

Inspection Report of Flood Damage work

Name of PIUs:- RWD Works Division, Benipur

Name of Block/Road:- Benipur/Laxmipur chowk to Jagdamba Nagar

A. For Road

1. Damage Location Chainage:- Ch. 1.000 to Ch. 1.100
2. Damage Length :- 85 m
3. Nature of Damage :- Road crust and flank
4. Details of Restoration Works
 - i. Material being used in Restoration works:- Brick bats, Bamboo, sand bag
 - ii. Equipment's /Tools being used in Restoration works:- Trowel
 - iii. Procedure taken up in Restoration works:- manually filling
 - iv. Restored Length:- 85 m

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. Equipment's /Tools being used in Restoration works:-
 - iii. Procedure taken up in Restoration works:-
 - iv. Restored Length:-
- N/A
- "Work found satisfactory"

Signature of JE/AE/EE

 14/12/21

Signature
 (Name of Inspection)

 14/12/21

तकनीकी प्रतिवेदन

पथ का नाम :- लक्ष्मपुर चौक से जगदम्बा नगर
पथ की लंबाई :- 2.37 कि०मी०
प्राक्कलित राशि :- Rs. 4,72,973=00
प्रमण्डल का नाम :- बेनीपुर
अंचल का नाम :- दरभंगा
योजना शीर्ष :-
योजना वर्ष :- 2021-22

प्रस्तुत प्राक्कलन विभागीय पत्रांक-मु.अ.-4-4275-पटना दिनांक-22.10.2021 के आदेशानुसार पथ में कराये गये यातायात पुर्नस्थापना कार्य के निमित्त तैयार की गयी है।

यह प्राक्कलन लक्ष्मपुर चौक से जगदम्बा नगर कार्य के लिए तैयार की गई है। वर्ष 2021 में आयी प्रलयंकार बाढ़/अतिवृष्टि के कारण पथ कई जगहों पर क्षतिग्रस्त हो गया था। जिसके कारण आवागमन अवरुद्ध हो गई थी जिसमें अस्थाई यातायात पुर्नस्थापन कार्य किया गया है।

प्रस्तुत प्राक्कलन संपादित कार्य के समय लागू अनुसूचित दर पर, जो संवेदक लाभांश को छोड़कर था, उसे प्रावधान करते हुए तैयार किया गया है।

अतः किये गये कार्यों के भुगतान हेतु प्राक्कलन की प्रशासनिक स्वीकृति अपेक्षित है।


कनीय अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रशाखा बेनीपुर


सहायक अभियंता,
ग्रामीण कार्य विभाग,
कार्य अवर प्रमण्डल बेनीपुर


कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमण्डल बेनीपुर।

Abstract of cost.

Name of Road:- LAKSHMIPUR CHOWK to JAGDAMBA NAGAR

Sl No	Particulars of Item	Quantity (In M ³)	Rate	Amount
1	Providing and laying Filling in ditches with brick bats including loading, unloading and light ramming all complete job. As per specification & Direction of E/I	165.44	2004.96	331701
2	Supply of Bamboo- 6m to 8m do.....all complete job as per specification and direction of E/I.	176	166.5	29304
3	Labour for cutting 62mm to 75mm dia bamboo pile size and making shoes and driving ect.....all complete job as per specification and direction of E/I.	150	31.2	4680
4	Labour for cutting 62mm to 75mm dia bamboo runner in position at every vertice pileall complete job as per specification and direction of E/I.	645	5.5	3548
5	Providing and laying RCC NP3 type Hume Pipeall complete job as per specification and direction of E/I.	5	6843.83	34219
			Total =	403451
			Add 12% GST	48414
			1% L.C	4035
			S Fee (165.44*1032*0.1)= 17073	17073
			Grand Total=	472973

Say Rs 4,72,970=00


J.E.
RWD, Benipur


A.E.
RWD, Benipur


E.E.
RWD, Benipur

Technically Sanctioned For Rs = 4,72,970=00 Rupees (Four lakh seventy two thousand nine hundred seventy) only


