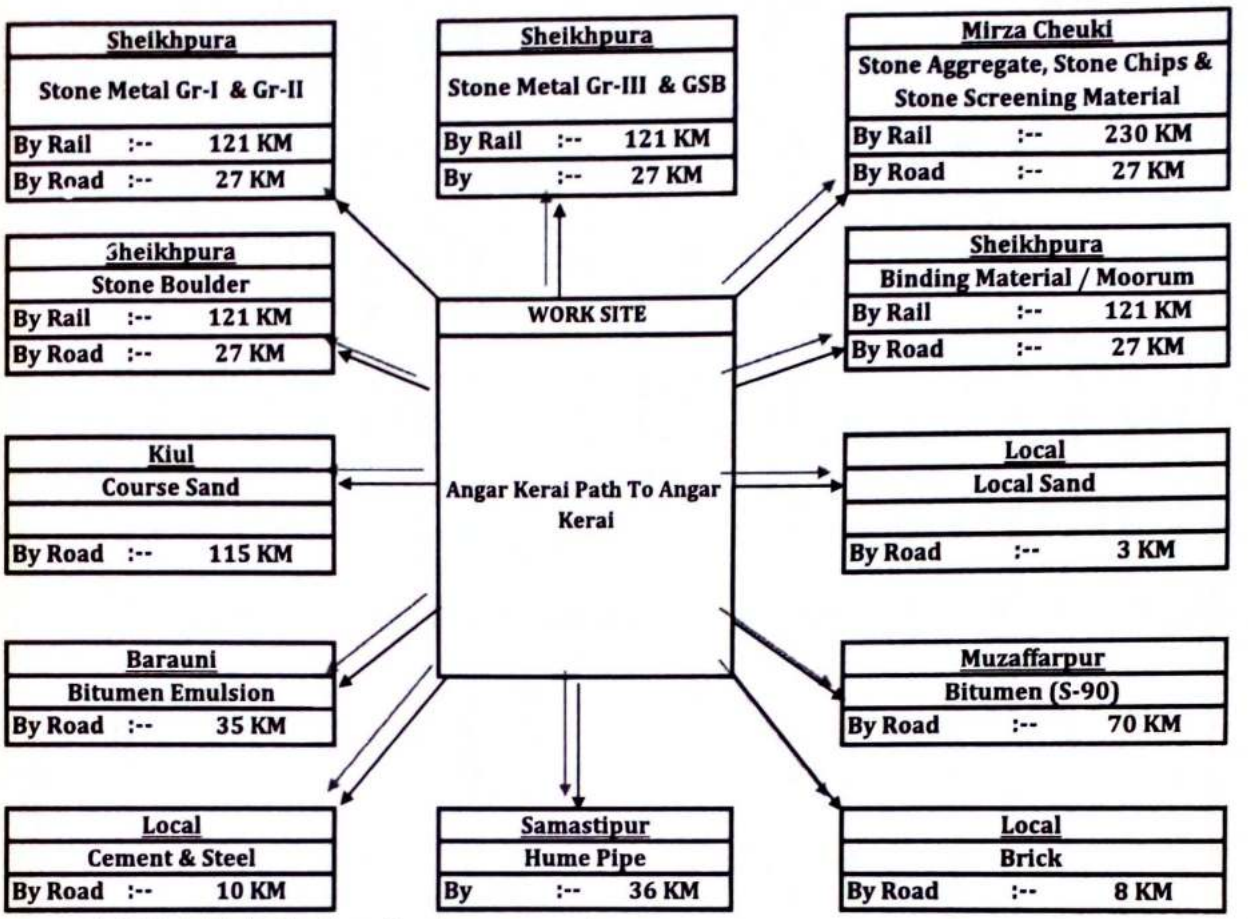
25/10/21
AE

Figure -3 :---

Quarry Map

Name of Road :-- Angar Kerai Path To Angar Kerai
Block :-- Ujiarpur
District :-- Samastipur

Length of the Road:- 0.791 KM



* Subjected to Verification of Lead

25/10/2021

J.E

25/12/21

A.E.

E.E

S.E.

