



**Darma Rural Municipality**  
**Office of The Rural Municipal Executive**  
**Karnali Province**



**Design, Estimate & Costing Report**

**Setadhar-Pharula Road Improvement Project**

**Location:Darma RM-4,6**

**District:Salyan**

**F/Y: 2079/080**



# DETAIL ESTIMATE



**Darma Rural Municipality**  
**Office of the municipal executive**  
**Farulachaur Salyan**



**Summary of cost**

**Project Name: Setadhara-Pharula Road Improvement**  
**Location: Darma -4,6**

| S.No.            | Sub-project Component                              | Quantit | Unit | Sub Total(NRs.)                     | Total Cost (NRs)    | Remarks |
|------------------|----------------------------------------------------|---------|------|-------------------------------------|---------------------|---------|
| <b>A</b>         |                                                    |         |      |                                     |                     |         |
| I                | Civil works                                        |         |      |                                     |                     |         |
| I                | Road works/ Earthworks                             | 1       | No   | 680,435.68                          | 4,872,824.82        |         |
| II               | Cross Drainage Works                               | 1       | No   | 1,166,813.41                        |                     |         |
| III              | longitudinal Drain                                 | 1       | No   | 1,463,213.80                        |                     |         |
| IV               | Retaining Structure Gabion                         | 1       | No   | 1,068,375.70                        |                     |         |
| V                | Dry Stone Wall                                     | 1       | NO   | 468,210.24                          |                     |         |
| VI               | Bio-Engineering                                    | 1       | No   | 25,776.00                           |                     |         |
| <b>B</b>         |                                                    |         |      |                                     |                     |         |
| I                | General Items                                      |         |      |                                     |                     |         |
| I                | Insurance for Worker                               | 1       | NO   | 10,000.00                           | 10,000.00           |         |
| II               | Non Local Materials Transportation                 | 1       | No   | 146,408.46                          | 146,408.46          |         |
| III              | 13% Vat for Earthwork Cutting by Contractor        | 1       | No   | 98,769.89                           | 98,769.89           |         |
| IV               | 13% Vat for Non Local Materials and Transportation | 1       | NO   | 203,489.87                          | 203,489.87          |         |
| V                | PPES Hand Tools                                    | 1       | No   | 114,017.00                          | 114,017.00          |         |
| VI               | UC Management Cost                                 | 1       | No   | 54,500.00                           | 54,500.00           |         |
|                  |                                                    |         |      | <b>Grand Total (A+B+C)</b>          | <b>5,500,010.03</b> |         |
| <b>C</b>         |                                                    |         |      |                                     |                     |         |
| I                | Co-Financing Budget                                |         |      | <b>5500000.00</b>                   |                     |         |
| I                | LSP Pilot                                          |         |      | 3,700,000.00                        |                     |         |
| II               | Municipality                                       |         |      | 1,800,000.00                        |                     |         |
| <b>In words:</b> |                                                    |         |      | <b>Fifty Five Lakhs Rupees Only</b> |                     |         |

Prepared By:

*[Signature]*  
**Assistant Sub-Engineer**

Checked By:

*[Signature]*  
**Sub Engineer**

Approved By:

*[Signature]*  
**मुख्य प्रशासक अधिकारी**

**Er. Arju Chand**  
**NEC.No. 30648 Civil 'A'**





**Darma Rural Municipality**  
**Office of the municipal executive**  
**Farulachaur Salyan**  
**Abstract of Cost**



Project Name: Setadhara-Pharula Road Improvement  
Location: Darma -4,6

| Item no. | Description Of Works                                                                                                                                                                                                                      | Unit | Quantity                 | Item Rate (NRs) | Total Amount (NRs)  | Remarks    |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------------|-----------------|---------------------|------------|
| <b>4</b> | <b>Retaining Structure /Gabion Wall</b>                                                                                                                                                                                                   |      |                          |                 |                     |            |
| 4.1      | Earthwork: Excavation for foundation of structure in all types of soil, provide combination of mannual and machine, including disposal lead upto 10m and lift upto 1.5m etc. all complete as per specification.                           | cum  | 350.00                   | 74.61           | 26,114.24           | By Machine |
| 4.3      | Supply,transportation and fabrication of machine made gabion boxes /matresses (including cutting and weaving,hexagonal mesh type (100mm*120mm) mesh wire-10swg,selvage wire 8swg including assembling,placing and stretching all complete |      |                          |                 |                     |            |
|          | Gabion Boxes 1.5*1*1                                                                                                                                                                                                                      | BOX  | 76.00                    | 2,448.38        | 186,076.88          |            |
|          | Gabion Boxes 2*1*1                                                                                                                                                                                                                        | BOX  | 68.00                    | 3,374.05        | 229,435.40          |            |
|          | Gabion Boxes 3*1*1                                                                                                                                                                                                                        | BOX  | 8.00                     | 4,896.75        | 39,174.00           |            |
| 4.4      | Stone filling in Gabion boxes with stone/ boulders including dressing, bounding, bracing, tying and binding with wire as per specification all complete.                                                                                  | cum  | 274.00                   | 2,086.70        | 571,755.80          |            |
| 2.50     | Back Filling behind head walls, wing walls/retaining and return wall and earth cushion around pipes or at any other location complete as per drawing and Technical specification                                                          | cum  | 88.50                    | 178.75          | 15,819.38           |            |
|          |                                                                                                                                                                                                                                           |      | <b>Sub Total</b>         |                 | <b>1,068,375.70</b> |            |
| <b>4</b> | <b>DRY Stone Wall/SM Wall</b>                                                                                                                                                                                                             |      |                          |                 |                     |            |
| 4.1      | Earthwork: Excavation for foundation of structure in all types of soil, provide combination of mannual and machine, including disposal lead upto 10m and lift upto 1.5m etc. all complete as per specification.                           | cum  | 27.60                    | 357.50          | 9,867.00            |            |
| 3.2      | Providing, laying and levelling of dry stone soling works in the foundation all complete                                                                                                                                                  | cum  | 3.60                     | 2,957.39        | 10,646.60           |            |
| 3.3      | Plain Cement Concrete (Grade M 10) using 40 mm graded course aggregate for leveling course, for bedding of culverts, head wall etc. and annular space filling around footing in rock, complete as per drawing and Technical Specification | cum  | 2.40                     | 10,135.65       | 24,325.56           |            |
| 3.4      | Providing and laying Random Rubble Stone Masonry works in cement sand mortar 1:6 C/M including scaffolding, curing, preparing cement mortar, pointing etc., all complete.                                                                 | cum  | 33.60                    | 9,849.57        | 330,945.55          |            |
| 4.3      | Random Rubble Dry stone masonry wall                                                                                                                                                                                                      | cum  | 22.00                    | 4,158.26        | 91,481.72           |            |
| 2.50     | Back Filling behind head walls, wing walls/retaining and return wall and earth cushion around pipes or at any other location complete as per drawing and Technical specification                                                          | cum  | 5.28                     | 178.75          | 943.80              |            |
|          |                                                                                                                                                                                                                                           |      | <b>Sub Total</b>         |                 | <b>468,210.24</b>   |            |
| <b>6</b> | <b>Environmental Protection</b>                                                                                                                                                                                                           |      |                          |                 |                     |            |
| 6.1      | Collection of shrub slips, and planting to suitable location as indicated by Engineer                                                                                                                                                     | LS   | 50.00                    | 515.52          | 25,776.00           | 50 sqm     |
|          |                                                                                                                                                                                                                                           |      | <b>Sub Total</b>         |                 | <b>25,776.00</b>    |            |
| <b>7</b> | <b>Miscellaneous</b>                                                                                                                                                                                                                      |      |                          |                 |                     |            |
| 1        | Insurance for Worker                                                                                                                                                                                                                      | Ls   | 1                        | 10,000.00       | 10,000.00           |            |
| 2        | Non Local Materials Transportation                                                                                                                                                                                                        | Job  | 1                        | 146,408.46      | 146,408.46          |            |
| 3        | 13%Vat for Earthwork Cutting by Contractor                                                                                                                                                                                                | Job  | 1                        | 98,769.89       | 98,769.89           |            |
| 4        | 13%Vat for Non Local Materials and Transportation                                                                                                                                                                                         | Job  | 1                        | 203,489.87      | 203,489.87          |            |
| 5        | PPES Hand Tools                                                                                                                                                                                                                           | Job  | 1                        | 114,017.00      | 114,017.00          |            |
| 6        | UC Management Cost                                                                                                                                                                                                                        | Ls   | 1                        | 54,500.00       | 54,500.00           |            |
|          |                                                                                                                                                                                                                                           |      | <b>Sub Total</b>         |                 | <b>627,185.21</b>   |            |
|          |                                                                                                                                                                                                                                           |      | <b>Total Item Price=</b> |                 | <b>5,500,010.0</b>  |            |
|          |                                                                                                                                                                                                                                           |      | <b>Grand Total =</b>     |                 | <b>5,500,010.0</b>  |            |

