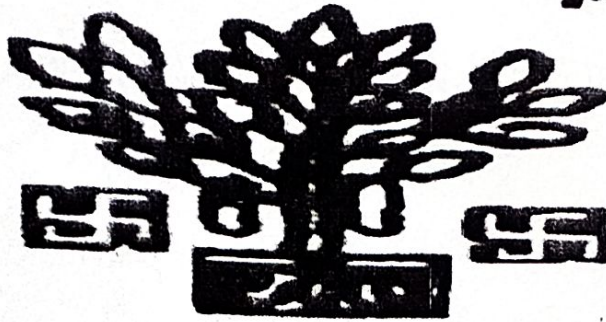


RURAL WORKS DEPARTMENT GOVT OF BIHAR



NAME OF WORKS :- Chhatapur Bus stand se Paschim Bakho toli Hotehue Gera
nadi to Marchhaera Nadi hote huwe Harihar patti SH
tak

DISTRICT :- Supaul

BLOCK :- Triveniganj

FDR

Rs. 1891617.00

YEAR(2023-24)

R.W.D., WORKS CIRCLE, MADHEPURA

R.W.D., WORK DIVISION, TRIVENIGANJ

प्रतिवेदन
पथ का नाम :- Chhatapur Bus stand Se Paschim Bankholi hote huye Gera nadi
कार्य का नाम :- to Merchheya nadi hote huye Hari harpatti SM tak
में बाढ़ से क्षतिग्रस्त भाग में यातायात चालू करने का कार्य।

संलग्न प्राक्कलन 14.06.2023 को प्रखण्ड में आयी भीषण बाढ़ से क्षतिग्रस्त पथ
में बाढ़ क्षतिग्रस्त मरम्मति मद से यातायात चालू करने हेतु तैयार किया गया है
जिसकी प्राक्कलित लागत 18.91617 लाख है।
उक्त पथ का निर्माण MM&SY योनान्तर्गत हुआ है एवं योजना अनुरक्षण
अवधि में 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।

13/07/23
कनीय अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रशाखा,.....

13/07/23
सहायक अभियंता,
ग्रामीण कार्य विभाग,
कार्य अवर प्रमण्डल, ६०१२१५८

13/07/23
कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमण्डल,

INSPECTION REPORT FOR MOTORABLE WORK

Name of PIUs:- R.W.D Work Division, Triveniganj	
Name of Block/Road:- Chhatapur Bus stand se Paschim Bakho toli Hotehue Gera nadi to Marchhaera Nadi hote huwe Harihar patti SH tak	
A. For Road	
1. Damage Location/Chainage:- 0.470 KM	
2. Damage Length:- 18.50M	
3. Nature of Damage(length wise)	(i) Breach:-
	(ii) Crust Damage:- ☒
	(iii) Only Flank Damage:-
Whether traffic fully/Partialiy obstructed:- fully	
4. Details of Restoration:-	
(i) Material Being Used in Restoration:- EC bag, Sand, Brick bat, Hume pipe	
(ii) Equipment/Tools Being Used in Restoration Works:- JCB, Tractor, Trolley	
(iii) Restored Length	In open Area:- ☒
	In habitation Area:-
(iv) If Restoration work done in habitation Area give Reason:-	
B. For Bridge (Size of Bridge/Culvert)	
(1) Damage Location/Chainage:-	
(2) No. of Span Damage:-	
(3) Length of Span:-	
(4) Nature of Damage(Pier/Abuttment/Wing Wall/Approach Road Damage):-	
(5) Details of Restoration:-	
(i) Material Being Used in Restoration:-	
(ii) Equipment/Tools Being Used in Restoration Work:-	
(iii) Restoration Length:-	
Overall Grade of Restoration work(Satisfactory/Unsatisfactory):-	

7/2/24
A.E


Signature of Inspector
(Official Seal)

