ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

ESTIMATE FOR REPAIRING / RESTORATION / MAKING MOTORABLE ROADS DAMAGED DURING FLOOD

HEAD : (FDR)

YEAR 2024-25

STATE :- BIHAR
DISTRICT :- SUPAUL
BLOCK :- Basantpur

Main Road to Harizan Tola Tak

DETAILED REPORT

TOTAL LENGTH OF ROAD	:	3.875 KM
TOTAL COST FOR MOTORABLE OF ROAD	:	15.967 Lacs

SUBMITTED BY:
EXECUTIVE ENGINEER,
RWD, WORKS DIVISION,
VIRPUR.

INSPECTION REPORT FOR MOTARABLE WORK

NAME OF PIU :-		Virpur	
NAME OF BLOCK :- Basantpur	ROAD :-	Repair of road from Main road to Harijan Tola	
	A. FOR ROAD		
1	Damage Location /Chainage	1.10 KM	
2	Damage Lenth :-	45M	
3	Nature of Damage (Length wise)	i. Breach	
		ii. Crust Damage	45M
		iii. Only Flank Damage	
	Whether Traffic fully/partialiy obstructed	Fully Obstructed	
4	Details of restoration		
	i. Material Being Used in Restoration	Bamboo, EC Bag, L.Sand, Brick Bats	
	ii. Equipment/Tools Being used in Restoration Works	Bamboo Piler, Excavator Bamboo Cutter EC bag Packer	
	iii. Restored Length	In Open Area :-	45M
		In Habitation Area	
	iv. If Restoration Work Done In Habitation Area Give Reason	N/A	
	B. For Bridge (Size of Bridge / Culvert)		
	Damage Location /Chainage		
	No. Of Span Damage		
	Length of Span		
	Nature of Damage (pier/Abutment/ Wing Wall /approch road damage		
5	Details of restoration		
	i. Material Being Used in Restoration		
	ii. Equipment/Tools Being used in Restoration		
	iii. Restored Length		
	Overall Grade of Restoration Work (Satisfactory (✓) Unsatisfactory ( )		

14/1/24

Signature of Inspector
(Official Seal)
E.E RWD,
Triveniganj

प्रतिवेदन

पथ का नाम :– मेन रोड से हरिजन टोला

कार्य का नाम :– मेन रोड से हरिजन टोला में अस्थायी मरम्मति कार्य में बाढ से क्षतिग्रस्त भाग में यातायात चालू करने का कार्य।

संलग्न प्राक्कलन 2024 को प्रखण्ड में आयी भीषण बाढ़ से क्षतिग्रस्त मेन रोड से हरिजन टोला में बाढ़ क्षतिग्रस्त मरम्मति मद से यातायात चालू करने हेतु तैयार किया गया है जिसकी प्राक्कलित लागत 15.967 लाख है। उक्त पथ का निर्माण MMGSY (BC) योनान्तर्गत हुआ है एवं योजना अनुरक्षण अवधि में है। पथ के कटे (क्षतिग्रस्त) भाग में आवश्यकता अनुसार Hume Pipe, Bamboo, लोकल बालू एवं Brick Bats देने के बाद यातायात चालू कराया गया है। पथ के विभिन्न हिस्से में कराये गये कार्य का विवरणी स्पष्ट रूप से प्राक्कलन में दर्शाया गया है।

प्राक्कलन मदो का दर वर्त्तमान अनुसुचित दर के अनुरूप है।

13/11/24	13/11/24	13/11
कनीय अभियंता,	सहायक अभियंता,	कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,	ग्रामीण कार्य विभाग,	ग्रामीण कार्य विभाग,
कार्य प्रशाखा, बसंतपुर	कार्य अवर प्रमण्डल, बसंतपुर	कार्य प्रमण्डल, बीरपुर

SUMMARY OF COST ESTIMATE FOR PROJECT

GENERAL ABSTRACT OF COST

HEAD :-	FDR	
YEAR :-	2024-25	
NAME OF ROAD :-	Main Road to Harizan Tola Tak	
DISTRICT :-	Supaul	
BLOCK :-	Basantpur	
Length of Road:-	3.875	km
Length of Cutting in mtr :-	40	m

Sl No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-incharge	CUM	340.34	580.07	197418.00
2	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.	Each	3088.24	37.43	115593.00
3	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.	CUM	401.63	2049.64	823187.00
4	Supplaying and carriage of hume pipe 1000 mm dia , all complete job.	RM	45.00	3669.12	165110.00
				Total =	1301308.00
	Add GST @ 18%				234235.00
	Add L.Cess @ 1%				13013.00
	Add Seignorage Fee				48192.00
	Grand Total =				₹ 15,96,748

Grand Total= ***1596748.00***

13/11/24

J.E

13/11/24

A.E

13/11/24

E.E

Technically Approved for Rs 1596748=00 (Fifteen Lacs Ninety Six thousand Seven hundred forty eight) only

15.11.24

S.E RWD
Madhepura

Calculation of Seigniorage Fees

Sl. No.	DESCRIPTION OF ITEMS	Unit	QUANTITY	RATE (Rs.)	AMOUNT (Rs.)
	NAME OF ROAD :-		Main Road to Harizan Tola Tak		
	DISTRICT :-		Supaul		
	BLOCK :-		Basantpur		
1	Filling of loc ıl sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-incharge	cum	340.34	143.32	48777.00
2	Labour for fiting empty cement bags with loocal sand, stitching the bags and placing in Nylon crate of size (1 m X 1 m X 1 m)with lead of 150 M including supply of sutli etc. at site in dry portion all complete as per approved design, specification and direction of E/I	cum	0.00	143.32	0.00
2	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.	cum	105.00	143.32	15049.00
3	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.	cum	401.63	1041.00	418092.00
			A) SUB TOTAL =		481918.00
	Seigniorage Fees @10% of Basic Amount =				48192

13/11/24

J.E

13/11/24

A.E

13/11

E.E

NAME OF ROAD :-	Main Road to Harizan Tola Tak								
DISTRICT :-	Supaul								
BLOCK :-	Basantpur								
Length of Cutting:-	40.00 m								

