



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

2021-22

FLOOD DAMAGED REPORT



Railway Gumti Raipur Balari Path to Mushari

DISTRICT	:-	Samastipur	
DIVISION	:-	Dalsingh Sarai	
BLOCK	:-	Ujiarpur	
TOTAL LENGTH OF ROAD	:-	0.245	KM
TOTAL COST OF PROJECT	:-	8.30	Lac

YEAR (2021-2022)
GENERAL ABSTRACT OF COST

BLOCK :- Ujiarpur

DISTRICT :- SAMASTIPUR

NAME OF ROAD :- Railway Gumti Raipur Balari Path to Mushari

S.NO	ITEM OF WORK						AMOUNT	
A								
	TOTAL COST OF CONSTRUCTION					:-	Rs.	830782
					SUB TOTAL	:-	Rs.	830782



Junior Engineer



Assistant Engineer

Executive Engineer
RWD, Works Division,
Dalsinghsarai

SUMMARY OF COST ESTIMAT FOR THE PROJECT

NAME OF ROAD :- Railway Gumti Raipur Balari Path to Mushari

DISTRICT SAMASTIPUR

BLOCK Ujiarpur

S.NO	DESCRIPTION	AMOUNT LAKH
1	Earth Work	60484.05
2	BrickBats	674721.394
	SUB TOTAL:-	735205.444
	12% GST on Total Amount:-	88224.653
	1% lab cess	7352.054
Total Cost (including GST and Labour Cess		830782.151



Junior Engineer



Assistant Engineer

Executive Engineer

NAME OF ROAD :- Railway Gumti Raipur Balari Path to Mushari

SL.NO	SDB SL.NO	MORD Ref. No	Description	Unit					Quantity	Rate	Amount
1			Earth Work								
			E/W as per specifications and direction of E/L								
				cum	2.00	30.00	1.00+2.00	2.000	180.00		
							2.00				
				cum	1.00	20.00	1.50	1.500	45.00		
				cum	1.00	15.00	1.00	1.500	22.50		
									247.50	244.38	60484.05
2			BrickBats								
			Laying Brick Bats on Prepared Soil Surface as per specifications and direction of E/L								
				cum	1.00	15.00	1.50	1.500	33.75		
				cum	1.00	3.00	2.00	1.500	9.00		
				cum	2.00	3.00	3.00	1.200	21.60		
				cum	2.00	5.00	2.00	1.000	20.00		
				cum	2.00	4.00	1.20	1.500	14.40		
				cum	1.00	20.00	3.00	1.000	60.00		
				cum	1.00	17.00	2.00	1.000	34.00		
				cum	1.00	5.00	2.00	1.200	12.00		
				cum	1.00	7.00	2.00	1.500	21.00		
				cum	1.00	10.00	3.00	1.000	30.00		
				cum	1.00	2.00	1.00	0.600	1.20		
				cum	1.00	4.00	2.00	1.000	8.00		

