



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

BIHAR RURAL ROADS PROJECT

Bihar Rural Road Development Agency (BRRDA)

YEAR (2020 - 2021)

FDR

STATE :- BIHAR
DISTRICT :- Samastipur
BLOCK :- Mohiudinagar

NAME OF ROAD :- Detailed Estimate For Repair of Flood
Damaged in M.Nagar via tanda village to
Panchayat bhawan

TOTAL COST OF CONSTRUCTION :- Rs. 11.604 Lacs

TOTAL COST OF PROJECT :- Rs. 11.604 Lacs

SUBMITTED BY:

EXECUTIVE ENGINEER

RWD (W) DIVISION, PATORI

SAMASTIPUR

Gross Uncert. Amount - Rs 1160407-00

FDR
YEAR (2020 - 2021)

GENERAL ABSTRACT OF COST

Block:--Mohiudinagar

District:--Samastipur

Name of Road:--

Detailed Estimate For Repair of Flood Damaged in M.Nagar via
tanda village to Panchayat bhawan

SL. No.	Item of Work	Amount
A		
	TOTAL COST OF CONSTRUCTION	11.604 Lacs
	Sub Total= (A)	11.604 Lacs
	TOTAL cost of project	11.604 Lacs

P. S. S. S. S.
15.10.20
Junior Engineer
RWD (w)Section,
Mohiudinagar

S. S. S. S. S.
15/10/20
Asstt. Engineer
RWD (w)Sub Division, Mohiudinagar

P. S. S. S. S.
15.10.20
Executive Engineer
RWD (w) Division, Patori

SUMMARY OF COST ESTIMATE FOR THE PROJECT

NAME OF ROAD :

Detailed Estimate For Repair of Flood Damaged in M.Nagar via
tanda village to Panchayat bhawan

DISTRICT

Samastipur

BLOCK

Mohiudinagar

Sl. No.	DESCRIPTION	AMOUNT (LAKHS)
1	EARTHWORK	1.682
2	BRICK BAT	8.557
	SUB TOTAL OF PAVEMENT COST IN LACS =	10.239
	Sub Total :-	10.239
	12% GST on Total Amount :-	1.229
	1% Lab Cess :-	0.102
	Seigniorage Fee @ 10%	0.034
	Total Constriction Cost (including GST and Labour Cess) (A) :-	11.604
	TOTAL COST OF PROJECT IN LACS(including GST 12% & 1% Lab Cess)(A+B+C) :-	11.604

15.10.20
Junior Engineer

RWD (w)Section , Mohiudinagar

15/10/20
Assistant Engineer

RWD (w)Sub Division , Mohiudinagar

15.10.20
Executive Engineer
RWD (w)
Division, Patori

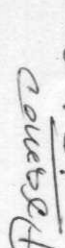
Technical Drawing Approved by Rs 11.604 Lakhs
Given by, Sanyal Hand and four Hand and Day

02.02.2021
2/2/2021
सर्वोच्च अधिकारी
आवधिक कार्य विभाग
आवधिक विभाग, समस्तीपुर

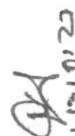
Cost Estimate for Road Work

FORMAT F6

Sl. No.	SDB SL. NO	MORD Ref.No	Description	Unit	NOS	LENGTH	WIDTH	HEIGHT	QUANTITY	RATE	AMOUNT (in Rs.)
SUB HEAD : Embankment											
1			Earthwork								
			Damaged Strech	cum	1.00	1,800.0	1.200	0.450	972.00 972.00	173.06	1,68,214.32
2			Brick Bats								
			Laying Brick Bats on Prepared Soil Surface as per specifications and direction of E/L								
			Damaged Side Strech	cum	1.00	235.0	1.125	0.450	118.97		
			Damaged Side Strech	cum	1.00	90.0	1.225	0.300	33.08		
			Damaged Side Strech	cum	1.00	185.0	1.450	0.450	120.71		
			Damaged Side Strech	cum	1.00	145.0	1.125	0.300	48.94		
			Damaged Side Strech	cum	1.00	75.0	1.300	0.600	58.50		
			Damaged Side Strech	cum	1.00	80.0	1.225	0.450	44.10		
			Damaged Side Strech	cum	1.00	140.0	1.350	0.450	85.05		
									509.34	1,680.02	8,55,707.69
B) SUB TOTAL OF CRUST =											10,23,922.01
TOTAL COST OF PAVEMENT IN RS.=											10,23,922.01


 Junior Engineer
 RWD (w) Section , Mohiudinagar


 Assistant Engineer
 RWD (w) Sub Division , Mohiudinagar


 Executive Engineer
 RWD (w) Division, Patori

Sl. No.	SDB Sl. No	MORD Ref.No	Description	Unit	Quantity	Rate	Amount (In Rs.)	Total Material Required	Material Amount	Add Seigniorage Fee 10%
EARTHWORK										
1	3.14	303.1	Earthwork							
			Construction of Embankment with material obtained from borrow pits with a lift upto 1.5 m , transporting to the site spreading , grading to required slope and compacting to meet requirement of Tables 300.1 and 300.2 with a lead upto 1000 m as per Technical Specification Clause 301.5 .							
			Unit = cum							
			Taking output = 100 cum							
		a)	Material							
			Compensation For Earth Taken From Private Land	Cum	100	34.81	3,481.00			
			Cost for 100 cum = a				3,481.00			
			Rate Per Cum = (a)/100=	Cum			34.81			
			Total Cost =	Cum			34.81	972.00	33,835.32	3,383.53
Total Construction Cost (With 10% Seigniorage Fee) :--										
										3,383.53

