

# RURAL WORKS DEPARTMENT GOVT OF BIHAR



NAME OF WORKS :- T02-NH-327E RANI CHOWK to PWD ROAD  
PLASI HQ VIA DUMARIA

BLOCK :- Palasi

**FDR**  
Phase-I  
21,36,327

YEAR(2024-25)

R.W.D., WORKS CIRCLE, KISHANGANJ

R.W.D., WORKS DIVISION, ARARIA

### प्रतिवेदन

T02-NH-327E RANI CHOWK to PWD ROAD PLASI HQ VIA DUMARIA

पथ का नाम :-

कार्य का नाम :-

T02-NH-327E RANI CHOWK to PWD ROAD PLASI HQ VIA DUMARIA

में बाढ़ से क्षतिग्रस्त भाग में यातायात चालू करने का कार्य।

संलग्न प्राक्कलन 2024 को प्रखण्ड में आयी भीषण बाढ़ से क्षतिग्रस्त ..... <sup>या</sup>

..... में बाढ़ क्षतिग्रस्त मरम्मत मद से यातायात चालू करने हेतु तैयार किया गया है जिसकी प्राक्कलित लागत Twenty one lakh thirty six thousand <sup>hundred and</sup> है। उक्त पथ का निर्माण ..... <sup>twenty seven</sup> योनान्तर्गत हुआ है एवं योजना अनुरक्षण अवधि में <sup>5</sup>।

पथ के कटे (क्षतिग्रस्त) भाग में आवश्यकता अनुसार Hume Pipe, Bamboo, लोकल बालू एवं Brick Bats देने के बाद यातायात चालू कराया गया है। पथ के विभिन्न हिस्से में कराये गये कार्य का विवरणी स्पष्ट रूप से प्राक्कलन में दर्शाया गया है।

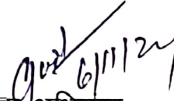
प्राक्कलन मदों का दर वर्तमान अनुसूचित दर के अनुरूप है।



कनीय अभियंता,  
ग्रामीण कार्य विभाग,  
कार्य प्रशाखा, .....।



सहायक अभियंता,  
ग्रामीण कार्य विभाग,  
कार्य अवर प्रमण्डल, .....।



कार्यपालक अभियंता,  
ग्रामीण कार्य विभाग,  
कार्य प्रमण्डल, .....

# SUMMARY OF COST ESTIMATE FOR THE PROJECT

| NAME OF ROAD :-             | T02-NH-327E RANI CHOWK to PWD ROAD PLASI HQ VIA DUMARIA          |                |
|-----------------------------|------------------------------------------------------------------|----------------|
| DISTRICT :-                 | ARARIA                                                           |                |
| BLOCK :-                    | Palasi                                                           |                |
| Length of Road:-            | 0.00KM                                                           |                |
| Length of Cutting in mtr :- | 59.500                                                           |                |
| Sl. No.                     | DESCRIPTION                                                      | AMOUNT (LAKHS) |
| 1                           | Filling of local sand                                            | 876768.08      |
| 2                           | Labour for cutting 62mm to 75mm dia bamboo                       | 164662.68      |
| 3                           | Labour for fitting 62mm to 75mm dia bamboo                       | 21390.25       |
| 4                           | Labour for filling empty cement bags with local sand Nylon crate | 0.00           |
| 5                           | Supplying of EC bag, of local sand                               | 360817.16      |
| 6                           | Supply and Carriage of brick bats                                | 658896.78      |
| 7                           | Supply, laying and carriage of 1000 mm HPC                       | 38792.25       |
| 8                           | Drone Videography Charj Three times                              | 15000.00       |
|                             | SUB TOTAL COST =                                                 | 2136327.20     |
|                             | TOTAL (RS.) =                                                    | 21,36,327      |

H. S. S. S.  
06/11/24

6/11/24  
A.E

6/11/24  
E.E

S.E

Technically <sup>Approved</sup> ~~Sanctioned~~ for at 21,36,327 ₹  
 (Rupees Twenty one lacs thirty six thousand  
 three hundred twenty seven) only

Superintending Engineer  
 RWD Work Circle  
 Kishanganj

# Bill of Quantity

| NAME OF ROAD :- |                                                                                                                                                                                                                                                                                | T02-NH-327E RANI CHOWK to PWD ROAD PLASI HQ VIA DUMARIA |      |            |              |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|------|------------|--------------|
| DISTRICT :-     |                                                                                                                                                                                                                                                                                | ARARIA                                                  |      |            |              |
| BLOCK :-        |                                                                                                                                                                                                                                                                                | Palasi                                                  |      |            |              |
| Sl. No.         | DESCRIPTION OF ITEMS                                                                                                                                                                                                                                                           | QUANTITY                                                | UNIT | RATE (Rs.) | AMOUNT (Rs.) |
| 1               | Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-charge                                                                                                                                     | 688.86                                                  | CUM  | 1272.78    | 876768.08    |
| 3               | Labour for cutting 62 mm to 75mm dia bamboo piles to size and making shoes & driving by jet machine etc. all complete job as per specification & direction of Engineer-in-charge                                                                                               | 2380.00                                                 | MTR  | 69.19      | 164662.68    |
| 4               | Labour for fitting & fixing 62 mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I wire including cost of G.I wire or nails etc all complete job as per specification & direction of Engineer-in-charge.                    | 595.00                                                  | MTR  | 35.95      | 21390.25     |
| 5               | Labour for fitting empty cement bags with local sand, stitching the bags and placing in Nylon crate of size (1 m X 1 m X 1 m )with lead of 150 M including supply of sutli etc. at site in dry portion all complete as per approved design, specification and direction of E/I | 0.00                                                    | Each | 1151.80    | 0.00         |
| 6               | Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.                                                                                                                                                           | 6457.00                                                 | Each | 55.88      | 360817.16    |
| 7               | Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.                                                                                                                                                                | 238.81                                                  | CUM  | 2759.12    | 658896.78    |
| 8               | Supplying and carriage of hume pipe 1000 mm dia , all complete job.                                                                                                                                                                                                            | 7.50                                                    | RM   | 5172.30    | 38792.25     |
| A) SUB TOTAL =  |                                                                                                                                                                                                                                                                                |                                                         |      |            | 2121327.20   |
| TOTAL COST =    |                                                                                                                                                                                                                                                                                |                                                         |      |            | 2121327      |

J.E

A.E

E.E



## ESTIMATE FOR REPAIRING / RESTORATION/ MAKING MOTORABLE ROADS DAMAGED DURING FLOOD

|                     |                                                                                                                                                                                                                                                             |                                                         |                   |           |              |                    |                |            |              |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------|-----------|--------------|--------------------|----------------|------------|--------------|
| NAME OF ROAD :-     |                                                                                                                                                                                                                                                             | T02-NH-327E RANI CHOWK to PWD ROAD PLASI HQ VIA DUMARIA |                   |           |              |                    |                |            |              |
| DISTRICT :-         |                                                                                                                                                                                                                                                             | ARARIA                                                  |                   |           |              |                    |                |            |              |
| BLOCK :-            |                                                                                                                                                                                                                                                             | Palasi                                                  |                   |           |              |                    |                |            |              |
| Length of Cutting:- |                                                                                                                                                                                                                                                             | 65.00 mtr                                               |                   |           |              |                    |                |            |              |
| Sl. No.             | DESCRIPTION OF ITEMS                                                                                                                                                                                                                                        | Unit                                                    | Nos.              | L(m)      | B(m)         | D(m)               | QUANTITY       | RATE (Rs.) | AMOUNT (Rs.) |
| 1                   | Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-charge                                                                                                                  |                                                         |                   |           |              |                    |                |            |              |
|                     | At ch.-1.200 km                                                                                                                                                                                                                                             | cum                                                     | 1                 | 59.50     | (5.75+5.5)/2 | (1.5+2.85+1.25)/3  | 624.75         |            |              |
|                     | Deduction for H.P 1000MM dia<br>(1.23 x 1.23 )=1.52                                                                                                                                                                                                         | cum                                                     | 0                 | 0.79      | 1.52         | 7.50               | 0.00           |            |              |
|                     |                                                                                                                                                                                                                                                             | cum                                                     | total qty :-      |           |              |                    | 624.750        | 1,272.78   | 795169.31    |
| 1                   | Labour for cutting 62 mm to 75mm dia bamboo piles to size and making shoes & driving by jet machine etc. all complete job as per specification & direction of Engineer- in -charge.                                                                         |                                                         |                   |           |              |                    |                |            |              |
|                     | At ch.-1.200 km                                                                                                                                                                                                                                             |                                                         | 2                 | 59.5/0.25 | 5.00         |                    | 2380.00        |            |              |
|                     |                                                                                                                                                                                                                                                             | Mtr.                                                    | total qty:-       |           |              |                    | 2380.00        | 69.19      | 1,64,662.68  |
|                     |                                                                                                                                                                                                                                                             |                                                         |                   |           |              |                    |                |            |              |
| 2                   | Labour for fitting & fixing 62 mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I wire including cost of G.I wire or nails etc all complete job as per specification & direction of Engineer-in-charge. |                                                         |                   |           |              |                    |                |            |              |
|                     | At ch.-1.200 km                                                                                                                                                                                                                                             |                                                         | 2                 | 59.50     | 2.5/0.5      |                    | 595.00         |            |              |
|                     |                                                                                                                                                                                                                                                             | Mtr.                                                    | total qty :-      |           |              |                    | 595.00         | 35.95      | 21390.25     |
|                     |                                                                                                                                                                                                                                                             |                                                         |                   |           |              |                    |                |            |              |
| 3                   | Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.                                                                                                                                        |                                                         |                   |           |              |                    |                |            |              |
|                     | At ch.-1.200 km                                                                                                                                                                                                                                             | cum                                                     | 2                 | 59.50     | 0.90         | (1.5+2.85+1.25)/3  | 199.92         |            |              |
|                     | Total No of E C<br>Bags(0.034cum=100Bags)                                                                                                                                                                                                                   |                                                         | 199.92            | /         | 0.034        |                    | 5880.00        |            |              |
|                     |                                                                                                                                                                                                                                                             | Each                                                    | Say No of Bage :- |           |              |                    | 5880.00        | 55.88      | 328574.400   |
| 4                   | Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.                                                                                                                                             |                                                         |                   |           |              |                    |                |            |              |
|                     | At ch.-1.200 km                                                                                                                                                                                                                                             | cum                                                     | 1                 | 59.50     | (5.75+5.5)/2 | (0.45+0.65+0.75)/3 | 206.39         |            |              |
|                     |                                                                                                                                                                                                                                                             | cum                                                     | total qty :-      |           |              |                    | 206.39         | 2,759.12   | 569455.47    |
|                     |                                                                                                                                                                                                                                                             |                                                         |                   |           |              |                    |                |            |              |
|                     |                                                                                                                                                                                                                                                             |                                                         |                   |           |              |                    | A) SUB TOTAL = | 1879252.10 |              |
|                     |                                                                                                                                                                                                                                                             |                                                         |                   |           |              |                    | TOTAL COST =   | 1879252.10 |              |

