

RURAL WORKS DEPARTMENT



GOVERNMENT OF BIHAR

NAME OF ROAD:- **MAJHUA TO DUMARIYA ROAD**

DIVISION:- R.W.D, WORKS DIVISION, FORBESGANJ

CIRCLE:- R.W.D, WORK CIRCLE, KISHANGANJ

BLOCK:- FORBESGANJ

ESTIMATED COST

602203.00

प्रतिवेदन

पथ का नाम - Manghua to Dumauja Road

कार्य का नाम - FDR/2024-25

मे बाढ़ से क्षतिग्रस्त भाग में यातायात चालू करने का कार्य।

संलग्न प्राक्कलन 2024 को प्रखण्ड में आयी भीषण बाढ़ से क्षतिग्रस्त Manghua to Dumauja Road
..... में बाढ़ क्षतिग्रस्त मरम्मत मद से यातायात चालू करने हेतु तैयार किया गया है जिसकी
प्राक्कलित लागत 602203=₹ है। उक्त पथ
का निर्माण Mmwsy योानान्तर्गत हुआ है एवं योजना अनुसंधान अर्वाध 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 मदों का दर वर्तमान अनुसूचित दर के अनुरूप है।

12/11/24

कमीश अभियंता,

ग्रामीण कार्य विभाग,

कार्य प्रशाखा, Pambesganj

12/11/24

सहायक अभियंता,

ग्रामीण कार्य विभाग,

कार्य अवर प्रमण्डल, Pambesganj

12/11/24

कार्यपालक अभियंता,

ग्रामीण कार्य विभाग,

कार्य प्रमण्डल, Pambesganj

Inspection Report for Flood Damage Work

Date:

1. Name of PIUs: EE ~~Forbesganj~~
2. Name of Block: Forbesganj
3. Name of Road: Majhura to Dumusie Road.

A. For Road

1. Damage Location/Chainage :- CH-500m, 700m
2. Damage Length :- 10 m, 25 m, 13 m
3. Nature of Damage :- Wash out.
4. Details of Restoration Works:-
(i.) Material being used in Restoration Works:-
(ii.) Equipments/Tools being used in Restoration works:-
(iii.) Procedure taken up in Restoration works:-
(iv.) Restored Length :- 48.00m

B. For Bridge

1. Damage Location/Chainage:-
2. Damage Length :-
3. Nature of Damage :-
4. Details of Restoration Works:-
(i.) Material being used in Restoration Works:-
(ii.) Equipments/Tools being used in Restoration works:-
(iii.) Procedure taken up in Restoration works:-
(iv.) Restored Length :



Signature of JE/AE/EE


12/11/24
AE


Signature

(Name of Inspector)


15/11/24

Abstract of Cost

ame of Work : Estimate for Repairing/Restoration/Making Motorable Roads
Damaged during flood in 2024 in ARARIA District

me of Road:

MAJHUA TO DUMARIYA ROAD

ock: FORBESGANJ

District: ARARIA

ivision : RWD, Works Division, FORBESGANJ

Circle: RWD, Work Circle, KISHANGANJ

No.	Description	Unit	Quantity (m3)	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-charge.				
		Cum	126.50	1287.25	162837.13
2	Labour for cutting 62mm to 75mm dia bamboo piles to size and making shoes & driving by jet machine etc. all complete job as per specification & direction of Engineer-in-Charge.				
		Mtr.	612.00	72.518	44381.02
3	Labour for fitting & fixing 62mm to 75mm 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 etc all complete job as per specification & direction of Engineer-in-Charge.				
		Mtr.	179.00	36.179	6476.04

1	Supplying of EC bag, filling of local sand, stitching and placing in position as per the direction of Engineer-In-charge.				
		Per Bags	5911.73	55.882	330359.35
5	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.				
		Cum	15.45	2792.877	43149.95
6	Providing of drone service and drone surveying as per I/E				
		PER TRIP	3.00	5000.000	15000.00
	TOTAL AMOUNT =				602203.48
	SAY TOTAL AMOUNT =				602203.48
					602203.00

~~A 12/11/24~~

12/11/24

RWD SUB DIV.
FORBESGANJ

~~1 km 5~~ 22

RWD WORKS DIV. FORBESGANJ

Technically approved for $\approx 602203=00$ (proper six for two thousand two hundred and three) only.

16/11/24

[Signature]
KISHAN GANJ

Detailed Estimate

ne of Road:

MAJHUA TO DUMARIYA ROAD

Items of Works	No.	L (m)	B (m)	D (m) IN (Av.)	Quantity (m ³)
Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-charge.					
CH- 500m	1	10.00	4.60	(2.00+3.50)/2	126.50
				TOTAL=	126.50
				Total Qty =	126.50
Labour for cutting 62mm to 75mm dia bamboo piles to size and making shoes & driving by jet machine etc. all complete job as per specification & direction of Engineer-in-Charge.					
CH- 700m	1	25.00	3.00	4.00	300.00
	2	13.00	3.00	4.00	312.00
				Total Qty =	612.00
Labour for fitting & fixing 62mm to 75mm 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 etc all complete job as per specification & direction of Engineer-in-Charge.					
	1	25.00	3.00		75.00
	2	13.00	4.00		104.00
				Total Qty =	179.00
4 Supplying of EC bag, filling of local sand, stitching and placing in position as per the direction of Engineer-in-charge.					

