



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

PLAN HEAD- FDR YEAR 2020-21

DISTRICT :- East Champaran

BLOCK :- Sugauli

Estimate for Repair of Road breaches
(Damaged by Flood) for Motorability in
Sitalpur Dhala To Jatwa Janerwa Ghat For
year 2020.

ESTIMATED COST - 23.293 Lacs

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
MOTIHARI

Technical Report

F.D.R.(2020-21)

Name of Road:- Sitalpur Dhala To Jalsi Janewa What

Length of Road:- 6.670 km

Name of Block:- Sugauli

Project Head:- New Maintenance Policy 2018 (ongoing)

Package No:- —

Estimated Cost:- ~~40.592 Lac.~~ 29.293 Lac

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.


01/12/20
J.E


01/12/20
A.E


01/12/20
E.E.
R.W.D.(w) Div. Motihari

Name of Work:- Estimate for Repair of Road breaches (Damaged by Flood) for Motorability in Sitalpur Dhala To Jatwa Janerwa Ghat For year 2020.

d - FDR Length-6.670KM

Item No.	Name of Item	unit	No	Length	Width	Height	Qty.	Rate	Amount
	Labour for laying dry graded Jhama Khos 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					1028.347	2147.41	2208282.63
	Providing and laying 1000 mm dia reinforced cement concrete pipe NP3 for culvert on first class bedding of granular material in single row excluding excavation, protection works, backfilling, concrete and masonry.	RM					30.000	4032.75	120982.58
TOTAL (in Re.)									2329265.21

Say Rs 2329300.00

[Signature]
01/12/20

Junior Engineer,
Rural Works Department,
Works Section, Sugauli

[Signature]
01/12/20

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

[Signature]
01/12/20

Executive Engineer,
Rural Works Department,
Works Division, Motihari

Post Facto T.A./T.S is accorded for Rs. 23,29,300/-
(.....Twenty Three Twenty Nine
.....crore.....lacs.....thousand
.....Three hundred.....) only.

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

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

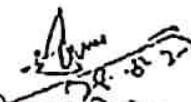
कार्यालय आदेश

कार्यालय आदेश संख्या-

दिनांक.....

दिनांक 2020 के नए एवं अतिवृद्धि से ग्रामीण कार्य विभाग के पथों एवं पुलों में हुई क्षति के कारण आवागमन को सुचारु करने हेतु युक्त स्तर पर कार्य प्रगंडलों को कार्य कराने का निर्देश प्राप्त है। इस सम्बन्ध में राखित, ग्रामीण कार्य विभाग, बिहार पटना के निर्देश के आलोक में इन सभी कार्यों की गौतिक सत्यापन हेतु इस कार्य अंचल में पदस्थापित कार्यपालक अभियंताओं के बीच प्रगंडलवार जाँच कार्य हेतु निम्नवत कार्य क्षेत्र आवंटित किया जाता है।

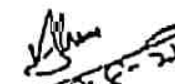
क्रमांक	वर्तमान पदस्थापन कार्य प्रगंडल का नाम	जाँच हेतु आवंटित कार्य प्रगंडल का नाम
1	कार्यपालक अभियंता, गोतिहारी	कार्य प्रगंडल खसौल
2	कार्यपालक अभियंता, खसौल	कार्य प्रगंडल ढाका
3	कार्यपालक अभियंता, अरेराज	कार्य प्रगंडल गोतिहारी
4	कार्यपालक अभियंता, चकिया	कार्य प्रगंडल अरेराज
5	कार्यपालक अभियंता, ढाका	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/ढाका/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 2514

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

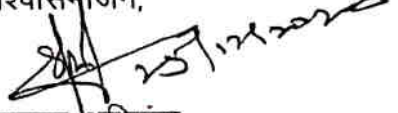
उपर्युक्त विषयक एवं प्रासंगिक पत्र के अनुपालन में कार्य प्रमंडल, मोतिहारी द्वारा उपलब्ध कराये गए मोटरेबुल पथों की सूची में अंकित पथों का अधोहस्ताक्षरी तथा सहायक अभियंता एवं कनीय अभियंता के द्वारा निरीक्षण किया गया। निरीक्षण के दौरान कार्य प्रमंडल, मोतिहारी द्वारा प्रतिवेदित सभी पथों में मोटरेबुल का कार्य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

