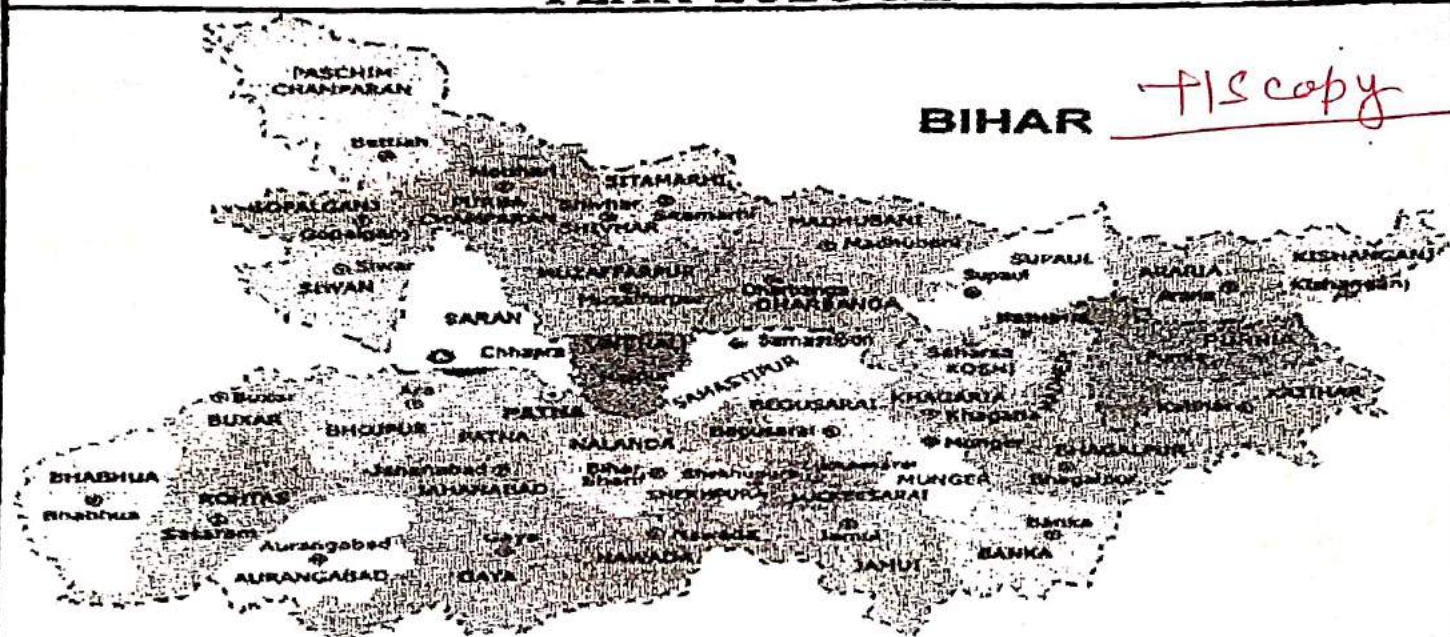




ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

DETAILED PROJECT REPORT UNDER FDR YEAR-2020-21



Name of the Road :-

**PERMANENT RESTORATION OF ROAD FROM PWD Path Muraitha To
Khajurwara MMGSY Road Via 24 No. Gumati**

DISTRICT	:	DARBHANGA	
DIVISION	:	DARBHANGA-2	
BLOCK	:	Jale	
ACTUAL LENGTH OF ROAD	:	3.200	KM
FLOOD AFFECTED LENGTH OF ROAD	:	0.120	KM
TOTAL COST OF PROJECT	:	20.318	Lac

SUBMITTED BY:-

EXECUTIVE ENGINEER
RWD (W) DIVISION DARBHANGA-2

UNDER FDR

(Year-2020-21)

GENERAL ABSTRACT OF COST

Block:-

Male

District:- DARBHANGA

Actual Length of Road:- 3.200 KM

Name of Road:- PERMANENT RESTORATION OF ROAD FROM PWD Path Muraltha To
Khajurwara MMGSY Road Via 24 No. Gumati