SUMMARY <u>cost</u> ESTIMATE <i>FOR THE PROJECT</i>		
NAME OF ROAD •	Chhatapur Bus stand se Paschim Bakho toli Hotehue Gera nadi to Marchhaera Nadi hote huwe Harihor Ott/ SH tak	
DISTRICT	Supaul	
BLOCK	Chhatapur	
Length of Road •	4.770Km	
Length of Cutting:-	18.5 m	
SI.NO.	DESCRIPTION	AMOUNT(LAKHS)
1	Filling of local sand	363189.71 ✓
2	Supplying of EC bag, of local sand	512064.00 ✓
3	Supply and Carriage of brick bats	570243.84 ✓
4	Supply, laying and carriage of 1000 mm HPC	99190.50 ✓
	SUB TOTAL COST =	1544688.00
	ADD GST@18% =	278043.84 ✓
	ADD Labour	15447.00 ✓
	cess@1% = @1% =	
	Seigniorage Fees@10% =	53439.00 ✓
	TOTAL (Rs.) =	1891617.00

Says Rs. 18,91,600 = 0

B/W
7/9/23
J.E

A/E
8/9/23
A.E

E.E
7/9/23
E.E

Technically Sanctioned ^{S.E} for Rs. 18,91,600 = 0
(Rs. Eighteen Lakh ninety one thousand six hundred only.)

16/3/24
Superintending Engineer
Rural Works Department
Works Circle Madhepura

Bill of Quantity				
NAME OF ROAD :-		Chhatapur Bus stand se Paschim Bakho toli Hotehue Gera nadi to Marchhaera Nadi hote huwe Harihar patti SH tak		
DISTRICT :-		Supaul		
BLOCK. :-		Chhatapur		
Sl. No	DESCRIPTION OF ITEMS	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-charge	696.70	521.30	363189.71 ✓
2	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.	15964	35.41	512064.00 ✓
3	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.	269.74	2114.05	570243.84
4	Supplying and carriage of hume pipe 1000 mm dia, all complete job.	15.00	6612.70	99190.50
		A) SUB TOTAL=		1544688.00
		TOTAL COST=		1544688.00

13/09/23
J.E

13/09/23
A.E

13/09/23

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

NAME OF ROAD:-		Chhatapur Bus Stan se Paschim Bakho toli Hotehue Gera nadi to Marchhaera Na i hote huwe ariharatti SH tak							
DISTRICT:-		Supaul							
BLOCK:-		Chhatapur							
Length of Cutting •		18.5 m							
Sl.	DESCRIPTION OF ITEM	Unit		L(m)	B(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-charge								
	At ch.: 4750 m	cum	1	18.50	$(7.5+7.5+7.5)/3$	$(5.90+5.8+3.95)/3$	723.72		
	oontorH P 1000MMdta 1.23 1.52	cum	3	0.79	1.52	7.50	27.02		
		cum	Total qty				696.70	521.30	36319.71
2.	Supplying of EC bag filling of local sand switching and placing in position as the direction of Engineer-in-charge								
	At ch.: 60/hn	cum	2	18.50	$(4.5+2.86+1.5)/3$	$(4.6+4.95+3.95)/3$	491.67		
	Total No. of EC Bags(3		490.11			0.034	14461.00		
		Each	Say No. of bage -				14461.00	35.41	512064.00

Sl. No.	DESCRIPTION OF ITEM	Unit	Nos.	L(m)	B(m)	D(m)	QUANTITY	RATE(Rs.)	AMOUNT (Rs.)
3	Supply and Carriage of brick bats upto 8 Km breach and placing in breaches and lying of bats,all complete job.								
	At ch:- 4750m	cum	1	18.50	$(6+6.5+6.25)/3$	$(1.0+1.5+0.75)/3$	125.22		
	Below Pipe at ch:- 4750m	cum	1	18.5	$(6.5+8.25+6.25)/3$	$(1.0+1.50+0.85)/3$	144.52		
		cum	Total qty :-				269.74	2,114.05	570243.84
4	Supplaying and carriage of hume pipe 1000 mmdia , all complete job.								
	At ch :- 4750m	RM	2	3	2.5		15.00		
		RM	Total qty :-				15.00	6,612.70	99190.50
							A) SUB TOTAL=		1544688.00
							TOTAL COST=		1544688.00

