ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

FDR

PLAN HEAD FDR(2245)
(2021-2022)

ESTIMATE FOR REPAIR OF ROAD BREACHES (DAMAGE BY FLOOD) FOR MOTARABLE WORK IN GAURA SHIVGANJ BHISTI SE RAJPUT TOLA

DISTRICT	:-	Saran	
DIVISION	:-	Marhaura	
BLOCK	:-	Marhaura	
TOTAL LENGTH OF ROAD	:-	2.725	KM
TOTAL COST OF CONSTRUCTION	:-	5.352	Lac
TOTAL COST OF PROJECT	:-	5.352	Lac

Inspection Report For Flood Damage Work

Date:

1. Name of PIU – E.E. R.W.D(W) Marhaura
2. Name of Block/Road – Marhaura — Maintainable work in Gaura Shivganj Distt Sa Rajpur Toke.

A. For Road

1. Damage Location/ Chainage :- 0.110, 0.220, 0.450
2. Damage Length :- 0.047 km.
3. Nature of Damage :- Dist due to flood.
4. Details of Restoration :-
   - I. Materials being used in restoration : Brick bats, Local sand.
   - II. Equipment/Tools being used in restoration works : Tractor, Roller, V.O.B, Trolly.
   - III. Procedure taken up in Restoration works : Laying & Spreading & Rolling labour.
   - IV. Restored Length : 0.078 km.

B. For Bridge

1. Damage Location/ Chainage :-
2. Damage Length :-
3. Nature of Damage :-
4. Details of Restoration :-
   - I. Materials being used in restoration :
   - II. Equipment/Tools being used in restoration works :
   - III. Procedure taken up in Restoration works :
   - IV. Restored Length :

04/12/21 4.12.21

Signature of AE/JE/EE

Executive Engineer
Rural Works Department
Works Division, Marhaura

'S'

03/12/2021

Signature

(Er Akhilesh kumar)
(Name of Inspector)
EE
RWD (W) - SONEPUR

FDR(2021-2022)
प्रतिवेदन

पथ का नाम:- Gaura Shivganj Bhisti Se Rajput Tola

पथ की लम्बाई:- 2.725 KM.
पथ के क्षतिग्रस्त भाग की लम्बाई:-
प्रखंड:-मढ़ौरा जिला :-सारण
प्रमंडल:-ग्रामीण कार्य विभाग कार्य प्रमंडल,मढ़ौरा
अंचल:-ग्रामीण कार्य विभाग कार्य अंचल,छपरा
प्राक्कलित राशि:- 535218 रु

प्रस्तुत प्राक्कलन गत माह जिला क्षेत्र अंतर्गत बाढ़ एवं अतिवृष्टिसे क्षतिग्रस्त पथो के मोटरेबल कार्य हेतु कुल रुपये 535217.986 लाख मात्र के लिए तैयार किया गया है । विदित है की गत जून महीने से सितम्बर अक्टूबर महीने तक लगातार अन्तराल पर जिला क्षेत्र अंतर्गत असामयिक रूप से पथ क्रस्ट काफी क्षतिग्रस्त हो गया जिससे पथो पर आवागमन बुरी प्रभावित हो गया ।ऐसी परिस्थिति में पथो पर आम जनता को सुलभ आवागमन प्रदान करने हेतु विभागीय उच्चाधिकारियोंसे प्राप्त आदेश एवं इस संबंधमें विभाग से निर्गत दिशा निर्देश के अलोक में तत्काल प्रभाव से प्रभावित पथो में कटाव/क्षतिग्रस्त भाग में अवश्यकतानुसार Brick Bats भरकर चलने लायक बनाया गया है ।

इस प्रकार कटाव/क्षतिग्रस्त भाग में अवश्यकतानुसार Brick Bats इत्यादि मदों का प्रावधान करते हुए प्राक्कलन कुल रुपये 535217.986 लाख का तैयार किया गया हैजो कार्य हित में आवश्यक एवं जनपयोगी है ।

