



# ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

**PLAN HEAD- FDR(2245)**

**YEAR 2020-21**

DISTRICT :- East Champaran

BLOCK :- Patahi Tetaria

**Estimate for Repair of Road breaches**  
**(Damaged by Flood) for Motorability in**  
**TETARIA MEGHUA TO SONAUL.**

ESTIMATED COST - ~~7.32~~ Lacs

7.097

SUBMITTED BY:  
EXECUTIVE ENGINEER,  
RWD WORKS DIVISION,  
PAKRIDAYAL

# Technical Report

F.D.R.(2020-21)

Name of Road:- Tetaria Meghua To Sonaul.

Length of Road:- 22.04 K.M

Name of Block:- Tetaria

Project Head:- M.M.G.S.Y.

Package No:-

Estimated Cost:- 7.32 Lacs

This estimate has been prepared for temporary restoration of the above road damaged due to heavy rain/ Flood - 2020 under instruction of Rural Works Department vide letter no- 2789 dated. 21.08.2020. Brick Bats/ Local Sand Bag / Humepipe / Bamboo Pile / Soil has been provided as per need of the above damaged road. This road is under maintenance / ~~out of maintenance.~~

All items of this estimate has been taken from approved current schedule rate of works circle Motihari. This estimate is submitted for technical approval /Sanction.

*S. Alan*  
9/12/20

J.E

*Sh. Shy*  
08.12.20

A.E

*Pr. Anjan*  
5/12/20

E.E

R.W.D.(w) Div. Pakridayal.

Name of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in TETARIA MEGHUA TO SONAUL.

Head - 2245 Length- 22.04 K.M

Sl No.	Item No.	Name of Item	unit	No	Length	Width	Height	Qty.	Rate	Amount
1		Labour for laying dry graded Jhama Khoa or stone filter under Brick Pitching or Boulder Pitching in slope or apron including light ramming etc. all complete as per approved design, specification and direction of E/I.	cum		As Per Appendix I			330.474	2216.20	732396.479
									TOTAL (in Re.)	732396.48

Say Re 732000.00

*S. Alay*  
9/12/20

Junior Engineer,  
Rural Works Department,  
Works Section, Tetaria

*[Signature]*  
03.12.20

Assistant Engineer,  
Rural Works Department,  
Works Sub Division, Tetaria

*[Signature]*  
9/12/20

Executive Engineer,  
Rural Works Department,  
Works Division, Pakridayal

Post facto T.A.T.S is accorded for Rs. 7,09,700.00  
 (Seven crore seven lacs nine thousand seven hundred only.)

*[Signature]*  
29.12.20  
S.E. (R.W.D.)  
works Circle  
Motihari

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in TETARIA  
MEGHUA TO SONAUL.

Appendix - I

Measurement for surfacing the Breach with Brick Bats

Sl. No.	Chainage	Length (M)	Avg. Width In Meter	Avg. Depth In Meter	Quantity (Cum)
1.00	0.000 - 0.050	21.400	3.500	2.300	172.270
2.00	0.050 - 0.100	14.600	1.750	0.850	21.718
3.00	0.100 - 0.200	11.700	1.200	1.200	16.848
4.00	0.200 - 0.300	8.000	1.800	0.450	6.480
5.00	0.300 - 0.400	6.000	1.700	0.250	2.550
6.00	0.400 - 0.450	9.000	2.000	0.600	10.800
7.00	0.450 - 0.500	15.000	1.500	0.400	9.000
8.00	0.500 - 0.600	5.800	1.000	0.750	4.350
9.00	0.600 - 0.650	5.000	1.500	0.650	4.875
10.00	0.650 - 0.700	12.000	2.100	0.850	21.420
11.00	0.700 - 0.750	8.900	2.450	0.700	15.264
12.00	0.900 - 0.950	7.000	1.600	0.650	7.280
13.00	0.950 - 1.000	22.800	2.200	0.750	37.620
				<b>Total</b>	<b>330.474</b>

*S. A. L.*  
9/12/20

Junior Engineer  
Rural Works Department,  
Works Section, Tetaria

*H. J. B.*  
09/12/20

Asistant Engineer  
Rural Works Department,  
Works Sub Division, Tetaria

*V. J. P.*  
9/12/20

Executive Engineer,  
Rural Works Department,  
Works Division, Pakridayal

Name of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in TETARIA  
MEGHUA TO SONAUL.