Prepared By:

*[Signature]*  
**Assistant Sub-Engineer**

Checked By:

*[Signature]*  
**Sub Engineer**

Approved By:

*[Signature]*  
**Er. Arju Chand**  
NEC.No. 30648 Civil 'A'

*[Signature]*  
**रेशम ओली**  
प्रमुख प्रशासकीय अधिकृत





**Darma Rural Municipality**  
**Office of the municipal executive**  
**Farulachaur Salyan**  
**Abstract of Cost**

दार्मा गाउँपालिका  
गाउँ कार्यपालिकाको कार्यालय  
सल्यान  
२०७३

Project Name: Setadhara-Pharula Road Improvement  
Location: Darma -4,6

| Item no. | Description Of Works                                                                                                                                                                                                                                                    | Unit | Quantity         | Item Rate (NRs) | Total Amount (NRs)  | Remarks    |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------------|-----------------|---------------------|------------|
| <b>1</b> | <b>Earthworks</b>                                                                                                                                                                                                                                                       |      |                  |                 |                     |            |
| 1.1      | Earthwork in Roadway: Excavation for roadway (grade adjustment, back cutting and new cutting) in All type of soil by provide combination of manual and machine, including disposal upto 30 m and lift upto 1.5m etc. all works complete as per specification By Machine |      |                  |                 |                     | By Machine |
| a.       | All Types of Soil                                                                                                                                                                                                                                                       | cum  | 6758.61          | 74.61           | 504,273.92          |            |
| b.       | Ordinary ROck                                                                                                                                                                                                                                                           | cum  | 385.35           | 223.84          | 86,256.02           |            |
| c.       | Transport and dumping Earth Materials upto 200m                                                                                                                                                                                                                         | cum  | 548.80           | 163.82          | 89,905.73           |            |
|          |                                                                                                                                                                                                                                                                         |      | <b>Sub Total</b> |                 | <b>680,435.68</b>   |            |
| <b>2</b> | <b>Cross Drainage Structure</b>                                                                                                                                                                                                                                         |      |                  |                 |                     |            |
| 2.1      | Earthwork in excavation for foundation of structures including setting out, removal of stumps and other deleterious matter dressing of sides and bottom and including all lifts and leads complete as per drawing and Technical Specification                           | cum  | 341.27           | 74.61           | 25,462.73           | By Machine |
| 2.2      | Providing, laying and levelling of dry stone soling works in the foundation all complete.                                                                                                                                                                               | cum  | 11.66            | 2,957.39        | 34,495.00           |            |
| 2.3      | Concrete work- Providing and Placing of plain Cement Concrete M15/40 grade ( or 1:2:4) machine/ manual mix) in foundation including compaction. Curing, all works complete as per drawing and Technical Specification                                                   | cum  | 13.30            | 11,382.61       | 151,388.71          |            |
| 2.4      | Stone Masonry Works- Random Rubble stone masonry in cement sand ( 1:4) mortar for Cross drainage Structure including curing, placing in position of weep holes all works complete                                                                                       | cum  | 34.65            | 10,525.22       | 364,671.51          |            |
| 2.5      | Providing and laying and jointing NP3 (as per IS:458) Hume pipes of dai. 600mm for culverts, complete as per Technical Specification                                                                                                                                    | Rm   | 20.00            | 8,181.91        | 163,638.20          |            |
| 2.6      | Providing and laying and jointing NP3 (as per IS:458) Hume pipes of dai. 900mm for culverts, complete as per Technical Specification                                                                                                                                    | Rm   | 30.00            | 13,425.22       | 402,756.60          |            |
| 2.70     | Earthwork in backfill with earthmass from near                                                                                                                                                                                                                          | cum  | 136.51           | 178.75          | 24,400.66           |            |
|          |                                                                                                                                                                                                                                                                         |      | <b>Sub Total</b> |                 | <b>1,166,813.41</b> |            |
| <b>3</b> | <b>Longitudinal Drain Works</b>                                                                                                                                                                                                                                         |      |                  |                 |                     |            |
| 3.1      | Earthwork in excavation for foundation of structures including setting out, removal of stumps and other deleterious matter dressing of sides and bottom and including all lifts and leads complete as per drawing and Technical                                         | cum  | 372.00           | 74.61           | 27,755.71           | By Machine |
| 3.2      | Providing, laying and levelling of dry stone soling works in the foundation all complete.                                                                                                                                                                               | cum  | 93.00            | 2,957.39        | 275,037.27          |            |
| 3.3      | Plain Cement Concrete (Grade M 10) using 40 mm graded course aggregate for leveling course, for bedding of culverts, head wall etc. and annular space filling around footing in rock, complete as per drawing and Technical Specification                               | cum  | 50.96            | 10,135.65       | 516,553.27          |            |
| 3.4      | Providing and laying Random Rubble Stone Masonry works in cement sand mortar 1:6 C/M including scaffolding, curing, preparing cement mortar, pointing etc., all complete.                                                                                               | cum  | 55.80            | 9,849.57        | 549,606.01          |            |
| 3.5      | Providing and applying coping pcc M10 coping work structure as per Technical Specifications                                                                                                                                                                             | cum  | 9.30             | 10,135.65       | 94,261.55           |            |
|          |                                                                                                                                                                                                                                                                         |      | <b>Sub Total</b> |                 | <b>1,463,213.80</b> |            |

*[Signature]*  
Assistant Sub-Engineer

*[Signature]*  
Sub Engineer

*[Signature]*  
Er. Arju Chand  
NEC.No. 30648 Civil 'A'

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Darma Rural Municipality  
Office of the rural municipal executive  
Pharulachaur, salyan  
Karnali province, Nepal



**Detailed estimate of Non- Local Materials**

Project Name: Setadhara-Pharula Road Improvement

Location: Darma -4,6

| S.No. | Description                                                                                                                                                                                          | Unit | Quantity | Rate               | Amount           |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|--------------------|------------------|
| 1     | Procurement and Supplying and jointing NP3 (as per IS:458) Hume pipes of dai. 600mm for culverts, complete as per Technical Specification RCC hume pipe(NP3) 900 Dia                                 | PCS  | 12.00    | 30,250.00          | 363000           |
| 2     | Procurement and Supplying and jointing NP3 (as per IS:458) Hume pipes of dai. 600mm for culverts, complete as per Technical Specification RCC hume pipe(NP3) 600 Dia                                 | PCS  | 8.00     | 17,875.00          | 143000           |
| 3     | Procurement and Supply of machine made Gabion fabricated (3x1x1) box size with Hexagonal mesh size 100x120mm, Meshwire 10 SWG, Salvagewire 7 SWG and assembling all complete Gabion box              | Box  | 8.00     | 4,640.00           | 37120            |
| 4     | Procurement and Supply of machine made Gabion fabricated (2x1x1) box size with Hexagonal mesh size 100x120mm, Meshwire 10 SWG, Salvagewire 7 SWG and assembling all complete Gabion box              | Box  | 68.00    | 3,190.00           | 216920           |
| 5     | Procurement and Supply of machine made Gabion fabricated (1.5x1x1) box size with Hexagonal mesh size 100x120mm, Meshwire 10 SWG, Salvagewire 7 SWG and assembling all complete Gabion Box Gabion Box | Box  | 76.00    | 2,320.00           | 176320           |
| 6     | Procuritment and supply GI Wire 10 SWG medium zinc coated(Binding Wire)GI Wire 10 SWG heavy zinc coated                                                                                              | Kg   | 124.40   | 126.00             | 15674.4          |
| 7     | Cement PPC 50 kg                                                                                                                                                                                     | Bag  | 673.13   | 700.00             | 471193.19        |
| 8     | Transportation tharmare to site                                                                                                                                                                      | job  | 1        | 146734.704         | 146734.7         |
|       |                                                                                                                                                                                                      |      |          | <b>Sub Total</b>   | <b>1569962.3</b> |
|       |                                                                                                                                                                                                      |      |          | <b>Vat 13%</b>     | <b>204095.1</b>  |
|       |                                                                                                                                                                                                      |      |          | <b>Grand Total</b> | <b>1774057.4</b> |

Prepared By:

*[Signature]*  
Assistant Sub-Engineer

Checked By:

*[Signature]*  
Er. Arju Chand  
NEC.No. 30648 Civil 'A'

Approved By:

*[Signature]*  
रेशम ओली  
प्रमुख प्रशासकीय अधिकृत





**Darma Rural Municipality**  
Office of the municipal executive  
Farulachaur Salyan  
**Non Local Material and Labour Cost Sheet**



Project Name: Setadhara-Pharula Road Improvement  
Location: Darma -4,6

| SN                                                  | Name of Item                     | Unit | Quantity | Unit Rate | Total Cost          | Transportation cost | Total Amount        | Remarks                        |
|-----------------------------------------------------|----------------------------------|------|----------|-----------|---------------------|---------------------|---------------------|--------------------------------|
| <b>A. Non Local Material</b>                        |                                  |      |          |           |                     |                     |                     |                                |
| 1                                                   | RCC hume pipe(NP3) 900 Dia       | RM   | 12.00    | 30,250.00 | 363,000.00          | 6,253.64            | 75,043.68           |                                |
| 2                                                   | RCC hume pipe(NP3) 600 Dia       | RM   | 8.00     | 17,875.00 | 143,000.00          | 3,686.00            | 29,488.00           |                                |
| 3                                                   | Gabion Box(3*1*1)                | Box  | 8.00     | 4,640.00  | 37,120.00           | 59.64               | 477.15              |                                |
| 4                                                   | Gabion Box(2*1*1)                | Box  | 68.00    | 3,190.00  | 216,920.00          | 43.19               | 2,937.11            |                                |
| 5                                                   | Gabion Box(1.5*1*1)              | Box  | 76.00    | 2,320.00  | 176,320.00          | 40.79               | 3,099.68            |                                |
| 6                                                   | GI Wire 10 SWG heavy zinc coated | Kg   | 124.40   | 126.00    | 15,674.40           | 1.46                | 181.31              |                                |
| 7                                                   | Cement PPC 50 kg                 | Bag  | 666.95   | 700.00    | 466,863.83          | 52.75               | 35,181.52           |                                |
| <b>Sub Total of A</b>                               |                                  |      |          |           | <b>1,418,898.23</b> |                     | <b>146,408.46</b>   |                                |
| <b>Sub Total With Transportation</b>                |                                  |      |          |           |                     | <b>1,565,306.69</b> |                     |                                |
| <b>Vat 13%</b>                                      |                                  |      |          |           |                     | <b>203,489.87</b>   |                     |                                |
| <b>Grand Total with Vat and Transportation</b>      |                                  |      |          |           |                     | <b>1,768,796.56</b> |                     |                                |
| <b>B. Local Material</b>                            |                                  |      |          |           |                     |                     |                     |                                |
| 1                                                   | Aggregate                        |      |          |           |                     |                     |                     |                                |
|                                                     | 40mm down                        | Cum  | 48.13    | 2,350.00  | 113,099.86          |                     | -                   | With Transportation/Collection |
|                                                     | 20mm down                        | Cum  | 17.39    | 2,350.00  | 40,865.00           |                     | -                   | With Transportation/Collection |
|                                                     | 10mm down                        | Cum  | 1.46     | 2,350.00  | 3,438.05            |                     | -                   | With Transportation/Collection |
| 2                                                   | Sand                             | Cum  | 93.38    | 3,325.00  | 310,488.20          |                     | -                   | With Transportation/Collection |
| 3                                                   | Stone                            | Cum  | 579.86   | 1,572.00  | 911,546.52          |                     | -                   | With Transportation/Collection |
| <b>Sub Total of B</b>                               |                                  |      |          |           | <b>1,379,437.63</b> |                     | -                   |                                |
| <b>C. Worker Cost</b>                               |                                  |      |          |           |                     |                     |                     |                                |
| 1                                                   | Skilled                          | No   | 288.04   | 1000      |                     |                     | 288,035.10          |                                |
| 2                                                   | Unskilled                        | No   | 1,404.00 | 715       |                     |                     | 1,003,862.36        |                                |
| <b>Sub Total of C</b>                               |                                  |      |          |           |                     |                     | <b>1,291,897.46</b> |                                |
| <b>Grand Total Material and worker (A+B+C), NPR</b> |                                  |      |          |           |                     |                     | <b>4,440,131.65</b> |                                |

*[Signature]*  
Assistant Sub-Engineer

*[Signature]*  
Er. Arju Chand  
NEC.No. 30648 Civil 'A'

*[Signature]*  
Sub Engineer

*[Signature]*  
रेशम ओली  
प्रमुख प्रशासकीय अधिकृत





Project Name: Setadhura-Pharula Road Improvement  
Location: Darma - 4,6

| STRUCTURE WISE COST         |                                                                                                                                                                                                                                                                        |      |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               | Material |  |  |  |  |  |  |  |  |  |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|--------------|------------|------------------------|------------------------|-------------|--------------------|--------------------|----------------------|---------------------|------------------------|----------------------------|-------------------|---------|-----------|---------------|----------|--|--|--|--|--|--|--|--|--|
| S.N.                        | Description of works                                                                                                                                                                                                                                                   | Unit | Total Quantity | Cement (bag) | Sand (cum) | Gravel_1 =20 mm gravel | Gravel_2 =10 mm gravel | Stone (cum) | Gabion Box (3*1*1) | Gabion Box (2*1*1) | Gabion Box (1.5*1*1) | GI Wire 12 SWG (kg) | 600 MM Dia NP3 Hume No | 63mm HDP pipe of PN-6 (Rm) | Binding wire (kg) | Skilled | Unskilled |               |          |  |  |  |  |  |  |  |  |  |
| A. Road Works               |                                                                                                                                                                                                                                                                        |      |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |
| 1                           | Earthwork in Roadway: Excavation for roadway (grade adjustment, back cutting and new cutting) in All type of soil by provide combination of manual and machine including disposal upto 30 m and lift upto 1.5m etc. all works complete as per specification By Machine | cum  | 6,758.61       |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |
| 1                           | All Types of Soil                                                                                                                                                                                                                                                      | cum  | 385.35         |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           | By Machine    |          |  |  |  |  |  |  |  |  |  |
| 2                           | Ordinary Rock                                                                                                                                                                                                                                                          | cum  |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           | By Machine    |          |  |  |  |  |  |  |  |  |  |
| 3                           | Transport and dumping Earth Materials upto 200m                                                                                                                                                                                                                        | cum  | 548.90         |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           | Truck/Tractor |          |  |  |  |  |  |  |  |  |  |
| Sub-Total A                 |                                                                                                                                                                                                                                                                        |      |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |
| B. Cross Drainage Structure |                                                                                                                                                                                                                                                                        |      |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |
| 1                           | Earthwork in excavation for foundation of structures including setting out, removal of stumps and other deleterious matter dressing of sides and bottom and including all lifts and leads complete as per drawing and Technical Specification                          | cum  | 341.27         |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |
| 2                           | Providing, laying and levelling of dry stone soling works in the foundation all complete                                                                                                                                                                               | cum  | 11.66          |              |            |                        |                        | 13.9968     |                    |                    |                      |                     |                        |                            |                   |         |           | 17.50         |          |  |  |  |  |  |  |  |  |  |
| 3                           | Concrete work: Providing and Placing of plain Cement Concrete M15/40 grade (or 1:2:4) machine/ manual mix in foundation including compaction, Curing, all works complete as per drawing and Technical Specification                                                    | cum  |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |
| 4                           | Stone Masonry Works: Random Rubble stone masonry in cement sand (1:4) mortar for Cross drainage Structure including curing, placing in position of weep holes all works complete                                                                                       | cum  | 13.30          | 85.12        | 5.916      | 2.926                  | 1.463                  |             |                    |                    |                      |                     |                        |                            |                   | 13.30   | 53.20     |               |          |  |  |  |  |  |  |  |  |  |
| 5                           | Providing and laying and joining NP3 (as per IS 458) Hume pipes of dia. 600mm for culverts, complete as per Technical Specification                                                                                                                                    | RM   | 34.65          | 110.1787     | 15.59133   |                        |                        | 34.7        |                    |                    |                      |                     |                        |                            |                   | 51.97   | 173.24    |               |          |  |  |  |  |  |  |  |  |  |
| 6                           | Providing and laying and joining NP3 (as per IS 458) Hume pipes of dia. 900mm for culverts, complete as per Technical Specification                                                                                                                                    | RM   | 20.00          | 2.56         | 0.16       |                        |                        |             |                    |                    |                      |                     | 8                      |                            |                   | 1.50    | 11.20     |               |          |  |  |  |  |  |  |  |  |  |
| 7                           | Earthwork in backfill with earthenmass from rear                                                                                                                                                                                                                       | cum  | 30.00          | 3.84         | 0.24       |                        |                        |             |                    |                    |                      |                     |                        | 12                         |                   | 2.40    | 16.80     |               |          |  |  |  |  |  |  |  |  |  |
| Sub-Total B                 |                                                                                                                                                                                                                                                                        |      |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |
|                             |                                                                                                                                                                                                                                                                        |      |                | 201.70       | 21.91      | 6.92                   | 2.93                   | 1.46        | 48.74              | -                  | -                    | -                   | 8.00                   | 12.00                      | -                 | 69.27   | 34.13     | 306.06        |          |  |  |  |  |  |  |  |  |  |
| C. Longitudinal Drain Works |                                                                                                                                                                                                                                                                        |      |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |
| 1                           | Earthwork in excavation for foundation of structures including setting out, removal of stumps and other deleterious matter dressing of sides and bottom and including all lifts and leads complete as per drawing and Technical Specification                          | cum  | 372.00         |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |
| 2                           | Providing, laying and levelling of dry stone soling works in the foundation all complete                                                                                                                                                                               | cum  | 93.00          |              |            |                        |                        | 111.6       |                    |                    |                      |                     |                        |                            |                   |         |           | By Machine    |          |  |  |  |  |  |  |  |  |  |
| 3                           | Plain Cement Concrete (Grade M 10) using 40 mm graded coarse aggregate for leveling course, for bedding of culverts, head wall etc. and annular space filling around footing in rock, complete as per drawing and Technical Specification                              | cum  |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           | 139.50        |          |  |  |  |  |  |  |  |  |  |
| 4                           | Providing and laying Random Rubble Stone Masonry works in cement sand mortar 1:6 C/M including scaffolding, curing, preparing cement mortar, pointing etc., all complete                                                                                               | cum  | 50.96          | 224.2416     | 23.95308   | 33.1266                | 12.23136               |             |                    |                    |                      |                     |                        |                            |                   | 50.96   | 203.86    |               |          |  |  |  |  |  |  |  |  |  |
| 5                           | Providing and applying coping pcc M10 capping work structure as per Technical Specification                                                                                                                                                                            | cum  | 55.80          | 118.296      | 26.226     |                        |                        | 55.9        |                    |                    |                      |                     |                        |                            |                   | 83.70   | 279.00    |               |          |  |  |  |  |  |  |  |  |  |
|                             |                                                                                                                                                                                                                                                                        |      |                | 41           | 4          | 6                      | 2                      |             |                    |                    |                      |                     |                        |                            | 9.30              | 32.20   |           |               |          |  |  |  |  |  |  |  |  |  |
|                             |                                                                                                                                                                                                                                                                        |      |                | 393.46       | 54.56      | 39.17                  | 14.46                  | -           | 167.50             | -                  | -                    | -                   | -                      | -                          | -                 | 143.96  | 655.66    |               |          |  |  |  |  |  |  |  |  |  |
| Sub-Total C                 |                                                                                                                                                                                                                                                                        |      |                |              |            |                        |                        |             |                    |                    |                      |                     |                        |                            |                   |         |           |               |          |  |  |  |  |  |  |  |  |  |