प्राक्कलन वर्त्तमान अनुसूचित दर पर तैयार किया गया है, जिस पर स्वीकृति अपेक्षित है । प्राक्कलन में अधिक मदों की मात्रा एवं दर की जॉच की जी गई है जो सही के अनुरूप है।

30/10/21

कनीय अभियंता

30.10.21

सहायक अभियंता

कार्यपालक अभियंता

FDR

GENERAL ABSTRACT OF COST

Block:- arhaura **District:- Saran**

Length of Road:-- **2.725 KM**

Name of Road:-- **Estimate for Repair of Road Breaches (Damage By Flood) For Motarable Work in Gaura Shivganj Bhisti Se Rajput Tola**

SL. No.	Item of Work		Amount
A	TOTAL COST	:	5.352 Lacs
	TOTAL	:	**5.352 Lacs**

30/10/21

Junior Engineer

30.10.21

Asstt. Engineer

Executive Engineer

T/S. for Rs. 5.352/- Lakhs.
(Rupees five lakhs thirty five thousand two hundred only.

SDO
RWD

15/01/22
S.E.

Superintending Engineer
Rural (Works) Deptt.
Works Circle, Chapra

Name Of Road :-			Estimate for Repair of Road Breaches (Damage By Flood) For Motarable Work in Gaura Shivganj Bhisti Se Rajput Tola			Block :-	Marhaura	DISTRICT:-	Saran	LENGTH :-	2.725 KM
Sl. No.	SDB SL .NO	MORD Ref.No	Description	Unit	NOS	LENGTH	WIDTH	HEIGHT	QUANTITY	RATE	AMOUNT (in Rs.)
1	8.1.3.2 (iii)		Providing brick bats including spreading laying,Labour for dry graded jhama khoa folter under Brick Pitching or boulder pitching in slope or apron including light ramming etc. All complete job as per approved design specification and directionof E/I,including carriage cost of bricks.								
			Quantity As Per Annexture-1(For Brick Bats)	Cum				Total Quantity=	174.06	2,300.58	4,00,440.00
2			**Local Sand For Voids Filling**								
			Filling and Spreading local sand over brick bats as per drawing and technical specification clause 305.3.9								
			Quantity As Per Annexture-2(For Local Sand)	Cum				Total Quantity=	6.76	652.27	4,409.00
3			**Sand Bages**								
			(A) Labour of fillin new E.C bags with local sand (Volume of filled bag 1.2 cft and weight 50 kg) stching on two lines by approved nylon thread with stiching machine & generators stacking the bags and placing in nylon crate of size (1m x1m 1m) with a lead of 150 m including supply of nylon thread etc placing the filled crates in water protion within a lead of 30m all complete as per approved design specifiaction and direction of E/I (5.7.39.3 &5.7.49) New EC bags carriages of local sand by boat 1/2 km lead								
				cum	1	10.00	1.70	2.60	44.2		
				cum	1	4.00	1.00	2.60	10.4		
				cum	1	17.00	1.80	2.60	79.56		
				cum	1	16.00	1.00	2.60	41.6		
			Quantity As Per Annexture-3(For Sand Bag)	cum				Total Quantity=	175.76		
									175.76	644.06	1,13,199.99

Sl. No.	SDB Sl. NO	MORD Ref.No	Description	Unit	NOS	LENGTH	WIDTH	HEIGHT	QUANTITY	RATE	AMOUNT (in Rs.)
4			**Supply For Bamboo**								
		A	**Vartical Bamboo**								
			Runers		**25**	x	3.50	=	87.50		
					20	x	3.00	=	60.00		
								=	147.50		
					147.50	/	6.00	=	24.58		
			Chachari				**No.**	=	**25.00**		
					208	x	2.00	=	0.00		
					0.00	/	1.413	=	0.00		
							No.	=	**0.00**		
							Total	=	**25.00**		
							5% Add Westage	=	**1.00**		
5	5.7.7		**Bamboo Piles**				**Total**	=	**26.00**	**141.00**	**3,666.00**
			Labour for cutting 62 mm to 75 mm dia bamboo piles to size and making shoes and driving etc complete job as per								
			Vartical Bamboo			45	x	3.5	157.50		
								M	157.50	**15.44**	**2,431.00**
6	5.7.8		**Bamboo Waven Chachari**								
			Labour for fitting and fixing split bamboo woven chachari inn position with 20 swg G.I. wire or 75 mm to 100 mm long								
				M		45	x	2.00	90.00		
			Bamboo Runers						**90.00**	**34.82**	**3,134.00**
7	5.7.9		Labour for fitting and fixing 62 mm to 75 mm dia bamboo runers in position at every vertiacal pile with 150 mm long								
			Fitting & Fixing	3	x	45	x	0.075	10.13		
			For Vartical Bamboo	M		25	x	3.00	**10.13**	**96.37**	**976.00**
			Bamboo for Runner						75.00		
			Bamboo for sty Chachari						10.13		
			Bamboo For Chachari	1	x	45	x	25	0.00		
			Total Bamboo						1125.00		
									1210.13	5.75	6,962.00
										TOTAL COST IN RS.=	**5,35,217.99**