Junior Engineer

Asstt. Engineer

Executive Engineer

KISHANGANJ

## ESTIMATE FOR REPAIRING / RESTORATION/ MAKING MOTORABLE ROADS DAMAGED DURING FLOOD

| NAME OF ROAD :-     |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | T02-NH-327E RANI CHOWK to PWD ROAD PLASI HQ VIA DUMARIA |                   |        |                 |                    |          |            |              |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------|--------|-----------------|--------------------|----------|------------|--------------|
| DISTRICT :-         |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ARARIA                                                  |                   |        |                 |                    |          |            |              |
| BLOCK :-            |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Palasi                                                  |                   |        |                 |                    |          |            |              |
| Length of Cutting:- |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6.00 mtr                                                |                   |        |                 |                    |          |            |              |
| Sl. No.             | DESCRIPTION OF ITEMS                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit                                                    | Nos.              | L(m)   | B(m)            | D(m)               | QUANTITY | RATE (Rs.) | AMOUNT (Rs.) |
| 1                   | Filling of local sand obtained from river bed, watering & ramming, all complete job as per specification & direction of Engineer-in-charge                                                                                                                                                                                                                                                                                                           |                                                         |                   |        |                 |                    |          |            |              |
|                     | At ch.-50 m                                                                                                                                                                                                                                                                                                                                                                                                                                          | cum                                                     | 1                 | 6.00   | (6.5+7.5+6.5)/3 | (1.25+2.85+1.25)/3 | 73.12    |            |              |
|                     | Deduction for H.P. 1000MM dia (1.23 x 1.23) = 1.52                                                                                                                                                                                                                                                                                                                                                                                                   | cum                                                     | 1                 | 0.79   | 1.52            | 7.50               | 9.01     |            |              |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | cum                                                     | total qty :-      |        |                 |                    | 64.111   | 1,272.78   | 81598.77     |
| 2                   | Labour for cutting 62 mm to 75mm dia bamboo piles to size and making shoes & driving by jet machine etc. all complete job as per specification & direction of Engineer-in-charge.                                                                                                                                                                                                                                                                    |                                                         |                   |        |                 |                    |          |            |              |
|                     | At ch.-23500 m                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                         | 0                 | 180.00 | 4.50            |                    | 0.00     |            |              |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mtr.                                                    | total qty:-       |        |                 |                    | 0.00     | 69.19      | 0.00         |
| 3                   | Labour for fitting & fixing 62 mm to 75 mm dia bamboo runners in position at every vertical pile with 150 mm long nails or 38 swg G.I wire including cost of G.I wire or nails etc all complete job as per specification & direction of Engineer-in-charge.                                                                                                                                                                                          |                                                         |                   |        |                 |                    |          |            |              |
|                     | At ch.-23500 m                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                         | 0                 | 45.00  | 5.00            |                    | 0.00     |            |              |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Mtr.                                                    | total qty :-      |        |                 |                    | 0.00     | 35.95      | 0.00         |
| 4                   | Supplying of EC bag, filling of local sand stitching and placing in position as the direction of Engineer-in-charge.                                                                                                                                                                                                                                                                                                                                 |                                                         |                   |        |                 |                    |          |            |              |
|                     | At ch.-50 m                                                                                                                                                                                                                                                                                                                                                                                                                                          | cum                                                     | 1                 | 6.00   | (1.5+2.5+1.5)/3 | (1.25+2.85+1.25)/3 | 19.62    |            |              |
|                     | Total No of E C Bags (0.034 cum = 100 Bags)                                                                                                                                                                                                                                                                                                                                                                                                          |                                                         | 19.62             |        | /               | 0.034              | 577.00   |            |              |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Each                                                    | Say No of Bage :- |        |                 |                    | 577.00   | 55.88      | 32242.760    |
| 5                   | Providing laying & filling Geo bags of size 1m X 0.700m (Type A) 300 GSM nonwoven) weight 420 gm volume of filled bag 0.070 cum Weight of filled Geo bag 126 kg with local sand including stitching in four lines by approved Nylon thread with Staching machine and generator, stacking and placing after loading, Unloading and carriage with the help of Trolley within 150 mtr. lead and all complete as per specification and direction of E/I. |                                                         |                   |        |                 |                    |          |            |              |
|                     | At ch.-23500 m                                                                                                                                                                                                                                                                                                                                                                                                                                       | cum                                                     | 0                 | 6.00   | 4.50            | 2.73               | 0.00     |            |              |
|                     | (0.07m <sup>3</sup> =1 no. of Geo Bags)                                                                                                                                                                                                                                                                                                                                                                                                              |                                                         | 0.00              |        | /               | 0.07               | 0.00     |            |              |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Each                                                    |                   |        |                 |                    | 0.00     | 332.74     | 0.000        |
| 6                   | Supply and Carriage of brick bats upto 8 km breach and placing in breaches and lying of bats, all complete job.                                                                                                                                                                                                                                                                                                                                      |                                                         |                   |        |                 |                    |          |            |              |
|                     | At ch.-50 m                                                                                                                                                                                                                                                                                                                                                                                                                                          | cum                                                     | 1                 | 6.00   | (6.5+7.5+6)/3   | (0.45+0.35+0.45)/3 | 16.67    |            |              |
|                     | At ch.-50 m Bilow Pipe                                                                                                                                                                                                                                                                                                                                                                                                                               | cum                                                     | 1                 | 6.00   | (7.5+7.5+7.5)/3 | (0.45+0.25+0.35)/3 | 15.75    |            |              |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | cum                                                     | total qty :-      |        |                 |                    | 32.42    | 2,759.12   | 89441.31     |
| 7                   | Supplaying and carriage of hume pipe 1000 mm dia , all complete job.                                                                                                                                                                                                                                                                                                                                                                                 |                                                         |                   |        |                 |                    |          |            |              |
|                     | At ch.-50 m                                                                                                                                                                                                                                                                                                                                                                                                                                          | RM                                                      | 1                 | 3      | 2.5             |                    | 7.50     |            |              |
|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                      | RM                                                      | total qty :-      |        |                 |                    | 7.50     | 7,385.85   | 55393.88     |
|                     | A) SUB TOTAL =                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                         |                   |        |                 |                    |          | 258676.72  |              |
|                     | TOTAL COST =                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                         |                   |        |                 |                    |          | 258676.72  |              |

Junior Engineer

**Asstt. Engineer**

## Executive Engineer

# FINAL RATE UNDER WORKS CIRCLE KISHANGANJ

| S.No | Description of Item                  | Unit         | Final Rate (Excluding GST, Seigniorage & L.Cess) | Final Rate (Including GST, Seigniorage & L.Cess) | S.F. Per Cum / Per Bag BAG |
|------|--------------------------------------|--------------|--------------------------------------------------|--------------------------------------------------|----------------------------|
| 1    | EARTH WORK                           | CUM          | 459.003                                          | 549.740                                          | 3.530                      |
| 2    | BRICK BAT                            | CUM          | 2209.576                                         | 2759.115                                         | 129.720                    |
| 3    | G.S.B                                | CUM          | 4328.501                                         | 5172.300                                         | 21.380                     |
| 4    | SAND BAG (Cement Bag)                | Each         | 46.550                                           | 55.880                                           | 0.490                      |
| 5    | BAMBOO PILE                          | Per Mtr.     | 58.140                                           | 69.186                                           |                            |
| 6    | BAMBOO CHACHRI                       | Per Mtr.     | 302.258                                          | 359.690                                          |                            |
| 7    | BAMBOO RUNNER                        | Per Mtr.     | 30.210                                           | 35.950                                           |                            |
| 8    | HUME PIPE (1000 mm Div)              | Per Mtr.     | 6206.598                                         | 7385.850                                         |                            |
| 9    | HUME PIPE (600 mm Div)               | Per Mtr.     | 2492.260                                         | 2965.790                                         |                            |
| 10   | STEEL DRUM SHEET                     | Per Sqr.Mtr. | 215.352                                          | 256.270                                          |                            |
| 11   | GEO BAG WITH SAND                    | EACH         | 967.490                                          | 1152.320                                         | 1.010                      |
| 12   | EACH N.C. BAG WITH SAND (Cement Bag) | Each E.C     | 967.490                                          | 1151.800                                         | 0.490                      |
| 13   | LOCAL SAND                           | CUM          | 721.110                                          | 1272.780                                         | 0.490                      |

*[Signature]*  
Junior Engineer

*[Signature]*  
Assistant Engineer

*[Signature]*  
Executive Engineer

Superintending Engineer  
Rural Works Department  
Works Circle Kishanganj

**BASIC RATES  
(A) Labour**

| Sl. No. | Description of Labour         | Unit | Rate (Rs.) |
|---------|-------------------------------|------|------------|
| L-01    | Bhisti                        | day  | 373        |
| L-02    | Bitumen Sprayer(semi skilled) | day  | 393        |
| L-03    | Blacksmith, special           | day  | 503        |
| L-04    | Blaster, 2nd class            | day  | 619        |
| L-05    | Carpenter 1st Class           | day  | 503        |
| L-06    | Chips spreader, semi-skilled  | day  | 449        |
| L-07    | Chiseller (Skilled)           | day  | 577        |
| L-08    | Dresser (Skilled)             | day  | 472        |
| L-09    | Driller, 2nd class            | day  | 449        |
| L-10    | Electrician, skilled          | day  | 476        |
| L-11    | Fitter, skilled               | day  | 511        |
| L-12    | Mason (1st class)             | day  | 503        |
| L-13    | Mason (2nd Class)             | day  | 449        |
| L-14    | Mate, Semi skilled            | day  | 397        |
| L-15    | Mazdoor (Unskilled)           | day  | 373        |
| L-16    | Mazdoor (Semi skilled)        | day  | 388        |
| L-17    | Mazdoor (Skilled)             | day  | 472        |
| L-18    | Painter (1st class)           | day  | 476        |
| L-19    | Plumber, Special              | day  | 476        |
| L-20    | Surveyor                      | day  | 454        |
| L-21    | White Washer                  | day  | 476        |
| L-22    | Head blacksmith               | day  | 531        |
| L-23    | Welder 1 St Class             | day  | 584        |
|         | Carpenter Head                | day  | 531        |
|         | Night Guard                   | day  | 415        |

