



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

TS A COPY (For Emergent Situation)

DETAILED PROJECT REPORT UNDER FDR YEAR-2020-21



Name of the Road :-

~~PERMANENT RESTORATION OF ROAD FROM PWD Road To Bithauli~~

DISTRICT	:	DARBHANGA	
DIVISION	:	DARBHANGA-2	
BLOCK	:	SINGHWARA	
ACTUAL LENGTH OF ROAD	:	1.400	KM
FLOOD AFFECTED LENGTH OF ROAD	:	0.210	KM
TOTAL COST OF PROJECT	:	44.737	Lac

SUBMITTED BY:-

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

UNDER FDR

(Year-2020-21)

GENERAL ABSTRACT OF COST

Block:-- SINGHWARA

District:- DARBHANGA

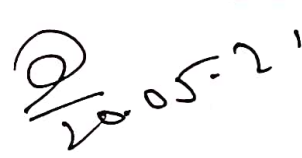
Actual Length of Road:-- 1.400 KM

Name of Road:-- ~~PERMANENT RESTORATION OF ROAD FROM PWD Road To Bithauli~~

No.	Item of Work	Amount
A	TOTAL COST OF CONSTRUCTION	38.44144 Lacs
	Add GST @ 12%	4.6130 Lacs
	Add Labour Cess @ 1%	0.3844 Lacs
	Add Seigniorage Fee @ 10% on Material Cost only	0.85504 Lacs
	TOTAL CONSTRUCTION COST INCLUDING GST, L.C & S.F.	44.2939 Lacs
B	CONTINGENCY @ 1% FOR CONSTRUCTION COST ONLY	0.44294 Lacs
	TOTAL	44.737 Lacs

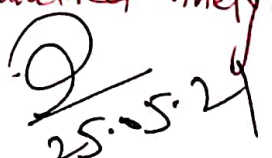

Engineer
RWD(W) Div. Darbhanga-2

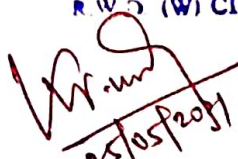

Asstt. Engineer
RWD(W) Div. Darbhanga-2


Executive Engineer
RWD(W) Div. Darbhanga-2

- Technically sanctioned for Rs 44,29,390.20 (Rs. Forty four lacs twenty nine thousand three hundred ninety only)

SE
RWD(W) Circle Darbhanga


Superintending Engineer
RWD(W) CIRCLE, DARBHANGA


25/05/2021

SUMMARY OF COST ESTIMATE FOR THE PROJECT

NAME OF ROAD : PERMANENT RESTORATION OF ROAD FROM PWD Road To Bithauli

DISTRICT DARBHANGA

BLOCK SINGHWARA

DIVISION DARBHANGA-2

LENGTH OF ROAD 1.400 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	0.343
3	GSB	2.319
4	WBM GRADE III	2.204
5	PRIME COAT	0.000
6	TACK COAT	0.000
7	MIX SEAL SURFACING	0.000
8	SEAL COAT	0.000
9	CC PAVEMENT	9.249
10	HARD SHOULDER	0.501
	SUB TOTAL OF PAVEMENT COST IN LACS =	14.6159
11	CROSS DRAINAGE STRUCTURES	
I	HUME PIPE	0.000
II	RCC Culvert (1 x5 x2.5M)	15.757
III	BOX	0.000
IV	CAUSEWAY	0.000
V	PROTECTION WORK	8.069
	SUB TOTAL OF CD STRUCTURES COST IN LACS =	23.826
	SUB TOTAL COST OF PROJECT IN LACS =	38.441
	ADD GST @ 12 % =	4.613
	ADD LABOUR CESS @ 1 % =	0.384
	Add Seigniorage Fee @ 10% =	0.855
	TOTAL COST OF PROJECT INCLUDING GST, L.C & S.F. IN LACS =	44.294
	CONTINGENCY @ 1% FOR CONSTRUCTION COST ONLY =	0.443
	TOTAL =	44.737