SIDE CUTTING CH-600 M	1	25.50	1.00	$(3.10+4.5+2.00)/3$	81.60
SIDE CUTTING CH-700 M	2	13.00	1.00	$(2.40+4.00+3.50)/3$	85.80
				TOTAL=	167.40
Total No. of EC Bags = (234.67×35.315)					5911.73
				SAY NO OF BAGE=	5912
Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.					
SIDE CUTTING CH-600 M	1	25.50	1.00	0.30	7.65
SIDE CUTTING CH-700 M	2	13.00	1.00	0.30	7.80
				Total Qty. =	15.45
Providing of drone service and drone surveying as per I/E					
	1	3.0			3.00
				TOTAL=	3.00



JE



AE



EE

RWD SUB DIV- FORBESGANJ

RWD SUB DIV. FORBESGANJ

RWD WORKS DIV. FORBESGANJ

FINAL RATE UNDER WORKS CIRCLE KISHANGANJ

S.No	Discription of Item	Unit	Final Rate (Excluding GST, Solgnlorago & L.Cosa)	Final Rate (Including GST, Solgnlorago & L.Cosa)
1	EARTH WORK	CUM	459.003	549.740
2	BRICK BAT	CUM	2209.578	2769.116
3	G.S.B	CUM	4328.501	5172.300
4	SAND BAG (Cement Bag)	Each	46.550	55.880
5	BAMBOO PILE	Per Mtr.	58.140	69.186
6	BAMBOO CHACHRI	Per Mtr.	302.258	369.690
7	BAMBOO RUNNER	Per Mtr.	30.210	35.950
8	HUME PIPE (1000 mm Div)	Per Mtr.	6208.598	7385.850
9	HUME PIPE (600 mm Div)	Per Mtr.	2492.260	2965.790
10	STEEL DRUM SHEET	Per Sqr.Mtr.	215.352	256.270
11	GEO BAG WITH SAND	EACH	967.490	1152.320
12	EACH N.C. BAG WITH SAND (Cement Bag)	Each E.C	967.490	1151.800
13	LOCAL SAND	CUM	721.110	1272.780

Executive Engineer
RWD, Works Division
Kishanganj-1

Executive Engineer
RWD, Works Division
Araria

Executive Engineer
RWD, Works Division
Kishanganj-2

Executive Engineer
RWD, Works Division
Forbesganj

Superintending Engineer
Rural Works Department
Works Circle Kishanganj

SUMMARY OF CARRIGE COST

No.	Item	Unit	Amount (Rs.)
	Earth Work	Cum	274.42
	Brick Bats	Cum	521.97
	Bamboo	Per Mtr.	3.00
	G.S.B.	Cum	2960.13
	Local Sand	Cum	345.14
5	HUME PIPE (1000 mm DIA)	Per Pipe	745.93
7	HUME PIPE PIR METER	Per Mtr.	298.37
3	HUME PIPE (600 mm DIA)	Per Pipe	310.88
9	HUME PIPE (600 mm DIA)	Per Mtr.	124.35
10	Local Sand	Cum	345.10

BASIC RATES
(A) Labour

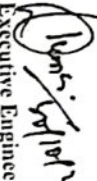
Sl. No.	Description of Labour	Unit	Rate (Rs.)
L-01	Bhisti	day	373
L-02	Bitumen Sprayer (semi skilled)	day	393
L-03	Blacksmith, special	day	503
L-04	Blaster, 2nd class	day	619
L-05	Carpenter 1st Class	day	503
L-06	Chips spreader, semi-skilled	day	449
L-07	Chiseller (Skilled)	day	577
L-08	Dresser (Skilled)	day	472
L-09	Driller, 2nd class	day	449
L-10	Electrician, skilled	day	476
L-11	Fitter, skilled	day	511
L-12	Mason (1st class)	day	503
L-13	Mason (2nd Class)	day	449
L-14	Mate, Semi skilled	day	434
L-15	Mazdoor (Unskilled)	day	410
L-16	Mazdoor (Semi skilled)	day	388
L-17	Mazdoor (Skilled)	day	472
L-18	Painter (1st class)	day	476
L-19	Plumber, Special	day	476
L-20	Surveyor	day	454
L-21	White Washer	day	476
L-22	Head blacksmith	day	503
L-23	Welder 1st Class	day	577
	Carpenter Head	day	503
	Night Guard	day	415

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar effective from 01/07/2024)


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Superintending Engineer

BASIC RATES (B) Material					
Sl. No.	Description	Unit	Basic Rate as per SOR	Add Royalty	Final Rate With Royalty
M-001	Bamboo (1st Class) 100 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr - 23.52 Rs.)	No.	188.00		188.00
M-002	Bamboo (1st Class) 100 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr - 23.52 Rs.)	No.	188.00		188.00
M-003	Bamboo (1st Class) 50 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr - 14.71 Rs.)	No.	118.00		118.00
M-004	Bamboo (1st Class) 50 mm - 100 mm dia, 6.0 m - 8.0 m long (per mtr - 14.71 Rs.)	No.	118.00		118.00
M-005	Bamboo (2nd Class) 75mm dia, 1.8 m - 6.0 m - 8.0 m long (per mtr - 22.03 Rs.)	No.	176.00		176.00
M-006	Bamboo (2nd Class) 75mm dia, 6.0 m - 8.0 m long (per mtr - 22.03 Rs.)	No.	176.00		176.00
M-007	Brick Bals	cum	1063.00	18.00	1081.00
M-008	Selected earth (Including @ Rs. 33.00 per cum & compensation @ Rs. 2.25 Per Cum	cum	2.25	33.00	35.25
M-009	Empty Cement Bag IS 11652:2000	Nos.	11.11		11.11
M-010	Steel Drum 300 mm dia 1.2 m high / empty bitumen drum	Nos.	170.13		170.13
M-011	Sand bags (Cost of sand and Empty cement bag)	Nos.	7.31	2.59	9.90
M-012	Sutli (Brown)	kg	20.59		20.59
M-013	Granular material (Natural occurring, soil gravel mixture / quarry waste, kankar, laterite, dhandla	cum	84.03	83.00	167.03
M-014	Nails	kg	108.00		108.00
M-014	RCC Pipe NP3 (1000 mm dia)	m	5787.23		5787.23
M-015	RCC Pipe NP3 (600 mm dia)	m	2310.00		2310.00
M-015	Sand (Fine) at source	cum	69.75	75.00	144.75
M-016	Empty Steel Drum 300 mm dia 1.2 m height	Nos.	170.13		170.13
M-016	Water	kl	60.30		60.30
M-017	Geo Bags	Each	124.00		124.00
M-018	G.S.B.	cum	69.75	75.00	144.75