Sl. No.	DESCRIPTION OF ITEMS	Unit	Nos.	L(m)	B(m)	D(m)	QUANTITY	RATE (Rs.)	AMOUNT (Rs.)
1	Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-incharge								
	At ch:950 m	cum	1	45.00	(7.5+6.5)/2	1.25	393.75		
		Deduction of Pipe	6	7.50	1.187		-53.42		
		cum			total qty :-		340.335	580.07	1,97,418.00
2	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.								
	At ch:950 m	cum	4	3.00	2.5	1.25	105.00		
	Total No of E C Bags(3.4cum=100Bags) =		105.00		/	0.034	3088.24		
		Each			Say No of Bage :-		3088.24	37.43	1,15,593.00
3	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.								
	At ch:950 m	cum	1	45.00	(5.5+7.5)/	0.45	131.63		
	At ch:950 m	cum	1	45.00	(8.5+7.5)/	0.75	270.00		
		cum			total qty :-		401.63	2049.64	8,23,187.00
4	Supplaying and carriage of hume pipe 1000 mm dia , all complete job.								
	At ch:950 m	RM	6	3	2.5		45.00		
		RM			total qty :-		45.00	3,669.12	1,65,110.00
								A) SUB TOTAL =	1301308.00
								TOTAL COST =	1301308.00

13/11/24

Junior Engineer

13/11/24

Asstt. Engineer

13/11/24

Executive Engineer

Analysis for Carriage by Road & Rail

Name of Road:-- [illegible] TION OF ROAD FROM X-ROAD [illegible] TO KAHARIYA.

District:-

Block :-

Sl No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km – Pucka / Surface	Carriage Cost & Lead in Km – Katcha	Loading & Unloading Cost	Carriage Cost by Rail Head	Total
1	Stone Metal Gr-I & Gr-II	Cum	Sheikhpura	8.00/4.59 x 11.70 x 35.00 Km = Rs 713.73	8.00/4.59 x 28.20 x 0.00 Km = Rs 0.00	89.90	1243.54	Rs. 2047.17
2	Stone Metal Gr-III / GSB	Cum	Sheikhpura	8.00/4.99 x 11.70 x 35.00 Km = Rs 656.51	8.00/4.99 x 28.20 x 0.00 Km = Rs 0.00	89.90	1166.59	Rs. 1913.00
3	Stone Aggregate / Chips	Cum	Mirzachowki	8.00/4.99 x 11.70 x 35.00 Km = Rs 656.51	8.00/4.99 x 28.20 x 0.00 Km = Rs 0.00	89.90	1166.59	Rs. 1913.00
4	Stone Aggregate / Chips	Cum	Mirzachowki	8.00/4.99 x 11.70 x 35.00 Km = Rs 656.51	8.00/4.99 x 28.20 x 0.00 Km = Rs 0.00	89.90	1248.39	Rs. 1994.80
4	Stone Boulder	Cum	Sheikhpura	8.00/4.80 x 11.70 x 35.00 Km = Rs 682.50	8.00/4.80 x 28.20 x 0.00 Km = Rs 0.00	89.90	1201.54	Rs. 1973.94
5	Coarse Sand	Cum	Jagdishpur	8.00/4.99 x 7.47 x 225.00 Km = Rs 2694.59	8.00/4.99 x 19.22 x 0.00 Km = Rs 0.00	104.88		Rs. 2799.47
6	Binding Material/Moorum	Cum	Sheikhpura	8.00/6.00 x 7.47 x 35.00 Km = Rs 348.60	8.00/6.00 x 28.20 x 0.00 Km = Rs 0.00	104.88		Rs. 453.48
7	Local Sand	Cum	Local	8.00/4.99 x 7.47 x 2.00 Km = Rs 23.95	8.00/4.99 x 17.82 x 1.00 Km = Rs 28.57	104.88		Rs. 157.40
8	Brick	1000 Nos	Local	8.00/2.00 x 7.94 x 7.00 Km = Rs 222.32	8.00/2.00 x 19.22 x 1.00 Km = Rs 76.88	417.46		Rs. 716.66
9	Cement	MT	Local	8.00/8.00 x 7.94 x 35.00 Km = Rs 277.90	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	299.38		Rs. 577.28
10	Steel	MT	Local	8.00/8.00 x 7.94 x 35.00 Km = Rs 277.90	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	318.00		Rs. 595.90
11	Bitumen Emulsion	MT	Barauni	8.00/8.00 x 7.94 x 220.00 Km = Rs 1746.80	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	344.50		Rs. 2091.30
12	Bitumen	MT	Muzaffarpur	8.00/8.00 x 7.94 x 178.00 Km = Rs 1413.32	8.00/8.00 x 19.22 x 0.00 Km = Rs 0.00	344.50		Rs. 1757.82
13	Hume Pipe (1000 mm)	m	Karjain	8.00/10.00 x 7.94 x 106.00 Km = Rs 673.31	8.00/10.00 x 19.22 x 0.00 Km = Rs 0.00	73.32		Rs. 746.63
14	Hume Pipe (600 mm)	m	Karjain	8.00/25.00 x 7.94 x 106.00 Km = Rs 269.32	8.00/25.00 x 19.22 x 0.00 Km = Rs 0.00	31.42		Rs. 300.74
15	Hume Pipe (300 mm)	m	Karjain	8.00/60.00 x 7.94 x 106.00 Km = Rs 112.22	8.00/60.00 x 19.22 x 0.00 Km = Rs 0.00	31.42		Rs. 143.64
16	Brick Bats	Nos.	Local	3.60/2.25 x 18.64 x 7.00 Km = Rs 208.80	3.60/2.25 x 66.03 x 2.00 Km = Rs 211.30	227.60		Rs. 647.70

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Cost of Haulage Excluding Loading & Unloading as per SOR

Type of Road	Per Ton. Km by Tipper	Per Ton. Km by Truck
For Surface Road	11.70	7.94
Unsurface Gravel Road	14.00	9.55
Kachha Road	28.20	19.22