| Retaining Structure/Gabion Wall |   |                                                                                                                                                                                                                                                |       |        |  |  |  |  |  |  |  |  |
|---------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|--|--|--|--|--|--|--|--|
| D                               | 1 | Earthwork: Excavation for foundation of structure in all types of soil, provide combination of manual and machine, including disposal lead upto 10m and lift upto 1.5m etc. all complete as per specification.                                 | cum   | 350.00 |  |  |  |  |  |  |  |  |
|                                 | 2 | Supply, transportation and fabrication of machine made gabion boxes /mattresses (including cutting and weaving, hexagonal mesh type (100mm*120mm) mesh wire-10swg, salvage wire 8swg including assembling, placing and stretching all complete | boxes | 8.00   |  |  |  |  |  |  |  |  |
|                                 |   | 3"1"1                                                                                                                                                                                                                                          | boxes | 8.00   |  |  |  |  |  |  |  |  |
|                                 |   | 2"1"1                                                                                                                                                                                                                                          | boxes | 68.00  |  |  |  |  |  |  |  |  |
|                                 |   | 1.5"1"1                                                                                                                                                                                                                                        | boxes | 76.00  |  |  |  |  |  |  |  |  |
|                                 | 3 | Rubble packing in gabion box in compact way                                                                                                                                                                                                    | cum   | 274.00 |  |  |  |  |  |  |  |  |
|                                 | 4 | Back Filling Behind The wall                                                                                                                                                                                                                   | cum   | 88.50  |  |  |  |  |  |  |  |  |
|                                 |   | Sub-Total D                                                                                                                                                                                                                                    |       |        |  |  |  |  |  |  |  |  |
|                                 |   |                                                                                                                                                                                                                                                |       |        |  |  |  |  |  |  |  |  |
|                                 | E | Dry Wall/Retaining Wall                                                                                                                                                                                                                        |       |        |  |  |  |  |  |  |  |  |
|                                 | 1 | Earthwork: Excavation for foundation of structure in all types of soil, provide combination of manual and machine, including disposal lead upto 10m                                                                                            | cum   | 27.60  |  |  |  |  |  |  |  |  |
|                                 | 2 | Providing, laying and levelling of dry stone masonry works in the foundation all complete                                                                                                                                                      | cum   | 3.60   |  |  |  |  |  |  |  |  |
|                                 | 3 | Plain Cement Concrete (Grade M 10) using 40 mm graded coarse aggregate for leveling course, for bedding of culverts, head wall etc. and                                                                                                        | cum   | 2.40   |  |  |  |  |  |  |  |  |
|                                 | 4 | Providing and laying Random Rubble Stone Masonry works in concrete sand mortar 1:5 CM including scaffolding, curing, preparing cement mortar.                                                                                                  | cum   | 33.60  |  |  |  |  |  |  |  |  |
|                                 | 5 | Random Rubble Dry stone masonry wall                                                                                                                                                                                                           | cum   | 22.00  |  |  |  |  |  |  |  |  |
|                                 | 6 | Back Filling behind head walls, wing walls/retaining and return wall and earth retaining pipes or at any other location complete as per drawing and Technical specification                                                                    | cum   | 5.28   |  |  |  |  |  |  |  |  |
|                                 |   | Sub-Total E                                                                                                                                                                                                                                    |       |        |  |  |  |  |  |  |  |  |
|                                 |   |                                                                                                                                                                                                                                                |       |        |  |  |  |  |  |  |  |  |
|                                 | F | Bio-Engineering                                                                                                                                                                                                                                |       |        |  |  |  |  |  |  |  |  |
|                                 | 1 | Collection of shrub slips, and planting to suitable location as indicated by Engineer                                                                                                                                                          | Sqm   | 50.00  |  |  |  |  |  |  |  |  |
|                                 |   | Sub-Total D                                                                                                                                                                                                                                    |       |        |  |  |  |  |  |  |  |  |
|                                 |   | Sub-Total A+B+C+D+E+F                                                                                                                                                                                                                          |       |        |  |  |  |  |  |  |  |  |
|                                 |   | Total                                                                                                                                                                                                                                          |       |        |  |  |  |  |  |  |  |  |

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Assistant Sub-Engineer

Handwritten signature

Sub Engineer

Er. Arju Chand  
NEC.No. 30648 Civil 'A'

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रश्मि भोली  
प्रमुख प्रशासनिक अधिकारी





Darma Rural Municipality  
Office of the Rural Municipal Executive  
Farulachaur Salyan  
karnali Province, Nepal  
Management Cost



Project Name: Setadhara-Pharula Road Improvement  
Location: Darma -4,6

| S.N. | Particular                                              | Units       | Quantity | Rate      | Total Amount     | Remarks       |
|------|---------------------------------------------------------|-------------|----------|-----------|------------------|---------------|
| 1    | Hording Board with Transportation                       | Pic         | 1        | 12,000.00 | 12,000.00        |               |
| 2    | Store room                                              | Room /month | 3        | 1,000.00  | 3,000.00         |               |
| 3    | Fooding and Lodging cost during work at Municipality HQ | Day         | 12       | 1,000.00  | 12,000.00        | F: 500, T-500 |
| 5    | Public Review                                           | Day         | 1        | 2,500.00  | 2,500.00         |               |
| 6    | Final Public Audit                                      | Day         | 1        | 2,500.00  | 2,500.00         |               |
| 8    | Stationary                                              | Ls          | 1        | 2,500.00  | 2,500.00         |               |
| 9    | Miscellaneous lteams cost                               | Ls          | 1        | 20,000.00 | 20,000.00        |               |
|      | <b>Total Management Cost</b>                            |             |          |           | <b>54,500.00</b> |               |