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ANNEXTURE-1

Name Of Road :- Estimate for Repair of Road Breaches (Damage By Flood) For Motarable Work in Gaura Shivganj Bhisti Se Rajput Tola							Block:- Marhaura
Sl. No.	Description	Nos.	LENGTH (m)	WIDTH (m)Av.	HEIGHT (m)Av.	UNIT	QUANTITY
1	CH-1300 M	1	10.00	1.70	2.50	CUM	42.50 m3
2	"	1	4.00	1.00	2.60	CUM	10.40 m3
3	"	1	17.00	1.80	2.60	CUM	79.56 m3
4	"	1	16.00	1.00	2.60	CUM	41.60 m3
						TOTAL QUANTITY FOR BRICK BATS=	174.06 m3

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ANNEXTURE-2

Name Of Road :- Estimate for Repair of Road Breaches (Damage By Flood) For Motarable Work in Gaura Shivganj Bhisti Se Rajput Tola							Block:- Marhaura
Sl. No.	Description	Nos.	LENGTH (m)	WIDTH (m)Av.	HEIGHT (m)	UNIT	QUANTITY
1	CH-1300 M	1	10.00	1.70	0.10	CUM	1.70 m3
2	"	1	4.00	1.00	0.10	CUM	0.40 m3
3	"	1	17.00	1.80	0.10	CUM	3.06 m3
4	"	1	16.00	1.00	0.10	CUM	1.60 m3
						TOTAL QUANTITY FOR LOCAL SAND =	6.76 m3

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Brick Bats Pitching Manual Means

Sl. No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
	Labour for dry graded jhama khoa folter under Brick Pitching or boulder pitching in slope or apron including light ramming etc. All complete as per approved design specification and directionof E/I.				
	Unit:-Per Cum				
	Taking Output =2.832 Cum				
	Unskilled Mazdoor	Nos.	3	304.00	912.00
	Add 6% Overhead Charge				54.72
	Rate for 2.832 Cum				966.72
	Rate Per Cum(Rs.)=				341.36
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.				
	a)Machinery.				
	Tractor 3.6 tonnes Capacity				
	Time Taken For onward haulage with load	hour	0.667	652.00	434.88
	Time Taken For empty return trip	hour	0.400	652.00	260.80
	b) Overhead Charges @0.06 on (a)				41.74
	Cost for 36 t km=(a+b+c)/36				737.43
	Say RS.-				**20.48**
	ii) Unsurface Gravel Road				
	Speed With load :12 km / hour.				
	Speed for empty return trip :20 km / hour.				
	a)Machinery.				
	Tractor 3.6 tonnes Capacity				
	Time Taken For onward haulage with load	hour	0.833	652.00	543.12
	Time Taken For empty return trip 0.50	hour	0.500	652.00	326.00
	b) Overhead Charges @0.06 on (a)				52.15
	Cost for 36 t km=(a+b+c)/840.34				921.26
	Rate per t.km = (a+b+c)/3623.34				25.59
	Say RS.-				**25.59**