*(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar  
effective from 01/04/2023)*

| BASIC RATES<br>(B) Material |                                                                                                    |      |                       |             |                         |
|-----------------------------|----------------------------------------------------------------------------------------------------|------|-----------------------|-------------|-------------------------|
| Sl. No.                     | Description                                                                                        | Unit | Basic Rate as per SOR | Add Royalty | Final Rate With Royalty |
| M-001                       | Bamboo (1st Class) 100 mm - 100 mm dia. 6.0 m -8.0 m long (per mtr.- 23.52 Rs.)                    | No.  | 188.00                |             | 188.00                  |
| M-002                       | Bamboo (1st Class) 100 mm - 100 mm dia. 6.0 m -8.0 m long (per mtr.- 23.52 Rs.)                    | No.  | 188.00                |             | 188.00                  |
| M-003                       | Bamboo (1st Class) 50 mm - 100 mm dia. 6.0 m -8.0 m long (per mtr.- 14.71 Rs.)                     | No.  | 118.00                |             | 118.00                  |
| M-004                       | Bamboo (1st Class) 50 mm - 100 mm dia. 6.0 m -8.0 m long (per mtr.- 14.71 Rs.)                     | No.  | 118.00                |             | 118.00                  |
| M-005                       | Bamboo (2nd Class) 75mm dia. 1.8 m - 6.0 m -8.0 m long (per mtr.- 22.03 Rs.)                       | No.  | 176.00                |             | 176.00                  |
| M-006                       | Bamboo (2nd Class) 75mm dia. 6.0 m -8.0 m long (per mtr.- 22.03 Rs.)                               | No.  | 176.00                |             | 176.00                  |
| M-007                       | Brick Bats                                                                                         | cum  | 1063.00               | 18.00       | 1081.00                 |
| M-008                       | Selected earth (Including @ Rs. 33.00 per cum & compensation @ Rs. 2.25 Per Cum                    | cum  | 2.25                  | 33.00       | 35.25                   |
| M-009                       | Empty Cement Bag IS 11652:2000                                                                     | Nos. | 11.11                 |             | 11.11                   |
| M-010                       | Steel Drum 300 mm dia 1.2 m high / empty bitumen drum                                              | Nos. | 170.13                |             | 170.13                  |
| M-011                       | Sand bags (Cost of sand and Empty cement bag)                                                      | Nos. | 7.31                  | 2.59        | 9.90                    |
| M-012                       | Sutli (Brown)                                                                                      | kg   | 20.59                 |             | 20.59                   |
| M-013                       | Granular material (Natural occuring, soil gravel mixture / quarry waste, kankar, laterite, dhandla | cum  | 84.03                 | 83.00       | 167.03                  |
| M-014                       | Nails                                                                                              | kg   | 108.00                |             | 108.00                  |
| M-014                       | RCC Pipe NP3 (1000 mm dia)                                                                         | m    | 5787.23               |             | 5787.23                 |
| M-015                       | RCC Pipe NP3 (600 mm dia)                                                                          | m    | 2310.00               |             | 2310.00                 |
| M-015                       | Sand (Fine) at source                                                                              | cum  | 69.75                 | 75.00       | 144.75                  |
| M-016                       | Empty Steel Drum 300 mm dia 1.2 m height                                                           | Nos. | 170.13                |             | 170.13                  |
| M-016                       | Water                                                                                              | kl   | 60.30                 |             | 60.30                   |
| M-017                       | Geo Bags                                                                                           | Each | 124.00                |             | 124.00                  |
| M-018                       | G.S.B.                                                                                             | cum  | 69.75                 | 75.00       | 144.75                  |

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar effective from 01/04/2023.

**BASIC RATES**  
**(C) USAGE RATES OF PLANT & MACHINERY**

| Sl. No. | SAR Code | Description of                                       |                                    | Output of Machine |          | Usage Rates in Rs. |          |
|---------|----------|------------------------------------------------------|------------------------------------|-------------------|----------|--------------------|----------|
|         |          | Machine                                              | Activity                           | Unit              | Output   | Unit               | Rate     |
| M-009   | P&M-012  | Crane upto 80 T                                      | Lifting of materials               |                   |          | per hour           | 5,573.00 |
| M-010   | P&M-013  | Dozer D 80 - A12 Dozer D 50 - A15                    | Dozing cutting                     | cum h             | 260.00   | per hour           | 2,997.00 |
| M-011   |          |                                                      |                                    | cum h             | 120.00   |                    | 4,326.00 |
| M-014   | P&M-017  | Front end-loader 1 cum bucket capacity @ 45 cum hour | Loading Aggregates                 | cum h             | 45.00    | per hour           | 1,419.00 |
| M-017   | P&M-026  | Hydraulic Excavator of 1cum bucket                   | Excavation                         | cum h             | 100.00   | per hour           | 2,272.00 |
| M-021   | P&M-044  | Three wheel 80-100 kN Static Roller                  | Compaction Rolling                 |                   |          | per hour           | 1,593.00 |
| M-032   |          |                                                      | Earth:- Embankment or sub-grade    | cum h             | 80.70    |                    | 1,593.00 |
| M-033   |          |                                                      | Sub-base G-I                       | cum h             | 10.00    |                    | 1,593.00 |
| M-034   |          |                                                      | Sub-base G-II G-III                | cum h             | 8.00     |                    | 1,593.00 |
| M-035   |          |                                                      | WMM                                | cum h             | 16.00    |                    | 1,593.00 |
| M-036   |          |                                                      | BUSG                               | cum h             | 10.00    |                    | 1,593.00 |
| M-037   |          |                                                      | BM 50 75 mm                        | cum h             | 12.00    |                    | 1,593.00 |
| M-038   |          |                                                      | Premix 20 mm                       | sqm h             | 250.00   |                    | 1,593.00 |
| M-039   |          |                                                      | Seal Coat                          | sqm h             | 500.00   |                    | 1,593.00 |
| M-040   |          |                                                      | Surface Dressing 1st Coat          | sqm h             | 400.00   |                    | 1,593.00 |
| M-041   |          |                                                      | Surface Dressing 2nd Coat          | sqm h             | 500.00   |                    | 1,593.00 |
| M-042   | P&M-048  | Tipper 5.5 cum/10 t                                  | Carriage                           | cum trip          | 5.50     | per hour           | 1,426.00 |
| M-043   | P&M-053  | Tractor with Disc Harrows                            | Pulverisation of soil              | cum h             | 80.00    | per hour           | 693.00   |
| M-044   | P&M-053  | Tractor with ripper @ 60 cum per hour                | Ripping Pavements, uprooting trees | cum h             | 60.00    | per hour           | 697.00   |
| M-045   | P&M-053  | Tractor with trolley with Grading equipment          | Transportation of materials        | t trip            | 3 to 5   | per hour           | 676.00   |
| M-046   | P&M-054  | Tractor with Rotavator                               | Scarifier                          | cum h             | 25.00    | per hour           | 693.00   |
| M-047   | P&M-057  | Truck 10 t capacity                                  | Carriage                           | cum trip          | 5.50     | per hour           | 1,054.00 |
| M-048   | P&M-059  | Vibratory roller 80-100 kN                           | Compaction of soil WMM             | cum h             | 100.00   | per hour           | 2,053.00 |
| M-049   |          |                                                      | Compaction of BM                   | cum h             | 60.00    |                    | 2,053.00 |
| M-050   | P&M-060  | Water tanker 6 kl capacity (Truck Mounted)           | Carriage of water                  | litre h           | 12000.00 | per hour           | 752.00   |
| M-063   | P&M-060  | generator 3KVA                                       | slicing                            | per hour          |          | per hour           | 74.00    |
| M-064   | P&M-060  | slicing machine                                      | slicing                            | day               |          | day                | 50.00    |

(Basic Rates Taken From SOR, Seventeenth Edition, Road Construction Department, Govt. of Bihar effective from 01/04/2023.

### SUMMARY OF CARRIGE COST

| Sl. No. | Item                    | Unit     | Amount<br>(Rs.) |
|---------|-------------------------|----------|-----------------|
| 1       | Earth Work              | Cum      | 274.42          |
| 2       | Brick Bats              | Cum      | 521.97          |
| 3       | Bamboo                  | Per Mtr. | 3.00            |
| 4       | G.S.B.                  | Cum      | 2960.13         |
| 5       | Local Sand              | Cum      | 345.14          |
| 6       | HUME PIPE (1000 mm DIA) | Per Pipe | 745.93          |
| 7       | HUME PIPE PIR METER     | Per Mtr. | 298.37          |
| 8       | HUME PIPE (600 mm DIA)  | Per Pipe | 310.88          |
| 9       | HUME PIPE (600 mm DIA)  | Per Mtr. | 124.35          |
| 10      | Local Sand              | Cum      | 345.10          |

Comparison of carriage cost of Material via Road from different sources

| Sl No | Item                         | Unit     | Source   | Pucka / Surface |         |   |        | Katcha       |  |  |  | Loading & Unloading | Carriage by Road | Total |
|-------|------------------------------|----------|----------|-----------------|---------|---|--------|--------------|--|--|--|---------------------|------------------|-------|
|       |                              |          |          |                 |         |   |        |              |  |  |  |                     |                  |       |
| 1     | By Tractor                   |          |          |                 |         |   |        |              |  |  |  |                     |                  |       |
| A     | Earth Work Via Road          | Cum      | Local    | 3.60            |         |   |        |              |  |  |  |                     |                  |       |
|       |                              |          |          | 2.04            | x 20.04 | x | 0 Km   | = Rs 0.00    |  |  |  |                     |                  |       |
| B     | Brick Bat Via Road           | Cum      | Local    | 3.60            |         |   |        |              |  |  |  |                     |                  |       |
|       |                              |          |          | 2.04            | x 20.04 | x | 7 Km   | = Rs 247.55  |  |  |  |                     |                  |       |
| B     | Bamboo Via Road              | pct mtr. | Local    | 3.60            |         |   |        |              |  |  |  |                     |                  |       |
|       |                              |          |          | 126.00          | x 20.04 | x | 2 Km   | = Rs 1.15    |  |  |  |                     |                  |       |
| D     | Local Sand Via Road          | Cum      | Local    | 3.60            |         |   |        |              |  |  |  |                     |                  |       |
|       |                              |          |          | 2.04            | x 20.04 | x | 2 Km   | = Rs 70.73   |  |  |  |                     |                  |       |
| 2     | By Tipper                    |          |          |                 |         |   |        |              |  |  |  |                     |                  |       |
| A     | GSB Via Road                 | Cum      | Siliguri | 8.00            | x 9.83  | x | 177 Km | = Rs 2789.43 |  |  |  |                     |                  |       |
|       |                              |          |          | 4.99            |         |   |        |              |  |  |  |                     |                  |       |
| 3     | By Truck                     |          |          |                 |         |   |        |              |  |  |  |                     |                  |       |
| A     | Hume Pipe (1000 mm) Via Road | Mtr.     | purnea   | 8.00            |         |   |        |              |  |  |  |                     |                  |       |
|       |                              |          |          | 10.00           | x 7.27  | x | 53 Km  | = Rs 308.25  |  |  |  |                     |                  |       |
| A1    | Rate Per Mtr. Pipe           | Mtr.     | purnea   |                 |         |   |        |              |  |  |  |                     |                  |       |
|       |                              |          |          |                 |         |   |        |              |  |  |  |                     |                  |       |
| B     | Hume Pipe (600 mm) Via Road  | Mtr.     | purnea   | 8.00            |         |   |        |              |  |  |  |                     |                  |       |
|       |                              |          |          | 25.00           | x 7.27  | x | 53 Km  | = Rs 123.30  |  |  |  |                     |                  |       |
| B1    | Rate Per Mtr. Pipe           | Mtr.     | purnea   |                 |         |   |        |              |  |  |  |                     |                  |       |
|       |                              |          |          |                 |         |   |        |              |  |  |  |                     |                  |       |

Cost of Haulage Excluding Loading & Unloading as per SO Subject to Verification of Lead