Site Photograph

Name of Road:- Railway Gumti Raipur Balari Path to Mushari

Block:- Ujiarpur

Distt- Samastipur



01/11/2021
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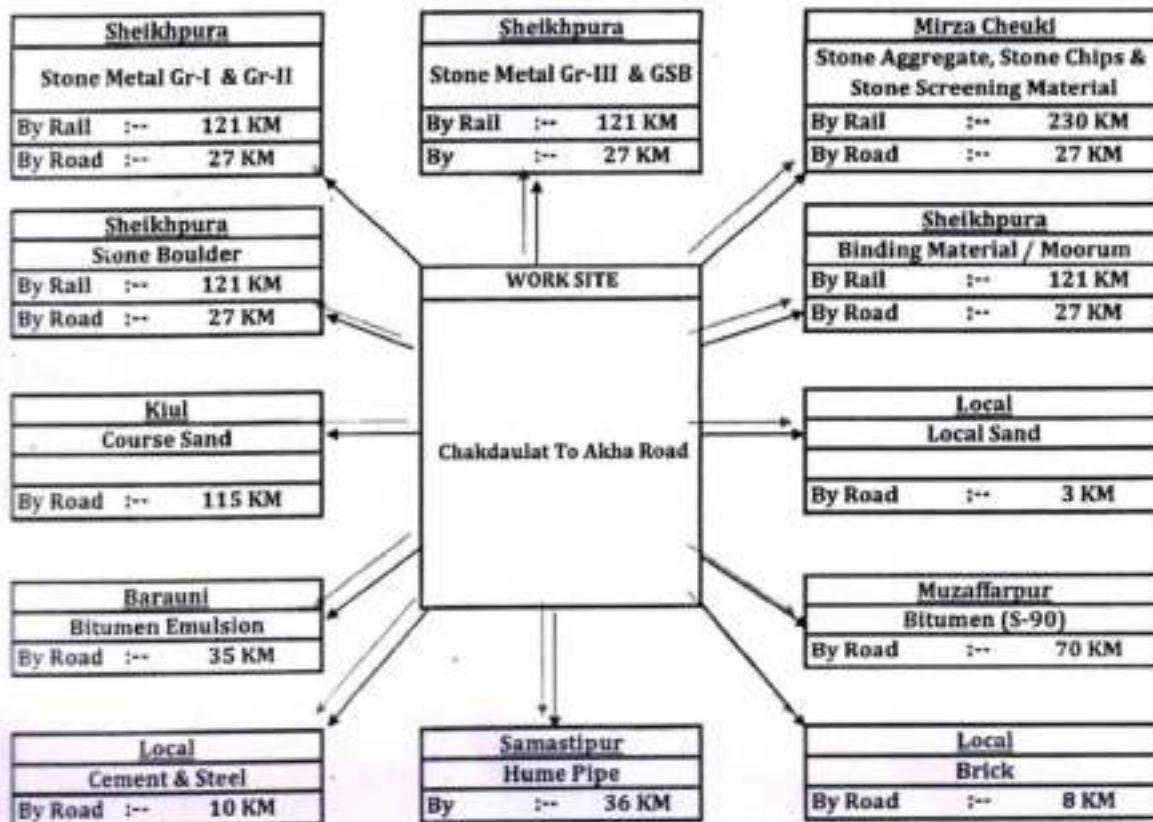
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Figure -3

Quarry Map

Name of Road :- Railway Gumti Raipur Balari Path to Mushari
 Block :- Ujarpur
 District :- Samastipur

Length of the Road:- 0.245 KM



* Subjected to Verification of Lead

[Signature]
 01/11/2021
 J.E.

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 01/11/21
 A.E.

E.E.

S.E.

