

RURAL WORKS DEPARTMENT



GOVERNMENT OF BIHAR

CIRCLE – R.W.D. works Circle, Kishanganj

DIVISION – R.W.D. works Division , Kishanganj-1

Name of Work - Construction of Diversion for RCC Bridge at L074 to
Balua road (BR-18R-302)

Block - Kochadhaman

Estimated cost - Rs 4628866.00

Year : 2020-21

Inspection Report for flood damage work

Date:

1. Name of PIUs- Kishangan-2

2. Name of Block/Road- Ree Bridge at Loty to Balia road

A. For Road

1. Damage Location/Chainage :

2. Damage Length :

3. Nature of Damage :

4. Details of Restoration :

i Material being used in Restoration

ii Equipment/Tools being used in Restoration works:

iii Procedure taken up in Restoration works

iv Restored Length

: 310 m.

: Damage and deep side cutting

: HP cement, Brick bat, Bamboo

: Traction

: manual

: 310 m.

B. For Bridge

1. Damage Location/Chainage :

2. Damage Length :

3. Nature of Damage :

4. Details of Restoration :

i Material being used in Restoration

ii Equipment/Tools being used in Restoration works:

iii Procedure taken up in Restoration works

iv Restored Length

:

:

:

18-12-20

Signature of JE/AE/EE

13/12/20
AE

13/12/20

13/12/20

Signature

(Name of Inspector)

Detailed Estimate

Name of work :-

Construction of Diversion for RCC Bridge at L074 to Balia road
(BR-18R-302)

Sl No	Item	No	Length	Width	Height	Qty	Unit	Rate	Amount	
1	Providing and laying reinforced cement concrete pipe NP3 for culverts of 600 dia, all complete job -----E/I.	2	2.50	-	-	5.00				
		0	0.00	-	-	0.00				
		Total					5.00	RM	3041.87	15209.00
2	Filling and spreading local sand over brick bats as per drawing and technical specification Clause 305.3.9	1	155.00	5.50	2.00	1705.00				
		Total					1705.00	cum	626.89	1068847.00
3	Providing laying and spreading brick bats in Road ditches all complete as per approved design, specifications and direction of E/I	1	155.00	5.00	1.50	1162.50				
		Total					1162.50	cum	2145.02	2493586.00
4	Providing and cutting of 62 mm to 75 mm dia bamboo piles to size and making shoes, all complete job ----E/I	172	3.00	-	-	516.67				
		172	3.50	-	-	602.00				
		Total					1118.67	RM	50.20	56157.00
5	Providing, fitting and fixing 62 mm 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.....	4	155.00	-	-	620.00				
		5	155.00	-	-	775.00				
		Total					1395.00	RM	28.53	39799.00
6	Providing and filling empty cement bags with local sand, stitching the bags and placing including supply of sutli etc. all complete job ----E/I	1	155.00	0.90	1.50	209.25				
		1	155.00	0.90	1.20	167.40				
		Total					376.65	cum		
		=	13301.39 cft				Say	11084.00	Nos	38.14
Total:-								Rs 4096342.00		
Add GST @ 12 % :-								Rs 491561.00		
Add LC @ 01 % :-								Rs 40963.00		
Total cost of Restoration with GST & LC:-								Rs 4628866.00		

Pdms
10-12-20
J.E
RWD
Kochadhaman

Amn
10/12/20
A.E
R.W.D
Kochadhaman

Say. Rs. 4628900/-
C
21/12/20
E.E
R.W.D
Kishanganj - I

Technically approved for ₹. 4628900/-
 (Rs. Fourty Six Thousand Eight Hundred and nine
 Hundred only)