SL. No.	Item of Work	Amount
A	TOTAL COST OF CONSTRUCTION :	17.34496 Lacs
	Add GST @ 12% :	2.0814 Lacs
	Add Labour Cess @ 1% :	0.1734 Lacs
	Add Seigniorage Fee @ 10% on Material Cost only :	0.51660 Lacs
	TOTAL CONSTRUCTION COST INCLUDING GST, LC & S.F. :	20.1164 Lacs
B	CONTINGENCY @ 1% FOR CONSTRUCTION COST ONLY :	0.20116 Lacs
	TOTAL :	20.318 Lacs

[Signature]
20.5.2021
Junior Engineer
RWD(W) Div. Darbhanga-2

[Signature]
20.5.2021
Asstt. Engineer
RWD(W) Div. Darbhanga-2

[Signature]
20.5.21
Executive Engineer
RWD(W) Div. Darbhanga-2

technically sanctioned for Rs 20,11,640.200 (Rupees Twenty la
seven thousand six hundred forty) only.

SE *[Signature]*
20.5.21
RWD(W) Circle Darbhanga

SUMMARY OF COST ESTIMATE FOR THE PROJECT

NAME OF ROAD : PERMANENT RESTORATION OF ROAD FROM PWD Path
Muraitha To Khajurwara MMGSY Road Via 24 No. Gumati

DISTRICT DARBHANGA

BLOCK Jale

DIVISION DARBHANGA-2

LENGTH OF ROAD 3.200 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	0.196
3	GSB	1.426
4	WBM GRADE III	1.351
5	PRIME COAT	0.000
6	TACK COAT	0.000
7	MIX SEAL SURFACING	0.000
8	SEAL COAT	0.000
9	CC PAVEMENT	5.467
10	HARD SHOULDER	0.286
	SUB TOTAL OF PAVEMENT COST IN LACS =	8.7255
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	8.620
	SUB TOTAL OF CD STRUCTURES COST IN LACS =	8.620
	SUB TOTAL COST OF PROJECT IN LACS =	17.345
	ADD GST @ 12 % =	2.081
	ADD LABOUR CESS @ 1 % =	0.173
	Add Seigniorage Fee @ 10% =	0.517
	TOTAL COST OF PROJECT INCLUDING GST, L.C & S.F. IN LACS =	20.116
	CONTINGENCY @ 1% FOR CONSTRUCTION COST ONLY =	0.201
	TOTAL =	20.318

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20.5.2021
JE

RWD(W) Div. Darbhanga-2

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20/5/2021
AE

RWD(W) Div. Darbhanga-2

[Signature]
20.5.21
EE
RWD(W) Div.
Darbhanga-2

Cost-Estimate for Permanent Restoration of Road

Name of Road : PERMANENT RESTORATION OF ROAD FROM PWD Path Muraltha To Khajurwara MMGSY Ro:										BLOCK : Jale	LENGTH : 3.200 KM	
Sl. No.	SDB SL. NO	MORD Ref.No	Description	Unit	NOS	LENGTH(m)	WIDTH(m)	HEIGHT(m)	QUANTITY(m ³)	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.									
			Beside Flank (On Flood affected Portion)	Cum	2	120.00	1.375 Avg	0.250 Avg	82.50			
			For 1000 m lead @ 100 %						82.50	237.43	19,588.00	
											A) SUB TOTAL OF CRUST =	
											19,588.00	
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	120.00	3.750	0.100	45.00			
			Net GSB Qty						45.000	3,168.50	1,42,583.00	
2	4.7	405	WBM Grading 3 with screening Material (By Mechanical Means)									
	(3-B)		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.									
			Chainage in M									
			From To									
			1400 1420									
			1550 1650									
			Total Length=									
				Cum	1	120.00	3.750	0.075	33.75			
			Net WBM -3 Qty						33.750	4,002.92	1,35,099.00	
											B) SUB TOTAL OF CRUST =	
											2,77,682.00	

Cost-Estimate for Permanent Restoration of Road

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20.5.2021

JE

RWD(W) Div. Darbhanga-2

AE

RWD(W) Div. Darbhanga-2

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RWD(W) Div. Darbhanga-2

20.00 RE
(W) Div. Darbhanga

Analysis of Rates for (Seigniorage Fee)

