

# Government of Bihar

## Under Flood Damage Repair

### Estimate for Restoration of Traffic

|            |                |                |
|------------|----------------|----------------|
| DISTRICT : | West Champaran | BLOCK : Nautan |
|------------|----------------|----------------|

|                |                                                         |
|----------------|---------------------------------------------------------|
| NAME OF ROAD : | JAGDISHPUR TO MACHHARGAWAN<br>UNDER FLOOD DAMAGE REPAIR |
|----------------|---------------------------------------------------------|

| TOTL LENGHT             |  | 5.7    | KMS  | COST PER KM |
|-------------------------|--|--------|------|-------------|
| COST OF PAYMENT (RS.)   |  | 22.342 | Lacs |             |
| NO. OF DD WORK          |  | 0.00   | Nos  |             |
| COST OF CDS (RS)        |  | 0.00   | Lacs |             |
| TOTAL COST OF ROAD (RS) |  | 22.342 | Lacs |             |
| MAINTANANCE COST (RS)   |  | 0.     | Lacs |             |

SUBMITTED B

The Executive Engineer,  
Works Division, Bettiah

बिहार सरकार  
ग्रामीण कार्य विभाग

पत्रांक - मु0अ0-4 (मु0) विविध (कार्य)-23-40/16 - 2254

पटना, दिनांक 30/6/2020

प्रेषक,

पंकज कुमार पाल,  
सचिव

सेवा में,

सभी कार्यपालक अभियंता,  
ग्रामीण कार्य विभाग,  
बिहार, पटना।

विषय- संभावित अतिवृष्टि/बाढ़ के कारण क्षतिग्रस्त पथों के आपातकालीन मरम्मत के संबंध में।

महाशय,

उपर्युक्त विषय के संबंध में कहना है कि राज्य में मानसून अति सक्रिय है जिसके कारण बाढ़ प्रवण जिलों में पथों के क्षतिग्रस्त होने की संभावना है। अतः निदेश दिया जाता है कि वर्तमान मानसून के दौरान अतिवृष्टि/बाढ़ से क्षतिग्रस्त पथों को मोटरेबुल बनाने का कार्य तत्परता से प्राथमिकता में किया जाय जिससे कि पथों में यातायात कम से कम समय तक बाधित रहे। इस क्रम में यह भी निदेश है कि जिला प्रशासन के साथ वर्षा-अवधि के दौरान लगातार समन्वय रखी जाय एवं उनसे प्राप्त पथों की मरम्मत का कार्य प्राथमिकता में कराया जाय।

ऐसे पथ जिनकी अनुरक्षण नीति के अन्तर्गत मरम्मत कार्य की निविदा प्रक्रिया में है उनको भी मोटरेबुल बनाए रखना विभाग का दायित्व है। इन्हें मोटरेबुल बनाए रखने में यदि प्राक्कलन में प्रावधानित मदों का उपयोग किया जाना आवश्यक हो तो वैसे स्थिति में एकरारनामा करने के समय इन मदों की उतनी मात्रा परिमाण विपन्न में से घटा दिया जाए।

क्षेत्रीय पदाधिकारी वर्षा-अवधि के दौरान बिना जिलाधिकारी अथवा अधोहस्ताक्षरी की अनुमति के मुख्यालय नहीं छोड़ेंगे।

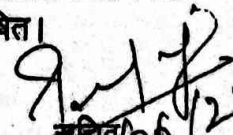
विश्वासभाजन

  
(पंकज कुमार पाल)  
सचिव 30/6/2020

ज्ञापक:- मु0अ0-4 (मु0) विविध (कार्य) 23-40/16 - 2254

पटना, दिनांक 30/06/2020

प्रतिलिपि:- सभी प्रमंडल आयुक्त/जिलाधिकारी/सभी मुख्य अभियंता/सभी अधीक्षण अभियंता  
ग्रामीण कार्य विभाग, बिहार, पटना को सूचनार्थ एवं आवश्यक कारवाई हेतु प्रेषित।

  
सचिव 30/6/2020

## TECHNICAL REPORT

Name of Road :- Jagdishpur To Maehargawan.  
Name of Block :- Nautan.  
Name of Division :- RWD, W.D. Bettiah.  
Name of District :- West Champaran.  
Estimated Cost :- 22.342 lakh.  
Restoration Length :- 828M

This Estimate is prepared for Restoration of ..... Jagdishpur to Maehargawan

.....road under FDR as per the instruction of Secretary, Rural Works Department, Patna vide,

ज्ञापक:- मु0अ0 -4 (मु0) विविध (कार्य) 23 -40 /16-2254 पटना, दिनांक 30.06.2020. Road remains effected from flooded about 01 to 02 weeks and heavy amount of water passed through it.

