

तकनीकी प्रतिवेदन

योजना का नाम : Restoration of road from chandragarh Gajnadham T04 to Barah

प्राकलित राशि:- 13.47300 लाख

प्रस्तुत प्राकलन शीर्ष FDR योजनान्तर्गत वर्ष 2024 में अत्याधिक वर्षा के कारण उक्त पथ के आरेखन ...
T04 से [unclear] पर पथ क्षतिग्रस्त हो जाने के कारण अभियंता प्रमुख ग्रामीण कार्य विभाग, बिहार पटना का पत्रांक 1956
दिनांक 28.05.2024 से प्राप्त निर्देश के आलोक में आवागमन सूचारु रूप से जारी रखने के लिए Temporary
Restoration कराया गया है।

अतः जनहित एवं विधि व्यवस्था की महत्ता को दृष्टिगत रखते हुए प्राकलन की स्वीकृति आवश्यक है।

आवश्यक कार्रवाई हेतु सूचनार्थ समर्पित।

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Executive Engineer
RWD (w) Division Aurangabad



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

BIHAR RURAL ROADS PROJECT

DETAILED PROJECT REPORT

FDR WORK



DISTRICT :	Aurangabad	BLOCK :	Nabinagar
DIVISION :	Aurangabad	PROJECT ID :	0
NAME OF ROAD :	Restoration of Road From Chandragadh Gajna Dham T04 Se Barah		
TOTAL LENGTH IN KM.	:	0.058	KMS
TOTAL CONSTRUCTION LENGTH IN KM.	:	0.058	KMS
TOTAL CONSTRUCTION COST	:	13.473	Lakhs
TOTAL PROJECT COST	:	13.473	Lakhs

Submitted By:

Executive Engineer

RWD (w) Division, Aurangabad

Aurangabad

GENERAL ABSTRACT OF COST
FDR WORK

Block:--	Nabinagar	District:--	Aurangabad
Total Length Of Road	0.058 KM	BT Length :-	0.058 KM.
Construction Length of Road:--	0.058 KM	PCC Length :-	0.000 KM.
Name of Road:--	Restoration of Road From Chandragadh Gajna Dham T04 Se Barah		

SL. No.	Item of Work	Amount
A	TOTAL COST OF CONSTRUCTION :	11.263 Lacs
	LABOUR CESS @1% :	0.113 Lacs
	SEIGNIORAGE FEE :	0.042 Lacs
	TOTAL :	11.418 Lacs
	GST @18% :	2.055 Lacs
	TOTAL (A) :	13.473 Lacs
TOTAL PROJECT COST :		13.473 Lacs

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SUMMARY OF COST ESTIMATE FDR WORK

NAME OF ROAD :	Restoration of Road From Chandragadh Gajna Dham T04 Se Barah
DISTRICT	Aurangabad
BLOCK	Nabinagar
DIVISION	Aurangabad
Total Length Of Road	0.058 km
Construction Length of Road	0.058 km
Length of Flexible Pavement 3.75 M	0.058 km
Length of CC Pavement 3.75 M	0.000 km

CD STRUCTURES

BOX CELL CULVERT 0

Sl. No.	DESCRIPTION	AMOUNT (LAKHS)
PART-A		
1	PREPARATORY WORKS ,SITE CLEARANCE , DISMANTLING	0.000
2	EARTHWORK	6.641
3	BRICK BAT	2.876
4	LOCAL SAND OVER BRICK BAT (Fine Sand)	0.299
5	GSB GR-I & GR-II	1.216
6	WBM GRADE III	0.000
7	CEMENT CONCRETE PAVEMENT	0.000
8	MAINTENANCE BOARD	0.000
SUB TOTAL OF PAVEMENT COST IN LACS =		11.032
PART-B CROSS DRAINAGE STRUCTURES		
I	HUME PIPE	0.231
II	RCC	0.000
I	BOX	0.000
SUB TOTAL OF CD STRUCTURES COST IN LACS =		0.231
SUB TOTAL		11.263
1% LABOUR CESS		0.113
10% SEIGNIORAGE FEE (Construction)		0.042
18 % GST		2.055
TOTAL COST OF PROJECT IN LACS =		13.473

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		Sub Head : PAVEMENT LAYERS - GSB & WBM ITEMS					B) SUB TOTAL OF EARTHWORK =					6.64,372.00
2	5.7.40	WRD	BRICK BAT	Providing laying and spreading brick bats in Road ditches all complete as per approved design, specifications and direction of E/l								
				At Ch-8.50 km	Cum	1	26.00	4.000	0.50	52.000		
				At Ch-9.20 km	Cum	1	32.00	4.000	0.40	51.200		
				Net GSB Qty						103.200	2,786.59	2,87,576.00
3			LOCAL SAND OVER BRICK BAT (Fine Sand)	Filling and spreading local sand over brick bats as per drawing and technical specifications clause 305.3.9								
				At Ch-8.50 km	Cum	1	26.00	4.000	0.30	31.200		
				At Ch-9.20 km	Cum	1	32.00	4.000	0.20	25.600		
				Net GSB Qty						56.800	526.19	29,888.00