Assistant Sub-Engineer

Sub-Engineer

Er. Arju Chand  
NEC No. 2073 Civil 'A'

रेशम भोली  
प्रमुख प्रशासकीय अधिकृत



**Darma Rural Municipality**  
Office of the municipal executive  
Farulachaur Salyan  
Karnali Province



Project Name: Setadhara-Pharula Road Improvement  
From: 0+000 To 1+110  
Location: Darma -4,6

|  |                                                                                                                                                                  |      |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
|  | Earthwork in Excavation including Setting Out, Removal of Tree roots and stumps , clearance of site along the alignment, Disposal/Stock piling of extra excavate | Unit |
|  |                                                                                                                                                                  | cum  |

**EARTHWORK CALCULATION SHEET FOR ROADWAY**

| Chainage | Length (m) | X- Area(m <sup>2</sup> ) |              | Volume (m <sup>3</sup> ) |             | Soil Classification |                   |               |                   |           |                   |
|----------|------------|--------------------------|--------------|--------------------------|-------------|---------------------|-------------------|---------------|-------------------|-----------|-------------------|
|          |            | Cutting Area             | Filling Area | Cutting Vol              | Filling Vol | All types Soil      |                   | Ordinary Rock |                   | Hard Rock |                   |
|          |            |                          |              |                          |             | %                   | (m <sup>3</sup> ) | %             | (m <sup>3</sup> ) | %         | (m <sup>3</sup> ) |
| 0+000    | 5.00       | 3.44                     | 0.00         | 17.18                    | 0.00        | 90%                 | 15.46             | 10%           | 1.72              | 0%        | 0.00              |
| 0+010    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 90%                 | 0.00              | 10%           | 0.00              | 0%        | 0.00              |
| 0+020    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 90%                 | 0.00              | 10%           | 0.00              | 0%        | 0.00              |
| 0+030    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 90%                 | 0.00              | 10%           | 0.00              | 0%        | 0.00              |
| 0+040    | 10.00      | 0.00                     | 0.00         | 0.01                     | 0.00        | 90%                 | 0.01              | 10%           | 0.00              | 0%        | 0.00              |
| 0+050    | 10.00      | 1.86                     | 0.00         | 18.64                    | 0.00        | 90%                 | 16.78             | 10%           | 1.86              | 0%        | 0.00              |
| 0+060    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 90%                 | 0.00              | 10%           | 0.00              | 0%        | 0.00              |
| 0+070    | 10.00      | 0.04                     | 0.00         | 0.41                     | 0.00        | 90%                 | 0.37              | 10%           | 0.04              | 0%        | 0.00              |
| 0+080    | 10.00      | 0.59                     | 0.00         | 5.91                     | 0.00        | 90%                 | 5.32              | 10%           | 0.59              | 0%        | 0.00              |
| 0+090    | 10.00      | 0.82                     | 0.00         | 8.20                     | 0.00        | 90%                 | 7.38              | 10%           | 0.82              | 0%        | 0.00              |
| 0+100    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 90%                 | 0.00              | 10%           | 0.00              | 0%        | 0.00              |
| 0+110    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 90%                 | 0.00              | 10%           | 0.00              | 0%        | 0.00              |
| 0+120    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 90%                 | 0.00              | 10%           | 0.00              | 0%        | 0.00              |
| 0+130    | 10.00      | 10.13                    | 0.00         | 101.26                   | 0.00        | 90%                 | 91.13             | 10%           | 10.13             | 0%        | 0.00              |
| 0+140    | 10.00      | 0.28                     | 0.00         | 2.75                     | 0.00        | 90%                 | 2.48              | 10%           | 0.28              | 0%        | 0.00              |
| 0+150    | 10.00      | 0.12                     | 0.00         | 1.19                     | 0.00        | 90%                 | 1.07              | 10%           | 0.12              | 0%        | 0.00              |
| 0+160    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 90%                 | 0.00              | 10%           | 0.00              | 0%        | 0.00              |
| 0+170    | 10.00      | 4.80                     | 0.00         | 47.99                    | 0.00        | 90%                 | 43.19             | 10%           | 4.80              | 0%        | 0.00              |
| 0+180    | 10.00      | 0.39                     | 0.00         | 3.91                     | 0.00        | 100%                | 3.91              | 0%            | 0.00              | 0%        | 0.00              |
| 0+190    | 10.00      | 2.07                     | 0.00         | 20.69                    | 0.00        | 100%                | 20.69             | 0%            | 0.00              | 0%        | 0.00              |
| 0+200    | 10.00      | 8.95                     | 0.00         | 89.54                    | 0.00        | 100%                | 89.54             | 0%            | 0.00              | 0%        | 0.00              |
| 0+210    | 10.00      | 9.79                     | 0.00         | 97.85                    | 0.00        | 100%                | 97.85             | 0%            | 0.00              | 0%        | 0.00              |
| 0+220    | 10.00      | 6.84                     | 0.00         | 68.42                    | 0.00        | 100%                | 68.42             | 0%            | 0.00              | 0%        | 0.00              |
| 0+230    | 10.00      | 0.66                     | 0.00         | 6.56                     | 0.00        | 100%                | 6.56              | 0%            | 0.00              | 0%        | 0.00              |
| 0+240    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 100%                | 0.00              | 0%            | 0.00              | 0%        | 0.00              |
| 0+250    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 100%                | 0.00              | 0%            | 0.00              | 0%        | 0.00              |
| 0+260    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 100%                | 0.00              | 0%            | 0.00              | 0%        | 0.00              |
| 0+270    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 100%                | 0.00              | 0%            | 0.00              | 0%        | 0.00              |
| 0+280    | 10.00      | 0.00                     | 0.00         | 0.00                     | 0.00        | 100%                | 0.00              | 0%            | 0.00              | 0%        | 0.00              |
| 0+290    | 10.00      | 0.27                     | 0.00         | 2.65                     | 0.00        | 100%                | 2.65              | 0%            | 0.00              | 0%        | 0.00              |
| 0+300    | 10.00      | 1.68                     | 0.00         | 16.81                    | 0.00        | 100%                | 16.81             | 0%            | 0.00              | 0%        | 0.00              |
| 0+310    | 10.00      | 1.07                     | 0.00         | 10.74                    | 0.00        | 100%                | 10.74             | 0%            | 0.00              | 0%        | 0.00              |
| 0+320    | 10.00      | 8.61                     | 0.00         | 86.13                    | 0.00        | 100%                | 86.13             | 0%            | 0.00              | 0%        | 0.00              |
| 0+330    | 10.00      | 0.47                     | 0.00         | 4.70                     | 0.00        | 100%                | 4.70              | 0%            | 0.00              | 0%        | 0.00              |
| 0+340    | 10.00      | 12.66                    | 0.00         | 126.58                   | 0.00        | 100%                | 126.58            | 0%            | 0.00              | 0%        | 0.00              |
| 0+350    | 10.00      | 2.64                     | 0.00         | 26.39                    | 0.00        | 100%                | 26.39             | 0%            | 0.00              | 0%        | 0.00              |
| 0+360    | 10.00      | 8.20                     | 0.00         | 81.99                    | 0.00        | 100%                | 81.99             | 0%            | 0.00              | 0%        | 0.00              |
| 0+370    | 10.00      | 5.78                     | 0.00         | 57.78                    | 0.00        | 100%                | 57.78             | 0%            | 0.00              | 0%        | 0.00              |
| 0+380    | 10.00      | 12.53                    | 0.00         | 125.33                   | 0.00        | 100%                | 125.33            | 0%            | 0.00              | 0%        | 0.00              |

*[Signature]*

Assistant Sub-Engineer

*[Signature]*

Sub Engineer

*[Signature]*

Er. Arju Chand  
NEC.No. 30548 Civil 'A'