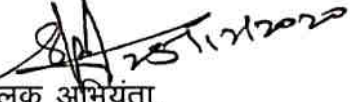

सहायक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, अरेराज।

विश्वासभाजन,

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

ज्ञापांक 2514

दिनांक 26.12.2020

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


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

52	Piprakothi	Watganj to Beta Colony	2.46
53	Piprakothi	NH - 28 Piprakokhi to Sirsakhap REO Road	11.6
54	Sugauli	NH-28 A Se Madhya Vidyalay Sugaw se Bhimraw Ambedkar Awasiya Vidyalay Mushartoli Mahadalit Basti Hote Hue Vidiya Gram Tak Path ka Nirman Karya	4.6
55	Sugauli	Sitalpur Dhala - Jatwa Jakerwa Ghat	6.1
56	Sugauli	NH 28 Banskati Maji Sthan to Sapha Chamar toli	5.34
57	Sugauli	Dalboliya Shampur (L031), (Ch 6.00-13.00 Km)	7
58	Sugauli	Chhapra Bahas Sugauli road to Kathwalia	2.1
59	Sugauli	NH-28 A Sugaon to Gorigawan via Lamunia Road.	6.1
60	Sugauli	Chhapra Bahas - Saphan	3.133
61	Sugauli	Construction of PCC Road from Ultri Chapra Bahas Panchayat (New PWD Road to) Chapra Bhash to Melwa.	2.7
62	Sugauli	NH 28A - Bankatwa	1.4
63	Sugauli	Madhopur to Bagahi	3.13
64	Sugauli	L044-T01 to Nakardei (VR430)	2.4
65	Sugauli	L051-Mansingha to Laxmipur (VR18)	2.083
66	Sugauli	Ledhir - Baksa	1.14
67	Sugauli	House of Kishori Sahni to NH-28	1.1
68	Sugauli	House Of Ramanand Ram to T04	1.5
69	Sugauli	Purvi champarn jila antargat Sugauli prkhand me NH28 Madhay Vidalay Chagaraha se Dharampur math hote hua Dharampur gram tak path nirman	3.23
70	Sugauli	Shitalpur Dhala to Jatwa Janerwa Road	6.5
71	Sugauli	Repair of road from N.H.-28B to Balua Tikuliya	12
72	Sugauli	Roushanpur Sapha To Nadiya Tola Via Ahir Tola	1.5
73	Sugauli	Hucha To Hucha Chamar Toli	1
74	Sugauli	PMGSY road to Shiyampur yadav tola	0.8
75	Turkauliya	T04 to Kathariya	1.32
76	Turkauliya	Motihari Areraj P.W.D. Road - Parsauna (173)	3.439

8/12/20
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25/12/20
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8/12/20
F.E.

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for
Motorability in Sitalpur Dhala To Jatwa Janerwa Ghat For year 2020.

Appendix - I

Measurement for surfacing the Breach with Brick Bats

Sl. No.	Chainage(km)	Nos	Length (M)	width (M)	Thickness (M)	Quantity (cum)
1	0.740	1	48.000	3.850	0.450	83.160
2	0.830	1	10.000	3.900	0.500	19.500
3	0.870	1	85.000	5.000	0.400	170.000
4	1.050	1	15.000	5.600	1.150	96.600
5	1.080	1	10.000	6.700	0.650	43.550
6	1.400	1	25.000	5.400	0.700	94.500
7	1.600	1	12.000	5.600	0.650	43.680
8	3.800	1	9.000	5.500	0.700	34.650
9	4.100	1	19.000	5.300	0.550	55.385
10	5.600	1	6.000	5.800	0.800	27.840
11	5.610	1	7.000	5.600	0.700	27.440
12	6.250	1	11.000	5.300	0.650	37.895
13	6.400	1	13.000	2.600	0.500	16.900
14	2nd Phase 0.07	1	8.000	3.400	0.400	10.880
15	1.000	1	12.000	3.500	0.600	25.200
16	1.080	1	8.000	4.300	0.450	15.480
17	1.125	1	2.000	2.000	0.600	2.400
18	1.750	1	10.000	3.000	0.400	12.000
19	3.170	1	7.000	4.000	0.600	16.800
20	3.350	1	17.000	5.000	0.650	55.250
21	3.400	1	10.000	5.000	0.600	30.000
22	3.600	1	8.000	4.000	0.800	25.600
23	3.800	1	8.000	5.000	0.600	24.000
24	3.920	1	2.000	3.500	0.600	4.200
25	5.600	1	5.000	5.400	0.400	10.800
26	5.610	1	5.000	5.300	0.650	17.225
27	6.250	1	9.000	5.500	0.450	22.275
28	6.320	1	15.000	4.000	0.500	30.000
29	6.400	1	12.000	2.000	0.450	10.800
Total						1064.010
Deduction 4 row for 12 Nos 1000 mm dia HP (3.143*0.615*0.615*30.00)						35.663
Total Quantity of Brick Bats						1028.347

Junior Engineer

Rural Works Department,
Works Section, Turkaulia

Assistant Engineer

Rural Works Department,
Works Sub Division, Turkaulia

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				775.87
	Rate per t.Km = (a+b+c)/36				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.	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 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.-	2147.40

Pradeep
 04/12/20
AE

9.3

1100

B.

Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row
 Providing and laying reinforced cement concrete pipe NP3 for Cross Drainage

1000 MM DIA

Unit =m

Taking output =7.5 m

(3 pipes of 2.5 m length each)

a) Material

iii) RCC pipe NP 3 pipe

m

7.50

2758.22

20686.65

b) Labour

Mate

day

0.09

305.00

27.45

Mason (1st class)

day

0.25

388.00

97.00

Mazdoor (Unskilled)

day

2.00

287.00

574.00

c)Overheads @6 % on (a+b)

1283.11

d)Contractor's profit @ 0% on (a+b+c)

0.00

Cost for 7.5m = (a+b+c+d)

22668.21

Rate per m =(a+b+c+d)/7.5

3022.43

Carrage cost per M

302.29

Total

3324.72

Add Labour Cess 1%

33.25

Add GST 12%

398.97

Add 10% cost of material for seigniorage fee

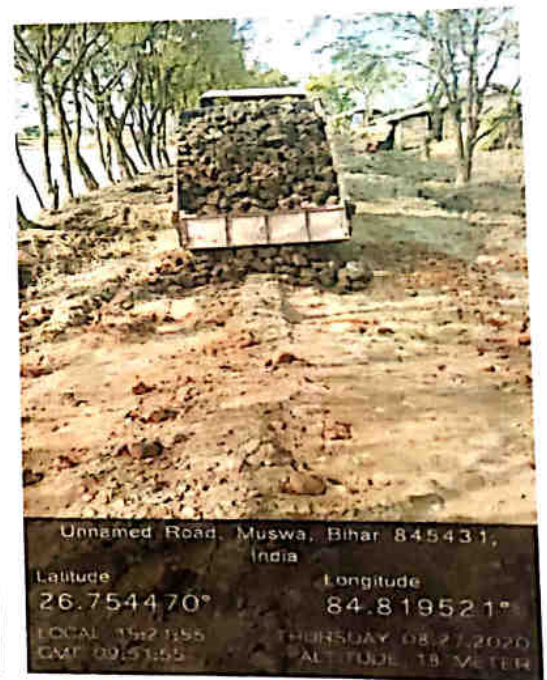
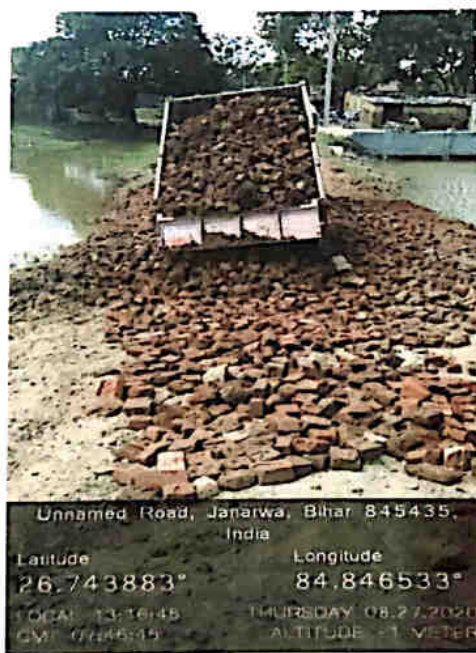
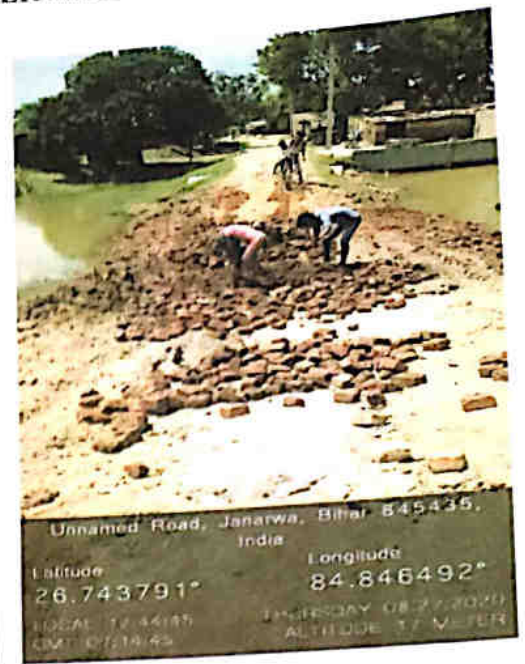
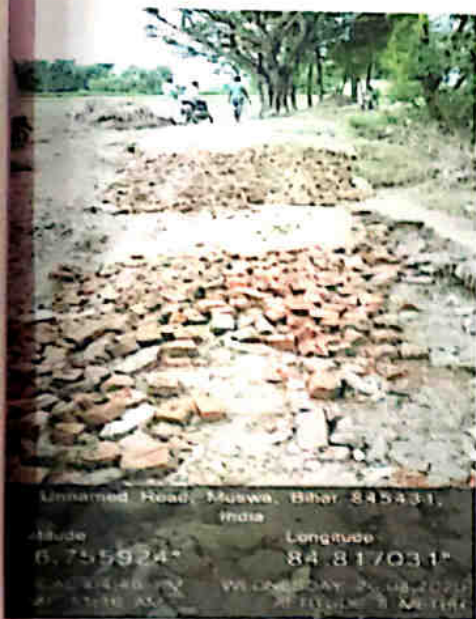
275.82

Total Cost

m

4,032.75

NAME OF ROAD- SITALPUR DHALA TO JATWA JANERWA GHAT -6.670 KM



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 01/12/20
 J.E

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 1/12/20
 A.E

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 01/12
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