SL No.	SDB SL NO	MORD Ref.No	Description	Unit	NOS	LENGTH	WIDTH	HEIGHT	QUANTITY	RATE	AMOUNT (in Rs.)
4	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 motor grader 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.								
			At Ch-8.50 km	Cum	1	26.00	3.750	0.200	19.500		
			At Ch-9.20 km	Cum	1	32.00	3.750	0.200	24.000		
			Net GSB Qty						44.370	2,741.601	1,21,645.00
A) SUB TOTAL OF CRUST =											4,39,109.00
TOTAL COST OF PAVEMENT IN RS. (A+B+C)=											11,03,181.00

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FDR WORK

SEIGNIORAGE FEE

Sl. No.	SDB SI. NO	MORD Ref.No	Description	Unit	Quantity	Rate	Amount (In Rs.)	Total Material Required	Material Amount	Add Seigniorage Fee 10%
EARTHWORK SEIGNIORAGE FEE										
PAVEMENT LAYERS - GSB, WBM-II & WBM-III SEIGNIORAGE FEE										
1			LOCAL SAND OVER BRICK BAT (Fine Sand)							
			Filling and spreading local sand over brick bats as per drawing and technical specifications clause 305.3.9							
			Unit = cum							
			Taking output = 1cum							
			Material							
	a)		Material	cum	1.2	145.87	175.044			
			Sand (assuming 20 percent voids)				175.04			
			Cost for 1 cum = a				175.04			
			Rate Per Cum = (a)/1=	Cum			175.04			
			Total Cost =	Cum			175.04	56.80	9,942.50	994.25
2	4.1	401	Granular Sub-base with Well Graded Material (Table 400.1)							
			(By mix in place method) - Gr-I							
		(i)	Sub Head : PAVEMENT LAYERS - GSB & WBM ITEMS							
			Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader 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.							
			For Grading I Material							
			Taking output = 300 cum							
			Material							
	a)		Material							
			Well graded granular sub-base material as per Table 400.1	Cum	180.00	944.26	1,69,966.80			
			26.5 mm to 9.5 mm @ 35 per cent	Cum	72.00	434.45	31,280.400			
			9.5 mm to 2.36 mm @ 25 per cent	Cum	108.00	145.87	15,753.960			
			2.36 mm below @ 40 per cent - Stone Screening				2,17,001.16			
			Cost for 300 cum = a				723.34			
			Rate Per Cum = (a)/300=	Cum			723.34	44.37	32,094.47	3,209.45
			Total Cost =	Cum			723.34			
Total Construction Cost (With 10% Seigniorage Fee) :-										4,203.70
Total Construction + Maintenance Cost (With 10% Seigniorage Fee) :-										4,203.70

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S. No	SOR Item No	Description of Items	Unit	Qty	Rate (₹)	Amount (₹)
		At Ch-8.50 km				
1	9.3 (B)	Providing and laying RCC pipe NP-3 for culverts on first class bedding of PCC M10 material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling concrete and masonry works in head walls and parapets as per clause 1106				
		3 x 2.50 = 7.50				
		7.50 m		7.500	3,083.01	23,122
		No Of HP CULVERT Size (600MM Dia)				1
		COST OF ONE HP CULVERT Size (600mm x Single Row) Rs.				23,122
		Total Cost of HP CULVERT Size (600MM Dia)			Rs	23,122

12m x 2m
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Analysis for Carriage by Rail & Road

