

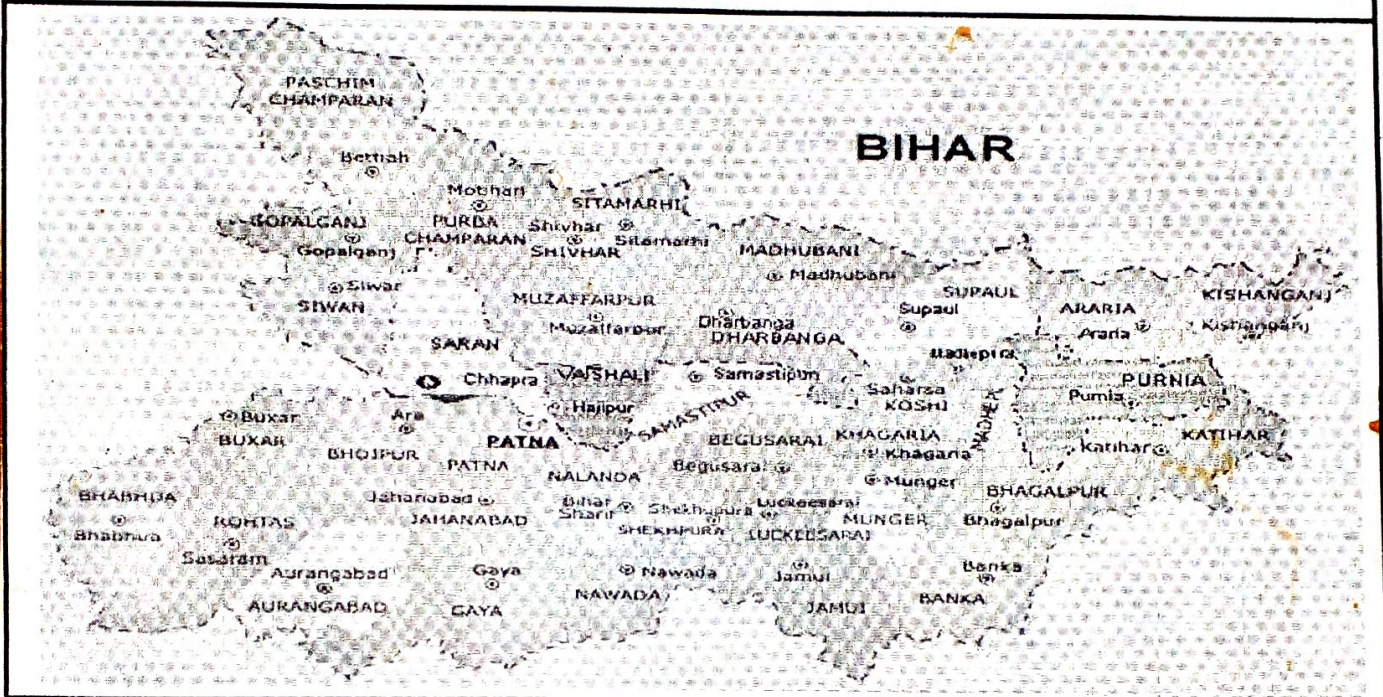


# ग्रामीण कार्य विभाग

Rural Works Department, Govt of Bihar

2021-22

## FLOOD DAMAGED REPORT



### Kalyanpur Mahavir Mandir to Mahasari Road

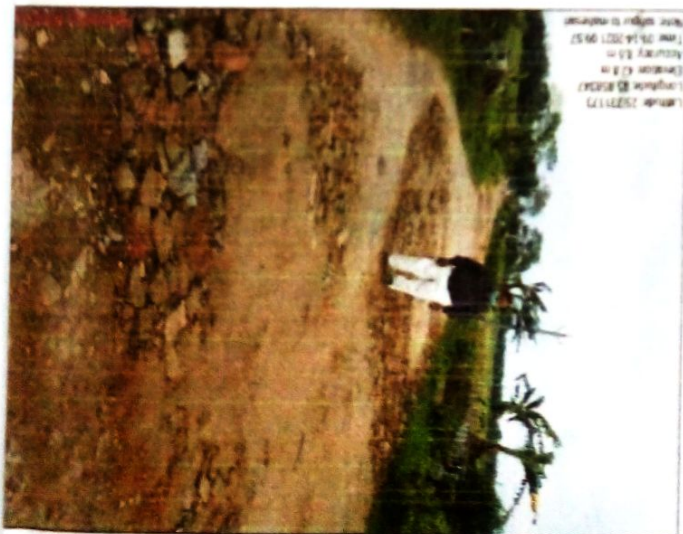
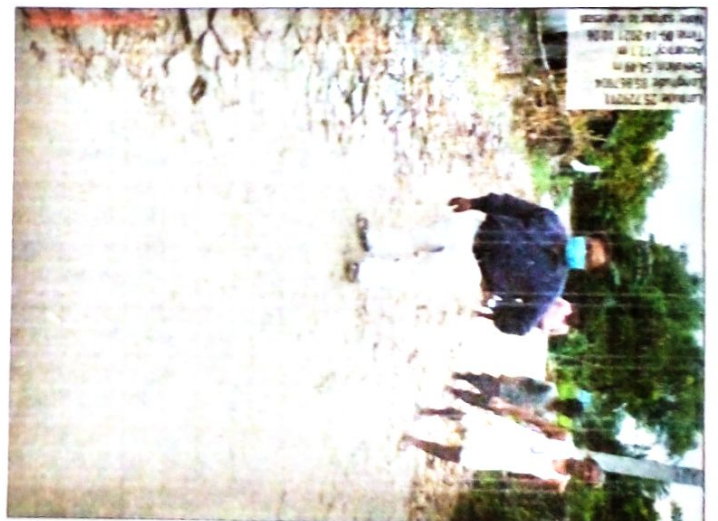
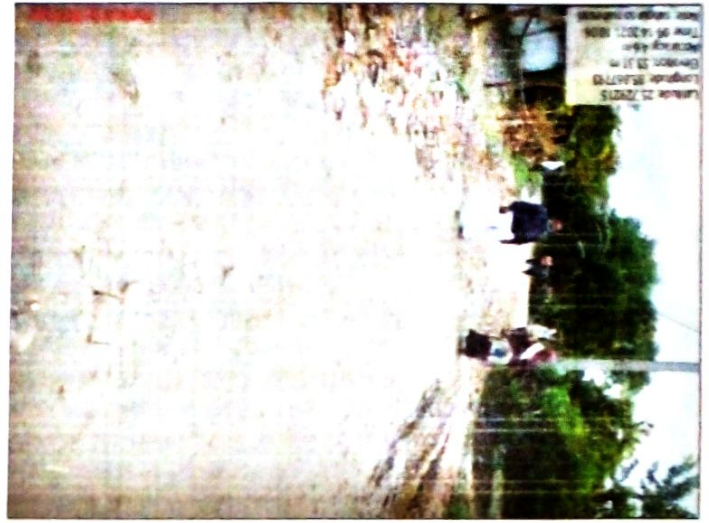
|                       |   |                |     |
|-----------------------|---|----------------|-----|
| DISTRICT              | - | Samastipur     |     |
| DIVISION              | - | Dalsingh Sarai |     |
| BLOCK                 | - | Bibhutipur     |     |
| TOTAL LENGTH OF ROAD  | - | 5.30           | KM  |
| TOTAL COST OF PROJECT | - | 16.55<br>12.6  | Lac |

12.13 lac



# Site Photograph

Name of Road:- Kalyanpur Mahavir Mandir to Mahesari Dist- Samastipur  
Block



16.01.23

24/10/21  
ME



FDR  
YEAR (2021-2022)  
GENERAL ABSTRACT OF COST

BLOCK :- BIBHUTIPUR

DISTRICT :- SAMASTIPUR

NAME OF ROAD :- Repair of Road in Kalyanpur Mahavir Mandir to Mahasari Road

| Sl. NO | ITEM OF WORK               | AMOUNT      |
|--------|----------------------------|-------------|
| A      |                            |             |
|        | TOTAL COST OF CONSTRUCTION | Rs. 1655182 |
|        | SUB TOTAL                  | Rs. 1655182 |

*[Signature]*  
28/10/21

Junior Engineer

RWD (W) Section, Bibhutipur

*[Signature]*  
28/11/21

Assistant Engineer

RWD (W) Sub Division,  
Bibhutipur

*[Signature]*  
02/12/21

Executive Engineer  
RWD, Works Division,  
Dalsinghsarai

12.13

Technical Carry Approved for Rs 12.13 Lac say Twelve Lac,  
thirteen ~~lacs~~ thousand only including OMC 1%,  
C.P 10% only.