FORM F8

Analysis for Carriage by Road & Rail

Name of Road:-- Angar Kerai Path To Angar Kerai

District:- Samastipur **Block :-** Ujiarpur

Sl No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km		Loading & Unloading Cost	Carriage Cost by Rail Head	Total ₹	Total ₹ Minimum
				Pucka / Surface	Katcha				
1	Stone Metal Gr-I & Gr-II (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00/4.59 x 10.10 x 27.00 Km = Rs 475.29	8.00/4.59 x 24.30 x 0.00 Km = Rs 0.00	105.12	1025.87	Rs. 1606.28	Rs. 1606.28
	Stone Metal Gr-I & Gr-II	Cum	Sheikhpura	8.00/4.59 x 7.94 x 116.00 Km = Rs 1605.30	8.00/4.59 x 19.22 x 0.00 Km = Rs 0.00	210.19		Rs. 1815.49	
2	Stone Metal Gr-III (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00/4.99 x 10.10 x 27.00 Km = Rs 437.19	8.00/4.99 x 24.30 x 0.00 Km = Rs 0.00	105.12	1128.34	Rs. 1670.65	Rs. 1670.65
	Stone Metal Gr-III	Cum	Sheikhpura	8.00/4.99 x 7.94 x 116.00 Km = Rs 1476.62	8.00/4.99 x 19.22 x 0.00 Km = Rs 0.00	210.19	1128.34	Rs. 2815.15	
3	Stone Aggregate / Chips (Mirza Chowki by Rail 230 Km)	Cum	Sheikhpura	8.00/4.99 x 10.10 x 27.00 Km = Rs 437.19	8.00/4.99 x 24.30 x 0.00 Km = Rs 0.00	105.12	1588.15	Rs. 2130.46	Rs. 2130.46
	Stone Aggregate / Chips	Cum	Sheikhpura	8.00/4.99 x 7.94 x 116.00 Km = Rs 1476.62	8.00/4.99 x 19.22 x 0.00 Km = Rs 0.00	210.19	1588.15	Rs. 3274.96	
4	Stone Boulder (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00/4.80 x 10.10 x 27.00 Km = Rs 454.50	8.00/4.80 x 24.30 x 0.00 Km = Rs 0.00	105.12	1159.81	Rs. 1719.43	Rs. 1719.43
	Stone Boulder	Cum	Sheikhpura	8.00/4.80 x 7.94 x 116.00 Km = Rs 1535.07	8.00/4.80 x 19.22 x 0.00 Km = Rs 0.00	210.19	1159.81	Rs. 2905.07	
5	Course Sand	Cum	Kiul	8.00/4.99 x 7.94 x 115.00 Km = Rs 1463.89	8.00/4.99 x 19.22 x 0.00 Km = Rs 0.00	113.67		Rs. 1577.56	Rs. 1577.56
6	Binding Material/Moorum (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	8.00/6.00 x 10.10 x 27.00 Km = Rs 363.60	8.00/6.00 x 24.30 x 0.00 Km = Rs 0.00	113.67	851.49	Rs. 1328.76	Rs. 1328.76
	Binding Material/Moorum	Cum	Sheikhpura	8.00/6.00 x 7.94 x 116.00 Km = Rs 1228.05	8.00/6.00 x 19.22 x 0.00 Km = Rs 0.00	66.31	851.49	Rs. 2145.85	
7	Local Sand	Cum	Local	8.00/4.99 x 10.10 x 2.00 Km = Rs 32.38	8.00/4.99 x 24.30 x 1.00 Km = Rs 38.96	113.67		Rs. 185.01	Rs. 185.01
8	Brick	1000 Nos	Local	8.00/2.00 x 7.94 x 7.00 Km = Rs 222.32	8.00/2.00 x 19.22 x 1.00 Km = Rs 76.88	477.44		Rs. 776.64	Rs. 776.64
9	Cement	MT	Local	8.00/8.00 x 7.94 x 10.00 Km = Rs 79.40	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	347.32		Rs. 426.72	Rs. 426.72
10	Steel	MT	Local	8.00/8.00 x 7.94 x 10.00 Km = Rs 79.40	8.00/8.00 x 19.22 0.00 Km = Rs 0.00	370.58		Rs. 449.98	Rs. 449.98
11	Bitumen Emulsion	MT	Barauni	8.00/8.00 x 7.94 x 35.00 Km = Rs 277.90	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	396.98		Rs. 674.88	Rs. 674.88
12	Bitumen	MT	Muzaffarpur	8.00/8.00 x 7.94 x 70.00 Km = Rs 555.80	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	396.98		Rs. 952.78	Rs. 952.78
13	Hume Pipe (1000 mm)	m	Samastipur	8.00/10.00 x 7.94 x 36.00 Km = Rs 228.67	8.00/10.00 x 19.22 x 0.00 Km = Rs 0.00	70.84		Rs. 299.51	Rs. 299.51
14	Hume Pipe (600 mm)	m	Samastipur	8.00/25.00 x 7.94 x 36.00 Km = Rs 91.47	8.00/25.00 x 19.22 x 0.00 Km = Rs 0.00	30.36		Rs. 121.83	Rs. 121.83
15	Hume Pipe (300 mm)	m	Samastipur	8.00/60.00 x 7.94 x 36.00 Km = Rs 38.11	8.00/60.00 x 19.22 x 0.00 Km = Rs 0.00	30.36		Rs. 68.47	Rs. 68.47

Cost of Haulage Excluding Loading & Unloading as per SOR aa

Type of Road	₹ Per Ton. Km by Tipper	₹ Per Ton. Km by Truck
For Surface Road	10.10	7.94
Unsurface Gravel Road	12.10	9.55
Kachha Road	24.30	19.22

*** Subjected to Verification of Lead**

25/10/2024

JE
RWD

25/10/24

AE
RWD

EE
RWD

Analysis for Carrige Through Railway from Quarry Site to Work Site

Sheikhpura to Karpurigram

Material -Stone Metal Gr-I & Gr-II

Quarry Site to Sheikhpura Railway Yard (By Road)

