



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
PUNASH TO KAJARAH.

ESTIMATED COST - 16.72 Lacs

16.197

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

Technical Report

F.D.R.(2020-21)

Name of Road:- Punash To Kajaraha.

Length of Road:- 11.200 K.M

Name of Block:- Tetaria

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


Package No:- BR-11R-374

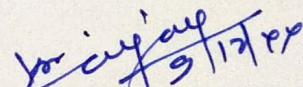
Estimated Cost:- 16.72 Lacs

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.


9/12/20
J.E


09.12.20
A.E


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

e of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in PUNASH TO KAJARAH.

Ad - 2245

Length- 11.200 K.M

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			754.2395	2216.20 2147.40	16,19,654.82 1671545.58
TOTAL (in Re.)									1672000.00	1671545.58

Say Re 1672000.00

S. A. L.
9/12/20

Junior Engineer,
Rural Works Department,
Works Section, Tetaria

J. M.
09.12.20

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

V. S. R.
16,19,700/-
9/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post facto
T.A./TS is accorded for Rs. 16,19,700.00
(.....) crore Sixteen lacs thousand
Seven hundred only

A. M.
28/12/20
S.E. (R.W.D.)
works Circle
Motihari
29/12/20

ne of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in PUNASH TO KAJARAH.

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	1.400 - 1.500	5.000	1.000	1.800	9.000
2.00	1.500 - 2.000	3.000	1.000	1.900	5.700
3.00	2.000 - 2.300	8.000	1.300	1.200	12.480
4.00	2.300 - 3.700	5.000	3.750	1.750	32.813
5.00	3.700 - 5.000	2.000	2.000	1.300	5.200
6.00	5.000 - 5.500	4.000	1.800	1.800	12.960
7.00	5.500 - 5.600	2.500	1.800	1.600	7.200
8.00	5.600 - 5.620	3.500	1.900	2.100	13.965
9.00	5.620 - 5.640	4.500	2.500	1.400	15.750
10.00	5.640 - 5.660	14.000	1.500	2.000	42.000
11.00	5.660 - 5.680	8.900	1.800	1.000	16.020
12.00	5.680 - 5.700	6.800	2.600	1.900	33.592
13.00	5.700 - 5.720	12.000	1.900	2.200	50.160
14.00	5.720 - 5.850	18.000	2.500	2.100	94.500
15.00	5.850 - 5.870	17.000	3.000	1.600	81.600
16.00	5.870 - 5.880	8.000	3.000	1.800	43.200
17.00	5.880 - 5.890	15.000	5.000	1.800	135.000
18.00	5.890 - 5.900	12.000	3.000	2.100	75.600
19.00	5.900 - 5.910	10.000	3.750	1.800	67.500
				Total	754.240

S. A. S.
9/12/20

Junior Engineer
Rural Works Department,
Works Section, Tetaria

H. M.
09.12.20

Asistant Engineer
Rural Works Department,
Works Sub Division, Tetaria

K. S. S.
9/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

BRICK BATS PITCHING MANUAL MEANS

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
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Add 6% Overhead Charges				51.66
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Rate for 2.832 Cum				912.66
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Rate per Cum (Rs.) -				383.15
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1.4 RCD Cost of Haulage Excluding Loading and Unloading

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

(i) Surfaced Road

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
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Time taken for empty return trip.	hour	0.400	549.10	219.64
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b) Overhead charges @ 0.06 on (a)				35.15
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cost for 36 t km = a+b+c				621.04
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Rate per t.km = (a+b+c)/36				17.25
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Say Rs. -				17.25
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(ii) Unsurfaced Graveled Road

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
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Time taken for empty return trip	hour	0.500	549.10	274.55
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b) Overhead charges @ 0.06 on (a)				43.92
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Cost for 36 t .km = a+b+c				775.87
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Rate per t.Km = (a+b+c)/36				21.55
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Say Rs. -				21.55
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D	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	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
	Rate per cum = (a+b+c+d)/ 2.25				182.39
Note:-	Unloading will be done manually.				
1.	Suplying for Brick Bats (with OH)				
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
	Total Cost per Cum			Rs.-	2216.20