*[Signature]*  
10/12/21  
T.A

*[Signature]*  
10.12.21

बिबुतपुर कार्य विभाग  
कार्य संचालक, बिबुतपुर

*[Signature]*  
10.12.21

**SUMMARY OF COST ESTIMAT FOR THE PROJECT**

**NAME OF ROAD :- Repair of Road in Kalyanpur Mahavir Mandir to Mahasari F**

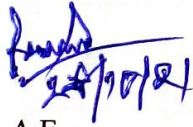
**DISTRICT SAMASTIPUR**

**BLOCK BIBHUTIPUR**

| S.NO | DESCRIPTION                               | AMOUNT LAKH                    |
|------|-------------------------------------------|--------------------------------|
| 1    | BRICK BAT                                 | <del>1464762.884</del> 1073221 |
|      | SUB TOTAL:-                               | <del>1464762.884</del> 28786   |
|      | 12% GST on Total Amount:-                 | 175771.546 10732               |
|      | 1% lab cess                               | <del>14647.629</del>           |
|      | Total Cost (including GST and Labour Cess | <del>1655182.059</del> 1212739 |

  
28/10/21

J.E

  
28/10/21

A.E

  
02/12/21

E.E



| SL.NO | SDB<br>SL.NO | MORD<br>Ref. No | Description                                                                           | Unit |                  |                  |                  |                 |                  | Quantity | Rate | Amount |
|-------|--------------|-----------------|---------------------------------------------------------------------------------------|------|------------------|------------------|------------------|-----------------|------------------|----------|------|--------|
| 4     |              |                 | <b>BrickBats</b>                                                                      |      |                  |                  |                  |                 |                  |          |      |        |
|       |              |                 | Laying Brick Bats on Prepared Soil Surface as per specifications and direction of E/L |      |                  |                  |                  |                 |                  |          |      |        |
|       |              |                 |                                                                                       | cum  | <del>1.00</del>  | <del>28.00</del> | <del>3.800</del> | <del>0.40</del> | <del>42.56</del> |          |      |        |
|       |              |                 |                                                                                       | cum  | 2.00             | 1.50             | 0.250            |                 | 0.75             |          |      |        |
|       |              |                 |                                                                                       | cum  | 3.00             | 2.00             | 0.300            |                 | 1.80             |          |      |        |
|       |              |                 |                                                                                       | cum  | 6.00             | 2.00             | 0.300            |                 | 3.60             |          |      |        |
|       |              |                 |                                                                                       | cum  | 4.00             | 3.00             | 0.200            |                 | 2.40             |          |      |        |
|       |              |                 |                                                                                       | cum  | <del>30.00</del> | <del>2.50</del>  | <del>0.400</del> |                 | <del>30.00</del> |          |      |        |
|       |              |                 |                                                                                       | cum  | 8.00             | 3.00             | 0.300            |                 | 7.20             |          |      |        |
|       |              |                 |                                                                                       | cum  | 2.00             | 3.00             | 3.000            | 0.30            | 5.40             |          |      |        |
|       |              |                 |                                                                                       | cum  | 1.00             | 15.00            | 3.500            | 0.30            | 15.75            |          |      |        |
|       |              |                 |                                                                                       | cum  | 10.00            | 3.50             | 0.200            |                 | 7.00             |          |      |        |
|       |              |                 |                                                                                       | cum  | 2.00             | 5.00             | 3.500            | 0.30            | 10.50            |          |      |        |
|       |              |                 |                                                                                       | cum  | 6.00             | 4.00             | 2.000            | 0.45            | 21.60            |          |      |        |
|       |              |                 |                                                                                       | cum  | 4.00             | 4.00             | 0.400            |                 | 6.40             |          |      |        |
|       |              |                 |                                                                                       | cum  | 6.00             | 4.00             | 0.250            |                 | 6.00             |          |      |        |
|       |              |                 |                                                                                       | cum  | 5.00             | 3.50             | 0.300            |                 | 5.25             |          |      |        |
|       |              |                 |                                                                                       | cum  | 6.00             | 3.80             | 0.400            |                 | 9.12             |          |      |        |
|       |              |                 |                                                                                       | cum  | 2.00             | 3.50             | 3.000            | 0.30            | 6.30             |          |      |        |
|       |              |                 |                                                                                       | cum  | 10.60            | 3.80             | 0.400            |                 | 16.11            |          |      |        |
|       |              |                 |                                                                                       | cum  | 8.00             | 4.00             | 0.300            |                 | 9.60             |          |      |        |
|       |              |                 |                                                                                       | cum  | <del>2.00</del>  | <del>11.50</del> | <del>4.200</del> | <del>0.45</del> | <del>43.47</del> |          |      |        |
|       |              |                 |                                                                                       | cum  | <del>28.00</del> | <del>4.00</del>  | <del>0.300</del> |                 | <del>33.60</del> |          |      |        |
|       |              |                 |                                                                                       | cum  | 16.50            | 3.80             | 0.300            |                 | 18.81            |          |      |        |
|       |              |                 |                                                                                       | cum  | 2.00             | 12.50            | 3.600            | 0.30            | 27.00            |          |      |        |
|       |              |                 |                                                                                       | cum  | 6.00             | 2.50             | 0.300            |                 | 4.50             |          |      |        |
|       |              |                 |                                                                                       | cum  | 7.00             | 4.20             | 3.600            | 0.20            | 21.17            |          |      |        |
|       |              |                 |                                                                                       | cum  | 3.00             | 2.00             | 0.300            |                 | 1.80             |          |      |        |
|       |              |                 |                                                                                       | cum  | 6.00             | 2.50             | 0.300            |                 | 4.50             |          |      |        |
|       |              |                 |                                                                                       | cum  | 4.50             | 3.50             | 0.300            |                 | 4.73             |          |      |        |
|       |              |                 |                                                                                       | cum  | 2.00             | 6.00             | 2.500            | 0.30            | 9.00             |          |      |        |
|       |              |                 |                                                                                       | cum  | 3.00             | 5.50             | 3.600            | 0.20            | 11.88            |          |      |        |