[Signature]
7/9/23
Junior Engineer

[Signature]
8/9/23
Asstt.Engineer

[Signature]
Executive Engineer

S.E
Madhepura

Calculation of Seigniorage Fees					
NAME OF ROAD :-		Chhatapur Bus stand se Paschim Bakho toli Hotehue Gera nadi to			
DISTRICT :-		Marchhaera Nadi hote huwe Harihar patti SH tak			
BLOCK :-		Supaul			
		Chhatapur			
Sl. No	DESCRIPTION OF ITEMS	QUANTITY	Unit	RATE (R.s.)	AMOUNT (Rs.)
1	Filling of local sand obtained from river bed. watering & ramming, all complete Job as per specification & direction of Engineer-in-charge	836.04	cum	143.32	119821.25
2	Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.	491.87	cum	143.32	70494.80
3	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.	323.68	cum	1063.00	344071.84
		A) SUB TOTAL=			534387.89
	Seigniorage Fees @10% of Basic Amount=				534357.89

13/10/23
S.E

13/10/23
A.E

13/10/23

Analysis for Carriage by Road & Rail

Sl No	Item with Source	Unit	Source	Carriage Cost & Lead in Km					Carriage Cost by Rail Head	Total
				Pukka / Surface	Katcha	Unloading	Lead	Cost		
1	Local Sand	Cum	Up to 100 m	8.00	8.00	8.00	8.00	Rs 180.80	Rs 180.80	Rs 180.80
2	Brick	Nos	Local	4.99	4.99	4.99	4.99	Rs 23.90	Rs 23.90	Rs 23.90
3	Hume Pipe (1000 mm)	m	Supaul	3.60	3.60	3.60	3.60	Rs 174.16	Rs 174.16	Rs 174.16
4	Hume Pipe (600 mm)	m	Supaul	2.25	2.25	2.25	2.25	Rs 167.94	Rs 167.94	Rs 167.94
5	Hume Pipe (300 mm)	m	Supaul	3.60	3.60	3.60	3.60	Rs 167.94	Rs 167.94	Rs 167.94

Cost of Haulage Excluding Loading & Unloading as per SOR

* Subjected to Verification of Lead

Type of Road	Per Ton. Km by Tipper	Per Ton. Km by Truck
For Surface Road	7.36	15.55
On Surface Gravel Road	7.36	6.54
Kachha Road	7.36	24.30