*[Signature]*  
Junior Engineer  
R.W.D. Works Section

*[Signature]*  
Asstt. Engineer  
R.W.D. Works Sub - Division,

*[Signature]*  
Executive Engineer  
R.W.D. Works

| SDB Sl. No.                              | MORD Ref No. | DESCRIPTION                                                                                                                                                           | Unit | QTY   | Rate     | Amount in Rs |
|------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------|--------------|
| <b>Carriage Of Material (By Tractor)</b> |              |                                                                                                                                                                       |      |       |          |              |
| 1                                        | 4.4          | Loading and unloading of stone Boulder /stone aggregates sand/ kankar/ moorum                                                                                         |      |       |          |              |
|                                          |              | Placing tractor at loading point loading with front end loader dumpoing ,turning for return trip exluding time for haulage and return trip                            |      |       |          |              |
|                                          |              | Unit = cum                                                                                                                                                            |      |       |          |              |
|                                          |              | Taking output = 2.25 cum                                                                                                                                              |      |       |          |              |
|                                          |              | Time required for                                                                                                                                                     |      |       |          |              |
|                                          | i)           | positioning of tractor at loading point                                                                                                                               | min  | 1 min |          |              |
|                                          | ii)          | Loading by front end loader 1 cum bucket capacity @ 25 cum                                                                                                            | min  | 5 min |          |              |
|                                          |              | Total                                                                                                                                                                 |      | 6 min |          |              |
|                                          | a)           | Labour                                                                                                                                                                |      |       |          |              |
|                                          |              | Mate                                                                                                                                                                  | day  | 0.030 | 397.00   | 11.91        |
|                                          |              | Mazdoor (Unskilled) :                                                                                                                                                 | day  | 0.720 | 373.00   | 268.56       |
|                                          | b)           | Machinery                                                                                                                                                             |      |       |          |              |
|                                          |              | Tractor 3.60 Tonnes Capcaity                                                                                                                                          | hour | 0.100 | 676.00   | 67.60        |
|                                          |              | Front end loader 1 cum buckert capacity @ 25 Cum/hour                                                                                                                 | hour | 0.083 | 1,419.00 | 117.78       |
|                                          |              | Cost for 2.25 cum = a+b+c                                                                                                                                             |      |       |          | 465.85       |
|                                          |              | Rate per cum = (a+b+c)/2.25                                                                                                                                           | cum  |       |          | 207.044      |
|                                          |              | Total per cum                                                                                                                                                         | cum  |       |          | 207.044      |
| 1.10                                     |              | Haulage excludng Loading & Unloading                                                                                                                                  |      |       |          |              |
|                                          |              | Haulage of materials by truck excludng cost of Loading, Unloading and stacking                                                                                        |      |       |          |              |
|                                          |              | Unit = 7km                                                                                                                                                            |      |       |          |              |
|                                          |              | Taking output 3.6t load and lead 10km = 36t/km                                                                                                                        |      |       |          |              |
|                                          |              | Case- I: Surfaced Road                                                                                                                                                |      |       |          |              |
|                                          |              | Speed with load : 15km per hour                                                                                                                                       |      |       |          |              |
|                                          |              | Speed while returning empty : 25km per hour                                                                                                                           |      |       |          |              |
|                                          | a)           | Machinery                                                                                                                                                             |      |       |          |              |
|                                          |              | Tractor 3.6 tonnes Capacity                                                                                                                                           |      |       |          |              |
|                                          |              | Haulage with load                                                                                                                                                     | hour | 0.667 | 676.00   | 450.89       |
|                                          |              | Empty return trip                                                                                                                                                     | hour | 0.400 | 676.00   | 270.40       |
|                                          |              | Cost for 36t/km = a+b+c                                                                                                                                               |      |       |          | 721.29       |
|                                          |              | Cost for 1 t km = a+b/36                                                                                                                                              |      |       |          | 20.040       |
|                                          |              | Total per t per km                                                                                                                                                    |      |       |          | 20.040       |
|                                          |              | Case - II Kutcha Track and Track in River Bed / Nallah Bed and Choe Bed                                                                                               |      |       |          |              |
|                                          |              | Speed with load : 10km per hour                                                                                                                                       |      |       |          |              |
|                                          |              | Speed while returning empty : 15km per hour                                                                                                                           |      |       |          |              |
|                                          | a)           | Machinery                                                                                                                                                             |      |       |          |              |
|                                          |              | Tractor 3.6 tonnes Capacity                                                                                                                                           |      |       |          |              |
|                                          |              | Haulage with load                                                                                                                                                     | hour | 1.00  | 676.00   | 676.00       |
|                                          |              | Empty return trip                                                                                                                                                     | hour | 0.667 | 676.00   | 450.89       |
|                                          |              | Cost for 36t/km = a+b+c                                                                                                                                               |      |       |          | 1126.89      |
|                                          |              | Cost for 1 t km = a+b/36                                                                                                                                              |      |       |          | 31.300       |
|                                          |              | Total per t per km                                                                                                                                                    |      |       |          | 31.300       |
| <b>Carriage Of Material (By Tipper)</b>  |              |                                                                                                                                                                       |      |       |          |              |
| 2                                        | 1.1          | Loading and Unloading Lime, Aggregate, Stone Boulder, Brick Aggregate, Kankar, Building Rubbish, Crushed Slag, Stone for Masonry Work by Manual Means                 |      |       |          |              |
|                                          | (i)          | Loading of lime, Aggregates, Stone boulder, Brick aggregate, Kankar, Building Rubbish, Crushed Slag Stone for masonary work by manual means including a lead upto 30m |      |       |          |              |
|                                          |              | Unit = cum                                                                                                                                                            |      |       |          |              |
|                                          |              | Taking output = 5.5 cum                                                                                                                                               |      |       |          |              |
|                                          |              | Time required for                                                                                                                                                     |      |       |          |              |
|                                          | (i)          | Position of tipper at laoding point                                                                                                                                   |      | 1Min  |          |              |
|                                          | (ii)         | loading by front end loader 1 cum bucket capacity @25                                                                                                                 |      | 13Min |          |              |
|                                          | (iii)        | maneuvring, reversing, dumping and turning for return                                                                                                                 |      | 2Min  |          |              |
|                                          | (iv)         | Waiting time unforeseen contingencies etc.                                                                                                                            |      | 4Min  |          |              |
|                                          |              | Total                                                                                                                                                                 |      | 20Min |          |              |
|                                          | b)           | Machinery                                                                                                                                                             |      |       |          |              |
|                                          |              | Tipper 5.5 Tonnes Capcaity                                                                                                                                            | hour | 0.330 | 1,426.00 | 470.58       |
|                                          |              | Front end loader 1 cum buckert capacity @ 25 Cum/hour                                                                                                                 | hour | 0.330 | 1,419.00 | 468.27       |
|                                          |              | Cost for 5.5 cum = a+b+c                                                                                                                                              |      |       |          | 938.85       |

|      |  |  |  |     |                                                                                 |      |      |         |         |
|------|--|--|--|-----|---------------------------------------------------------------------------------|------|------|---------|---------|
|      |  |  |  |     | <b>Rate per cum = (a+b+c)/5.5</b>                                               |      |      |         |         |
|      |  |  |  |     | <b>Total per cum</b>                                                            | cum  |      |         | 170.70  |
|      |  |  |  |     | <b>Haulage excluding Loading &amp; Unloading</b>                                | cum  |      |         | 170.700 |
| 1.10 |  |  |  |     | Haulage of materials by truck excluding cost of Loading, Unloading and stacking |      |      |         |         |
|      |  |  |  |     | Unit = 1km                                                                      |      |      |         |         |
|      |  |  |  |     | Taking output 10t load and lead 10km 100t km                                    |      |      |         |         |
|      |  |  |  |     | <b>Case- I : Surfaced Road</b>                                                  |      |      |         |         |
|      |  |  |  |     | Speed with load : 25km per hour                                                 |      |      |         |         |
|      |  |  |  |     | Speed while returning empty : 35km per hour                                     |      |      |         |         |
|      |  |  |  | a)  | <b>Machinery</b>                                                                |      |      |         |         |
|      |  |  |  |     | Tipper                                                                          |      |      |         |         |
|      |  |  |  |     | Haulage with load                                                               | hour | 0.40 | 1426.00 | 570.40  |
|      |  |  |  |     | Empty return trip                                                               | hour | 0.29 | 1426.00 | 413.54  |
|      |  |  |  |     | Cost for 100t km = a + b + c                                                    |      |      |         | 983.94  |
|      |  |  |  |     | Cost for 1 t km = a+b/100                                                       |      |      |         | 9.830   |
|      |  |  |  |     | <b>Total per t per km</b>                                                       |      |      |         | 9.830   |
|      |  |  |  |     | <b>Case - III Kutcha Track and Track in River Bed / Nallah Bed and Choe Bed</b> |      |      |         |         |
|      |  |  |  |     | Speed with load : 10km per hour                                                 |      |      |         |         |
|      |  |  |  |     | Speed while returning empty : 15km per hour                                     |      |      |         |         |
|      |  |  |  | a)  | <b>Machinery</b>                                                                |      |      |         |         |
|      |  |  |  |     | Tipper                                                                          |      |      |         |         |
|      |  |  |  |     | Haulage with load                                                               | hour | 1.00 | 1426.00 | 1426.00 |
|      |  |  |  |     | Empty return trip                                                               | hour | 0.67 | 1426.00 | 955.42  |
|      |  |  |  |     | Cost for 100t km = a + b                                                        |      |      |         | 2381.42 |
|      |  |  |  |     | Cost for 1 t km = a+b+c/100                                                     |      |      |         | 23.81   |
|      |  |  |  |     | <b>Total per t per km</b>                                                       |      |      |         | 23.810  |
|      |  |  |  |     | <b>Carriage Of Material (By Truck)</b>                                          |      |      |         |         |
| 1.10 |  |  |  |     | <b>Haulage excluding Loading &amp; Unloading</b>                                |      |      |         |         |
|      |  |  |  |     | Haulage of materials by truck excluding cost of Loading, Unloading and stacking |      |      |         |         |
|      |  |  |  |     | Unit = 1km                                                                      |      |      |         |         |
|      |  |  |  |     | Taking output 10t load and lead 10km 100t km                                    |      |      |         |         |
|      |  |  |  |     | <b>Case- I : Surfaced Road</b>                                                  |      |      |         |         |
|      |  |  |  |     | Speed with load : 25km per hour                                                 |      |      |         |         |
|      |  |  |  |     | Speed while returning empty : 35km per hour                                     |      |      |         |         |
|      |  |  |  | a)  | <b>Machinery</b>                                                                |      |      |         |         |
|      |  |  |  |     | Truck                                                                           |      |      |         |         |
|      |  |  |  |     | Haulage with load                                                               | hour | 0.40 | 1054.00 | 421.60  |
|      |  |  |  |     | Empty return trip                                                               | hour | 0.29 | 1054.00 | 305.66  |
|      |  |  |  |     | Cost for 100t km = a + b + c                                                    |      |      |         | 727.26  |
|      |  |  |  |     | Cost for 1 t km = a+b/100                                                       |      |      |         | 7.270   |
|      |  |  |  |     | <b>Total per t per km</b>                                                       |      |      |         | 7.270   |
|      |  |  |  |     | <b>Case - III Kutcha Track and Track in River Bed / Nallah Bed and Choe Bed</b> |      |      |         |         |
|      |  |  |  |     | Speed with load : 10km per hour                                                 |      |      |         |         |
|      |  |  |  |     | Speed while returning empty : 15km per hour                                     |      |      |         |         |
|      |  |  |  | a)  | <b>Machinery</b>                                                                |      |      |         |         |
|      |  |  |  |     | Truck                                                                           |      |      |         |         |
|      |  |  |  |     | Haulage with load                                                               | hour | 1.00 | 1054.00 | 1054.00 |
|      |  |  |  |     | Empty return trip                                                               | hour | 0.67 | 1054.00 | 706.18  |
|      |  |  |  |     | Cost for 100t km = a + b                                                        |      |      |         | 1760.18 |
|      |  |  |  |     | Cost for 1 t km = a+b+c/100                                                     |      |      |         | 17.60   |
|      |  |  |  |     | <b>Total per t per km</b>                                                       |      |      |         | 17.600  |
| 1.9  |  |  |  |     | <b>Loading and Unloading of Hume Pipes</b>                                      |      |      |         |         |
|      |  |  |  | (f) | Loading of RCC Hume pipes by mechanical means including a lead upto 30 m        |      |      |         |         |
|      |  |  |  | A.  | <b>1000 / 1200 mm dia Hume pipe</b>                                             |      |      |         |         |
|      |  |  |  |     | Unit = per pipe                                                                 |      |      |         |         |
|      |  |  |  |     | Taking output = 9 pipes                                                         |      |      |         |         |
|      |  |  |  | a)  | <b>Labour</b>                                                                   |      |      |         |         |
|      |  |  |  |     | Mate                                                                            | day  | 0.02 | 397.00  | 7.94    |
|      |  |  |  |     | Mazdoor (Unskilled)                                                             | day  | 0.50 | 373.00  | 186.50  |
|      |  |  |  | b)  | <b>Machinery</b>                                                                |      |      |         |         |
|      |  |  |  |     | Truck                                                                           | hour | 0.33 | 1054.00 | 347.82  |
|      |  |  |  |     | Crane                                                                           | hour | 0.33 | 5573.00 | 1839.09 |
|      |  |  |  |     | Cost for 9 pipes = a+b+c+d                                                      |      |      |         | 2381.35 |