* Subjected to Verification of Lead

Type of Road	Per Ton. Km by	Per Ton. Km by Tractor
For Surface Road		18.64
Unsurface Gravel Road		23.29
Kachha Road		66.03

Summary of Carriage Cost

Sl. No.	Particulars	Unit	Amount
1	Gr-III ,GSB	Cum	1913.00
2	Stone Metal Below 40 mm	Cum	1913.00
3	Stone Chips	Cum	1913.00
4	Screening Materials	Cum	1913.00
5	Gr-II	Cum	2047.17
6	Stone Metal above 40 mm	Cum	2047.17
7	Binding Material (Moorum)	Cum	453.48
8	a) Coarse Sand	Cum	2799.47
9	b) Coarse Sand at Site	Cum	3293.47
10	c) Local sand	Cum	157.40
11	d)Local Sand at Site	Cum	300.72
12	Boulder	Cum	1973.94
13	a) Cement	Ton	577.28
14	b) Cement at Site	Ton	6427.68
15	Geo Bags	Nos.	238.20
16	Bitumen (S-90) (FROM MUZAFFARPUR)	Ton	1757.82
17	Bitumen Emulsion SS & RS (FROM BARAUNI)	Ton	2091.30
18	a) Hume Pipe NP 3 (600 MM DIA)	m	300.74
19	b) Hume pie (600 dia) at site	m	2875.55
20	a)Hume Pipe NP 3 (1000MM DIA)	m	746.63
21	b)Hume Pipe NP 3 (1000MM DIA) at site	m	3504.85
22	Steel	Ton	595.90
23	Brick	per 1000	716.66
24	Brick Bats/Jhama metal	Cum	647.70

13/11/24
Junior Engineer
RWD (W) Division,

13/11/24
Assistant Engineer
RWD (W) Division,

13/11/2
Executive Engineer
RWD (W) Division,

SUMMARY OF RATE

Sl. No.	Ref. Code No.	Description of Labour	Rate (Rs.)	Unit
1		Filling E.C. Bags	629.20	%nos.
2		Placing E.C Bags	911.00	%nos.
3		Filling E.C Bags and Placing	1553.80	%nos.
4		Filling Geo. Bags	26.40	each
5		Placing Geo Bags	34.30	each
6		Filling Geo Bags and Placing	81.00	each
7		Filling E.C Bags and Placing in N.C	388.50	each
8		Filling E.C Bags and Placing in B.A.Wire Crates	1243.00	each
9		Filling Geo Bags and Placing in N.C	364.20	each
10		Filling Geo Bags and Placing in B.A.Wire Crates(Beggy)	1638.90	each
11		Filling Geo Bags and Placing in B.A.Wire Crates(Box))	2003.10	each
12		Filling Geo Bags and Placing in Gabbin 1.8x1.8x0.5	1092.60	each
13		Filling Geo Bags and Placing in Gabbin 1.8x1.8x0.6	728.40	each
14		Already Filled E.C Bags Placing in N.C	231.15	each
15		Already Filled E.C Bags Placing in B.A.Wire crates	739.68	each
16		Already Filled Geo Bags Placing in N.C	205.80	each
17		Already Filled Geo Bags Placing in B.A.Wire Crates(Beggy)	926.10	each
18		Already Filled Geo Bags Placing in B.A.Wire Crates(Box))	1131.90	each
19		Already Filled Geo Bags Placing in Gabbin 1.8x1.8x0.5	617.40	each
20		Already Filled Geo Bags Placing in Gabbin 1.8x1.8x0.6	411.60	each
21		Supply of bamboo 75mm dia	162.70	each
22		Carriage of bamboo 75mm dia lead 5km us	8.70	each
23		Supply of bamboo 100 mm dia	173.70	each
24		Carriage of bamboo 100 mm dia lead 5km us	9.30	each
25		Supply of binding wire	75.04	Kg
26		Laying of porcupine Without boat	834.80	each
27		Laying of porcupine with boat	877.90	each
28		Bamboo pilling with jet pump	38.20	each
29		Tree spur	358.00	each
30	M-189	Water	56.20	KL
31	e(ii)	Brick Bats	1041.00	per cum
32	M-006	Local/Fine Sand	143.32	per cum
33		Nails	55.84	per kg
34	222(i)	Bamboo 75mm dia 6m to 8m long	117.65	each
35	232	Sutali	19.75	per kg
36	M-120	Coarse Sand	494.00	per cum
	M-121	Sand (Fine)	143.32	per cum
37	M-081	Cement	5850.40	per mt
38		HP 1000mm dia NP3	2758.22	per mt
39		HP 600mm dia NP3	2574.81	per mt
40	M-159	Sand Bags (Cost of sand and empty cement bag)	8.46	per nos..
41	275	Old empty cement bag(synthetic)(Annexure-I)	292.00	per %nos.
42	276	Nylon Crate of size 1mx1mx1m	39.85	Each
43	M-017	Aggregate 40 mm	494.15	Cum
44	M-016	Aggregate 20 mm	604.91	Cum
45	M-015	Aggregate 10 mm	668.8	Cum
46	M-047	Cement Primer	115.16	litre
47	M-103	Paint (Synthetic Enamel)	516.42	litre
48	M-150	Well Graded Material for Sub-Base - Grading I 53 mm to 9.5 mm	516.42	Cum
49	M-151	Well Graded Material for Sub-Base - Grading II 9.5 mm to 2.36 mm	411.33	Cum
50	M-152	Well Graded Material for Sub-Base - Grading III 2.36 mm below	185.94	Cum
51	M-105	Polythene sheet (125 micron)	14.35	Sqm
52		G.I. wire3.15 mm dia	69.3	per kg
53		Compensation for earth taken from private land	34.81	Cum
54		Stitching Role	30	Nos.