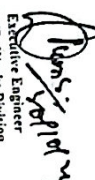
Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt of Bihar
effective from 01/07/2024.

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar effective from 01/07/2024.)


Executive Engineer
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Kishanganj-1


Executive Engineer
RWD, Works Division
Arra


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RWD, Works Division
Kishanganj-2


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Forbessganj


Superintending Engineer
Rural Works Department
Works Circle Kishanganj

BASIC RATES (C) USAGE RATES OF PLANT & MACHINERY						
Sr. No	Ser Code	Description of		Output of Machine		Usage Rates in Rs.
		Machine	Activity	Unit	Output	Unit Rate
PM-009	PM-012	Crane upto 80 T	Lifting of materials			per hour 13,373.00
PM-010	PM-013	Doser D-80 - A12 Doser D-50 - A13	Dosing cutting	cum/h	260.00	per hour 2,092.00
PM-011				cum/h	120.00	per hour 4,426.00
PM-014	PM-017	Front end loader 1 cum bucket capacity (n) 45 cum hour	Loading Aggregates	cum/h	45.00	per hour 1,419.00
PM-017	PM-026	Hydraulic Excavator of 1 cum bucket	Excavation	cum/h	100.00	per hour 2,272.00
PM-031	PM-044	Three wheel 80-100 kN Static Roller	Compaction/rolling			per hour 1,393.00
PM-032			Earth - Embankment or sub-grade	cum/h	80-70	per hour 11,503.00
PM-033			Sub-base G-I	cum/h	10.00	per hour 1,393.00
PM-034			Sub-base G-II G-III	cum/h	8.00	per hour 1,393.00
PM-035			WBM	cum/h	16.00	per hour 1,393.00
PM-036			BLSR	cum/h	10.00	per hour 1,393.00
PM-037			BM 50-75 mm	cum/h	12.00	per hour 1,393.00
PM-038			Premix 20 mm	sqm/h	250.00	per hour 1,393.00
PM-039			Seal Coat	sqm/h	500.00	per hour 1,393.00
PM-040			Surface Dressing 1st Coat	sqm/h	400.00	per hour 1,393.00
PM-041			Surface Dressing 2nd Coat	sqm/h	500.00	per hour 1,393.00
PM-042	PM-048	Tipper 5.5 cum/10 t	Carriage	cum/rip	5.50	per hour 693.00
PM-043	PM-053	Tractor with Disc Harrows	Pulverisation of soil	cum/h	80.00	per hour 693.00
PM-044	PM-053	Tractor with ripper 1st 60 cum per hour	Ripping Pavements, uprooting trees	cum/h	60.00	per hour 693.00
PM-045	PM-053	Tractor with trolley with Grading equipment	Transportation of materials	trip	3 to 5	per hour 693.00
PM-046	PM-054	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour 693.00
PM-047	PM-057	Truck 10 t capacity	Carriage	cum/rip	5.50	per hour 2,205.00
PM-048	PM-059	Vibratory roller 80-100 kN	Compaction of soil WBM	cum/h	100.00	per hour 2,205.00
PM-049			Compaction of BM	cum/h	60.00	per hour 2,205.00
PM-050	PM-060	Water tanker 6 kl capacity (Truck Mounted)	Carriage of water	litre/h	12000.00	per hour 2,205.00
PM-063	PM-060	generator 3KVA	stiching	per hour		per hour 74.00
PM-064	PM-060	stiching machine	stiching	day		day 30.00

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar effective from 01/07/2024.

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RWD, Works
Division
Kishanganj-1

Executive Engineer
RWD, Works Division
Kishanganj-2

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RWD, Works Division
Araria

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RWD, Works Division
Forbesganj

Superintending Engineer
Rural Works Department
Works Circle Kishanganj

Carriage Cost & Lead in Km

Cost of Haulage Excluding Loading & Unloading as per SO	Executive Engineer RWD, Works Division Kishanganj-1	Executive Engineer RWD, Works Division Kishanganj-2	Subjected to Verification of Local
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Executive Engineer
RWD, Works Division
Kishanganji-2