Honorable Chief Minister/Secretary, Rural Works Department, Bihar, Patna/D.M., West Champaran, Bettiah/Concerned MP/MLA has instructed to maintain the traffic and movement of public etc. at the earliest so that public of this area may get connected and for the same Departmental instruction has also been issued to fill the gap made by flooded immediately.

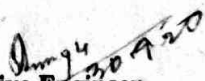
The area surrounding is submerged in water and hence provision of ..... Bon/Cutts ..... has been made to maintain the road damage due to flood/heavy rainfall as per availability of material from available place by tractor. Presently there is no Contractor is employed for Construction and Maintenance of this road hence the work has been carried out Departmentally and due to this, provision of Contractor profit is not mentioned in the estimate.

In view of above, it is requested to approve the estimate amounting to Rs. 22.342<sup>lakh.</sup> please.

Submitted for Technical Approval please.

  
Senior Engineer,  
Majhauria

  
Assistant Engineer,  
Majhauria

  
Executive Engineer  
R.W.D.(W) Division, Bettiah



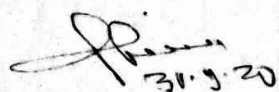
Name of Work: - Estimate for Repair of Restration of Road (Damaged by Flood-2020)  
for Motoribility in Jagadishpur to Machhargawan

Head : 2245

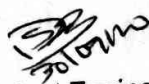
Lengh - 5.70 KM

| Sl. No. | Item No | Name of Item                                                                                                                                 | Unit | No. | Lengh             | Width | Height | Qty.                      | Rate    | Amount       |
|---------|---------|----------------------------------------------------------------------------------------------------------------------------------------------|------|-----|-------------------|-------|--------|---------------------------|---------|--------------|
| 1.      |         | Poviding & Laying dry graded Brick Bats including light ramming etc. all complete as per approved design. Specification and direction of E/I | cum  |     | As per Appendix I |       |        | 1128.28<br>M <sup>3</sup> | 1662.37 | 18,75,619.00 |
|         |         | Total Road Work                                                                                                                              |      |     |                   |       |        |                           |         | 18,75,619.00 |
|         |         | Add GST @ 12%                                                                                                                                |      |     |                   |       |        |                           |         | 2,25,074.00  |
|         |         | Add Labour Cess @ 1%                                                                                                                         |      |     |                   |       |        |                           |         | 18,756.00    |
|         |         | Add Seignarage Fee @ 10% of basic material rate                                                                                              |      |     |                   |       |        |                           |         | 1,14,746.00  |
|         |         | Total Cost of Work                                                                                                                           |      |     |                   |       |        |                           |         | 22,34,195.00 |

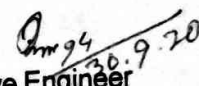
Say Rs. 22,34,200.00

  
31.5.20

Junior Engineer  
Rural Works Department  
Works Section Nautan

  
30.5.20

Assistant Engineer  
Rural Works Department  
Works Sub Division Nautan

  
26.9.20

Executive Engineer  
Rural Works Department  
Works Division Bettiah

Name of Work: - Estimate for Repair of Restorations of Road (Damaged by Flood-2020) for Motorability in Jagadishpur to Machhargawan