15.11.24

Analysis for Carriage by Road & Rail
Detailed Estimate For Repair of Flood Damaged in M.Nagar via tanda village to Panchayat bhawan
Block :- Mohiudinagar

Name of Road:--
 District:--

Samastipur

SI No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km			Loading & Unloading Cost	Carriage Cost by Rail Head	Total
				Pucka / Surface		Katcha			
1	Stone Metal Gr-I & Gr-II	Cum	Sheikhpura	$\frac{8.00}{4.59} \times 7.60$	$\times 50.00 \text{ Km} = \text{Rs } 662.31$	$\frac{8.00}{4.59} \times 18.50$	$\times 0.00 \text{ Km} = \text{Rs } 0.00$	83.64	Rs. 1698.18
2	Stone Metal Gr-III / GSB	Cum	Sheikhpura	$\frac{8.00}{4.99} \times 7.60$	$\times 50.00 \text{ Km} = \text{Rs } 609.22$	$\frac{8.00}{4.99} \times 18.50$	$\times 0.00 \text{ Km} = \text{Rs } 0.00$	83.64	Rs. 1589.77
3	Stone Aggregate / Chips	Cum	Sheikhpura	$\frac{8.00}{4.99} \times 7.60$	$\times 50.00 \text{ Km} = \text{Rs } 609.22$	$\frac{8.00}{4.99} \times 18.50$	$\times 0.00 \text{ Km} = \text{Rs } 0.00$	83.64	Rs. 1589.77
4	Stone Aggregate / Chips	Cum	Mirzachowki	$\frac{8.00}{4.99} \times 7.60$	$\times 50.00 \text{ Km} = \text{Rs } 609.22$	$\frac{8.00}{4.99} \times 16.54$	$\times 0.00 \text{ Km} = \text{Rs } 0.00$	83.64	Rs. 1975.50
5	Stone Boulder	Cum	Sheikhpura	$\frac{8.00}{4.80} \times 7.60$	$\times 50.00 \text{ Km} = \text{Rs } 633.33$	$\frac{8.00}{4.80} \times 18.50$	$\times 0.00 \text{ Km} = \text{Rs } 0.00$	83.64	Rs. 1639.01
6	Course Sand	Cum	Kuil	$\frac{8.00}{4.99} \times 6.83$	$\times 115.00 \text{ Km} = \text{Rs } 1259.24$	$\frac{8.00}{4.99} \times 16.54$	$\times 0.00 \text{ Km} = \text{Rs } 0.00$	96.53	Rs. 1355.77
7	Local Sand	Cum	Local	$\frac{8.00}{4.99} \times 6.83$	$\times 2.00 \text{ Km} = \text{Rs } 21.90$	$\frac{8.00}{4.99} \times 16.54$	$\times 1.00 \text{ Km} = \text{Rs } 26.52$	96.53	Rs. 144.95
8	Brick	1000 Nos	Local	$\frac{8.00}{2.00} \times 6.83$	$\times 7.00 \text{ Km} = \text{Rs } 191.24$	$\frac{8.00}{2.00} \times 16.54$	$\times 1.00 \text{ Km} = \text{Rs } 66.16$	406.10	Rs. 663.50

* Subjected to Verification of Lead

Cost of Haulage Excluding Loading & Unloading as per SOR

Type of Road	Per Ton. Km by Tipper	Per Ton. Km by Truck
For Surface Road	7.60	6.83
Unsurface Gravel Road	9.20	8.22
Kachha Road	18.50	16.54

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15.10.20
A.E

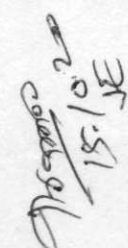
Analysis for Carriage by Road
Detailed Estimate For Repair of Flood Damaged in M.Nagar via tanda village to Panchayat bhawan
District:- Samastipur Block:- Mohiudinagar

