

RURAL WORKS DEPARTMENT



GOVERNMENT OF BIHAR

CIRCLE – R.W.D. works Circle, Chapra

DIVISION – R.W.D. works Division, Marhaura

Name of Work - Motrable of Road from Amnaur Purani thana to Kuwari

Block - Amnaur

Estimated cost - Rs 1363925.00

Year : 2020-21

Inspection Report for flood damage work

Date:

1. Name of PIUs- E.E. R.W.D.(W) Muzhouri.

2. Name of Block/Road- Annamur - Muzhouri of Road from Annamur
Puzhouri then to Kuzhouri.

A. For Road

1. Damage Location/Chainage : 3.00 + 3.40 + 3.45 + 3.60 + 3.75.

2. Damage Length : 78 M.

3. Nature of Damage : Cutting the road due to flood.

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

: Brick Batel Sand filling.
Roller, Tractor, t.e.B. etc.
: ~~78~~ Dumping, laying rolling etc.
: Brick Batel Sand filling.
78m

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

Signature of JE/AF/EE

Signature

AKHILESH KUMAR
(Name of Inspector)

E.E R.W.D

(W) DIVISION - SONEPUR

प्रतिवेदन

कार्य का नाम :- *Motability of Road*
शीर्ष :- FDR
प्राक्कलित राशि :- 1363925/-
प्रखण्ड का नाम :- अमनौर

जिला-सारण।

प्रस्तुत प्राक्कलन शीर्ष PMGSY/MMGSY/GTSNY/NABARD/MR-3054 अर्तगत निर्मित/निर्माणाधीन पथ के गत महीने में इस जिला में आये बाढ़/अतिवृष्टि के कारण क्षतिग्रस्त हुए पथों को चलने लायक (Motarable) बनाने हेतु विभागीय दिशा-निर्देशानुसार कार्यपालक अभियंता, ग्रा0का0वि0, कार्य प्रमंडल मढ़ौरा के दिशा-निर्देशन में कुल रु0 1363925/- के लिए तैयार किया गया है।

आवश्यकतानुसार तत्काल प्रभाव से पथों को चलने लायक बनाने हेतु प्राक्कलन में Bricks Bats, Sand Bag, Hume-Pipe इत्यादी का प्रावधान आवश्यक लम्बाई, चौड़ाई एवं मोटाई में प्राक्कलन के अनुसार प्रावधान किया गया है।

योजना एवं कार्य की महत्ता के साथ-साथ जनहित के लिए अतिउपयोगी प्राक्कलन को कार्यहित में स्वीकृति हेतु प्रस्तुत किया जा रहा है।

[Signature]
02/12/20
J. C. Amer.

[Signature]
कार्यपालक अभियंता,
ग्रामीण कार्य विभाग,
कार्य प्रमंडल, मढ़ौरा।
[Signature]

ABSTRACT OF COST

Name of Work - Motrable of Road from Amnaur Purani thana to Kuwari

Block - Amnaur

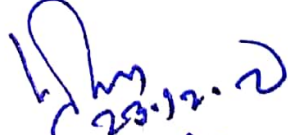
S.L No.	Particulars	Amount (In Rs.)
A	Cost of Restoration work	Rs 1207013.00
B	Add 12 % GST on (A)	Rs 144842.00
C	Add 1 % L. Cess on (A)	Rs 12070.00
	Total Cost	Rs 1363925.00


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T/A for Rs 1363925 = (Thirteen lakh six
three thousand nine hundred twenty five)

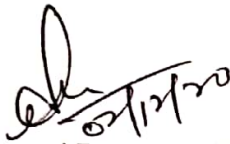

अधीक्षण अभियंता
ग्रामीण कार्य विभाग
कार्य प्रमंडल, छपरा

work :-

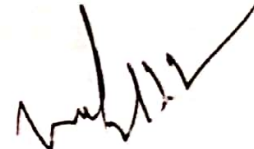
Detailed Estimate

Motrable of Road from Amnaur Purani thana to Kuwari

Motrabale of Road from Amnaur Puram to ...						Unit	Rate	Amount
Item	No	Length	Width	Avg.H/D	Qty			
Providing laying and spreading brick bats in Road ditches all complete as per approved design, specifications and direction of E/I	1	25.00	4.60	1.56	179.40			
	1	20.00	4.50	1.52	136.80			
	1	12.00	4.60	1.43	78.94			
	2	15.00	4.80	1.32	190.08			
	2	3.00	4.75	1.26	35.91			
	Total					621.13	cum	1909.87
2 Filling and spreading local sand over brick bats as per drawing and technical specification Clause 305.3.9	1	25.00	4.60	0.10	11.50			
	1	20.00	4.50	0.10	9.00			
	1	12.00	4.60	0.10	5.52			
	2	15.00	4.80	0.10	14.40			
	2	3.00	4.75	0.10	2.85			
	Total					43.27	cum	479.27
TOTAL								1207013.00