BASIC RATES
(A) Labour

Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	373.00
L-02	Bitumen Sprayer	day	393.00
L-03	Blacksmith	day	503.00
L-04	Blaster	day	619.00
L-05	Carpenter 1st Class	day	503.00
L-06	Carpenter 2nd Class	day	503.00
L-07	Chips spreader	day	449.00
L-08	Chiseller	day	577.00
L-09	Dresser (Skilled)	day	472.00
L-10	Driller	day	449.00
L-11	Electrician	day	503.00
L-12	Fitter	day	511.00
L-13	Mason (1st class)	day	503.00
L-14	Mason (2nd Class)	day	449.00
L-15	Mate	day	397.00
L-16	Mazdoor (Unskilled)	day	373.00
L-17	Mazdoor (Semi skilled)	day	388.00
L-18	Mazdoor (Skilled)	day	472.00
L-19	Painter (Ist class)	day	476.00
L-20	Plumber	day	476.00
L-21	Surveyor	day	454.00
L-22	White Washer	day	476.00

BASIC RATES
(C) USAGE RATES OF PLANT & MACHINERY

Sr. No.	Description of		Output of Machine		Usage Rates In Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-008	Dozer - D 175 HP	Dozing cutting	cum/h	200.00	per hour	4,249.00
			cum/h	100.00		4,249.00
PM-013	Hydraulic Excavator 0.9 cum	Excavation	cum/h	100.00	per hour	2,272.00
	Hire Charge of stitching machine		Day	50.00	per Day	50.00
	Hire Charge of Manual Trolly		Day	50.00	per Day	50.00
	Hire Charge of 3KVA generator		Hour	74.00	per Hour	74.00
PM-017	Front end-loader 1 cum bucket capacity	Loading Aggregates	cum/h	25.00	per hour	2,033.00
		Loading Soil	cum/h	60.00		2,033.00
PM-032	Motor Grader	Scarifier & levelling	cum/h	200.00	per hour	4,403.00
	Tractor Mounted Grader			50.00		1,100.75
	Time taken for onward haulage with load		Hour	612.00	per Hour	612.00
	Time taken for empty return trip.		Hour	612.00	per Hour	612.00
PM-033	Needle vibrator	Vibrating cement concrete mix	cum/h	3.50	per hour	386.00
PM-035	Paver finisher	Laying/spreading	Cum/h	40.00	per hour	2,141.00
PM-086	Plate compactor	Compaction	cum/h		per hour	469.70
PM-087	Plate vibrator	Compaction	cum/h		per hour	469.70
PM-088	Screed vibrator	Compaction	cum/h		per hour	102.64
PM-044	Smooth wheeled 80-100 kN tandem roller	Compaction of Sub-base/ Asphalt	cum/h	30.00	per hour	1,978.00
PM-045	Stone crusher (Integrated) of 200 TPH	Crushing of Spalls	t/h	200.00	per hour	27,581.30
PM-046	Three wheel 80-100 kN Static Roller	Compaction/ Rolling			per hour	1,518.00
		Earth:- Embankment or sub-grade	cum/h	80/70		1,518.00
		Sub-base G-I	cum/h	10.00		1,518.00
		Sub-base G-II/G-III	cum/h	8.00		1,518.00
		WMM	cum/h	16.00		1,518.00
PM-047	Tipper 5.5 cum/10 t	Carriage	cum/trip	5.50	per hour	1,426.00
PM-048	Tractor with Disc Harrows	Pulverisation of soil	cum/h	80.00	per hour	549.10
PM-049	Tractor with ripper @ 60 cum per hour	Ripping Pavements, uprooting trees	cum/h	60.00	per hour	629.00

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM-050	Tractor with trolley/with Grading equipment	Transportation of materials	t/trip	3 to 5	per hour	629.00
PM-051	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour	573.20
PM-052	Truck 10 t capacity	Carriage	cum/trip	5.50	per hour	934.50
PM-053	Vibratory roller 80-100 kN	Compaction of soil WMM	cum/h	100.00	per hour	2,338.00
		Compaction of BM	cum/h	60.00		2,338.00
PM-054	Water tanker 6 kl capacity (Truck Mounted)	Carriage of water	litre / h	12000.00	per hour	752.00
PM-055	Wet mix plant (Pug Mill)	Wet Mix	cum/h	25.00	per hour	1,822.30

Sl No.	SOR No.		Description	Unit	Qty	Rate(Rs.)	Amount (Rs.)
			Carriage of materials (By Tractor)				
1	1.4		**Cost of Haulage excluding Loading & Unloading**				
	RCD		Haulage of materials by Tractor excluding cost of loading, unloading and stacking.				
			Unit = t.km				
			Taking output 3.60 Tonne load and lead 10 km = 36.0 t.km				
			Case-I : Surfaced Road				
			Speed with load: 15 km per hour				
			Speed while returning empty: 25 km per hour				
			a) **Machinery**				
			Tractor 3.6 t capacity				
			Time taken for onwards haulage with load	hour	0.667	629.00	419.54
			Time taken for empty return trip	hour	0.400	629.00	251.60
			Total				671.14
			Add OH@12%				-
							671.14
			Rate per Ton.km				18.64
			Case-II: Unsurfaced Gravel Road				
			Speed with load: 12 km/hour				
			Speed for empty return trip: 20 km/hour				
			a) Machinery				
			Tractor 3.6 t capacity				
			Time taken for onwards haulage with load	hour	0.833	629.00	523.96
			Time taken for empty return trip	hour	0.500	629.00	314.50
			Total				838.46
			Add OH@12%				-
							838.46
			Rate per Ton.km				23.29
			(c) **Case-III: Katcha Track and Track in River Bed / Nallah Bed and Choe Bed**				
			Speed with load : 10 km / hour				
			Speed with returning empty : 15 km / hour				
			(a) Machinery				
			Tipper 10 tonnes or 5.5 cum capacity	hour	1.000	1,426.00	1,426.00
			Time taken for empty return trip	hour	0.667	1,426.00	951.14
			Total				2,377.14
			Add OH@12%				-
			Cost for 36.0 t.km =a+b				2,377.14
			Rate per Ton.km				66.03
2	6.6.1.		**Labour for laying Brick bats /dry graded jhama khoa or stone filter under Brick Pitching or Boulder pitching in slope or apron including light ramming etc. all complete job as per approved design, specification and direction of E/I**				
	WRD		Unit = Per Cum				
			Taking output= 2.832 Cum				
			a) **Labour**				
			Mazdoor (Unskilled)	Nos	3.00	373.00	1,119.00
			b) **Overheads @ 12% on (a)**				0.00
			Rate for 2.832 Cum				1,119.00
			Rate Per Cum				395.13
3	1.1		**Loading and Unloading of Stone Boulder, Stone aggregate ,Sand, Kankar,Moorum , Brick Bats and Sand etc.**				
	RCD		Unit = Per Cum				
			Taking output= 2.25 Cum				
			Time required for				
			i) Positioning of tipper at unloading point	day	1 Min		
			ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour	day	5Min		
			iii) Maneuvering, reversing, dumping and turning for return		0Min		
			iv) Waiting time, unforeseen contingencies etc	hour	0Min		
			Total		6Min		
			a) **Labour**				
			Mate	day	0.03	397.00	11.91
			Mazadoor for Loading and unloading	day	0.72	373.00	268.56
			b) **Machinery**				
			Tractor 3.6 t capacity	Hour	0.10	629.00	62.90
			Front end loader 1 cum bucket capacity @ 25 cum per hour	Hour	0.08	2,033.00	168.74
							512.11
			Add OH@12%				-
							512.11

