



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

DETAILED PROJECT REPORT UNDER FDR YEAR-2020-21



Name of the Road :-

**PERMANENT RESTORATION OF ROAD FROM NH-105 Banwari To
Kowahi Via Nayagaon**

DISTRICT	:	DARBHANGA	
DIVISION	:	DARBHANGA-2	
BLOCK	:	Keoti	
ACTUAL LENGTH OF ROAD	:	4.500	KM
FLOOD AFFECTED LENGTH OF ROAD	:	0.190	KM
TOTAL COST OF PROJECT	:	15.612	Lac

SUBMITTED BY:-

EXECUTIVE ENGINEER
RWD (W) DIVISION DARBHANGA-2
DARBHANGA-2

UNDER FDR

(Year-2020-21)

GENERAL ABSTRACT OF COST

Block:--

Keoti

District:- DARBHANGA

Actual Length of Road:-- 4.500 KM

Name of Road:--

PERMANENT RESTORATION OF ROAD FROM NH-105 Banwari To Kowahi
Via Nayagaon

SL. No.	Item of Work	Amount
A	TOTAL COST OF CONSTRUCTION	13.51973 Lacs
	Add GST @ 12%	1.6224 Lacs
	Add Labour Cess @ 1%	0.1352 Lacs
	Add Seigniorage Fee @ 10% on Material Cost only	0.17984 Lacs
	TOTAL CONSTRUCTION COST INCLUDING GST, L.C & S.F.	15.4571 Lacs
B	CONTINGENCY @ 1% FOR CONSTRUCTION COST ONLY	0.15457 Lacs
TOTAL		15.612 Lacs

Junior Engineer
RWD(W) Div. Darbhanga-2

Asstt. Engineer
RWD(W) Div. Darbhanga-2

Executive Engineer
RWD(W) Div. Darbhanga-2

Technically sanctioned for Rs 15,45,710.200 (Rupees fifteen
lacs forty five thousand seven hundred twenty).

RWD(W) Circle Darbhanga

SUMMARY OF COST ESTIMATE FOR THE PROJECT

NAME OF ROAD : PERMANENT RESTORATION OF ROAD FROM NH-105 Banwari
To Kowahi Via Nayagaon
DISTRICT DARBHANGA
BLOCK Keoti
DIVISION DARBHANGA-2
LENGTH OF ROAD 4.500 KM
CD STRUCTURES
HUME PIPE 0
RCC CULVERT 1
BOX CELL CULVERT 0

Sl. No.	DESCRIPTION	AMOUNT (LAKHS)
1	PREPARATORY WORKS, SITE CLEARANCE, DISMANTLING	0.000
2	EARTHWORK	0.310
3	GSB	2.178
4	WBM GRADE III	2.067
5	PRIME COAT	0.000
6	TACK COAT	0.000
7	MIX SEAL SURFACING	0.000
8	SEAL COAT	0.000
9	CC PAVEMENT	8.512
10	HARD SHOULDER	0.453
	SUB TOTAL OF PAVEMENT COST IN LACS =	13.5197
11	CROSS DRAINAGE STRUCTURES	
I	HUME PIPE	0.000
II	RCC Culvert (1 x5 x2.5M)	0.000
III	BOX	0.000
IV	CAUSEWAY	0.000
V	PROTECTION WORK	0.000
	SUB TOTAL OF CD STRUCTURES COST IN LACS =	0.000
	SUB TOTAL COST OF PROJECT IN LACS =	13.520
	ADD GST @ 12 % =	1.622
	ADD LABOUR CESS @ 1 % =	0.135
	Add Seigniorage Fee @ 10% =	0.1798
	TOTAL COST OF PROJECT INCLUDING GST, L.C & S.F. IN LACS =	15.457
	CONTINGENCY @ 1% FOR CONSTRUCTION COST ONLY =	0.155
	TOTAL =	15.612