Superintending Engineer
RWD, Works Circle, Darbhanga


Flood Estimate

Name of Road:-LAKSHMIPUR CHOWK to JAGDAMBA NAGAR

Item No.1	Providing and laying Filling in ditches with brick bats including loading, unloading and light ramming all complete job. As per specification & Direction of E/I				
S.No	Chainage (In M)	Length (In M)	Average Width (In M)	Average Height (In M)	Qty in M ³
1	1000m to 1100m	28.00	(1.2+1.4)/2	(1.5+2)/2	63.70
2		5.00	(4+5)/2	(1.2+1.5)/2	30.38
3		22.00	(1.2+1.4)/2	(1.2+2)/2	45.76
4		18.00	(0.50+0.80)/2	(0.6+0.9)/2	8.78
5		4.00	(1+1.5)/2	(1+1.5)/2	6.25
6		3.50	(1.4+1.6)/2	(1+1.4)/2	6.30
7		4.50	(0.9+1)/2	(0.9+1.1)/2	4.27
				Total =	165.44

Item No.2	Supply of Bamboo- 6m to 8m do.....all complete job as per specification and direction of E/I.				
	for pile	49*2	3		294
		10+6+9	2.5		62.5
		3*9	2		54
	for runner	28+22+4+3.5+4.5+2.5	10		645
					1055.5
	Number of Bamboo	1055.5/6=	=		176

Item No.3	Labour for cutting 62mm to 75mm dia bamboo pile size and making shoes and driving ect.....all complete job as per specification and direction of E/I.				
		150*1			150

Item No.4	Labour for cutting 62mm to 75mm dia bamboo runner in position at every vertice pileall complete job as per specification and direction of E/I.				
		645			645

Item No.5	Providing and laying RCC NP3 type Hume Pipeall complete job as per specification and direction of E/I.				
	1000mm dia H.P	2.5*2			5

J.E.
RWD, Benipur

A.E.
RWD, Benipur

E.E.
RWD, Benipur

Checked and Verified

13.12.2021
J.E.

330
13/12/21
K.E.

SOR SL No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
	BRICK BATS PITCHING MANUAL MEANS				
6.6.1 WRD Bihar	Labour for laying dry graded Jhama Khoa or stone filter under Brick pitching or Boulder Pitching in slope or apron including light ramming etc. all complete as per approved design, specification and Direction of E/I				
	Unit = Per Cum				
	Taking output = 2.832 Cum				
a)	Labour	Nos.	3.00	304.00	912.00
	Mazdoor (Unskilled)				109.44
b)	Over Heads @ 12% on (a)				1,021.44
	Cost for 2.832 cum				360.68
	Rate per cum (Rs)				360.68
	Total Cost	cum			360.68
1.4 RCD	Cost of Haulage Excluding Loading and Unloading				
	Haulage of materials by Tractor excluding cost of loading, unloading and stacking				
	Unit = t.Km				
	Taking output = 3.60 tonnes load and lead 10 km=36.0 t.km				
	(i) Surface Road				
	Speed with Load:15 km/hour				
	Speed while Returning empty:25km/hour.				
a)	Machinery				
	Tractor 3.6 tonne capacity				
	Time taken for onward haulage with load	hour	0.667	612.00	408.20
	Time taken for empty return trip.	hour	0.400	612.00	244.80
					78.36
b)	Over Heads @ 12% on (a)				731.36
	Cost for 36 t Km=a+b				20.32
	Rate per t.km=(a+b)/36				20.32
	Total Cost	t.Km			20.32
	(ii) Unsurfaced Graveled Road				
	Speed with Load:12 km/hour				
	Speed while Returning empty:20km/hour.				
a)	Machinery				
	Tractor 3.6 tonne capacity				
	Time taken for onward haulage with load	hour	0.833	612.00	509.80
	Time taken for empty return trip.	hour	0.500	612.00	306.00
					97.90
b)	Over Heads @ 12% on (a)				913.69
	Cost for 36 t Km=a+b				25.38
	Rate per t.km=(a+b)/36				25.38
	Total Cost	t.Km			25.38
	(iii) Katcha Track and Track in River Bed/Nallah Bed and Choe Bed				
	Speed with Load:10 km/hour				
	Speed while Returning empty:15km/hour.				
a)	Machinery				
	Tractor 3.6 tonne capacity				
	Time taken for onward haulage with load	hour	1.000	612.00	612.00
	Time taken for empty return trip.	hour	0.667	612.00	408.20
					122.42
b)	Over Heads @ 12% on (a)				1,142.63
	Cost for 36 t Km=a+b				31.74
	Rate per t.km=(a+b)/36				31.74
	Total Cost	t.Km			31.74