Sl No.	SOR No.				Description	Unit	Qty	Rate(Rs.)	Amount (Rs.)
					Rate per Cum=(a+b+c)/2.25				227.60
			Note:-		Unloading will be done Manually.				
4	9.3	1100	Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row . Prpviding 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 .						
					1000 mm dia Hume Pipe				
					Unit=m				
					Taking Output=7.5 m (3 pipes of 2.5 m lengthg each)				
				a	**Material**				
					Sand at site	cum	0.04	3,293.47	131.74
					Cement at site	ton	0.03	6,427.68	192.83
					RCC pipe NP3 pipe includsing coller at site	m	7.50	3,504.85	26,286.38
				b	**Labour**				
					Mate	day	0.09	397.00	35.73
					Mason (1 class)	day	0.25	503.00	125.75
					Mazdoor(Unskilled)	day	2.00	373.00	746.00
									27,518.42
					Add OH@12%				-
									27,518.42
					Cost for 7.50 m =				27,518.42
					Rate per M=				3,669.12
5			**(Providing and laying of brick bats obtained from chimney with machnical means wih all spreading gradding to required slope and compacted at OMC to achieve required density with all completed as per direction of E/I)**						
					Taking out put=100 cum				
				a)	**Labour**				
					Cost of Labour for Pitching and Light Ramming as per WRD SOR 6.6.1 (with OH)	day	1.00	360.94	360.94
				b)	**Materials**				
					Bricks Bats -Basic Rate Taken From RCD S.O.R. Schedule-M:11-5(ii) dt.-30.01.2024	Cum	1	1041.00	1041.00
					Add:Carriage Charge for Brick bats				647.70
					Total Cost				2,049.64
					NET TOTAL COST PER CUM				2,049.64
					SAY Rs				2,049.64
6	5.7.7		**Labour for cutting 62 mm to 75 mm dia sal bamboo piles to size and making shoes and driving etc.complete job as per specification and direction of E / I.**						
	WRD				**Unit :- Per M**				
					Taking Out put:- 30.50 Mtr				
					(Assuming 20 nos. pile sunk 1.525 mtr deep) Total depth sunk 30.50 meter				
			(a)	**Labour**					
					Carpenter Gr II	Nos	1.00	503.00	503.00
					Unskilled mazdoor for pilling	Nos	3.00	373.00	1,119.00
									1,622.00
					Overheads @ 12%				-
									1,622.00
									1,622.00
					Rate Per M				53.18
7	5.7.8		**Providing fitting and fixing split bamboo woven chachari in position with 20 swg G.I. wire or 75 mm to 100 mm long nails alternatively Including cost of G.I. wire3.15 mm dia or nails complete job as per specification and direction of E / I.**						
			Unit :- Per M2						
			Taking Out put:- 9.30 Sqm						
			(Assuming strip of 3.05x3.05 = 9.30 sqm)						
				a	**Material**				
				1	75 mm to 100mm long nail	kg	0.25	55.84	13.96
				2	Bamboo -75mm dia to 62 mm dia				
					Bamboo @75mm = 3050/75 = 40.67				
					Say=41Nosx3.05=125.05M				
					Add for Lower Binder of chachari				
					10x3.75=30.50M				
					Runner @150mmc/c=7x3.05=21.35M				
					Total length of Bamboo=176.9M				
					Total No of Bamboo=176.9/6=30No	No	30	117.65	3529.5
				b	**Labour**				
					Carpenter Gr II	Nos	1.00	503.00	503.00