*[Signature]*  
रेशम ओली  
प्रमुख प्रशासकीय अधिकृत  
मु.प्र.स. १०६३



|       |       |       |      |        |      |      |        |     |       |    |      |
|-------|-------|-------|------|--------|------|------|--------|-----|-------|----|------|
| 0+390 | 10.00 | 16.03 | 0.00 | 160.31 | 0.00 | 90%  | 144.28 | 10% | 16.03 | 0% | 0.00 |
| 0+400 | 10.00 | 5.72  | 0.00 | 57.24  | 0.00 | 90%  | 51.52  | 10% | 5.72  | 0% | 0.00 |
| 0+410 | 10.00 | 2.97  | 0.00 | 29.72  | 0.00 | 90%  | 26.75  | 10% | 2.97  | 0% | 0.00 |
| 0+420 | 10.00 | 3.52  | 0.00 | 35.24  | 0.00 | 90%  | 31.72  | 10% | 3.52  | 0% | 0.00 |
| 0+430 | 10.00 | 3.86  | 0.00 | 38.59  | 0.00 | 90%  | 34.73  | 10% | 3.86  | 0% | 0.00 |
| 0+440 | 10.00 | 0.33  | 0.00 | 3.28   | 0.00 | 90%  | 2.95   | 10% | 0.33  | 0% | 0.00 |
| 0+450 | 10.00 | 0.00  | 0.00 | 0.00   | 0.00 | 90%  | 0.00   | 10% | 0.00  | 0% | 0.00 |
| 0+460 | 10.00 | 0.24  | 0.00 | 2.38   | 0.00 | 90%  | 2.14   | 10% | 0.24  | 0% | 0.00 |
| 0+470 | 10.00 | 0.20  | 0.00 | 1.98   | 0.00 | 90%  | 1.78   | 10% | 0.20  | 0% | 0.00 |
| 0+480 | 10.00 | 0.27  | 0.00 | 2.72   | 0.00 | 90%  | 2.45   | 10% | 0.27  | 0% | 0.00 |
| 0+490 | 10.00 | 7.01  | 0.00 | 70.09  | 0.00 | 90%  | 63.08  | 10% | 7.01  | 0% | 0.00 |
| 0+500 | 10.00 | 12.60 | 0.00 | 126.00 | 0.00 | 100% | 126.00 | 0%  | 0.00  | 0% | 0.00 |
| 0+510 | 10.00 | 0.02  | 0.00 | 0.19   | 0.00 | 100% | 0.19   | 0%  | 0.00  | 0% | 0.00 |
| 0+520 | 10.00 | 0.00  | 0.00 | 0.01   | 0.00 | 100% | 0.01   | 0%  | 0.00  | 0% | 0.00 |
| 0+530 | 10.00 | 0.39  | 0.00 | 3.94   | 0.00 | 100% | 3.94   | 0%  | 0.00  | 0% | 0.00 |
| 0+540 | 10.00 | 3.22  | 0.00 | 32.23  | 0.00 | 100% | 32.23  | 0%  | 0.00  | 0% | 0.00 |
| 0+550 | 10.00 | 5.56  | 0.00 | 55.55  | 0.00 | 100% | 55.55  | 0%  | 0.00  | 0% | 0.00 |
| 0+560 | 10.00 | 4.94  | 0.00 | 49.43  | 0.00 | 100% | 49.43  | 0%  | 0.00  | 0% | 0.00 |
| 0+570 | 10.00 | 3.64  | 0.00 | 36.38  | 0.00 | 100% | 36.38  | 0%  | 0.00  | 0% | 0.00 |
| 0+580 | 10.00 | 15.01 | 0.00 | 150.12 | 0.00 | 100% | 150.12 | 0%  | 0.00  | 0% | 0.00 |
| 0+590 | 10.00 | 3.39  | 0.00 | 33.94  | 0.00 | 100% | 33.94  | 0%  | 0.00  | 0% | 0.00 |
| 0+600 | 10.00 | 12.88 | 0.00 | 128.76 | 0.00 | 100% | 128.76 | 0%  | 0.00  | 0% | 0.00 |
| 0+610 | 10.00 | 17.21 | 0.00 | 172.14 | 0.00 | 100% | 172.14 | 0%  | 0.00  | 0% | 0.00 |
| 0+620 | 10.00 | 17.60 | 0.00 | 176.00 | 0.00 | 100% | 176.00 | 0%  | 0.00  | 0% | 0.00 |
| 0+630 | 10.00 | 0.04  | 0.00 | 0.40   | 0.00 | 100% | 0.40   | 0%  | 0.00  | 0% | 0.00 |
| 0+640 | 10.00 | 0.00  | 0.00 | 0.00   | 0.00 | 90%  | 0.00   | 10% | 0.00  | 0% | 0.00 |
| 0+650 | 10.00 | 10.57 | 0.00 | 105.74 | 0.00 | 90%  | 95.17  | 10% | 10.57 | 0% | 0.00 |
| 0+660 | 10.00 | 0.00  | 0.00 | 0.00   | 0.00 | 90%  | 0.00   | 10% | 0.00  | 0% | 0.00 |
| 0+670 | 10.00 | 0.00  | 0.00 | 0.00   | 0.00 | 90%  | 0.00   | 10% | 0.00  | 0% | 0.00 |
| 0+680 | 10.00 | 0.22  | 0.00 | 2.24   | 0.00 | 90%  | 2.02   | 10% | 0.22  | 0% | 0.00 |
| 0+690 | 10.00 | 0.11  | 0.00 | 1.14   | 0.00 | 90%  | 1.03   | 10% | 0.11  | 0% | 0.00 |
| 0+700 | 10.00 | 1.49  | 0.00 | 14.94  | 0.00 | 90%  | 13.45  | 10% | 1.49  | 0% | 0.00 |
| 0+710 | 10.00 | 0.00  | 0.00 | 0.00   | 0.00 | 90%  | 0.00   | 10% | 0.00  | 0% | 0.00 |
| 0+720 | 10.00 | 0.00  | 0.00 | 0.00   | 0.00 | 90%  | 0.00   | 10% | 0.00  | 0% | 0.00 |
| 0+730 | 10.00 | 1.57  | 0.00 | 15.67  | 0.00 | 90%  | 14.10  | 10% | 1.57  | 0% | 0.00 |
| 0+740 | 10.00 | 1.68  | 0.00 | 16.76  | 0.00 | 90%  | 15.08  | 10% | 1.68  | 0% | 0.00 |
| 0+750 | 10.00 | 12.83 | 0.00 | 128.33 | 0.00 | 90%  | 115.50 | 10% | 12.83 | 0% | 0.00 |
| 0+760 | 10.00 | 8.51  | 0.00 | 85.08  | 0.00 | 90%  | 76.57  | 10% | 8.51  | 0% | 0.00 |
| 0+770 | 10.00 | 5.62  | 0.00 | 56.21  | 0.00 | 90%  | 50.59  | 10% | 5.62  | 0% | 0.00 |
| 0+780 | 10.00 | 14.88 | 0.00 | 148.81 | 0.00 | 100% | 148.81 | 0%  | 0.00  | 0% | 0.00 |
| 0+790 | 10.00 | 23.33 | 0.00 | 233.28 | 0.00 | 100% | 233.28 | 0%  | 0.00  | 0% | 0.00 |
| 0+800 | 10.00 | 16.26 | 0.00 | 162.57 | 0.00 | 100% | 162.57 | 0%  | 0.00  | 0% | 0.00 |
| 0+810 | 10.00 | 15.25 | 0.00 | 152.48 | 0.00 | 100% | 152.48 | 0%  | 0.00  | 0% | 0.00 |
| 0+820 | 10.00 | 9.25  | 0.00 | 92.51  | 0.00 | 100% | 92.51  | 0%  | 0.00  | 0% | 0.00 |
| 0+830 | 10.00 | 12.19 | 0.00 | 121.94 | 0.00 | 100% | 121.94 | 0%  | 0.00  | 0% | 0.00 |
| 0+840 | 10.00 | 4.51  | 0.00 | 45.05  | 0.00 | 100% | 45.05  | 0%  | 0.00  | 0% | 0.00 |
| 0+850 | 10.00 | 23.87 | 0.00 | 238.71 | 0.00 | 100% | 238.71 | 0%  | 0.00  | 0% | 0.00 |
| 0+860 | 10.00 | 4.07  | 0.00 | 40.72  | 0.00 | 100% | 40.72  | 0%  | 0.00  | 0% | 0.00 |
| 0+870 | 10.00 | 12.57 | 0.00 | 125.69 | 0.00 | 100% | 125.69 | 0%  | 0.00  | 0% | 0.00 |
| 0+880 | 10.00 | 17.20 | 0.00 | 172.03 | 0.00 | 100% | 172.03 | 0%  | 0.00  | 0% | 0.00 |
| 0+890 | 10.00 | 8.95  | 0.00 | 89.48  | 0.00 | 100% | 89.48  | 0%  | 0.00  | 0% | 0.00 |
| 0+900 | 10.00 | 4.04  | 0.00 | 40.37  | 0.00 | 100% | 40.37  | 0%  | 0.00  | 0% | 0.00 |
| 0+910 | 10.00 | 8.17  | 0.00 | 81.71  | 0.00 | 90%  | 73.54  | 10% | 8.17  | 0% | 0.00 |
| 0+920 | 10.00 | 15.83 | 0.00 | 158.31 | 0.00 | 90%  | 142.48 | 10% | 15.83 | 0% | 0.00 |
| 0+930 | 10.00 | 13.41 | 0.00 | 134.11 | 0.00 | 90%  | 120.70 | 10% | 13.41 | 0% | 0.00 |
| 0+940 | 10.00 | 9.63  | 0.00 | 96.34  | 0.00 | 90%  | 86.71  | 10% | 9.63  | 0% | 0.00 |

