



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

DETAILED PROJECT REPORT FOR REPAIRING OF ROAD F.D.R. PART - A (2021 - 22)

DETAILED ESTIMATE For F.D.R. Motrable Work

T. A. COPY

DISTRICT :	BHAGALPUR	BLOCK :	Sanhaula
NAME OF ROAD :	L027 Sanhaulla to Nathuchak		
Total Length of road :	6.250 KM		
Total Cost of FDR - (Part A) :	13.49 ^{13.62}	Lakh	
GST @ 12 % :	1.62 ^{1.63}	Lakh	
LABOUR CESS @ 1 % :	0.13 ^{0.14}	Lakh	
SEIGNIORAGE FEE @ 10 % :	0.60 ^{0.65}	Lakh	
TOTAL COST OF RESTORATION WORK :	15.84	Lakh	
15.91750 16.04 SUBMITTED BY The Executive Engineer Rural Work Department Works Division, Kahalgaon			

प्रतिवेदन

योजना का नाम - " Sanhaura to Nathuchak" पथ में बाढ़ से क्षतिग्रस्त भाग का मोटरेबुल कार्य।
पथ की लम्बाई - 6.250 कि०मी०
15.91750
प्राक्कलित राशि - रु० 15.84232 लाख

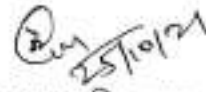
वर्ष 2021 में गंगा नदी में आयी भयंकर बाढ़ से ग्रामीण कार्य विभाग, कार्य प्रमण्डल, कहलगाँव अन्तर्गत पीरपैती/कहलगाँव/सबौर एवं सन्हौला प्रखण्ड के लगभग 89 पथ /पुल बाढ़ से प्रभावित हुये हैं। इनमें कुछ पथों में कटाव/गड्ढे हो जाने के कारण विभाग द्वारा समय-समय पर प्राप्त दिशा निर्देशों /आदेशों के आलोक में तत्काल युद्धस्तर पर इन पथों को Brick-Bats/ Sand Bag, Bamboo Piling एवं GSB के द्वारा मोटरेबुल कार्य कराया गया है। मोटरेबुल कार्य के बाद सभी पथों में आवागमन चालू हो चुका है।

कराये गये कार्य का प्राक्कलन ग्रामीण कार्य विभाग, कार्य अंचल भागलपुर के पत्रांक 470 दिनांक 22.06.2021 के द्वारा स्वीकृत दर पर तैयार किया गया है तथा इस कार्य का विवरण विभागीय MIS पर FDR Module में प्रविष्ट किया गया है।

कार्य के उपरान्त इसकी तकनीकी अनुमोदन सह तकनीकी स्वीकृति अपेक्षित है।



कनीय अभियन्ता,
ग्रामीण कार्य विभाग,
कार्य प्रशाखा, सन्हौला



सहायक अभियन्ता,
ग्रामीण कार्य विभाग,
कार्य अवर प्रमण्डल सन्हौला



कार्यपालक अभियन्ता,
ग्रामीण कार्य विभाग,
कार्य प्रमण्डल कहलगाँव

Inspection Report For Flood Damage Work

सन्दीप

Date:- 10/12/2021

1. Name of PIUs - E.E. RWD(W) Division, Kahalgau.

2. Name of Block/ Road Sankhola/ Lo-27 Sankholla to Nathuchak.

A. For Road

1. Damage Location/Chainage ch 0 to 0.400 km

2. Damage length 53 m

3. Nature of Damage Road Left Side Cutting.

4. Detail of Restoration Works

(i) Material being used in Restoration Works: Brick Bat, Bamboo pile and E.C bag

(ii) Equipment's/ Tools Being used in Restoration Works:

(iii) Procedure Taken up in Restoration Works:

(iv) Restored Length: $(1 \times 26 \text{ m})$ and $(1 \times 27 \text{ m}) = 53 \text{ m}$ in two cutting.

B. For Bridge

1. Damage Location/Chainage

2. Damage length

3. Nature of Damage

4. Detail of Restoration Works

(i) Material being used in Restoration Works:

(ii) Equipment's/ Tools Being used in Restoration Works:

(iii) Procedure Taken up in Restoration Works:

(iv) Restored Length:

C. Requirement Of New CD/Bridges

(i) Name of Road:

(ii) Location/ Chainage

(iii) Type of CD Work/Length required

Notes:-

- Upload one Photograph of damaged portion if available
- Attach minimum Two Photograph (during restoration & after restoration) Photographs should be Geotags and at Least one Photo be captured in selfie mode.