Damaged Strech





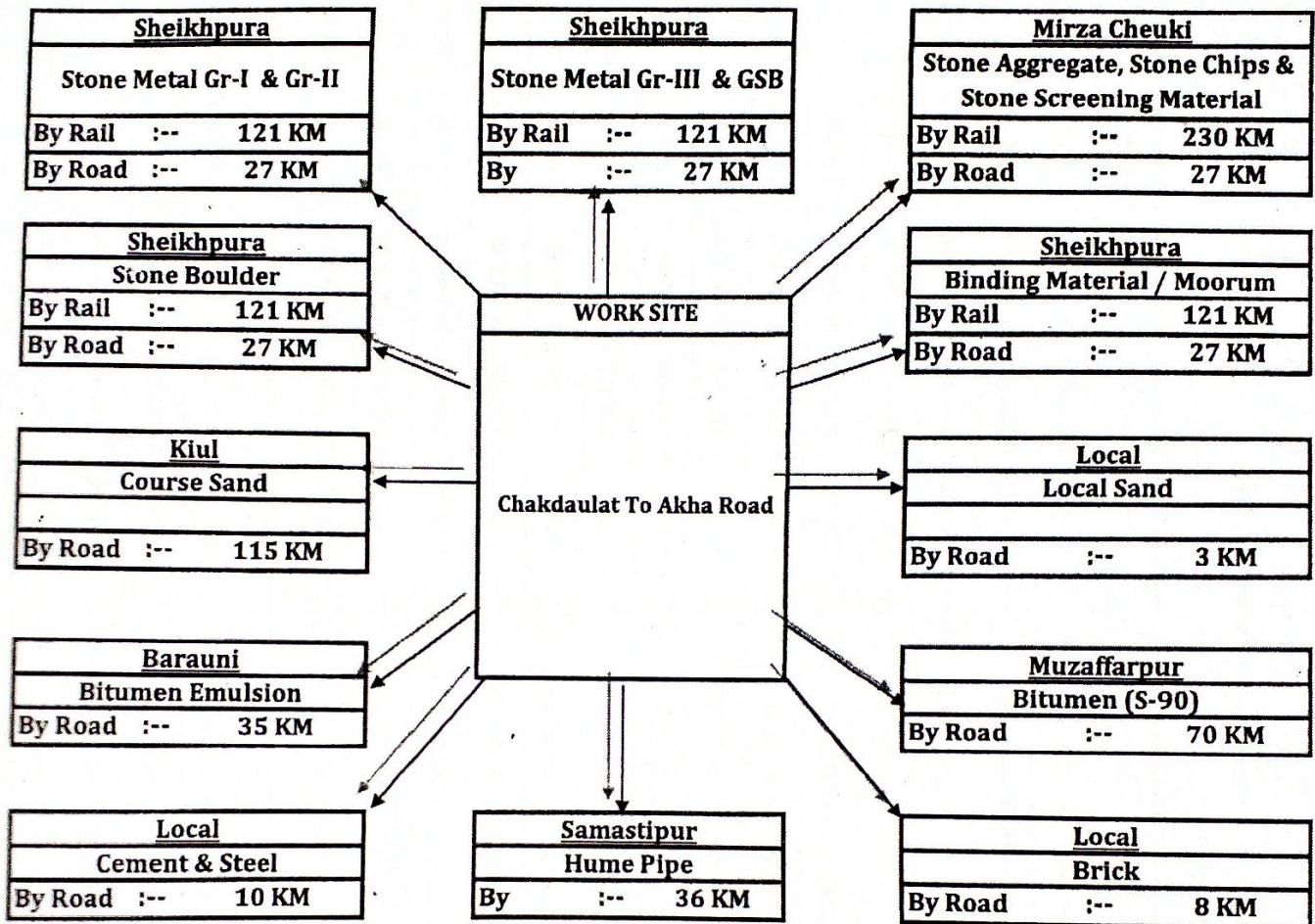


Figure -3

**Quarry Map**

Name of Road :-- Kalyanpur Mahavir Mandir to Mahasari Road  
 Block :-- Bibhutipur  
 District :-- Samastipur

Length of the Road:- 5.30 KM



\* Subjected to Verification of Lead

*[Signature]*  
28/10/21  
J.E.

*[Signature]*  
25/11/21  
A.E.

*[Signature]*  
02-12-21  
E.E.

S.E.



| SI No | Item with Source                                      | Unit     | Source Up to | Carriage Cost & Lead in Km |                          |              |                      | Loading & Unloading Cost | Carriage Cost by Rail Head | Total ₹     | Total ₹ Minimum |
|-------|-------------------------------------------------------|----------|--------------|----------------------------|--------------------------|--------------|----------------------|--------------------------|----------------------------|-------------|-----------------|
|       |                                                       |          |              | Pukka / Surface            |                          | Katcha       |                      |                          |                            |             |                 |
| 1     | Stone Metal Gr-I & Gr-II (Sheikhpura by Rail 121 Km)  | Cum      | Sheikhpura   | 8.00 x 10.10               | x 38.00 Km = Rs 668.93   | 8.00 x 24.30 | x 0.00 Km = Rs 0.00  | 105.12                   | 1025.87                    | Rs. 1799.92 | Rs. 1799.92     |
|       | Stone Metal Gr-I & Gr-II                              | Cum      | Sheikhpura   | 4.59 x 7.94                | x 137.00 Km = Rs 1895.91 | 4.59 x 19.22 | x 0.00 Km = Rs 0.00  | 210.19                   |                            | Rs. 2106.10 |                 |
| 2     | Stone Metal Gr-III (Sheikhpura by Rail 121 Km)        | Cum      | Sheikhpura   | 8.00 x 10.10               | x 38.00 Km = Rs 615.31   | 8.00 x 24.30 | x 0.00 Km = Rs 0.00  | 105.12                   | 1128.34                    | Rs. 1848.77 | Rs. 1848.77     |
|       | Stone Metal Gr-III                                    | Cum      | Sheikhpura   | 4.99 x 7.94                | x 137.00 Km = Rs 1743.94 | 4.99 x 19.22 | x 0.00 Km = Rs 0.00  | 210.19                   | 1128.34                    | Rs. 3082.47 | Rs. 3082.47     |
| 3     | Stone Aggregate / Chips (Mirza Chowki by Rail 230 Km) | Cum      | Sheikhpura   | 8.00 x 10.10               | x 38.00 Km = Rs 615.31   | 8.00 x 24.30 | x 0.00 Km = Rs 0.00  | 105.12                   | 1588.15                    | Rs. 2308.58 | Rs. 2308.58     |
|       | Stone Aggregate / Chips                               | Cum      | Sheikhpura   | 4.99 x 7.94                | x 137.00 Km = Rs 1743.94 | 4.99 x 19.22 | x 0.00 Km = Rs 0.00  | 210.19                   | 1588.15                    | Rs. 3542.28 | Rs. 3542.28     |
| 4     | Stone Boulder (Sheikhpura by Rail 121 Km)             | Cum      | Sheikhpura   | 8.00 x 10.10               | x 38.00 Km = Rs 639.67   | 8.00 x 24.30 | x 0.00 Km = Rs 0.00  | 105.12                   | 1159.81                    | Rs. 1904.60 | Rs. 1904.60     |
|       | Stone Boulder                                         | Cum      | Sheikhpura   | 4.80 x 7.94                | x 137.00 Km = Rs 1812.97 | 4.80 x 19.22 | x 0.00 Km = Rs 0.00  | 210.19                   | 1159.81                    | Rs. 3182.97 | Rs. 3182.97     |
| 5     | Course Sand                                           | Cum      | Kdul         | 8.00 x 7.94                | x 208.00 Km = Rs 2647.73 | 8.00 x 19.22 | x 0.00 Km = Rs 0.00  | 113.67                   |                            | Rs. 2761.40 | Rs. 2761.40     |
|       | Binding Material/Moorum (Sheikhpura by Rail 121 Km)   | Cum      | Sheikhpura   | 8.00 x 10.10               | x 38.00 Km = Rs 511.73   | 8.00 x 24.30 | x 0.00 Km = Rs 0.00  | 113.67                   | 851.49                     | Rs. 1476.89 | Rs. 1476.89     |
| 6     | Binding Material/Moorum                               | Cum      | Sheikhpura   | 6.00 x 7.94                | x 137.00 Km = Rs 1450.37 | 6.00 x 19.22 | x 0.00 Km = Rs 0.00  | 66.31                    | 851.49                     | Rs. 2368.17 | Rs. 2368.17     |
| 7     | Local Sand                                            | Cum      | Local        | 8.00 x 10.10               | x 2.00 Km = Rs 32.38     | 8.00 x 24.30 | x 1.00 Km = Rs 38.96 | 113.67                   |                            | Rs. 185.01  | Rs. 185.01      |
| 8     | Brick                                                 | 1000 Nos | Local        | 8.00 x 7.94                | x 7.00 Km = Rs 222.32    | 8.00 x 19.22 | x 1.00 Km = Rs 76.88 | 477.44                   |                            | Rs. 776.64  | Rs. 776.64      |
| 9     | Cement                                                | MT       | Local        | 8.00 x 7.94                | x 10.00 Km = Rs 79.40    | 8.00 x 19.22 | x 0.00 Km = Rs 0.00  | 347.32                   |                            | Rs. 426.72  | Rs. 426.72      |
| 10    | Steel                                                 | MT       | Local        | 8.00 x 7.94                | x 10.00 Km = Rs 79.40    | 8.00 x 19.22 | x 0.00 Km = Rs 0.00  | 370.58                   |                            | Rs. 449.98  | Rs. 449.98      |
| 11    | Bitumen Emulsion                                      | MT       | Barauni      | 8.00 x 7.94                | x 82.00 Km = Rs 651.08   | 8.00 x 19.22 | x 0.00 Km = Rs 0.00  | 396.98                   |                            | Rs. 1048.06 | Rs. 1048.06     |
| 12    | Bitumen                                               | MT       | Muzaffarpur  | 8.00 x 7.94                | x 91.00 Km = Rs 722.54   | 8.00 x 19.22 | x 0.00 Km = Rs 0.00  | 396.98                   |                            | Rs. 1119.52 | Rs. 1119.52     |
| 13    | Hume Pipe (1000 mm)                                   | m        | Samastipur   | 8.00 x 7.94                | x 36.00 Km = Rs 228.67   | 8.00 x 19.22 | x 0.00 Km = Rs 0.00  | 70.84                    |                            | Rs. 299.51  | Rs. 299.51      |
| 14    | Hume Pipe (600 mm)                                    | m        | Samastipur   | 8.00 x 7.94                | x 36.00 Km = Rs 91.47    | 8.00 x 19.22 | x 0.00 Km = Rs 0.00  | 30.36                    |                            | Rs. 121.83  | Rs. 121.83      |
| 15    | Hume Pipe (300 mm)                                    | m        | Samastipur   | 8.00 x 7.94                | x 36.00 Km = Rs 38.11    | 8.00 x 19.22 | x 0.00 Km = Rs 0.00  | 30.36                    |                            | Rs. 68.47   | Rs. 68.47       |