①

Appendix - 1

Measurement for surfacing the Breach with Brick Bat

| Sl No. | Chainage (M) | Nos | Length (M) | Width (M) | Av. Width (M) | Thickness (M) | Av. Thickness (M) | Quantity (cum) |
|--------|--------------|-----|------------|-----------|---------------|---------------|-------------------|----------------|
| 1      | 0-11         | 1   | 5.0        | 2.9+3.1/2 | 3.0           | 0.3           | 0.3               | 4.5            |
| 2      |              | 1   | 6.0        | 2.8+3.1/2 | 2.95          | 0.3+0.6/2     | 0.45              | 7.96           |
| 3      |              | 1   | 15.0       | 3.9+4.1/2 | 4.0           | 0.6+0.9/2     | 0.75              | 45.0           |
| 4      | 100-200      | 1   | 4.0        | 5.0+4.8/2 | 4.9           | 0.3+0.6/2     | 0.45              | 8.82           |
| 5      |              | 1   | 5.0        | 2.9+3.1/2 | 3.0           | 0.3+0.6/2     | 0.45              | 6.75           |
| 6      |              | 1   | 9.0        | 3.8+4.2/2 | 4.0           | 0.3+0.6/2     | 0.45              | 16.2           |
| 7      |              | 1   | 15.0       | 3.8+4.2/2 | 4.0           | 0.3           | 0.3               | 18.0           |
| 8      | 200-300      | 1   | 5.0        | 2.8+3.0/2 | 2.9           | 0.3           | 0.3               | 4.35           |
| 9      |              | 1   | 11.0       | 2.8+3.1/2 | 2.95          | 0.6+0.45/2    | 0.525             | 17.03          |
| 10     |              | 1   | 5.0        | 2.4+2.6/2 | 2.5           | 0.3+0.6/2     | 0.45              | 5.62           |
| 11     |              | 1   | 5.0        | 3.8+4.0/2 | 3.9           | 0.3+0.6/2     | 0.45              | 8.77           |
| 12     |              | 1   | 8.0        | 3.8+4.0/2 | 3.9           | 0.45+0.75/2   | 0.6               | 18.72          |
| 13     |              | 1   | 4.0        | 3.4+3.6/2 | 3.5           | 0.3+0.6/2     | 0.45              | 6.30           |
| 14     |              | 1   | 7.0        | 2.4+2.6/2 | 2.5           | 0.3+0.6/2     | 0.45              | 7.87           |
| 15     |              | 1   | 45.0       | 2.2+2.3   | 2.25          | 0.3+0.45/2    | 0.375             | 37.96          |
| 16     | 300-400      | 1   | 5.0        | 1.25      | 1.25          | 0.3+0.6/2     | 0.45              | 2.81           |
| 17     |              | 1   | 11.0       | 3.6+3.8/2 | 3.7           | 0.3+0.6/2     | 0.45              | 18.31          |
| 18     |              | 1   | 6.5        | 1.6+1.8   | 1.7           | 0.3+0.2/2     | 0.25              | 2.76           |
| 19     |              | 1   | 7.0        | 3.8+4.0   | 3.9           | 0.3+0.6/2     | 0.45              | 12.28          |