	Carriage Cost & Lead in Km								Loading & Unloading		Total
	Pucka / Surface			Katcha							
$\frac{8.00}{4.59}$ x	10.10 x	4.00 Km =	Rs 70.41 +	$\frac{8.00}{4.59}$ x	24.30 x	0.00 Km =	Rs 0.00 +	Rs 105.12	=	Rs 175.53
	UnSurface			$\frac{8.00}{4.59}$ x	12.10 x	1.00 Km			=	Rs 21.09
Loading & Unloading Cost by manual				=				= Rs 210.19	=	Rs 210.19
								Total	=	Rs 406.81
Less for O.H & C.P	= Rs 406.81 /	1.166		= Rs 348.89				Total "A"	=	Rs 348.89

Sheikhpura Railway Yard to Karpurigram **Railway Yard = 121.00 Km**

Railway freight charge from Sheikhpura Railway station to Karpurigram Railway station	=	For 1 MT	121.00 Km	=	Rs 231.30	= Rs 231.30
Busy Seasion charge 15% of Railway freight charge	=	For 1 MT		=	15%	= Rs 34.70
Railway Development Charge to 5% of Railway freight Charge		For 1 MT		=	5%	= Rs 11.57
Terminal charge @Rs.40.00 per Terminal per MT		For 1 MT		x	Rs 40.00	= Rs 0.00
GST 0 % "(4% included in Overhead Charges) =	Rs 277.57 x	0%				= Rs 0.00
Total	=	For 1 MT				= Rs 277.57
Rail Fright =	1.743 x Rs 277.57	For 1 MT			"B"	= Rs 483.80
Gross Cost for Railway freight charge "A" + "B"		For 1 MT				= Rs 832.69
		Add 12% Overhead Charge		=	12%	= Rs 99.92
		Add 10% Contractor Profit		=	10%	= Rs 93.26
Carriage Cost from Quarry to Karpurigram Railway Yard		For 1 Cum				= Rs 1025.87

Analysis for Carrige Through Railway from Quarry Site to Work Site

Sheikhpura to Karpurigram

Material -Stone Metal Gr-III / GSB

uarry Site to Sheikhpura Railway Yard (By Road)

	Carriage Cost & Lead in Km								Loading & Unloading		Total
	Pucka / Surface			Katcha							
3.00 / 4.99 x	10.10 x	4.00 Km =	Rs 64.77 +	$\frac{8.00}{4.99}$ x	24.30 x	0.00 Km =	Rs 0.00 +	Rs 105.12	=	Rs 169.89
	UnSurface			$\frac{8.00}{4.99}$ x	12.10 x	1.00 Km			=	Rs 19.40
Loading & Unloading Cost by manual								= Rs 210.19	=	Rs 210.19
								Total	=	Rs 399.48
Less for O.H & C.P	= Rs 399.48 /	1.166		= Rs 342.61				Total "A"	=	Rs 342.61

Sheikhpura **Railway Yard to** Karpurigram **Railway Yard** = 121.00 Km

Railway freight charge from Sheikhpura Railway station to Karpurigram Railway station	=	For 1 MT	121.00 Km	=	Rs 231.30	=
Busy Seasion charge 15% of Railway freight charge	=	For 1 MT		=	15%	=
Railway Development Charge to 5% of Railway freight Charge		For 1 MT		=	5%	=
Terminal charge @Rs.40.00 per Terminal per MT		For 1 MT	2 x	Rs 40.00	=	
GST 0 % "(4% included in Overhead Charges) =	Rs 357.57 x	0%			=	
Total	=	**For 1 MT**			=	
Rail Fright =	1.603 x Rs 357.57	**For 1 MT**			**"B"**	=
Gross Cost for Railway freight charge "A" + "B"		For 1 MT				=
		Add 12% Overhead Charge	=	12%	=	
		Add 10% Contractor Profit	=	10%	=	
Carriage Cost from Quarry to Karpurigram Railway Yard		**For 1 Cum**				=

Analysis for Carrige Through Railway from Quarry Site to Work Site

Mirza Chowki to Karpurigram

Material -Stone Aggregate / Chips

Quarry Site to Mirza Chowki Railway Yard (By Road)

	Carriage Cost & Lead in Km						Loading & Unloading	
	Pucka / Surface			Katcha				
8.00 / 4.99 x 10.10 x	4.00 Km = Rs 64.77	+ 8.00 / 4.99 x	24.30 x	0.00 Km = Rs 0.00	+	Rs 105.12	=	
UnSurface	8.00 / 4.99 x	12.10 x	1.00 Km				=	
Loading & Unloading Cost by manual	=				=	Rs 210.19	=	
						Total	=	
Less for O.H & C.P =	Rs 399.48 /	1.166	=	Rs 342.61		Total "A"	=	

