



ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

BIHAR RURAL ROAD PROJECT

BIHAR RURAL ROAD DEVELOPMENT AGENCY (BRRDA)

Head :- F.D.R.
YEAR 2021-22

STATE
DISTRICT
BLOCK
DIVISION

BIHAR
SUPAUL
PIPRA
TRIVENIGANJ

DETAILED ESTIMATE FOR TEMPORARY RESTORATION OF ROAD FROM
UDAYCHAND HOUSE TO YADAV TOLA

Actual Length of Road	=	1.350 KM
Flood affected Length of Road	=	0.103 KM
TOTAL COST OF PAVEMENT	Rs	304668.95
TOTAL PROJECT COST	Rs	304668.95

Submitted By:

Executive Engineer

RWD (W) Division, TRIVENIGANJ

Prepared By:

Executive Engineer

RWD (W) Division, TRIVENIGANJ

SUMMARY OF COST ESTIMATE FOR THE PROJECT

NAME OF ROAD :- UDAYCHAND HOUSE TO YADAV TOLA

DIVISION :- TRIVENIGANJ

BLOCK :- PIPRA

Actual Length of Road :- 1.350 Km

Flood affected Length of Road :- 0.103 Km

Sl. No.	DESCRIPTION	AMOUNT (In Rs)
1	EC bag	98483.82
2	Brick bats	129216.86
3	Granular Sub-base	30,482.730
TOTAL		2,58,183.42
	Add:- Labour Cess@1% amt.=	2,581.834
	Add:GST@12%on amt.=	30,982.010
	Add: S.F.@10%on Material(Brick Bats)=	12,921.686
TOTAL RESTORATION COST OF THE PROJECT IN LACS		304668.95

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25/06/22

Junior Engineer

R.W.D. Works Division, TRIVENIGANJ

[Signature]
25.6.22

Asstt. Engineer

R.W.D. Works Division, TRIVENIGANJ

[Signature]
22.6.22

Executive Engineer

R.W.D. Works Division, TRIVENIGANJ

T.S. is accorded in Compliance of BIC letter No 1890 dated 22.04.22

Technically sanctioned amounting to Rs. 304700/- (Rupees Three Lac four thousand Seven Hundred) only.

[Signature]
29/06/22

Superintending Engineer
Rural Works Department
Works Circle Madhepura

NAME OF ROAD :-		UDAYCHAND HOUSE TO YADAV TOLA				
BLOCK :-		PIPRA				
DIVISION :-		TRIVENIGANJ				
DISTRICT :-		SUPAUL				
Sl No.	Description	Unit	Quantity (m3)	Rate (Rs)	Amount (Rs)	
1	Supplying of EC bag, filling of local sand, stitching and placing in position as per the direction of Engineer-in-charge.	Each	27	3610	98483.82	
2	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.	Cum	67.20	1922.87	129216.86	
3	Granular Sub-base with Well Graded Material (Table 400.1) Construction of granular sub-base by providing well graded material (Crushed Stone Aggregates and Local Sand), spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with three wheel 80-100 kN static roller capacity to achieve the desired density, complete as per Technical Specification Clause 401 For Grading II Material	Cum	10.13	3010.64	30482.73	


 25/06/22
 Junior Engineer
 Works Division, TRIVENIGANJ

Asstt. Engineer
 R.W.D. Works Division, TRIVENIGANJ


 Executive Engineer
 R.W.D. Works Division, TRIVENIGANJ

CALCULATION SHEET

(Annexure-A)

