



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

BIHAR RURAL ROADS PROJECT

Govt. of Bihar

FDR(Motorable)

Estimate for Motorable of Road from Korawan To
Ghanabigha Via Mandachh in Nalanda District.



Name of the Road :-

Korawan To Ghanabigha Via Mandachh

DISTRICT	:	NALANDA	
DIVISION	:	HILSA	
BLOCK	:	HILSA	
TOTAL COST OF CONSTRUCTION	:	9.017	Lac
TOTAL COST OF PROJECT	:	9.017	Lac

SUBMITTED BY
RURAL WORKS DEPARTMENT
WORKS DIVISION-HILSA

638800/
6.388 Lac

25/10/2021
J-F

27/10/21
A.6

INSPECTION REPORT FOR FLOOD DAMAGE WORK

Date :

1. Name of PIUS :- R.W.D. HILSA (P.E)
2. Name of Block/Road :- HILSA

A. For Road : Kotanwar to Ghanabgha via Mandachh

1. Damage Location/Change :-
2. Damage Length :- 72.5 m
3. Nature of Damage :-
4. Details of Restoration Works :-
 - i. Material Being used in Restoration works :- Brick bats
 - ii. Equipment's / Tools being used in Restoration works :- Tractor tolly, J.E.B. Roller
 - iii. Procedure taken up in restoration works :- Mechanically and Manually
 - iv. Restored Length :- 72.5 m

B. For Bridge :

- N.A
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 :-

C. Requirement of New CD/Bridge : N.A

- i. Name of Road :-
- ii. Location Chainage :-
- iii. Type of CD work/Length required :-

- Upload one photograph of damaged portion if available

- Attach minimum two photograph (during restoration & after restoration) photographs should be Geotags and at least one photo be captured in selfie mode.

Signature of

Ram
10.12.2021
JE

AE
7.12/21
AE

EE

Ram
08/12/21
Executive Engineer
Rural Works Department
Works Division, Rajgir

The work is satisfactory.

Measurements

① CH - 320 km

$$(i) 16.10 \times \frac{3.0 + 2.0 + 4.3}{2} \times \frac{2.9 + 1.20 + 1.90 + 1.60}{4} \\ = 16.10 \times 3.10 \times 1.9 = 94.83 \text{ m}^3$$

$$(ii) 3 \times 1.1 \times 0.5 = 1.65 \text{ m}^3$$

CH - 2980 m

$$(i) 7.60 \times \frac{2.80 + 2.80 + 2.80}{3} \times \frac{2.20 + 3.30 + 2.80}{3} \\ = 7.60 \times 2.80 \times 2.76 = 58.875 \text{ m}^3$$

CH - 2600 m

$$(i) 8.1 \times \frac{2.7 + 3.50 + 2.50}{3} \times 1.5 \\ = 8.1 \times 2.9 \times 1.5 = 35.24 \text{ m}^3$$

$$(ii) 21.1 \times \frac{2.3 + 3.0}{2} \times 1.6 \\ = 21.1 \times 2.65 \times 1.6 = 89.46 \text{ m}^3$$

CH - 2560 m

$$(i) 5.6 \times \frac{2.2 + 2.3}{2} \times 1.6 \text{ m} \\ = 5.6 \times 2.25 \times 1.6 = 20.16 \text{ m}^3$$

CH - 2400 m

$$(i) 6.9 \times 3.7 \times 0.70 = 17.87 \text{ m}^3$$

CH - 1700 m

$$(i) 4.1 \times \frac{2.40 + 2.10 + 2.80}{3} \times \frac{2.1 + 1.90}{2} \\ = 4.1 \times 2.43 \times 2 = 19.95 \text{ m}^3$$

$$\underline{\underline{338.035 \text{ m}^3}}$$

Ans
338.035 m³

SUMMARY OF COST ESTIMATE FOR THE PROJECT

NAME OF ROAD : Korawan To Ghanabigha Via Mandachh

DISTRICT NALANDA
BLOCK HILSA
DIVISION HILSA

SL No.	DESCRIPTION	AMOUNT (LAKHS)
1	BRICK BATS	638843
		901721.000
	Total	901721.000
	TOTAL COST IN LACS =	9.017
	TOTAL COST OF PROJECT IN LACS =	9.017

[Signature]
JE
RWD

[Signature]
27/10/21
AE
RWD

Total ⇒ 6.388
[Signature]
27/10
EE
RWD

Technically approved for Rs.

(Rupees)

Condition and direction laid down in attached technical notes with DPR is to be followed Strictly

S. E.
RWD
Work Circle Nalanda

Technically Sanctioned for Rs...6,38,800.20

(Rupees...Six lac Thirty Eight

Thousand Eight Hundred only.)

Condition and direction in attached
technical notes will be strictly.

Amended
24/12/2021

S. E.

RWD

Work Circle Nalanda

22/12/2021

Estimate for Motorable of Road from Korawan To Ghanabigha Via Mandachh in Nalanda District.