Cost of Haulage Excluding Loading & Unloading as per 80H as

| Type of Road          | ₹ Per Ton. Km by Tipper | ₹ Per Ton. Km by Truck |
|-----------------------|-------------------------|------------------------|
| For Surface Road      | 10.10                   | 7.94                   |
| Unsurface Gravel Road | 12.10                   | 9.55                   |
| Kachha Road           | 24.30                   | 19.22                  |

★ Subjected to Verification of Lead

*[Signature]*  
28/10/21

JE  
RWD

*[Signature]*  
28/10/21

AE  
PWD

*[Signature]*  
02/12

EE  
RWD

FORM F8



| SI No | Item with Source                                      | Unit     | Source Up to | Carriage Cost & Lead in Km |         |                          | Katcha        |         |                      | Loading & Unloading Cost | Carriage Cost by Rail Head | Total ₹     | Total ₹ Minimum |
|-------|-------------------------------------------------------|----------|--------------|----------------------------|---------|--------------------------|---------------|---------|----------------------|--------------------------|----------------------------|-------------|-----------------|
|       |                                                       |          |              | Pucka / Surface            |         |                          |               |         |                      |                          |                            |             |                 |
| 1     | Stone Metal Gr-I & Gr-II (Sheikhpura by Rail 121 Km)  | Cum      | Sheikhpura   | 8.00<br>4.59               | x 10.10 | x 38.00 Km = Rs 668.93   | 8.00<br>4.59  | x 24.30 | x 0.00 Km = Rs 0.00  | 105.12                   | 1025.87                    | Rs. 1799.92 | Rs. 1799.92     |
|       | Stone Metal Gr-I & Gr-II                              | Cum      | Sheikhpura   | 8.00<br>4.59               | x 7.94  | x 137.00 Km = Rs 1895.91 | 8.00<br>4.59  | x 19.22 | x 0.00 Km = Rs 0.00  | 210.19                   |                            | Rs. 2106.10 |                 |
| 2     | Stone Metal Gr-III (Sheikhpura by Rail 121 Km)        | Cum      | Sheikhpura   | 8.00<br>4.99               | x 10.10 | x 38.00 Km = Rs 615.31   | 8.00<br>4.99  | x 24.30 | x 0.00 Km = Rs 0.00  | 105.12                   | 1128.34                    | Rs. 1848.77 | Rs. 1848.77     |
|       | Stone Metal Gr-III                                    | Cum      | Sheikhpura   | 8.00<br>4.99               | x 7.94  | x 137.00 Km = Rs 1743.94 | 8.00<br>4.99  | x 19.22 | x 0.00 Km = Rs 0.00  | 210.19                   | 1128.34                    | Rs. 3082.47 | Rs. 3082.47     |
| 3     | Stone Aggregate / Chips (Mirza Chowki by Rail 230 Km) | Cum      | Sheikhpura   | 8.00<br>4.99               | x 10.10 | x 38.00 Km = Rs 615.31   | 8.00<br>4.99  | x 24.30 | x 0.00 Km = Rs 0.00  | 105.12                   | 1588.15                    | Rs. 2308.58 | Rs. 2308.58     |
|       | Stone Aggregate / Chips                               | Cum      | Sheikhpura   | 8.00<br>4.99               | x 7.94  | x 137.00 Km = Rs 1743.94 | 8.00<br>4.99  | x 19.22 | x 0.00 Km = Rs 0.00  | 210.19                   | 1588.15                    | Rs. 3542.28 | Rs. 3542.28     |
| 4     | Stone Boulder (Sheikhpura by Rail 121 Km)             | Cum      | Sheikhpura   | 8.00<br>4.80               | x 10.10 | x 38.00 Km = Rs 639.67   | 8.00<br>4.80  | x 24.30 | x 0.00 Km = Rs 0.00  | 105.12                   | 1159.81                    | Rs. 1904.60 | Rs. 1904.60     |
|       | Stone Boulder                                         | Cum      | Sheikhpura   | 8.00<br>4.80               | x 7.94  | x 137.00 Km = Rs 1812.97 | 8.00<br>4.80  | x 19.22 | x 0.00 Km = Rs 0.00  | 210.19                   | 1159.81                    | Rs. 3182.97 | Rs. 3182.97     |
| 5     | Course Sand                                           | Cum      | Ktul         | 8.00<br>4.99               | x 7.94  | x 208.00 Km = Rs 2647.73 | 8.00<br>4.99  | x 19.22 | x 0.00 Km = Rs 0.00  | 113.67                   |                            | Rs. 2761.40 | Rs. 2761.40     |
| 6     | Binding Material/Moorum (Sheikhpura by Rail 121 Km)   | Cum      | Sheikhpura   | 8.00<br>6.00               | x 10.10 | x 38.00 Km = Rs 511.73   | 8.00<br>6.00  | x 24.30 | x 0.00 Km = Rs 0.00  | 113.67                   | 851.49                     | Rs. 1476.89 | Rs. 1476.89     |
|       | Binding Material/Moorum                               | Cum      | Sheikhpura   | 8.00<br>6.00               | x 7.94  | x 137.00 Km = Rs 1450.37 | 8.00<br>6.00  | x 19.22 | x 0.00 Km = Rs 0.00  | 66.31                    | 851.49                     | Rs. 2368.17 | Rs. 2368.17     |
| 7     | Local Sand                                            | Cum      | Local        | 8.00<br>4.99               | x 10.10 | x 2.00 Km = Rs 32.38     | 8.00<br>4.99  | x 24.30 | x 1.00 Km = Rs 38.96 | 113.67                   |                            | Rs. 185.01  | Rs. 185.01      |
| 8     | Brick                                                 | 1000 Nos | Local        | 8.00<br>2.00               | x 7.94  | x 7.00 Km = Rs 222.32    | 8.00<br>2.00  | x 19.22 | x 1.00 Km = Rs 76.88 | 477.44                   |                            | Rs. 776.64  | Rs. 776.64      |
| 9     | Cement                                                | MT       | Local        | 8.00<br>8.00               | x 7.94  | x 10.00 Km = Rs 79.40    | 8.00<br>8.00  | x 19.22 | x 0.00 Km = Rs 0.00  | 347.32                   |                            | Rs. 426.72  | Rs. 426.72      |
| 10    | Steel                                                 | MT       | Local        | 8.00<br>8.00               | x 7.94  | x 10.00 Km = Rs 79.40    | 8.00<br>8.00  | x 19.22 | x 0.00 Km = Rs 0.00  | 370.58                   |                            | Rs. 449.98  | Rs. 449.98      |
| 11    | Bitumen Emulsion                                      | MT       | Barauni      | 8.00<br>8.00               | x 7.94  | x 82.00 Km = Rs 651.08   | 8.00<br>8.00  | x 19.22 | x 0.00 Km = Rs 0.00  | 396.98                   |                            | Rs. 1048.06 | Rs. 1048.06     |
| 12    | Bitumen                                               | MT       | Muzaffarpur  | 8.00<br>8.00               | x 7.94  | x 91.00 Km = Rs 722.54   | 8.00<br>8.00  | x 19.22 | x 0.00 Km = Rs 0.00  | 396.98                   |                            | Rs. 1119.52 | Rs. 1119.52     |
| 13    | Hume Pipe (1000 mm)                                   | m        | Samastipur   | 8.00<br>10.00              | x 7.94  | x 36.00 Km = Rs 228.67   | 8.00<br>10.00 | x 19.22 | x 0.00 Km = Rs 0.00  | 70.84                    |                            | Rs. 299.51  | Rs. 299.51      |
| 14    | Hume Pipe (600 mm)                                    | m        | Samastipur   | 8.00<br>25.00              | x 7.94  | x 36.00 Km = Rs 91.47    | 8.00<br>25.00 | x 19.22 | x 0.00 Km = Rs 0.00  | 30.36                    |                            | Rs. 121.83  | Rs. 121.83      |
| 15    | Hume Pipe (300 mm)                                    | m        | Samastipur   | 8.00<br>60.00              | x 7.94  | x 36.00 Km = Rs 38.11    | 8.00<br>60.00 | x 19.22 | x 0.00 Km = Rs 0.00  | 30.36                    |                            | Rs. 68.47   | Rs. 68.47       |