SI No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km			Loading & Unloading Cost	Carriage Cost by Rail Head	Total
				Pucka / Surface	Katcha				
1	Stone Metal Gr-I & Gr-II	Cum	Sheikhpura	$\frac{8.00}{4.59} \times 7.60 \times 163.00 \text{ Km} = \text{Rs } 2159.13$	$\frac{8.00}{4.59} \times 18.50 \times 0.00 \text{ Km} = \text{Rs } 0.00$		83.64		Rs. 2242.77
2	Stone Metal Gr-III / GSB	Cum	Sheikhpura	$\frac{8.00}{4.99} \times 7.60 \times 163.00 \text{ Km} = \text{Rs } 1986.05$	$\frac{8.00}{4.99} \times 18.50 \times 0.00 \text{ Km} = \text{Rs } 0.00$		83.64		Rs. 2069.69
3	Stone Aggregate / Chips	Cum	Sheikhpura	$\frac{8.00}{4.99} \times 7.60 \times 163.00 \text{ Km} = \text{Rs } 1986.05$	$\frac{8.00}{4.99} \times 18.50 \times 0.00 \text{ Km} = \text{Rs } 0.00$		83.64		Rs. 2069.69
4	Stone Aggregate / Chips	Cum	Mirzachowki	$\frac{8.00}{4.99} \times 7.60 \times 208.00 \text{ Km} = \text{Rs } 2534.35$	$\frac{8.00}{4.99} \times 18.50 \times 0.00 \text{ Km} = \text{Rs } 0.00$		83.64		Rs. 2617.99
5	Stone Boulder	Cum	Sheikhpura	$\frac{8.00}{4.80} \times 7.60 \times 163.00 \text{ Km} = \text{Rs } 2064.67$	$\frac{8.00}{4.80} \times 18.50 \times 0.00 \text{ Km} = \text{Rs } 0.00$		83.64		Rs. 2148.31
6	Course Sand	Cum	Kuil	$\frac{8.00}{4.99} \times 6.83 \times 115.00 \text{ Km} = \text{Rs } 1259.24$	$\frac{8.00}{4.99} \times 16.54 \times 0.00 \text{ Km} = \text{Rs } 0.00$		96.53		Rs. 1355.77
7	Local Sand	Cum	Local	$\frac{8.00}{4.99} \times 6.83 \times 2.00 \text{ Km} = \text{Rs } 21.90$	$\frac{8.00}{4.99} \times 16.54 \times 1.00 \text{ Km} = \text{Rs } 26.52$		96.53		Rs. 144.95
8	Brick	1000 Nos	Local	$\frac{8.00}{2.00} \times 6.83 \times 7.00 \text{ Km} = \text{Rs } 191.24$	$\frac{8.00}{2.00} \times 16.54 \times 1.00 \text{ Km} = \text{Rs } 66.16$		406.10		Rs. 663.50

* Subjected to Verification of Lead

Cost of Haulage Excluding Loading & Unloading as per SOR

Type of Road	Per Ton. Km by Tinner	Per Ton. Km by Truck
For Surface Road	7.60	6.83
Unsurface Gravel Road	9.20	8.22
Kachha Road	18.50	16.54

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FDR

YEAR (2020 - 2021)

Analysis for Carriage by Road & Rail

Name of Road:--

Detailed Estimate For Repair of Flood Damaged in M.Nagar via tanda village to Panchayat bhawan

Block :-

Mohiudinagar

District:-

Samastipur

0.190 KM.

SI No	Item	Unit	Carriage Cost By Road (Per cum)	Carriage Cost By Road & Rail (Per cum)	Minimum Carriage Cost (Addopted in DPR)
1	Stone Metal Gr-I & Gr-II	Cum	2242.77	1698.18	1698.18
2	Stone Metal Gr-III / GSB	Cum	2069.69	1589.77	1589.77
3	Stone Aggregate / Chips (seikhpura)	Cum	2069.69	1589.77	1589.77
4	Stone Aggregate / Chips	Cum	2617.99	1975.50	1975.50
5	Stone Boulder	Cum	2148.31	1639.01	1639.01
6	Course Sand	Cum	1355.77	1355.77	1355.77
7	Local Sand	Cum	144.95	144.95	144.95
8	Brick	1000 Nos	663.50	663.50	663.50
9	Cement	MT	617.16	617.16	617.16
10	Steel	MT	617.16	617.16	617.16
11	Bitumen Emulsion (Ulberia)	MT	978.35	978.35	978.35
12	Bitumine (Barauni)	MT	848.58	848.58	848.58
13	Hume Pipe (1000 mm)	Pipe	353.75	353.75	353.75

Pragme
15.10.20
Junior Engineer
RWD (w) Division, Patori

Shyam
15/10/20
Asstt. Engineer
RWD (w) Division, Patori

Qd
15.10.20
Executive Engineer
RWD (w) Division, Patori

Analysis for Carriage Through Railway from Quarry Site to Work Site

Sheikhpura to Karpoorigram

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 7.60 x 2.00 Km	= Rs 26.49	+	$\frac{8.00}{4.59}$	x 18.50 x 0.00 Km	= Rs 0.00	+	Rs 83.64	= Rs 110.13
UnSurface		$\frac{8.00}{4.59}$	x	9.20	x 1.00 Km				Rs 16.03
Total "A"								=	Rs 126.16

Sheikhpura Railway Yard to Karpoorigram Railway Yard = 122.00 Km

i) Loading Cost from Railway Yard to Railway Wagon = For 1 cum = Rs 118.86 = Rs 118.86

Total = For 1 cum "B" = Rs 118.86

iii) Railway freight charge from Sheikhpura Railway = For 1 MT 122.00 Km = Rs 231.30 = Rs 231.30

Busy Season charge 12% of Railway freight charge = For 1 MT = 12% = Rs 27.76

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

Total = For 1 MT = Rs 350.63

For 1 cum "C" = Rs 611.11

Add 6% Overhead Charge = 6.0% = Rs 36.67

Add 10% Contractor Profit = 10% = Rs 0.00

Total Railway Freight for 1 cum "C" = Rs 647.78

Cost for Stacking the Materials from Unloading dump upto lead 30 m.