Seigniorage Fee

Name of Road : PERMANENT RESTORATION OF ROAD FROM PWD Path Muraitha To Kharwar MBLOCK : Jale										LENGTH : 3.200
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							
		a)	Material							
			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								217.5	7573.35	757.00
2	4.7	405	Water Bound Macadam with Stone Screening Type "B" Gr- III							
	(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								33.75	23755.61	2376.00

Analysis of Rates for (Seigniorage Fee)

Name of Road : PERMANENT RESTORATION OF ROAD FROM PWD Path Muraitha To Khajurwara MBLOCK : Jale										LENGTH :	
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	
CC PAVEMENT											
3	6.4	1500	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				
Total Cost							594.74	72	42821.28	4282.00	
Brick Soling (With New Brick)											
4	4.18	412	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 ouput = 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							322.04	60	19322.4	1932.00	

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)							

Analysis of Rates for (Seigniorage Fee)

Name of Road : PERMANENT RESTORATION OF ROAD FROM PWD Path Muraitha To Khajurwara MBLOCK : Jale										LENG	
Sl. No.	SDB Sl. No.	MORD RefNo.	DESCRIPTION	Unit	Quantity	Rate	Amount In Rs	Total material Qty. required	Total Material Amount	Seigniorage Fee @ 10%	
		IV	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	t	0.40	4726.20	1909.38				
			Coarse sand	cum	0.45	175.80	79.11				
			20 mm aggregate	cum	0.54	595.36	321.49				
			10 mm aggregate	cum	0.36	657.91	236.85				
			Cost per cum = a				2546.84				
				Total Cost	cum		2546.84	18.58	47320.23	4732.00	
Total Construction cost of Seigniorage Fee @ 10%										51660.00	

Re
20.5.2023,
J.P.

Agent
20/5/2024
A.P.

21/20.
20/5/24

Analysis of Rates for (Seigniorage Fee)

Name of Road : PERMANENT RESTORATION OF ROAD FROM PWD Path Muraltha To Khajurwara MBLOCK : Jale

LENGTH :

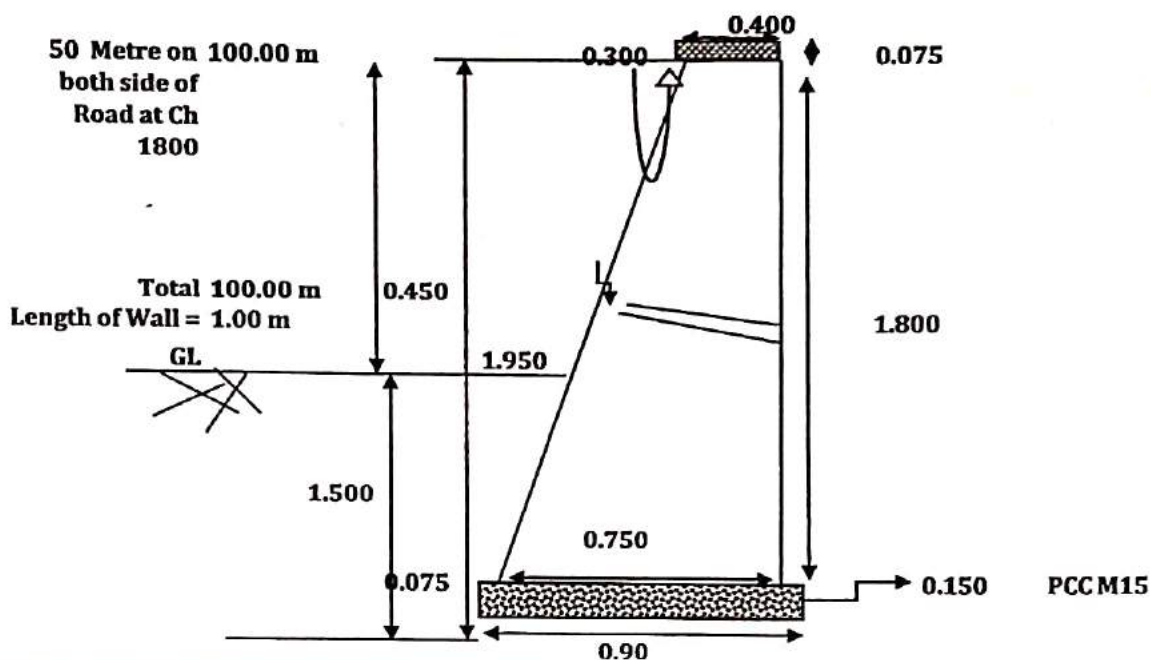
Sl. No.	SDB Sl. No.	MORD Ref No.	DESCRIPTION	Unit	Quantity	Rate	Amount In Rs	Total material Qty. required	Total Material Amount	Add 10 % Seigniorage Fee
			a) Unit = cum							
			Material							
			Cement	t	0.28	4726.20	1299.71			
			Coarse sand	cum	0.48	175.80	84.38			
			40 mm aggregate	cum	0.48	486.92	233.72			
			20 mm aggregate	cum	0.24	595.36	142.89			
			10 mm aggregate	cum	0.08	657.91	52.63			
			Cost per cum = a				1813.33			
							1813.33	14.00	25386.62	2539.00
Total Cost cum										