Cost of Haulage Excluding Loading & Unloading as per 80H an

| Type of Road          | ₹ Per Ton. Km by Tipper | ₹ Per Ton. Km by Truck |
|-----------------------|-------------------------|------------------------|
| For Surface Road      | 10.10                   | 7.94                   |
| Unsurface Gravel Road | 12.10                   | 9.55                   |
| Kachha Road           | 24.30                   | 19.22                  |

\* Subjected to Verification of Lead

FORM F8

 AE  
 EE  
 RWD RWD

JE RWD



## Analysis for Carrige Through Railway from Quarry Site to Work Site

### Sheikhpura to Karpurigram

#### Material -Stone Boulder

Quarry Site to Sheikhpura Railway Yard (By Road)

| Pucka / Surface                    |                              | Carriage Cost & Lead in Km |                     | Katcha  |                     | Loading & Unloading |             | Total       |
|------------------------------------|------------------------------|----------------------------|---------------------|---------|---------------------|---------------------|-------------|-------------|
| $\frac{8.00}{4.80}$                | x 10.10 x 4.00 Km = Rs 67.33 | +                          | $\frac{8.00}{4.80}$ | x 24.30 | x 0.00 Km = Rs 0.00 | +                   | Rs 105.12   | = Rs 172.45 |
| UnSurface                          |                              |                            | $\frac{8.00}{4.80}$ | x 12.10 | x 1.00 Km           |                     |             | = Rs 20.17  |
| Loading & Unloading Cost by manual |                              |                            |                     |         |                     |                     | = Rs 210.19 | = Rs 210.19 |
|                                    |                              |                            |                     |         |                     |                     | Total       | = Rs 402.81 |
| Less for O.H & C.P                 |                              | = Rs 402.81 / 1.166        |                     |         | = Rs 345.46         |                     | Total 'A'   | = Rs 345.46 |

Sheikhpura Railway Yard to Karpurigram

Railway Yard = 121.00 Km

|                                                                                       |                   |           |             |             |
|---------------------------------------------------------------------------------------|-------------------|-----------|-------------|-------------|
| Railway freight charge from Sheikhpura Railway station to Karpurigram Railway station | = For 1 MT        | 121.00 Km | = Rs 231.30 | = Rs 231.30 |
| Busy Season charge 15% of Railway freight charge                                      | = For 1 MT        |           | = 15%       | = Rs 34.70  |
| Railway Development Charge to 5% of Railway freight Charge                            | For 1 MT          |           | = 5%        | = Rs 11.57  |
| Terminal charge @Rs.40.00 per Terminal per MT                                         | For 1 MT          | 2         | x Rs 40.00  | = Rs 80.00  |
| GST 0% (4% included in Overhead Charges) = Rs 357.57 x 0%                             |                   |           |             | = Rs 0.00   |
| Total                                                                                 | =                 | For 1 MT  |             | = Rs 357.57 |
| Rail Freight =                                                                        | 1.667 x Rs 357.57 | For 1 MT  | "B"         | = Rs 595.94 |

Gross Cost for Railway freight charge "A" - "B" For 1 Cum = Rs 953.42

Add 12% Overhead Charge = 12% = Rs 112.97

Add 10% Contractor Profit = 10% = Rs 105.44

Carriage Cost from Quarry to Karpurigram Railway Yard For 1 Cum = Rs 1159.81

## Analysis for Carrige Through Railway from Quarry Site to Work Site

### Sheikhpura to Karpurigram

#### Binding Material /Moorum

Quarry Site to Sheikhpura Railway Yard (By Road)

| Pucka / Surface                    |                              | Carriage Cost & Lead in Km |                     | Katcha  |                     | Loading & Unloading |             | Total       |
|------------------------------------|------------------------------|----------------------------|---------------------|---------|---------------------|---------------------|-------------|-------------|
| $\frac{8.00}{6.00}$                | x 10.10 x 4.00 Km = Rs 53.87 | +                          | $\frac{8.00}{6.00}$ | x 24.30 | x 0.00 Km = Rs 0.00 | +                   | Rs 66.31    | = Rs 120.18 |
| UnSurface                          |                              |                            | $\frac{8.00}{6.00}$ | x 12.10 | x 1.00 Km           |                     |             | = Rs 16.13  |
| Loading & Unloading Cost by manual |                              |                            |                     |         |                     |                     | = Rs 113.67 | = Rs 113.67 |
|                                    |                              |                            |                     |         |                     |                     | Total       | = Rs 249.98 |
| Less for O.H & C.P                 |                              | = Rs 249.98 / 1.166        |                     |         | = Rs 214.59         |                     | Total 'A'   | = Rs 214.59 |



# Analysis of Rates (FORMAT F8)

|                                                                                      |                          |                    |               |
|--------------------------------------------------------------------------------------|--------------------------|--------------------|---------------|
| Sheldipura Railway Yard to Karpurgram                                                | Railway Yard = 121.00 Km |                    |               |
| Railway freight charge from Sheldipura Railway station to Karpurgram Railway station | = For 1 MT 121.00 Km     | = Rs 231.30 =      | Rs 21         |
| Buy Station charge 15% of Railway freight charge                                     | = For 1 MT               | = 15% =            | Rs 3          |
| Railway Development Charge to 5% of Railway freight Charge                           | For 1 MT                 | = 5% =             | Rs 1          |
| Terminal charge @Rs 40.00 per Terminal per MT                                        | For 1 MT 2 x Rs 40.00 =  | = Rs 80            | Rs 8          |
| GST 0% (4% included in Overhead Charge) =                                            | Rs 357.57 x 0%           | =                  | Rs 0          |
| <b>Total</b>                                                                         | <b>= For 1 MT</b>        | <b>= Rs 357.57</b> | <b>Rs 357</b> |
| <b>REMARKS:</b>                                                                      | <b>For 1 MT</b>          | <b>"B" =</b>       | <b>Rs 456</b> |
| Add 12% Overhead Charge                                                              | = 12% =                  | Rs 81              |               |
| Add 10% Contractor Profit                                                            | = 10% =                  | Rs 77.4            |               |
| <b>Final Rate per cum =</b>                                                          | <b>For 1 Cum</b>         | <b>= Rs 605</b>    |               |

| Sl. No. | SDB Sl. No. | WORD R. No. | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Quantity | Rate    | Amount  |
|---------|-------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|---------|---------|
|         |             |             | <b>Haulage BY TIPPER</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |         |         |
| 1       | 1.10        | (i)         | Haulage excluding Loading & Unloading<br>Haulage of materials by tipper excluding cost of loading, unloading and stacking.<br>Unit = tkm<br>Taking output 10 t load and lead 10 km = 100 tkm<br>Case-I: Surfaced Road<br>Speed with load: 25 km per hour<br>Speed while returning empty: 35 km per hour<br>Machinery<br>Tipper 10 t capacity<br>Haulage with load<br>Empty return trip<br>Overheads @ 12%<br>Contractor's profit @ 10% on (a+b)<br>Cost for 100 t-km = a+b+c<br>Rate per cum = (a+b+c) / 100                                                  | hour | 0.40     | 1183.00 | 473.20  |
|         |             | b)          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | hour | 0.29     | 1183.00 | 343.07  |
|         |             | c)          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 97.95   |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 91.42   |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 1005.64 |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 10.06   |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 10.10   |
| 2       | 1.10        | (ii)        | Haulage excluding Loading & Unloading<br>Haulage of materials by tipper excluding cost of loading, unloading and stacking.<br>Unit = tkm<br>Taking output 10 t load and lead 10 km = 100 tkm<br>Case-II: Unsurfaced Gravel Road.<br>Speed with load: 20 km/hour<br>Speed for empty return trip: 30 km/hour<br>Machinery<br>Tipper 10 t capacity<br>Haulage with load<br>Empty return trip<br>Overheads @ 12%<br>Contractor's profit @ 10% on (a+b)<br>Cost for 100 t-km = a+b+c<br>Rate per cum = (a+b+c) / 100                                               | hour | 0.50     | 1183.00 | 591.50  |
|         |             | b)          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | hour | 0.33     | 1183.00 | 390.39  |
|         |             | c)          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 117.83  |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 109.97  |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 1209.69 |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 12.10   |
| 3       | 1.10        | (iii)       | Haulage excluding Loading & Unloading<br>Haulage of materials by tipper excluding cost of loading, unloading and stacking.<br>Unit = tkm<br>Taking output 10 t load and lead 10 km = 100 tkm<br>Case-III: Katcha Track and Track in River Bed/Nallah Bed and Choe Bed.<br>Speed with load: 10 km per hour<br>Speed while returning empty: 15 km per hour<br>Machinery<br>Tipper 10 t capacity<br>Haulage with load<br>Empty return trip<br>Overheads @ 12%<br>Contractor's profit @ 10% on (a+b)<br>Cost for 100 t-km = a+b+c<br>Rate per cum = (a+b+c) / 100 | hour | 1.00     | 1183.00 | 1183.00 |
|         |             | b)          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | hour | 0.67     | 1183.00 | 792.61  |
|         |             | c)          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 237.07  |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 221.27  |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 2433.95 |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 24.34   |
|         |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |          |         | 24.30   |
| 4       | 1.10        | (i)         | Haulage BY TRUCK<br>Haulage excluding Loading & Unloading<br>Haulage of materials by tipper excluding cost of loading, unloading and stacking.                                                                                                                                                                                                                                                                                                                                                                                                                |      |          |         |         |