BASIC RATES AS PER LATEST SOR AS ON 28/07/2023
(A) Labour

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

**BASIC RATES AS PER LATEST SOR
(B) USAGE RATES OF PLANT & MACHINERY**

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM001	Air Compressor 210 cfm	Supplying compressed air	cfm	210.00	per hour	481.00
PM002	Batch mix HMP 40-60 TPH	BM, DUM, SDBC, PM	t/h	50.00	per hour	21,633.00
PM003	Batch type HMP 30/40 TPH	BM, DUM, SDBC, PM	t/h	35.00	per hour	2,851.00
PM004	Bitumen boiler oil fired 200 ltr	Heating of bitumen	litre / h	400.00	per hour	270.00
	1000 ltr	Applying bitumen tack coat	litre / h	2000.00	per hour	270.00
PM005	Bitumen emulsion pressure distributor	Mixing of ingredients	sqm/h	1750.00	per hour	1,463.00
PM006	Concrete mixer 0.28/0.4 cum	Lifting of materials	cum/h	2.50	per hour	80.00
PM007	Crane upto 3.5T	Dozing cutting	cum/h	200.00	per hour	4,249.00
PM008	Dozer D 175	CLEANING	cum/h	100.00	per hour	4,249.00
PM009	Electric generator set, 125 KVA	Electricity generation	KVA	100.00	per hour	2,637.00
PM010	Emulsion spreyyer with tractor	Spraying of Emulsion	sqm/h		per hour	1,091.00
PDM011	Front end-loader 1 cum bucket capacity @ 45 cum/hour	Loading soil/Aggregates	cum/h	45	per hour	1,419.00
PM012	Hydraulic broom with tractor	Loading Soil	cum/h	100.00		1,594.00
PM013	Hydraulic Excavator 0.9cum	Surface cleaning	sqm/h	1250.00	per hour	2,272.00
PM014	Dozer D- 80-A 12	Excavation	cum/h	100.00	per hour	1,858.00
	Jack Hammer with tractor	Spreading/Cutting/Cleaning	cum/h	300/150/250	per hour	5,598.00
PM016	Joint Cutting Machine with 2-3 blades	Joint cutting & cleaning	cum/h	05. to 1	per hour	1,163.00
PM017	Mixall 6-10 t capacity	Cutting of Joints	h		per hour	317.00
PM018	Motor Grader 3.35m blade	Mixing of bituminous	t/h	8.00	per hour	1,547.50
PM019	Tractor Mounted Grader	Scarifier & levelling	cum/h	200.00	per hour	2,982.00
PM020	Needle vibrator	Vibrating cement	cum/h	50.00		570.00
PM021	Paver finisher Hydrostatic with sensor controll 100TPH	Laying/DBM/BM/SDBC	cum/h	3.50	per hour	386.00
PM022	Plate compactor		t/h	75.00	per hour	2,141.00
PM023	Plate vibrator	Compaction	cum/h		per hour	469.00
PM024	Screed vibrator	Compaction	cum/h		per hour	469.00
PM025	Smooth wheeled 80-100 kN tandem roller	Compaction	cum/h		per hour	102.64
PM026	Stone crusher (Integrated) of 200 TPH	Compaction of Sub-base/ Asphalt	cum/h	30.00	per hour	1,593.00
PM027	Three wheel 80-100 kN Static Roller	Crushing of Spalls	t/h	200.00	per hour	27,425.00
		Compaction/ Rolling				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
		BUSG	cum/h	10.00		1,518.00
		BM 50/75 mm	cum/h	12.00		1,518.00
		Premix 20 mm	sqm/h	250.00		1,518.00
		Seal Coat	sqm/h	500.00		1,518.00
		Surface Dressing 1st Coat	sqm/h	400.00		1,518.00
		Surface Dressing 2nd Coat	sqm/h	500.00		1,518.00
PM028	Tipper 5.5 cum/10 t	Carriage	cum/trip	5.50	per hour	1,426.00
PM029	Tractor with Disc Harrows (Rotovator)	Pulverisation of soil	cum/h	80.00	per hour	546.00

Sr. No.	Description of		Output of Machine		Usage Rates in Rs.	
	Machine	Activity	Unit	Output	Unit	Rate
PM029	Tractor with ripper @ 60 cum per hour	Ripping Pavements, uprooting trees	cum/h	60.00	per hour	629.00
PM030	Tractor with trolley	Transportation of materials	t/trip	3 to 5	per hour	629.00
PM031	Tractor with Rotavator	Scarifier	cum/h	25.00	per hour	573.00
PM032	Moter Grader 3.35mtr blade	Clearing/Spreading/GS B/WBM	cum/hour	200/200/50/5	hour	2,697.00
PM035	Wet mix plant (75TPH)	Wet Mix	cum/h	25.00	per hour	1,822.30
PM043	Road Marking Machine	Wet Mix	cum/h	100.00	per hour	128.00
PM047	Tipper 5 cum @5.5 cum/hour	Transportation of Soil, GS capacity in		5.5	tonne.km	8.86
PM059	Vibratory roller 8 tonn	Earth or Soil/GSB/WBM	cum/hour	100/60/60	hour	2,029.00
PM060	Water tanker 6 kl capacity (Truck Mounted)	Transportation of Soil, GS capacity in		6	hour	183.00