|   |     |       |                                                                                                                                                                                                                                                                   |       |         |          |
|---|-----|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|----------|
|   |     |       | Rate per pipe = (a+b+c)/9                                                                                                                                                                                                                                         |       |         |          |
|   |     |       | Total per pipe                                                                                                                                                                                                                                                    |       |         |          |
|   |     |       | per p                                                                                                                                                                                                                                                             |       |         | 264.594  |
|   |     | C.    | 600/450 mm dia Hume pipe                                                                                                                                                                                                                                          |       |         |          |
|   |     |       | Unit = per pipe                                                                                                                                                                                                                                                   |       |         |          |
|   |     |       | Taking output = 21 pipe                                                                                                                                                                                                                                           |       |         |          |
|   |     | a)    | Labour                                                                                                                                                                                                                                                            |       |         |          |
|   |     |       | Mate                                                                                                                                                                                                                                                              |       |         |          |
|   |     |       | Mazdoor (Unskilled)                                                                                                                                                                                                                                               |       |         |          |
|   |     |       | day                                                                                                                                                                                                                                                               | 0.02  | 397.00  | 7.94     |
|   |     | b)    | Machinery                                                                                                                                                                                                                                                         |       |         |          |
|   |     |       | Tractor 3.60 Tonnes Capacity                                                                                                                                                                                                                                      |       |         |          |
|   |     |       | Crane                                                                                                                                                                                                                                                             |       |         |          |
|   |     |       | hour                                                                                                                                                                                                                                                              | 0.33  | 1054.00 | 347.82   |
|   |     |       | hour                                                                                                                                                                                                                                                              | 0.33  | 5573.00 | 1839.09  |
|   |     |       | Cost for 21 pipes = a+b+c+d                                                                                                                                                                                                                                       |       |         |          |
|   |     |       | Rate per pipe = (a+b+c)/21                                                                                                                                                                                                                                        |       |         |          |
|   |     |       | Total per pipe                                                                                                                                                                                                                                                    |       |         |          |
|   |     |       | per p                                                                                                                                                                                                                                                             |       |         | 113.398  |
|   |     | (iii) | Unloading of RCC Hume pipe by Mechanical means including a lead upto 30 m                                                                                                                                                                                         |       |         |          |
|   |     | A.    | 1000/1200 mm dia RCC Hume pipes                                                                                                                                                                                                                                   |       |         |          |
|   |     |       | Unit = per pipe                                                                                                                                                                                                                                                   |       |         |          |
|   |     |       | Taking output = 9 pipes                                                                                                                                                                                                                                           |       |         |          |
|   |     | a)    | Labour                                                                                                                                                                                                                                                            |       |         |          |
|   |     |       | Mate                                                                                                                                                                                                                                                              |       |         |          |
|   |     |       | Mazdoor (Unskilled)                                                                                                                                                                                                                                               |       |         |          |
|   |     |       | day                                                                                                                                                                                                                                                               | 0.02  | 397.00  | 7.94     |
|   |     | b)    | Machinery                                                                                                                                                                                                                                                         |       |         |          |
|   |     |       | Truck                                                                                                                                                                                                                                                             |       |         |          |
|   |     |       | hour                                                                                                                                                                                                                                                              | 0.20  | 1054.00 | 210.80   |
|   |     |       | Crane                                                                                                                                                                                                                                                             |       |         |          |
|   |     |       | hour                                                                                                                                                                                                                                                              | 0.20  | 5573.00 | 1114.60  |
|   |     |       | Cost for 9 pipes = a+b+c+d                                                                                                                                                                                                                                        |       |         |          |
|   |     |       | Rate per pipe = (a+b+c)/9                                                                                                                                                                                                                                         |       |         |          |
|   |     |       | per p                                                                                                                                                                                                                                                             |       |         | 168.871  |
|   |     |       | Total per pipe                                                                                                                                                                                                                                                    |       |         |          |
|   |     |       |                                                                                                                                                                                                                                                                   |       |         |          |
|   |     | C.    | 600/450 mm dia Hume pipe                                                                                                                                                                                                                                          |       |         |          |
|   |     |       | Unit = per pipe                                                                                                                                                                                                                                                   |       |         |          |
|   |     |       | Taking output = 21 pipes                                                                                                                                                                                                                                          |       |         |          |
|   |     | a)    | Labour                                                                                                                                                                                                                                                            |       |         |          |
|   |     |       | Mate                                                                                                                                                                                                                                                              |       |         |          |
|   |     |       | day                                                                                                                                                                                                                                                               | 0.020 | 397.00  | 7.94     |
|   |     |       | Mazdoor (Unskilled)                                                                                                                                                                                                                                               |       |         |          |
|   |     |       | day                                                                                                                                                                                                                                                               | 0.50  | 373.00  | 186.50   |
|   |     | b)    | Machinery                                                                                                                                                                                                                                                         |       |         |          |
|   |     |       | Truck                                                                                                                                                                                                                                                             |       |         |          |
|   |     |       | hour                                                                                                                                                                                                                                                              | 0.20  | 1054.00 | 210.80   |
|   |     |       | Crane                                                                                                                                                                                                                                                             |       |         |          |
|   |     |       | hour                                                                                                                                                                                                                                                              | 0.20  | 5573.00 | 1114.60  |
|   |     |       | Cost for 21 pipes = a+b+c+d                                                                                                                                                                                                                                       |       |         |          |
|   |     |       | Rate per pipe = (a+b+c)/21                                                                                                                                                                                                                                        |       |         |          |
|   |     |       | per p                                                                                                                                                                                                                                                             |       |         | 72.373   |
|   |     |       | Total per pipe                                                                                                                                                                                                                                                    |       |         |          |
|   |     |       |                                                                                                                                                                                                                                                                   |       |         |          |
|   |     | 1.9   | Loading and Unloading of Bamboo                                                                                                                                                                                                                                   |       |         |          |
|   |     | (i)   | Loading & unloading Bamboo                                                                                                                                                                                                                                        |       |         |          |
|   |     |       | Unit = per metre                                                                                                                                                                                                                                                  |       |         |          |
|   |     |       | Taking output = per mtr.                                                                                                                                                                                                                                          |       |         |          |
|   |     | a)    | Material                                                                                                                                                                                                                                                          |       |         |          |
|   |     |       | Bamboo = 2016/300                                                                                                                                                                                                                                                 |       |         |          |
|   |     |       | per pipe                                                                                                                                                                                                                                                          |       |         | 6.72     |
|   |     |       | Bamboo Per Mt.                                                                                                                                                                                                                                                    |       |         |          |
|   |     |       | per mt                                                                                                                                                                                                                                                            |       |         | 0.96     |
|   |     |       | Total per m                                                                                                                                                                                                                                                       |       |         |          |
|   |     |       |                                                                                                                                                                                                                                                                   |       |         |          |
| 4 | 3.3 | 301.5 | Construction of Embankment with material obtained from roadway cutting                                                                                                                                                                                            |       |         |          |
|   |     |       | Construction of Embankment with approved material deposit at site from roadway cutting and excavation from drain and foundation of other structure graded and compacted to meet requirement of Table 300.1 and 300.2 as per Technical Specification Clause 301.5. |       |         |          |
|   |     |       | Unit = cum                                                                                                                                                                                                                                                        |       |         |          |
|   |     |       | Taking output = 100 cum                                                                                                                                                                                                                                           |       |         |          |
|   |     | a)    | Labour                                                                                                                                                                                                                                                            |       |         |          |
|   |     |       | Mate                                                                                                                                                                                                                                                              |       |         |          |
|   |     |       | day                                                                                                                                                                                                                                                               | 0.02  | 397.00  | 7.94     |
|   |     |       | Mazdoor (Unskilled)                                                                                                                                                                                                                                               |       |         |          |
|   |     |       | day                                                                                                                                                                                                                                                               | 0.50  | 373.00  | 186.50   |
|   |     | b)    | Machinery                                                                                                                                                                                                                                                         |       |         |          |
|   |     |       | Dozer D-50 for spreading @200 cum per hour                                                                                                                                                                                                                        |       |         |          |
|   |     |       | hour                                                                                                                                                                                                                                                              | 0.50  | 0.00    | 0.00     |
|   |     |       | Motor Grader for grading @200 Cum per hour                                                                                                                                                                                                                        |       |         |          |
|   |     |       | hour                                                                                                                                                                                                                                                              | 2.00  | 697.00  | 1,394.00 |
|   |     |       | Water tanker 6 kl capacity                                                                                                                                                                                                                                        |       |         |          |
|   |     |       | hour                                                                                                                                                                                                                                                              | 2.00  | 752.00  | 1,504.00 |
|   |     |       | Three Wheel 80-100 kN Static Roller                                                                                                                                                                                                                               |       |         |          |
|   |     |       | hour                                                                                                                                                                                                                                                              | 1.25  | 1593.00 | 1,991.25 |
|   |     | c)    | Material                                                                                                                                                                                                                                                          |       |         |          |
|   |     |       | Water                                                                                                                                                                                                                                                             |       |         |          |
|   |     |       | kl                                                                                                                                                                                                                                                                | 12.00 | 60.30   | 723.60   |
|   |     |       | Cost for 100 cum = a+b+c+d+e                                                                                                                                                                                                                                      |       |         |          |
|   |     |       |                                                                                                                                                                                                                                                                   |       |         |          |