## Appendix - 1

## Measurement for surfacing the Breach with Brick Bat

| Sl No. | Chainage (M) | Nos | Length (M) | Width (M) | Av. Width (M) | Thickness (M) | Av. Thickness (M) | Quantity (cum) |
|--------|--------------|-----|------------|-----------|---------------|---------------|-------------------|----------------|
| 20     | 300-400      | 1   | 5.0        | 1.8+2.0/2 | 1.9           | 0.3+0.2/2     | 0.25              | 2.37           |
| 21     |              | 1   | 4.0        | 1.8+2.0/2 | 1.9           | 0.3+0.6/2     | 0.45              | 3.42           |
| 22     |              | 1   | 10.0       | 3.8+4.0/2 | 3.9           | 0.45+0.65/2   | 0.55              | 21.45          |
| 23     |              | 1   | 1-5        | 1.9+2.1/2 | 2.9           | 0.3+0.45/2    | 0.375             | 1.12           |
| 24     | 400-500      | 1   | 3.0        | 1.9+2.1/2 | 2.0           | 0.3+0.45/2    | 0.375             | 2.25           |
| 25     |              | 1   | 5.0        | 1.6+1.4/2 | 1.5           | 0.3+0.6/2     | 0.45              | 3.37           |
| 26     |              | 1   | 3.0        | 1.8+2.0/2 | 1.9           | 0.3+0.6/2     | 0.45              | 2.56           |
| 27     |              | 1   | 3.5        | 3.9+4.1/2 | 4.0           | 0.3+0.6/2     | 0.45              | 6.3            |
| 28     |              | 1   | 1.0        | 1.0-      | 1.0           | 0.3           | 0.3               | 0.30           |
| 29     |              | 1   | 7.0        | 3.8+4.0/2 | 3.9           | 0.3+0.6/2     | 0.45              | 12.28          |
| 30     | 500-600      | 1   | 2.5        | 4.3+4.5/2 | 4.4           | 0.45+0.6/2    | 0.525             | 19.63          |
| 31     |              | 1   | 9.0        | 3.9+4.0/2 | 3.95          | 0.45+0.6/2    | 0.525             | 18.66          |
| 32     |              | 1   | 9.3        | 3.9+4.0/2 | 3.95          | 0.45+0.6/2    | 0.525             | 19.28          |
| 33     |              | 1   | 9.5        | 2.0+1.8/2 | 1.9           | 0.3+0.6/2     | 0.45              | 8.12           |
| 34     |              | 1   | 3.0        | 1.6+1.4/2 | 1.5           | 0.3+0.6/2     | 0.45              | 2.02           |
| 35     |              | 1   | 10.0       | 3.8+4.0/2 | 3.9           | 0.45+0.6/2    | 0.525             | 20.47          |
| 36     | 600-700      | 1   | 8.4        | 3.9+4.0/2 | 3.95          | 0.45+0.6/2    | 0.525             | 17.41          |
| 37     |              | 1   | 6.0        | 3.4+3.6/2 | 3.5           | 0.45+0.6/2    | 0.525             | 11.02          |
| 38     |              | 1   | 4.5        | 3.0+2.8/2 | 2.9           | 0.3+0.6/2     | 0.45              | 5.87           |
| 39     |              | 1   | 5.0        | 2.4+2.6/2 | 2.5           | 0.30+0.6/2    | 0.45              | 5.62           |
| 40     | 700-800      | 1   | 4.0        | 1.9+2.1/2 | 2.0           | 0.3+0.6/2     | 0.45              | 3.6            |
| 41     |              | 1   | 7.0        | 2.4+2.6/2 | 2.5           | 0.3+0.6/2     | 0.45              | 7.87           |
| 42     | 800-900      | 1   | 15.0       | 4.5+5.0/2 | 4.75          | 0.9+0.75/2    | 0.825             | 58.78          |
| 43     |              | 1   | 7.0        | 1.4+1.6/2 | 1.5           | 0.3+0.6/2     | 0.45              | 4.72           |
| 44     |              | 1   | 4.0        | 2.4+2.6/2 | 2.5           | 0.3+0.6/2     | 0.45              | 4.50           |
| 45     |              | 1   | 15.0       | 4.2+4.4/2 | 4.3           | 0.6+0.45/2    | 0.525             | 33.86          |
| 46     |              | 1   | 3.0        | 2.8+3.0/2 | 2.9           | 0.45+0.75/2   | 0.6               | 5.22           |
| 47     |              | 1   | 8.0        | 2.8+3.0/2 | 2.9           | 0.45+0.3/2    | 0.375             | 8.7            |
| 48     |              | 1   | 5.0        | 2.4+2.6/2 | 2.5           | 0.45+0.6/2    | 0.525             | 6.56           |