Signature of JE/AE/EE AE
10/12/21

कार्यपालक अभियंता
ग्रामीण कार्य विभाग
कार्य प्रमंडल काठमाडौं

Signature
(Name of Inspector)
EE
RWD(W) Div)
Bauica-1

GENERAL ABSTRACT OF COST

Name of Road : L027 Sanhaulla to Nathuchak

District : BHAGALPUR

Length of Road : 6.250 KM

Block : Sanhaulla

Sl. No	Particulars		Details	Total Cost (in Rs.)
A	Cost of Road Motorable work	:	6.25	1402996.20 13,49,165.00 13,61,910.20
B	GST @12%	:		168260.20 1,61,899.80 16,34,292.20
C	Labour Cess @ 1%	:		14030.20 13,491.65 13,619.1
D	Seigniorage Fee @10%	:		65049.20 59,675.78 16,50,423.20
	Total Cost of Restoration work	:	16,04,007	16,84,232.23
			SAY	15,84,232.00

[Signature]
J. E.

[Signature]
A. E.

[Signature]
E. E.

Technically sanctioned for Rs 16,50,423.20 (Rupees Sixteen lak fifty thousand four hundred only).

Superintending Engineer
Rural Works Department
Works Circle, Bhagalpur
[Signature]

P.T.O.

Technically Sanctioned for Rs 16,04,000-00 (Rupees
Sixteen Lac Four thousand) only.

[Signature]

Superintending Engineer
Rural Works Department
Works Circle, Bhagalpur

Brick Bat Measurement

Length of Road : 6.250

Sr.No.	Chainage (m)	Nos.	Length (m)	Width (m)			Average Width (m)	Depth (m)		Average Depth (m)	Quantity (cum)
1	0 - 400	1	26.00	5.00	4.00	3.00	4.00	3.00	2.00	2.50	260.00
		1	27.00	5.00	4.00	3.00	4.00	3.20	2.50	2.85	307.80
										Total =	567.80

2.00

4

Measurement of E.C. Bags

ANNEXURE - " B "

Sr. No.	Chainage (m)	Nos.	Length (m)	Width (m)			Average Width (m)	Depth (m)		Average Depth (m)	Quantity (cum)	Quantity (No of bag)
1	0 - 400	1	26.00	4.00	3.00	1.00	2.67	3.00	2.00	2.50	173.55	5104
		1	27.00	4.00	3.00	1.00	2.67	3.2	2.5	2.85	205.46	6043
										Total =	379.01	11147

12.0

4.0

20/10/21
HS/10/21
AE

20/10/21
AE

20/10/21

Material Statement and S.F Calculation

Material Statement and S.F Calculation										Pirpainti
L.027 Sanhaulla to Nathuchak										
Sl. No.	Description of Work	material Details	unit	Per Unit Qty	Consumen d Qty	Rate of material	Total Rate	Total amount	10% S.F amount	
1	Brick Bats	Brick bats	Cum	2.83		1051.00	2976.43			
		Cost of 2.832 Cum =A					2976.43		59675.78	
		Rate per Cum -(A/2.832)			567.80		1051.00	596757.80		
								Total Rs.	59675.78	