Analysis for Carriage by Road & Rail

Sl No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km				Leading & Unloading Cost	Carriage Cost by Rail Road	Total ₹	Total ₹ Minimum
				Pucka / Surface		Katcha					
1	Stone Metal Gr-I & Gr-II (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	$\frac{8.00}{4.59} \times 10.10 \times 30.00 \text{ Km} = \text{Rs } 660.93$	$\frac{8.00}{4.59} \times 24.30 \times 0.00 \text{ Km} = \text{Rs } 0.00$	105.12	1025.87	Rs. 1799.92	Rs. 1799.92		
	Stone Metal Gr-I & Gr-II	Cum	Sheikhpura	$\frac{8.00}{4.59} \times 7.94 \times 137.00 \text{ Km} = \text{Rs } 1895.91$	$\frac{8.00}{4.59} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	210.19		Rs. 2106.10			
2	Stone Metal Gr-III (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	$\frac{8.00}{4.99} \times 10.10 \times 30.00 \text{ Km} = \text{Rs } 615.31$	$\frac{8.00}{4.99} \times 24.30 \times 0.00 \text{ Km} = \text{Rs } 0.00$	105.12	1128.34	Rs. 1848.77	Rs. 1848.77		
	Stone Metal Gr-III	Cum	Sheikhpura	$\frac{8.00}{4.99} \times 7.94 \times 137.00 \text{ Km} = \text{Rs } 1743.94$	$\frac{8.00}{4.99} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	210.19	1128.34	Rs. 3082.47			
3	Stone Aggregate / Chips (Mirza Chowki by Rail 230 Km)	Cum	Sheikhpura	$\frac{8.00}{4.99} \times 10.10 \times 30.00 \text{ Km} = \text{Rs } 615.31$	$\frac{8.00}{4.99} \times 24.30 \times 0.00 \text{ Km} = \text{Rs } 0.00$	105.12	1508.15	Rs. 2308.58	Rs. 2308.58		
	Stone Aggregate / Chips	Cum	Sheikhpura	$\frac{8.00}{4.99} \times 7.94 \times 137.00 \text{ Km} = \text{Rs } 1743.94$	$\frac{8.00}{4.99} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	210.19	1508.15	Rs. 3542.28			
4	Stone Boulder (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	$\frac{8.00}{4.80} \times 10.10 \times 30.00 \text{ Km} = \text{Rs } 639.67$	$\frac{8.00}{4.80} \times 24.30 \times 0.00 \text{ Km} = \text{Rs } 0.00$	105.12	1159.81	Rs. 1904.60	Rs. 1904.60		
	Stone Boulder	Cum	Sheikhpura	$\frac{8.00}{4.80} \times 7.94 \times 137.00 \text{ Km} = \text{Rs } 1812.97$	$\frac{8.00}{4.80} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	210.19	1159.81	Rs. 3182.97			
5	Course Sand	Cum	Khal	$\frac{8.00}{4.99} \times 7.94 \times 208.00 \text{ Km} = \text{Rs } 2647.73$	$\frac{8.00}{4.99} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	113.67		Rs. 2761.40	Rs. 2761.40		
6	Binding Material/Moorum (Sheikhpura by Rail 121 Km)	Cum	Sheikhpura	$\frac{8.00}{6.00} \times 10.10 \times 30.00 \text{ Km} = \text{Rs } 511.73$	$\frac{8.00}{6.00} \times 24.30 \times 0.00 \text{ Km} = \text{Rs } 0.00$	113.67	851.49	Rs. 1476.89	Rs. 1476.89		
	Binding Material/Moorum	Cum	Sheikhpura	$\frac{8.00}{6.00} \times 7.94 \times 137.00 \text{ Km} = \text{Rs } 1450.37$	$\frac{8.00}{6.00} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	66.31	851.49	Rs. 2368.17			
7	Local Sand	Cum	Local	$\frac{8.00}{4.99} \times 10.10 \times 2.00 \text{ Km} = \text{Rs } 32.38$	$\frac{8.00}{4.99} \times 24.30 \times 1.00 \text{ Km} = \text{Rs } 38.96$	113.67		Rs. 185.01	Rs. 185.01		
8	Brick	1000 Nos	Local	$\frac{8.00}{2.00} \times 7.94 \times 7.00 \text{ Km} = \text{Rs } 222.32$	$\frac{8.00}{2.00} \times 19.22 \times 1.00 \text{ Km} = \text{Rs } 76.88$	477.44		Rs. 776.64	Rs. 776.64		
9	Cement	MT	Local	$\frac{8.00}{8.00} \times 7.94 \times 10.00 \text{ Km} = \text{Rs } 79.40$	$\frac{8.00}{8.00} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	347.32		Rs. 426.72	Rs. 426.72		
10	Steel	MT	Local	$\frac{8.00}{8.00} \times 7.94 \times 10.00 \text{ Km} = \text{Rs } 79.40$	$\frac{8.00}{8.00} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	370.58		Rs. 449.98	Rs. 449.98		
11	Bitumen Emulsion	MT	Berauni	$\frac{8.00}{8.00} \times 7.94 \times 82.00 \text{ Km} = \text{Rs } 651.08$	$\frac{8.00}{8.00} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	396.98		Rs. 1048.06	Rs. 1048.06		
12	Bitumen	MT	Muzaffarpur	$\frac{8.00}{8.00} \times 7.94 \times 91.00 \text{ Km} = \text{Rs } 722.54$	$\frac{8.00}{8.00} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	396.98		Rs. 1119.52	Rs. 1119.52		
13	Hume Pipe (1000 mm)	m	Samastipur	$\frac{8.00}{10.00} \times 7.94 \times 36.00 \text{ Km} = \text{Rs } 228.67$	$\frac{8.00}{10.00} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	70.84		Rs. 299.51	Rs. 299.51		
14	Hume Pipe (600 mm)	m	Samastipur	$\frac{8.00}{25.00} \times 7.94 \times 36.00 \text{ Km} = \text{Rs } 91.47$	$\frac{8.00}{25.00} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	30.36		Rs. 121.83	Rs. 121.83		
15	Hume Pipe (300 mm)	m	Samastipur	$\frac{8.00}{60.00} \times 7.94 \times 36.00 \text{ Km} = \text{Rs } 38.11$	$\frac{8.00}{60.00} \times 19.22 \times 0.00 \text{ Km} = \text{Rs } 0.00$	30.36		Rs. 68.47	Rs. 68.47		