## Measurement for surfacing the Breach with Brick Bat

| Sl No. | Chainage (M) | Nos | Length (M) | Width (M) | Av. Width (M) | Thickness (M) | Av. Thickness (M) | Quantity (cum) |
|--------|--------------|-----|------------|-----------|---------------|---------------|-------------------|----------------|
| 49     | 900-1000     | 1   | 7          | 2.4+2.6/2 | 2.5           | 0.3+0.45/2    | 0.375             | 6.56           |
| 50     |              | 1   | 6.0        | 1.9+2.1/2 | 2.0           | 0.30+0.45/2   | 0.375             | 4.50           |
| 51     |              | 1   | 15.0       | 3.8+4.0/2 | 3.9           | 0.45+0.6/2    | 0.525             | 30.71          |
| 52     |              | 1   | 10         | 3.8+4.0/2 | 3.9           | 0.45+0.6/2    | 0.525             | 20.41          |
| 53     |              | 1   | 14         | 3.8+3.9/2 | 3.85          | 0.45+0.6/2    | 0.525             | 28.29          |
| 54     |              | 1   | 10         | 1.9+2.1/2 | 2.0           | 0.3+0.6/2     | 0.45              | 9.0            |
| 55     |              | 1   | 3          | 3.9+4.1/2 | 4.0           | 0.6+0.45/2    | 0.525             | 6.3            |
| 56     |              | 1   | 20.0       | 3.8+4.0/2 | 3.9           | 0.6+0.9/2     | 0.75              | 58.5           |
| 57     | 1000-1100    | 10  | 1.0        | 1.0       | 1.0           | 0.20+0.3/2    | 0.25              | 2.5            |
| 58     |              | 1   | 8.0        | 1.8+2.0/2 | 1.9           | 0.30+0.45/2   | 0.375             | 5.7            |
| 59     |              | 1   | 3.0        | 1.8+2.0/2 | 1.9           | 0.3+0.45/2    | 0.375             | 2.13           |
| 60     |              | 1   | 6.5        | 3.8+4.0/2 | 3.9           | 0.3+0.45/2    | 0.375             | 9.50           |
| 61     |              | 1   | 5.0        | 1.8+2.0/2 | 1.9           | 0.3+0.45/2    | 0.375             | 3.56           |
| 62     |              | 1   | 6.0        | 1.8+2.0/2 | 1.9           | 0.3+0.45/2    | 0.375             | 4.27           |
| 63     |              | 1   | 1.0        | 1.4+1.6/2 | 1.5           | 0.3+0.2/2     | 0.25              | 0.375          |
| 64     |              | 2   | 1.0        | 1.4+1.6/2 | 1.5           | 0.3+0.2/2     | 0.25              | 0.75           |
| 65     | 1400-1500    | 1   | 4.5        | 2.8+3.0/2 | 1.9           | 0.3+0.45/2    | 0.375             | 3.20           |
| 66     |              | 1   | 5.0        | 2.4+2.6/2 | 2.5           | 0.3+0.45/2    | 0.375             | 4.68           |
| 67     |              | 1   | 2.5        | 1.4+1.6/2 | 1.5           | 0.3+0.45/2    | 0.375             | 1.40           |
| 68     |              | 1   | 4.-0       | 2.8+3.0/2 | 2.9           | 0.3+0.45/2    | 0.375             | 4.35           |
| 69     | 1500-1600    | 1   | 4.-0       | 1.4+1.5/2 | 1.45          | 0.3+0.20/2    | 0.25              | 1.45           |
| 70     |              | 1   | 7.5        | 2.8+3.0/2 | 2.9           | 0.3+0.45/2    | 0.525             | 11.4           |
| 71     |              | 1   | 4.0        | 1.8+2.0/2 | 1.9           | 0.45+0.30/2   | 0.375             | 2.85           |
| 72     |              | 1   | 4.5        | 1.8+2.0/2 | 1.9           | 0.45+0.3/2    | 0.375             | 3.20           |
| 73     | 1600-1700    | 3   | 2.0        | 1.4+1.6/2 | 1.5           | 0.45+0.3/2    | 0.375             | 3.37           |
| 74     |              | 1   | 5.0        | 1.0+0.8/2 | 0.9           | 0.3+0.2/2     | 0.25              | 1.12           |
| 75     |              | 1   | 4.5        | 1.0+0.8/2 | 0.9           | 0.3+0.2/2     | 0.25              | 1.01           |
| 76     |              | 1   | 7.0        | 3.4+3.5/2 | 3.45          | 0.6+0.45/2    | 0.525             | 12.67          |