25/10/21
J.E

25/10/21
DE

Carriage Cost of Material via Road

RWD, works Division, Kahalgauon

Division - Kahalgauon

District:- BHAGALPUR

Sl No	Item	Unit	Source	Carriage Cost & Lead in Km			Katcha	Loading & Unloading Cost	Carriage By Road	Carriage By Rail	Total	Lowest Rate
				Pucka / Surface								
1	Stone Metal Gr-II/Via Road	Cum	Mirza Chouki	8.00 x 7.47 x 52 Km	-	Rs 677.02	8.00 x 18.09 x 0 Km = Rs 0.00	193.62	870.64	0.00	870.64	870.64
2	Stone Metal Gr-III / GSB Via Road	Cum	Mirza Chouki	8.00 x 7.47 x 52 Km	-	Rs 672.75	8.00 x 18.09 x 0 Km = Rs 0.00	193.62	816.37	0.00	816.37	816.37
3	Stone Aggregate / Chips Via Road	Cum	Mirza Chouki	8.00 x 7.47 x 52 Km	=	Rs 622.75	8.00 x 18.09 x 0 Km = Rs 0.00	193.62	816.37	0.00	816.37	816.37
4	Stone Boulder / Via Road	Cum	Mirza Chouki	8.00 x 7.47 x 52 Km	=	Rs 647.40	8.00 x 18.09 x 0 Km = Rs 0.00	193.62	841.02	0.00	841.02	841.02
5	Coarse Sand/Via Road	Cum	Hanwara	8.00 x 7.47 x 36 Km	=	Rs 431.13	8.00 x 18.09 x 0 Km = Rs 0.00	104.88	536.01	0.00	536.01	536.01
6	Mooram/Via Road	Cum	Mirza Chouki	8.00 x 7.47 x 52 Km	=	Rs 517.92	8.00 x 18.09 x 0 Km = Rs 0.00	104.88	622.80	0.00	622.80	622.80
7	Bitumen Baranvi/Via Road	MT	Baranvi	8.00 x 7.47 x 125 Km	=	Rs 933.75	8.00 x 18.09 x 0 Km = Rs 0.00	365.00	1298.75	0.00	1298.75	1298.75
8	Bitumen Emulsion /Via Road	MT	Fatuha	8.00 x 7.47 x 212 Km	=	Rs 1583.64	8.00 x 18.09 x 0 Km = Rs 0.00	365.00	1948.64	0.00	1948.64	1948.64
9	Local Sand	Cum	Local	8.00 x 7.47 x 2 Km	=	Rs 23.95	8.00 x 18.09 x 1 Km = Rs 29.00	104.88	157.83	0.00	157.83	157.83
10	Brick	1000 Nos	Local	8.00 x 7.47 x 7 Km	=	Rs 209.16	8.00 x 18.09 x 1 Km = Rs 72.36	441.62	723.14	0.00	723.14	723.14
11	Cement	MT	Local	8.00 x 7.47 x 7 Km	=	Rs 52.29	8.00 x 18.09 x 0 Km = Rs 0.00	317.64	369.93	0.00	369.93	369.93
12	Steel	MT	Local	8.00 x 7.47 x 7 Km	=	Rs 52.29	8.00 x 18.09 x 0 Km = Rs 0.00	337.70	389.99	0.00	389.99	389.99
13	Hum Pipe (1000 mm)	M	Gadda	8.00 x 7.47 x 58 Km	=	Rs 346.61	8.00 x 18.09 x 0 Km = Rs 0.00	75.69	422.30	0.00	422.30	422.30
14	Hum Pipe (600 mm)	M	Gadda	8.00 x 7.47 x 58 Km	=	Rs 138.64	8.00 x 18.09 x 0 Km = Rs 0.00	32.44	171.08	0.00	171.08	171.08
15	Hum Pipe (300 mm)	M	Gadda	8.00 x 7.47 x 58 Km	=	Rs 57.77	8.00 x 19.82 x 0 Km = Rs 0.00	32.44	90.21	0.00	90.21	90.21
16	Bamboo	Nos	Kursela	8.00 x 7.47 x 42 Km	=	Rs 313.74	8.00 x 19.82 x 0 Km = Rs 0.00	317.64	631.38	0.00	631.38	631.38
17	Brick bats	Cum	Local	8.00 x 7.47 x 7 Km	=	Rs 209.16	8.00 x 18.09 x 1 Km = Rs 72.36	193.62	870.64	0.00	870.64	870.64
18	Klin Rubbish	Cum	Local	8.00 x 7.47 x 7 Km	=	Rs 209.16	8.00 x 18.09 x 1 Km = Rs 72.36	104.88	386.40	0.00	386.40	386.40

* Subjected to Verification of Lead

Cost Of Haulage Excluding Loading & Unloading As Per SOR

Type of Road	Per Ton. Km by Tipper	Per Ton. Km by
For Surface Road	8.10	7.47
For Un Surface Road	8.85	8.99
For Kachha Road	19.82	18.09