Cost of Haulage Excluding Loading & Unloading as per SDR as

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	9.51
Kachha Road	24.30	19.22

* Subjected to Verification of Lead

FORM F8

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Analysis of Rates (FORMAT F8)

SDB No.	MORD No.	DESCRIPTION	Unit	Quantity	Rate	Amount
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	hour	0.40	1183.00	473.20
		Haulage with load	hour	0.29	1183.00	343.07
		Empty return trip				
	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		10.06
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	hour	0.50	1183.00	591.50
		Haulage with load	hour	0.33	1183.00	390.39
		Empty return trip				
	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
3	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	hour	1.00	1183.00	1183.00
		Haulage with load	hour	0.67	1183.00	792.61
		Empty return trip				
	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		24.34
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.	Sub-Item No.	Item No.	DESCRIPTION	Unit	Quantity	Rate	Amount	Remarks
			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 Empty return trip 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	hour hour	0.40 0.29	934.30 934.30	37 27 7 7 79	
			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 Empty return trip 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	hour hour	0.50 0.33	934.30 934.30	45 30 9 8 92	
			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 Empty return trip 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	hour hour	1.00 0.67	934.30 934.30	93 62 18 17 192 11	
			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 ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour iii) Maneuvering, reversing, dumping and turning for return iv) Waiting time, unforeseen contingencies etc Total a) Machinery Tipper 5.5 tonnes capacity Front end-loader 1 cum bucket capacity @ 25 cum/hour Overheads @ 12%	hour hour	1 Min 13 Min 2 Min 4 Min 20 Min 0.33 0.93	1183.00 1403.00	1 1 1 1 1 1 1	

Analysis of Rates (FORMAT F8)