NAME OF ROAD :- UDAYCHAND HOUSE TO YADAV TOLA

BLOCK :- PIPRA

DIVISION :- TRIVENIGANJ

DISTRICT :- SUPAUL

Sl No.	Items of Works	Nos.	L (m)	B (m)	D (m) IN (Av.)	Quantity (m3)
2	Supplying of EC bag, filling of local sand, stitching and placing in position as per the direction of Engineer-in-charge.					
		1	66.00	2.50	0.30	49.50
		1	27.00	2.50	0.30	20.25
		1	10.00	2.50	0.30	7.50
					TOTAL=	77.25
					Total No. of EC Bags =(77.25 X35.315)	2728.08
					SAY NO OF BAGE=	2728
					NO OF BAGS/100=	27
2	Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.					
		1	29.00	6.00	0.30	52.20
		1	20.00	2.50	0.30	15.00
					Total Qty. =	67.20
3	Granular Sub-base with Well Graded Material (Table 400.1)					
	Construction of granular sub-base by providing well graded material (Crushed Stone Aggregates and Local Sand), spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with three wheel 80-100 kN static roller capacity to achieve the desired density, complete as per Technical Specification Clause 401					
	For Grading II Material					
		1	27.00	2.50	0.15	10.13
					Total Qty. =	10.13

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Analysis for Carriage by Road & Rail

UDAYCHAND HOUSE TO YADAV TOLA

NAME OF ROAD:-

SUPAUL

Block :- PIPRA

District:-

Sl No	Item with Source	Unit	Source	Pucka / Surface		Katcha		Loading & Unloading Cost	Carriage Cost by Rail Head	Total	Min Total
1	Stone Metal Gr-I & Gr-II	Cum	Shekhpura	8.00 4.59	x 8.20 x 29.00 Km = Rs 414.47	8.00 4.59	x 19.80 x 0.00 Km = Rs 0.00	89.90	1243.54	1747.91	Rs. 1747.91
2	Stone Metal Gr-III/GSB	Cum	Shekhpura	8.00 4.99	x 8.20 x 29.00 Km = Rs 381.24	8.00 4.99	x 19.80 x 0.00 Km = Rs 0.00	89.90	1166.59	1637.73	Rs. 1637.73
3	Stone Aggregate / Chips	Cum	Mirzachowki	8.00 4.99	x 8.20 x 29.00 Km = Rs 381.24	8.00 4.99	x 19.80 x 0.00 Km = Rs 0.00	89.90	1166.59	1637.73	Rs. 1637.73
4	Stone Boulder	Cum	Shekhpura	8.00 4.80	x 8.20 x 29.00 Km = Rs 396.33	8.00 4.80	x 19.80 x 0.00 Km = Rs 0.00	89.90	1201.54	1687.77	Rs. 1687.77
5	Course Sand	Cum	Jagdishpur	8.00 4.99	x 7.47 x 161.00 Km = Rs 1928.13	8.00 4.99	x 18.09 x 0.00 Km = Rs 0.00	104.88			Rs. 2033.01
6	Binding Material/Moorum	Cum	Shekhpura	8.00 6.00	x 7.47 x 29.00 Km = Rs 288.84	8.00 6.00	x 19.80 x 0.00 Km = Rs 0.00	104.88		393.72	Rs. 393.72
7	Local Sand	Cum	Local	8.00 4.99	x 7.47 x 2.00 Km = Rs 23.95	8.00 4.99	x 17.82 x 1.00 Km = Rs 28.57	104.88			Rs. 157.40
8	Brick	1000 Nos	Local	8.00 2.00	x 7.47 x 7.00 Km = Rs 209.16	8.00 2.00	x 18.09 x 1.00 Km = Rs 72.36	417.46			Rs. 698.98
9	Cement	MT	Local	8.00 8.00	x 7.47 x 35.00 Km = Rs 261.45	8.00 8.00	x 18.09 x 0.00 Km = Rs 0.00	299.38			Rs. 560.83
10	Steel	MT	Local	8.00 8.00	x 7.47 x 35.00 Km = Rs 261.45	8.00 8.00	x 18.09 x 0.00 Km = Rs 0.00	318.00			Rs. 579.45
11	Bitumen Emulsion	MT	Barauni	8.00 8.00	x 7.47 x 220.00 Km = Rs 1643.40	8.00 8.00	x 18.09 x 0.00 Km = Rs 0.00	344.50			Rs. 1987.90
12	Bitumen	MT	Muzaffarpur	8.00 8.00	x 7.47 x 178.00 Km = Rs 1329.66	8.00 8.00	x 18.09 x 0.00 Km = Rs 0.00	344.50			Rs. 1674.16
13	Hume Pipe (1000 mm)	M	Local	8.00 10.00	x 7.47 x 106.00 Km = Rs 633.46	8.00 10.00	x 18.09 x 0.00 Km = Rs 0.00	73.32			Rs. 706.78
14	Hume Pipe (600 mm)	M	Local	8.00 25.00	x 7.47 x 106.00 Km = Rs 253.38	8.00 25.00	x 18.09 x 0.00 Km = Rs 0.00	31.42			Rs. 284.80
15	Hume Pipe (300 mm)	M	Local	8.00 60.00	x 7.47 x 106.00 Km = Rs 105.58	8.00 60.00	x 18.09 x 0.00 Km = Rs 0.00	31.42			Rs. 137.00
16	Brick Bats	Nos	Local	3.60 2.25	x 19.63 x 5.00 Km = Rs 157.04	3.60 2.25	x 29.03 x 2.00 Km = Rs 92.90	194.82			Rs. 444.76