Total "D" = For 1 cum = Rs 59.43 = Rs 59.43

Carriage Cost from Quarry to Karpoorigram

Railway Yard = For 1 Cum A+B+C+D = Rs 952.23

Analysis for Carriage Through Railway from Quarry Site to Work Site

Sheikhpura to Karpoorigram

Material -Stone Metal Gr-III & GSB

Quarry Site to Sheikhpura Railway Yard (By Road)

Carriage Cost & Lead in Km										Loading & Unloading		Total						
Pucka / Surface					Katcha													
$\frac{8.00}{4.99}$	x	7.60	x	2.00 Km	=	Rs 24.37	+	$\frac{8.00}{4.99}$	x	18.50	x	0.00 Km	=	Rs 0.00	+	Rs 83.64	=	Rs 108.01
UnSurface						$\frac{8.00}{4.99}$	x	9.20	x	1.00 Km			=	Rs 14.75				
														Total "A"		=	Rs 122.76	

Sheikhpura Railway Yard to Karpoorigram Railway Yard = 122.00 Km

i) Loading Cost from Railway Yard to Railway Wagon = For 1 cum = Rs 118.86 = Rs 118.86

Total = For 1 cum "B" = Rs 118.86

iii) Railway freight charge from Sheikhpura Railway station to Karpoorigram Railway station = For 1 MT 122.00 Km = Rs 231.30 = Rs 231.30

Busy Season charge 12% of railway freight charge = For 1 MT = 12% = Rs 27.76

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

Total = For 1 MT = Rs 350.63

For 1 CUM "C" = Rs 562.13

Add 6% Overhead Charge = 6.0% = Rs 33.73

Add 10% Contractor Profit = 10% = Rs 0.00

Total Railway Freight for 1 cum "C" = Rs 595.85

Cost for Stacking the Materials from Unloading dump upto lead 30 m.

Total "D" = For 1 cum = Rs 59.43 = Rs 59.43

Carriage Cost from Quarry to Karpoorigram

Railway Yard = For 1 Cum A+B+C+D = Rs 896.90

Analysis for Carriage Through Railway from Quarry Site to Work Site

Sheikhpura to Karpoorigram

Material -Stone Aggregate / Chips

Quarry Site to Sheikhpura Railway Yard (By Road)

Pucka / Surface		Carriage Cost & Lead in Km				Katcha		Loading & Unloading		Total
$\frac{8.00}{4.99}$	x 7.60	x 2.00 Km	= Rs 24.37	+	$\frac{8.00}{4.99}$	x 18.50	x 0.00 Km	= Rs 0.00	+ Rs 83.64	= Rs 108.01
UnSurface			$\frac{8.00}{4.99}$	x	9.20	x	1.00 Km		=	Rs 14.75
Total "A"									=	Rs 122.76

Sheikhpura Railway Yard to Karpoorigram Railway Yard = 122.00 Km

i) Loading Cost from Railway Yard to Railway Wagon	=	For 1 cum	=	Rs 118.86	=	Rs 118.86
Total	=	For 1 Cum	=	"B"	=	Rs 118.86

iii) Railway freight charge from Sheikhpura Railway station to Karpoorigram Railway station	=	For 1 MT	122.00 Km	=	Rs 231.30	=	Rs 231.30
Busy Season charge 12% of Railway freight charge	=	For 1 MT		=	12%	=	Rs 27.76
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
Total	=	For 1 MT		=		=	Rs 350.63
		For 1 CUM		=	"C"	=	Rs 562.13
		Add 6% Overhead Charge			6%		Rs 33.73
		Add 10% Contractor Profit		=	10%	=	Rs 0.00
		Total Railway Freight for 1 cum		=	"C"	=	Rs 595.85

Cost for Stacking the Materials from Unloading dump upto lead 30 m.

Total "D"	=	For 1 CUM	=	Rs 59.43	=	Rs 59.43
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Carriage Cost from Quarry to Karpoorigram Railway Yard	=	For 1 Cum	=	A+B+C+D	=	Rs 896.90
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Analysis for Carriage Through Railway from Quarry Site to Work Site

Mirzachowki to Karpoorigram

Material -Stone Aggregate / Chips

Quarry Site to Mirzachowki Railway Yard (By Road)

		Carriage Cost & Lead in Km						Loading & Unloading		Total	
Pucka / Surface						Katcha					
$\frac{8.00}{4.99}$	x 7.60	x 2.00 Km	= Rs 24.37	+	$\frac{8.00}{4.99}$	x 18.50	x 0.00 Km	= Rs 0.00	+	Rs 83.64	= Rs 108.01
UnSurface			$\frac{8.00}{4.99}$	x	9.20	x	1.00 Km				Rs 14.75
Total "A"										=	Rs 122.76

Mirzachowki Railway Yard to Karpoorigram Railway Yard = 230.00 Km

i) Loading Cost from Railway Yard to Railway Wagon	=	For 1 cum	=	Rs 118.86	=	Rs 118.86
Total	=	For 1 Cum	=	"B"	=	Rs 118.86

iii) Railway freight charge from Mirzachowki Railway station to Karpoorigram Railway station	=	For 1 MT	230.00 Km	=	Rs 425.30	=	Rs 425.30
Busy Season charge 12% of Railway freight charge	=	For 1 MT		=	12%	=	Rs 51.04
Railway Development Charge to 5% of Railway Freight Charge		For 1 MT		=	5%	=	Rs 21.27
Terminal charge @Rs.40.00 per Terminal per MT		For 1 MT	2	x	Rs 40.00	=	Rs 80.00
Total	=	For 1 MT		=		=	Rs 577.61
		For 1 CUM		=	"C"	=	Rs 926.02
Add 6% Overhead Charge	=	6.0%		=		=	Rs 55.56
Add 10% Contractor Profit	=	10%		=		=	Rs 0.00
Total Railway Freight for 1 cum		"C"		=		=	Rs 981.58

Cost for Stacking the Materials from Unloading dump upto lead 30 m.

