



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR YEAR 2020-21

DISTRICT :- East Champaran
BLOCK :- Piprakothi

Estimate for Repair of Road breaches
(Damaged by Flood) for Motorability in H.L
Bridge over Dhanouti River in road from Dekha
Panchayat To Pipra Station For year 2020.

ESTIMATED COST -	3.15	Lacs
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SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
MOTIHARI

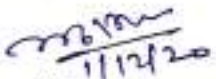
Technical Report

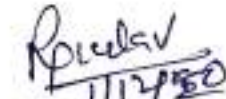
F.D.R.(2020-21)

Name of Road:- H/L Bridge over Dhanauti River in road from
Dhakha - Panchayat - to Pipra Station
Length of Road:- (5 x 17.75) m
Name of Block:- Piprakothi
Project Head:- NABARD
Package No:-
Estimated Cost:- 3.15 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.


J.E.


A.E.


E.E.
R.W.D.(w) Div. Motihari

Name of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in H.L Bridge over Dhanouti River in road from Dekha Panchayat To Pipra Station For year 2020.

Head - FDR Length-87 Meter

Sl No.	Item No.	Name of Item	unit	No	Length	Width	Height	Qty.	Rate	Amount
1		Labour for laying dry graded Jhama Khon 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	141.195	2147.41	303204.09
2		Labour for Filling Sand Bag, Stitching and Placing etc. all complete as per specification and direction of E/I..	No	(10x1.5x1.0)=15.00m3@ 0.034m3/bag=441.00 Bags				441.000	27.83	12273.03
TOTAL (in Re.)										315477.12

Say Rs 315000.00

[Signature]
11/12/20
Junior Engineer,
Rural Works Department,
Works Section, Piprakothi

[Signature]
11/12/20
Assistant Engineer,
Rural Works Department,
Works Sub Division, Piprakothi

[Signature]
01/12/20
Executive Engineer,
Rural Works Department,
Works Division, Motihari

Net fact T.A/T.S is accorded for Rs. 3,15,000.00
(Three lacs fifteen thousand
hundred) only.

[Signature]
30/12/20
S.E. (R.W.D.)
works Circle
Motihari
30/12/20

**अधीक्षण अभियंता का कार्यालय
ग्रामीण कार्य विभाग, कार्य अंचल, गोतिहारी**

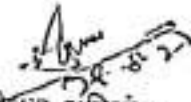
कार्यालय आदेश

कार्यालय आदेश संख्या-

दिनांक.....

विभागीय निर्देशानुसार वर्ष 2020 के नए एवं अतिवृद्धि से ग्रामीण कार्य विभाग के पुराने एवं नए में हुई क्षति के कारण आवागमन को सुचारु करने हेतु मुझे स्तर पर कार्य प्रगंडलों को कार्य करने का निर्देश प्राप्त है। इस सम्बन्ध में सचिव, ग्रामीण कार्य विभाग, विहार पटना के निर्देश के आलोक में इन सभी कार्यों की भीतिक सत्यापन हेतु इस कार्य अंचल में पदस्थापित कार्यपालक अभियंताओं को दीध प्रगंडलवार जांच कार्य हेतु निम्नवत कार्य क्षेत्र आवंटित किया जाता है।

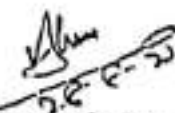
क्रमांक	वर्तमान पदस्थापन कार्य प्रगंडल का नाम	जांच हेतु आवंटित कार्य प्रगंडल का नाम
1	कार्यपालक अभियंता, गोतिहारी	कार्य प्रगंडल खसौल
2	कार्यपालक अभियंता, खसौल	कार्य प्रगंडल डाका
3	कार्यपालक अभियंता, अरेराज	कार्य प्रगंडल गोतिहारी
4	कार्यपालक अभियंता, चकिया	कार्य प्रगंडल अरेराज
5	कार्यपालक अभियंता, डाका	कार्य प्रगंडल पकड़ीदयाल
6	कार्यपालक अभियंता, पकड़ीदयाल	कार्य प्रगंडल चकिया