Shedule P & M / MORTH - 1 B (RCD SOR Page No. xLiv)

Sr No. 5 Tractor (25 HP)

Carriage

25 HP Cap 2.25 cum

Hour

525.00

Analysis of Rates										
2 Sand Filling in Foundation Trenches as per Drawing & Technical Specification.										
Unit= Cum						Unit		Qty.	Rate	Cost
Taking Output= 1 Cum.										
a) Labour										
Mate										
Mazdoor						day		0.010	449.00	4.49
b) Material						day		0.300	397.00	119.10
Sand (assuming 20 per cent voids)										
Cost for 1 cum = (a+b)						Cum.		1.20	143.32	171.98
									295.57	(C)

Analysis of Rates									
2 Sand Filling in Foundation Trenches as per Drawing & Technical Specification.									
Unit= Cum				Unit		Qty.	Rate	Cost	
Taking Output= 1 Cum.									
a) Labour									
Mate									
Mazdoor				day		0.010	449.00	4.49	
b) Material				day		0.300	397.00	119.10	
Sand (assuming 20 per cent voids)									
Cost for 1 cum = (a+b)				Cum.		1.20	143.32	171.98	
								295.57	(C)

Rate Analysis

Item No. 2 :- Loading and unloading of Sand by Manual means				
Unit = cum				
Taking output = 2.25 cum				
a) Labour				
Mate				
Mazdoor for loading and unloading	no	0.05	449.00	22.45
b) Machinery	no	0.31	397.00	123.07
Tractor 3.60 tonnes capacity	hour	0.31	525.00	162.75
				308.27
Cost of 2.25 cum (3.6 tonnes)				308.27
Cost per cum				137.01

Cost of Haulage Excluding Loading and Unloading

Haulage of materials by Tractor Excluding cost of Loading, Unloading and Stacking

Unit = t.km or cum.km

Taking output (3.60 tonnes load & lead 10 km) = 36 Tonnes.km

Surface Graveled road				
Speed with load : 15 km / hour				
Speed for return trip : 25 km / hour				
(a) Machinery				
Tractor 3.6 tonnes capacity				
Time taken for onward haulage with load	hour	0.667	525.00	350.18
Time taken for empty return trip	hour	0.4	525.00	210.00
				560.18
Cost of 36 tonnes .km				560.18
Rate per 3.6 Tonnes.km				56.02
				Say 56.00
Rate per 1 Tonnes.km				15.56
				Say 15.60
Unsurface Graveled road				
Speed with load : 12 km / hour				
Speed for return trip : 20 km / hour				
(a) Machinery				
Tractor 3.6 tonnes capacity				
Time taken for onward haulage with load	hour	0.833	525.00	437.33
Time taken for empty return trip	hour	0.5	525.00	262.50
				699.83
Cost of 36 tonnes .km				699.83
Rate per 3.6 Tonnes.km				69.98
				Say 70.00
Rate per 1 Tonnes.km				19.44
				Say 19.40
Katcha Track Graveled road				
Speed with load : 10 km / hour				
Speed for return trip : 15 km / hour				
(a) Machinery				
Tractor 3.6 tonnes capacity				
Time taken for onward haulage with load	hour	1	525.00	525.00
Time taken for empty return trip	hour	0.667	525.00	350.18
				875.18
Cost of 36 tonnes .km				875.18
Rate per 3.6 Tonnes.km				87.52
				Say 87.50
Rate per 1 Tonnes.km				24.31
				Say 24.30
Sand Filling in Foundation Trenches as per Drawing & Technical Specification.				
Lead - 1.00 km(Us)+2.00 km (K)				
Cost /m ³	=	137.01	2.0 x 56.00 + 0.0 x 70.00 + 1.0 x 87.50	= 225.67556
				2.25
Say Rs (D)				225.70
				295.57
Total Cost of Sand & carriage by tractor = (C + D) =				521.27
Overhead charges @ 6%				0.00
				521.27