Total "D"	=	For 1 CUM	=	Rs 59.43	=	Rs 59.43
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Carriage Cost from Quarry to Karpoorigram Railway Yard	=	For 1 Cum	=	A+B+C+D	=	Rs 1282.63
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Analysis for Carriage Through Railway from Quarry Site to Work Site

Sheikhpura to Karpoorigram

Material -Stone Boulder

Quarry Site to Sheikhpura Railway Yard (By Road)

Pucka / Surface		Carriage Cost & Lead in Km				Katcha		Loading & Unloading		Total
$\frac{8.00}{4.80}$	x 7.60	x 2.00 Km	= Rs 25.33	+	$\frac{8.00}{4.80}$	x 18.50	x 0.00 Km	= Rs 0.00	+ Rs 83.64	= Rs 108.98
UnSurface			$\frac{8.00}{4.80}$	x	9.20	x	1.00 Km		=	Rs 15.33
Total "A"									=	Rs 124.31

Sheikhpura Railway Yard to Karpoorigram Railway Yard = 122.00 Km

i) Loading Cost from Railway Yard to Railway Wagon	=	For 1 cum	=	Rs 118.86	=	Rs 118.86
Total	=	For 1 CUM		"B"	=	Rs 118.86

iii) Railway freight charge from Sheikhpura Railway station to Karpoorigram Railway station	=	For 1 MT	122.00 Km	=	Rs 231.30	=	Rs 231.30
Busy Season charge 12% of Railway freight charge	=	For 1 MT		=	12%	=	Rs 27.76
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
Total	=	For 1 MT				=	Rs 350.63
		For 1 CUM			"C"	=	Rs 584.38
Add 6% Overhead Charge	=	6.0%		=			Rs 35.06
Add 10% Contractor Profit	=	10.0%		=			Rs 0.00
Total Railway Freight for 1 cum		"C"		=			Rs 619.44

Cost for Stacking the Materials from Unloading dump upto lead 30 m.

Total "D"	=	For 1 CUM	=	Rs 59.43	=	Rs 59.43
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Carriage Cost from Quarry to Karpoorigram

Railway Yard	=	For 1 Cum	=A+B+C+D	=	Rs 922.04
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Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
Haulage BY TRUCK							
4	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 Truck 10 t capacity Haulage with load Empty return trip b) Overheads @ 6 % on (a) (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	373.72 270.95 38.68 0.00 683.35 6.83
				Rate Per Km.	Cum		6.83
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 @ 6 % on (a) (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	467.15 308.32 46.53 0.00 822.00 8.22
				Rate Per Km.	Cum		8.22
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 @ 6 % on (a) (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	934.30 625.98 93.62 0.00 1653.90 16.54
				Rate Per Km.	Cum		16.54

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
7	1.1	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 <i>Unit = cum</i> <i>Taking output = 5.5 cum</i> 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 0.330 1043.00 344.19 Front end-loader 1 cum bucket capacity @ 25 cum/hour hour 0.330 1403.00 462.99 (b) Overheads @ 6 % on (a) 48.43 (c) Contractor's profit @ 10% on (a+b) 0.00 Cost for 5.5 cum = a+b+c 855.61 Rate per cum = (a+b+c) / 5.5 155.57				
Unloading will be by tipping.						say	156.00
8	1.2		Loading and Unloading Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Mechanical Means i Loading 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 Placing tipper at loading point, loading with front end loader excluding time for haulage and return trip. <i>Unit = cum</i> <i>Taking output = 5.5 cum</i> Time required for i Positioning of tipper at loading point Min 1.000 ii Loading by front end loader 1 cum bucket capacity @ 45 cum per hour Min 7.330 iii Waiting time, unforeseen contingencies, etc. Min 2.000 Total Min 10.330 a) Machinery Tipper 10 t capacity hour 0.172 1043.00 179.40 Front end-loader 1 cum bucket capacity @ 45 cum per hour hour 0.122 1403.00 171.17 b) Overheads @ 6.0 % 21.03 c) Contractors Profit @ 10.0 % - Cost for 5.5 cum = a+b+c 371.60 Rate per cum = (a+b)/5.5 67.56 Unloading of Earth, Sand, Lime, Moorum, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Manure, Crushed Slag, Flyash, Stone for Masonry Work by mechanical means. <i>Unit = cum</i> <i>Taking output = 5.5 cum</i> Placing tipper at unloading point excluding time for haulage and return trip Time required for i Positioning of tipper at loading point Min 1.000 ii Manoeuvring, reversing, dumping and turning for return Min 2.000 iii Waiting time, unforeseen contingencies, etc. Min 2.000 Total Min 5.000 a) Machinery Tipper 10 t capacity hour 0.080 1043.00 83.44 b) Overheads @ 6 % on (a) 5.01 c) Contractors Profit @ 10.0 % on (b) 0.00 Cost for 5.5 cum = a+b 88.45 Rate per cum = (a+b)/5.5 16.08				
Total loading and unloading by mechanical means							83.64