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RWD(W) Div. Darbhanga-2

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RWD(W) Div.
Darbhanga-2

Name of Road : PERMANENT RESTORATION OF ROAD FROM PWD Road To Bithauli													
Sl. No.	SDB SL NO	MORD Ref.No	Description	Unit	NOS	LENGTH(m)	WIDTH(m)	HEIGHT(m)	QUANTITY(m³)	RATE(In ₹)	LENGTH : 1.400 KM	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.										
			Beside Flank (On Flood affected Portion) For 1000 m lead @ 100 %	Cum	2	210.00	1.375 Avg	0.250 Avg	144.38				
									144.38	237.43		34,280.00	
									A) SUB TOTAL OF CRUST =				34,280.00
2	4.1	401 (ii)	Sub Head : PAVEMENT LAYERS - GSB & WBM ITEMS 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	210.00	3.750	0.100	78.75				
									78.750	2,944.56		2,31,884.00	
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										
			0 140										
			160 200										
			500 520										
At CD			600 610										
			Total Length=	Cum	1	210.00	3.750	0.075	59.06				
			Net WBM -3 Qty						59.060	3,732.32		2,20,431.00	
									B) SUB TOTAL OF CRUST =				4,52,315.00

Name of Road : PERMANENT RESTORATION OF ROAD FROM PWD Road To Bithauli										BLOCK : SINGHWARA			LENGTH : 1.400 KM	
Sl. No.	SDB SL. NO	MORD Ref.No	Description	Unit	NOS	LENGTH(m)	WIDTH(m)	HEIGHT(m)	QUANTITY(m³)	RATE (IN ₹)	AMOUNT (IN ₹)			
			SUB HEAD : CC PAVEMENT											
3	6.4	1500	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 weight 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.											
			On Flood affected portion (Details are as above mentioned)	cum	1	210.00	3.750	0.160	126.00					
			Net Qty						126.000	7,340.75	9,24,935.00			
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	210.00	0.250		105.00					
			New Brick Area						105.00	476.72	50,056.00			
			C) SUB TOTAL OF CC PAVEMENT =											
			TOTAL COST OF PAVEMENT IN RS. (A+B+C) =											
			9,74,991.00											
			14,61,586.00											

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RWD(W) Div. Darbhanga-2

BLOCK : SINGHWARA										LENGTH : 1.400 KM	
Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs	Total material Qty. required	Total Material Amount	Add 10 % Seigniorage Fee	
1	3.14	303.1	EARTHWORK								
			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.								
			Unit = cum								
			Taking output = 100 cum								
			Material								
		a)	Compensation for earth taken from private land	cum	100.00	34.82	3482.00				
			Cost for 100 cum = a				3482.00				
			Rate per cum = (a)/100				34.82				
Total Cost cum											
2	4.7	405	Water Bound Macadam with Stone Screening Type "B" Gr- III	cum			34.82	423.88	14759.5	1476.00	
	(3-B)		WBM Grading 3								
			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.								
		(A)	By Machanical Means								
			Unit = cum								
			Taking output = 360 cum								
		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				
Total Cost cum											
								59.06	41570.56	4157.00	

No.	No.	Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount in Rs	Total material Qty. required	Total Material Amount	Add 10 % Seigniorage Fee
3	6.4	1500	CC PAVEMENT							
			Cement Concrete Pavement							
			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	126	74937.24	7494.00
			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			
			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	105	33814.2	3381.00
5	11.4	800 & 1200	P.C.C grade M 15							
		II	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203							
		(A)	Nominal mix (1:2.5:5)							

No.	No.	Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount In Rs	Total material Qty. required	Total Material Amount	Add 10 % Seigniorage Fee
		a)	Unit = cum Material Cement Coarse sand 40 mm aggregate 20 mm aggregate 10 mm aggregate Cost per cum = a	t cum cum cum cum	0.28 0.48 0.48 0.24 0.08	4726.20 175.80 486.92 595.36 657.91	1299.71 84.38 233.72 142.89 52.63			
			Total Cost	cum			1813.33	149.88	271781.87	27178.00

6	12.5	800	P.C.C grade M 15							
		II	Plain/reinforced cement concrete in substructure complete as per drawings and technical specification Clauses 802, 804, 805, 806, 807, 1202 ans 1204							
		(A)	Nominal mix (1:2.5:5)							
		a)	Unit = cum Material Cement Coarse sand 40 mm aggregate 20 mm aggregate 10 mm aggregate Cost per cum = a	t cum cum cum cum	0.275 0.48 0.48 0.24 0.18	4726.20 175.80 486.92 595.36 657.91	1299.71 84.38 233.72 142.89 118.42			
			Total Cost	cum			1879.12	64.24	120714.72	12071.00