JE

RWD(W) Div. Darbhanga-2

AE

RWD(W) Div. Darbhanga-2

EE

RWD(W) Div.
Darbhanga-2

Cost-estimate for Permanent Restoration of Road

Name of Road: PERMANENT RESTORATION OF ROAD FROM NH-105 Banwarl To Kowahl Vla Nayagaon												BLOCK : Keot		LENGTH : 4.500 KM	
Sl.No.	SDB SL.NO	MORD Ref.No	Description	Unit	NOS	LENGTH(m)	WIDTH(m)	HEIGHT(m)	QUANTITY(m³)	RATE(In ₹)	AMOUNT (In ₹)				
1	3.14	303.1	Construction of Subgrade and Earthen Shoulders Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of Table 300.2 with lead upto 1000 m as per Technical Specification Clause 303.1.	Cum	2	190.00	1.375 Avg	0.250 Avg	130.63						
			Beside Flank (On Flood affected Portion) For 1000 m lead @ 100 %						130.63	237.43	31,015.00				
Sub Head : PAVEMENT LAYERS - GSB & WBM ITEMS										A) SUB TOTAL OF CRUST =		31,015.00			
2	4.1	401 (II)	Granular Sub-base with Well Graded Material (Table 400.1) (By mix In place method) For Grading I Material Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.												
				Cum	1.00	190.00	3.750	0.100	71.25						
				Net GSB Qty					71.250	3,056.53	2,17,778.00				
2	4.7 (3-B)	405	WBM Grading 3 with screening Material (By Mechanical Means) Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with smooth wheel roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 3 as per Technical Specification Clause 405.												
Length In Metre															
Chainage In M															
From To															
0 150		150													
		0													
		40													
Total Length=		190.00													
At CD				Cum	1	190.00	3.750	0.075	53.44						
				Net WBM -3 Qty					53.440	3,867.62	2,06,686.00				
										B) SUB-TOTAL OF CRUST =		4,24,464.00			

Cost-Estimate for Permanent Restoration of Road

Name of Road: PERMANENT RESTORATION OF ROAD FROM NH-105 Banwari To Kowahi Via Nayagaon												BLOCK: Keoti		LENGTH: 4.500 KM	
Sl. No.	SDB SL. NO	MORD Ref.No	Description	Unit	NOS	LENGTH(m)	WIDTH(m)	HEIGHT(m)	QUANTITY(m³)	RATE(In ₹)	AMOUNT (In ₹)				
3	6.4	1500	SUB HEAD : CC PAVEMENT Cement Concrete Pavement Construction of un-reinforced plain cement thickness as per design, over a prepared sub base with 43 grade cement or any other type as per clause 1501.2.2 M 30 grade coarse and fine aggregate maximum size of aggregate not exceeding 25mm , mixed in a concrete of not less than 0.2cum capacity and appropriate weigh batcher using approved mix design ,laid in approved fixed side formwork (steel channel ,laying and fixing of 125 micron thick plythene film ,wedges ,steel plates including levelling the formwork as per drawing) spreading the concrete with shovels , rakes , compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion , construction joints ,applying debonding strips , primer , sealant , dowel bars , near approaches to bridge/ culvert and construction joints, admixtures as approved , curing of concrete slab for 14 days curing compound (where specified) and water finishing to lines and grade as per drawing and Technical specification clause 1501.	cum	1	190.00	3.750	0.160	114.00						
			On Flood affected portion (Details are as above mentioned)												
			Net Qty						114.000	7,466.72	8,51,206.00				
4	4.18	412	Hard Shouldering Laying brick soling layer on prepared sub-grade with brick on end edging according to lines, graded and cross-section shown on the drawing filling joints with sand and earth, spreading 25 mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100 kN as per Technical Specification Clause 412												
			Hard Shouldering besides CC Portion	sqm	2.00	190.00	0.250		95.00						
			New Brick Area						95.00	476.72	45,288.00				
											8,96,494.00				
											13,51,973.00				

[Signature]
20/5/21

JE
RWD(W) Div. Darbhanga-2

[Signature]
20/5/21

AE
RWD(W) Div. Darbhanga-2

[Signature]
25.05.21

RWD(W) Div. Darbhanga-2

Analysis of Rates for (Seigniorage Fee)