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
8	1.2	RCD	Loading and Unloading of Boulders by Manual Means Unit = cum Taking output = 5.5 cum a) Labour Mate Mazdoor for loading and unloading b) Machinery Tipper 5.5 tonne capacity c) Overheads @ 6 % on (a+b) (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	day day hour	0.110 0.750 0.750	305.00 287.00 1043.00	33.55 215.25 782.25 61.86 0.00 1092.91 198.71
			Unloading will be by tipping.			say	199.00
9	1.3	RCD	Loading and Unloading of Cement or Steel by Manual Means Unit = tonne Taking output = 10 tonnes a) Labour Mate Mazdoor for loading and unloading b) Machinery Truck 10 tonne capacity c) Overheads 6 % on (a+b) (d) Contractor's profit @ 10% on (a+b+c) Cost for 10 tonnes = a+b+c+d Rate per tonnes = (a+b+c+d)/10	day day hour	0.080 2.000 2.000	305.00 287.00 934.30	24.40 574.00 1868.60 148.02 0.00 2615.02 261.50
						say	262.00
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 Mazdoor (Unskilled) b) Machinery Truck c) Overheads 6 % on (a+b) 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	day day hour	0.02 0.50 0.50	305.00 287.00 934.30	6.10 143.50 467.15 37.01 0.00 653.76 118.86
			Total Cost	Cum			118.86
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 Mazdoor (Unskilled) b) Machinery Truck c) Overheads 6 % on (a+b) 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	day day hour	0.01 0.25 0.25	305.00 287.00 934.30	3.05 71.75 233.58 18.50 0.00 326.88 59.43
			Total Cost	Cum			59.43

ANALYSIS OF RATES BRICK BAT FILLING.

1. ~~General sub~~ providing brick bats including spreading, laying and packing with C.I. Hammers in layers not exceeding 75MM thick including cost of eight borers, dangles, signal, chowkidar, taxes, Royalty, etc, all complete job, as per specifications and directions of S/G including cost of bricks, - - - all complete job.

Unit — cum.

assuming — 2.892 M³

Cost of Brick bats — 2.892 M³ @ 1096 = 00 — Rs 3163 = 87
~~Material considered~~ Local Sand 0.632 M³ @ 141 = 95 / M³ Rs 89 = 65

Labour (unskilled)

1. Carrying, spreading, laying and packing unskilled labour 1.5 NO @ 287 = 00 — Rs 430 = 50
 Compaction of brick bats, both C.I. Hammers, 0.670 NO @ 287 = 00 — Rs 192 = 29
 Over Head Charge @ 6% on (a+b+c) — Rs 228 = 98
 Total — 4045 = 29

Rate / M³ — Rs 1428 = 42 / M³.

Carrriage Cost

Carrriage for Bricks (1 M³ bat) Rs 300 NO @ 669 = 50 / M³ — Rs 199 = 06
 Local Sand 0.220 M³ @ 97 = 00 / M³ — Rs 21 = 34
 Cost of Sand with Royalty Rs 141 = 85 / M³
 Total Rs 1648 = 81.
 31 = 24
 Total 1680 = 02

2. Gravel sub. base, with wall
 1 M³ 400 = 184

ANALYSIS OF RATE. BRICK BAT Filling.

1. ~~Granular sub~~
providing brick bats including spreading
laying hand packing with C.I. Hammer
in layers not exceeding 75MM thick
including cost of eight barriers, dangles
signal, chowkidar, taxes, Royalty, etc,
an complete job, as per specifications
and directions of S/G including cost of
bricks, - - - all complete job.

Unit — Cum.

Assuming 2.892 M³

Cost of Brick bats — 2.892 M³ @ 1096 = 00 — Rs 3163 = 87
~~maxdarsun skilled~~ Local Sand 0.632 M³ @ 141 = 95/M³ Rs 89 = 65

Labor (Unskilled)

1. Carrying, spreading, laying and
packing in skilled labor 1.5 NO @ 287 = 00 — Rs 430 = 50
 Compaction of brick bats with
 C.I. Hammer, 0.670 NO @ 287 = 00 — Rs 192 = 29
 Rs 228 = 98.
 Over head charge @ 6% on (a+b+c) Total = 4045 = 29
 Rate / M³ — Rs 1428 = 42 / M³.

Carriage Cost

Carriage for Bricks (1 M³ bat) Rs 300 NO @ 663 = 50 / M³ — Rs 199 = 06
 Local Sand 0.220 M³ @ 97 = 20 / M³ — Rs 21 = 34.
 Total Rs 1648 = 81.
 31 = 21
 Total 1680 = 02

2. Granular sub. base, with well
Graded Material, Table 400.1 by
Mix and Place method, for grading
II Material an complete job.