SOR SL No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
1.1.RCD	Loading and Unloading of Stone Boulder/Stone aggregates/Sand/Kanker/Moorum				
	Placing Tractor at Loading point, loading with front loader, dumping turning for return trip, excluding for haulage and return trip				
	Unit = Cum				
	Taking output = 2.25 Cum				
	Time Required for				
	i) Positioning of Tractor at loading point	1 Min			
	ii) Loading by Front end loader 1 Cum Bucket Capacity @ 25	5 Min			
	Cum per hour				
	iii) Maneuvering, reversing, dumping and turning for return	0 Min			
	iv) Waiting time, unforeseen contingencies etc	0 Min			
	Total	6 Min			
	a) Labour				
	Mate	day	0.03	321.00	9.63
	Mazdoor for loading and unloading	day	0.72	304.00	218.88
	b) Machinery				
	Tractor 3.6 tonne capacity	hour	0.1	612.00	61.20
	Front end-loader 1 cum bucket capacity @ 25 cum/hour	hour	0.083	1594.00	132.30
	c) Over Heads @ 12% on (a+b)				50.64
	Cost for 2.25 cum = (a+b+c)				472.65
	Rate per cum (Rs)				210.07
Note:-	Unloading will be done manually				
	1 Supplying for Brick Bats (with OH)				
	A. Basic Rate of Brick Bats	Per Cum		1032.00	1032.00
	Add overhead charges		12%		123.84
	Total				1155.84
	Surface Lead	KM	7		
	Katcha Track and Track in River Bed/Nallah Bed and Choe Bed	KM	1		
	Factor (3.6/2.25)	Cum	1.6		
	B. Carriage (with OH)				
	$((1.6 \times 7 \times 20.32) + (1.6 \times 1 \times 31.74) + (210.07))$				488.438
	C. Cost of Labour for Pitching and Light Ramming as per WRD SOR 6.6.1 (with OH)				360.68
	Total (A+B+C)				2004.96
	For (7km.p+1kmk) = without (GST+LC+SF)				2004.96
	For (6km.p+1kmk) = without (GST+LC+SF)				1972.45
	For (5km.p+1kmk) = without (GST+LC+SF)				1939.93
	For (4km.p+1kmk) = without (GST+LC+SF)				1907.42
	For (3km.p+1kmk) = without (GST+LC+SF)				1874.91

Sl. No.	SOR Sl. No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
	5.7.7 WRD SOR	Labour for cutting 62 mm 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 Mtr				
		(Assuming 20 nos. pile sunk 1.525 mtr deep)				
		Total depth sunk 30.50 meter				
		Labour				
		Carpenter Gr II	Nos	0.25	364	91.00
		Unskilled mazdoor for pilling	Nos	2.5	304	760.00
		Add Overhead charge 12 %				102.12
						953.12
		Rate	M			31.25
		Say Rs	M			31.20
2	5.7.8 WRD SOR	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 M2				
		Taking Out put:- 9.30 Sqm				
		(Assuming strip of 3.05x3.05 = 9.30 sqm)				
		Materials				
		75 mm to 100 mm long nails (BCD)	Kg	0.25	58	14.50
		Labour				
		Carpenter Gr II	Nos	1	364	364.00
		Unskilled mazdoor	Nos	1	304	304.00
		Add Overhead charge 12 %				81.90
						764.40
		Rate	M			82.19
		Say Rs	M			82.20
3	5.7.9 WRD SOR	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 Mtr				
		Materials				
		75 mm to 100 mm long nails (BCD)	Kg	0.5	58	29.00