	Add CP @ 0%	0.00		
		521.27		
	Say	521.30		

Rate Analysis

Item No. 2 :- Loading and unloading of Sand by Manual means

Unit = cum

Taking output = 2.25 cum

a) Labour

Mate

Mazdoor for loading and unloading

b) Machinery

Tractor 3.60 tonnes capacity

Cost of 2.25 cum (3.6 tonnes)

Cost of Haulage Excluding Loading and Unloading

Haulage of materials by Tractor Excluding cost of Loading, Unloading and Stacking

Unit = t.km or cum.km

Taking output (3.60 tonnes load & lead 10 km) = 36 Tonnes.km

Surface Graveled road

Speed with load : 15 km / hour

Speed for return trip : 25 km / hour

(a) Machinery

Tractor 3.6 tonnes capacity

Time taken for onward haulage with load

Time taken for empty return trip

Cost of 36 tonnes .km

Rate per 3.6 Tonnes.km

Rate per 1 Tonnes.km

Unsurface Graveled road

Speed with load : 12 km / hour

Speed for return trip : 20 km / hour

(a) Machinery

Tractor 3.6 tonnes capacity

Time taken for onward haulage with load

Time taken for empty return trip

Cost of 36 tonnes .km

Rate per 3.6 Tonnes.km

Rate per 1 Tonnes.km

Katcha Track Graveled road

Speed with load : 10 km / hour

Speed for return trip : 15 km / hour

(a) Machinery

Tractor 3.6 tonnes capacity

Time taken for onward haulage with load

Time taken for empty return trip

Cost of 36 tonnes .km

Rate per 3.6 Tonnes.km

Rate per 1 Tonnes.km

Sand Filling in Foundation Trenches as per Drawing & Technical Specification.																			
Lead - 1.00 km(Us)+2.00 km (K)																			
Cost /m ³	=	137.01		2.0	x	56.00	+	0.0	x	70.00	+	1.0	x	87.50	=	225.67556			
2.25																			
																Say Rs (D)	225.70		
																(C)	295.57		
Total Cost of Sand & carriage by tractor = (C + D) =														521.27					
Overhead charges @ 6%														0.00					
														521.27					
Add CP @ 0%														0.00					
														521.27					
Say														521.30					

Analysis

S.No	SOR No.	Description	Quantit	Unit	Rate	Amount	Final Rate
1	5.7.7 WRD SOR Page No.	Labour for cutting 62mm to 75 mm dia bamboo piles to size and making shoes and driving etc. complete job as per specification and direction of E/I					
		Unit :- Per M					
		Taking Out Put = 30.50 m					
		(Assuming 20nos. Pile sunk 1.525 mtr deep)					
		Total depth sunk					
		20Nos.X1.525Metredepth = 30.50 meter					
		Labour					
		Carpenter Gr-II	0.25	nos	476.00	119.00	
		Unskilled mazdoor for piling	2.5	nos	397.00	992.50	
						1111.50	
		Add Overhead charge @6%				0.00	
						1111.50	
		Add C.P@0%				0.00	
						1111.50	
		Rate per meter				36.44	
		Say Rs.				36.40	36.40
2	5.7.8 WRD SOR Page No. 146,147	Labour for 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 wire or nails complete job as per specification and direction of E/I					
		Unit :- Per sqm					
		Taking Out Put = 9.30sqm					
		(Assuming strip of 3.05x3.05=9.30sqm)					
		Materials					
		75mm to 100mm long nails	0.25	kg	55.84	13.96	
		Labour					
		Carpenter Gr-II	1	nos.	476.00	476.00	
		Unskilled mazdoor	1	nos	397.00	397.00	
						886.96	
		Add Overhead charge @6%				0.00	
						886.96	
		Add C.P@0%				0.00	
						886.96	
		Rate per sqm				95.37	
		Say Rs.				95.40	95.40
3	5.7.9 WRD SOR Page No. 147	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					
		Unit :- Per M					
		Taking Out Put = 30.50 M					
		Materials					
		75mm to 100mm long nails	0.5	kg	55.84	27.92	
		Labour					
		Carpenter Gr-II	0.125	nos	476.00	59.5	
		Unskilled mazdoor	0.25	nos	397.00	99.25	
						186.67	
		Add Overhead charge @6%				0.00	
						186.67	
		Add C.P@0%				0.00	
						186.67	
		Rate per m				6.12	
		Say Rs.				6.10	6.10

