



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 NH28
Piprakothi To Sirsakhap For year 2020.

ESTIMATED COST -	5.96	Lacs
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SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD WORKS DIVISION,
MOTIHARI

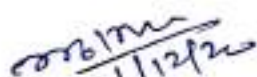
Technical Report

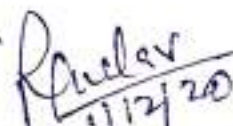
F.D.R.(2020-21)

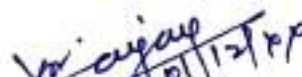
Name of Road:- NH 28 Piprakothi to Sirsakhali
Length of Road:- 11.320 Km
Name of Block:- Piprakothi
Project Head:- MR-3054
Package No:-
Estimated Cost:- 5.96 Lacs

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 NH28 Piprakothi To Sirsakhap For year 2020.

Head - FDR Length-11.320KM

Sl 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			249.180	2147.41	535048.68
2		Excavation in Soil using Hydraulic Excavator Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting Only and as per Technical Specification Clause 302.3	cum	(i) $18.0 \times (3+2)/2 \times (1.9+1.65)/2 = 79.88$ (ii) $42.00 \times (2+1.25)/2 \times (1.10+0.9)/2 = 68.25$				148.130	412.47	61099.05
TOTAL (In Re.)										596147.73

Say Rs 596000.00

[Signature]
Junior Engineer,
Rural Works Department,
Works Section, Piprakothi

[Signature]
Assistant Engineer,
Rural Works Department,
Works Sub Division, Piprakothi

[Signature]
Executive Engineer,
Rural Works Department,
Works Division, Motihari

Post Ferto T.A.T/S is accorded for Rs. 5,96,000 = 5
(.....crore.....Five.....Ninety Six.....thousand
.....hundred.....) only.

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

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

कार्यालय आदेश

कार्यालय आदेश संख्या-

दिनांक.....

विभागीय निर्देशानुसार वर्ष 2020 के बाढ़ एवं अतिवृष्टि से ग्रामीण मजदूरी विभाग के पनों एवं पुलों में भूईं क्षति के कारण आवागमन में सूत्राक्ष करने हेतु मुक्त स्तर पर कार्य प्रगंडलों को कार्य कराने का निर्देश प्राप्त है। इस सम्बन्ध में राखित, ग्रामीण कार्य विभाग, विहार पटना के निर्देश के आलोक में इन सभी कामों की भौतिक सत्यापन हेतु इस कार्य अंचल में पदस्थापित कार्यपालक अभियंताओं के बीच प्रगंडलवार जाँच कार्य हेतु निम्नवत कार्य क्षेत्र आवंटित किया जाता है।

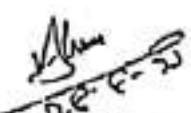
क्रमांक	वर्तमान पदस्थापन कार्य प्रगंडल का नाम	जाँच हेतु आवंटित कार्य प्रगंडल का नाम
1	कार्यपालक अभियंता, गोतिहारी	कार्य प्रगंडल खरौल
2	कार्यपालक अभियंता, खरौल	कार्य प्रगंडल डाका
3	कार्यपालक अभियंता, अरैराज	कार्य प्रगंडल गोतिहारी
4	कार्यपालक अभियंता, चकिया	कार्य प्रगंडल अरैराज
5	कार्यपालक अभियंता, डाका	कार्य प्रगंडल पकड़ीदयाल
6	कार्यपालक अभियंता, पकड़ीदयाल	कार्य प्रगंडल चकिया


अधीक्षण अभियंता
ग्रामीण कार्य विभाग,
कार्य अंचल, गोतिहारी

जापानक- 1344

दिनांक- 28/08/2020

प्रतिलिपि- कार्यपालक अभियंता, ग्रामीण कार्य विभाग, कार्य प्रगंडल गोतिहारी/खरौल/अरैराज/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 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 बाद में क्षतिग्रस्त पथों को मोटरेबुल कराने हेतु किये गये कार्यों की जाँच के संबंध में।

प्रसंग:-

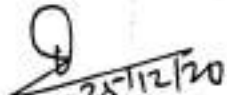
मु0अ0-4(मु0)विविध (कार्य)-23-40/2016- 2789 पटना, दिनांक 21.08.2020 एवं भवदीय कार्यालय आदेश ज्ञापांक- 1344 दिनांक 28.08.2020

महाराज

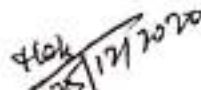
उपर्युक्त विषयक एवं प्रासंगिक पत्र के अनुपालन में कार्य प्रमंडल, मोतिहारी द्वारा उपलब्ध कराये गए मोटरेबुल पथों की सूची में अंकित पथों का अधोहस्ताक्षरी तथा सहायक अभियंता एवं कनीय अभियंता के द्वारा निरीक्षण किया गया। निरीक्षण के दौरान कार्य प्रमंडल, मोतिहारी द्वारा प्रतिवेदित सभी पथों में मोटरेबुल का कार्य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