Mirza Chowki **Railway Yard to** Karpurigram **Railway Yard** = 230.00 Km

Railway freight charge from Mirza Chowki Railway station to Karpurigram Railway station	=	For 1 MT	230.00 Km	=	Rs 425.30	=
Busy Seasion charge 15% of Railway freight charge	=	For 1 MT		=	15%	=
Railway Development Charge to 5% of Railway freight Charge		For 1 MT		=	5%	=
Terminal charge @Rs.40.00 per Terminal per MT		For 1 MT	2 x	Rs 40.00	=	
GST 0 % "(4% included in Overhead Charges) =	Rs 590.37 x	0%			=	
Total	=	**For 1 MT**			=	
Rail Fright =	1.603 x Rs 590.37	**For 1 MT**			**"B"**	=
Gross Cost for Railway freight charge "A" + "B"		For 1 MT				=
		Add 12% Overhead Charge	=	12%	=	
		Add 10% Contractor Profit	=	10%	=	
Carriage Cost from Quarry to Karpurigram Railway Yard		**For 1 Cum**				=

Analysis for Carrige Through Railway from Quarry Site to Work Site

Sheikhpura to Karpurigram

Material -Stone Boulder

uarry Site to Sheikhpura Railway Yard (By Road)

	Carriage Cost & Lead in Km						Loading & Unloading	Total
	Pucka / Surface			Katcha				
8.00 / 4.80 x 10.10 x	4.00 Km = Rs 67.33	+ 8.00 / 4.80 x	24.30 x	0.00 Km = Rs 0.00	+	Rs 105.12	=	Rs 172.45
UnSurface	8.00 / 4.80 x	12.10 x	1.00 Km				=	Rs 20.17
Loading & Unloading Cost by manual	=				=	Rs 210.19	=	Rs 210.19
						Total	=	Rs 402.81
Less for O.H & C.P =	Rs 402.81 /	1.166	=	Rs 345.46		Total "A"	=	Rs 345.46

Sheikhpura **Railway Yard to** Karpurigram **Railway Yard** = 121.00 Km

Railway freight charge from Sheikhpura Railway station to Karpurigram Railway station	=	For 1 MT	121.00 Km	=	Rs 231.30	= Rs 231.30
Busy Seasion charge 15% of Railway freight charge	=	For 1 MT		=	15%	= Rs 34.70
Railway Development Charge to 5% of Railway freight Charge		For 1 MT		=	5%	= Rs 11.57
Terminal charge @Rs.40.00 per Terminal per MT		For 1 MT	2 x	Rs 40.00	=	Rs 80.00
GST 0 % "(4% included in Overhead Charges) =	Rs 357.57 x	0%			=	Rs 0.00
Total	=	**For 1 MT**			=	Rs 357.57
Rail Fright =	1.667 x Rs 357.57	**For 1 MT**			**"B"**	= Rs 595.94
Gross Cost for Railway freight charge "A" + "B"		For 1 MT				= Rs 941.41
		Add 12% Overhead Charge	=	12%	=	Rs 112.97
		Add 10% Contractor Profit	=	10%	=	Rs 105.44
Carriage Cost from Quarry to Karpurigram Railway Yard		**For 1 Cum**				= Rs 1159.81

Analysis for Carrige Through Railway from Quarry Site to Work Site

Sheikhpura to Karpurigram

Binding Material /Moorum

arry Site to Sheikhpura Railway Yard (By Road)

	Carriage Cost & Lead in Km						Loading & Unloading	Total
	Pucka / Surface			Katcha				
0 / 0 x 10.10 x	4.00 Km = Rs 53.87	+ 8.00 / 6.00 x	24.30 x	0.00 Km = Rs 0.00	+	Rs 66.31	=	Rs 120.18
UnSurface	8.00 / 6.00 x	12.10 x	1.00 Km				=	Rs 16.13
Loading & Unloading Cost by manual	=				=	Rs 113.67	=	Rs 113.67
						Total	=	Rs 249.98
Less for O.H & C.P =	Rs 249.98 /	1.166	=	Rs 214.39		Total "A"	=	Rs 214.39

Sheikhpura **Railway Yard to** Karpurigram **Railway Yard** = 121.00 Km

Railway freight charge from Sheikhpura Railway station to Karpurigram Railway station	=	For 1 MT	121.00 Km	=	Rs 231.30	= Rs
Busy Seasion charge 15% of Railway freight charge	=	For 1 MT		=	15%	= Rs
Railway Development Charge to 5% of Railway freight Charge		For 1 MT		=	5%	= Rs
Terminal charge @Rs.40.00 per Terminal per MT		For 1 MT	2 x Rs 40.00	=		= Rs
GST 0 % "(4% included in Overhead Charges) = Rs 357.57 x 0%				=		= Rs
Total	=	**For 1 MT**			**"B"**	= Rs
Rail Fright = 1.333 x Rs 357.57		**For 1 MT**				= Rs
Gross Cost for Railway freight charge "A" + "B"		**For 1 MT**				= Rs
Add 12% Overhead Charge				=	12%	= Rs
Add 10% Contractor Profit				=	10%	= Rs
Carriage Cost from Quarry to Karpurigram Railway Yard		**For 1 Cum**				= Rs