Labors — Mate — 0.48 NO @ 305.00 — Rs 146 = 40
 Maxdarsun skilled — 2.0 NO @ 364.00 — Rs 728 = 00
 Maxdarsun skilled — 10.0 NO @ 287 = 00 — Rs 2870 = 00

Machine

Tractor Mounted Grader 6.0 Hour @ 573 = 20 Rs 3439 = 20
 Three wheel 80-100 KM Stat. 30.0 Hour @ 803 = 00 / Hour — Rs 24090 = 00
 10 M³ / Hour
 Tractor with rotavator 12.0 Hour @ 573 = 20 — Rs 6878 = 40
 25 M³ / Hour
 Water Tanker 6K9 Capacity 5.04 @ 184 = 00 — Rs 920 = 00
 Total 39072 = 00

Material

Course Graded Granular sub base
 53 MM to 9.5 MM, 95% — 134.40 M³ @ 604 = 91 / M³ — Rs 80695 = 00
 9.5 MM to 2.36 MM 25% 96.00 M³ @ 514 = 58 / M³ — Rs 49940 = 00
 2.36 MM below Local Sand 153.60 M³ @ 141 = 85 / M³ Rs 21788 = 00
 Total — 1,92,155 = 00
 Add over head charge 6%
 Total — 2,04,084 = 00

Construction at Road Embankment.
 Material obtained from borrow pits.
 All compaction on P.S.
 Clause 300.1, 300.2, with lead up to 1000 cm. - Out put - 100.00

Mate - 0.04 No @ 305 = 12.20
 Unskilled - 1.0 No @ 287 = 287.00 - R 287.00

Machinery

113 draught excavators 0.9 m³

hourly @ 60 m³/hr - 1.67 H @ 1969 = 32.88 = 56

Tippers 5.5 cum with 10 t capacity - 4.50 H @ 1043 = 4693 = 50

10% for carrying tipper - R 469 = 35

Doser D-50 for spreading 100 m³/hr - 0.50 @ 3337 = 1668 = 95

Tractor Mould Grader - 1.0 hr @ 573 = 573 = 20 - R 573 = 20

Water Tanker 6 k capacity 2.0 hrs @ 184 = 368 = 00 - R 368 = 00

Three wheel ROPS 80-100 KN 1.25 H - 803 = 803 = 80 - R 1003 = 75

Stake ROPS @ 80 m³/hr - 100.0 m³ @ 34 = 3400 - R 3481 = 00

Compaction of earth - 100.0 m³ @ 40 = 4000 - R 480 = 00

Rate 12.0 m³ - Total 816 325 = 51
 Add O.H.C 6% - R 979 = 53
 Rate 173 = 06/m³, 17306 = 04

Item 7. Labor for cutting 62 mm to 75 mm dia bamboo, pike for work and making shoes and drainage etc. - all compaction.

Out put - 30.5 m
 Assuming 20 m pike shank 1.5 m deep

Labor

Carpenter Grade II - 0.25 No @ 345 = 86 = 25

Unskilled Maxd - 2.5 No @ 287 = 717 = 50

Add Over Head 6% - R 803 = 75
 48 = 22
 851 = 97

Item 8. Labor for fixing and @ 28 = 40/meter.

Group 62 mm to 75 mm dia bamboo running

in position at every vertical pile with 150 mm long nails @ 38 cm c/c. - all compaction

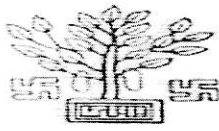
Out put - 30.5 m - Nails 150 mm long - 1.5 kg @ 55 = 84 - 27 = 92

Carpenter Grade II - 1.25 No @ 345 = 43 = 13

Unskilled Maxd - 0.25 No @ 287 = 71 = 75

At over head chow 6% - 742 = 80

Here Rate - 4 = 96/meter. 8 = 57
 131 = 37



पत्रांक- 2302 रोसड़ा, दिनांक- 01/12/2020

सेवा में,

कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमंडल-पटोरी।

विषय :- FDR के तहत कराए गए कार्यों का निरीक्षण प्रतिवेदन समर्पित करने के संबंध में।

महाशय,

उपर्युक्त विषयक पत्र के आलोक में कहना है कि FDR के तहत आपके प्रमंडल द्वारा कराए गए कार्यों का अधोहस्ताक्षरी द्वारा निरीक्षणोपरांत जांच प्रतिवेदन इस पत्र के साथ संलग्न कर आवश्यक कार्रवाई हेतु समर्पित की जा रही है।

अनु०-यथोक्त।

विश्वासभाजन

कार्यपालक अभियंता
ग्रामीण कार्य विभाग, कार्य प्रमंडल-रोसड़ा

कार्यपालक अभियंता, ग्रामीण कार्य विभाग, कार्य प्रमंडल, पटौरी द्वारा कराए गए FDR पथों की जांच से संबंधित प्रतिवेदन