अधीक्षण अभियंता
ग्रामीण कार्य विभाग,
कार्य अंचल, गोतिहारी

जापांक- 1344

दिनांक 28/08/2020

प्रतिलिपि- कार्यपालक अभियंता, ग्रामीण कार्य विभाग, कार्य प्रगंडल गोतिहारी/खसौल/अरेराज/चकिया/डाका/पकड़ीदयाल को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित।


अधीक्षण अभियंता
ग्रामीण कार्य विभाग,
कार्य अंचल, गोतिहारी

**कार्यपालक अभियंता का कार्यालय,
ग्रामीण कार्य विभाग, कार्य प्रमंडल, अरेराज।**

पत्रांक 2519

दिनांक 26.12.2020

प्रेषक,

कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमंडल अरेराज।

सेवा में,

अधीक्षक अभियंता,
ग्रामीण कार्य विभाग,
कार्य अंचल, मोतिहारी।

विषय:-

वर्ष 2020 के बाढ़ में क्षतिग्रस्त पथों को मोटरेबुल कराने हेतु किये गये कार्यों की जाँच के संबंध में।

प्रसंग:-

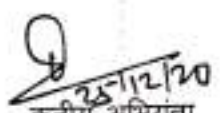
मु0अ0-4(मु0)विविध (कार्य)-23-40/2016- 2789 पटना, दिनांक 21.08.2020 एवं
भवदीय कार्यालय आदेश ज्ञापांक- 1344 दिनांक 28.08.2020

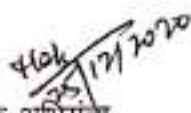
महाराज

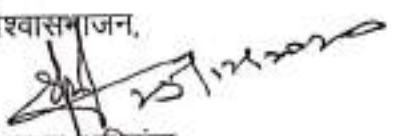
उपर्युक्त विषयक एवं प्रासंगिक पत्र के अनुपालन में कार्य प्रमंडल, मोतिहारी द्वारा उपलब्ध कराये गए मोटरेबुल पथों की सूची में अंकित पथों का अधोहस्ताक्षरी तथा सहायक अभियंता एवं कनीय अभियंता के द्वारा निरीक्षण किया गया। निरीक्षण के दौरान कार्य प्रमंडल, मोतिहारी द्वारा प्रतिवेदित सभी पथों में मोटरेबुल का कार्य कराया गया है एवं वर्तमान में यातायात चालू है।

सादर सूचनार्थ एवं अग्रेतर कार्रवाई हेतु समर्पित।

अनु0- निरीक्षण किये गए पथों की सूची।


कनीय अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, अरेराज।

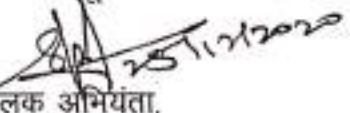

सहायक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, अरेराज।

विश्वासभाजन,

कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, अरेराज।

ज्ञापांक 2519

दिनांक 26.12.2020

प्रतिलिपि:- कार्यपालक अभियंता ग्रामीण कार्य विभाग, कार्य प्रमंडल, मोतिहारी को सूचनार्थ समर्पित।


कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, अरेराज।

77	Turkauliya	Motihari Chhapwa NH 28 A road to Sapahi (79)	7.925
78	Turkauliya	Sapahi Link Route No. 27 - Khagani (77)	4.913
79	Turkauliya	L086-T02 to Majuraha Nimuliya Tola (VR56)	2.563
80	Turkauliya	L031 to DUSHIAD TOLA	5.03
81	Turkauliya	T05 to MATHURAPUR	3.471
82	Turkauliya	Belwa Raitola Bairagi R.E.O. Road - Barharwa (87)	5.971
83	Turkauliya	Surendra Ram House to PMGSY Road Gouri Singh House	1.7
84	Turkauliya	L065-L027 to Barharwa (VR35)	4.269
85	Pipraikothi	NABARD yojan antargat Pipra Kothi Parkhand ke Dekhan ke Gathdhar se Pipra Station jane wali path me High Level Bridge ka Nirman	87(mt.)
86	Sugauli	L035-Ledihar to Unwabit (VR28) Construction Of Bridge In Ledihar To Unwa Brit Road At Chainage 0.100 Km	58.66(mt.)
87	Sugauli	L070-Belwatiya To Shyampur 13 to 20 KM (VR40) Belwatiya Shyampur Path Me Shampur Barwa Musbar Toli Ke Pas Pal Nirman	35.12(mt)