[illegible]



# Analysis of Rates (FORMAT F8)

| Sl. No. | Subst. No. | MORD RefNo. | DESCRIPTION                                                                                      | Unit       | Quantity | Rate   | Amount  |
|---------|------------|-------------|--------------------------------------------------------------------------------------------------|------------|----------|--------|---------|
|         |            |             | <b>Total Loading &amp; Unloading of Stone Aggregate</b>                                          |            |          |        |         |
|         |            |             | <b>Total Cost</b>                                                                                |            |          |        |         |
|         |            |             | <b>Rate per cum = (a+b+c+d) / 5.5</b>                                                            |            |          |        |         |
| 13      |            |             | (iv) Unloading of Earth, Sand, Moorum, Manure, Flyash by manual means including a lead upto 30 m | Unit = cum |          |        |         |
|         |            |             | Taking output = 5.5 cum                                                                          |            |          |        |         |
|         |            |             | Labour                                                                                           | day        | 0.01     | 321.00 | 3.21    |
|         |            |             | Mazdoor (Unskilled)                                                                              | day        | 0.13     | 304.00 | 39.52   |
|         |            |             | Machinery                                                                                        | hour       | 0.17     | 934.30 | 158.83  |
|         |            |             | Overheads @ 12%                                                                                  |            |          |        | 19.26   |
|         |            |             | Contractor's profit @ 10% on (a+b+c)                                                             |            |          |        | 157.87  |
|         |            |             | Cost for 5.5 cum = a+b+c+d                                                                       |            |          |        | 173.66  |
|         |            |             | Rate per cum = (a+b+c+d) / 5.5                                                                   |            |          |        | 173.66  |
|         |            |             | <b>Total Loading &amp; Unloading of Sand, Moorum</b>                                             |            |          |        |         |
|         |            |             | <b>Total Cost</b>                                                                                |            |          |        |         |
|         |            |             | <b>Rate per cum = (a+b+c+d) / 5.5</b>                                                            |            |          |        |         |
| 14      |            |             | (i) Loading, Unloading and Stacking of Bricks by Manual Means                                    |            |          |        |         |
|         |            |             | Unit = 1000 Nos.                                                                                 |            |          |        |         |
|         |            |             | Taking output = 2000 Nos.                                                                        |            |          |        |         |
|         |            |             | Labour                                                                                           | day        | 0.01     | 321.00 | 3.21    |
|         |            |             | Mazdoor (Unskilled)                                                                              | day        | 0.25     | 304.00 | 76.00   |
|         |            |             | Machinery                                                                                        | hour       | 0.33     | 934.30 | 308.32  |
|         |            |             | Overheads @ 12%                                                                                  |            |          |        | 46.54   |
|         |            |             | Contractor's profit @ 10% on (a+b+c)                                                             |            |          |        | 43.44   |
|         |            |             | Cost for 2000 Nos. = a+b+c+d                                                                     |            |          |        | 477.51  |
|         |            |             | Rate for 1000 bricks = (a+b+c+d) / 2                                                             |            |          |        | 238.75  |
| 15      |            |             | (ii) Unloading and Stacking of Bricks by manual means including a lead upto 30 m                 |            |          |        |         |
|         |            |             | Unit = 1000 Nos.                                                                                 |            |          |        |         |
|         |            |             | Taking output = 2000 Nos.                                                                        |            |          |        |         |
|         |            |             | Labour                                                                                           | day        | 0.01     | 321.00 | 3.21    |
|         |            |             | Mazdoor (Unskilled)                                                                              | day        | 0.25     | 304.00 | 76.00   |
|         |            |             | Machinery                                                                                        | hour       | 0.33     | 934.30 | 308.32  |
|         |            |             | Overheads @ 12%                                                                                  |            |          |        | 46.54   |
|         |            |             | Contractor's profit @ 10% on (a+b+c)                                                             |            |          |        | 43.44   |
|         |            |             | Cost for 2000 Nos. = a+b+c+d                                                                     |            |          |        | 477.51  |
|         |            |             | Rate for 1000 bricks = (a+b+c+d) / 2                                                             |            |          |        | 238.75  |
| 16      |            |             | (i) Loading and Unloading of Cement by Manual Means                                              |            |          |        |         |
|         |            |             | Unit = t                                                                                         |            |          |        |         |
|         |            |             | Taking output = 10 t                                                                             |            |          |        |         |
|         |            |             | Labour                                                                                           | day        | 0.06     | 321.00 | 19.26   |
|         |            |             | Mazdoor (Unskilled)                                                                              | day        | 1.50     | 304.00 | 456.00  |
|         |            |             | Machinery                                                                                        | hour       | 1.25     | 934.30 | 1167.88 |
|         |            |             | Overheads @ 12%                                                                                  |            |          |        | 200.82  |
|         |            |             | Contractor's profit @ 10% on (a+b+c)                                                             |            |          |        | 187.44  |
|         |            |             | Cost for 10 t = a+b+c+d                                                                          |            |          |        | 2061.80 |

# Analysis of Rates (FORMAT F8)

| Sl. No. | Subst. No. | MORD RefNo. | DESCRIPTION                                                                               | Unit | Quantity | Rate   | Amount  |
|---------|------------|-------------|-------------------------------------------------------------------------------------------|------|----------|--------|---------|
|         |            |             | <b>Total Loading &amp; Unloading of Cement</b>                                            |      |          |        |         |
|         |            |             | <b>Total Cost</b>                                                                         |      |          |        |         |
|         |            |             | <b>Rate per tonne = (a+b+c+d) / 10</b>                                                    |      |          |        |         |
| 17      |            |             | (ii) Unloading of Cement by manual means including a lead upto 30 m                       |      |          |        |         |
|         |            |             | Unit = t                                                                                  |      |          |        |         |
|         |            |             | Taking output = 10 t                                                                      |      |          |        |         |
|         |            |             | Labour                                                                                    | day  | 0.06     | 321.00 | 19.26   |
|         |            |             | Mazdoor (Unskilled)                                                                       | day  | 1.50     | 304.00 | 456.00  |
|         |            |             | Machinery                                                                                 | hour | 1.00     | 934.30 | 934.30  |
|         |            |             | Overheads @ 12%                                                                           |      |          |        | 169.15  |
|         |            |             | Contractor's profit @ 10% on (a+b+c)                                                      |      |          |        | 157.87  |
|         |            |             | Cost for 10 t = a+b+c+d                                                                   |      |          |        | 1736.58 |
|         |            |             | Rate per tonne = (a+b+c+d) / 10                                                           |      |          |        | 173.66  |
| 18      |            |             | (i) Loading and Unloading of Structural Steel and Steel Bars by manual means              |      |          |        |         |
|         |            |             | Unit = t                                                                                  |      |          |        |         |
|         |            |             | Taking output = 10 t                                                                      |      |          |        |         |
|         |            |             | Labour                                                                                    | day  | 0.07     | 321.00 | 22.47   |
|         |            |             | Mazdoor (Unskilled)                                                                       | day  | 1.80     | 304.00 | 547.20  |
|         |            |             | Machinery                                                                                 | hour | 1.00     | 934.30 | 934.30  |
|         |            |             | Overheads @ 12%                                                                           |      |          |        | 180.48  |
|         |            |             | Contractor's profit @ 10% on (a+b+c)                                                      |      |          |        | 168.44  |
|         |            |             | Cost for 10 t = a+b+c+d                                                                   |      |          |        | 1852.89 |
|         |            |             | Rate per tonne = (a+b+c+d) / 10                                                           |      |          |        | 185.29  |
| 19      |            |             | (ii) Unloading of Structural Steel, Steel Bars by manual means including a lead upto 30 m |      |          |        |         |
|         |            |             | Unit = t                                                                                  |      |          |        |         |
|         |            |             | Taking output = 10 t                                                                      |      |          |        |         |
|         |            |             | Labour                                                                                    | day  | 0.07     | 321.00 | 22.47   |
|         |            |             | Mazdoor (Unskilled)                                                                       | day  | 1.80     | 304.00 | 547.20  |
|         |            |             | Machinery                                                                                 | hour | 1.00     | 934.30 | 934.30  |
|         |            |             | Overheads @ 12%                                                                           |      |          |        | 180.48  |
|         |            |             | Contractor's profit @ 10% on (a+b+c)                                                      |      |          |        | 168.44  |
|         |            |             | Cost for 10 t = a+b+c+d                                                                   |      |          |        | 1852.89 |
|         |            |             | Rate per t = (a+b+c+d) / 10                                                               |      |          |        | 185.29  |
| 20      |            |             | (i) Loading and Unloading of Bitumen Drums by Manual Means                                |      |          |        |         |
|         |            |             | Unit = t                                                                                  |      |          |        |         |
|         |            |             | Taking output = 10 t                                                                      |      |          |        |         |
|         |            |             | Labour                                                                                    | day  | 0.06     | 321.00 | 19.26   |
|         |            |             | Mazdoor (Unskilled)                                                                       | day  | 1.60     | 304.00 | 486.40  |
|         |            |             | Machinery                                                                                 | hour | 1.25     | 934.30 | 1167.88 |
|         |            |             | Overheads @ 12%                                                                           |      |          |        | 200.82  |
|         |            |             | Contractor's profit @ 10% on (a+b+c)                                                      |      |          |        | 187.44  |
|         |            |             | Cost for 10 t = a+b+c+d                                                                   |      |          |        | 2061.80 |