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ANALYSIS FOR CARRIAGE OF MATERIAL

(A) Name of the Work :- Restoration/Mottrable of Road from Amnaur Purani thana to Kuwari

(B) Haulage Charge By 8 T Capacity Truck

- (i) For Surface Road :- Rs. 7.52 Per t per K.M
(ii) For Unsurface Toad :- Rs. 9.04 Per t per K.M
(iii) For Kutcha Road :- Rs. 18.19 Per t per K.M

1 CARRIAGE COST OF BAMBOO 62 MM TO 75 MM OF 6 To 8 M LONG

Lead as per Quarry Chart :- 5 P + 5 K

$$\text{Haulage Cost} = \frac{8}{3.00} \times [(7.52 \times 5.00) + (18.19 \times 5.00)] = 206.09$$

Loading & Unloading =

$$\begin{aligned} &= 2224.00 \\ \text{Total per \% Nos} &= 2430.09 \\ \text{Total per m} &= 3.47 \end{aligned}$$

2 CARRIAGE COST OF STONE BOULDER

Lead as per Quarry Chart :- 180 P + 0 K

$$\text{Haulage Cost} = \frac{8}{4.80} \times [(7.52 \times 180.00) + (18.19 \times 0.00)] = 2256.00$$

Loading & Unloading =

$$= 196.13$$

$$\text{Total per M}^3 = 2452.13$$

3 CARRIAGE COST OF GSB Material

Lead as per Quarry Chart :- 180 P + 0 K

$$\text{Haulage Cost} = \frac{8}{4.99} \times [(7.52 \times 180.00) + (18.19 \times 0.00)] = 2170.10$$

Loading & Unloading =

$$= 196.13$$

$$\text{Total per M}^3 = 2366.23$$

4 CARRIAGE COST OF HUME PIPE (1000 MM DIA)

Lead as per Quarry Chart :- 55 P + 0 K

$$\text{Haulage Cost} = \frac{8}{22.5} \times [(7.52 \times 55.00) + (18.19 \times 0.00)] = 330.88$$

Loading & Unloading =

$$= 76.58$$

$$\text{Total per M} = 407.46$$

5 CARRIAGE COST OF HUME PIPE (600 MM DIA)

Lead as per Quarry Chart :- 55 P + 0 K

$$\text{Haulage Cost} = \frac{8}{52.50} \times [(7.52 \times 55.00) + (18.19 \times 0.00)] = 63.02$$

Loading & Unloading =

$$= 32.82$$

$$\text{Total per M} = 95.84$$

(C) Haulage Charge By 3.60 t Tractor capacity

- (i) For Surface Road :- Rs. 18.70 Per t per K.M
(ii) For Unsurface Toad :- Rs. 23.30 Per t per K.M
(iii) For Kutcha Road :- Rs. 29.20 Per t per K.M

1 CARRIAGE COST OF BRICK BAT

Lead as per Quarry Chart :- 7 P + 1 K

$$\text{Haulage Cost} = \frac{3.60}{2.25} \times [(18.70 \times 7.00) + (29.20 \times 1.00)] = 256.16$$

$$\text{Unloading} = \quad \quad \quad = \quad \quad \quad = \frac{65.38}{\text{Total per 1000 Nos.} = 321.54}$$

2 CARRIAGE COST OF LOCAL SAND

Lead as per Quarry Chart :- 2 P + 1 K

$$\text{Haulage Cost} = \frac{3.60}{2.25} \times [(18.70 \times 2.00) + (29.20 \times 1.00)] = 106.56$$

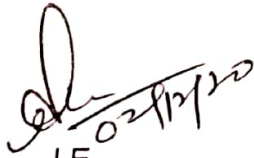
$$\text{Unloading} = \quad \quad \quad = \quad \quad \quad = \frac{40.81}{\text{Total per M}^3 = 147.37}$$

3 CARRIAGE COST OF STEEL

Lead as per Quarry Chart :- 5 P + 0 K

$$\text{Haulage Cost} = \frac{3.60}{3.60} \times [(18.70 \times 5.00) + (29.20 \times 0.00)] = 93.50$$

$$\text{Loading \& Unloading} = \quad \quad \quad = \quad \quad \quad = \frac{325.46}{\text{Total per Mt} = 418.96}$$


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SUMMARY OF CARRIAGE COST OF MATERIAL