Analysis of Rates (FORMAT F8)

Sr. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount Rs
			Haulage BY TIPPER				
1	1.10	(i)	**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	hour	0.40	1183.00	473.20
			Empty return trip	hour	0.29	1183.00	343.07
		b)	Overheads @ 12%				**97.95**
		c)	Contractor's profit @ 10% on (a+b)				**91.42**
			Cost for 100 t-km = a+b+c				1005.64
			Rate per cum = (a+b+c) /100				**10.06**
			Rate Per Km.	**Cum**			**10.10**
2	1.10	(ii)	**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-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	hour	0.50	1183.00	591.50
			Empty return trip	hour	0.33	1183.00	390.39
		b)	Overheads @ 12%				**117.83**
		c)	Contractor's profit @ 10% on (a+b)				**109.97**
			Cost for 100 t-km = a+b+c				1209.69
			Rate per cum = (a+b+c) /100				**12.10**
			Rate Per Km.	**Cum**			**12.10**
	1.10	(iii)	**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-III : 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**				
			Tipper 10 t capacity				
			Haulage with load	hour	1.00	1183.00	1183.00
			Empty return trip	hour	0.67	1183.00	792.61
		b)	Overheads @ 12%				**237.07**
		c)	Contractor's profit @ 10% on (a+b)				**221.27**
			Cost for 100 t-km = a+b+c				2433.95
			Rate per cum = (a+b+c) /100				**24.34**
			Rate Per Km.	**Cum**			**24.30**
			Haulage BY TRUCK				
	1.10	(i)	**Haulage excluding Loading & Unloading**				
			Haulage of materials by tipper excluding cost of loading, unloading and stacking.				

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate
			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**			
			Truck 10 t capacity			
			Haulage with load	hour	0.40	934.30
			Empty return trip	hour	0.29	934.30
		b)	Overheads @ 12%			
		c)	Contractor's profit @ 10% on (a+b)			
			Cost for 100 t-km = a+b+c			
			Rate per cum = (a+b+c) /100	**Rate Per Km.**	**Cum**	
5	1.10	(ii)	**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-II: Unsurfaced Gravel Road.** Speed with load: 20 km/hour Speed for empty return trip: 30 km/hour			
		a)	**Machinery**			
			Truck 10 t capacity			
			Haulage with load	hour	0.50	934.30
			Empty return trip	hour	0.33	934.30
		b)	Overheads @ 12%			
		c)	Contractor's profit @ 10% on (a+b)			
			Cost for 100 t-km = a+b+c			
			Rate per cum = (a+b+c) /100	**Rate Per Km.**	**Cum**	
6	1.10	(iii)	**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-III : 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**			
			Truck 10 t capacity			
			Haulage with load	hour	1.00	934.30
			Empty return trip	hour	0.67	934.30
		b)	Overheads @ 12%			
		c)	Contractor's profit @ 10% on (a+b)			
			Cost for 100 t-km = a+b+c			
			Rate per cum = (a+b+c) /100	**Rate Per Km.**	**Cum**	
7	1.10	RCD	Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kanker/Moorum. Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and *Unit = cum* *Taking output = 5.5 cum* **Time required for**			
			i) Positioning of tipper at loading point		1 Min	
			ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour		13 Min	
			iii) Maneuvering, reversing, dumping and turning for return		2 Min	
			iv) Waiting time, unforeseen contingencies etc		4 Min	
			Total		**20 Min**	
			a) Machinery			
			Tipper 5.5 tonnes capacity	hour	0.33	1183.00
			Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.33	1403.00
			Overheads @ 12%			

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount (Rs)
			c) Contractor's profit @ 10% on (a+b)				95.50
			Cost for 5.5 cum = a+b+c				1051.36
			Rate per cum = (a+b+c) / 5.5				191.16
			Unloading will be by tipping.				per
8	1.20	RCD	**Loading and Unloading of Boulders by Manual Means**				
			Unit = cum				
			Taking output = 5.5 cum				
			a) Labour				
			Mate	day	0.11	321.00	35.31
			Mazdoor for loading and unloading	day	0.75	304.00	228.00
			b) Machinery				
			Tipper 5.5 tonne capacity	hour	0.75	1183.00	887.25
			Overheads @ 12%				138.07
			d) Contractor's profit @ 10% on (a+b+c)				128.86
			Cost for5.5 cum = a+b+c+d				1417.49
			Rate per cum = (a+b+c+d) /5.5				257.73
			Unloading will be by tipping.				per
9	1.30	RCD	**Loading and Unloading of Cement or Steel by Manual Means and**				
			Unit = tonne				
			Taking output = 10 tonnes				
			a) Labour				
			Mate	day	0.08	321.00	25.68
			Mazdoor for loading and unloading	day	2.00	304.00	608.00
			b) Machinery				
			Truck 10 tonne capacity	hour	2.00	934.30	1868.60
			Overheads @ 12%				300.27
			d) Contractor's profit @ 10% on (a+b+c)				280.26
			Cost for10 tonnes = a+b+c+d				3082.81
			Rate per tonnes = (a+b+c+d)/10				308.28
							per
10	1.1	(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	321.00	6.42
			Mazdoor (Unskilled)	day	0.50	304.00	152.00
		b)	**Machinery**				
			Truck	hour	0.50	934.30	467.15
		c)	Overheads @ 12%				**75.07**
		d)	Contractor's profit @ 10% on (a+b+c)				**70.06**
			Cost for 5.5 cum = a+b+c+d				770.70
			Rate per cum = (a+b+c+d) /5.5				**140.13**
			Total Cost	**Cum**			**140.13**
		(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	321.00	3.21
			Mazdoor (Unskilled)	day	0.25	304.00	76.00
		b)	**Machinery**				
			Truck	hour	0.25	934.30	233.58
		c)	Overheads @ 12%				**37.53**
		d)	Contractor's profit @ 10% on (a+b+c)				**35.03**
			Cost for 5.5 cum = a+b+c+d				385.35
			Rate per cum = (a+b+c+d) /5.5				**70.06**
			Total Cost	**Cum**			**70.06**
		(iii)	Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by mechanical means including a lead upto 30 m Unit = cum Taking output = 5.5 cum				
		a)	**Labour**				
			Mate	day	0.01	321.00	3.21