Cost of Haulage Excluding Loading & Unloading as per SOR

Subjected to Verification of Load

Type of Road	Per Ton. Km by Tipper	Per Ton. Km by Truck
For Surface Road	8.20	7.47
Unsurface Gravel Road	9.90	8.99
Kachha Road	19.80	18.09

Type of Road	Per Ton. Km by	Per Ton.Km by Truck
For Surface Road		19.63
Unsurface Gravel Road		24.53
Kachha Road		29.03

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Summary of Carriage Cost

Sl. No.	Particulars	Unit	Amount
1	Gr-III/GSB	Cum	1637.73
2	Stone Metal Below 40 mm	Cum	1637.73
3	Stone Chips	Cum	1637.73
4	Screening Materials	Cum	1637.73
5	Gr-II	Cum	1747.91
6	Stone Metal above 40 mm	Cum	1747.91
7	Binding Material/Moorum	Cum	393.72
8	a)Course Sand	Cum	2033.01
9	b)Course Sand at site	Cum	2183.81
10	c)Local Sand	Cum	157.4
11	d)Local Sand at site	Cum	274.25
12	Boulder	Cum	1687.77
13	a)Cement	Ton	560.83
14	a)Cement at site	Ton	5716.83
15	Bitumen (S-90)(FROM MUZAFFARPUR	Ton	1674.16
16	Bitumen Emulsion SS & RS (FROM BARAUNI)	Ton	1987.9
17	a)Hume Pipe NP 3 (600 MM DIA)	m	284.8
18	b)Hume Pipe (600 MM DIA)at site	m	1053.33
19	a)Hume Pipe NP 3 (1000 MM DIA)	m	706.78
20	b)Hume Pipe NP 3 (1000 MM DIA)at site	m	3481.28
21	Steel	Ton	579.45
22	Brick	per 1000	698.98
23	Brick Bats/Jhama metal.	Cum	444.76

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25/09/22

Junior Engineer

[Signature]
25.6.22

Asstt. Engineer

[Signature]
27.6.22

Executive Engineer

R.W.D. Works Division, TRIVENIGANJ. R.W.D. Works Division, TRIVENIGANJ R.W.D. Works Division, TRIVENIGAI

जॉय प्रतिवेदन

अभियंता प्रमुख ग्रामीण कार्य विभाग, बिहार, पटना के पत्रांक- 890 दिनांक-22.02.2022 द्वारा अधीक्षण अभियंता, ग्रामीण कार्य विभाग, कार्य अंततः, मधेपुरा की अध्यक्षता में गठित चार सदस्यीय कमेटी द्वारा कार्य प्रमहल, त्रिवेणीगंज के अंतर्गत वर्ष 2021-22 में बाढ़/अतिवृष्टि से क्षतिग्रस्त पथों के मोटेरेवुल कार्य के कूल कार्य मूल्यों की मात्रा का स्थलीय जॉय कर भाषी लिया गया जो निम्न है