|   |      |       |                                                                                                                                                                                                                                                                                                                                                |      |       |          |  |           |
|---|------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------|--|-----------|
|   |      |       | Rate per cum = (a+b+c+d)/100                                                                                                                                                                                                                                                                                                                   |      |       |          |  | 58.073    |
|   |      |       | Total per cum                                                                                                                                                                                                                                                                                                                                  | cum  |       |          |  | 58.073    |
| 5 | 3.5  | 301.5 | Exaavation in soil with Dozer with lead upto 100 m                                                                                                                                                                                                                                                                                             | cum  |       |          |  | 58.073    |
|   | (ii) |       | Excavation for roadway in soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 m, including trimming bottom and side slopes in accordance with requirements of lines, grades and cross-sections.                                                                                      |      |       |          |  |           |
|   |      |       | Unit = cum                                                                                                                                                                                                                                                                                                                                     |      |       |          |  |           |
|   |      |       | Taking output = 100 cum                                                                                                                                                                                                                                                                                                                        |      |       |          |  |           |
|   |      | a)    | Labour                                                                                                                                                                                                                                                                                                                                         |      |       |          |  |           |
|   |      |       | Mate                                                                                                                                                                                                                                                                                                                                           | day  | 0.08  | 397.00   |  | 31.60     |
|   |      |       | Mazdoor (Unskilled)                                                                                                                                                                                                                                                                                                                            | day  | 2.00  | 373.00   |  | 822.00    |
|   |      | b)    | Machinery                                                                                                                                                                                                                                                                                                                                      |      |       |          |  |           |
|   |      |       | Dozer D-50 for spreading @200 cum per hour                                                                                                                                                                                                                                                                                                     | hour | 3.60  | 4326.00  |  | 15,573.60 |
|   |      |       | Cost for 100 cum = a+b+c+d+e                                                                                                                                                                                                                                                                                                                   |      |       |          |  | 16427.20  |
|   |      |       | Rate per cum = (a+b+c+d)/180                                                                                                                                                                                                                                                                                                                   | cum  |       |          |  | 91.262    |
|   |      |       | Total per cum                                                                                                                                                                                                                                                                                                                                  | cum  |       |          |  | 91.260    |
| 6 | 3.3  | 301.5 | Construction of Embankment with approved material obtained from borrow pits with a lift upto 1.5 m transporting to site, spreading grading to required slope and compacting to meet requirement of Table 300.1 and 300.2 with a lead of 1000 m as per Technical                                                                                |      |       |          |  |           |
|   |      |       | Unit = cum                                                                                                                                                                                                                                                                                                                                     |      |       |          |  |           |
|   |      |       | Rate item no. 3.3 Clause 301.5                                                                                                                                                                                                                                                                                                                 |      |       |          |  | 58.073    |
|   |      |       | Rate item no. 3.5(ii) Clause 301.5                                                                                                                                                                                                                                                                                                             |      |       |          |  | 91.260    |
|   |      |       | Royalty Compensation for earth taken from private land                                                                                                                                                                                                                                                                                         |      |       |          |  | 35.250    |
|   |      |       | Carriage of Earth by Tractor Lead 1 K.M.                                                                                                                                                                                                                                                                                                       |      |       |          |  | 274.420   |
|   |      |       | Total Cost of 1 cum =                                                                                                                                                                                                                                                                                                                          |      |       |          |  | 459.003   |
|   |      |       | Labour Cess @ 1%                                                                                                                                                                                                                                                                                                                               |      |       |          |  | 4.590     |
|   |      |       | G.S.T. @ 18%                                                                                                                                                                                                                                                                                                                                   |      |       |          |  | 82.621    |
|   |      |       | Add Seigniorage Fee @ 10 % of Materials                                                                                                                                                                                                                                                                                                        | cum  | 1.00  | 35.25    |  | 3.53      |
|   |      |       | Total Cost of 1 cum 1% Cess & 18 % GST =                                                                                                                                                                                                                                                                                                       |      |       |          |  | 549.743   |
| 7 | 4.5  |       | Providing and Laying of Brick Bats                                                                                                                                                                                                                                                                                                             |      |       |          |  |           |
|   |      |       | Placing tractor at loading point loading with front end loader dumpoing ,turning for return trip exluding time for haulage and return tirp                                                                                                                                                                                                     |      |       |          |  |           |
|   |      |       | Unit = cum                                                                                                                                                                                                                                                                                                                                     |      |       |          |  |           |
|   |      |       | Taking output = 2.83 cum                                                                                                                                                                                                                                                                                                                       |      |       |          |  |           |
|   |      | a)    | Labour                                                                                                                                                                                                                                                                                                                                         |      |       |          |  |           |
|   |      |       | Mazdoor (Unskilled)                                                                                                                                                                                                                                                                                                                            | day  | 2.170 | 373.00   |  | 809.41    |
|   |      | b)    | Materilas                                                                                                                                                                                                                                                                                                                                      |      |       |          |  |           |
|   |      |       | Brick Bats                                                                                                                                                                                                                                                                                                                                     | cum  | 3.396 | 1,081.00 |  | 3671.08   |
|   |      |       | Total (a+b)=                                                                                                                                                                                                                                                                                                                                   |      |       |          |  | 4480.49   |
|   |      |       | Total (a+b+c) =                                                                                                                                                                                                                                                                                                                                |      |       |          |  | 4480.49   |
|   |      | d)    | Carriage                                                                                                                                                                                                                                                                                                                                       |      |       |          |  |           |
|   |      |       | Brick Bats                                                                                                                                                                                                                                                                                                                                     | cum  | 3.396 | 521.97   |  | 1772.61   |
|   |      |       | TOTAL                                                                                                                                                                                                                                                                                                                                          |      |       |          |  | 6253.10   |
|   |      |       | Rate per cum = (a+b+c+d)/2.83                                                                                                                                                                                                                                                                                                                  | cum  |       |          |  | 2209.576  |
|   |      |       | Total per cum                                                                                                                                                                                                                                                                                                                                  | cum  |       |          |  | 2209.576  |
|   |      |       | Labour Cess @ 1%                                                                                                                                                                                                                                                                                                                               |      |       |          |  | 22.096    |
|   |      |       | G.S.T. @ 18%                                                                                                                                                                                                                                                                                                                                   |      |       |          |  | 397.724   |
|   |      |       | Add Seigniorage Fee @ 10 % of Materials                                                                                                                                                                                                                                                                                                        | cum  | 1.20  | 1,081.00 |  | 129.72    |
|   |      |       | Total Cost of 1 cum 1% Cess & 18 % GST =                                                                                                                                                                                                                                                                                                       |      |       |          |  | 2,759.115 |
| 8 | 4.1  | 401   | PAVEMENT CRUST LAYERS                                                                                                                                                                                                                                                                                                                          |      |       |          |  |           |
|   |      |       | For Grading II Material                                                                                                                                                                                                                                                                                                                        |      |       |          |  |           |
|   |      |       | Construction of granular sub-base by providing well graded material, spreading in uniform layers with tractor mounted grader arrangement on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401. |      |       |          |  |           |
|   |      | (ii)  | For Grading II Material                                                                                                                                                                                                                                                                                                                        |      |       |          |  |           |
|   |      |       | Unit = cum                                                                                                                                                                                                                                                                                                                                     |      |       |          |  |           |
|   |      |       | Taking output = 300 cum                                                                                                                                                                                                                                                                                                                        |      |       |          |  |           |
|   |      | a)    | Labour                                                                                                                                                                                                                                                                                                                                         |      |       |          |  |           |
|   |      |       | Mate                                                                                                                                                                                                                                                                                                                                           | day  | 0.48  | 397.00   |  | 190.56    |
|   |      |       | Mazdoor (Skilled)                                                                                                                                                                                                                                                                                                                              | day  | 2.00  | 472.00   |  | 944.00    |
|   |      |       | Mazdoor (Unskilled)                                                                                                                                                                                                                                                                                                                            | day  | 10.00 | 373.00   |  | 3730.00   |

|   |          |      |                                                                                                                                                                                                                                                                                                            |      |        |         |            |
|---|----------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|---------|------------|
|   |          | b)   | <b>Machinery</b>                                                                                                                                                                                                                                                                                           |      |        |         |            |
|   |          |      | Tractor mounted grader arrangement                                                                                                                                                                                                                                                                         |      |        |         | 4864.56    |
|   |          |      | Three wheel 80-100 kN static roller @ 10 cum per hour                                                                                                                                                                                                                                                      | hour | 12.00  | 676.00  | 8112.00    |
|   |          |      | Tractor with Rotavator 25 cum per hour                                                                                                                                                                                                                                                                     | hour | 30.00  | 1593.00 | 47790.00   |
|   |          |      | Water tanker 6 kl capacity                                                                                                                                                                                                                                                                                 | hour | 12.00  | 693.00  | 8316.00    |
|   |          | c)   | <b>Material</b>                                                                                                                                                                                                                                                                                            | hour | 5.00   | 752.00  | 3760.00    |
|   |          |      | Well graded granular sub-base material as per Table 400.1                                                                                                                                                                                                                                                  |      |        |         | 67978.00   |
|   |          |      | GSB                                                                                                                                                                                                                                                                                                        |      |        |         |            |
|   |          |      | Cost of 300 cum without Carriage = (a+b+c+d+e)                                                                                                                                                                                                                                                             | cum  | 1.28   | 167.03  | 213.80     |
|   |          |      | A) Basic Cost per cum = (a+b+c+d+e)/300                                                                                                                                                                                                                                                                    |      |        |         | 73056.36   |
|   |          |      | CARRIAGE                                                                                                                                                                                                                                                                                                   | cum  |        |         | 243.521    |
|   |          |      | G.S.B.                                                                                                                                                                                                                                                                                                     |      |        |         |            |
|   |          |      | Carriage cost of 300 cum                                                                                                                                                                                                                                                                                   | Cum  | 414.00 | 2960.13 | 1225493.82 |
|   |          |      | B) Carriage cost per cum                                                                                                                                                                                                                                                                                   |      |        |         | 1225493.82 |
|   |          |      | Rate per cum = (A+B)                                                                                                                                                                                                                                                                                       |      |        |         | 4084.98    |
|   |          |      | Total per cum                                                                                                                                                                                                                                                                                              | CUM  |        |         | 4328.501   |
|   |          |      | Labour Cess @ 1%                                                                                                                                                                                                                                                                                           | CUM  |        |         | 4328.501   |
|   |          |      | G.S.T. @ 18%                                                                                                                                                                                                                                                                                               |      |        |         | 43.285     |
|   |          |      | Add Seigniorage Fee @ 10 % of Materials                                                                                                                                                                                                                                                                    |      |        |         | 779.130    |
|   |          |      | Total Cost of 1 cum 1% Cess & 18 % GST =                                                                                                                                                                                                                                                                   | cum  | 1.28   | 167.03  | 21.38      |
|   |          |      |                                                                                                                                                                                                                                                                                                            |      |        |         | 5,172.296  |
| 9 | 9.3      | 1100 | Providing and laying reinforced cement concrete pipe NP3 for culverts on first class bedding of granular material in single row including fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets Clause 1106. |      |        |         |            |
|   |          | B.   | <b>1000 MM DIA (Single Row)</b>                                                                                                                                                                                                                                                                            |      |        |         |            |
|   |          | a)   | <b>Material</b>                                                                                                                                                                                                                                                                                            |      |        |         |            |
|   |          |      | RCC NP3 pipe including collar                                                                                                                                                                                                                                                                              | m    | 7.50   | 5787.23 | 43404.23   |
|   |          | b)   | <b>Labour</b>                                                                                                                                                                                                                                                                                              |      |        |         |            |
|   |          |      | Mate                                                                                                                                                                                                                                                                                                       | day  | 0.09   | 397.00  | 35.73      |
|   |          |      | Mason ( 1st class )                                                                                                                                                                                                                                                                                        | day  | 0.25   | 503.00  | 125.75     |
|   |          |      | Mazdoor ( Unskilled )                                                                                                                                                                                                                                                                                      | day  | 2.00   | 373.00  | 746.00     |
|   |          |      | Cost for 7.5m = ( a+b+c)                                                                                                                                                                                                                                                                                   |      |        |         | 44311.71   |
|   |          |      | A) Basic Cost per m = (a+b)/7.5                                                                                                                                                                                                                                                                            | m    |        |         | 5908.23    |
|   |          |      | Rate per m of Pipe                                                                                                                                                                                                                                                                                         |      |        |         | 5908.23    |
|   |          | (d)  | <b>CARRIAGE COST</b>                                                                                                                                                                                                                                                                                       |      |        |         |            |
|   |          |      | NP3 Pipe                                                                                                                                                                                                                                                                                                   | m    | 7.5    | 298.37  | 2237.78    |
|   |          |      | Carriage cost of 7.5 m                                                                                                                                                                                                                                                                                     |      |        |         | 2237.78    |
|   |          |      | Carriage cost per m                                                                                                                                                                                                                                                                                        | m    |        |         | 298.37     |
|   |          |      | Rate per m with Carriage                                                                                                                                                                                                                                                                                   | m    |        |         | 6,206.598  |
|   |          |      | Total per m                                                                                                                                                                                                                                                                                                | m    |        |         | 6,206.598  |
|   |          |      | Labour Cess @ 1%                                                                                                                                                                                                                                                                                           |      |        |         | 62.066     |
|   |          |      | G.S.T. @ 18%                                                                                                                                                                                                                                                                                               |      |        |         | 1,117.188  |
|   |          |      | Total Cost of 1 mtr. 1% Cess & 18 % GST =                                                                                                                                                                                                                                                                  |      |        |         | 7,385.852  |
| 2 |          | C.   | <b>600 MM DIA (Single Row)</b>                                                                                                                                                                                                                                                                             |      |        |         |            |
|   |          | a)   | <b>Material</b>                                                                                                                                                                                                                                                                                            |      |        |         |            |
|   |          |      | RCC NP3 pipe including collar                                                                                                                                                                                                                                                                              | m    | 7.50   | 2310.00 | 17325.00   |
|   |          | b)   | <b>Labour</b>                                                                                                                                                                                                                                                                                              |      |        |         |            |
|   |          |      | Mate                                                                                                                                                                                                                                                                                                       | day  | 0.04   | 397.00  | 15.88      |
|   |          |      | Mason ( 1st class )                                                                                                                                                                                                                                                                                        | day  | 0.12   | 503.00  | 60.36      |
|   |          |      | Mazdoor ( Unskilled )                                                                                                                                                                                                                                                                                      | day  | 0.96   | 373.00  | 358.08     |
|   |          |      | Cost of 7.5m = (a+b+c+d)                                                                                                                                                                                                                                                                                   |      |        |         | 17759.32   |
|   |          |      | A) Basic Cost per m = (a+b)/7.5                                                                                                                                                                                                                                                                            | m    |        |         | 2367.91    |
|   |          |      | Rate per m of Pipe                                                                                                                                                                                                                                                                                         |      |        |         | 2367.91    |
|   |          |      | <b>CARRIAGE COST</b>                                                                                                                                                                                                                                                                                       |      |        |         |            |
|   |          |      | NP3 Pipe                                                                                                                                                                                                                                                                                                   | m    | 7.5    | 124.35  | 932.63     |
|   |          |      | Carriage cost of 7.5 m                                                                                                                                                                                                                                                                                     |      |        |         | 932.63     |
|   |          |      | B) Carriage cost per m                                                                                                                                                                                                                                                                                     | m    |        |         | 124.35     |
|   |          |      | Rate per m with Carriage                                                                                                                                                                                                                                                                                   | m    |        |         | 2,492.260  |
|   |          |      | Total per m                                                                                                                                                                                                                                                                                                | m    |        |         | 2,492.260  |
|   |          |      | Labour Cess @ 1%                                                                                                                                                                                                                                                                                           |      |        |         | 24.923     |
|   |          |      | G.S.T. @ 18%                                                                                                                                                                                                                                                                                               |      |        |         | 448.607    |
|   |          |      | Total Cost of 1 mtr. 1% Cess & 18 % GST =                                                                                                                                                                                                                                                                  |      |        |         | 2,965.789  |
| 3 | 5.7.40.1 |      | Labour for filling empty cement bags with local sand, stitching the bags and placing including supply of suttu etc. all complete as per approved design, specification and direction E/I.                                                                                                                  |      |        |         |            |