Restoration/Motable of Road from Annaur Purani thana to Kuwari

Name of work :-

S.I No.	Name of material	Unit	Source	Mode of Transport	Carriage Charge by Road	Total Carriage up to site
1	2	3	4	5	7	8
1	Bricks Bats	per m ³	Local Kiln	By Road	321.54	321.54
2	Fine sand	per m ³	Local source	By Road	147.37	147.37
3	Steel	per mt	Local	By Road	418.96	418.96
4	Boulder	per m ³	Sheikhpura	By Road	2452.13	2452.13
5	Stone metal <50 mm	per m ³	Sheikhpura	By Road	2366.23	2366.23
6	Hume pipe (1000 mm dia)	Per metre	Hajipur	By Road	407.46	407.46
7	Hume pipe (600 mm dia)	Per metre	Hajipur	By Road	95.84	95.84
8	Bamboo of 62 to 75 mm dia	Per metre	Local	By Road	3.47	3.47

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FDR Analysis

S.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
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1.1 Loading and Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Manual Means

(i) Loading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m

Unit = cum

Taking output = 5.5 cum

a) Labour

Mate

Mazdoor (Unskilled)

day

0.02

305.00

6.10

b) Machinery

Truck

day

0.50

287.00

143.50

c) Overheads on (a+b)

hour

0.50

934.30

467.15

d) Contractor's profit on (a+b+c)

=@

6%

37.01

Cost for 5.5 cum = a+b+c+d

=@

10%

65.38

Rate per cum = (a+b+c+d)/5.5

719.13

130.75

(ii) Loading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m

Unit = cum

Taking output = 5.5 cum

a) Labour

Mate

Mazdoor (Unskilled)

day

0.01

305.00

3.05

b) Machinery

Truck

day

0.25

287.00

71.75

c) Overheads on (a+b)

hour

0.25

934.30

233.58

d) Contractor's profit on (a+b+c)

=@

6%

18.50

Cost for 5.5 cum = a+b+c+d

=@

10%

32.69

Rate per cum = (a+b+c+d)/5.5

359.57

65.38

(iii) Unloading of Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by manual means including a lead upto 30 m

Unit = cum

Taking output = 5.5 cum

a) Labour

Mate

day

0.01

305.00

3.05

Mazdoor (Unskilled)

day

0.25

287.00

71.75

b) Machinery

Truck

hour

0.25

934.30

233.58

c) Overheads on (a+b)

=@

6%

18.50

d) Contractor's profit on (a+b+c)

=@

10%

32.69

Cost for 5.5 cum = a+b+c+d

359.57

Rate per cum = (a+b+c+d)/5.5

65.38

(iv) Unloading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m

Unit = cum

Taking output = 5.5 cum

a) Labour				
Mate	day	0.005	305.00	1.53
Mazdoor (Unskilled)	day	0.125	287.00	35.88
b) Machinery				
Truck	hour	0.166	934.30	155.09
c) Overheads on (a+b)	=@	6%		11.55
d) Contractor's profit on (a+b+c)	=@	10%		20.40
Cost for 5.5 cum = a+b+c+d				224.45
Rate per cum = (a+b+c+d)/5.5				40.81

1.3 Loading, Unloading and Stacking of Bricks by Manual Means

(i) Loading of Bricks by manual means including a lead upto 30 m

Unit = 1000 Nos.

Taking output = 2000 Nos.

a) Labour				
Mate	day	0.01	305.00	3.05
Mazdoor (Unskilled)	day	0.25	287.00	71.75
b) Machinery				
Truck	hour	0.33	934.30	308.32
c) Overheads on (a+b)	=@	6%		22.99
d) Contractor's profit on (a+b+c)	=@	10%		40.61
Cost for 2000 Nos. = a+b+c+d				446.72
Rate for 1000 bricks = (a+b+c+d)/2				223.36

(ii) Unloading and Stacking of Bricks by manual means including a lead upto 30 m

Unit = 1000 Nos.

Taking output = 2000 Nos.

a) Labour				
Mate	day	0.01	305.00	3.05
Mazdoor (Unskilled)	day	0.25	287.00	71.75
b) Machinery				
Truck	hour	0.33	934.30	308.32
c) Overheads on (a+b)	=@	6%		22.99
d) Contractor's profit on (a+b+c)	=@	10%		40.61
Cost for 2000 Nos. = a+b+c+d				446.72
Rate for 1000 bricks = (a+b+c+d)/2				223.36

5 Loading and Unloading of Structural Steel and Steel Bars by manual means

(i) Loading of Structural Steel, Steel Bars by manual means including a lead upto 30 m