Executive Engineer
RWD, Works Division
Araria

Theresa Hoff
Executive Engineer
RWD, Works Division
Forbesganj

**Superintending Engineer
Rural Works Department
M. S. G. Kishanrao**

**Superintending Engineer
Rural Works Department
M. S. G. Kishanrao**

SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	QTY	Rate	Amount In Rs
Carriage Of Material (By Tractor)						
4.4		Loading and unloading of stone Boulder /stone aggregates sand/ kankar/ moorum				
		Placing tractor at loading point loading with front end loader dumpoing ,turning for return trip excludng time for haulage and return trip				
		Unit = cum				
		Taking output = 2.25 cum				
		Time required for				
	i)	positioning of tractor at loading point	min	1 min		
	ii)	Loading by front end loader 1 cum bucket capacity @ 25 cum	min	5 min		
		Total		6 min		
	a)	Labour				
		Mate	day	0.030	434.00	13.02
		Mazdoor (Unskilled)	day	0.720	410.00	295.20
	b)	Machinery				
		Tractor 3.60 Tonnes Capcaity	hour	0.100	676.00	67.60
		Front end loader 1 cum bucket capacity @ 25 Cum/hour	hour	0.083	1,419.00	117.78
		Cost for 2.25 cum = a+b+c				493.60
		Rate per cum = (a+b+c)/2.25	cum			219.378
		Total per cum	cum			219.378
1.10		Haulage excluding Loading & Unloading				
		Haulage of materials by truck excluding cost of Loading, Unloading and stacking				
		Unit = 7km				
		Taking output 3.6t load and lead 10km = 36t/km				
		Case- I : Surfaced Road				
		Speed with load : 15km per hour				
		Speed while returning empty : 25km per hour				
	a)	Machinery				
		Tractor 3.6 tonnes Capacity				
		Haulage with load	hour	0.667	676.00	450.89
		Empty return trip	hour	0.400	676.00	270.40
		Cost for 36t/km = a+b+c				721.29
		Cost for 1 t km = a+b/36				20.040
		Total per t per km				20.040
		Case - II Kutcha Track and Track in River Bed / Nallah Bed and Choe Bed				
		Speed with load : 10km per hour				
		Speed while returning empty : 15km per hour				
	a)	Machinery				
		Tractor 3.6 tonnes Capacity				
		Haulage with load	hour	1.00	676.00	676.00
		Empty return trip	hour	0.667	676.00	450.89
		Cost for 36t/km = a+b+c				1126.89
		Cost for 1 t km = a+b/36				31.300
		Total per t per km				31.300
Carriage Of Material (By Tipper)						
1.1		Loading and Unloading Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Manual Means				
	(I)	Loading of lime, Aggregates, Stone boulder, Brick aggregate, Kankar, Building Rubbish, Crushed Slag Stone for masonary work by manual means including a lead upto 30m				
		Unit = cum				
		Taking output = 5.5 cum				
		Time required for				
	(i)	Position of tipper at laoadng point		1Min		
	(ii)	loading by front end loader 1 cum bucket capacity @25		13Min		
	(iii)	maneuvering, reversing, dumping and turning for return		2Min		
	(iv)	Waiting time unforeseen contingnencies etc.		4Min		
		Total		20Min		
	b)	Machinery				
		Tipper 5.5 Tonnes Capcaity	hour	0.330	1,426.00	470.58
		Front end loader 1 cum buckert capacity @ 25 Cum/hour	hour	0.330	1,419.00	468.27
		Cost for 5.5 cum = a+b+c				938.85

		Rate per cum = (a+b+c)/8.3	cum			170.70
		1.10 Haulage excluding Loading & Unloading				
		Haulage of materials by truck excluding cost of Loading, Unloading and stacking				
		Unit = 1km				
		Taking output 10t load and lead 10km = 100t km				
		Case - I : Surfaced Road				
		Speed with load : 25km per hour				
		Speed while returning empty : 35km per hour				
	a)	Machinery				
		Tipper				
		Haulage with load	hour	0.40	1426.00	570.40
		Empty return trip	hour	0.29	1426.00	413.34
		Cost for 100t km = a+b+c				983.74
		Cost for 1 t km = a+b/c/100				9.83
		Total per t per km				9.83
		Case - III Kutcha Track and Track in River Bed / Nallah Bed and Choe Bed				
		Speed with load : 10km per hour				
		Speed while returning empty : 15km per hour				
	a)	Machinery				
		Tipper				
		Haulage with load	hour	1.00	1426.00	1426.00
		Empty return trip	hour	0.67	1426.00	953.42
		Cost for 100t km = a+b				2381.42
		Cost for 1 t km = a+b/c/100				23.81
		Total per t per km				23.81
3		Carriage Of Material (By Truck)				
	1.10	Haulage excluding Loading & Unloading				
		Haulage of materials by truck excluding cost of Loading, Unloading and stacking				
		Unit = 1km				
		Taking output 10t load and lead 10km = 100t / km				
		Case - I : Surfaced Road				
		Speed with load : 25km per hour				
		Speed while returning empty : 35km per hour				
	a)	Machinery				
		Truck				
		Haulage with load	hour	0.40	1054.00	421.60
		Empty return trip	hour	0.29	1054.00	305.66
		Cost for 100t km = a+b+c				727.26
		Cost for 1 t km = a+b/c/100				7.27
		Total per t per km				7.27
		Case - III Kutcha Track and Track in River Bed / Nallah Bed and Choe Bed				
		Speed with load : 10km per hour				
		Speed while returning empty : 15km per hour				
	a)	Machinery				
		Truck				
		Haulage with load	hour	1.00	1054.00	1054.00
		Empty return trip	hour	0.67	1054.00	706.18
		Cost for 100t km = a+b				1760.18
		Cost for 1 t km = a+b/c/100				17.60
		Total per t per km				17.60
1.9		Loading and Unloading of Hume Pipes				
	(i)	Loading of RCC Hume pipes by mechanical means including a lead upto 30 m				
	A.	1000 / 1200 mm dia Huma pipe				
		Unit = per pipe				
		Taking output = 9 pipes				
	a)	Labour				
		Mate	day	0.02	434.00	8.68
		Mardoor (Unskilled)	day	0.50	410.00	205.00
	b)	Machinery				
		Truck				
		Crane	hour	0.33	1054.00	347.82
		Cost for 9 pipes = a+b+c+d				1839.09
		Total				2400.59