Amn
25/12/20

LEAD CHART

S.L No.	Name of material	Source	Mode of transport	From	To	Lead in K.M		Loading	Unloading	Total Loading + Unloading
						Surface Road	Katcha Road			
1	2		3	4	5	6	7	8	9	10
1	Bricks	Local Kiln	By road	Local Kiln	Site	7	1	203.05	203.05	406.10
2	Fine sand	Local source	By road	Local	Site	2	1	59.43	37.10	96.53
3	Coarse Sand	Chopra	By road	Chopra	Site	80	0	59.43	37.10	96.53
4	Boulder	Siliguri	By road	Siliguri	Site	120	0	118.86	59.43	178.29
6	Stone metal for GSB	Siliguri	By road	Siliguri	Site	120	0	118.86	59.43	178.29
7	Seel	Local	By road	Local	Site	5	0	118.86	59.43	178.29
8	Hume pipe (1000 mm	Purnia	By road	Purnia	Site	90	0	41.62	28.00	69.62
9	Hume pipe (600 mm	Purnia	By road	Purnia	Site	90	0	17.84	12.00	29.84
10	Bamboo 62 to 75 mm	Local	By road	Local	Site	5	5	1,112.00	1,112.00	2,224.00

10-12-23

J.E
RWD
Kishanganj-1

10/12/20

A.E
R.W.D
Kishanganj-1

10/12/20

E.E
R.W.D
Kishanganj - I

FDR 2020
RATE ANALYSIS

Sl. No.	SPS No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs
1	302	(I)	Excavation in cutting in soil by manual means with lead up to 50 m Excavation for roadway in soil using manual means for carrying of cut earth to embankment site with a lift upto 1.5 m and lead upto 50 m as per technical specification clause 302.3 Unit = cum Taking output = 120 cum				
		a)	Labour				
			Mate	day	1.80	305.00	549.00
			Mazdoor (Unskilled)	day	45.00	267.00	12,015.00
		b)	Overheads @ 6 % on (a)				
		c)	Contractor's profit @ 0% on (a+b)				
		c)	Cost for 120 cum = a+b+c				0.00
			Rate per cum = (a+b+c)/120				13,464.00
			Total Cost	CUM			112.20
2	3.3	301.5	Construction of embankment with material obtained from road way cutting Construction of embankment with approved materials deposited at site and obtained from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of Tables 300.1 and 300.2 as per Technical Specification Clause 301.5 Unit = cum Taking output = 100 cum				
		a)	Labour				
			Mate	day	0.02	305.00	6.10
			Mazdoor (Unskilled)	day	0.50	287.00	143.50
		b)	Machinery				
			Dozer D-50 for spreading @ 100 cum per hour	hour	0.50	3,337.90	1,668.95
			Tractor mounted grader arrangement for grading @ 100 cum per hour	hour	1.00	573.20	573.20
			Water tanker 6 kl capacity	hour	2.00	184.00	368.00
			Three wheel 80-100 kN Static Roller	hour	1.25	803.00	1,003.75
		c)	Material				
			Water	kl	12.00	40.00	480.00
			Compensation for earth	cum	100.00	34.81	3,481.00
		d)	Overheads @ 6 % on (a+b+c)				
		e)	Contractor's profit @ 10% on (a+b+c+d)				0.00
			Rate for 100 cum = a+b+c+d+e				7,724.50
			Rate per cum = (a+b+c+d+e)/100=				77.25
			Total Cost	CUM			77.25
			Grand total = 112.2 + 77.25 =	CUM			189.45
3	9.3	110C	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row 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.				
		A.	600 MM DIA Unit = m Taking output = 7.5 m (3 pipes of 2.5 m length each)				
		a)	Material				
		i)	Sand at site	cum		175.80	0.00
		ii)	Cement at site	ton		4850.80	0.00
		iii)	RCC pipe NP 3 pipe including collar at site	m	7.50	2075.92	15569.40
		b)	Labour				
			Mate	day	0.04	305.00	12.20
			Mason (1st class)	day	0.12	388.00	46.56
			Mazdoor (Unskilled)	day	0.96	287.00	275.52
		c)	Overheads @ 6 % on (a+b)				
		d)	Contractor's profit @ 0% on (a+b+c)				0.00
		e)	Carriage				
		i)	Sand at site	cum	0	2107.51	0.00
		ii)	Cement at site	ton	0	5547.44	0.00
		iii)	RCC pipe NP 3 pipe including collar at site	m	7.50	921.38	6910.35
			Cost for 7.5m = (a+b+c)				22814.03
			Rate per m =(a+b+c)/7.5				3041.87
			Total				3041.87
			Total Cost	M			3041.87
4	9.3	1100	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per design in Single Row 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 ii) Cement at site iii) RCC pipe NP 3 pipe including collar at site Jute b) Labour Fitter Mason (1st class) Mazdoor (Unskilled) c)Overheads @6 % on (a+b) d)Contractor's profit @ 0% on (a+b+c) e) Carriage i) Sand at site ii) Cement at site iii) RCC pipe NP 3 pipe including collar at site Cost for 7.5m = (a+b+c+d) Rate per m = (a+b+c+d) / 7.5 Total	cum ton m kg day day day day cum ton m	7.50 7.50 1.00 2.00 21.00 0 0 7.50	175.80 4850.80 2758.22 33.66 395.00 388.00 287.00 2107.51 5547.44 1030.28	0.00 0.00 20686.65 252.45 395.00 776.00 6027.00 0.00 0.00 7727.10 35864.20 4781.89 4781.89
			Total Cost	m			4781.89
5	9.5 (C)	1100	Providing and Laying Reinforced Cement Concrete Pipe NP3 as per Design In Double Row 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 ii) Cement at site iii) RCC pipe NP 3 pipe including collar at site Jute b) Labour Fitter Mason (1st class) Mazdoor (Unskilled) c)Overheads @6 % on (a+b) d)Contractor's profit @ 0% on (a+b+c) e) Carriage i) Sand at site ii) Cement at site iii) RCC pipe NP 3 pipe including collar at site Cost for 7.5m = (a+b+c) Rate per m = (a+b+c)/7.5 Total	cum ton m kg day day day day cum ton m	15.00 15.00 15.00 42.00 42.00 15.00	175.80 4850.80 2758.22 33.66 395.00 388.00 287.00 2107.51 5547.44 1030.28	0.00 0.00 41373.30 504.90 790.00 1552.00 12054.00 0.00 0.00 15454.20 71728.40 9563.79 9563.79
			Total Cost	M			9563.79
6	WRD 5.7.40.1	M-159	Providing and Placing Sand bags including all material and Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of sutli etc. all complete as per approved design, specifications and direction of E/I Unit :- Taking Out put:- Cost of E.C. Bags Cost of Sand (100x1.2/35 3I/120Cft) b) Overheads @ 0% on (a+b+c) c) Overheads @5 % d) Carriage of sand e) For filling & stitching & stacking (Sub analysis below) f) For Placing (Sub Analysis below) Rate Per % Bags Final Rate Per % Bags Sub Analysis A) For filling & stitching & stacking (a) Unskilled mazdoor for filling sand into bags and sewing	Per % nos 100 nos % cum Per % nos cum nos	100 3.40 3.40 3.40 2.00	8.46 141.85 306.27 287.00	846.00 482.22 1328.29 1041.32 583.88 861.00 Rs.3814.49 Rs.3814.50 574.00