# Analysis of Rates (FORMAT F8)

| Sl. No. | Subst. No. | MORD Ref. No. | DESCRIPTION                                                                                                                  | Unit  | Quantity | Rate   | Amount                 |
|---------|------------|---------------|------------------------------------------------------------------------------------------------------------------------------|-------|----------|--------|------------------------|
| 21      |            |               | (11) Unloading of Blummen Drums by Manual Means including a lead upto 30 m<br>Unit = 1<br>Taking output = 10 t               | t     |          |        | 206.18                 |
|         |            |               | a) Labour                                                                                                                    |       |          |        |                        |
|         |            |               | b) Mazdoor (Unskilled)                                                                                                       | day   | 0.05     | 321.00 | 16.05                  |
|         |            |               | c) Machinery                                                                                                                 | hour  | 1.20     | 304.00 | 364.80                 |
|         |            |               | d) Overheads @ 12%                                                                                                           |       |          | 934.30 | 1167.88                |
|         |            |               | Contractor's profit @ 10% on (a+b+c)                                                                                         |       |          |        | 185.85                 |
|         |            |               | Cost for 10 t = a+b+c+d                                                                                                      |       |          |        | 173.46                 |
|         |            |               | Rate per t = (a+b+c+d)/10                                                                                                    |       |          |        | 1908.03                |
|         |            |               | Note:- The rate is inclusive of the self weight of drum                                                                      |       |          |        | 190.80                 |
| 22      | 1.9        |               | Total Loading & Unloading of Blummen Drums                                                                                   |       |          |        | 190.80                 |
|         |            |               | (1) Loading of RCC Hume pipes by mechanical means including a lead upto 30 m<br>Unit = per pipe<br>Taking output = 9 pipes   | t     |          |        | 206.18 + 90.0 = 296.98 |
|         |            |               | a) Labour                                                                                                                    |       |          |        |                        |
|         |            |               | b) Mazdoor (Unskilled)                                                                                                       | day   | 0.02     | 321.00 | 6.42                   |
|         |            |               | c) Machinery                                                                                                                 | hour  | 0.50     | 304.00 | 152.00                 |
|         |            |               | d) Crane                                                                                                                     | hour  | 0.33     | 934.30 | 308.32                 |
|         |            |               | Overheads @ 12%                                                                                                              |       |          | 909.00 | 299.97                 |
|         |            |               | Contractor's profit @ 10% on (a+b+c)                                                                                         |       |          |        | 92.07                  |
|         |            |               | Cost for 9 pipes = a+b+c+d                                                                                                   |       |          |        | 85.87                  |
|         |            |               | Rate per pipe = (a+b+c+d)/9                                                                                                  |       |          |        | 94.45                  |
| 23      |            |               | C. 600/450 mm dia Hume pipe<br>Unit = per pipe<br>Taking output = 21 pipes                                                   | per p |          |        | 104.91                 |
|         |            |               | a) Labour                                                                                                                    |       |          |        |                        |
|         |            |               | b) Mazdoor (Unskilled)                                                                                                       | day   | 0.02     | 321.00 | 6.4                    |
|         |            |               | c) Machinery                                                                                                                 | hour  | 0.50     | 304.00 | 152.0                  |
|         |            |               | d) Crane                                                                                                                     | hour  | 0.33     | 934.30 | 308.3                  |
|         |            |               | Overheads @ 12%                                                                                                              |       |          | 909.00 | 299.9                  |
|         |            |               | Contractor's profit @ 10% on (a+b+c)                                                                                         |       |          |        | 92.0                   |
|         |            |               | Cost for 21 pipes = a+b+c+d                                                                                                  |       |          |        | 85.8                   |
|         |            |               | Rate per pipe = (a+b+c+d)/21                                                                                                 |       |          |        | 94.45                  |
| 24      |            |               | (11) Unloading of RCC Hume pipe by mechanical means including a lead upto 30 m<br>Unit = per pipe<br>Taking output = 9 pipes | per p |          |        | 144                    |
|         |            |               | a) Labour                                                                                                                    |       |          |        |                        |
|         |            |               | b) Mazdoor (Unskilled)                                                                                                       | day   | 0.02     | 321.00 | 6                      |
|         |            |               | c) Machinery                                                                                                                 | hour  | 0.50     | 304.00 | 152                    |
|         |            |               | d) Crane                                                                                                                     | hour  | 0.20     | 934.30 | 186                    |
|         |            |               | Overheads @ 12%                                                                                                              |       |          | 909.00 | 181                    |
|         |            |               | Contractor's profit @ 10% on (a+b+c)                                                                                         |       |          |        | 63                     |
|         |            |               | Cost for 9 pipes = a+b+c+d                                                                                                   |       |          |        | 59                     |
|         |            |               | Rate per pipe = (a+b+c+d)/9                                                                                                  |       |          |        | 64.4                   |
|         |            |               | Total Loading & Unloading of RCC Hume Pipe                                                                                   |       |          |        | 72                     |
|         |            |               | per p                                                                                                                        |       |          |        | 177.1/2.50 = 70.84     |