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)							
			Unit = cum							
		a)	Material							
			Cement	t	0.275	4726.20	1299.71			
			Coarse sand	cum	0.48	175.80	84.38			
			40 mm aggregate	cum	0.48	486.92	233.72			
			20 mm aggregate	cum	0.24	595.36	142.89			
			10 mm aggregate	cum	0.18	657.91	118.42			
			Cost per cum = a				1879.12			
							1879.12	64.24	120714.72	12071.00
Total Cost cum										

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)							
			Unit = cum							
		a)	Material							
			Cement	t	0.33	4726.20	1559.65			
			Coarse sand	cum	0.45	175.80	79.11			
			40 mm aggregate	cum	0.36	486.92	175.29			
			20 mm aggregate	cum	0.36	595.36	214.33			
			10 mm aggregate	cum	0.18	657.91	118.42			
			Cost per cum = a				2146.80			
							2146.80	107.00	229707.66	22971.00
Total Cost cum										

8	12.5	800	R.C.C grade M 25							
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QUANTITY & COST ESTIMATE FOR CONSTRUCTION OF PROTECTION WALL



Sr.No.	SDB Sr. No.	MORD Specification	Description of Item	Unit	Total Quantity	Rate (Rs)	Amount (Rs)
1	2	3	4	5	6	7	8
1	9.1	1100 & 300	Earthwork in excavation for structures as per drawing and technical specifications Clause 305.1 including setting out, construction of shoring and bracing, removal of stumps and other deleterious material and disposal upto a lead of 50 m, dressing of sides and bottom and backfilling in trenches with excavated suitable material.				
			$1 \times 0.9 \times 1.5 =$		1.350		
				cum	135.000	289.30	39056.00
2	11.4	800 & 1200	Providing PCC M 15 (1:2.5:5) concrete for plain concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203				
			$1 \times 0.9 \times 0.15 =$		0.14		
				cum	14.00	5983.97	83776.00
3	12.5 II	800 & 1200	Plain/reinforced cement concrete in substructure complete as per drawings and technical specification Clauses 802, 804, 805, 806, 807, 1202 and 1204 (M20)				
			$1 \times (0.75 + 0.4) / 2 \times 1.8 =$		1.040		
				cum	104.00	6804.54	707672.00
4	12.5 II	800 & 1200	Providing concrete for plain/reinforced concrete M-20 in coping over protection wall complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203 P.C.C grade M 20				

Sr.No.	SDB Sr. No.	MORD Specification	Description of Item	Unit	Total Quantity	Rate (Rs)	Amount (Rs)
1	2	3	4	5	6	7	8
			1x 0.4 x 0.075 =		0.03		
				cum	3.00	6804.54	20414.00
5	12.9	900	Providing Weepholes in brick masonry , Plain / Reinforced concrete abutement , wing wall , return wall with 100 mm dia AC pipe extending through the full width of the structure with slope of 1V: 20H towards drawing face complete as per drawing and technical specification				
				nos	100.00	110.32	11032.00
			Cost of Protection wall in Rs				8,61,950.00

