



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR(2245) YEAR 2020-21

DISTRICT :- East Champaran

BLOCK :- Madhuban

Estimate for Repair of Road breaches
(Damaged by Flood) for Motorability in SABL
TO NARHARI BANDH.

ESTIMATED COST -	0.43	Lacs
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SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
PAKRIDAYAL

Technical Report

F.D.R.(2020-21)

Name of Road:- Sabli To Narhari Bandh.

Length of Road:- 1.000 K.M

Name of Block:- Madhuban.

Project Head:- G.T.S.N.Y

Package No:-

Estimated Cost:- 0.43 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.

W
10.12.2020

J.E

10.12.20
A.E

10/12/20
E.E

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

Name of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in SABLI TO NARHARI BANDH.

Head - 2245 Length- 1.000 K.M

Sl No.	Item No.	Name of Item	unit	No	Length	Width	Height	Qty.	Rate	Amount
1		Labour for Filling Sand Bag, Stitching and Placing etc. all complete as per specification and direction of E/I.	cum		As Per Appendix I			1532	28.27	43309.64
TOTAL (in Rs.)										43309.64

Say Re 43000.00

4/10.12.2020

Junior Engineer,
Rural Works Department,
Works Section, Madhuban

10.12.20

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

10/12/20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

Post fact
TA/TS is accorded for Rs. 43000.00
(.....) crore (.....) lacs (.....) thousand
(.....) hundred (.....) only.

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

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in SABL
TO NARHARI BANDH.

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 - 0.300	6.500	$1.00 + 0.500/2$	1.000	4.875
2.00		26.000	$1.00 + 0.500/2$	1.000	19.500
2.00		6.500	$1.00 + 0.500/2$	1.000	4.875
2.00		26.000	$1.00 + 0.500/2$	1.000	19.500
2.00	0+300 - 0.600	3.500	1.000	0.500	1.750
2.00	0+600 - 0.800	7.000	0.500	0.450	1.575
				Total	52.075

1 no Sand Bang Filled With 0.034 Cum Sand

Hence Nos Of Bag = $52.075 \text{ M}^3 / 0.034 \text{ M}^3 = 1531.62 \text{ Bag}$

Say 1532 Bag

4
10.12.2020

Junior Engineer
Rural Works Department,
Works Section, Madhuban

10.12.20

Asistant Engineer
Rural Works Department,
Works Sub Division, Madhuban

10.12.20

Executive Engineer,
Rural Works Department,
Works Division, Pakridayal

PROVIDING AND PLACING SAND BAGS

Ref. RCD SoR (12.9)	Labour for Filling Sand Bag, Stitching and Placing etc. all complete as per specification and direction of E/I.			
	Unit :- Per Bag			
	Taking Output = 750 Bag			
	Unskilled Mazdoor	Nos.	15	287.00
	Add 6% Overhead Charges			4305.00
	Rate for 750 Bag			258.30
	Mazdoor Rate per Bag (Rs.) -			4563.30
				6.08
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
	(iii) Katcha Track			
	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	1.000	549.10
	Time taken for empty return trip	hour	0.667	549.10
	b) Overhead charges @ 0.06 on (a)			366.25
	Cost for 36 t .km =			54.92
	Rate per t.Km =			970.27
	Say Rs. -			26.95
				26.95

1.1 RCD	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 of Sand Bag (with OH)				
A.	Basic Rate of Sand Bag	Per Bag		8.46	8.46
	Add overhed Charges		6%		0.51
	Total -				8.97
	1 No. Cement Bag filled with 40 Kg. / 1.2 CuFt Sand				
	Conversion factor: 1 m3 = 35.3146667 ft3				
	1) Cubic Meter = Cubic Foot / 35.3146667				
	2) Cubic Meter = 1.2 / 35.3146667				
	3) Cubic Meter = 0.034				
	Hence 1 No. Sand Bag Filled with 0.034 Cum Sand				
	Surface Lead	KM	2		
	Katcha Lead	KM	1		
	Factor (3.6/2.25)	Cum	1.60		
B.	Carriage (with OH)				
	(1.6 x 2 x 17.25) + (1.6 x 1 x 26.95) + 182.39				280.71
	Cost of Carriage of Sand in Filling of one Sand Bag				
			280.71	0.034	9.54
C.	Cost of Labour for Filling Sand Bag, Stitching and Placing (with OH)				6.08
	Total (A+B+C) -				24.59
	Add 1% Labour Cess (A+B+C)				0.25
	Add 12% GST (A+B+C)				2.95
	Add 10% cost of Material for Seigniorage Fee		0.034	14.19	0.48
	Total Cost per Bag			Rs.-	28.27