## Appendix - 1

## Measurement for surfacing the Breach with Brick Bat

| Sl No. | Chainage  | Nos | Length (M) | Width (M) | Avg. Width (M) | Thickness (M) | Avg. Thickness (M) | Quantity (cum) |
|--------|-----------|-----|------------|-----------|----------------|---------------|--------------------|----------------|
| 77     | 1600-1700 | 1   | 3.0        | 1.8+2.0/2 | 1.9            | 0.45+0.3/2    | 0.375              | 2.13           |
| 78     |           | 1   | 5.0        | 4.0+3.8/2 | 3.9            | 0.6+0.45/2    | 0.525              | 10.23          |
| 79     |           | 1   | 3          | 1.4+1.6/2 | 1.5            | 0.45+0.3/2    | 0.375              | 1.68           |
| 80     |           | 1   | 7.0        | 3.4+3.5/2 | 3.45           | 0.6+0.45/2    | 0.525              | 12.67          |
| 81     | 1700-1800 | 1   | 1.0        | 1.8+2.0/2 | 1.9            | 0.3+0.2/2     | 0.25               | 0.47           |
| 82     |           | 1   | 3.0        | 1.8+2.0/2 | 1.9            | 0.3+0.45/2    | 0.375              | 2.13           |
| 83     |           | 1   | 15.0       | 2.1+1.8/2 | 1.9            | 0.45+0.3/2    | 0.375              | 10.68          |
| 84     |           | 1   | 3.5        | 3.0+2.8/2 | 2.9            | 0.45+0.3/2    | 0.375              | 3.80           |
| 85     |           | 1   | 1.0        | 1.0       | 1.0            | 0.3+0.2/2     | 0.25               | 0.25           |
| 86     |           | 1   | 1.5        | 1.5+1.4/2 | 1.45           | 0.3+0.2/2     | 0.25               | 0.54           |
| 87     | 1800-1900 | 1   | 8.0        | 2.5+2.4/2 | 2.45           | 0.45+0.3/2    | 0.375              | 7.35           |
| 88     |           | 1   | 5.0        | 2.0+1.8/2 | 1.9            | 0.45+0.3/2    | 0.375              | 3.56           |
| 89     |           | 1   | 2.0        | 2.0+1.8/2 | 1.9            | 0.45+0.3/2    | 0.375              | 1.42           |
| 90     | 1900-2000 | 1   | 2.0        | 3.0+2.8/2 | 1.9            | 0.45+0.3/2    | 0.375              | 2.17           |
| 91     |           | 1   | 5.0        | 2.0+1.8/2 | 1.9            | 0.45+0.3/2    | 0.375              | 3.56           |
| 92     |           | 1   | 4.0        | 1.0+0.8/2 | 0.9            | 0.3+0.2/2     | 0.25               | 0.90           |
| 93     |           | 1   | 3.0        | 2.0+1.8/2 | 1.9            | 0.45+0.3/2    | 0.375              | 2.13           |
| 94     |           | 1   | 2.0        | 1.0+0.9/2 | 0.95           | 0.45+0.3/2    | 0.375              | 0.71           |
| 95     |           | 5   | 1.0        | 1.0+0.9/2 | 0.95           | 0.3+0.2/2     | 0.25               | 1.18           |
| 96     |           | 1   | 4.0        | 1.25+1.05 | 1.15           | 0.3+0.2/2     | 0.25               | 1.15           |
| 97     | 2000-2100 | 1   | 4.5        | 2.5+2.3/2 | 2.4            | 0.45+0.3/2    | 0.375              | 1.45           |
| 98     |           | 8   | 1.0        | 1.0+0.8/2 | 0.9            | 0.3+0.2/2     | 0.25               | 4.35           |
| 99     | 2700-3000 | 1   | 2.0        | 1.0+0.8/2 | 0.9            | 0.3+0.2/2     | 0.25               | 1.05           |
| 100    |           | 2   | 3.0        | 1.5+1.3/2 | 1.4            | 0.2+0.3/2     | 0.25               | 0.45           |
| 101    | 3000-3100 | 2   | 2.0        | 1.5+1.4/2 | 1.45           | 0.45+0.3/2    | 0.375              | 2.1            |
| 102    |           | 1   | 4.0        | 3.0+2.8/2 | 2.9            | 0.45+0.3/2    | 0.375              | 1.45           |
| 103    |           | 1   | 15.0       | 2.0+1.8/2 | 1.9            | 0.45+0.3/2    | 0.375              | 10.68          |
| 104    |           | 1   | 3.0        | 1.5+1.3/2 | 1.4            | 0.3+0.2/2     | 0.25               | 1.05           |
| 105    |           | 2   | 1.0        | 1.0+0.8/2 | 0.9            | 0.3+0.2/2     | 0.25               | 0.45           |
| 106    |           | 1   | 4.0        | 2.0+1.8/2 | 1.9            | 0.3+0.2/2     | 0.25               | 1.90           |