Name of Road Korawan To Ghanabigha Via Mandachh

Sl. No.	Description	Unit	NOS	LENGTH	WIDTH	HEIGHT	QUANTITY	RATE	AMOUNT (in Rs.)
	SUB HEAD : EARTHWORK, BRICKS BATS, SAND FILLING								
1	Construction of Bricks Bats								
	Supplying Brick bats with carriage at site including labour cess , GST and seignorance fee (excluding over head and CP)								
							302.328		363095=00
							426.630	1,201.00	5,12,383.00
		cum							
2	Carrige for Brick bats including labour cess & GST (excluding over head and CP)	No					302.328		170788=00
							426.630	564.910	2,41,007.00
3	Supplying unskilled labour for Brick bats and laying 600 mm dia for spreading and levelling brick bats including labour cess & GST (excluding over head and CP)	No					320=00		104960=00
							320.468		105114=00
							452.220	328.00	1,48,331.00
									9,01,721.00

RWD
25/10/2021

RWD

AE
27/10/21

AE
RWD

EE
27/10

EE
RWD

6,38,843=00

Name of Road
Korawan To Ghanabigha Via Mandachh

Block
HILSA

District
NALANDA

Calculation of Brick Bats

Sl.No	Lenth (m)	Width(m)	Thickness (m)	Qty. (Cum)
1	16.10	4.133 3.10	1.900	126.430 97.830 ✓
2	7.50	3.467	0.567	14.740 - ✓
3	5.90 3.0	1.267 1.10	0.500	3.740 1.65 ✓
4	7.60	3.067 2.80	2.767	64.500 58.85 ✓
5	8.10	2.900	1.500	35.240 ✓
6	21.10	3.300 2.65	1.600	111.410 85.46 ✓
7	5.60	2.900 2.25	1.600	25.980 20.16 ✓
8	6.90	4.900 3.70	0.700	23.670 17.87 ✓
9	4.30 4.10	2.433	2.000	20.920 19.95 ✓
Total				426.630 338.035 m ³

352.775 m³

25/10/2021
J.R.

27/10/21
A.E.

27/10
E.E.

09/11/21
E.E.

R.W.D. Rajan.

Quantity after deduction of voids $352.775 - 338.035 \times \frac{12}{17} = 302.328 \text{ m}^3$

9/11/21
A.E.

09/11/2021
J.R.

Analysis for Carriage by Road (By Tractor)

Name of Road:- Korawan To Ghanabigha Via Mandachh
District:- NALANDA

Block :- HILSA

Sl No	Item with Source	Unit	Source Up to	Carriage Cost & Lead in Km										Loading & Unloading Cost	Carriage Cost by Rail Head	Total				
				Pukka / Surface					Katcha											
1	Brick bat	Cum	Local	3.60	x	22.24	x	7.00 Km	=	Rs 249.09	3.60	x	27.78	x	1.00 Km	=	Rs 44.46	206.37	0.00	Rs. 499.92
				2.25								2.25								

Carriage Including GST and Labour Cess For Brick
Bats

564.9096

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RWD

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27/10
EE
RWD

SDB Sl. No.	MOR D Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount (In Rs)
1.1 RCD		Loading and Unloading of brick bats with tractor				
		Unit=cum				
		Taking output= 2.25 cum				
		Time required for				
		i) Positioning of tipper at loading point		1 MIN		
		ii) Loading by front end loader 1 cum bucket capacity @ 25 cum per hour		5 Min		
		iii) Maneuvering, reversing, dumping and turning for return		0 Min		
		iv) Waiting time, unforeseen contingencies etc		6 Min		
		Total				
		a) Labour				
		Mate	day	0.03	415	12.450
		Mazoor for loading and unloading	day	0.72	328	236.160
		b) Machinery				
		Tractor 3.60 tonne capacity	hour	0.1	525	52.500
		Front end loader 1 cum bucket capacity @25 cum/hour	hour	0.083	1650	136.950
		c) Overhead charges @ 0.06 on (a+b)				26.284
		d) contractor profit @ 0.00n (a+b+c)				0.000
		Cost for 2.25 cum= (a+b+c+d)				464.344
		Rate per cum= (a+b+c+d)/2.25				206.375
	Note	Unloading will be done manually				
1.4 RCD		Cost of Haulage Excluding Loading and Unloading				
		Haulage of material by Tractor excluding cost of loading, unloading and stacking.				
		Unit= Lkm				
		Taking output 3.60 tonnes load and lead 10 km= 36.0 Lkm				
	i)	Surface Road				
		Speed with load : 15 km/hour				
		Speed while Returning empty : 25 km/ hour				
		a) Machinery				
		Tractor 3.6 tonne capacity				
		Time taken for onward haulage with load	hour	0.667	707.90	472.169
		Time taken for empty return trip	hour	0.4	707.90	283.160
		Total				755.329
		b) Add overhead charges @0.06				45.320
		c) Add contractor profit @0.0				0.000
		cost for 36 Lkm = a+b+c				800.649
		Rate per Lkm = (a+b+c)/36				22.240
	ii)	Unsurfaced Graveled Road/ Kalcha				
		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	707.90	589.681
		Time taken for empty return trip	hour	0.5	707.90	353.950
		Total				943.631
		b) Add overhead charges @0.06				56.618
		c) Add contractor profit @0.0				0.000
		Cost for 36 Lkm = a+b+c				1000.249
		Rate per Lkm = (a+b+c)/36				27.785