क्रम सं०	पथ का नाम	क्षेत्रफल (मीटर में)	कराए गए कार्य	कराए गए निर्माण कार्य की राशि (रु० में)	GST@12%	L.Cess@1%	S. Fee@10%	Total	अभियुक्ति
1	2	3	4	5	6	7	8	9	10
1	Mastalipur Kasimachak hote huye to Khanua ghat	1200.00	Earth Work, Brick Bat	451100.00	54132.00	4511.00	0.00	509743.00	कार्य पूर्ण
2	Nawada to Yadav Tola	545.00	Earth Work, Brick Bat	359700.00	43164.00	3597.00	0.00	406461.00	कार्य पूर्ण
3	Sarai Madhopur To Imali Chwok	300.00	Brick Bat, GSB Gr-II, WBM Gr-III	509800.00	61176.00	5098.00	2900.00	578974.00	कार्य पूर्ण
4	L038-Approach Road to Dharampur	1500.00	Earth Work, Brick Bat	430400.00	51648.00	4304.00	0.00	486352.00	कार्य पूर्ण
5	Mahnar Mohaddin Nagar PWD Road Dashhara Sahendra Roy House To Sarhad siman via Ravidas Tola	400.00	Brick Bat, GSB, WBM Gr-III	705500.00	84660.00	7055.00	3200.00	800415.00	कार्य पूर्ण
6	PWD Road To Sarai Madhopur	1500.00	Brick Bat, GSB Gr-II, WBM Gr-III	540400.00	64848.00	5404.00	5800.00	616452.00	कार्य पूर्ण
7	Mohiuddin Nagar Bazar To Kursaha Nahar Tak	1500.00	Earth Work, Brick Bat, GSB	453600.00	54432.00	4536.00	6300.00	518868.00	कार्य पूर्ण
8	Mohanpur panchayat antargat Mohanpur Gate to Khanjiva tak	1200.00	Earth Work, Brick Bat, GSB Gr-II, WBM Gr-III	701100.00	84132.00	7011.00	9300.00	801543.00	कार्य पूर्ण
9	Bahadurchak to Nandni Dhala.	1200.00	Earth Work, Brick Bat, GSB Gr-II, WBM Gr-III	562500.00	67500.00	5625.00	12100.00	647725.00	कार्य पूर्ण
10	Bharat cinema Tetarpur to Rahepur	1200.00	Brick Bat, GSB Gr-II, WBM Gr-III	605100.00	72612.00	6051.00	5600.00	689363.00	कार्य पूर्ण
11	Maa Sita Yashwant High school Nandini to Siura PWD Path tak	300.00	Earth Work, Brick Bat	316800.00	38016.00	3168.00	0.00	357984.00	कार्य पूर्ण
12	Mohaddin Nagar ke tanda goan hote hue Panchayat Bhawan tak path nirmaan.	1800.00	Brick Bat, GSB Gr-II	1023900.00	122868.00	10239.00	3400.00	1160407.00	कार्य पूर्ण

कार्यपालक अभियंता, ग्रामीण कार्य विभाग, कार्य प्रमंडल, पटोरी द्वारा कराए गए FDR पथों की जांच से संबंधित प्रतिवेदन

क्रम सं०	पथ का नाम	क्षतिग्रस्त भाग (मीटर में)	कराए गए कार्य	कराए गए निर्माण कार्य की राशि (रु० में)	GST@12%	L.Cess@1%	S. Fee@10%	Total	अभियुक्ति
1	2	3	4	5	6	7	8	9	10
13	SH to Harail Part-2	1400.00	Brick Bat, GSB Gr-II, WBM Gr-III	522000.00	62640.00	5220.00	2400.00	592260.00	कार्य पूर्ण
14	Kursaha to Dharampur Durga Mandir Bandh sadak	800.00	Earth Work, Brick Bat, GSB Gr-II, WBM Gr-III	436000.00	52320.00	4360.00	4100.00	496780.00	कार्य पूर्ण
15	Shivaisingpur to Nawada	400.00	Earth Work, Brick Bat	192700.00	23124.00	1927.00	0.00	217751.00	कार्य पूर्ण
16	Sivaisingpur to Gidarganj	125.00	Brick Bat & E/w	165100.00	19812.00	1651.00	0.00	186563.00	कार्य पूर्ण
17	Shapur Undi PWD Road (East of Railway Gumati) to Chakarman	20.00	Brick Bat & E/w	81300.00	9756.00	813.00	400.00	92269.00	कार्य पूर्ण
18	Saraswati Chauk to MMGSY	200.00	Brick Bat, GSB Gr-II, WBM Gr-III	1138000	136560.00	11380.00	16600.00	1302540.00	कार्य पूर्ण
19	Kusho Chowk to Chakraj Ali	500.00	E/w, Brick Bat, GSB Gr-III	705500.00	84660.00	7055.00	8300.00	805515.00	कार्य पूर्ण
20	Approach Road - Bhasingpur	55.00	Brick Bat, GSB, WBM Gr-III	349600.00	41952.00	3496.00	0.00	395048.00	कार्य पूर्ण
21	Ananad Golba To Rajaisi	400.00	Earth Work, Brick Bat	321100.00	38532.00	3211.00	0.00	362843.00	कार्य पूर्ण
22	Thana Chauk Mihiuddin Nagar se kanhauli hote hue nawada hemanpur janewali PMGSY Road Tak	900.00	Earth Work, Brick Bat	521600.00	62592.00	5216.00	0.00	589408.00	कार्य पूर्ण
23	MRL01-Rahepur more Tetarpur via Maniyar tola Mohiuddimpur chowk	3400.00	Brick Bat, Earth Work, GSB Gr-II, WBM Gr-III	1389900.00	166788.00	13899.00	21100.00	1591687.00	कार्य पूर्ण

उपरोक्त सभी पथों की जांच की गई जो संतोषप्रद है।

आर.सी.
कार्यपालक अभियंता

ग्रामीण कार्य विभाग, कार्य प्रमंडल, रोसड़ा