Sl No.	SOR No.				Description	Unit	Qty	Rate(Rs.)	Amount (Rs.)
					Unskilled mazdoor for pilling	Nos	1.00	373.00	373.00
					Overheads @ 12% on labour charge (345.00+287.00)				-
									4,419.46
					Rate Per M2				475.21
8	5.7.8		Labour for fitting and fixing split bamboo nwoven chachari in position with 20 swg G.I. wire or 75 mm to 100 mm long nails alternatively including cost of G.I. wire3.15 mm dia or nails complete job as per specification and direction of E / I.						
	WRD		Unit :- Per M2						
			Taking Out put:- 9.30 Sqm						
			(Assuming strip of 3.05x3.05 = 9.30 sqm)						
				(a)	Material				
					G.I. wire3.15 mm dia	Kg	0.250	69.30	17.33
				(b)	Labour				
					Carpenter Gr II	Nos	1.00	503.00	503.00
					Unskilled mazdoor for pilling	Nos	1.00	373.00	373.00
									893.33
					Overheads @ 12%				-
									893.33
									893.33
					Rate Per M2				96.06
9	5.7.9		Labour for fitting and fixing 62mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I. wire including cost of G.I. wire or nails complete job as per specification and direction of E / I.						
	WRD		Unit :- Per M						
			Taking Out put:- 30.50 Mtr						
				(a)	Materials				
					Cost of 150 mm long nails	Kg	0.50	55.84	27.92
				(b)	Labour				
					Carpenter Gr II	Nos	0.13	503.00	65.39
					Unskilled mazdoor for pilling	Nos	0.25	373.00	93.25
									186.56
					Overheads @ 12%				-
									186.56
									186.56
					Rate Per M				6.12
10			Supplying bamboo 75 mm dia 6 m to 8 m long at............ complete job as per specification and direction of E / I.						
					Taking Out put:- 115 nos				
				(a)	Material				
					Supplying bamboo 75 mm dia 6 m to 8 m long (Cost of bamboo)	Nos	115	162.70	18,710.50
					Add:Carriage Charge for Bamboo				292.22
					Add Labour for laying Bamboo				395.13
									19,397.85
					Overheads @ 12%				-
									19,397.85
									19,397.85
					Rate Per each Bamboo				168.68
11	5.7.40.1		Labour for filling empty cement bags with local sand, stiching the bags and placing including suppiy of sutli etc. all complete as per approved design, specifications anddirection of E/I						
	WRD		Unit :- Per % nos						
			Taking Out put:- 100 nos						
		(a)	Supplying of Sand bags (Cost of sand and Empty cement bag)			Nos	100	8.46	846.00
			Carraige cost for Local sand (100 no. of Bags=100x0.034m3			cum	3.4	300.72	1022.45
								Total	1868.45
		(b)	For filling & stiching & stacking						
			(a) Unskilled mazdoor for filling sand into bags and sewing			Nos	2	373	746.00
			(b) Sutali			Kg	0.5	19.75	9.88
								Total	755.88
		(c)	Labour rate for Carring & Placing to work site of E.C.Bags						
			(a) Unskilled mazdoor for carring filled bags and placing to work site			Nos	3	373	1119.00

Sl No.	SOR No.		Description	Unit	Qty	Rate(Rs.)	Amount (Rs.)
			Total (A+B+C)=				3743.32
			Add overhead chrage @12%				0.00
							3743.32
			Total Net Rs.				3743.32
			Rate per %				37.43
			Sand Each Bag			Say	Rs 37.43
12	5.7.40.2 WRD SOR Page 159		Labour for filling empty cement bags with loocal sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with lead of 150 M including supply of sutli etc. at site in dry portion all complete as per approved design, specification and direction of E/I				
			Unit :- Each N.C				
			Taking Out Put = 25 nos. filled E.C. Bags in each N/C				
			Cost of 25 nos of filled E.C.Bags (Vide Item no. 5.7.40.1	Nos	25	37.43	935.83
			Rate each				935.83
13			Supply of Nylon Crate of size 1mx1mx1m			39.85	39.85
			Material				
		(a)	Nylon Crate				39.85
		(b)	Add Overhead charge @12%				0.00
			Total (a+b)				39.85
			Rate per nos.				39.85
14	11.2		Sand filling in Foundation Trenches as per Drawing & Technical Specification				
			Unit = Per Cum				
		a	Material				
			Sand(assuming 20 persent voids)	cum	1.20	143.32	171.98
		b	Labour				
			Mate	day	0.01	397.00	3.97
			Mazdoor(Unskilled)	day	0.3	373.00	111.90
							287.85
			Add overhead chrage @12%				0
							287.854
			total=				287.85
			Carraige cost for Local sand				292.22
			Rate per cum				580.07

Analysis for Carriage by Road & Rail

Name of Road:-- DETAILED ESTIMATE FOR TEMPRORY RESTORATION OF ROAD FROM X-ROAD L096 TO KANARIYA.