		b) Satali							
		c) Overheads @ 0% on (a+b+c)							
		d) Overheads @ 5 %							
		Cost for 100 nos = a+b+c+d							
		Rate per % Nos =							583.88
		Final Rate For filling & stitching & stacking							583.88
								Per % nos (a)	Rs.583.88
5.7.40.1	1	WRD	Labour rate for filling of E.C.Bags with stitching and stacking						
		B	For Placing						
		(a)	Unskilled mazdoor for carrying filled bags and placing to work site	nos	3	287.00			861.00
		b)	Overheads @0% on (a+b+c)						
		c)	Overheads @5 %						
		Cost for 100 nos = a+b+c							861.00
		Rate per % Nos =							861.00
		Final Rate						Per%Nos (b)	Rs.861.00
		Only Labour Charge						Per Mtr	Rs.1444.00
7	5.7.7	WRD	Providing bamboo piles including Labour for cutting 62 mm to 75 mm dia sal bamboo piles to size and making shoes and driving etc. complete job as per specification and direction of E / I.						
		5.7.7							
			Unit :-	Per M					
			Taking Out put:-	30.50 Mtr					
			(Assuming 20 nos. pile sunk 1.525 mtr deep)						
			Total depth sunk 30.50 meter						
		(a)	Labour						
			Carpenter Gr II	nos	0.25	345.00			86.25
			Unskilled mazdoor for piling	nos	2.5	287.00			717.50
		(b)	Materials						
			Bamboo 75 mm to 62 mm dia	m	30.5	23.85			727.43
			Sub total						1521.18
		(c)	Overheads @5 %	%	15				
			Total for 30.5 Mtr Length						1521.18
			Rate Per M						50.20
			Say Rs	Per M					50.20
8	5.7.9	WRD	Supplying 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, all material and Labour complete job as per specification and direction of E / I.						
			Unit :-	Per M					
			Taking Out put:-	30.50 Mtr					
		(a)	Materials						
			Cost of 150 mm long nails	Kg	0.5	55.84			27.92
			Bamboo 75 mm to 62 mm dia	m	30.5	23.85			727.43
		(b)	Labour						
			Carpenter Gr II	nos	0.125	345.00			43.13
			Unskilled mazdoor	nos	0.25	287.00			71.75
			Sub total						870.22
		(c)	Overheads @5 %		15 %				
			Total for 30.5 Mtr Length						870.22
			Rate Per M						28.53
			Say Rs	Per M					28.53
9	5.7.8	WRD	Providing fitting and fixing split bamboo woven chachari in position with 20 swg G.I. wire or 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails, bamboo Labour for complete job as per specification and direction of E / I.						
			Unit :-	Per M ²					
			Taking Out put:-	9.30 Sqm					
			(Assuming strip of 3.05x3.05 = 9.30 sqm)						