## Measurement for surfacing the Breach with Brick Bat

| Sl No. | Chainage  | Nos | Length (M) | Width (M)   | Av. Width (M) | Thickness (M) | Av. Thickness (M) | Quantity (cum) |
|--------|-----------|-----|------------|-------------|---------------|---------------|-------------------|----------------|
| 107    | 3100-3200 | 1   | 2.5        | 2.0+1.8/2   | 1.9           | 0.45+0.3/2    | 0.375             | 1.78           |
| 108    |           | 1   | 2.5        | 1.5+1.4/2   | 1.45          | 0.45+0.3/2    | 0.375             | 1.30           |
| 109    | 3200-3300 | 1   | 9.5        | 4.0+3.8/2   | 3.9           | 0.6+0.45/2    | 0.525             | 19.45          |
| 110    |           | 1   | 3.0        | 1.0+0.8/2   | 0.9           | 0.3+0.2/2     | 0.25              | 0.67           |
| 111    |           | 1   | 2.5        | 1.4+1.5/2   | 1.45          | 0.3+0.2/2     | 0.25              | 0.90           |
| 112    |           | 1   | 3.0        | 1.0+0.8/2   | 0.9           | 0.3+0.2/2     | 0.25              | 0.67           |
| 113    |           | 1   | 2.0        | 2.0+1.9/2   | 1.95          | 0.3+0.2/2     | 0.25              | 0.97           |
| 114    |           | 1   | 2.0        | 2+1.5+2.5/3 | 2.0           | 0.45+0.3/2    | 0.375             | 15.0           |
| 115    |           | 1   | 3.0        | 1.8+2.0/2   | 1.9           | 0.3+0.2/2     | 0.25              | 1.42           |
| 116    | 3300-3400 | 1   | 6.0        | 3.75+3.65/0 | 3.7           | 0.6+0.45/2    | 0.525             | 11.65          |
| 117    |           | 1   | 3.0        | 3.0+2.8/2   | 2.9           | 0.45+0.3/2    | 0.375             | 3.26           |
| 118    | 3400-3500 | 1   | 4.5        | 4.0+3.8/2   | 3.9           | 0.6+0.45/2    | 0.525             | 9.21           |
| 119    |           | 1   | 5.0        | 1.5+1.3/2   | 1.4           | 0.3+0.2/2     | 0.25              | 1.75           |
| 120    |           | 1   | 2.0        | 2.0+1.8/2   | 1.9           | 0.3+0.2/2     | 0.25              | 0.95           |
| 121    |           | 1   | 2.0        | 1.0+0.8/2   | 0.9           | 0.3+0.2/2     | 0.25              | 4.5            |
| 122    |           | 1   | 5.0        | 3+2.0/2     | 2.5           | 0.45+0.3/2    | 0.375             | 4.68           |
| 123    | 3500-3600 | 1   | 8.0        | 2.0+1.8/2   | 1.9           | 0.45+0.3/2    | 0.375             | 5.7            |
| 124    |           | 1   | 1.0        | 1.5+1.3/2   | 1.4           | 0.3+0.2/2     | 0.25              | 0.35           |
| 125    |           | 1   | 18.0       | 2+1.5+2.5/3 | 2.0           | 0.45+0.3/2    | 0.375             | 13.5           |
| 126    | 3600-3700 | 1   | 5.0        | 4.0+3.8/2   | 3.9           | 0.6+0.45/2    | 0.525             | 10.23          |
| 127    |           | 1   | 5.0        | 2.0+1.8/2   | 1.9           | 0.45+0.3/2    | 0.375             | 3.56           |
| 128    |           | 1   | 5.0        | 1.0+0.8/2   | 0.9           | 0.3+0.2/2     | 0.25              | 1.12           |
| 129    | 3700-3900 | 1   | 2.0        | 1.0+0.8/2   | 0.9           | 0.3+0.2/2     | 0.25              | 0.45           |
| 130    |           | 2   | 1.0        | 1.0+0.8/2   | 0.9           | 0.3+0.2/2     | 0.25              | 0.45           |
| 131    |           | 1   | 2.0        | 2.0+1.8/2   | 1.9           | 0.3+0.2/2     | 0.25              | 0.95           |
| 132    |           | 1   | 5.0        | 2+2.5/2     | 2.25          | 0.45+0.3/2    | 0.375             | 4.21           |
| 133    |           | 2   | 1.0        | 1.0+0.9/2   | 0.95          | 0.3+0.2/2     | 0.25              | 0.47           |