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Assistant Sub Engineer

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Sub Engineer

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Er. Arju Chand  
NEC.No. 30648 Civil 'A'

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रेशन जोडी  
प्रमुख प्रशासकीय अधिकृत



|              |                |       |      |                |             |      |                |     |               |    |             |  |
|--------------|----------------|-------|------|----------------|-------------|------|----------------|-----|---------------|----|-------------|--|
| 0+950        | 10.00          | 11.02 | 0.00 | 110.19         | 0.00        | 90%  | 99.17          | 10% | 11.02         | 0% | 0.00        |  |
| 0+960        | 10.00          | 9.73  | 0.00 | 97.29          | 0.00        | 90%  | 87.56          | 10% | 9.73          | 0% | 0.00        |  |
| 0+970        | 10.00          | 16.31 | 0.00 | 163.06         | 0.00        | 90%  | 146.75         | 10% | 16.31         | 0% | 0.00        |  |
| 0+980        | 10.00          | 28.47 | 0.00 | 284.70         | 0.00        | 90%  | 256.23         | 10% | 28.47         | 0% | 0.00        |  |
| 0+990        | 10.00          | 19.27 | 0.00 | 192.73         | 0.00        | 90%  | 173.46         | 10% | 19.27         | 0% | 0.00        |  |
| 1+000        | 10.00          | 20.67 | 0.00 | 206.73         | 0.00        | 90%  | 186.06         | 10% | 20.67         | 0% | 0.00        |  |
| 1+010        | 10.00          | 23.77 | 0.00 | 237.65         | 0.00        | 90%  | 213.89         | 10% | 23.77         | 0% | 0.00        |  |
| 1+020        | 10.00          | 20.37 | 0.00 | 203.67         | 0.00        | 90%  | 183.30         | 10% | 20.37         | 0% | 0.00        |  |
| 1+030        | 10.00          | 21.47 | 0.00 | 214.66         | 0.00        | 90%  | 193.19         | 10% | 21.47         | 0% | 0.00        |  |
| 1+040        | 10.00          | 16.52 | 0.00 | 165.20         | 0.00        | 90%  | 148.68         | 10% | 16.52         | 0% | 0.00        |  |
| 1+050        | 10.00          | 14.05 | 0.00 | 140.51         | 0.00        | 90%  | 126.46         | 10% | 14.05         | 0% | 0.00        |  |
| 1+060        | 10.00          | 16.39 | 0.00 | 163.85         | 0.00        | 90%  | 147.47         | 10% | 16.39         | 0% | 0.00        |  |
| 1+070        | 10.00          | 17.16 | 0.00 | 171.62         | 0.00        | 90%  | 154.46         | 10% | 17.16         | 0% | 0.00        |  |
| 1+080        | 10.00          | 18.77 | 0.00 | 187.72         | 0.00        | 100% | 187.72         | 0%  | 0.00          | 0% | 0.00        |  |
| 1+090        | 10.00          | 29.70 | 0.00 | 296.96         | 0.00        | 100% | 296.96         | 0%  | 0.00          | 0% | 0.00        |  |
| 1+100        | 10.00          | 13.21 | 0.00 | 132.06         | 0.00        | 100% | 132.06         | 0%  | 0.00          | 0% | 0.00        |  |
| 1+110        | 10.00          | 3.30  | 0.00 | 32.95          | 0.00        | 100% | 32.95          | 0%  | 0.00          | 0% | 0.00        |  |
| <b>TOTAL</b> | <b>1115.00</b> |       |      | <b>7958.02</b> | <b>0.00</b> |      | <b>6758.61</b> |     | <b>385.35</b> |    | <b>0.00</b> |  |

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Assistant Sub-Engineer

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Sub Engineer

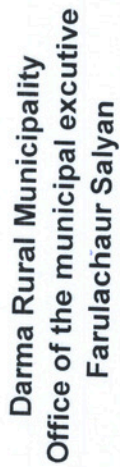
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Er. Arju Chand  
NEC.No. 30648 Civil 'A'

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रेशन लेवी  
प्रमुख भवनकारी अधिकृत



Drain Quantity

Project Name: Setadhara-Pharula Road Improvement  
Location: Darma -4,6



गाउँ कार्यपालिका

| S.No. | sec/chainage                                                         | No    | Length (m) | Bottom Width (m) | Top Width (m) | Average Width (m) | Height (m)              | Quantity (m3) | unit | Remarks |
|-------|----------------------------------------------------------------------|-------|------------|------------------|---------------|-------------------|-------------------------|---------------|------|---------|
| 1     | E/w in Excavation for Foundation of Structure ( Stone Masonry Canal) |       |            |                  |               |                   |                         |               |      |         |
|       | From                                                                 | To    |            |                  |               |                   |                         |               |      |         |
| i     | 0+390                                                                | 0+690 | 1          | 300.00           | 1             |                   |                         |               |      |         |
| ii    | 0+700                                                                | 1+080 | 1          | 320.00           | 1             |                   | 0.6                     | 180           |      |         |
|       |                                                                      |       |            |                  |               |                   | 0.6                     | 192           |      |         |
| 2     | Stone soling at foundation                                           |       |            |                  |               |                   |                         |               |      |         |
|       |                                                                      |       |            |                  |               |                   | Total Earth work QTY    | 372           | Cum  |         |
| i     | 0+390                                                                | 0+360 | 1          | 300.00           | 1             |                   | 0.15                    | 45            |      |         |
| ii    | 0+700                                                                | 0+676 | 1          | 320.00           | 1             |                   | 0.15                    | 48            |      |         |
|       |                                                                      |       |            |                  |               |                   | Total Stone Soling work | 93            | Cum  |         |
| 3     | PCC Works for foundation 1:3:6                                       |       |            |                  |               |                   |                         |               |      |         |
| i     |                                                                      | 0+360 | 1          | 300.00           |               | 0.822             | 0.1                     | 24.66         |      |         |
| ii    |                                                                      | 0+676 | 1          | 320.00           |               | 0.822             | 0.1                     | 26.304        |      |         |
|       |                                                                      |       |            |                  |               |                   | Total Pcc work QTY      | 50.964        | Cum  |         |
| 4     | Stone Masonry Wall 1:6 C/M                                           |       |            |                  |               |                   |                         |               |      |         |
| i     |                                                                      | 0+360 | 1          | 300.00           | 0.3           |                   | 0.3                     | 27            |      |         |
| ii    |                                                                      | 0+676 | 1          | 320.00           | 0.3           |                   | 0.3                     | 28.8          |      |         |
|       |                                                                      |       |            |                  |               |                   | Total QTY               | 55.8          | Cum  |         |
| 5     | PCC Caping 1:3:6                                                     |       |            |                  |               |                   |                         |               |      |         |
| i     |                                                                      | 0+360 | 1          | 300.00           | 0.3           |                   | 0.05                    | 4.5           |      |         |
| ii    |                                                                      | 0+676 | 1          | 320.00           | 0.3           |                   | 0.05                    | 4.8           |      |         |
|       |                                                                      |       |            |                  |               |                   | Total QTY               | 9.3           | Cum  |         |

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Assistant Su

Assistant Sub-Engineer

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## Sub Engineer

*[Signature]*

Er. Arijit Chandra

NEC.No. 30648 Civil 'A'

~~रेशम ओली~~

प्रमुख प्रासंगिक अधिकृत



**Darma Rural Municipality**  
**Rural Municipal Executive**  
Farulachaur, Salyan  
Karnali Province  
**DRY Wall Quantity**