ITEM NO.		DESCRIPTION		UNIT	DETAILS	PRICE	AMOUNT
		c) Contractor's profit @ 10% on (a+b)					95.58
		Cost for 5.5 cum = a+b+c					1051.36
		Rate per cum = (a+b+c) / 5.5					191.16
		Unloading will be by tippling					191.16
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 for 5.5 cum = a+b+c+d					1417.49	
	Rate per cum = (a+b+c+d) / 5.5					257.73	
		Unloading will be by tippling					257.73
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 for 10 tonnes = a+b+c+d					3082.81	
	Rate per tonnes = (a+b+c+d) / 10					308.28	
							308.28
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	
							140.13
11	(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	
							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.		Description		Unit	Quantity	Rate	
		Mazdoor (Unskilled)		day	0.25	304.00	76.00
	b)	Machinery		hour	0.25	934.30	233.58
	c)	Truck					97.50
	d)	Overheads @ 12%					35.82
		Contractor's profit @ 10% on (a+b+c)					385.30
		Cost for 5.5 cum = a+b+c+d					70.66
		Rate per cum = (a+b+c+d) / 5.5					12.85
		Total Cost		Cum			70.66
		Total Loading & Unloading of Stone Aggregate		Cum	140.00	70.66	9892.00
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					
		Mate	day	0.01	321.00		1.40
		Mazdoor (Unskilled)	day	0.13	304.00		38.00
	b)	Machinery					
		Truck	hour	0.17	934.30		155.00
	c)	Overheads @ 12%					23.36
	d)	Contractor's profit @ 10% on (a+b+c)					21.81
		Cost for 5.5 cum = a+b+c+d					239.87
		Rate per cum = (a+b+c+d) / 5.5					43.61
		Total Cost		Cum			43.61
		Total Loading & Unloading of Sand, Moorum		Cum	70.06	43.61	3056.22
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					
		Mate	day	0.01	321.00		3.21
		Mazdoor (Unskilled)	day	0.25	304.00		76.00
	b)	Machinery					
		Truck	hour	0.33	934.30		308.32
	c)	Overheads @ 12%					46.59
	d)	Contractor's profit @ 10% on (a+b+c)					43.41
		Cost for 2000 Nos. = a+b+c+d					477.53
		Rate for 1000 bricks = (a+b+c+d) / 2					238.76
		Total Cost		No.			238.76
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		3.21
		Mazdoor (Unskilled)	day	0.25	304.00		76.00
	b)	Machinery					
		Truck	hour	0.33	934.30		308.32
	c)	Overheads @ 12%					46.59
	d)	Contractor's profit @ 10% on (a+b+c)					43.41
		Cost for 2000 Nos. = a+b+c+d					477.53
		Rate for 1000 bricks = (a+b+c+d) / 2					238.76
		Total Cost		No.			238.76
16	(i)	Loading and Unloading of Cement by Manual Means					
		Loading of Cement 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	1.50	304.00		456.00

Analysis of Rates (FORMAT F8)

		Description		Unit	Quantity	Rate	Total
		b) Machinery	Truck	hour	1.00	934.30	934.30
		c) Overheads @ 12%					169.15
		d) Contractor's profit @ 10% on (a+b+c)					157.87
		Cost for 10 t = a+b+c+d					1736.58
		Rate per tonnes = (a+b+c+d)/10					173.66
17		(ii) Unloading of Cement by manual means including a lead upto 30 m					
		Unit = t					
		Taking output = 10 t					
	a)	Labour		day	0.06	321.00	19.26
		Mate		day	1.50	304.00	456.00
	b)	Machinery					
		Truck	hour	1.00	934.30	934.30	934.30
	c)	Overheads @ 12%					169.15
	d)	Contractor's profit @ 10% on (a+b+c)					157.87
		Cost for 10 t = a+b+c+d					1736.58
		Rate per tonne = (a+b+c+d)/10					173.66
		Total Cost					173.66
18	1.5	(i) Loading and Unloading of Structural Steel and Steel Bars by manual means					
		Loading of Structural Steel, Steel Bars by manual means including a lead upto 30 m					
		Unit = t					
		Taking output = 10 t					
	a)	Labour		day	0.07	321.00	22.47
		Mate		day	1.80	304.00	547.20
	b)	Machinery					
		Truck	hour	1.00	934.30	934.30	934.30
	c)	Overheads @ 12%					180.48
	d)	Contractor's profit @ 10% on (a+b+c)					168.44
		Cost for 10 t = a+b+c+d					1852.89
		Rate per tonnes = (a+b+c+d)/10					185.29
		Total Cost					185.29
19		(ii) Unloading of Structural Steel, Steel Bars by manual means including a lead upto 30 m					
		Unit = t					
		Taking output = 10 t					
	a)	Labour		day	0.07	321.00	22.47
		Mate		day	1.80	304.00	547.20
	b)	Machinery					
		Truck	hour	1.00	934.30	934.30	934.30
	c)	Overheads @ 12%					180.48
	d)	Contractor's profit @ 10% on (a+b+c)					168.44
		Cost for 10 t = a+b+c+d					1852.89
		Rate per t = (a+b+c+d)/10					185.29
		Total Cost					185.29
20	1.6	(i) Loading and Unloading of Bitumen Drums by Manual Means					
		Loading of Bitumen Drums by manual means including a lead upto 30 m					
		Unit = t					
		Taking output = 10 t					
	a)	Labour		day	0.06	321.00	19.26
		Mate		day	1.60	304.00	486.40
	b)	Machinery					
		Truck	hour	1.25	934.30	1167.88	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)