District:- SAHARSA **Block :-** SIMRIBAKHTIYARPUR

Sl No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km: Pucka / Surface	Carriage Cost & Lead in Km: Katcha	Loading & Unloading Cost	Carriage Cost by Rail Head	Total
1	Stone Metal Gr-I & Gr-II	Cum	Sheikhpura	8.00 / 4.59 x 11.70 x 35.00 Km = Rs 713.73	8.00 / 4.59 x 28.20 x 0.00 Km = Rs 0.00	89.90	1243.54	Rs. 2047.17
2	Stone Metal Gr-III / GSB	Cum	Sheikhpura	8.00 / 4.99 x 11.70 x 35.00 Km = Rs 656.51	8.00 / 4.99 x 28.20 x 0.00 Km = Rs 0.00	89.90	1166.59	Rs. 1913.00
3	Stone Aggregate / Chips	Cum	Mirzachowki	8.00 / 4.99 x 11.70 x 35.00 Km = Rs 656.51	8.00 / 4.99 x 28.20 x 0.00 Km = Rs 0.00	89.90	1166.59	Rs. 1913.00
4	Stone Aggregate / Chips	Cum	Mirzachowki	8.00 / 4.99 x 11.70 x 35.00 Km = Rs 656.51	8.00 / 4.99 x 28.20 x 0.00 Km = Rs 0.00	89.90	1248.39	Rs. 1994.80
4	Stone Boulder	Cum	Sheikhpura	8.00 / 4.80 x 11.70 x 35.00 Km = Rs 682.50	8.00 / 4.80 x 28.20 x 0.00 Km = Rs 0.00	89.90	1201.54	Rs. 1973.94
5	Coarse Sand	Cum	Jagdishpur	8.00 / 4.99 x 7.47 x 225.00 Km = Rs 2694.59	8.00 / 4.99 x 19.22 x 0.00 Km = Rs 0.00	104.88		Rs. 2799.47
6	Binding Material/Moorum	Cum	Sheikhpura	8.00 / 6.00 x 7.47 x 35.00 Km = Rs 348.60	8.00 / 6.00 x 28.20 x 0.00 Km = Rs 0.00	104.88		Rs. 453.48
7	Local Sand	Cum	Local	8.00 / 4.99 x 7.47 x 2.00 Km = Rs 23.95	8.00 / 4.99 x 17.82 x 1.00 Km = Rs 28.57	104.88		Rs. 157.40
8	Brick	1000 Nos	Local	8.00 / 2.00 x 7.94 x 7.00 Km = Rs 222.32	8.00 / 2.00 x 19.22 x 1.00 Km = Rs 76.88	417.46		Rs. 716.66
9	Cement	MT	Local	8.00 / 8.00 x 7.94 x 35.00 Km = Rs 277.90	8.00 / 8.00 x 19.22 x 0.00 Km = Rs 0.00	299.38		Rs. 577.28
10	Steel	MT	Local	8.00 / 8.00 x 7.94 x 35.00 Km = Rs 277.90	8.00 / 8.00 x 19.22 x 0.00 Km = Rs 0.00	318.00		Rs. 595.90
11	Bitumen Emulsion	MT	Barauni	8.00 / 8.00 x 7.94 x 220.00 Km = Rs 1746.80	8.00 / 8.00 x 19.22 x 0.00 Km = Rs 0.00	344.50		Rs. 2091.30
12	Bitumen	MT	Muzaffarpur	8.00 / 8.00 x 7.94 x 178.00 Km = Rs 1413.32	8.00 / 8.00 x 19.22 x 0.00 Km = Rs 0.00	344.50		Rs. 1757.82
13	Hume Pipe (1000 mm)	m	Karjain	8.00 / 10.00 x 7.94 x 106.00 Km = Rs 673.31	8.00 / 10.00 x 19.22 x 0.00 Km = Rs 0.00	73.32		Rs. 746.63
14	Hume Pipe (600 mm)	m	Karjain	8.00 / 25.00 x 7.94 x 106.00 Km = Rs 269.32	8.00 / 25.00 x 19.22 x 0.00 Km = Rs 0.00	31.42		Rs. 300.74
15	Hume Pipe (300 mm)	m	Karjain	8.00 / 60.00 x 7.94 x 106.00 Km = Rs 112.22	8.00 / 60.00 x 19.22 x 0.00 Km = Rs 0.00	31.42		Rs. 143.64
16	Brick Bats	Nos.	Local	3.60 / 2.25 x 18.64 x 7.00 Km = Rs 208.80	3.60 / 2.25 x 66.03 x 2.00 Km = Rs 211.30	227.60		Rs. 647.70

13/11/24
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Sl No.	SOR No.		Description	Unit	Qty	Rate(Rs.)	Amount (Rs.)
			Total (A+B+C)=				3743.32
			Add overhead chrage @12%				0.00
							3743.32
			Total Net Rs.				3743.32
			Rate per %				37.43
			Sand Each Bag			Say	Rs 37.43
12	5.7.40.2 WRD SOR Page 159		Labour for filling empty cement bags with loocal sand, stitching the bags and placing in Nylon crate of size (1 m x 1 m x 1 m) with lead of 150 M including supply of sutli etc. at site in dry portion all complete as per approved design, specification and direction of E/I				
			Unit :- Each N.C				
			Taking Out Put = 25 nos. filled E.C. Bags in each N/C				
			Cost of 25 nos of filled E.C.Bags (Vide item no. 5.7.40.1	Nos	25	37.43	935.83
			Rate each				935.83
13			Supply of Nylon Crate of size 1mx1mx1m			39.85	39.85
			Material				
		(a)	Nylon Crate				39.85
		(b)	Add Overhead charge @12%				0.00
			Total (a+b)				39.85
			Rate per nos.				39.85
14	11.2		Sand filling in Foundation Trenches as per Drawing & Technical Specification				
			Unit = Per Cum				
		a	Material				
			Sand(assuming 20 persent voids)	cum	1.20	143.32	171.98
		b	Labour				
			Mate	day	0.01	397.00	3.97
			Mazdoor(Unskilled)	day	0.3	373.00	111.90
							287.85
			Add overhead chrage @12%				0
							287.854
			total=				287.85
			Carraige cost for Local sand				292.22
			Rate per cum				580.07