4		Supply of Bamboo					
		Bamboo 6m to 8m	1 nos.	141.50	141.50	A	
		Gross Truck Capacity (Unit Per%) (280 per Trip)					
	WRD SOR No. 4.3 Page No. 67 & Sr. No 6 page 70	Loading and Unloading of bamboo					
		Unit = tonne					
		Taking output = 10 tonnes					
		(a) Labour					
		Mate	0.08 nos	449.00	35.92		
		Mazddor for Loading and Unloading	2 nos	397.00	794.00		
		(b) Machinery					
		Truck 10Tonne Capacity	2 Hour	929.00	1858.00		
					2687.92		
		Rate per Tonne			268.79	B	
		Carriage Cost					
	WRD SOR No. 4.4a Page No. 68	Lead 5km U/S					
		Unit = t.km					
		Taking output (for 10 tonnes or 5.5 cum load and lead 10					
		Speed with load : 25 km / hour					
		Speed for return trip : 35 km / hour					
		(a) Machinery					
		Truck 10 tonnes capacity					
		Time taken for onward haulage with load	0.4 Hour	929.00	371.60		
		Time taken for empty return trip	0.29 Hour	929.00	269.41		
		Cost for 100 t.km or 55 cum.km			641.01		
		Rate per t.km			6.41	C	
		Cost of Loading and Unloading					
		Cost/cum			7.68	D=(8*B/280)	
		Cost of Haulage					
		Cost/cum			0.916	E=(8*Lead*C/280)	
					150.10	A+D+E	
		Add Overhead charge @6%			0.00		
					150.10		
		Add C.P@0%			0.00		
		Rate per nos.			150.10	150.10	
5	WRD SOR Sr. No.275 Page 26	Supply of EC bag including carriage					
		Material					
		Old Empty Cement Bags (Synthetic) (Annexure-1)	Per %		292		
		Add Overhead charge @6%			0		
					292		
		Add C.P@0%			0		
		Rate per %			292.00	292.00	

6	5.7.40.1 WRD SOR Page 159	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sutli and EC bag etc. all complete as per approved design, specification and direction of E/I				
		Unit - Per % nos				
		Taking Out Put = 100 nos				
		(a) For filling & stitching & stacking				
		Unskilled mazdoor for filling sand into bags and sewing				
		Sutli (WRD Sr. 232 Page 25)	2 nos	397	794.00	
			0.5 kg	19.75	9.88	
					803.88	F
		(b) Labour rate for carrying filled E.C Bags				
		Unskilled mazdoor for carrying filled bags and placing to work site				
			3 nos	397	1191.00	G
		(C) Cost of Sand & carriage by tractor per cum				
		Cost of Sand for 1 cum	1 cum	143.32	143.32	T
		Carriage including Loading and Unloading			225.70	U
		Cost Per Cum			369.02	V=T+U
7	5.7.40.2 WRD SOR Page 159	(D) Cost of Sand & carriage by tractor per for 100 nos. bag			1253.75	H
		For 100 Bags 3.4 Cum Sand Required				
		(E) Cost of EC bag per % nos			292.00	I
		TOTAL	Per % nos		3540.62	F+G+H+I
		Add Overhead charge @6%			0	
					3540.62	
		Add C.P.@0%			0	
					3540.62	
		Say Rs.			3540.60	35.41
8		Labour for filling empty cement bags with local 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	25 nos.	41.93	1048.25	
		Rate each			1048.30	1048.30
		Supply of Nylon Crate of size 1mx1mx1m			39.85	
		Material				
		Nylon Crate	Each		39.85	
		Add Overhead charge @6%			0.00	
					39.85	
		Add C.P.@0%			0.00	
		Rate per nos.			39.85	
		Say			39.90	39.90