[Signature]
25/12/20

date
20/12/20

[Signature]
E.E.
R.W.D., W.D.
Dumraji

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in H.L. Bridge over Dhanouti River in road from Dekha Panchayat To Pipra Station For

Appendix - I

Measurement for surfacing the Breach with Brick Bats

Sl. No.	Chainage(km)	Nos	Length (M)	width (M)	Av. Width (M)	Thickness (M)	Av. Thickness (M)	Quantity (cum)
1	0.005	1	5.00	(2.0+2.5)/2	2.25	(1.0+0.7)/2	0.850	9.563
2	0.065 to 0.140	1	3.00	(2.2+1.5)/2	1.85	(1.5+1.0)/2	1.250	6.938
3	do	1	5.50	(4.0+2.5)/2	3.25	(2+1.5)/2	1.750	31.281
4	do	1	2.50	(1.75+1.2)/2	1.48	(1.0+0.8)/2	0.900	3.319
5	do	1	6.80	(4+2.9)/2	3.45	(2+1.8)/2	1.900	44.574
6	do	1	7.00	(1.8+1.5)/2	1.65	(1.5+1.3)/2	1.400	16.170
7	do	1	3.00	(2.8+2.5)/2	2.65	(1.5+1.25)/2	1.375	10.931
8	do	1	3.00	(2.5+1.5)/2	2.00	(1.4+1.2)/2	1.300	7.800
9	do	1	3.00	(2.8+2)/2	2.40	(1.6+1.35)/2	1.475	10.620
Total Quantity of Brick Bats								141.195

Junior Engineer

Rural Works Department,
Works Section, Piprakoyhi

Asistant Engineer

Rural Works Department,
Works Sub Division, Piprakothi

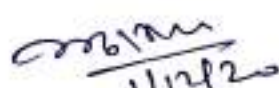
Executive Engineer

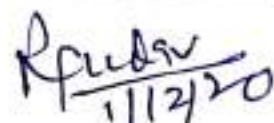
Rural Works Department
Works Division, Motihari

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	861.00
	Add 6% Overhead Charges				51.66
	Rate for 2.832 Cum				912.66
	Rate per Cum (Rs.) -				322.27
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
	c) Contractor's profit @ 0.1 on (a+b)				0.00
	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	hour	0.833	549.10	457.40
	Time taken for empty return trip hour 0.500	hour	0.500	549.10	274.55
	b) Overhead charges @ 0.06 on (a)				43.92
	c) Contractor's profit @ 0.1 on (a+b)				0.00
	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/ Stone aggregates/Sand /Kanker/Moorum				
	Placing Tractor at loading point, loading with frontloader, dumping, turning for 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
	d) Contractor's profit @ 0.1 on (a+b+c)				0.00
	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 CH)				
	(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)				322.27
	Total (A+B+C) -				1810.36
	Add 1% Labour Cess (A+B+C)				18.10
	Add 12% GST (A+B+C)				217.24
	Add 10% cost of material for seigniorage fee		1	101.70	101.70
	Total Cost per Cum			Rs.-	2147.41


 11/12/20
 J. S.


 11/12/20
 A. G.

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			258.30
	Rate for 750 Bag			4563.30
	Mazdoor Rate per Bag (Rs.) -			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
	c) Contractor's profit @ 0.1 on (a+b)			0.00
	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)			54.92
	c) Contractor's profit @ 0.1 on (a+b)			0.00
	Cost for 36 t .km =			970.27
	Rate per t.Km =			26.95
	Say Rs. -			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,			
	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
	d) Contractor's profit @ 0.1 on (a+b+c)				0.00
	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 of Sand Bag (with OH)				
A.	Basic Rate of Sand Bag	Per Bag		8.46	8.46
	Add Royalty (450 Bricks/Cum)		450	0.000	0.00
	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 selgrisegio		0.034	14.19	0.048
	Total Cost per Bag			Rs.-	27.83

Accepted
1/12/20
AC

Name of road : H/L Bridge over Dhanauti river
in road from Dhekha Panchayat
to Pipra station.