		Labour				
		Carpenter Gr II	Nos	0.125	364	45.50
		Unskilled mazdoor	Nos	0.25	304	76.00
		Add Overhead charge 12 %				18.06
						168.56
		Rate	M			5.53
		Say Rs	M			5.50
		Supply Of Bamboo				
	A	Bamboo 6m to 8 m	Nos	1	141.5	141.5
		Gross Truck Capacity(Unit Per%)(280Per Trip)				
		Gross Tractor Capacity(Unit Per%)(183Per Trip)				
		Carriage Including Loading and Unloading				
1.4 RCD		Cost of Haulage Excluding Loading and Unloading				
		Haulage of materials by Tractor excluding cost of loading, unloading and stacking				
		Unit = t.Km				
		Taking output = 3.60 tonnes load and lead 10 km=36.0 t.km				
		(i) Surface Road				
		Speed with Load:15 km/hour				
		Speed while Returning empty:25km/hour.				
		a) Machinery				
		Tractor 3.6 tonne capacity				
		Time taken for onward haulage with load	hour	0.667	612.00	408.20
		Time taken for empty return trip.	hour	0.400	612.00	244.80
		Cost for 36 t Km=a				653.00
		Rate per t.km=(a+b)/36				18.14
		Total Cost tKm				18.14
		(ii) Unsurfaced Graveled Road				
		Speed with Load:12 km/hour				
		Speed while Returning empty:20km/hour.				
		a) Machinery				
		Tractor 3.6 tonne capacity				
		Time taken for onward haulage with load	hour	0.833	612.00	509.80
		Time taken for empty return trip.	hour	0.500	612.00	306.00
		Cost for 36 t Km=a				815.80
		Rate per t.km=(a+b)/36				22.66
		Total Cost tKm				22.66
		(iii) Katcha Track and Track in River Bed/Nallah Bed and Choe Bed				
		Speed with Load:10 km/hour				
		Speed while Returning empty:15km/hour.				
		a) Machinery				
		Tractor 3.6 tonne capacity				
		Time taken for onward haulage with load	hour	1.000	612.00	612.00
		Time taken for empty return trip.	hour	0.667	612.00	408.20
		Cost for 36 t Km=a				1,020.20
		Rate per t.km=(a+b)/36				28.34
		Total Cost tKm				28.34
4.3 WRD SOR		Loading and Unloading of Bamboo				

		Unit= Tonne				
		Taking Output = 3.6 tonnes				
		Labour				
	a	Mate	Nos	0.03	321	9.63
		Mazdoor for Loading and Unloading	Nos	0.72	304	218.88
		Machinery				
	b	Tractor 3.6 Tonne capacity	Hour	0.72	612.00	440.64
						669.15
		Rate	MT			185.88
		Surface Lead	KM	2		
		Katcha Track and Track in River Bed/Nallah Bed and Choe Bed	KM	1		
		Factor(8/280)	Nos	0.02857		
		Carriage(without OH)				7.16
	B	$((0.02857*2*18.14)+(0.02857*1*28.34)+(185.88*0.02857))$				148.66
		A+B				17.84
		Add Overhead charge 12 %				166.50
		Rate	No			166.50
		Say Rs	No			166.50
Sr.No.27	5 WRD	Supply Of EC bags including Carriage				
SOR		Materials				
		Old Empty Cement Bags (Synthetic)(Annexure I)	Per 100 Nos			292
		Add Overhead charge 12 %				35.04
		Rate	No			327.04
		Say Rs	No			327.00
5.7.40.1	WRD	Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sutli and EC Bags etc. at site in dry portion all complete as per approved design, specifications and direction of E/I Including Cost and Carriage of Sand				
SOR		Unit=Per 100Nos				
		Taking Out put:- 100 nos				
	a	For filling & stitching & stacking				
		Unskilled mazdoor for filling sand into bags and sewing	Nos	2	304	608
		Sutali	Kg	0.5	19.75	9.875
	F					617.875
	b	Labour rates for carrying filled E.C Bags				
	G	Unskilled mazdoor for carrying filled bags and placing to work site	Nos	3	304	912