क्रमांक	प्रखंड	कार्य का नाम	किये गये कार्य का नाम	स्थल पर किये गये कार्य की मापी	अनुयोजित
1	2	3	4	5	6
1	Pipra	Jhivatch - Dubhryahi		$\begin{aligned} & \text{Localsand} - 1 \times (12.0 \text{m} \times 4.5 \text{m} \times 0.75 \text{m} + 1 \times 11.0 \text{m} \times 4.0 \text{m} \times 0.75 \text{m}) \\ & + (2 \times 10 \text{m} + 1 \times 15 \text{m}) \times 4.0 \text{m} \times 0.6 \text{m} = 157.50 \text{m}^3 \\ & \text{B/Bdy} - 1 \times (10 \text{m} + 20 \text{m} + 12.0 \text{m} + 25.0 \text{m}) \times 4.5 \text{m} \times 0.43 \text{m} \\ & + 1 \times (30 \text{m} + 10 \text{m}) \times 2.5 \text{m} \times 0.43 \text{m} + 1 \times (10 \text{m} + 10 \text{m} + 10 \text{m} + 11 \text{m}) \\ & + 15 \text{m}) \times 4.0 \text{m} \times 0.43 \text{m} + 1 \times 85 \text{m} \times 6.0 \text{m} \times 0.43 \text{m} = 578.85 \text{m}^3 \end{aligned}$	
2	Pipra	Nirmali - Hathwarya		$\begin{aligned} & \text{Localsand} (1 \times 30 \text{m} \times 3.43 \text{m} \times 0.6 \text{m}) + 1 \times (52 \text{m} + 21 \text{m}) \times 3.5 \text{m} \times 0.6 \text{m} = 217.21 \text{m}^3 \\ & \text{B/Bdy} - 1 \times (10 \text{m} + 8 \text{m} + 31.5 \text{m} + 31.0 \text{m}) \times 4.5 \text{m} \times 0.44 \text{m} \\ & + 1 \times (16 \text{m} + 3 \text{m} + 21 \text{m}) \times 2.5 \text{m} \times 0.44 \text{m} + 1 \times 32.5 \text{m} \times 6.0 \text{m} \times 0.44 \text{m} = 664.73 \text{m}^3 \end{aligned}$	
3	Pipra	L041-Ram Nagar to Yadav Tola (ODR28)		$\begin{aligned} & \text{Localsand} - 4 \times (18.0 \text{m} \times (2.5 \text{m} + 1.5 \text{m}) / 2 \times 2.0 \text{m} + 1 \times 10 \text{m} \times 0.50 \text{m} \times 0.80 \text{m} = 242 \text{m}^3 \\ & \text{E/C bdy} - 4 \times (18 \text{m} \times (3.5 \text{m} + 2.5 \text{m}) / 2 \times 1.5 \text{m} + 4 \times 18 \text{m} \times 4.0 \text{m} \times 0.30 \text{m} = 1258.6 \text{m}^3 \\ & \text{B/Bdy} - 2 \times (30 \text{m} + 20 \text{m}) \times 1.65 \text{m} \times 0.30 \text{m} + 2 \times 15 \text{m} \times 2 \times 2.5 \text{m} \times 0.30 \text{m} \\ & + 2 \times 13 \text{m} \times 3.50 \text{m} \times 0.35 \text{m} = 126.35 \text{m}^3 \end{aligned}$	
4	Pipra	Maheshwar Singh Ke Ghar Se Lekar Pokhar Ola Hote Hue to Hatharia Pakki Sadak Tak		$\begin{aligned} & \text{Localsand} - 1 \times (21 \text{m} + 23 \text{m} + 30 \text{m}) \times 2.5 \text{m} \times 1.5 \text{m} + 1 \times 16 \text{m} \times 3.5 \text{m} \times 1.75 \text{m} + 1 \times 15 \text{m} \times 2.5 \text{m} \times 1.6 \text{m} \\ & \text{B/Bdy} - 2 \times 15 \text{m} \times 3 \text{m} = 90 \text{m}^3 \\ & \text{B/Bdy} - 1 \times (16 \text{m} + 15 \text{m} + 22 \text{m} + 23 \text{m} + 30 \text{m}) \times 3.0 \text{m} \times 0.50 \text{m} = 159 \text{m}^3 \end{aligned}$	
5	Pipra	THUMAIHA SIMA MEHTA TOLA MMGSY SE to LITVAHI CHOWK		$\begin{aligned} & \text{E/C bdy} - 2 \times 12 \text{m} \times (3 \text{m} + 2 \text{m}) / 2 \times 1.0 \text{m} \\ & + 2 \times 80.67 \text{m} \times 4.0 \text{m} \times 0.3 \text{m} = 823.61 \text{m}^3 \\ & = 2908.63 \text{m}^3 \end{aligned}$	
6	Pipra	Pungsy Dehipati Aganbadi Se to Ramana Tola Tak		$\begin{aligned} & \text{B/Bdy} - 1 \times (17 \text{m} + 6 \text{m} + 14 \text{m}) \times 3.0 \text{m} = 111 \text{m}^3 \\ & \text{E/C bdy} - 1 \times (17 \text{m} + 8 \text{m}) \times 3.0 \text{m} \times 0.30 \text{m} + 1 \times 60 \text{m} \times 3.0 \text{m} \times 0.50 \text{m} \\ & + 1 \times 14 \text{m} \times 3.0 \text{m} \times 0.42 \text{m} = 4151.6 \text{m}^3 \\ & \text{B/Bdy} - 1 \times (17 \text{m} + 6 \text{m} + 14 \text{m} + 8 \text{m}) \times 3.0 \text{m} \times 0.30 \text{m} = 108.30 \text{m}^3 \end{aligned}$	