1.1 RCD	**Loading and Unloading of Stone Boulder / Stoneaggregate / sand / kanker / Moorum**				
	Placing Tractor at loading point, loading with frontloader,dumping, turnig for return trip,excluding for haulage and return trip.				
	Unit = cum				
	Taking output = 2.25 cum				
	Time required for				
	i) Positioning of Tracter at loading Point		1 Min		
	ii) Loading by front end loader 1cum bucket @ capacity 25 cum per hour		5 Min		
	iii) Maneuvering, reverse, dumping and turnig for return		0 Min		
	iv) Wating time,unforeseen Contingencies etc.		0 Min		
	Total		6 Min		
	a) Labour				
	Mate	Day	0.03	316.00	9.48
	Mazdoor for loading and unloading	Day	0.72	304.00	218.88
	b) Machinery				
	Tractor 3.60 tonnes capacity	hour	0.10	652.00	65.20
	Front end loader 1 cum bucket capacity @ 25 cum/hour	hour	0.08	#######	265.68
	c) Overhead charges @ 0.06 on (a+b)				33.55
	Cost for 2.25 cum = a+b+c+d				592.80
	Cost for 2.25 cum = (a+b+c+d)/2.25				263.47
Note-	Unloading will be done manually.				
1	Suplying for Brick Bats (With OH)				
A	Basic Rate of Brick Bats	Per Cum		#######	1006.00
	Add overhead Charges 6%		0.06		60.36
	Total-				1066.36
	Surface Lead	km	7.00		
	Unsurface Lead	km	1.00		
	Factor(3.6/2.25)	cum	1.60		
B	Carriage (with OH)				
	(1.6 x 7 x 20.48) + (1.6 x 1 x 25.59) + 263.47				533.83
C	Cost of Labour for Pitching and Light Ramming as per WRD SOR 6.6.1 (with OH)				341.36
	Total (A+B+C)-				1941.55
	Add 1% Labour Cess (A+B+C)				19.42
	Add 12% GST(A+B+C)				232.99
	Add 10% cost of Material for seigniorage Fee		1.00	106.64	106.64
	Total Cost per Cum		Rs:-		2300.58

FORM F8

Analysis for Carriage by Road & Rail

Name of Road:-- Estimate for Repair of Road Breaches (Damage By Flood) For Motarable Work in Gaura Shivganj Bhisti Se Rajput Tola

District:- Saran **Block :-** Marhaura

Sl No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km		Loading & Unloading Cost	Carriage Cost by Rail Head	Total `	Min Total `
				Pucka / Surface	Katcha				
3	Local Sand	Cum	Local	8.00/4.99 x 10.10 x 2.00 Km = Rs 32.38	8.00/4.99 x 24.30 x 1.00 Km = Rs 38.96	113.67			Rs. 185.01

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Analysis of Rates (FORMAT F8)

11.2	600	Filling and Spreading Local Sand Over Brick Bats As Per Drawing and Technical SpecificationClause 305.3.9					
	1	**Fine Sand Filling**					
		Unit = cum					
	a)	**Labour**					
		Mate	day	0.01	310.00	3.10
		Mazdoor Unskilled	day	0.30	304.00	91.20
	b)	**Material**					
		Sand assuming 20% voids	day	1.20	141.75	170.10
	c)	**Overheads @6 % on (a+b)**				15.86
	d)	**Contractor's profit @ 10% on (a+b+c)**				28.03
		Rate per cum = a+b+c+d				**308.29**
		Carriage cost:-				
		Fine Sand	nos.	1.20	185.01	222.01
		Cost per cum including Carrige				**530.30**
		Labour cess 1%				**5.30**
		GST 12%				**63.64**
		Seignorage 10%				**53.03**
		TOTAL COST	**cum**			**652.27**

