



# 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  
GAMHARIA TO GONAH.

ESTIMATED COST -

6.97  
6.758

Lacs

SUBMITTED BY:  
EXECUTIVE ENGINEER,  
RWD WORKS DIVISION,  
MOTIHARI



# Technical Report

F.D.R.(2020-21)

Name of Road:- Gamharia To Gonahi.

Length of Road:- 1.800 K.M

Name of Block:- Patahi

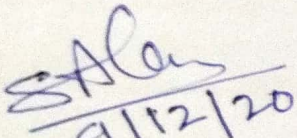
Project Head:- ~~New~~ Maintenance Policy 2018

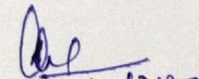
Package No:- M.R. -N/2019-20 Pakridayal/10

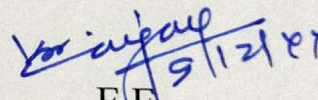
Estimated Cost:- 6.97 Lacs

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 Construction/~~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.

  
9/12/20  
J.E

  
9/12/2020  
A.E

  
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 GAMHARIA TO GONAHIL.

Head - 2245

Length- 1.800 KM

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/L.	cum		As Per Appendix I			314.7155	2147.40 2216.20	697472.491 6,75,800
TOTAL (in Rs.)									697000.00	697472.49

Say Re

697000.00

*S. Alan*  
9/12/20

Junior Engineer,  
Rural Works Department,  
Works Section, Sugauli,

*Del*  
9/12/20

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

*V. Singh*  
9/12/20

Executive Engineer,  
Rural Works Department,  
Works Division, Motihari

lost for 10

is accorded for Rs. 6,75,800/-  
(Six hundred and seventy five thousand eight hundred only.)

*S. E. (R.V.)*  
29/12/20  
works Cr  
Motihari

*P*  
29/12/20



Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in  
GAMHARIA TO GONAHIL

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	1.200-1.300	30.000	$4.5+3.20/2$	1.300	150.150
2.00	1.300-1.400	24.800	3.900	0.850	82.212
3.00	1.400-1.500	19.600	3.750	0.650	47.775
4.00	1.500-1.600	11.450	2.200	0.700	17.633
5.00	1.600-1.650	7.900	3.300	0.650	16.946
Total					314.716

*S. Alan*  
9/12/20

Junior Engineer  
Rural Works Department,  
Works Section, Sugauli

*Asistant Engineer*  
9/12/20

Asistant Engineer  
Rural Works Department,  
Works Sub Division, Sugauli

*K. Jay*  
3/12/20  
E 12



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	861.00
	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	366.25
	Time taken for empty return trip.	hour	0.400	549.10	219.64
	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	457.40
	Time taken for empty return trip hour 0.50	hour	0.500	549.10	274.55
	b) Overhead charges @ 0.06 on (a)				43.92
	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>



1.1 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
	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>Rs.-</b>	<b>2216.20</b>