Name of Road:- Restoration of Road From Chandragadh Gajna Dham T04 Se Barah

District:- Aurangabad

BLOCK:- Nabinagar

LENGTH OF ROAD:- 0.035 Km

SI No	Item with Source	Unit	Source Up to	Pucka / Surface	Carriage Cost & Lead in Km	Katcha	Loading & Unloading Cost	Carriage Cost by Rail Head	Total
1	Stone Metal Gr-I & Gr-II	Cum	Karjara (Gaya)	8.00 4.59	x 7.25 x 136.00 Km = Rs 1718.52	8.00 4.59	x 17.55 x 0.00 Km = Rs 0.00	208.89	Rs. 1927.41
2	Stone Metal Gr-III / GSB	Cum	Karjara (Gaya)	8.00 4.99	x 7.25 x 136.00 Km = Rs 1580.76	8.00 4.99	x 17.55 x 0.00 Km = Rs 0.00	208.89	Rs. 1789.65
3	Stone Aggregate / Chips	Cum	Manpur (Gaya)	8.00 4.99	x 7.25 x 134.00 Km = Rs 1557.52	8.00 4.99	x 17.55 x 0.00 Km = Rs 0.00	208.89	Rs. 1766.41
4	Stone Aggregate / Chips / Screening	Cum	Manpur (Gaya)	8.00 4.99	x 7.25 x 134.00 Km = Rs 1557.52	8.00 4.99	x 17.55 x 0.00 Km = Rs 0.00	208.89	Rs. 1766.41
5	Stone Boulder	Cum	Karjara (Gaya)	8.00 4.80	x 7.25 x 136.00 Km = Rs 1643.33	8.00 4.80	x 17.55 x 0.00 Km = Rs 0.00	208.89	Rs. 1852.22
6	Course Sand	Cum	Dehri-on-Sone	8.00 6.00	x 7.25 x 41.00 Km = Rs 396.33	8.00 6.00	x 17.55 x 0.00 Km = Rs 0.00	112.28	Rs. 508.61
7	Binding Material/Moorum	Cum	Karjara (Gaya)	8.00 6.00	x 7.25 x 136.00 Km = Rs 1314.67	8.00 6.00	x 17.55 x 0.00 Km = Rs 0.00	208.89	Rs. 1523.56
8	Local Sand	Cum	Local	8.00 6.00	x 7.25 x 2.00 Km = Rs 19.33	8.00 6.00	x 17.55 x 1.00 Km = Rs 23.40	112.28	Rs. 155.01
9	Brick Bat	1000 Nos	Local	8.00 2.00	x 7.25 x 7.00 Km = Rs 203.00	8.00 2.00	x 17.55 x 1.00 Km = Rs 70.20	467.06	Rs. 740.26
10	Cement	MT	Local	8.00 8.00	x 7.25 x 10.00 Km = Rs 72.50	8.00 8.00	x 17.55 x 0.00 Km = Rs 0.00	354.45	Rs. 426.95
11	Steel	MT	Local	8.00 8.00	x 7.25 x 10.00 Km = Rs 72.50	8.00 8.00	x 17.55 x 0.00 Km = Rs 0.00	383.10	Rs. 455.60
12	Bitumen Emulsion	MT	Belaganj (Gaya)	8.00 8.00	x 7.25 x 126.00 Km = Rs 913.50	8.00 8.00	x 17.55 x 0.00 Km = Rs 0.00	397.30	Rs. 1310.80
13	Bitumen	MT	Belaganj (Gaya)	8.00 8.00	x 7.25 x 126.00 Km = Rs 913.50	8.00 8.00	x 17.55 x 0.00 Km = Rs 0.00	397.30	Rs. 1310.80
14	Hume Pipe (1000 mm)	m	Sinduriya	8.00 10.00	x 7.25 x 59.00 Km = Rs 342.20	8.00 10.00	x 17.55 x 0.00 Km = Rs 0.00	80.25	Rs. 422.45
15	Hume Pipe (600 mm)	m	Sinduriya	8.00 25.00	x 7.25 x 59.00 Km = Rs 136.88	8.00 25.00	x 17.55 x 0.00 Km = Rs 0.00	34.39	Rs. 171.27
16	Hume Pipe (300 mm)	m	Sinduriya	8.00 60.00	x 7.25 x 59.00 Km = Rs 57.03	8.00 60.00	x 17.55 x 0.00 Km = Rs 0.00	34.39	Rs. 91.42

* Subjected to Verification of Lead

Cost of Haulage Excluding Loading & Unloading as per SOR

Type of Road	Per Ton. Km by Tipper	Per Ton. Km by Truck
For Surface Road	11.19	7.25
Unsurface Gravel Road	13.46	8.72
Kachha Road	27.07	17.55

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FDR WORK**Analysis for Carriage by Road**

Name of Road:--

Restoration of Road From Chandragadh Gajna Dham T04 Se Barah

Block :-
District:-Nabinagar
Aurangabad

0.035 KM.

Sl No	Item	Unit	Carriage Cost By Road & Rail	Carriage Cost (Addopted in DPR)
1	Stone Metal Gr-I & Gr-II	Cum	1927.41	1927.41
2	Stone Metal Gr-III / GSB	Cum	1789.65	1789.65
3	Stone Aggregate / Screening	Cum	1766.41	1766.41
3	Stone Aggregate / Chips	Cum	1766.41	1766.41
4	Stone Boulder	Cum	1852.22	1852.22
5	Course Sand	Cum	508.61	508.61
6	Binding Material (Moorum)	Cum	1523.56	1523.56
7	Local Sand	Cum	155.01	155.01
8	Brick Bat	1000 Nos	740.26	740.26
9	Cement	MT	426.95	426.95
10	Steel	MT	455.60	455.60
11	Bitumen Emulsion	MT	1310.80	1310.80
12	Bitumen	MT	1310.80	1310.80
13	Hume Pipe (1000 mm)	Pipe	422.45	422.45

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