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क्र.सं.	प्रक.सं.	कार्य का नाम	क्रिये गये कार्य का नाम	स्थल पर क्रिये गये कार्य की माप	अवस्थिति
1	2	3	4	5	6
7	Pipra	pathra ratouli PMGSY path to lavrol mahar take		$B/B \text{ Bdy} \cdot 1 \times 5.6 \text{ m} \times 4.0 \text{ m} \times 0.33 \text{ m} + 1 \times 5.5 \text{ m} \times 4.0 \text{ m} \times 0.32 \text{ m} = 144.32 \text{ m}^3$ $H.P. 100 \text{ cm} \cdot 12 \times 2.5 \text{ m} = 30 \text{ m}$	
8	Pipra	1051-Ambha to Kewat Tola (ODR14)		$L \text{ side road} \cdot 2 \times 19 \text{ m} \times 5.5 \text{ m} \times 1.5 \text{ m} = 313.5 \text{ m}^3$ $E \text{ side Bdy} \cdot 1 \times 8 \text{ m} \times 2.5 \text{ m} \times 0.6 \text{ m} + 1 \times 11 \text{ m} \times 4.7 \text{ m} \times 0.6 \text{ m} = 35.22 \text{ m}^3$ $= 1350 \text{ Bdy}$	
9	Pipra	Udanchand Sah House to Yadav Tola		$E \text{ side Bdy} \cdot 1 \times (4.6 \text{ m} + 2.7 \text{ m} + 1.0 \text{ m}) \times 2.5 \text{ m} \times 0.3 \text{ m} = 71.25 \text{ m}^3 = 2728 \text{ Bdy}$ $B \text{ side Bdy} \cdot 1 \times 29 \text{ m} \times 6 \text{ m} \times 0.3 \text{ m} + 1 \times 20 \text{ m} \times 2.5 \text{ m} \times 0.3 \text{ m} = 67.20 \text{ m}^3$ $G.I. 5 \text{ I} \cdot 1 \times 2.7 \text{ m} \times 2.5 \text{ m} \times 0.15 \text{ m} = 10.13 \text{ m}^3$ $L \text{ side road} \cdot 1 \times 30 \text{ m} \times 5.0 \text{ m} \times 0.9 \text{ m} = 1390 \text{ m}^3$ $E \text{ side Bdy} \cdot 1 \times 30 \text{ m} \times 5.0 \text{ m} \times 0.7 \text{ m} = 1050 \text{ m}^3 = 37081 \text{ Bdy}$	
10	Pipra	PMGSY Road L042 to PWD Road		$E \text{ side Bdy} \cdot 2 \times 2 \times 30 \text{ m} \times (2.0 + 1.0 + 0.5 \text{ m}) \times 3 \times 0.4 \text{ m} = 151.68 \text{ m}^3 = 5257 \text{ Bdy}$ $B \text{ side Bdy} \cdot 1 \times (7.0 \text{ m} + 4.5 \text{ m} + 6.0 \text{ m}) \times 4.0 \text{ m} \times 0.3 \text{ m} = 234 \text{ m}^3$ $H.P. 100 \text{ cm} \cdot 3 \times 2.5 \text{ m} = 7.5 \text{ m}$	
11	Pipra	PWD Road to Sah Tola		$L \text{ side road} \cdot 1 \times 100 \text{ m} \times 6.0 \text{ m} \times 0.6 \text{ m} + 1 \times 150 \text{ m} \times 6.0 \text{ m} \times 0.3 \text{ m} = 630 \text{ m}^3$ $E \text{ side Bdy} \cdot 2 \times 100 \text{ m} \times 2.5 \text{ m} \times 1.3 \text{ m} + 1 \times 50 \text{ m} \times 2.80 \text{ m} \times 0.3 \text{ m} = 707 \text{ m}^3$ $G.I. 5 \text{ I} \cdot 1 \times 50 \text{ m} \times 4.0 \text{ m} \times 0.2 \text{ m} = 40.5 \text{ m}^3$ $W \text{ side III} \cdot 1 \times 50 \text{ m} \times 3.75 \text{ m} \times 0.075 \text{ m} = 14.06 \text{ m}^3$ $L \text{ side road} \cdot 1 \times (15 \text{ m} + 15 \text{ m} + 15 \text{ m} + 14 \text{ m} + 18 \text{ m} + 10 \text{ m}) \times 2 \text{ m} \times 1.05 \text{ m} = 274.05 \text{ m}^3$ $B \text{ side road} \cdot 1 \times (20 \text{ m} + 25 \text{ m}) \times 4.0 \text{ m} = 180 \text{ m}^3$ $B \text{ side Bdy} \cdot 1 \times (15 \text{ m} + 15 \text{ m} + 15 \text{ m} + 14 \text{ m} + 18 \text{ m} + 10 \text{ m}) \times 3.0 \text{ m} \times 0.3 \text{ m} = 78.30 \text{ m}^3$	
12	Pipra	Dubiyahi Hanuman Mandir to Chit Tola			
13	Pipra	Hatwariya to SH Kumadh			

