



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 PATAHI
YADU R.E.O ROAD TO KALUPAKAR VIA
BELAHI RAM.

ESTIMATED COST - 5.51 Lacs

5.336

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

Technical Report

F.D.R.(2020-21)

Name of Road:- Patahi Yadu R.E.O Road To Kalupakar Via Belahi Ram.

Length of Road:- 2.45 K.M

Name of Block:- Patahi


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

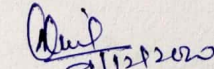
Package No:-

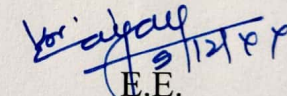
Estimated Cost:- 5.51 Lacs

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


9/12/2020
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 PATAHI YADU R.E.O
ROAD TO KALUPAKAR VIA BELAHI RAM.

2245 Length- 2.45 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			248.497	2216.20	550719.051
TOTAL (in Re.)										550719.05

Say Re 551000.00

S. A. L.
9/12/20
Junior Engineer,
Rural Works Department,
Works Section, Patahi

Q. M. L.
9/12/20
Assistant Engineer,
Rural Works Department,
Works Sub Division, Patahi

K. S. J.
9/12/20
Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

lost fact 10
T.A.T.S is accorded for Rs. 5,33,600/-
() crore five lacs twenty three thousand
Six hundred () only.

S. E. (R.W.D.)
28.12.20
works Circle
Motihari

ame of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in PATAHI
YADU R.E.O ROAD TO KALUPAKAR VIA BELAHI RAM.

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	1800 - 2.000	18.000	3.000	1.650	89.100
2.00	2.000 - 2.140	9.800	3.100	0.950	28.861
2.00	2.140 - 2.300	16.800	3.100	1.500	78.120
3.00	2.300 - 2.350	15.600	2.800	1.200	52.416
				Total	248.497

SALAN
9/12/20

Junior Engineer
Rural Works Department,
Works Section, Patahi

Asit
9/12/2020

Asistant Engineer
Rural Works Department,
Works Sub Division, Patahi

K. Vijay
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			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
	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
	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
	Time taken for empty return trip hour 0.50	hour	0.500	549.10
	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