|   |       |                                                                                                                                                                                                                                       |          |       |        |         |
|---|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|--------|---------|
|   |       | Unit = Per % Nos.                                                                                                                                                                                                                     |          |       |        |         |
|   |       | (A) For Filling & Stitching & Stacking                                                                                                                                                                                                |          |       |        |         |
|   |       | Labour                                                                                                                                                                                                                                |          |       |        |         |
|   |       | Skilled Labour for filling sand into bags and sewing                                                                                                                                                                                  |          |       |        |         |
|   |       | sutali                                                                                                                                                                                                                                | No.      | 2.00  | 472.00 | 944.00  |
|   |       |                                                                                                                                                                                                                                       | kg       | 0.50  | 20.59  | 10.30   |
|   |       | (B) Labour Rate For Carrying & Placing filed E.C. Bags.                                                                                                                                                                               |          |       |        |         |
|   |       | Labour                                                                                                                                                                                                                                |          |       |        |         |
|   |       | Skilled Labour for Carrying filed bags and placing to work site                                                                                                                                                                       | No.      | 3.00  | 472.00 | 1416.00 |
|   |       | TOTAL =                                                                                                                                                                                                                               |          |       |        | 2370.30 |
|   |       | Per % Nos. (B) =                                                                                                                                                                                                                      |          |       | Say.   | 2370.30 |
|   |       | Rate per bag (A+B) = /100                                                                                                                                                                                                             |          |       |        | 23.70   |
|   |       | (C) Cost of empty cement bag & cost of sand                                                                                                                                                                                           | each     |       |        | 11.11   |
|   |       | (D) Carriage cost                                                                                                                                                                                                                     |          |       |        |         |
|   |       | Tractor with trolly                                                                                                                                                                                                                   | cum      | 0.034 | 345.14 | 11.73   |
|   |       | (G) Total = (A+B+C+D) =                                                                                                                                                                                                               |          |       |        | 46.55   |
|   |       | Labour Cess @ 1%                                                                                                                                                                                                                      |          |       |        | 0.465   |
|   |       | G.S.T. @ 18%                                                                                                                                                                                                                          |          |       |        | 8.379   |
|   |       | Add Seigniorage Fee @ 10 % of Materials                                                                                                                                                                                               |          |       |        | 0.49    |
|   |       | Total Cost of 1 E.C. Bag 1% Cess & 18 % GST =                                                                                                                                                                                         | cum      | 0.034 | 144.75 | 55.882  |
| 4 | 5.7.9 | Supply Labour for fitting and fixing 62 mm to 75 mm dia bamboo runners in position at every verticle pile with 150 mm long nails or 38 swg G. I. wire including cost of G.I. or nails complete job as per specification and direction |          |       |        |         |
|   |       | Unit = Per mt.                                                                                                                                                                                                                        |          |       |        |         |
|   |       | Taking Out Put = 30.50 m                                                                                                                                                                                                              |          |       |        |         |
|   |       | (i) Materials                                                                                                                                                                                                                         |          |       |        |         |
|   |       | Bamboo                                                                                                                                                                                                                                | m        | 30.50 | 20.21  | 616.41  |
|   |       | Nails                                                                                                                                                                                                                                 | kg       | 0.50  | 108.00 | 54.00   |
|   |       | (ii) Labour                                                                                                                                                                                                                           |          |       |        |         |
|   |       | Carpenter Gr -II                                                                                                                                                                                                                      | No.      | 0.125 | 531.00 | 66.38   |
|   |       | Unskilled Labour                                                                                                                                                                                                                      | No.      | 0.25  | 373.00 | 93.25   |
|   |       | Rate for 30.5 m                                                                                                                                                                                                                       |          |       |        | 830.04  |
|   |       | TOTAL =                                                                                                                                                                                                                               |          |       |        | 830.04  |
|   |       | Rate per mt                                                                                                                                                                                                                           |          |       |        | 27.21   |
|   |       | (iii) Carriage cost                                                                                                                                                                                                                   |          |       |        |         |
|   |       | bamboo                                                                                                                                                                                                                                | mt       | 1     | 3.00   | 3       |
|   |       | Total Cost with Carriage                                                                                                                                                                                                              |          |       |        | 30.21   |
|   |       | Labour Cess @ 1%                                                                                                                                                                                                                      |          |       |        | 0.302   |
|   |       | G.S.T. @ 18%                                                                                                                                                                                                                          |          |       |        | 5.439   |
|   |       | Total Cost of 1 mtr. 1% Cess & 18 % GST =                                                                                                                                                                                             |          |       |        | 35.955  |
| 5 | 5.7.7 | Labour for cutting 62 mm to 75 mm dia bamboo piles in size and making shoes and driving etc. complete bob as per specification and direction E/I.                                                                                     |          |       |        |         |
|   |       | Unit = Per mt.                                                                                                                                                                                                                        |          |       |        |         |
|   |       | Taking Out Put = 30.50 m                                                                                                                                                                                                              |          |       |        |         |
|   |       | Assurning                                                                                                                                                                                                                             |          |       |        |         |
|   |       | 20 no pile sunk 1.525 m deeps                                                                                                                                                                                                         |          |       |        |         |
|   |       | Total depth sunk 30.50 m                                                                                                                                                                                                              |          |       |        |         |
|   |       | (i) Materials                                                                                                                                                                                                                         |          |       |        |         |
|   |       | Bamboo                                                                                                                                                                                                                                | m        | 30.50 | 20.21  | 616.41  |
|   |       | (ii) Labour                                                                                                                                                                                                                           |          |       |        |         |
|   |       | Carpenter Gr -II                                                                                                                                                                                                                      | No.      | 0.25  | 531.00 | 132.75  |
|   |       | Unskilled Labour for piling                                                                                                                                                                                                           | No.      | 2.50  | 373.00 | 932.5   |
|   |       | Rate for 30.5 m                                                                                                                                                                                                                       |          |       |        | 1681.66 |
|   |       | Total                                                                                                                                                                                                                                 |          |       |        | 1681.66 |
|   |       | Rate for 1 m                                                                                                                                                                                                                          |          |       |        | 55.14   |
|   |       | Carriage Cost of Bamboo                                                                                                                                                                                                               | per mtr. |       |        | 3.00    |
|   |       | Total Cost with Carriage                                                                                                                                                                                                              |          |       |        | 58.14   |
|   |       | Labour Cess @ 1%                                                                                                                                                                                                                      |          |       |        | 0.581   |
|   |       | G.S.T. @ 18%                                                                                                                                                                                                                          |          |       |        | 10.465  |
|   |       | Total Cost of 1 mtr. 1% Cess & 18 % GST =                                                                                                                                                                                             |          |       |        | 69.182  |