Junior Engineer

Asstt. Engineer

Executive Engineer

Rate Analysis

SDB Sl. No.	DESCRIPTION	Unit	QTY	Rate	Amount in Rs
4.5	Providing and Laying of Brick Bats				
	Placing tractor at loading point leading with front end loader dumping, turning for return trip excluding time for haulage and return trip				
	Unit = cum				
	Taking output = 2.832 cum				
a)	Labour				
	Mandoor (Unskilled)	day	2.17	292	633.64
b)	Materials				
	Brick Bats	cum	2.83	1,051.60	2974.33
c)	Carriage				
		cum	2.83	402.78	1139.87
	Cost for 5.5 cum = a+b+c				4747.84
	Rate per cum = (a+b+c+d)/2.83	cum			1677.68
	Total per cum	cum			1,677.68
5.7.9	Labour for fitting and fixing 62 mm to 75 mm dia bamboo runners in position at every verticle pile with 150 mm long nails or 38 swg G. I. wire including cost of G.I. or nails complete job as per specification and direction of E/I				
	Unit = Per mt.				
	Taking Out Put = 30.50 m				
(i)	Materials				
	Cost of 150 mm long nails	Kg	0.50	61.74	30.87
(ii)	Labour				
	Carpenter Gr -II	No.	0.125	351	43.88
	Unskilled Labour	No.	0.25	292	73.00
	Rate for 30.5 m				147.75
					147.75
	Rate for 1 m				4.84
(iii)	Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long	m	1.00	23.58	23.58
	Rate per m			Say.	28.43
5.7.7	Labour for cutting 62 mm to 75 mm dia bamboo piles in size and making shoes and driving etc. complete job as per specification and direction E/I				
	Unit = Per m				
	Taking Out Put = 30.50 m				
	Assurning				
	20 no pile sunk 1.525 m deeps				
	Total depth sunk 30.50 m				
(i)	Labour				
	Carpenter Gr -II	No.	0.25	351	87.75
	Unskilled Labour for piling	No.	2.50	292	730.00
					817.75
	Rate for 30.5 m				817.75
	Rate for 1 m				26.81
(ii)	Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long	m	1.00	23.58	23.58
	Rate per m			Say.	50.39
5.7.8 WRD	Labour for fitting and and fixing split bamboo woven chachari in positant with 20 swg G.I. wire of 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/I				
	(Assuming strip of 3.05x3.05 = 9.30 sqm)				
	Unit = per sqm				
	Taking Out = 9.30 sqm				
a	Labour				
	Carpenter Gr -II	No.	1.00	351	351.00
	Mandoor (Unskilled) for pilling	No.	1.00	292	292.00
b	Materials				
	75 mm to 100 mm long nails	kg	0.25	61.74	15.44
c	Bamboo(2nd class) 75mm dia, 1.8 - 2.5m long	m	11	23.58	259.42
					917.85
	Rate Per Sqm = (a+b+c)/9.30				98.69