		(A)	Materials				
			75 mm to 100 mm long nails				
			Bamboo 75 mm to 62 mm dia	Kg	0.25	55.84	13.96
			(Bamboo @ 75mm = 3050/75 = 40.67 say 41 nos. X 3.05 = 125.05m				
			And for lower portion of Chachan 30 x 3.05 = 30.5 m				
			Runner (@ 150mm C/C) 7 x 3.05 = 21.35m				
			(Total = 143.35m, Hence, 176 9/6 = 30 Nos)				
		(B)	Labour	m	143.35	23.85	3418.90
			Carpenter Gr II				
			Unskilled mazdoor	nos	1	345.00	345.00
			Sub total	nos	1	287.00	287.00
		(c)	Overheads @ 5 %				4064.86
			Total for 9.30 SqM	15 %			4064.86
			Rate Per SqM				437.08
							437.08
10	9.2 (1)	1100 & 800	Sand filling or Type B (First Class) Bedding		Qty	Per M ²	437.08
			Laying (First Class) bedding on well compacted sand, moorum or approved granular material as per Clause 1105 (ii)				
			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	305.00	3.05
			Mazdoor (Unskilled)	day	0.30	287.00	86.10
		b)	Material				
			Sand (assuming 20 per cent voids)	cum	1.20	141.85	170.22
		c)	Overheads @ 6 % on (a+b)				
		d)	Overheads @ 5 %				0.00
			<u>CARRIAGE COST</u>				
			sand	Cum	1.2	306.27	367.52
			Rate per cum = a+b+c				626.89
			Total Cost	CUM			626.89
11	WRD	5.7.40	Construction of granular sub base using jhama metal/ Brick Bat vide WRD				
			Providing and laying dry graded jhama khoa? Brickbat or stone filter under brick pitching or boulder pitching in slope or apron including light ramming etc.all complete job as per specification and direction of E / I.				
			Unit = cum				
			Taking output = 2.832 cum				
		(a)	Labour				
			Mazdoor (Unskilled)	day	0.00	305.00	0.00
			Mazdoor (Unskilled)	day	3.00	287.00	861.00
			Sub total of Labour for 2.832 Cum				861.00
			Labour charge for 1.00 cum				304.03
		(b)	Material				
			Brick bat:	cum	1.200	1,062.00	1,275.60
		(e)	Carriage				
			Brick bat	cum	1.200	471.16	565.39
			Cost for 1.00 cum = a+b+c+d+e				2,145.02
			Rate per cum = (a+b+c+d+e)				Rs.2145.02
			Final Rate				Rs.2145.02

C
10/12/12