



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 JIHULI
TO GONAHU ROAD.

ESTIMATED COST -	10.11	Lacs
	9.798	

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

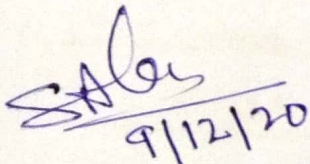
Technical Report

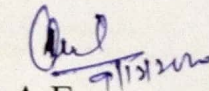
F.D.R.(2020-21)

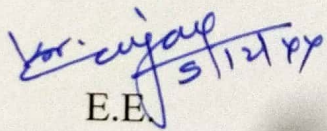
Name of Road:- Jihuli To Gonahi Road.
Length of Road:- 6.200 K.M
Name of Block:- Patahi
Project Head:- New Maintenance Policy 2018
Package No:- M.R. -N/2019-20 Pakridayal/06
Estimated Cost:- 10.11 Lacs

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


9/12/20
A.E


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

of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in JIHULI TO GONAH ROAD.

d - 2245 Length- 6.200 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			456.288	2216.20 2147.40	1011225.47 9,79,832.90
TOTAL (in Re.)										1011225.47

Say Re ~~1011000.00~~
9,79,800.00

SAlan
9/12/20

Junior Engineer,
Rural Works Department,
Works Section, Patahi

Adil
9/12/20

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

Vaibhav
9/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post Facto T.A. is accorded for Rs. 9,79,800.00
(.....crore.....Nine.....lacs.....Seventy Nine
.....Eight.....hundred.....) only.

Adil
9/12/20
S.E. (R.W.D.)
works Circle
Motihari

ne of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in JIHULI TO GONAH ROAD.

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	5.000	3.000	0.400	6.000
2.00	0.050 - 0.060	5.000	3.000	0.300	4.500
3.00	0.080 - 0.080	3.000	3.750	0.800	9.000
4.00	0.080 - 0.090	4.500	2.500	0.300	3.375
5.00	0.090 - 0.100	12.000	1.500	0.350	6.300
6.00	0.100 - 0.200	2.000	0.800	0.500	0.800
7.00	0.200 - 0.300	8.000	1.500	0.500	6.000
8.00	0.300 - 0.400	6.000	1.200	0.400	2.880
9.00	0.400 - 0.600	12.500	3.000	0.800	30.000
10.00	0.600 - 0.700	11.000	1.500	0.850	14.025
11.00	0.700 - 0.900	15.250	3.000	0.400	18.300
12.00	0.900 - 1.000	10.000	3.000	0.950	28.500
13.00	1.000 - 1.100	19.450	3.750	0.400	29.175
14.00	1.100 - 1.200	6.000	4.000	0.450	10.800
15.00	1.200 - 1.250	5.000	4.000	0.500	10.000
16.00	1.250 - 1.500	15.600	1.000	0.350	5.460
17.00	1.500 - 1.700	9.500	3.000	0.850	24.225
18.00	1.700 - 2.000	9.650	2.500	0.400	9.650
19.00	2.000 - 2.100	12.450	2.000	0.450	11.205
20.00	2.100 - 3.300	12.000	2.500	0.650	19.500
21.00	3.300 - 3.800	19.600	2.800	0.450	24.696
22.00	3.800 - 3.900	15.800	2.700	0.400	17.064
23.00	3.900 - 4.500	21.500	3.000	0.350	22.575
24.00	4.500 - 4.700	12.000	3.750	0.800	36.000
25.00	4.700 - 4.800	8.600	3.000	0.450	11.610
26.00	4.800 - 4.900	4.900	3.000	0.400	5.880
27.00	4.900 - 5.300	19.700	4.200	0.500	41.370
28.00	5.300 - 5.400	15.800	2.500	0.500	19.750
29.00	5.400 - 5.500	14.200	2.000	0.450	12.780
30.00	5.500 - 6.000	11.800	1.800	0.700	14.868
				Total	456.288

SAlan
9/12/20

Junior Engineer
Rural Works Department,
Works Section, Patahi

Asst
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

6.1 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
	Rate per Cum (Rs.) -				383.15
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
	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
	Say Rs. -				17.25
	(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
	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				775.87
	Rate per t.Km = (a+b+c)/36 23.34				21.55
	Say Rs. -				21.55

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. Supplying 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)

$(1.6 \times 7 \times 17.25) + (1.6 \times 1 \times 21.55) + 182.39$

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