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
2			(A) Labour of fillin new E.C bags with local sand (Volume of filled bag 1.2 cft and weight 50 kg) stching on two lines by approved nylon thread with stiching machine & generators stacking the bags and placing in nylon crate of size (1m x1m 1m) with a lead of 150 m including supply of nylon thread etc placing the filled crates in water protion within a lead of 30m all complete as per approved design specifiaction and direction of E/I (5.7.39.3 &5.7.49) New EC bags carriages of local sand by boat 1/2 km lead				
			Unit = Each Bag				
			Taking OutPut Of 100 Nos. Filled New Bags In 4 Nos. N.C				
		a)	**Labour**				
			Usskilled Labour For Filling Stiching & Stacking	Nos	1.67	304.00	507.68
			Unskilled Laber For Carrying & Placing	Nos	3.00	304.00	912.00
			Skilled Labour For Stiching	Nos	0.33	385.00	127.05
			Material For Stiching				
			Stiching Roll (Nylon)	nos	2.00	30.00	60.00
			Hire Charges Of Machine				
			Hire Charge Of Stiching Machine	Day	0.33	50.00	16.50
			Hire Charge Of Generator 3KVA	Hrs	2.67	74.00	197.58
			Over Heads @ 12 % on (a+b+c)				218.50
			C. Profit @ 10 % on (a+b+c+d)				203.93
		d)	**Cost for 100 Nos. = a+b+c+d**				2243.24
			Rate Per cum=(a+b+c+d) (A x 120/100x4)	cum			560.81
			CARRIAGE				
			Carriage for Local Sand		0.450	185.01	83.25
			Rate per cum with carriage				644.06
			Total Cost	**CUM**			**644.06**
3	5.7.6		**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 = 10 Joint				
			(Assuming 10 Joints)				
		a)	**Materials**				
			Nut And Bolts 16 mm Dia 225mm Long With Washer etc.	nos	20.00	32.88	657.60
		b)	**Laber**				
			Carpenter Grll	nos	0.50	408.00	204.00
			Unskilled Mazdoor	nos	0.25	304.00	76.00
		c)	Overheads @ 12%				112.51
		d)	Contractor's profit @ 10% on (a+b+c+d)				105.01
		e)	**Rate Per cum=(a+b+c+d)/10**	Per M			115.51
			Total Cost	**Per M**			**115.51**
4	5.7.7		**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 M				
			(Assuming 20 nos, Pile Sunk 1.525 Mtr Deep)				
		b)	**Laber**				
			Carpenter Grll	nos	0.25	408.00	102.00
			Unskilled Mazdoor	nos	2.50	304.00	760.00
		c)	Overheads @ 12%				103.44
		d)	Contractor's profit @ 10% on (a+b+c+d)				96.54
		e)	**Rate Per cum=(a+b+c+d)/30.5**	Per M			34.82
			Total Cost	**Per M**			**34.82**

Analysis of Rates (FORMAT F8)

Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
5	5.7.8		**Labour for fitting and fixing split bamboo woven chachari inn 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 M				
			Taking Out put = 9.30 M				
			(Assuming 20 nos, Pile Sunk 1.525 Mtr Deep)				
		a)	**Materials**				
			75 mm To 100 mm Lon Nails	**Kg**	**0.25**	**61.74**	**15.44**
		b)	**Laber**				
			Carpenter Grll	**nos**	**1.00**	**408.00**	**408.00**
			Unskilled Mazdoor	**nos**	**1.00**	**304.00**	**304.00**
		c)	Overheads @ 12%				87.29
		d)	Contractor's profit @ 10% on (a+b+c+d)				81.47
		e)	**Rate Per cum=(a+b+c+d)/9.30**	**Per M**			96.37
			Total Cost	**Per M**			**96.37**
6	5.7.9		**Labour for fitting and fixing 62 mm to 75 mm dia bamboo runers in position at every vertiacal 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				
		a)	**Materials**				
			75mm To 100 mm Lon Nails	**Kg**	**0.25**	**61.74**	**15.44**
		b)	**Laber**				
			Carpenter Grll	**nos**	**0.125**	**408.00**	**51.00**
			Unskilled Mazdoor	**nos**	**0.250**	**304.00**	**76.00**
		c)	Overheads @ 12%				17.09
		d)	Contractor's profit @ 10% on (a+b+c+d)				15.95
		e)	**Rate Per cum=(a+b+c+d)/30.5**	**Per M**			5.75
			Total Cost	**Per M**			**5.75**