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate
		b)	Mazdoor (Unskilled)	day	0.25	304.00
			Machinery	hour	0.25	934.30
		c)	Truck			
		d)	Overheads @ 12%			
			Contractor's profit @ 10% on (a+b+c)			
			Cost for 5.5 cum = a+b+c+d			
			Rate per cum = (a+b+c+d) /5.5			
			Total Cost	**Cum**		
			Total Loding & Unloading of Stone Aggregate	*Cum*		*= 140.13 + 70.06 =*
13		(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**	day	0.01	321.00
			Mate	day	0.13	304.00
			Mazdoor (Unskilled)			
		b)	**Machinery**	hour	0.17	934.30
			Truck			
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c)			
			Cost for 5.5 cum = a+b+c+d			
			Rate per cum = (a+b+c+d) /5.5			
			Total Cost	**Cum**		
			Total Loding & Unloading of Sand / Moorum	*Cum*		*= 70.06 + 43.61 =*
14	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**	day	0.01	321.00
			Mate	day	0.25	304.00
			Mazdoor (Unskilled)			
		b)	**Machinery**	hour	0.33	934.30
			Truck			
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c)			
			Cost for 2000 Nos. = a+b+c+d			
			Rate for 1000 bricks = (a+b+c+d)/2			
			Total Cost	**no.**		
15		(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	day	0.01	321.00
			Mazdoor (Unskilled)	day	0.25	304.00
		b)	**Machinery**			
			Truck	hour	0.33	934.30
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c)			
			Cost for 2000 Nos. = a+b+c+d			
			Rate for 1000 bricks = (a+b+c+d)/2			
			Total Cost	**no.**		
			Total Loding & Unloading of Brick Per 1000			*= 238.72 + 238.72 =*
16			**Loading and Unloading of Cement by Manual Means**			
		(i)	Loading of Cement by manual means including a lead upto 30 m			
			Unit = t			
			Taking output = 10 t			
		a)	**Labour**			
			Mate			
			Mazdoor (Unskilled)	day	0.06	321.00
				day	1.50	304.00

Analysis of Rates (FORMAT F8)

SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
	b)	**Machinery**				
		Truck				
	c)	Overheads @ 12%	hour	1.00	934.30	934.30
	d)	Contractor's profit @ 10% on (a+b+c)				**169.15**
		Cost for 10 t = a+b+c+d				**157.87**
		Rate per tonnes = (a+b+c+d)/10				1736.58
		Total Cost including	**t**			**173.66**
	(ii)	Unloading of Cement by manual means including a lead upto 30 m				
		Unit = t				
		Taking output = 10 t				
	a)	**Labour**				
		Mate				
		Mazdoor (Unskilled)	day	0.06	321.00	19.26
	b)	**Machinery**	day	1.50	304.00	456.00
		Truck				
	c)	Overheads @ 12%	hour	1.00	934.30	934.30
	d)	Contractor's profit @ 10% on (a+b+c)				**169.15**
		Cost for 10 t = a+b+c+d				**157.87**
		Rate per tonne = (a+b+c+d)/10				1736.58
		Total Cost	**t**			**173.66**
		Total Loding & Unloading of Cement	*t*		*= 173.66 + 173.66 =*	*347.32*
	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				
		Mazdoor (Unskilled)	day	0.07	321.00	22.47
	b)	**Machinery**	day	1.80	304.00	547.20
		Truck				
	c)	Overheads @ 12%	hour	1.00	934.30	934.30
	d)	Contractor's profit @ 10% on (a+b+c)				**180.48**
		Cost for 10 t = a+b+c+d				**168.44**
		Rate per tonnes = (a+b+c+d)/10				1852.89
		Total Cost	**t**			**185.29**
	(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)	day	0.07	321.00	22.47
	b)	**Machinery**	day	1.80	304.00	547.20
		Truck				
	c)	Overheads @ 12%	hour	1.00	934.30	934.30
	d)	Contractor's profit @ 10% on (a+b+c)				**180.48**
		Cost for 10 t = a+b+c+d				**168.44**
		Rate per t = (a+b+c+d)/10				1852.89
		Total Cost	**t**			**185.29**
		Total Loding & Unloading of Steel	*t*		*= 185.29 + 185.29 =*	*370.58*
	1.6	**Loading and Unloading of Bitumen Drums by Manual Means**				
	(i)	Loading of Bitumen Drums by manual means including a lead upto 30 m				
		Unit = t				
		Taking output = 10 t				
	a)	**Labour**				
		Mate	day	0.06	321.00	19.26
		Mazdoor (Unskilled)	day	1.60	304.00	486.40
	b)	**Machinery**				
		Truck	hour	1.25	934.30	1167.88
	c)	Overheads @ 12%				**200.82**
	d)	Contractor's profit @ 10% on (a+b+c)				**187.44**
		Cost for 10 t = a+b+c+d				2061.80