Cost of 100 m Protection Wall in Rs =

8,61,950.00

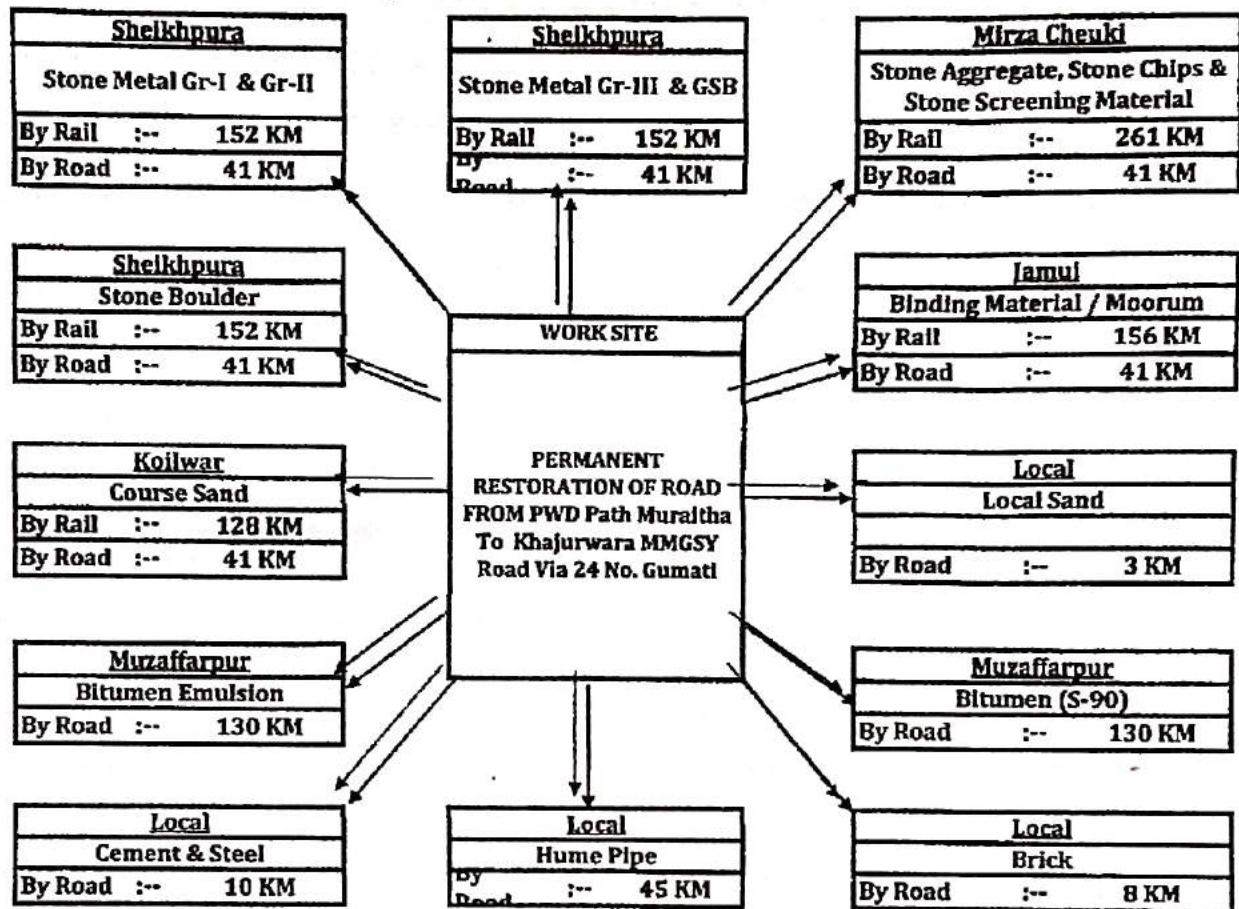
Quarry Map

Name of Road :- PERMANENT RESTORATION OF ROAD FROM PWD Path Muraltha To Khajurwara
MMGSY Road Via 24 No. Gumati

Block :- Jale

District :- DARBHANGA-2

Length of the Road:- 3.200 KM



* Subjected to Verification of Lead

[Signature]
20-5-2021
J.E

[Signature]
20-5-2021
A.E

[Signature]
20-5-21
E.E

[Signature]
20-5-21
S.E