



# ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

## PLAN HEAD- FDR(2245) YEAR 2020-21

DISTRICT :- East Champaran

BLOCK :- Patahi

Estimate for Repair of Road breaches  
(Damaged by Flood) for Motorability in  
KODARIYA PITCH ROAD TO BETAUNA PARTI  
TOLA.

ESTIMATED COST - ~~12.13~~ Lacs  
11.751

SUBMITTED BY:  
EXECUTIVE ENGINEER,  
RWD WORKS DIVISION,  
PAKRIDAYAL



# Technical Report

F.D.R.(2020-21)

Name of Road:- Kodariya Pitch Road To Betauna Parti Tola.  
Length of Road:- 2.500 K.M  
Name of Block:- Patahi  
Project Head:- New Maintenance Policy 2018  
Package No:- M.R. -N/2019-20 Pakridayal/10  
Estimated Cost:- 12.13 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.~~ *under construction*  
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. A. S.*  
9/12/20  
J.E

*A. E.*  
A.E

*V. S. S.*  
9/12/20  
E.E.  
R.W.D.(w) Div. Pakridayal.



Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in KODARIYA PITCH ROAD TO BETAUNA PARTI TOLA.

Head - 2245

Length- 2.500 KM

SI 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			547.236	<del>2216.20</del> 2147=40	<del>1212784.42</del> 11,75,135=40
TOTAL (in Re.)										1212784.42

Say Re

~~1213000.00~~

11,75,100=40

*Sale*  
9/12/20

Junior Engineer,  
Rural Works Department,  
Works Section, Patahi

*Assistant Engineer*

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

*Executive Engineer*  
9/12/20

Executive Engineer,  
Rural Works Department,  
Works Division, Pakridayal

Post Facto TA/TS is accorded for Rs. 11,75,100 = 40  
(.....crore. Eleven lacs. Seventy Five Thousand  
.....hundred .....) only.

S.E. (F)

works C.

Motihari

*25/12/20*



Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in  
KODARIYA PITCH ROAD TO BETAUNA PARTI TOLA.

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	0.00 - 0.450	10.000	3.300	0.550	18.150
2.00	0.450 - 0.500	12.000	3.500	0.550	23.100
3.00	0.500 - 0.550	11.500	3.600	0.650	26.910
4.00	0.550 - 0.600	13.400	3.750	0.600	30.150
5.00	0.600 - 0.700	16.100	3.200	0.800	41.216
6.00	0.700 - 0.800	9.000	3.700	0.800	26.640
7.00	0.800 - 0.850	10.000	3.750	0.750	28.125
8.00	0.850 - 0.900	12.000	3.700	0.700	31.080
9.00	0.900 - 0.950	20.000	3.750	1.000	75.000
10.00	0.950 - 1.000	16.900	3.700	0.700	43.771
11.00	1.000 - 1.050	12.000	3.700	0.700	31.080
12.00	1.050 - 1.100	15.800	3.600	0.850	48.348
13.00	1.100 - 1.200	18.700	3.700	0.600	41.514
14.00	1.200 - 1.300	11.500	3.750	0.800	34.500
15.00	1.300 - 1.400	10.450	3.800	1.200	47.652
				<b>Total</b>	<b>547.236</b>

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

Junior Engineer  
Rural Works Department,  
Works Section, Patahi

*Asif*  
9/12/20

Asistant Engineer  
Rural Works Department,  
Works Sub Division, Patahi

*Executive Engineer*  
9/12/20

Executive Engineer,  
Rural Works Department,  
Works Division, Pakridayal



# BRICK BATS PITCHING MANUAL MEANS

6.6.1 WRD Bihar	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.			
	Unit :- Per Cum			
	Taking Output = 2.832 Cum			
	Unskilled Mazdoor	Nos.	3	287.00
	Add 6% Overhead Charges			861.00
	Rate for 2.832 Cum			51.66
	Rate per Cum (Rs.) -			912.66
				<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)			219.64
	cost for 36 t km = a+b+c			35.15
	Rate per t.km = (a+b+c)/36			621.04
	Say Rs. -			17.25
				<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	hour	0.500	549.10
	b) Overhead charges @ 0.06 on (a)			457.40
	Cost for 36 t .km = a+b+c			274.55
	Rate per t.Km = (a+b+c)/36			43.92
	Say Rs. -			775.87
				<b>21.55</b>
				<b>21.55</b>



1 RCD	<b>Loading and Unloading of Stone Boulder/ Stone aggregates/Sand /Kanker/Moorum</b>				
	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	9.15
	Mazdoor for loading and unloading	day	0.72	287.00	206.64
	b) Machinery				
	Tractor 3.60 tonnes capacity	hour	0.1	549.10	54.91
	Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.083	1403.00	116.45
	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>Supplying for Brick Bats (with OH )</b>				
A.	Basic Rate of Brick Bats	Per Cum		1017.00	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	101.70
	<b>Total Cost per Cum</b>			<b>Rs.-</b>	<b>2216.20</b>