ITEM NO.			DESCRIPTION	UNIT	QUANTITY	Rate	Total Cost	Remarks
			Rate per tonnes = (a+b+c+d)/10					
21		(II)	Unloading of Bitumen Drums by Manual Means including a lead upto 30 m					
			Unit = t					
			Taking output = 10 t	day	0.05	321.00		
		a)	Labour	day	1.20	304.00		
			Mate					
			Mazdoor (Unskilled)	hour	1.25	934.30		
		b)	Machinery					
			Truck					
		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					
			Total Loading & Unloading of Bitumen Drums			206.18	90.8	
22	1.9	(I)	Loading and Unloading of Hume Pipes					
			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	day	0.02	321.00		
			Mate	day	0.50	304.00		
			Mazdoor (Unskilled)					
		b)	Machinery	hour	0.33	934.30		
			Truck	hour	0.33	909.00		
			Crane					
		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					
23		C.	600/450 mm dia Hume pipe					
			Unit = per pipe					
			Taking output = 21 pipe					
		a)	Labour	day	0.02	321.00		
			Mate	day	0.50	304.00		
			Mazdoor (Unskilled)					
		b)	Machinery	hour	0.33	934.30		
			Truck	hour	0.33	909.00		
			Crane					
		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					
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	day	0.02	321.00		
			Mate	day	0.50	304.00		
			Mazdoor (Unskilled)					
		b)	Machinery	hour	0.20	934.30		
			Truck	hour	0.20	909.00		
			Crane					
		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					

Analysis of Rates (FORMAT F8)

25	C	400/450 mm dia Hume pipe Unit = per pipe Taking output = 21 pipes a) Labour Rate Mazdoor (Unskilled) b) Machinery Truck Crane 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	day day hour hour	0.02 0.50 0.20 0.20	321.00 304.00 934.30 909.00	6.42 152.00 186.86 181.80 63.23 59.03 649.36 30.92
26	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 2. P.C.C. grade M 10 3. Brick Masonry in CM 1:4 4. Plastering with CM 1:4, 15 mm thick cement plaster on Brick work. Add 5 per cent cost of items No.1 to 4 for white washing. Sub Total	cum cum cum sqm NO	0.33 0.10 0.48 2.63	334.58 6681.46 6237.17 216.63	108.74 668.15 2962.66 569.74 215.46 4524.74
27	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 2. P.C.C. grade M 10 3. Brick Masonry in CM 1:4 4. Plastering with CM 1:4, 15 mm thick cement plaster on Brick work. Add 5 per cent cost of items No.1 to 4 for white washing. Sub Total	cum cum cum sqm NO	0.192 0.060 0.193 1.50	334.58 6681.46 6237.17 216.63	64.24 400.89 1203.77 324.95 99.69 2093.54
28	OLD SOR	8.1.3.2 (W) 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, royalty etc. all complete job as per specification and direction of E/I including carriage cost of bricks. Unit = cum Assuming- 2.832 Cum a) Labour (Unskilled) i) Carrying, spreading, laying & Packing ii) Compaction brick bats with C.I. Hammer. iii) Brick Bat iv) Local Sand Over Heads @ 12% on (a+b+c) C. Profit @ 10% on (a+b+c+d) d) Cost for 2.832 cum = a+b+c+d e) Rate Per cum = (a+b+c+d)/2.832 CARRIAGE Carriage for Brick (1 cum Bats = 300 nos Bricks) Rate per cum with carriage	nos nos Cum Cum nos	1.50 0.67 2.83 0.63 0.300	304.00 304.00 1063.00 141.85 776.64	456.00 203.68 3010.42 89.65 451.17 421.09 4632.01 1635.60 233.10 1868.70