			Rate per pipe = (a+b+c)/9	per p		266.732
			Total per pipe			266.732
		C	600/450 mm dia Hume pipe			
			Unit = per pipe			
			Taking output = 21 pipe			
		a)	Labour			
			Mate	day	0.02	434.00
			Mazdoor (Unskilled)	day	0.50	410.00
		b)	Machinery			
			Tractor 3.60 Tonnes Capacity	hour	0.33	1054.00
			Crane	hour	0.33	5573.00
			Cost for 21 pipes = a+b+c+d			2400.59
			Rate per pipe = (a+b+c)/21	per p		114.314
			Total per pipe			114.314
		(iii)	Unloading of RCC Hume pipe by Mechanical means including a lead upto 30 m			
		A.	1000/1200 mm dia RCC Hume pipes			
			Unit = per pipe			
			Taking output = 9 pipes			
		a)	Labour			
			Mate	day	0.02	434.00
			Mazdoor (Unskilled)	day	0.50	410.00
		b)	Machinery			
			Truck	hour	0.20	1054.00
			Crane	hour	0.20	5573.00
			Cost for 9 pipes = a+b+c+d			1539.08
			Rate per pipe = (a+b+c)/9	per p		171.009
			Total per pipe			171.009
		C.	600/450 mm dia Hume pipe			
			Unit = per pipe			
			Taking output = 21 pipes			
		a)	Labour			
			Mate	day	0.020	434.00
			Mazdoor (Unskilled)	day	0.50	410.00
		b)	Machinery			
			Truck	hour	0.20	1054.00
			Crane	hour	0.20	5573.00
			Cost for 21 pipes = a+b+c+d			1539.08
			Rate per pipe = (a+b+c)/21	per p		73.290
			Total per pipe			73.290
1.9			Loading and Unloading of Bamboo			
		(i)	Loading & unloading Bamboo			
			Unit = per metre			
			Taking output = per mtr.			
		a)	Material			
			Bamboo = 2016/300	per pipe		6.72
			Bamboo Per Mt	per mt		0.96
			Total per pipe			6.72
4	3.3	301.5	Construction of Embankment with material obtained from roadway cutting			5826.53
			Construction of Embankment with approved material deposit at site from roadway cutting and excavation from drain and foundation of other structure graded and compacted to meet requirement of Table 300.1 and 300.2 as per Technical Specification Clause 301.5.			
			Unit = cum			
			Taking output = 100 cum			
		a)	Labour			
			Mate	day	0.02	434.00
			Mazdoor (Unskilled)	day	0.50	410.00
		b)	Machinery			
			Dozer D-50 for spreading @200 cum per hour	hour	0.50	0.00
			Motor Grader for grading @200 Cum per hour	hour	2.00	697.00
			Water tanker 6 kl capacity	hour	2.00	752.00
			Three Wheel 80-100 kN Static Roller	hour	1.25	1593.00
		c)	Material			
			Water			
			Cost for 100 cum = a+b+c+d+e	kl	12.00	60.30
						5826.53

		Rate per cum = (a+b+c+d)/100		cum				58.265	
		Total per cum		cum				58.265	
5	3.5	301.5	Excavation in soil with Dozer with lead upto 100 m						
	(ii)	(ii)	Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 m, including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections.						
		Unit = cum							
		Taking output = 100 cum							
		a)	Labour						
			Mate						
			Mazdoor (Unskilled)	day	0.08	434.00	31.60		
		b)	Machinery	day	2.00	410.00	822.00		
			Dozer D-50 for spreading @200 cum per hour	hour	3.60	4326.00	15,573.60		
		Cost for 100 cum = a+b+c+d+e				16427.20			
		Rate per cum = (a+b+c+d)/180		cum		91.262			
		Total per cum		cum		91.262			
6	3.3	301.5	Construction of Embankment with approved material obtained from borrow pits with a lift upto 1.5 m transporting to site, spreading grading to required slope and compacting to meet requirement of Table 300.1 and 300.2 with a lead of 1000 m as per Technical						
		Unit = cum							
		Rate item no. 3.3 Clause 301.5							
		Rate item no. 3.5(ii) Clause 301.5							
		Royalty Compensation for earth taken from private land							
		Carriage of Earth by Tractor Lead 1 K.M.							
		Total Cost of 1 cum =							
		Labour Cess @ 1%							
		G.S.T. @ 18%							
		Add Seigniorage Fee @ 10 % of Materials							
		Total Cost of 1 cum @ 1% Cess & 18% GST		cum	1.00	35.25	3.53		
7	4.5		Providing and Laying of Brick Bats						
		Placing tractor at loading point loading with front end loader dumping, turning for return trip excluding time for haulage and return trip							
		Unit = cum							
		Taking output = 2.83 cum							
		a)	Labour						
			Mazdoor (Unskilled)	day	2.170	410.00	889.70		
		b)	Materials						
			Brick Bats	cum	3.396	1,081.00	3671.08		
		Total (a+b) =				4560.78			
		Total (a+b+c) =				4560.78			
		d)	Carriage						
			Brick Bats	cum	3.396	521.97	1772.61		
		TOTAL							
		Rate per cum = (a+b+c+d)/2.83							
		Total per cum							
		Labour Cess @ 1%							
		G.S.T. @ 18%							
		Add Seigniorage Fee @ 10 % of Materials							
		Total Cost of 1 cum @ 1% Cess & 18% GST		cum	1.20	1,081.00	129.72		
8	4.1	401	PAVEMENT CRUST LAYERS						
		For Grading II Material							
		Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement 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						
			Mazdoor (Skilled)	day	0.48	434.00	208.32		
			Mazdoor (Unskilled)	day	2.00	472.00	944.00		
				day	10.00	410.00	4100.00		