Name of Road : PERMANENT RESTORATION OF ROAD FROM NH-105 Banwarl To Kowahi Via NayaBLOCK : Keotl										
Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs	Total material Qty. required	Total Material Amount	Length : 4.500 KM Add 10 % Seigniorage Fee
		a)	Material (Refer Tables 400.7, 8, 9 and 10)							
			Aggregate							
			Grading 3 53 mm to 22.4 mm @ 0.91 cum per 10 sqm for compacted thickness of 75 mm	cum	435.60	503.85	219477.06			
			Stone Screening							
			Type B 11.2 mm for Grading 3 @ 0.18 cum per 10 sqm	cum	86.40	392.53	33914.59			
			Cost for 360 cum = a				253391.65			
			Rate per cum = (a)/360				703.87			
3	6.4	1500	Cement Concrete Pavement	Total Cost	cum		703.87	53.44	37614.81	3761.00
			Construction of un-reinforced, plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including provision of contraction and expansion, construction joints, applying debonding strips, primer, sealant, dowel bars, near approaches to bridge/culvert and construction joints, admixtures as approved, curing of concrete slabs for 14-days, using curing compound (where specified) and water finishing to lines and grade as per drawing and Technical Specification Clause 1501.							
			Unit = cum							
			Taking output = 75 cum (172.50 t)							
			(100 x 3.75 x 0.200)							
		a)	Material							
		(i)	Crushed stone coarse aggregates, grading will be as per Clause 1501.2.4.1 (Table 1500.1) of specifications @ 0.90 cum/cum of concrete	cum	67.50	572.92	38672.10			
		(ii)	Sand as per IS:383 and conforming to Clause 1500.2.4.2 @ 0.45 cum/cum of concrete	cum	33.75	175.80	5933.25			
			Rate per cum = (a)/75				594.74			
4	4.18	412	Brick Soling (With New Brick)	Total Cost	cum		594.74	114	67800.36	6780.00
			Laying brick soling layer on prepared sub-grade with brick on end edging according to lines, graded and cross-section shown on the drawing filling joints with sand and earth, spreading 25 mm thick layer of earth over brick soling, watering and rolling the same with three wheel road roller 80-100 kN as per Technical Specification Clause 412.							
			Unit = sqm							
			Taking output = 150 sqm							
		(a)	Material							
			Brick 1st Class	No.	8160.00	5.13	41860.80			
			Brick 1st Class on edging	No.	1100.00	5.13	5643.00			

Analysis of Rates for (Seigniorage Fee)

Name of Road : PERMANENT RESTORATION OF ROAD FROM NH-105 Banwarl To Kowahi Via NayaBLOCK; Keoti												
Analysis of Rates for (Seigniorage Fee)												
Sl. No.	SDBSl. No.	MORD RefNo.	DESCRIPTION	Unit	Quantity	Rate	Amount In Rs	Total material Qty. required	Total Material Amount	Add 10 % Seigniorage Fee	LENGTH : 4.500 KM	
			Fine Sand	cum	5.66	141.85	802.87					
			Cost for 150 sqm = a				48306.67					
			Rate per sqm = (a)/150				322.04					
				Total Cost	cum		322.04	95	30593.8	3059.00		
										Total Construction cost of Seigniorage Fee @ 10%		17984.00

Quarry Map

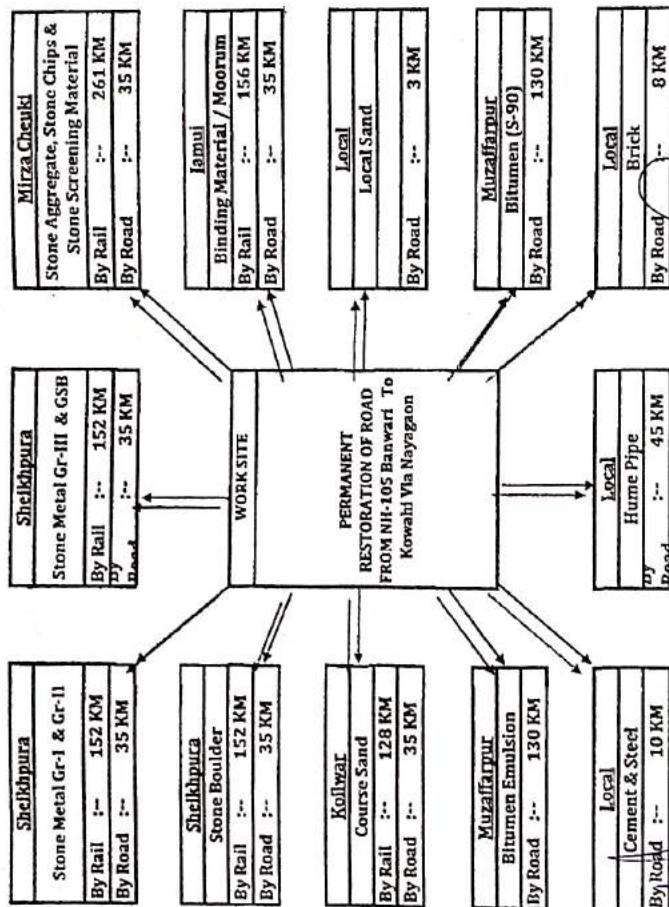
Name of Road :- PERMANENT RESTORATION OF ROAD FROM NH-105 Banwari To Kowahi Via

Block :- Nayagaon

District :- Keonjhar

District :- DARBHANGA-2

Length of the Road:- 4.500 KM



Subjected to Verification of Lead

6/10/2014

J.E

A.E.

E.E.

S.E.