Analysis of Rates (FORMAT F8)

Sl. No.	Particulars	DESCRIPTION	Unit	Quantity	Rate	Total
27	5.7.6	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/L. 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	657.60
	b)	Laber Carpenter Gril Unskilled Mazdoor	nos nos	0.50 0.25	408.00 304.00	204.00 76.00
	c)	Overheads @ 12%				112.51
	d)	Contractor's profit @ 10% on (a+b+c+d)				105.01
	e)	Rate Per cum = (a+b+c+d)/10	Per M			115.51
		Total Cost	Per M			115.51
28	5.7.7	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/L. Unit = Per M Taking Out put = 30.50 M (Assuming 20 nos, Pile Sunk 1.525 Mtr Deep)				
	b)	Laber Carpenter Gril Unskilled Mazdoor	nos nos	0.25 2.50	408.00 304.00	102.00 760.00
	c)	Overheads @ 12%				103.44
	d)	Contractor's profit @ 10% on (a+b+c+d)				96.54
	e)	Rate Per cum = (a+b+c+d)/30.5	Per M			34.82
		Total Cost	Per M			34.82
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 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/L. 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	15.44
	b)	Laber Carpenter Gril Unskilled Mazdoor	nos nos	1.00 1.00	408.00 304.00	408.00 304.00
	c)	Overheads @ 12%				87.25
	d)	Contractor's profit @ 10% on (a+b+c+d)				81.41
	e)	Rate Per cum = (a+b+c+d)/9.30	Per M			96.31
		Total Cost	Per M			96.31
30	5.7.9	Labour for 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/L. Unit = Per M Taking Out put = 30.50 M				
	a)	Materials 75mm To 100 mm Lon Nails	Kg	0.25	61.74	15.44
	b)	Laber Carpenter Gril Unskilled Mazdoor	nos nos	0.125 0.250	408.00 304.00	51.00 76.00
	c)	Overheads @ 12%				17.0
	d)	Contractor's profit @ 10% on (a+b+c+d)				15.9
	e)	Rate Per cum = (a+b+c+d)/30.5	Per M			5.3
		Total Cost	Per M			5.3

Analysis of Rates (FORMAT F8)

Sl. No.	Particulars	Unit	Quantity	Rate	Amount
35	4.10				
401	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) For Grading II Material				
	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				
	Mazdoor (Skilled)	day	0.48	321.00	154.08
	Mazdoor (Unskilled)	day	2.00	385.00	770.00
b)	Machinery	day	10.00	304.00	3040.00
	Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	12.00	573.20	6878.40
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	30.00	803.00	24090.00
	Tractor with Rotavator 25 cum per hour	hour	12.00	629.00	7548.00
	Water tanker 6 kl capacity	hour	5.00	907.00	4535.00
c)	Material				
	Well graded granular sub-base material as per Table 400.1				
	26.5 mm to 9.5 mm @ 35 per cent	cum	134.40	595.36	80016.38
	9.5 mm to 2.36 mm @ 25 per cent	cum	96.00	506.92	48664.32
	2.36 mm below @ 40 per cent - Local Sand	cum	153.60	141.85	21788.16
	Water	kl	30.00	40.00	1200.00
d)	Overheads @ 12%				23842.12
e)	Contractor's profit @ 10% on (a+b+c+d)				22252.65
	Cost of GSB for 300 cum				244779.11
	A) Cost of GSB without carriage per cum	cum			815.93
f)	<u>CARRIAGE</u>				
	Carriage for GSB material	Cum	0.768	1670.65	1283.06
	Carriage for material below 2.36 mm (Local Sand)	Cum	0.512	185.01	94.73
	Rate per cum with carriage				2193.71
	Total Cost	CUM			2193.71