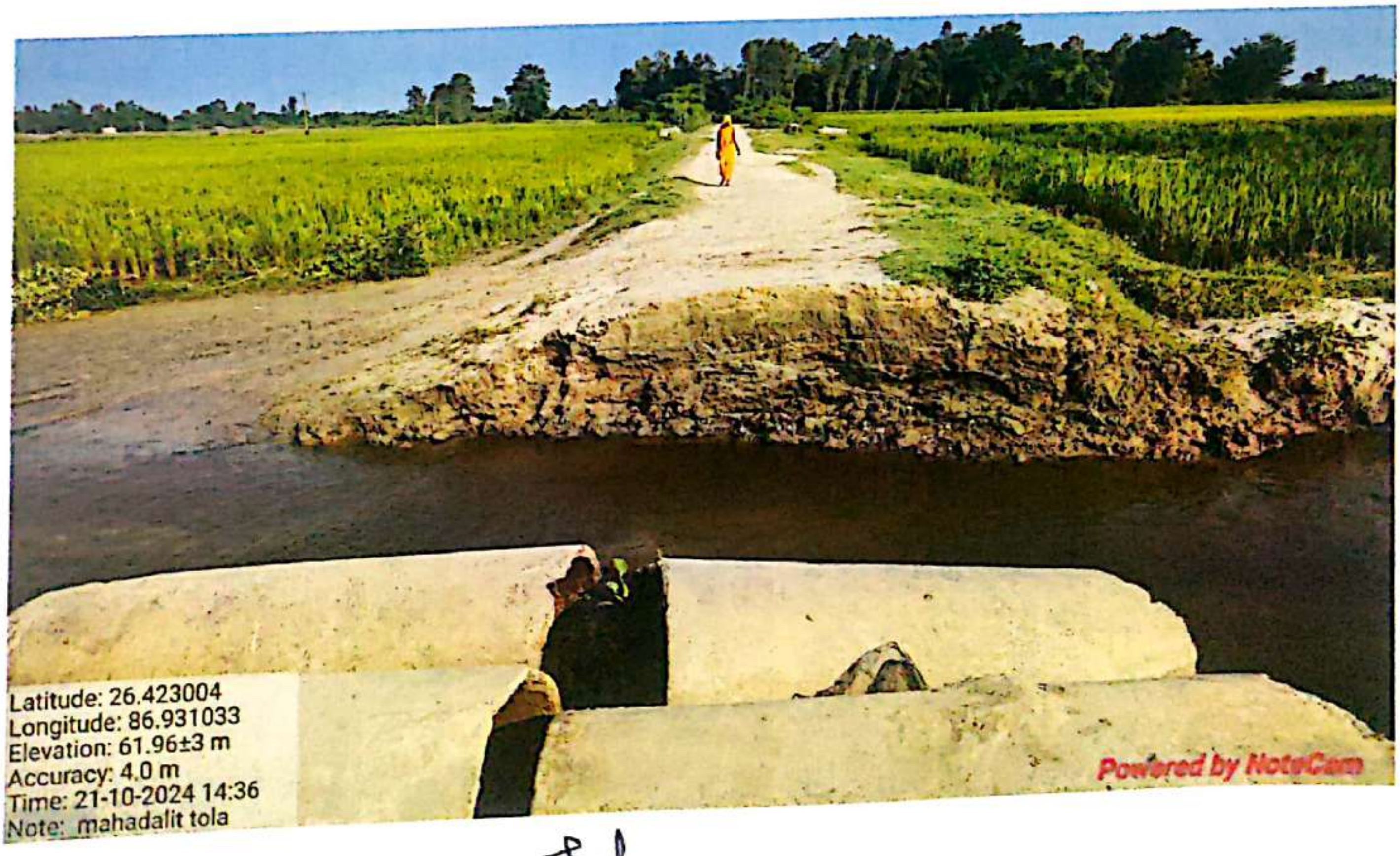
13/11/24

13/11/24
AE

Name of Road:- Main Road to Horizon Tola
Block:- Basantpur

12/11/24
AE

Name of Road:- Main Road to Harizon tola
Block:- Basantpur



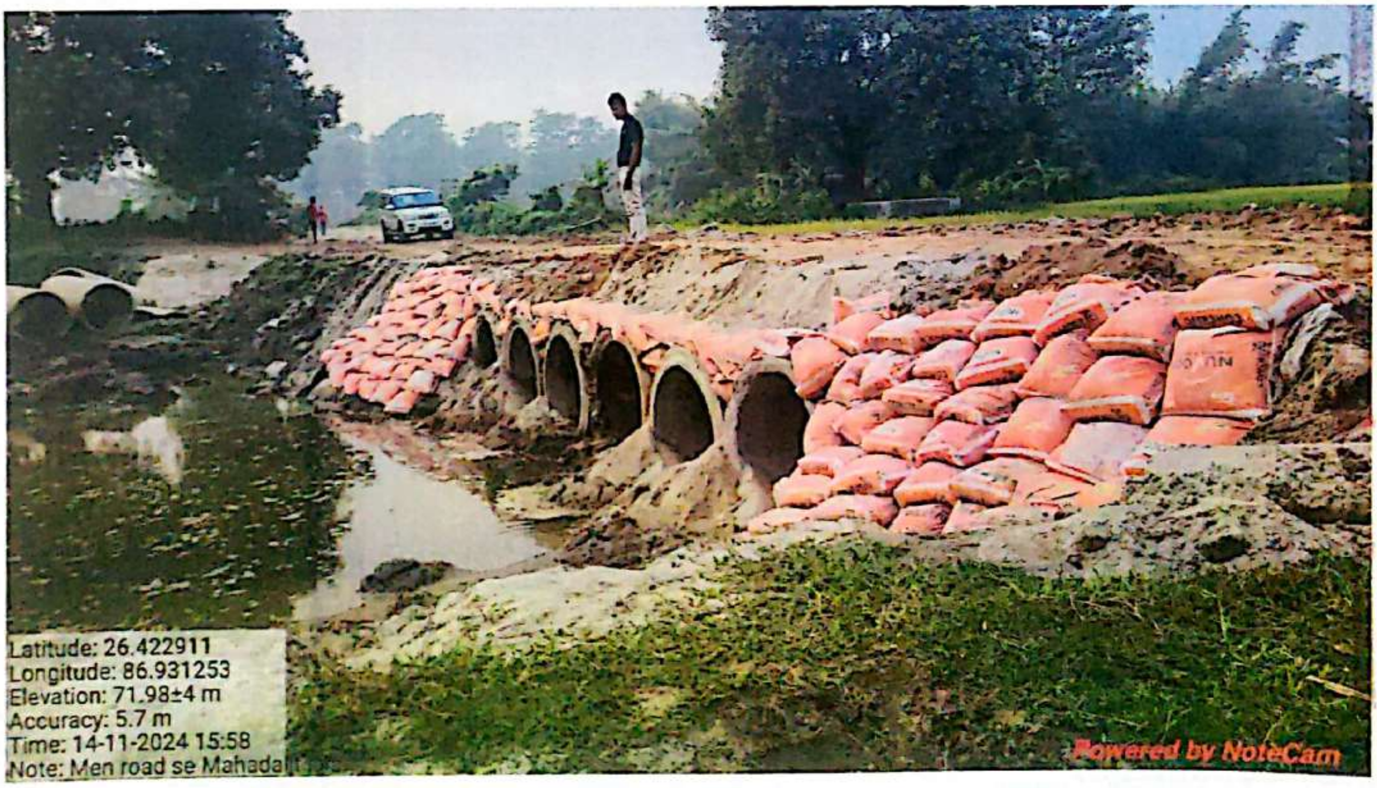
13/11/24
AE

Name of Road:- Main Road to Harizon tola
Block:- Baharatpur

13/11/24

Name of Road:- Main Road to Horizon tola

Block :- Basantpur



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Name of Road:- Main Road to Harizan tola
Block:- Basantpur

13/11/24