b)	Machinery			
	Tractor mounted grader arrangement			
	Three wheel 80-100 kN static roller @ 10 cum per hour	hour	12.00	676.00
	Tractor with Rotavator 25 cum per hour	hour	30.00	1593.00
	Water tanker 6 kl capacity	hour	12.00	693.00
c)	Material			
	Well graded granular sub-base material as per Table 400.1			
	GSB			
	Cost of 300 cum without Carriage = (a+b+c+d+e)	cum	1.28	167.03
	A) Basic Cost per cum = (a+b+c+d+e)/300			
	CARRIAGE	cum		
	G.S.B.			
	Carriage cost of 300 cum	Cum	414.00	2960.13
	B) Carriage cost per cum			
	Rate per cum = (A+B)			
	Total per cum	CUM		
	Labour Cess @ 1%	CUM		
	G.S.T. @ 18%			
	Add Seigniorage Fee @ 10 % of Materials			
	Total Cost of 1 cum @ 1% Cess & 18% GST	cum	1.28	167.03
9.3	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.		
	B.	1000 MM DIA (Single Row)		
	a)	Material		
		RCC NP3 pipe including collar		
	b)	Labour		
		Mate		
		Mason (1st class)		
		Mazdoor (Unskilled)		
		Cost for 7.5m = (a+b+c)		
		A) Basic Cost per m = (a+b)/7.5		
		Rate per m of Pipe		
	(d)	CARRIAGE COST		
		NP3 Pipe		
		Carriage cost of 7.5 m		
		Carriage cost per m		
		Rate per m with Carriage		
		Total per m		
		Labour Cess @ 1%		
		G.S.T. @ 18%		
		Total Cost of 1 mtr @ 1% Cess & 18% GST		
2	C.	600 MM DIA (Single Row)		
	a)	Material		
		RCC NP3 pipe including collar		
	b)	Labour		
		Mate		
		Mason (1st class)		
		Mazdoor (Unskilled)		
		Cost of 7.5m = (a+b+c+d)		
		A) Basic Cost per m = (a+b)/7.5		
		Rate per m of Pipe		
		CARRIAGE COST		
		NP3 Pipe		
		Carriage cost of 7.5 m		
		B) Carriage cost per m		
		Rate per m with Carriage		
		Total per m		
		Labour Cess @ 1%		
		G.S.T. @ 18%		
		Total Cost of 1 mtr @ 1% Cess & 18% GST		
3	5.7.40.1	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply ofutti etc. all complete as per approved design, specification and direction E/L.		

		Unit = Per 50 Nos			
		(A) For Filling & Stitching & Stacking			
		Labour			
		Skilled Labour for filling sand into bags and sewing			
		total	No	160	472.00
			kg	6.54	10.46
		(B) Labour Rate For Carrying & Placing filled E.C. Bags			
		Labour			
		Skilled Labour for Carrying filled bags and placing to work site			
		TOTAL =	No	160	472.00
					1416.00
		Per 50 Nos (B) =			28.32
		Rate per bag (A+B) = /100			2170.30
		(C) Cost of empty cement bag & cost of sand			11.75
		(D) Carriage cost			11.11
		Tractor with freely	cum	0.014	145.14
		(6) Total = (A+B+C+D) =			11.71
		Labour Cost @ 1%			46.45
		G.S.T @ 18%			0.465
		Add Seigniorage Fee @ 10 % of Materials			0.179
		TOTAL COST OF 1 E.C. Bag 1% Cost & 18% GST =	cum	0.014	144.75
					0.49
4	5.7.9	Supply 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 30 swg G.I. wire including cost of G.I. or nails complete job as per specification and direction			55.00
		Unit = Per mt.			
		Taking Out Put = 30.50 m			
	(i)	Materials			
		Bamboo			
		Nails	m	30.50	20.21
					416.41
	(ii)	Labour	kg	0.50	100.00
		Carpenter Cr -ii			
		Unskilled Labour	No	0.125	501.00
		Rate for 30.5 m	No	0.25	410.00
		TOTAL =			815.79
		Rate per mt.			815.79
	(iii)	Carriage cost			27.40
		bamboo			
		Total Cost with Carriage	mt	1	1.00
		Labour Cost @ 1%			30.40
		G.S.T. @ 18%			0.104
		TOTAL COST (B) mt. 1% Cost & 18% GST =			0.473
5	5.7.7	Labour for cutting 62 mm to 75 mm dia bamboo piles in size and making threes and driving etc. complete job as per specification and direction E/L			16.172
		Unit = Per mt.			
		Taking Out Put = 30.50 m			
		Assuming			
		20 no pile sunk 1.525 m deeps			
		Total depth sunk 30.50 m			
	(i)	Materials			
		Bamboo			
	(ii)	Labour	m	30.50	20.21
					616.41
		Carpenter Cr -ii			
		Unskilled Labour for piling	No	0.25	501.00
		Rate for 30.5 m	No	2.50	410.00
		Total			1975.0
		Rate for 1 m			1767.16
		Carriage Cost of Bamboo			1767.16
		Total Cost with Carriage	per mtr.		37.94
		Labour Cost @ 1%			1.00
		G.S.T. @ 18%			60.94
		TOTAL COST (B) 1% Cost & 18% GST =			0.609
					10.969
					22.118