Unit = t

Taking output = 10 t

a) Labour				
Mate	day	0.07	305.00	21.35
Mazdoor (Unskilled)	day	1.80	287.00	516.60
b) Machinery				
Truck	hour	1.00	934.30	934.30
c) Overheads on (a+b)	=@	6%		88.34
d) Contractor's profit on (a+b+c)	=@	10%		156.06

1716.64

171.66

Cost for 10 t = $a+b+c+d$

Rate per tonnes = $(a+b+c+d)/10$

(ii) Unloading of Structural Steel, Steel Bars by manual means including a lead upto 30 m

Unit = t

Taking output = 10 t

a) Labour

Mate

Mazdoor (Unskilled)

day 0.07 305.00 21.35

b) Machinery

Truck

day 1.80 287.00 516.60

c) Overheads on (a+b)

hour 1.00 934.30 934.30

d) Contractor's profit on (a+b+c)

=@ 6% 88.34

Cost for 10 t = a+b+c+d

=@ 10% 156.06

Rate per t = (a+b+c+d)/10

1716.64

171.66

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 Hume pipe

Unit = per pipe

Taking output = 9 pipes

a) Labour

Mate

Mazdoor (Unskilled)

day 0.02 305.00 6.10

b) Machinery

Truck

day 0.50 287.00 143.50

Crane

hour 0.33 934.30 308.32

c) Overheads on (a+b)

hour 0.33 1,289.30 425.47

d) Contractor's profit on (a+b+c)

=@ 6% 53.00

Cost for 9 pipes = a+b+c+d

=@ 10% 93.64

Rate per pipe = (a+b+c+d)/9

1030.03

Rate per M = (a+b+c+d)/2.50

114.45

45.78

C. 600/450 mm dia Hume pipe

Unit = per pipe

Taking output = 21 pipe

a) Labour

Mate

Mazdoor (Unskilled)

day 0.02 305.00 6.10

b) Machinery

Truck

day 0.50 287.00 143.50

Crane

hour 0.33 934.30 308.32

c) Overheads on (a+b)

hour 0.33 1,289.30 425.47

d) Contractor's profit on (a+b+c)

=@ 6% 53.00

Cost for 21 pipes = a+b+c+d

=@ 10% 93.64

Rate per pipe = (a+b+c+d)/21

1030.03

Rate per M = (a+b+c+d)/2.5

49.05

19.62

(iii) Unloading of RCC Hume pipes by mechanical means including a lead upto 30 m

A. 1000/1200 mm dia Hume pipe

Unit = per pipe

Taking output = 9 pipes

a) Labour

Mate

Mazdoor (Unskilled)

day 0.02 305.00 6.10

b) Machinery

Truck

day 0.50 287.00 143.50

Crane

hour 0.20 934.30 186.86

c) Overheads on (a+b)

hour 0.20 1,289.30 257.86

d) Contractor's profit on (a+b+c)

=@ 6% 35.66

=@ 10% 63.00

Cost for 9 pipes = a+b+c+d

Rate per M = (a+b+c+d)/9

692.98

Rate per pipe = (a+b+c+d)/9

277.19

Rate per M = (a+b+c+d)/9

77.00

30.80

C. 600/450 mm dia Hume pipe

Unit = per pipe

Taking output = 21 pipes

a) Labour

Mate

Mazdoor (Unskilled)

day 0.02 305.00 6.10

b) Machinery

Truck

day 0.50 287.00 143.50

Crane

hour 0.20 934.30 186.86

c) Overheads on (a+b)

hour 0.20 1,289.30 257.86

d) Contractor's profit on (a+b+c)

=@ 6% 35.66

=@ 10% 63.00

Cost for 21 pipes = a+b+c+d

Rate per pipe = (a+b+c+d)/21

692.98

Rate per M = (a+b+c+d)/9

33.00

13.20

BY Truck

0 Haulage excluding Loading & Unloading

Haulage of materials by tipper excluding cost of loading, unloading and stacking.

Unit = t.km

Taking output 10 t load and lead 10 km = 100 t.km

Case-I : Surfaced Road

Speed with load: 25 km per hour

Speed while returning empty: 35 km per hour

a) Machinery

Tipper 10 t capacity

Haulage with load

hour 0.40 934.30 373.72

Empty return trip

hour 0.29 934.30 270.95

b) Overheads on (a)

=@ 6% 38.68

c) Contractor's profit on (a+b)

=@ 10% 68.33

for 100 t.km = a+b+c

751.68

per t.km = (a+b+c)/100

7.52

Name of Road - F.D.R Amnour old P.S To Kuari
 BLOCK - Amnour



Le
 28/12/20
 12
 27/12/20
 1:15 PM

F.D.R

Name of Road - Amnour old P.S To Kuari
Block - Amnour



hp
28/12/20
R

27/12/20
J.E. 'R