7	12.5	800	P.C.C grade M 20							
		II	Plain/reinforced cement concrete (M-20) in substructure complete as per drawings and technical specification Clauses 802, 804, 805, 806, 807, 1202 ans 1204							
		(A)	Nominal mix (1:2:4)							
		a)	Unit = cum Material Cement Coarse sand 40 mm aggregate 20 mm aggregate 10 mm aggregate Cost per cum = a	t cum cum cum cum	0.33 0.45 0.36 0.36 0.18	4726.20 175.80 486.92 595.36 657.91	1559.65 79.11 175.29 214.33 118.42			
			Total Cost	cum			2146.80	116.52	250145.21	25015.00

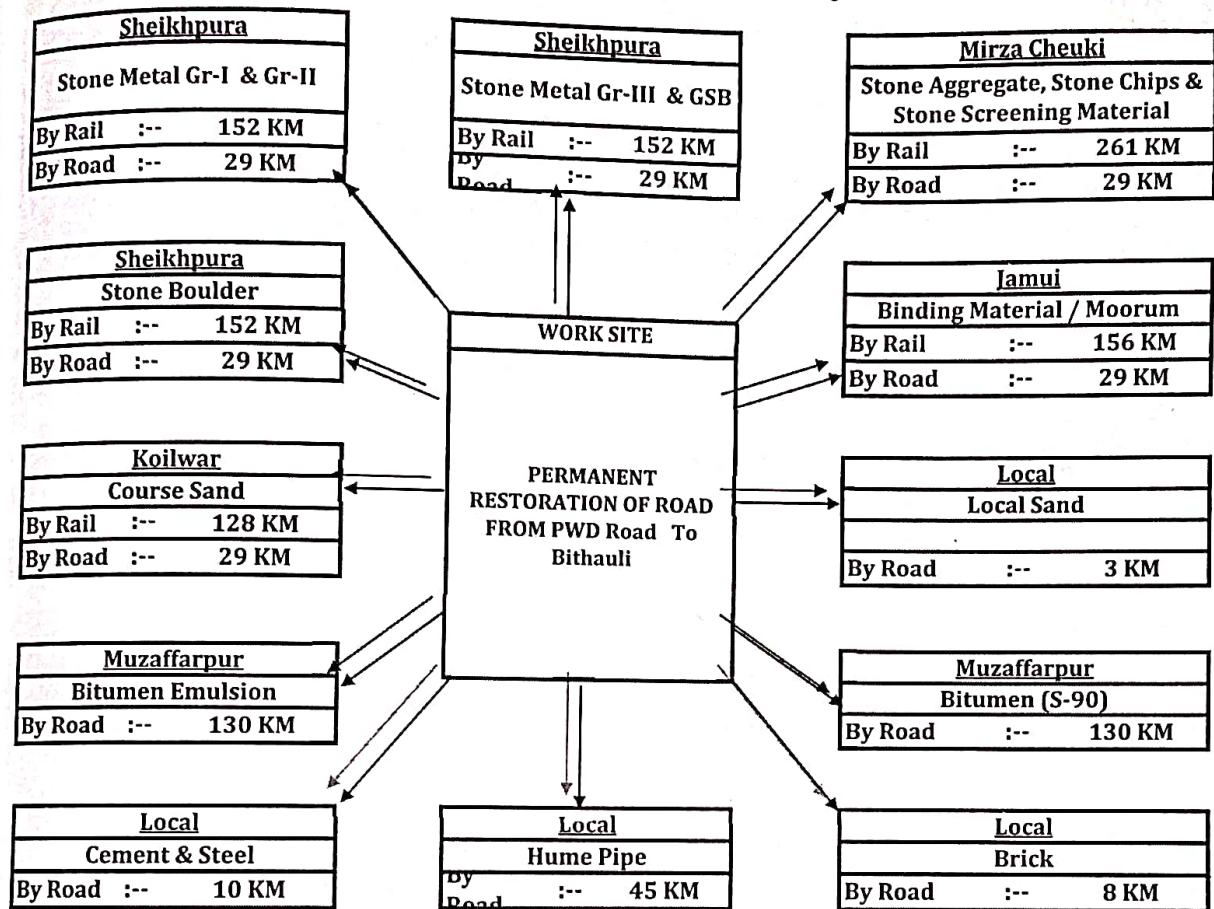
8	12.5	800	R.C.C grade M 25							
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Quarry Map

Name of Road :- PERMANENT RESTORATION OF ROAD FROM PWD Road To Bithauli

Block :- SINGHWARA
District :- DARBHANGA-2

Length of the Road:- 1.400 KM



* Subjected to Verification of Lead

J.E.

W. M. 20/05/2021
A.E.

25.5.21
E.E.
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S.E.