ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

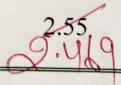# PLAN HEAD- FDR(2245)
YEAR 2020-21

DISTRICT :- East Champaran
BLOCK :- Patahi

Estimate for Repair of Road breaches (Damaged by Flood) for Motoribility in PATAHI SUGAPIPER TO NAYA TOLA.

ESTIMATED COST -   2.55   Lacs

२.४६१

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

Technical Report

<div align="right">F.D.R.(2020-21)</div>

Name of Road:-   Patahi Sugapipar To Naya Tola.

Length of Road:-   1.10 K.M

Name of Block:-   Patahi

Project Head:-   NDB Brics

Package No:-   M.M.G.S.Y-NDB-BRRP-127 PAKRIDAYAL

Estimated Cost:-   2.55 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.

9/12/20

J.E   A.E   E.E.

R.W.D.(w) Div. Pakridayal.

Name of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motoribility in PATAHI SUGAPIPER TO NAYA TOLA.

Head - 2245   **Length- 1.10KM**

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			114.971	2216.20 *2147.40*	254798.73 *246889.40*
									TOTAL (in Re.)	254798.73
									Say Re	255000.00 *246,900/-*

Junior Engineer,
Rural Works Department,
Works Section, Patahi
9/12/20

Assistant Engineer,
Rural Works Department,
Works Sub Division, Patahi
9/12/2020

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal
9/12/20

Post facto

T.A./T/S is accorded for Rs...2..46.900.40

(...........crore....Two....lacs....forty six..........thousand

.....nine.....hundred..) only.

S.E. (R.W.D)
works C.
Motihari
29/12/20

Name of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motoribility in PATAHI SUGAPIPER TO NAYA 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	0.000 – 0·050	15.000	1.800	1.000	27.000
2.00	0.050 – 0·100	6.500	3.500	0.800	18.200
3.00	0.100 – 0·500	11.600	3.000	0.950	33.060
4.00	0.500 – 0·600	19.400	1.800	0.800	27.936
5.00	0.600 – 0·800	7.500	1.800	0.650	8.775
				Total	**114.971**

Junior Engineer
Rural Works Department,
Works Section, Patahi

9/12/20

Asistant Engineer
Rural Works Department,
Works Sub Division, Patahi

9/12/2020

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

9/12/2020

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	
	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 H	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	

1.1 RCD	Loading and Unloading of Stone Boulder/ Stoneaggregates/Sand /Kanker/Moorum					
	Placing Tractor at loading point, loading with frontloader, dumping, turning for return trip, excludingfor 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**