10.7.40 WRD	Supply of Material and Labour for filling Cement Bag, swing and laying materials Unit = Per Bag				
A	Supply Empty cement Bag with Seal	No	100	2.92	292.00
	Stitching Roll (Nylon)	No	2	30.00	60.00
	Supply Local Sand	Cum	3.40	141.85	482.29
				Total (A)	834.29
B	Unskilled Labour for filling stitching and staking	No	1.67	292	487.64
	Unskilled Labour for carrying and Placing at work site	No	3	292	876.00
	Skilled Labour for stitching	No	0.33	370	122.10
	Total per bag			Total (B)	1,485.74
C	Hire charge of Machine				
	Hire charge of Stitching Machine	No	0.33	50	16.50
	Hire charge of Generator 3 K.V.A	No	2.67	74	197.58
	Total per bag			Total (C)	214.08
D	Carriage Cost of Local Sand				
	1.2 Cu = 0.034 m ³	cum	3.40	157.83	536.64
				Total (D)	536.64
	Total cost of (A+B+C+D) =	Bag			3,076.75
	Rate per Bag				30.71
4.1	Granular Sub-base with Well Graded Material (Table 400.1) (By mix in place method) For Grading II Material				
	Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.				
(ii)	For Grading II Material				
	Unit = cum				
	Taking output = 300 cum.				
a)	Labour				
	Mate	day	0.40	304.00	121.60
	Mazdoor (Skilled)	day	2.00	370.00	740.00
	Mazdoor (Unskilled)	day	8.00	292.00	2336.00
b)	Machinery				
	Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	12.00	573.20	6878.40
	Three wheel 30-100 kN static roller @ 10 cum per hour	hour	12.00	803.00	9636.00
	Tractor with Rotavator 25 cum per hour	hour	12.00	573.20	6878.40
	Water tanker 6 kl capacity	hour	5.00	184.00	920.00
c)	Material				
	Well graded granular sub-base material as per Table 400.1				
	26.5 mm to 9.5 mm @ 35 per cent	cum	134.40	604.91	81299.90
	9.5 mm to 2.36 mm @ 25 per cent	cum	96.00	582.80	55948.80
	2.36 mm below @ 40 per cent - Local Sand	cum	153.60	514.58	79039.49
	Water	kl	30.00	40.00	1200.00
	Cost of GSB for 300 cum				244998.59
	A) Cost of GSB without carriage per cum	cum			816.66
e)	CARRIAGE				
	Carriage for GSB material	Cum	0.768	816.37	626.97
	Carriage for material below 2.36 mm (Local Sand)	Cum	0.512	816.37	417.98
	Rate per cum with carriage				1061.61
9.3	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row				
1100	Providing and laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets Clause 1106.				
A.	1000 MM DIA (Double Row)				
a)	Material				
	RCC NP3 pipe including collar	m	15.00	2755.50	41332.50
b)	Labour				
	Mate	day	0.72	304.00	66.88
	Mason (1st class)	day	0.60	351.00	210.60
	Mazdoor (Unskilled)	day	4.80	292.00	1401.60
	Cost for 7.5m = (a+b+c)				4301.58
	A) Basic Cost per m = (s+b+c+d)/7.5	m			5734.88
	CARRIAGE COST				
	NP3 Pipe	m	15.00	482.06	7230.90
	Carriage cost of 7.5 m				7230.90
	B) Carriage cost per m	m			964.12
	Rate per m = (A+B)	m			6699.00

B.	1000 MM DIA (Single Row)				
a)	Material				
	RCC NP3 pipe including collar	m	7.50	2755.50	20666.25
b)	Labour				
	Mate	day	0.09	304.00	27.36
	Mason (1st class)	day	0.25	351.00	87.75
	Mazdoor (Unskilled)	day	2.00	292.00	584.00
	Cost for 7.5m = (a+b+c)				2165.36
	A) Basic Cost per m = (a+b)/7.5	m			2848.71
	CARRIAGE COST				
	NP3 Pipe	m	7.50	422.30	3167.25
	Carriage cost of 7.5 m				3167.25
	B) Carriage cost per m	m			422.30
	Rate per m = (A+B)	m			3271.01
C.	600 MM DIA (Double Row)				
a)	Material				
	RCC NP3 pipe including collar	m	15	1582.72	23740.80
b)	Labour				
	Mate	day	0.04	304.00	12.16
	Mason (1st class)	day	0.12	351.00	42.12
	Mazdoor (Unskilled)	day	0.96	292.00	280.32
	Cost of 7.5m = (a+b+c+d)				24075.40
	A) Basic Cost per m = (a+b)/7.5	m			3210.65
	CARRIAGE COST				
	NP3 Pipe	m	15	171.08	2566.20
	Carriage cost of 7.5 m				2566.20
	B) Carriage cost per m	m			342.16
	Rate per m = (A+B)	m			3552.21
D.	600 MM DIA (Single Row)				
a)	Material				
	RCC NP3 pipe including collar	m	7.50	1582.72	11870.40
b)	Labour				
	Mate	day	0.04	304.00	12.16
	Mason (1st class)	day	0.12	351.00	42.12
	Mazdoor (Unskilled)	day	0.96	292.00	280.32
	Cost of 7.5m = (a+b+c+d)				12205.00
	A) Basic Cost per m = (a+b)/7.5	m			1627.33
	CARRIAGE COST				
	NP3 Pipe	m	7.5	171.08	1283.10
	Carriage cost of 7.5 m				1283.10
	B) Carriage cost per m	m			171.08
	Rate per m = (A+B)	m			1798.41