सादर सूचनार्थ एवं अग्रेतर कार्रवाई हेतु समर्पित।

अनु0- निरीक्षण किये गए पथों की सूची।

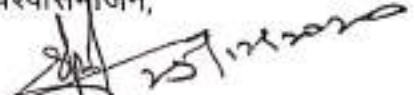


कनीय अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, अरेराज।



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	Waiganj to Bela Colony	2.46
53	Piprakothi	NH - 28 Piprakothi to Sirsakhap REO Road	11.6
54	Sugauli	NH-28 A Se Mithya Vidyalay Sugaw se Bhimraw Ambedkar Awasiya Vidyalay Mushtintoli Mhadali Basti Hute Hue Vidiya Gram Tak Path ka Nirman Karva	4.6
55	Sugauli	Sitalpur Dhala - Jatwa Jakerwa Ghat	6.1
56	Sugauli	NH 28 Banskoti Mui Silan to Sapta Chamar toli	5.34
57	Sugauli	Balhatiya Shampur (L031), (Ch 6.00-13.00 Km)	7
58	Sugauli	Chhapra Bahas Sugauli road to Kathwoliya	2.1
59	Sugauli	NH-28 A Sugaw to Gorigawan via Lamunia Road,	6.1
60	Sugauli	Chhapra Bahas - Suphan	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 - Bankawa	1.4
63	Sugauli	Madhopur to Bagahi	3.13
64	Sugauli	L044-T01 to Nakardei (VR430)	2.4
65	Sugauli	L051-Mansingha to Laxmiper (VR18)	2.083
66	Sugauli	Ledhir - Baksa	1.14
67	Sugauli	House of Kishori Sultai to NH-28	1.1
68	Sugauli	House Of Ramchand Ram to T04	1.5
69	Sugauli	Purvi Champam jila antargat Sugauli prkhand me NH28 Madhay Vidyalay Chagaraha se Dharampur math hote hua Dharampur gram tak path nirman	3.23
70	Sugauli	Sitalpur Dhala to Jatwa Jakerwa Road	6.5
71	Sugauli	Repair of road from N.H.-28B to Balua Tikuliya	12
72	Sugauli	Roushanpur Sapaha To Nadiya Tola Via Ahir Tola	1.5
73	Sugauli	Bucha To Bucha Chamar Toli	1
74	Sugauli	PMGSY road to Shyampur yadav tola	0.8
75	Turkauliya	T04 to Kathariya	1.32
76	Turkauliya	Motihari Areraj P.W.D. Road - Patnuna (173)	3.439

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E.E.

Name of Work:-

Estimate for Repair of Road breaches (Damaged by Flood) for
Motorability in NH28 Piprakothi To Sirsakhap For year 2020.

Appendix - I

Measurement for surfacing the Breach with Brick Bats

Sl. No.	Chainage(km)	Nos	Length (M)	Av. Width (M)	Av. Thickness (M)	Quantity (cum)
					1.500	48.000
1	7.008-7.700	1	8.00	4.00	0.300	19.380
2	9.055-9.072	1	17.00	3.80	0.350	33.250
3	9.077-9.102	1	25.00	3.80	1.650	113.190
	9.540-9.600	1	14.00	4.90	0.300	35.340
4	Do	1	31.00	3.80		249.160
			Total			

[Signature]
3/12/20

Junior Engineer
Rural Works Department,
Works Section, Piprakothi

[Signature]
1/12/20

Asistant Engineer
Rural Works Department,
Works Sub Division, Piprakothi

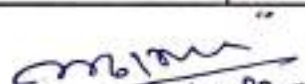
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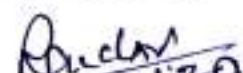
Executive Engineer
Rural Works Department
Works Division, Motihari

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	Nos.	3	287.00	861.00
	Unskilled Mazdoor				51.66
	Add 6% Overhead Charges				912.66
	Rate for 2.832 Cum				322.27
	Rate per Cum (Rs.) -				
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		
			6 Min		
	Total				
	a) Labour	day	0.03	305.00	9.15
	Mate	day	0.72	287.00	206.64
	Mazdoor for loading and unloading				
	b) Machinery	hour	0.1	549.10	54.91
	Tractor 3 60 tonnes capacity				
	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 overhead 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.-	2147.41


 11/12/20
 S.E


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3.5 302 (iii) Excavation in Soil using Hydraulic Excavator

Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting Only and as per Technical Specification Clause 302.3

Unit = cum

Taking output = 360 cum

a)	Labour				
	Mate	day	0.08	305.00	24.4
	Mazdoor (Unskilled)				
	including 5no. Extra for Spreading	day	2	287.00	574
b)	Machinery				
	Hydraulic excavator 0.9 cum t hour	= 3.6	1,969.20	7089.12	
c)	Compensation for earth taken from	cum	360.00	34.81	12,531.60
d)	Overheads @6%				1213.1472
	Cost for 360 cum = a+b+c+d				21432.267
	Rate per cum = (a+b+c+d)/360				59.53 (A)

FOR Carriage of Earth By Tractor

i	Loading & Unloading	Rs.	182.39	
ii	Haulage for Surface Road	Rs.	17.25	Tractor (without C.P)
iii	Haulage for unsurface Road	Rs.	21.55	Tractor (without C.P)
iv	Factor (3.6/2.16)		1.67	
v	Lead			
vi	Kachha	KM	1	
vii	Surface	KM	2	
viii	Cost of Carriage per cum	Cum	275.81	(B)
ix	A+B		335.34	(without CP)
x	Add 1% Labour cess		3.35	
xi	Add 12% GST		40.24	
xii	Add 10% cost of material for seigniorage fee		33.53	
	Total Cost including 12% GST		412.47	

Name of Road : NH 28 Sirsakhap to
Sirsakhap.



21/12/2020
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Name of Road: NH 28 Piprakothi to Sirsakhap.



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 21/12/2020
 J.E

R. J. S.
 21/12/20
 AE

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 21/12/20
 CE

Name of Road : NH 28 Piprakothi to
Sirsakhap.



21/12/2020

Road
21/12/20
AC

21/12/20
AC

Name of Road : NH 28 Piprakothi to
Sirsakhap.



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CE

Name of Road : NH 28 Piprakothi to
Sirsakhap.



21/12/2020

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