9.3	1100	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row	Analysis				
		Providing and laying reinforced cement					
		Unit = m					
		Taking output = 7.5 m					
		(3 pipes of 2.5 m length each)					
	(B)	1000 mm dia					
	a)	Labour					
		Mate	day	0.09	449.00	40.41	
		Mason (1st Class)	day	0.25	511.00	127.75	
		Mazdoor (Unskilled).	day	2.00	397.00	794.00	
	b)	Material					
		RCC pipe NP3	m	7.50	6,125.90	45,944.25	
						46,906.41	
	c)	Add Overheads @ 6%				0.00	
						46,906.41	
	d)	Add CP @ 00%				0.00	
		Cost for 7.5 m = a+b+c+d				46,906.41	
		Rate per m = (a+b+c+d)/7.5				6,254.19	
		Carriage Cost				358.52	
		Total cost per m				6,612.708	
					Say	6612.70	

1	1.4	RCD	Cost of Haulage excluding Loading & Unloading	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 onwads haulage	hour	0.667	525.00	350.18	Time taken for empty return trip	hour	0.400	525.00	210.00	b)	Overheads @ 6% on (a)	Cost for 36.0 t.km = a+b	Rate per t.km = (a+b)/36.00	560.18	15.56	15.56	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 onwads haulage	hour	0.833	525.00	437.33	Time taken for empty return trip	hour	0.500	525.00	262.50	b)	Overheads @ 6% on (a)	Cost for 36.0 t.km = a+b	Rate per t.km = (a+b)/36.00	699.83	19.44	19.44	Labour for laying dry graded bhama khaa 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/1	Unit = Per Cum	Taking output = 2.832 Cum	a)	Labour	Mazdoor (Unskilled)	Nos	3.00	397.00	1,191.00	b)	Overheads @ 6% on (a)	Rate for 2.832 Cum	Rate Per Cum	420.55	3	1.1	RCD	Brick Bats	Loading and Unloading of Stone Boulder, Stone aggregate, Sand, Kankar, Moorum ,	Unit = Per Cum	Taking output = 2.25 Cum	Time required for	i)	Positioning of tipper at unloading	day	1 Min	ii)	Loading by front end loader 1 cum bucket capacity @ 25 cum	day	5 Min	iii)	Maneuvering, reversing, dumping and turning for return	0 Min	iv)	Waiting time, unforeseen contingencies etc.	hour	0 Min	Total	a)	Labour	Mazdoor	6 Min	525.00	52.50	b)	Machinery	Mazdoor for Loading	day	0.03	449.00	13.47	285.84	Tractor 3.6 t capacity	hour	0.10	525.00	52.50
Carriage of materials (By Tractor)																																																																																																														
		RCD																																																																																																												

					Front end loader 1 cum bucket capacity	Hour	0.08	1,419.00	117.78
			c)		Overheads @ 6% on (a+b)				0.00
					Cost of 2.25 Cum = (a+b+c)=				469.59
					Rate per Cum=(a+b+c)				208.71
			Note:-		Unloading will be done Manually.				
			Supplying of Brick Bats (With OH)						
			a)	Labour					
				Cost of Labour for Pitching and Light Ramming as per	day				420.55
			b)	Materials					
				Bricks Bats -Basic Rate Taken From RCD S.O.R. Schedule- M:11-5611 dt. 26.02.2019	Cum	1	1063.00	1063.00	
			c)	Overheads @ 6% on (b)					0.00
			d)	Carriage					
			Add:Carriage Charge for Brick bats						630.50
			Total = (a+b+c+d)=						2,114.05
			Total Cost Per Cum=						2,114.05