Appendix - I

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4.00	0.200 - 0.300	8.000	1.800	0.450	6.480
5.00	0.300 - 0.400	6.000	1.700	0.250	2.550
6.00	0.400 - 0.450	9.000	2.000	0.600	10.800
7.00	0.450 - 0.500	15.000	1.500	0.400	9.000
8.00	0.500 - 0.600	5.800	1.000	0.750	4.350
9.00	0.600 - 0.650	5.000	1.500	0.650	4.875
10.00	0.650 - 0.700	12.000	2.100	0.850	21.420
11.00	0.700 - 0.700	8.900	2.450	0.700	15.264
12.00	0.900 - 0.900	7.000	1.600	0.650	7.280
13.00	0.950 - 1.000	22.800	2.200	0.750	37.620
				<b>Total</b>	<b>330.474</b>

*S. A. L.*  
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Rural Works Department,  
Works Sub Division, Tetaria

*V. K. J.*  
9/12/20

Executive Engineer,  
Rural Works Department,  
Works Division, Pakridayal

BRICK BATS PITCHING MANUAL MEANS

6.6.1 WRD Bihar	<b>Labour for laying dry graded Jhama Khoa or stone filter under Brick Pitching or Boulder Pitching in slope or apron including light ramming etc. all complete as per approved design, specification and direction of E/I.</b>			
	Unit :- Per Cum			
	Taking Output = 2.832 Cum			
	Unskilled Mazdoor	Nos.	3	287.00
	Add 6% Overhead Charges			51.66
	Rate for 2.832 Cum			912.66
	<b>Rate per Cum (Rs.) -</b>			<b>383.15</b>
1.4 RCD	<b>Cost of Haulage Excluding Loading and Unloading</b>			
	Haulage of materials by Tractor excluding cost of loading, unloading and stacking.			
	Unit = t.km			
	Taking output 3.60 tonnes load and lead 10 km = 36.0 t.km			
	<b>(i) Surfaced Road</b>			
	Speed with load : 15 km / hour.			
	Speed while Returning empty :25 km / hour.			
	a) Machinery.			
	Tractor 3.6 tonne capacity			
	Time taken for onward haulage with load	hour	0.667	549.10
	Time taken for empty return trip.	hour	0.400	549.10
	b) Overhead charges @ 0.06 on (a)			35.15
	cost for 36 t km = a+b+c			621.04
	Rate per t.km = (a+b+c)/36			17.25
	<b>Say Rs. -</b>			<b>17.25</b>
	<b>(ii) Unsurfaced Graveled Road</b>			
	Speed with load: 12 km / hour			
	Speed for empty return trip :20 km / hour			
	a) Machinery			
	Tractor 3.6 tonnes capacity			
	Time taken for onward haulage with load	hour	0.833	549.10
	Time taken for empty return trip	hour 0.50	0.500	549.10
	b) Overhead charges @ 0.06 on (a)			274.55
	Cost for 36 t .km = a+b+c			840.34
	Rate per t.Km = (a+b+c)/36			23.34
	<b>Say Rs. -</b>			<b>21.55</b>
				<b>21.55</b>

RCD	Loading and Unloading of Stone Boulder/ Stone aggregates/Sand /Kanker/Moorum			
	Placing Tractor at loading point, loading with frontloader, dumping, turning for return trip, excluding for haulage and return trip			
	Unit = cum			
	Taking output = 2.25 cum			
	Time required for			
	i) Positioning of Tractor at loading point		1 Min	
	ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour		5 Min	
	iii) Maneuvering, reversing, dumping and turning for return		0 Min	
	iv) Waiting time, unforeseen contingencies etc		0 Min	
	Total		6 Min	
	a) Labour			
	Mate	day	0.03	305.00
	Mazdoor for loading and unloading	day	0.72	287.00
	b) Machinery			
	Tractor 3.60 tonnes capacity	hour	0.1	549.10
	Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.083	1403.00
	c) Overhead charges @ 0.06 on (a+b)			23.23
	Cost for 2.25 cum = a+b+c+d			410.38
	<b>Rate per cum = (a+b+c+d)/ 2.25</b>			<b>182.39</b>
Note:-	Unloading will be done manually.			
1.	<b>Suplying for Brick Bats (with OH )</b>			
A.	Basic Rate of Brick Bats	Per Cum		1017.00
	Add overhed Charges		6%	61.02
	Total -			1078.02
	Surface Lead	KM	7	
	Unsurface Lead	KM	1	
	Factor (3.6/2.25)	Cum	1.60	
B.	Carriage (with OH )			
	(1.6 x 7 x 17.25) + (1.6 x 1 x 21.55) + 182.39			410.07
C.	Cost of Labour for Pitching and Light Ramming as per WRD SOR 6.6.1 (with OH)			383.15
	Total (A+B+C) -			1871.24
	Add 1% Labour Cess (A+B+C)			18.71
	Add 12% GST (A+B+C)			224.55
	Add 10% cost of Material for Seigniorage Fee		1	101.70
	<b>Total Cost per Cum</b>			<b>2216.20</b>
			<b>Rs.-</b>	<b>2216.20</b>