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate
			Rate per tonnes = (a+b+c+d)/10 **Total Cost**	t		
21		(II)	Unloading of Bitumen Drums by Manual Means including a lead upto 30 m			
			Unit = t			
			Taking output = 10 t			
		a)	**Labour**			
			Mate	day	0.05	321.00
			Mazdoor (Unskilled)	day	1.20	304.00
		b)	**Machinery**			
			Truck	hour	1.25	934.30
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c)			
			Cost for 10 t = a+b+c+d			
			Rate per t = (a+b+c+d)/10			
		Note :-	The rate is inclusive of the self weight of drum			
			Total Cost	t		
			Total Loding & Unloading of Bitumen Drums	*t*	*= 206.18 + 190.8 =*	
22	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	day	0.02	321.00
			Mazdoor (Unskilled)	day	0.50	304.00
		b)	**Machinery**			
			Truck	hour	0.33	934.30
			Crane	hour	0.33	909.00
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c)			
			Cost for 9 pipes = a+b+c+d			
			Rate per pipe = (a+b+c+d)/9			
			Total Cost	per p		
23		C.	**600/450 mm dia Hume pipe**			
			Unit = per pipe			
			Taking output = 21 pipe			
		a)	**Labour**			
			Mate	day	0.02	321.00
			Mazdoor (Unskilled)	day	0.50	304.00
		b)	**Machinery**			
			Truck	hour	0.33	934.30
			Crane	hour	0.33	909.00
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c)			
			Cost for 21 pipes = a+b+c+d			
			Rate per pipe = (a+b+c+d)/21			
			Total Cost	per p		
24		(II)	Unloading of RCC Hume pipe by mechanical means including a lead upto 30 m			
		A.	**1000/1200 mm dia RCC Hume pipes**			
			Unit = per pipe			
			Taking output = 9 pipes			
		a)	**Labour**			
			Mate	day	0.02	321.00
			Mazdoor (Unskilled)	day	0.50	304.00
		b)	**Machinery**			
			Truck	hour	0.20	934.30
			Crane	hour	0.20	909.00
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c)			
			Cost for 9 pipes = a+b+c+d			
			Rate per pipe = (a+b+c+d)/9			
			Total Cost	per p		
			Total Loding & Unloading of RCC Hume Pipe	*per Pipe*	*= 104.95 + 72.15 =*	
			Total Loding & Unloading of RCC Hume Pipe	*m*	*= 177.1 / 2.50 =*	

Analysis of Rates (FORMAT F8)

SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
	C.	**600/450 mm dia Hume pipe**				
		Unit = per pipe				
		Taking output = 21 pipes				
	a)	**Labour**				
		Mate	day	0.02	321.00	6.42
		Mazdoor (Unskilled)	day	0.50	304.00	152.00
	b)	**Machinery**				
		Truck	hour	0.20	934.30	186.86
		Crane	hour	0.20	909.00	181.80
	c)	Overheads @ 12%				63.25
	d)	Contractor's profit @ 10% on (a+b+c)				59.03
		Cost for 21 pipes = a+b+c+d				649.36
		Rate per pipe = (a+b+c+d)/21				30.92
		Total Cost	per p			30.92
		Total Loding & Unloading of RCC Hume Pipe	*per Pipe*	*= 44.98 + 30.92 =*		*75.90*
		Total Loding & Unloading of RCC Hume Pipe	*m*	*= 75.9 / 2.50 =*		*30.36*
1.16	100	**Setting Out Pillars**				
		Unit = 1 No.				
		Analysis of rates per pillar shall account for following :				
		Typical Benchmark 1 no. as per Dwg no. 200.1				
		of MORD Data Book (Page 1-18)				
		The rate analysis for a typical benchmark as per dwg.				
		1. Excavation	cum	0.33	334.58	108.74
		2. P.C.C. grade M 10	cum	0.10	5942.23	594.22
		3. Brick Masonry in CM 1:4	cum	0.48	5938.84	2820.95
		4. Plastering with CM 1:4 , 15 mm thick cement plaster on Brick work.	sqm	2.63	186.79	491.26
		Add 5 per cent cost of items No.1 to 4 for white washing.				200.76
	A	Sub Total **Total 6 Nos. of Pillars required for 1 Km.**	NO NO	6.00	4215.93	4215.93 25295.58
1.16	100	**Setting Out Pillars**				
		Unit = 1 No.				
		Analysis of rates per pillar shall account for following :				
		Reference Pillar 1 no. as per Dwg no. 200.2				
		of MORD Data Book (Page 1-18)				
		The rate analysis for a typical benchmark as per dwg.				
		1. Excavation	cum	0.192	334.58	64.24
		2. P.C.C. grade M 10	cum	0.060	5942.23	356.53
		3. Brick Masonry in CM 1:4	cum	0.193	5938.84	1146.20
		4. Plastering with CM 1:4 , 15 mm thick cement plaster on Brick work.	sqm	1.50	186.79	280.19
		Add 5 per cent cost of items No.1 to 4 for white washing.				92.36
		Sub Total	NO			1939.51
	B	**Total 2 Nos. of reference pillars required for 1 Km.**	NO	2.00	1939.51	3879.02
		Cost of Setting out	Km	A + B		29174.60
		Total Cost	*Km*			*29174.60*
OLD SOR		**Providing brick bats including spreading laying hand packing and compacting with C.I. Hammer in layers not exceeding 75 mm thick including cost of light barriers, danger signals,chowkidar,taxes,royality etc.all complete job as per specification and direction of E/I including carriage cost of bricks.**				
8.1.3.2 (iii)		**Unit = cum**				
		Assuming- 2.832 Cum				
	a)	**Labour (Unskilled)**				
		i) Carrying,spreading,laying & Packing	nos	1.50	304.00	456.00
		ii) Compaction brick bats with C.I. Hammer.	nos	0.67	304.00	203.68
		iii) Brick Bat	Cum	2.83	1063.00	3010.42
		iv) Local Sand	Cum	0.63	141.85	89.65
		Over Heads @ 12 % on (a+b+c)				451.17
		C. Profit @ 10 % on (a+b+c+d)				421.09
	d)	**Cost for 2.832 cum = a+b+c+d**				4632.01
	e)	**Rate Per cum=(a+b+c+d)/2.832**	cum			1635.60
		CARRIAGE	nos	0.300	776.64	233.10
		Carriage for Brick (1 cum Bats = 300 nos Bricks)				1868.70
		Rate per cum with carriage **Total Cost**	CUM			1,868.70

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate
27	5.7.6		Labour for cutting 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc complete specification and direction of E/I.			
			Unit = Per M			
			Taking Out put = 10 Joint			
			(Assuming 10 Joints)			
		a)	Materials			
			Nut And Bolts 16 mm Dia 225mm Long With Washer etc.	nos	20.00	32.88
		b)	Laber	nos	0.50	408.00
			Carpenter Grll	nos	0.25	304.00
			Unskilled Mazdoor			
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c+d)			
		e)	Rate Per cum=(a+b+c+d)/10	Per M		
			Total Cost	Per M		
28	5.7.7		Labour for cutting 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc complete specification and direction of E/I.			
			Unit = Per M			
			Taking Out put = 30.50 M			
			(Assuming 20 nos, Pile Sunk 1.525 Mtr Deep)			
		b)	Laber			
			Carpenter Grll	nos	0.25	408.00
			Unskilled Mazdoor	nos	2.50	304.00
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c+d)			
		e)	Rate Per cum=(a+b+c+d)/30.5	Per M		
			Total Cost	Per M		
29	5.7.8		Labour for fitting and fixing split bamboo woven chachari inn position with 20 swg G.I. wire or 75 mm to 10 nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/I.			
			Unit = Per M			
			Taking Out put = 9.30 M			
			(Assuming 20 nos, Pile Sunk 1.525 Mtr Deep)			
		a)	Materials			
			75 mm To 100 mm Lon Nails	Kg	0.25	61.74
		b)	Laber			
			Carpenter Grll	nos	1.00	408.00
			Unskilled Mazdoor	nos	1.00	304.00
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c+d)			
		e)	Rate Per cum=(a+b+c+d)/9.30	Per M		
			Total Cost	Per M		
30	5.7.9		Labour for fitting and fixing 62 mm to 75 mm dia bamboo runers in position at every vertiacal pile with 15 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 Out put = 30.50 M			
		a)	Materials			
			75mm To 100 mm Lon Nails	Kg	0.25	61.74
		b)	Laber			
			Carpenter Grll	nos	0.125	408.00
			Unskilled Mazdoor	nos	0.250	304.00
		c)	Overheads @ 12%			
		d)	Contractor's profit @ 10% on (a+b+c+d)			
		e)	Rate Per cum=(a+b+c+d)/30.5	Per M		
			Total Cost	Per M		