		Mate	day	0.03	321.00	9.63
		Mazdoor for loading and unloading	day	0.72	304.00	218.88
		b) Machinery				
		Tractor 3.6 tonne capacity	hour	0.1	612.00	61.20
		Front end-loader 1 cum bucket capacity @25 cum/	hour	0.083	1594.00	132.30
		Cost for 2.25 cum=(a+b)				422.01
		Rate per cum (Rs)				187.56
Note:-		Unloading will be done manually				
		Surface Lead	KM	2		
		Katcha Track and Track in River Bed/Nallah Bed and Choe Bed	KM	1		
		Factor(3.6/2.25)	Cum	1.6		
		U Carriage(without OH)				
		((1.6*2*18.14)+(1.6*1*28.34)+(187.56))				290.952
	V	T+U				432.802
		Cost of Sand & Carriage By Tractor per for 100nos				
H	d	bag				1,471.53
		For 100 Bags 3.4 Cum Sand Required				
I	e	Cost of EC Bag per 100nos				292
		Total(F+G+H+I)				3293.40
		Add Overhead charge 12 %				395.21
						3688.61
		Rate	No			36.8861
		Say Rs	No			36.90
		Supply of Sand Bag(without OH)				
	A	Basic Rate of Sand Bag	Nos	1	8.48	8.48
		1 No. Cement Bag Filled with 40 Kg/1.2 Cft Sand				
		Conversion Factor 1m ³ =35.3146667ft ³				
		1 Cubic Meter= Cubic Foot/35.3146667				
		2 Cubic Meter= 1.2/35.3146667				
		3 Cubic Meter= 0.034				
		Hence 1 Bo. Sand Bag Filled with 0.034 Cum sand				
		Tractor				
		Surface Lead	KM	2		
		Katcha Track and Track in River Bed/Nallah Bed and Choe Bed	KM	1		
		Factor(3.6/2.25)	Cum	1.6		
		B Carriage(without OH)				
		((1.6*2*18.14)+(1.6*1*28.34)+(187.56))				290.952
		Cost of Carriage of Sand in Filling of Sand Bag	No	1		9.89
12.9		Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sutli and EC Bags etc, as per specifications and direction of E/I				
RCD		Unit=Per Bag				

Taking Out put:- 750 Bags

Unskilled mazdoor for filling sand into bags and sewing

Nos

15

304

4560.00

Sutali

Kg

3.75

19.75

74.06

4634.06

Rate Per Bag

6.18

D Labour rates for carrying filled E.C Bags

Unskilled mazdoor for carrying filled bags and placing to work site

Nos

22.5

304

6840

Rate Per Bag

9.12

Total(A+B+C+D)

33.67

Add Overhead charge 12 %

4.04

Rate

No

37.71

Say Rs

No

37.70

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD R/W No.	DESCRIPTION	Unit	Quantity	Rate	Amount In Rs
55	9.3	1100	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row				
(II)			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				
			Unit =m				
			Taking output =7.5 m				
			(3 pipes of 2.5 m length each)				
			a) Material				
			i) Sand at site	cum	0.04	175.80	7.03
			ii) Cement at site	ton	0.03	5350.20	160.51
			iii) RCC pipe NP 3 pipe including collar at site	m	7.50	5565.00	41737.50
			b) Labour				
			Mate	day	0.09	321.00	28.89
			Mason (1st class)	day	0.25	408.00	102.00
			Mazdoor (Unskilled)	day	2.00	304.00	608.00
			c)Over Heads @ 12 % on (a+b+c)				5117.27
			d)Contract. Profit @ 10 % on (a+b)				4776.12
			Rate per m =(a+b+c+d)/7.5				7004.98
			Carriage cost:-				
			Cement	t	0.0040	410.84	1.64
			Coarse sand	cum	0.0053	2,068.23	11.03
			Pipe	mt	1.00	463.00	463.00
			Carriage Cost	Per mt			475.67
			Rate per m				7480.65
			Total Cost	Per mt			7,480.65
56	9.5	1100	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per Design in Double Row				
(III)	(C)		Providing and laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in double row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets as per Clause 1106.				
		C.	2 X 1000 MM DIA				
			Unit =m				
			Taking output =7.5 m				
			(6 pipes of 2.5 m length each in two rows)				
			a) Material				
			i) Sand at site	cum	0.08	175.80	14.06
			ii) Cement at site	ton	0.06	5350.20	321.01
			iii) RCC pipe NP 3 pipe including collar at site	m	7.50	5565.00	41737.50
			b) Labour				
			Mate	day	0.22	321.00	70.62
			Mason (1st class)	day	0.6	408.00	244.80
			Mazdoor (Unskilled)	day	4.80	304.00	1459.20
			c)Over Heads @ 12 % on (a+b+c)				5261.66
			d)Contract. Profit @ 10 % on (a+b+c)				4910.89
			Rate per m =(a+b+c+d)/7.5				7202.63
			Carriage cost:-				
			Cement	t	0.0080	410.84	3.29
			Coarse sand	cum	0.0107	2,068.23	22.06
			Pipe	mt	1.00	463.00	463.00
			Carriage Cost	Per mt			488.35
			Rate per m				7690.98
			Total Cost	Per mt			7690.98