mm
21/12/2020
J.E

Ruler
21/12/20
A.E

21/12/20
C.E

Name of Road : H/L Bridge over Dhanauti river
in road from Dhekha Panchayat
to Pipra Station



Latitude: 26.528285
Longitude: 85.006613
Elevation: 70.59 m
Accuracy: 4.0 m
Time: 27-07-2020 11:47
Note: Tedhi Ghat H/L Bridge over Dhanauti River in road from Dhekha Panchayat to Pipra Station



[Signature]
21/12/2020
S.E

[Signature]
21/12/20
A.E

[Signature]
21/12/20
G.E

Name of Road: H/L Bridge over Dhamauti
river in Road from Dhakha
Panchayat to Pipra Station.

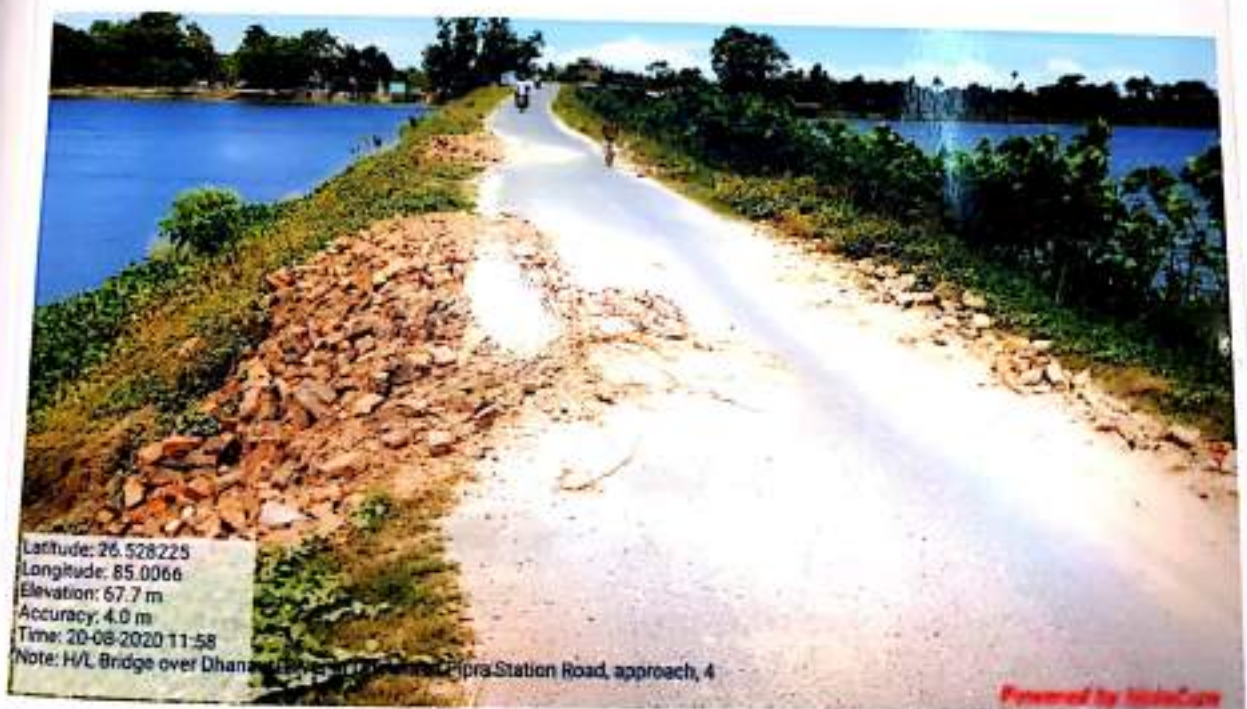


21/12/2020
JE

21/12/20
AE

21/12/20
AE

Name of Road : H/L Bridge over Dhanauti River in road from Dhekha Panchayat to Pipra station.



[Signature]
 21/12/2020
 J.E

[Signature]
 21/12/20
 AG

[Signature]
 21/12/20
 22

Name of Road: H/2 Bridge over Jhanauti
river in Road from Dhekha
Panchayat to Pipra station.



2021/12/20
21/12/2020
J.E

R. Gulav
21/12/20
AE

21/12/20
CE