# Analysis of Rates (FORMAT F8)

| Sl. No. | Subst. No. | MORD Ref. No. | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                    | Unit | Quantity | Rate    | Amount   |
|---------|------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|---------|----------|
| 25      |            |               | C. 600/450 mm dia Hume pipe<br>Unit = per pipe<br>Taking output = 21 pipes                                                                                                                                                                                                                                                                                                                                     |      |          |         |          |
|         |            |               | a) Labour                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |         |          |
|         |            |               | b) Mazdoor (Unskilled)                                                                                                                                                                                                                                                                                                                                                                                         | day  | 0.02     | 321.00  | 6.42     |
|         |            |               | c) Machinery                                                                                                                                                                                                                                                                                                                                                                                                   | hour | 0.50     | 304.00  | 152.00   |
|         |            |               | d) Crane                                                                                                                                                                                                                                                                                                                                                                                                       | hour | 0.20     | 934.30  | 186.86   |
|         |            |               | Overheads @ 12%                                                                                                                                                                                                                                                                                                                                                                                                |      |          |         | 181.80   |
|         |            |               | Contractor's profit @ 10% on (a+b+c)                                                                                                                                                                                                                                                                                                                                                                           |      |          |         | 63.25    |
|         |            |               | Cost for 21 pipes = a+b+c+d                                                                                                                                                                                                                                                                                                                                                                                    |      |          |         | 59.03    |
|         |            |               | Rate per pipe = (a+b+c+d)/21                                                                                                                                                                                                                                                                                                                                                                                   |      |          |         | 64.936   |
| 26      | 1.16       |               | Total Loading & Unloading of RCC Hume Pipe                                                                                                                                                                                                                                                                                                                                                                     |      |          |         | 30.92    |
|         |            |               | (1) Setting Out Pillars                                                                                                                                                                                                                                                                                                                                                                                        |      |          |         | 75.90    |
|         |            |               | Unit = 1 No.                                                                                                                                                                                                                                                                                                                                                                                                   |      |          |         |          |
|         |            |               | Analysis of rates per pillar shall account for following:<br>Typical Benchmark 1 no. as per Dwg no. 200.1<br>of MORD Data Book (Page 1-18)<br>The rate analysis for a typical benchmark as per dwg.<br>1. Excavation<br>2. P.C.C. Grade M 10<br>3. Brick Masonry in CM 1:4<br>4. Plastering with CM 1:4, 15 mm thick cement plaster on Brick work<br>Add 5 per cent cost of items No.1 to 4 for white washing. |      |          |         |          |
|         |            |               | A. Total 6 Nos. of Pillars required for 1 Km                                                                                                                                                                                                                                                                                                                                                                   | NO   | 6.00     | 4524.74 | 27148.44 |
|         |            |               | Unit = 1 No.                                                                                                                                                                                                                                                                                                                                                                                                   |      |          |         |          |
|         |            |               | Analysis of rates per pillar shall account for following:<br>Reference Pillar 1 no. as per Dwg no. 200.2<br>of MORD Data Book (Page 1-18)<br>The rate analysis for a typical benchmark as per dwg.<br>1. Excavation<br>2. P.C.C. Grade M 10<br>3. Brick Masonry in CM 1:4<br>4. Plastering with CM 1:4, 15 mm thick cement plaster on Brick work<br>Add 5 per cent cost of items No.1 to 4 for white washing.  |      |          |         |          |
|         |            |               | B. Total 2 Nos. of reference pillars required for 1 Km                                                                                                                                                                                                                                                                                                                                                         | NO   | 2.00     | 2093.54 | 2093.54  |
|         |            |               | Cost of Setting out                                                                                                                                                                                                                                                                                                                                                                                            | Km   | A+B      |         | 4187.08  |
|         |            |               | Total Cost                                                                                                                                                                                                                                                                                                                                                                                                     | Km   |          |         | 31335.52 |
| 27      | 1.16       |               | Sub Total                                                                                                                                                                                                                                                                                                                                                                                                      |      |          |         | 99.69    |
|         |            |               | Providing brick bats including spreading laying and compacting with C.I. Hammer in layers not exceeding 75 mm thick including cost of light barriers, danger signals, chalk/kidars/axes/royalty etc all complete job as per specification and direction of E/I including carriage cost of bricks.                                                                                                              |      |          |         |          |
|         |            |               | Unit = cum                                                                                                                                                                                                                                                                                                                                                                                                     |      |          |         |          |
|         |            |               | a) Assuming: 2.832 Cum                                                                                                                                                                                                                                                                                                                                                                                         | nos  | 1.50     | 304.00  | 456.00   |
|         |            |               | b) Carrying/spreading/laying & Packing                                                                                                                                                                                                                                                                                                                                                                         | nos  | 0.67     | 304.00  | 203.68   |
|         |            |               | c) Compaction brick bats with C.I. Hammer.                                                                                                                                                                                                                                                                                                                                                                     | Cum  | 2.83     | 1063.00 | 3010.42  |
|         |            |               | iv) Brick Bat                                                                                                                                                                                                                                                                                                                                                                                                  | Cum  | 0.63     | 141.85  | 89.65    |
|         |            |               | Over Heads @ 12% on (a+b+c)                                                                                                                                                                                                                                                                                                                                                                                    |      |          |         | 451.17   |
|         |            |               | C. Profit @ 10% on (a+b+c+d)                                                                                                                                                                                                                                                                                                                                                                                   |      |          |         | 421.09   |
|         |            |               | Cost for 2.832 cum = a+b+c+d                                                                                                                                                                                                                                                                                                                                                                                   |      |          |         | 4632.01  |
|         |            |               | Rate per cum = (a+b+c+d)/2.832                                                                                                                                                                                                                                                                                                                                                                                 |      |          |         | 1635.60  |
|         |            |               | CARRIAGE                                                                                                                                                                                                                                                                                                                                                                                                       |      |          |         |          |
|         |            |               | Carriage for Brick (1 cum Bat = 300 nos Bricks)                                                                                                                                                                                                                                                                                                                                                                | nos  | 0.300    | 776.64  | 233.10   |
|         |            |               | Rate per cum with carriage                                                                                                                                                                                                                                                                                                                                                                                     |      |          |         | 1868.70  |
|         |            |               | Total Cost                                                                                                                                                                                                                                                                                                                                                                                                     | CUM  |          |         | 1868.70  |



### Analysis of Rates (FORMAT F8)

| S.No. | SRPST No. | MOR | RELIN. | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit       | Quantity | Rate    | Amount<br>Rs. |
|-------|-----------|-----|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|---------|---------------|
| 35    | 4.10      | 401 |        | Granular Sub-base with Well Graded Material (Table 400.1)<br>( By mix in place method ) For Grading II Material<br>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 rotoavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401.<br><br>For Grading II Material<br>Unit = cum |            |          |         |               |
|       |           | a)  |        | Taking output = 300 cum                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |          |         |               |
|       |           | b)  |        | Labour                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | day        | 0.48     | 321.00  | 154.08        |
|       |           |     |        | Mazdoor (Skilled)                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | day        | 2.00     | 385.00  | 770.00        |
|       |           |     |        | Mazdoor (Unskilled)                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | day        | 10.00    | 304.00  | 3040.00       |
|       |           | c)  |        | Machinery                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | hour       | 12.00    | 573.20  | 6878.40       |
|       |           |     |        | Tractor mounted grader arrangement for grading @ 100 cum per hour                                                                                                                                                                                                                                                                                                                                                                                                                         | hour       | 30.00    | 803.00  | 24090.00      |
|       |           |     |        | Three wheel 80-100 KN static roller @ 10 cum per hour                                                                                                                                                                                                                                                                                                                                                                                                                                     | hour       | 12.00    | 629.00  | 7548.00       |
|       |           |     |        | Tractor with Rotoavator 25 cum per hour                                                                                                                                                                                                                                                                                                                                                                                                                                                   | hour       | 5.00     | 907.00  | 4535.00       |
|       |           | d)  |        | Water tanker 6 kl capacity                                                                                                                                                                                                                                                                                                                                                                                                                                                                | kl         |          |         |               |
|       |           | e)  |        | Material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |            |          |         |               |
|       |           |     |        | Well Graded granular sub-base material as per Table 400.1                                                                                                                                                                                                                                                                                                                                                                                                                                 | cum        | 134.40   | 595.36  | 80016.38      |
|       |           |     |        | 26.5 mm to 9.5 mm @ 35 per cent                                                                                                                                                                                                                                                                                                                                                                                                                                                           | cum        | 96.00    | 506.92  | 48664.32      |
|       |           |     |        | 9.5 mm to 2.36 mm @ 25 per cent                                                                                                                                                                                                                                                                                                                                                                                                                                                           | cum        | 153.60   | 141.85  | 21788.16      |
|       |           |     |        | 2.36 mm below @ 40 per cent - Local Sand                                                                                                                                                                                                                                                                                                                                                                                                                                                  | kl         | 30.00    | 40.00   | 23942.12      |
|       |           | f)  |        | Water                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |            |          |         | 22252.65      |
|       |           |     |        | Overheads @ 12%                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |          |         | 264779.11     |
|       |           |     |        | Contractor's profit @ 10% on (a+b+c+d)                                                                                                                                                                                                                                                                                                                                                                                                                                                    |            |          |         | 815.93        |
|       |           | g)  |        | Cost of GSB for 300 cum                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | cum        |          |         |               |
|       |           |     |        | A) Cost of GSB without carriage per cum                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            |          |         |               |
|       |           |     |        | CARRIAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Cum        | 0.768    | 1670.65 | 1283.06       |
|       |           |     |        | Carriage for GSB material                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Cum        | 0.512    | 185.01  | 94.73         |
|       |           |     |        | Carriage for material below 2.36 mm (Local Sand)                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |          |         | 2193.77       |
|       |           |     |        | Rate per cum with carriage                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Total cost | CU/M     |         | 2193.77       |