		Labour for fitting and and fixing Steel Drum 300 mm dia 1.2 m high as per specification and direction			
		(Assuming Per Mtr. = $3.14 \times 0.30 = 0.942$ mtr.)			
		Area of Assuming in one Drum = $0.942 \times 1.20 = 1.130$ Sqm			
		One Sqm sheet Cost = $127.80 / 1.130 = 113.12$ Cost			
		Unit = per sqm			
		Taking Out = 100 sqm			
		Labour			
	a	Hammer man			
		Mazdoor (Unskilled)	No.	4.00	503.00
		Carpenter 1st Class	No.	4.00	410.00
			No.	4.00	503.00
	b	Materials			
		Nails	kg	5.00	170.13
		Steel Drum sheet	Nos.	88.5	170.13
					15056.51
		Rate Per m = $(a+b+c)/100$			
		Labour Cess @ 1%			
		G.S.T. @ 18%			
		Total Cost of 1 mtr. 1% Cess & 18% GST =			
5.7.8	WRD	Labour for fitting and and fixing split bamboo woven chachari in position 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 $3.05 \times 3.05 = 9.30$ sqm			
		Unit = per sqm			
		Taking Out = 9.30 sqm			
	a	Labour			
		Carpenter Gr -II	No.	1.00	531.00
		Mazdoor (Unskilled) for pilling	No.	1.00	410.00
	b	Materials			
		Bamboo	Mtr.	10.00	188.00
		Nails	kg	0.25	108.00
					2848.000
		Rate Per m = $(a+b+c)/9.30$			
		Labour Cess @ 1%			
		G.S.T. @ 18%			
		Total Cost of 1 mtr. 1% Cess & 18% GST =			
5.7.50		Providing laying & filling Geo bags of size 1m X 0.700m (Type A) 300 GSM nonwoven) weight 420 gm volume of filled bag 0.070 cum Weight of filled Geo bag 126 kg with local sand including stitching in four lines by approved Nylon thread with Staching machine and generator, stacking and placing after loading, Unloading and carriage with the help of Trolley within 150 mtr. lead and all complete as per specification and direction of E/I.			
		Unit = Each Bag			
		Taking Out = 40 Nso.			
		Labour			
		Unskilled Loading For filling stacking	nos	2	410.00
		Skilled labour for stacking	nos	0.33	472.00
		Unskilled labour for carrying and placing	nos	4.00	410.00
		Mate	nos	0.25	434.00
		Stitching Machine	day	0.33	50.00
		Tractor with trolley	day	1.00	676.00
		Generator 3KVA	hrs	20.67	74.00
		Total			4946.34
		Rate per bag (total/40) (A)			
	(ii)	charge for placing & dumping			
		unskilled labour for loading unloading & dumping	nos	16	410.00
		Mate	nos	1	434.00
		Tractor with trolley	each	4	676.00
		Total			9443.000
		Rate per bag (Total/256) (B)			
		Materials			
		cost of Geo Bag	each	1	124.00
		Total cost (a+b+c)			

		Rate per bag				
		Labour Cess @ 1%				284.545
		G.S.T. @ 18%				2.845
		Add Seigniorage Fee @ 10 % of Materials				51.218
		Total Cost of 1.671 Bags 1% Cess & 18% GST =	cum	0.070	144.75	1.01
5.7.40.3		Labour for filling empty cement bags with local sand, stitching the bags and pitching in Nylon crate of size (1m x 1m x 1m) with a lead of 150 m including supply of suti etc. and placing the filed crates in water portion within a lead 30 m all complete as per approved design, specification and direction of E/I.				339.61
		Unit = Each N.C.				
	(i)	(i) Labour Cost for filling bags in one Nylon crate in dry portion	No.	1	472.00	411.00
	(ii)	(i) Labour Cost for filling bags in one Nylon crate in dry portion	No.	1	472.00	611.00
		(II) Placing of filed N/C with 30 m lead in water portion				
		Labour				
		Mate	No.	0.37	434.00	160.58
		Labour (Skilled)	No.	1.00	472.00	472.00
		Labour (Unskilled)	No.	1.00	410.00	410.00
		Hence, Total Labour for 100 Cft.				2064.58
		Taking one E.C. Bags to contain 1.20 Cft. Of sand				2064.58
	(ii)	Hence, labour rate for placing one filed N.C.		356.49		356.49
		Hence rate for mupm crate on water portion (I+II)			Say.	967.49
		Labour Cess @ 1%				9.675
		G.S.T. @ 18%				174.148
		Add Seigniorage Fee @ 10 % of Materials	cum	0.034	144.75	0.49
		Total Cost of 1 E.C. 1% Cess & 18% GST =				12151.803
(1)	800	local sand filling in foundation trenches as per drawing and technical specification Clause 305.3.9				
		local sand filling in foundation trenches as per drawing and technical specification Clause 305.3.9				
	I.	Sand filling				
		Unit = cum				
	a)	Labour				
		Mate	day	0.01	434.00	4.34
		Mazdoor (Unskilled)	day	0.30	410.00	123.00
	b)	Material				
		Sand (assuming 20 per cent voids)	cum	1.20	144.75	173.70
		Overheads @ 6 % on (a)				18.06
		CARRIAGE COST				319.10
		sand	Cum	1.2	345.14	414.17
		Rate per cum = a+b+c				733.27
		Total Cost including 1 % LABOUR CESS				7.33
		G.S.T. @ 18%				131.99
		Add Seigniorage Fee @ 10 % of Materials				0.49
		Total Cost of 1 E.C. 1% Cess & 18% GST =				1287.25