24.2.20

क्रमांक	प्रपत्र	कार्य का नाम	किये गये कार्य का नाम	स्थल पर किये गये कार्य की मापी	अनुमति
1	2	3	4	5	6
14	Pipra	Vijay Yadav House to Some Maharaaj House		$\text{Length} = 1 \times (15 \text{m} + 1 \text{cm}) \times 5.0 \text{m} \times 1.5 \text{m} = 262.5 \text{ m}^3$ $\text{Elec Body} = 2 \times 1 \text{cm} \times 4.0 \text{m} \times 0.7 \text{m} + 1 \times 15.0 \text{m} \times 4.0 \text{m} \times 0.75 \text{m} = 101 \text{ m}^3 = 354 \text{ m}^3$ $\text{Pl Body} = 2 \times 1 \text{cm} \times 4 \text{m} \times 0.3 \text{m} = 24 \text{ m}^3$ $\text{M.P.H.P. 100000} = 12 \times 2.5 \text{m} = 30 \text{ m}^3$	
15	Pipra	Pipra to Chamanagar		$\text{Necessary reversed.}$	

कार्यपालक अभियंता
ग्रामीण कार्य विभाग
कार्य प्रमंडल, सुपौल।

कार्यपालक अभियंता
ग्रामीण कार्य विभाग
कार्य प्रमंडल, वीरपुर।

कार्यपालक अभियंता
ग्रामीण कार्य विभाग
कार्य प्रमंडल, त्रिवेणीगंज

अधीक्षक अभियंता
ग्रामीण कार्य विभाग
कार्य अंचल, मधेपुरा

सीमा भेजे।

कार्यपालक अभियंता, कार्य प्रमंडल, त्रिवेणीगंज समिति के जॉय प्रतिवेदन के अनुसार Post facto M.B. एवं Post facto प्रायकलन तैयार कशकर सक्षम प्राधिकार को अग्रतर कार्यवाई हेतु

अधीक्षक अभियंता
ग्रामीण कार्य विभाग
कार्य अंचल, मधेपुरा