|              |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |       |           |
|--------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|-----------|
| 6            |      | Labour for fitting and and fixing Steel Drum 300 mm dia 1.2 m high as per specification and direction                                                                                                                                                                                                                                                                                                                                               |      |       |           |
|              |      | (Assuming Per Mtr. = $3.14 \times 0.30 = 0.942$ mtr.)                                                                                                                                                                                                                                                                                                                                                                                               |      |       |           |
|              |      | Area of Assuming in one Drum = $0.942 \times 1.20 = 1.130$ Sqm                                                                                                                                                                                                                                                                                                                                                                                      |      |       |           |
|              |      | One Sqm sheet Cost = $127.80 / 1.130 = 113.12$ Cost                                                                                                                                                                                                                                                                                                                                                                                                 |      |       |           |
|              |      | Unit = per sqm                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |       |           |
|              |      | Taking Out = 100 sqm                                                                                                                                                                                                                                                                                                                                                                                                                                |      |       |           |
|              | a    | Labour                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |       |           |
|              |      | Hammer man                                                                                                                                                                                                                                                                                                                                                                                                                                          | No.  | 4.00  | 531.00    |
|              |      | Mazdoor (Unskilled)                                                                                                                                                                                                                                                                                                                                                                                                                                 | No.  | 4.00  | 373.00    |
|              |      | Carpenter 1st Class                                                                                                                                                                                                                                                                                                                                                                                                                                 | No.  | 4.00  | 503.00    |
|              | b    | Materials                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |       |           |
|              |      | Nails                                                                                                                                                                                                                                                                                                                                                                                                                                               | kg   | 5.00  | 170.13    |
|              |      | Steel Drum sheet                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nos. | 88.5  | 170.13    |
|              |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |       | 21535.160 |
|              |      | Rate Per m = $(a+b+c)/100$                                                                                                                                                                                                                                                                                                                                                                                                                          |      |       | 215.352   |
|              |      | Labour Cess @ 1%                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |       | 2.154     |
|              |      | G.S.T. @ 18%                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |       | 38.763    |
|              |      | Total Cost of 1 mtr. 1% Cess & 18 % GST =                                                                                                                                                                                                                                                                                                                                                                                                           |      |       | 256.268   |
| 5.7.8<br>WRD |      | Labour for fitting and and fixing split bamboo woven chachari in position with 20 swg G.I. wire of 75 mm to 100 mm long nails alternatively including cost of G.I. wire or nails complete job as per specification and direction of E/I.                                                                                                                                                                                                            |      |       |           |
|              |      | (Assuming strip of $3.05 \times 3.05 = 9.30$ sqm                                                                                                                                                                                                                                                                                                                                                                                                    |      |       |           |
|              |      | Unit = per sqm                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |       |           |
|              |      | Taking Out = 9.30 sqm                                                                                                                                                                                                                                                                                                                                                                                                                               |      |       |           |
|              | a    | Labour                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |       |           |
|              |      | Carpenter Gr-II                                                                                                                                                                                                                                                                                                                                                                                                                                     | No.  | 1.00  | 531.00    |
|              |      | Mazdoor (Unskilled) for pilling                                                                                                                                                                                                                                                                                                                                                                                                                     | No.  | 1.00  | 373.00    |
|              | b    | Materials                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |       |           |
|              |      | Bamboo                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mtr. | 10.00 | 188.00    |
|              |      | Nails                                                                                                                                                                                                                                                                                                                                                                                                                                               | kg   | 0.25  | 108.00    |
|              |      |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |       | 2811.000  |
|              |      | Rate Per m = $(a+b+c)/9.30$                                                                                                                                                                                                                                                                                                                                                                                                                         |      |       | 302.258   |
|              |      | Labour Cess @ 1%                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |       | 3.023     |
|              |      | G.S.T. @ 18%                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |       | 54.406    |
|              |      | Total Cost of 1 mtr. 1% Cess & 18 % GST =                                                                                                                                                                                                                                                                                                                                                                                                           |      |       | 359.687   |
| 5.7.50       |      | Providing laying & filling Geo bags of size 1m X 0.700m (Type A) 300 GSM nonwoven weight 420 gm volume of filled bag 0.070 cum Weight of filled Geo bag 126 kg with local sand including stitching in four lines by approved Nylon thread with Staching machine and generator, stacking and placing after loading, Unloading and carriage with the help of Trolley within 150 mtr. lead and all complete as per specification and direction of E/I. |      |       |           |
|              |      | Unit = Each Bag                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |       |           |
|              |      | Taking Out = 40 Nso.                                                                                                                                                                                                                                                                                                                                                                                                                                |      |       |           |
|              |      | Labour                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |       |           |
|              |      | Unskilled Loading For filling stacking                                                                                                                                                                                                                                                                                                                                                                                                              | nos  | 2     | 373.00    |
|              |      | Skilled labour for stacking                                                                                                                                                                                                                                                                                                                                                                                                                         | nos  | 0.33  | 472.00    |
|              |      | Unskilled labour for carrying and placing                                                                                                                                                                                                                                                                                                                                                                                                           | nos  | 4.00  | 373.00    |
|              |      | Mate                                                                                                                                                                                                                                                                                                                                                                                                                                                | nos  | 0.25  | 397.00    |
|              |      | Staching Machine                                                                                                                                                                                                                                                                                                                                                                                                                                    | day  | 0.33  | 50.00     |
|              |      | Tractor with trolley                                                                                                                                                                                                                                                                                                                                                                                                                                | day  | 1.00  | 676.00    |
|              |      | Generator 3KVA                                                                                                                                                                                                                                                                                                                                                                                                                                      | hrs  | 20.67 | 74.00     |
|              |      | Total                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |       | 4715.09   |
|              |      | Rate per bag (total/40) (A)                                                                                                                                                                                                                                                                                                                                                                                                                         |      |       | 117.88    |
|              | (ii) | charge for placing & dumping                                                                                                                                                                                                                                                                                                                                                                                                                        |      |       |           |
|              |      | unskilled labour for loading unloading & dumping                                                                                                                                                                                                                                                                                                                                                                                                    | nos  | 16    | 373.00    |
|              |      | Mate                                                                                                                                                                                                                                                                                                                                                                                                                                                | nos  | 1     | 397.00    |
|              |      | Tractor with trolley                                                                                                                                                                                                                                                                                                                                                                                                                                | each | 4     | 676.00    |
|              |      | Total                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |       | 9,443.000 |
|              |      | Rate per bag (Total/256) (B)                                                                                                                                                                                                                                                                                                                                                                                                                        |      |       | 36.887    |
|              |      | Materials                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |       |           |
|              |      | cost of Geo Bag                                                                                                                                                                                                                                                                                                                                                                                                                                     | each | 1     | 124.00    |
|              |      | Total cost (a+b+c)                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |       | 278.764   |

|          |      |                                                                                                                                                                                                                                                                                                                         |     |        |        |           |
|----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------|--------|-----------|
|          |      | Rate per bag                                                                                                                                                                                                                                                                                                            |     |        |        |           |
|          |      | Labour Cess @ 1%                                                                                                                                                                                                                                                                                                        |     |        |        | 278.764   |
|          |      | G.S.T. @ 18%                                                                                                                                                                                                                                                                                                            |     |        |        | 2.788     |
|          |      | Add Seigniorage Fee @ 10 % of Materials                                                                                                                                                                                                                                                                                 |     |        |        | 50.178    |
|          |      | Total Cost of 1 Geo Bag 1% Cess & 18 % GST =                                                                                                                                                                                                                                                                            | cum | 0.070  | 144.75 | 1.01      |
|          |      |                                                                                                                                                                                                                                                                                                                         |     |        |        | 332.739   |
| 5.7.40.3 |      | Labour for filling empty cement bags with local sand, stitching the bags and pitching in Nylon crate of size (1m x 1m x 1m) with a lead of 150 m including supply of suti etc. and placing the filed crates in water portion within a lead 30 m all complete as per approved design, specification and direction of E/I |     |        |        |           |
|          |      | Unit = Each N.C.                                                                                                                                                                                                                                                                                                        |     |        |        |           |
|          | (i)  | (i) Labour Cost for filling bags in one Nylon crate in dry portion                                                                                                                                                                                                                                                      | No. | 1      | 472.00 | 411.00    |
|          | (ii) | (i) Labour Cost for filling bags in one Nylon crate in dry portion                                                                                                                                                                                                                                                      | No. | 1      | 472.00 | 611.00    |
|          |      | (II) Placing of filed N/C with 30 m lead in water portion                                                                                                                                                                                                                                                               |     |        |        |           |
|          |      | Labour                                                                                                                                                                                                                                                                                                                  |     |        |        |           |
|          |      | Mate                                                                                                                                                                                                                                                                                                                    | No. | 0.37   | 397.00 | 146.89    |
|          |      | Labour(Skilled )                                                                                                                                                                                                                                                                                                        | No. | 1.00   | 472.00 | 472.00    |
|          |      | Labour(Unskilled )                                                                                                                                                                                                                                                                                                      | No. | 1.00   | 373.00 | 373.00    |
|          |      |                                                                                                                                                                                                                                                                                                                         |     |        |        | 2013.89   |
|          |      | Hence, Total Labour for 100 Cft.                                                                                                                                                                                                                                                                                        |     |        |        | 2013.89   |
|          |      | Taking one E.C. Bags to contain 1.20 Cft. Of sand                                                                                                                                                                                                                                                                       |     |        |        |           |
|          | (ii) | Hence, labour rate for placing one filed N.C.                                                                                                                                                                                                                                                                           |     | 356.49 |        | 356.49    |
|          |      | Hence rate for mu;pm crate om water portion (I+II)                                                                                                                                                                                                                                                                      |     |        | Say.   | 967.49    |
|          |      | Labour Cess @ 1%                                                                                                                                                                                                                                                                                                        |     |        |        | 9.675     |
|          |      | G.S.T. @ 18%                                                                                                                                                                                                                                                                                                            |     |        |        | 174.148   |
|          |      | Add Seigniorage Fee @ 10 % of Materials                                                                                                                                                                                                                                                                                 | cum | 0.034  | 144.75 | 0.49      |
|          |      | Total Cost of 1 E.C.1% Cess & 18 % GST =                                                                                                                                                                                                                                                                                |     |        |        | 1,151.803 |
| (1)      | 800  | local sand Filling in foundation trenches as per drawing and technical specification                                                                                                                                                                                                                                    |     |        |        |           |
|          |      | local sand Filling in foundation trenches as per drawing and technical specification Clause 305.3.9                                                                                                                                                                                                                     |     |        |        |           |
|          | I.   | Sand filling                                                                                                                                                                                                                                                                                                            |     |        |        |           |
|          |      | Unit = cum                                                                                                                                                                                                                                                                                                              |     |        |        |           |
|          | a)   | Labour                                                                                                                                                                                                                                                                                                                  |     |        |        |           |
|          |      | Mate                                                                                                                                                                                                                                                                                                                    | day | 0.01   | 397.00 | 3.97      |
|          |      | Mazdoor (Unskilled)                                                                                                                                                                                                                                                                                                     | day | 0.30   | 373.00 | 111.90    |
|          | b)   | Material                                                                                                                                                                                                                                                                                                                |     |        |        |           |
|          |      | Sand (assuming 20 per cent voids)                                                                                                                                                                                                                                                                                       | cum | 1.20   | 144.75 | 173.70    |
|          |      | Overheads @ 6 % on (a)                                                                                                                                                                                                                                                                                                  |     |        |        | 17.37     |
|          |      |                                                                                                                                                                                                                                                                                                                         |     |        |        | 306.94    |
|          |      | CARRIAGE COST                                                                                                                                                                                                                                                                                                           |     |        |        |           |
|          |      | sand                                                                                                                                                                                                                                                                                                                    | Cum | 1.2    | 345.14 | 414.17    |
|          |      | Rate per cum = a+b+c                                                                                                                                                                                                                                                                                                    |     |        |        | 721.11    |
|          |      | Total Cost including 1 % LABOUR CESS                                                                                                                                                                                                                                                                                    |     |        |        | 7.21      |
|          |      | G.S.T. @ 18%                                                                                                                                                                                                                                                                                                            |     |        |        | 129.80    |
|          |      | Add Seigniorage Fee @ 10 % of Materials                                                                                                                                                                                                                                                                                 |     |        |        | 0.49      |
|          |      | Total Cost of 1 E.C.1% Cess & 18 % GST =                                                                                                                                                                                                                                                                                |     |        |        | 1272.78   |