## Appendix - 1

## Measurement for surfacing the Breach with Brick Bat

| Sl No.          | Chainage  | Nos | Length (M) | Width (M)               | Av. Width (M) | Thickness (M) | Av. Thickness (M) | Quantity (cum) |
|-----------------|-----------|-----|------------|-------------------------|---------------|---------------|-------------------|----------------|
| 134             | 3900-4000 | 1   | 3.0        | 2.0+1.5/2               | 1.25          | 0.45+0.3/2    | 0.375             | 1.40           |
| 135             |           |     | 2.5        | 2+1.5/2                 | 1.25          | .03+0.2/2     | 0.25              | 0.78           |
| 136             |           |     | 3.0        | 2.5+3/2                 | 2.75          | 0.45+0.3/2    | 0.375             | 3.09           |
| 137             |           |     | 4.5        | 4.0+3.8/2               | 3.9           | 0.6+0.45/2    | 0.525             | 9.21           |
| 138             |           |     | 3.0        | 2.0+1.8/2               | 1.9           | 0.3+0.2/2     | 0.25              | 1.42           |
| 139             |           |     | 3.0        | 2.0+1.9/2               | 1.95          | 0.45+0.3/2    | 0.375             | 2.19           |
| 140             |           |     | 3.0        | 3.5+3.3/2               | 3.4           | 0.6+0.45/2    | 0.525             | 5.35           |
| 141             |           |     | 4.0        | 2.0+1.8/2               | 1.9           | 0.45+0.3/2    | 0.375             | 1.35           |
| 142             |           |     | 2.5        | 1.0+0.8/2               | 0.9           | 0.45+0.3/2    | 0.375             | 0.84           |
| 143             | 4000-4400 |     |            |                         |               |               |                   |                |
| 144             |           |     | 7.0        | 4.0+3.8/2               | 3.9           | 0.6+0.45/2    | 0.525             | 14.33          |
| 145             |           |     | 4.0        | 1.5+1.3/2               | 1.4           | 0.45+0.3/2    | 0.375             | 2.1            |
| 146             | 4400-4500 |     | 12.0       | 4.0+3.8/2               | 3.9           | 0.9+0.6/2     | 0.75              | 35.1           |
| 147             | 4900-5000 | 4   | 1.0        | 1.0+0.8/2               | 0.9           | 0.3+0.2/2     | 0.25              | 0.9            |
| 148             |           | 1   | 2.0        | 2.0+1.8/2               | 1.9           | 0.3+0.2/2     | 0.25              | 0.95           |
| 149             | 5000-5100 | 1   | 1.5        | 1.0+0.8/2               | 0.9           | 0.3+0.2/2     | 0.25              | 0.33           |
| 150             |           | 3   | 1.0        | 1.0+0.8/2               | 0.9           | 0.3+0.2/2     | 0.25              | 0.67           |
| 151             | 5100-5300 | 1   | 2          | 1.5+1.4/2               | 1.45          | 0.3+0.2/2     | 0.25              | 0.72           |
| 152             |           |     | 1          | 1.0+0.8/2               | 0.9           | 0.3+0.2/2     | 0.25              | 0.22           |
| 153             | 5300-5500 | 3   | 1.0        | 1.0+0.9/2               | 0.95          | 0.3+0.2/2     | 0.25              | 0.71           |
| 154             | 5500-5700 | 1   | 2.5        | 2.0+1.8/2               | 1.9           | 0.3+0.2/2     | 0.25              | 1.18           |
| 155             |           | 1   | 3.0        | 3.5+3.3/2               | 3.4           | 0.45+0.3/2    | 0.375             | 3.82           |
| 156             |           | 1   | 5.0        | 4.0+0.83 <sup>1/2</sup> | 3.9           | 0.6+0.45/2    | 0.525             | 10.23          |
| 157             |           | 1   | 6.0        | 1.5+1.3/2               | 1.4           | 0.45+0.3/2    | 0.375             | 3.15           |
| 158             |           | 1   | 2          | 2.0+1.8 <sup>1/2</sup>  | 1.9           | 0.3+0.2/2     | 0.25              | 0.95           |
| Total 1128.28M³ |           |     |            |                         |               |               |                   |                |

*[Signature]*  
31/3/24

Junior Engineer  
Rural Works Department  
Works Section Nautan

*[Signature]*  
30/3/24

Assistant Engineer  
Rural Works Department  
Works Sub Division Nautan

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30.9.20

Executive Engineer  
Rural Works Department  
Works Division Bettiah