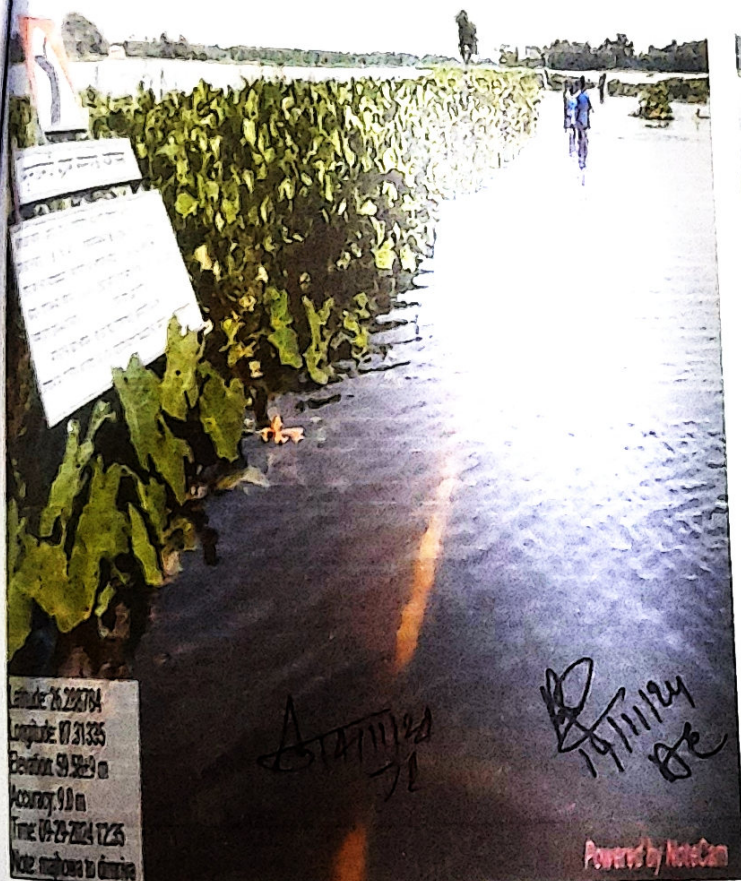
Executive Engineer
RWD, Works Division
Kishanganj-1

Executive Engineer
RWD, Works Division
Kishanganj-2

Executive Engineer
RWD, Works Division
Forbesganj

Executive Engineer
RWD, Works Division
Forbesganj

Superintending Engineer
Rural Works Department
Works Circle Kishanganj





Latitude: 26.290171
Longitude: 87.319607
Elevation: 58.57±8 m
Accuracy: 10.0 m
Time: 10-07-2024 15:18
Note: MAJHIJA TO DUMARIYA



Latitude: 26.290171
Longitude: 87.319607
Elevation: 58.57±8 m
Accuracy: 10.0 m
Time: 10-07-2024 15:18
Note: MAJHIJA TO DUMARIYA



Latitude: 26.289669
Longitude: 87.319029
Elevation: 58.1±11 m
Accuracy: 8.3 m
Time: 07-19-2024 18:41
Note: majhiya to dūmriya

19/11/24
78

19/11/24
86



Latitude: 26.289669
Longitude: 87.319029
Elevation: 58.1±11 m
Accuracy: 8.3 m
Time: 07-19-2024 18:41
Note: majhiya to dūmriya



Latitude: 26.289659
Longitude: 87.318918
Elevation: 53.2111 m
Accuracy: 9.0 m
Time: 11-14-2024 13:27
Note: MAJHWA TO DUMARIYA
CH-0.650KM



Latitude: 26.29011
Longitude: 87.319723
Elevation: 59.4419 m
Accuracy: 9.3 m
Time: 11-14-2024 13:20



Latitude: 26.290132
Longitude: 87.319727
Elevation: 59.3559 m
Accuracy: 9.5 m
Time: 11-14-2024 13:20



Latitude: 26.289743
Longitude: 87.319278
Elevation: 53.9815 m
Accuracy: 3.8 m
Time: 11-14-2024 13:26
Note: MAJHWA TO DUMARIYA
CH-0.650KM



Latitude: 26.290181
Longitude: 87.319526
Elevation: 51.3818 m
Accuracy: 9.5 m
Time: 11-13-2024 16:45
Note: majhwa to dumiya

14/11/24
28
D. Jyoti
ble



Latitude: 26.289734
Longitude: 87.319015
Elevation: 60.8414 m
Accuracy: 8.2 m
Time: 11-11-2024 16:45
Note: majhwa to dumiya