Project Name: Setadhara-Pharula Road Improvement  
Location: Darma -4,6

| S.No.                    | sec/chainage                                           | No | Length (m) | Bottom Width (m) | Top Width (m) | Average Width (m) | Height (m) | Quantity (m3) | unit | remarks |
|--------------------------|--------------------------------------------------------|----|------------|------------------|---------------|-------------------|------------|---------------|------|---------|
| 1                        | E/w in Excavation for Foundation of Structure DRY Wall |    |            |                  |               |                   |            |               |      |         |
|                          | 0+760                                                  | 1  | 6.00       | 1.2              |               |                   | 2          | 7.2           |      |         |
|                          | 0+750                                                  | 1  | 5.00       | 1.2              |               |                   | 2          | 6             |      |         |
| Total Earth work QTY     |                                                        |    |            |                  |               |                   |            |               | Cum  |         |
| Dry Rubble Masonary Wall |                                                        |    |            |                  |               |                   |            |               |      |         |
| 2                        | 0+760                                                  | 1  | 6.00       | 1                | 0.5           | 0.75              | 2          | 12            |      |         |
|                          | 0+750                                                  | 1  | 5.00       | 1                | 0.5           | 0.75              | 2          | 10            |      |         |
|                          | Total Earth work QTY                                   |    |            |                  |               |                   |            |               |      |         |
| Total Earth work QTY     |                                                        |    |            |                  |               |                   |            |               | Cum  |         |
| 3                        | Back Filling                                           |    |            |                  |               |                   |            |               |      |         |
|                          | Earthwork in backfill with earthmass from near         |    |            |                  |               |                   |            |               |      |         |
|                          | (40% of the excavation)                                |    |            |                  |               |                   |            |               |      |         |
|                          |                                                        |    |            |                  |               |                   |            |               | 5.28 | Cum     |

Assistant Sub-Engineer

Sub Engineer

Er. Arju Chand  
NEC.No. 30648 Civil 'A'

रेशम बोली  
प्रमुख प्रशासक अधिकृत





**Darma Rural Municipality**  
**Office of The Rural Municipal Executive**  
**Karnali Province, Nepal**  
**Farulachaur, Salyan**

**Quantity Estimate Sheet (Stone masonry retaining wall)**

Project Name: Setadhara-Pharula Road Improvement  
Location: Darma -4,6



| S.No. | sec/chainage                                                                  | No | Length (m) | Bottom Width (m) | Top Width (m) | Average Width (m) | Height (m) | Quantity (m3) | unit | remarks |
|-------|-------------------------------------------------------------------------------|----|------------|------------------|---------------|-------------------|------------|---------------|------|---------|
| 1     | E/w in Excavation for Foundation of Structure ( Stone Masonry retaining wall) | 1  | 24.00      | 1                |               |                   | 0.6        | 14.4          |      |         |
| 2     | Stone soling at foundation                                                    | 1  | 24.00      | 1                |               |                   | 0.15       | 3.6           | Cum  |         |
| 3     | Plain cement concrete(1:3:6)                                                  | 1  | 24.00      | 1                |               |                   | 0.1        | 2.4           | Cum  |         |
| 4     | Stone Masonry(1:6) retaining wall                                             | 1  | 24.00      | 1                |               |                   | 2          | 33.6          | Cum  |         |
|       |                                                                               |    |            |                  |               |                   | Total      | 33.6          | Cum  |         |

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Assistant Sub-Engineer

*[Signature]*  
Sub Engineer

Er. Arjun Chandra  
NEC.No. 30648 Civil 'A'

*[Signature]*  
रेशम बोली  
प्रमुख प्रशासकीय अधिकृत



Darma Rural Municipality  
Office of the municipal executive  
Farulachaur Salyan  
Karnali Province

दार्चुल गाउँपालिका  
गाउँ कार्यपालिकाको कार्यालय  
सल्यान  
२०७३

Project Name: Setadhara-Pharula Road Improvement  
Location: Darma -4,6

### Estimate of Gabion Retaining Structure

|           |        | Stone filling in Gabion boxes with stone/ boulders including dressing, bounding, bracing, tying and binding with wire as per specification all complete. |                    |         |       |         |       |                |            |        |          | Unit        |            |               |         |  |
|-----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------|-------|---------|-------|----------------|------------|--------|----------|-------------|------------|---------------|---------|--|
|           |        |                                                                                                                                                          |                    |         |       |         |       |                |            |        |          | cum         |            |               |         |  |
| Chainage  | Length | Height                                                                                                                                                   | No of Gabion Boxes |         |       |         |       | Quantity (Cum) | Foundation |        |          | Backfilling |            |               | Remarks |  |
|           |        |                                                                                                                                                          | 1x1x1              | 1.5x1x1 | 2x1x1 | 2.5x1x1 | 3x1x1 |                | Base       | Height | Quantity | Bredth (m)  | Height (m) | Quantity (m3) |         |  |
| 0+020     |        |                                                                                                                                                          |                    |         |       |         |       | -              |            |        | -        |             |            |               | 0.00    |  |
| 1st layer | 6.00   | 2.00                                                                                                                                                     |                    | 6.00    |       |         |       | 9.00           | 1.50       | 2.00   | 18.00    | 0.00        | 2.00       |               | 0.00    |  |
| 2nd layer | 6.00   |                                                                                                                                                          |                    |         | 3.00  |         |       | 6.00           |            |        | -        | 0.25        | 2.00       |               | 0.00    |  |
| 0+270     |        |                                                                                                                                                          |                    |         |       |         |       | -              |            |        | -        |             |            |               | 0.00    |  |
| 1st layer | 6.00   | 2.00                                                                                                                                                     |                    | 6.00    |       |         |       | 9.00           | 1.50       | 2.00   | 18.00    | 0.00        | 2.00       |               | 0.00    |  |
| 2nd layer | 6.00   |                                                                                                                                                          |                    |         | 3.00  |         |       | 6.00           |            |        | -        | 0.25        | 2.00       |               | 0.00    |  |
| 0+350     |        |                                                                                                                                                          |                    |         |       |         |       | -              |            |        | -        | 0.25        | 2.00       |               | 0.00    |  |
| 1st layer | 8.00   | 4.00                                                                                                                                                     |                    |         |       |         | 8.00  | 24.00          | 2.50       | 4.00   | 80.00    | 0.00        | 4.00       |               | 0.00    |  |
| 2nd layer | 8.00   |                                                                                                                                                          |                    | 14.00   |       |         |       | 21.00          |            |        | -        | 0.25        | 4.00       |               | 0.00    |  |
| 3rd layer | 8.00   |                                                                                                                                                          |                    | 8.00    |       |         |       | 12.00          |            |        | -        | 0.25        | 4.00       |               | 0.00    |  |
| 4th layer | 8.00   |                                                                                                                                                          |                    |         | 4.00  |         |       | 8.00           |            |        | -        | 0.25        | 4.00       |               | 0.00    |  |
| 0+450     |        |                                                                                                                                                          |                    |         |       |         |       | -              |            |        | -        | 0.25        | 4.00       |               | 0.00    |  |
| 1st layer | 6.00   | 3.00                                                                                                                                                     |                    |         | 6.00  |         |       | 12.00          | 2.00       | 3.00   | 36.00    | 0.00        | 3.00       |               | 0.00    |  |
| 2nd layer | 6.00   |                                                                                                                                                          |                    | 6.00    |       |         |       | 9.00           |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 3rd layer | 6.00   |                                                                                                                                                          |                    |         | 3.00  |         |       | 6.00           |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 0+460     |        |                                                                                                                                                          |                    |         |       |         |       | -              |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 1st layer | 10.00  | 3.00                                                                                                                                                     |                    |         | 10.00 |         |       | 20.00          | 2.00       | 3.00   | 60.00    | 0.00        | 3.00       |               | 0.00    |  |
| 2nd layer | 10.00  |                                                                                                                                                          |                    | 10.00   |       |         |       | 15.00          |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 3rd layer | 10.00  |                                                                                                                                                          |                    |         | 5.00  |         |       | 10.00          |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 0+480     |        |                                                                                                                                                          |                    |         |       |         |       | -              |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 1st layer | 10.00  | 3.00                                                                                                                                                     |                    |         | 10.00 |         |       | 20.00          | 2.00       | 3.00   | 60.00    | 0.00        | 3.00       |               | 0.00    |  |
| 2nd layer | 10.00  |                                                                                                                                                          |                    | 13.00   |       |         |       | 19.50          |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 3rd layer | 10.00  |                                                                                                                                                          |                    |         | 5.00  |         |       | 10.00          |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 0+860     |        |                                                                                                                                                          |                    |         |       |         |       | -              |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 1st layer | 13.00  | 3.00                                                                                                                                                     |                    |         | 13.00 |         |       | 26.00          | 2.00       | 3.00   | 78.00    | 0.00        | 3.00       |               | 0.00    |  |
| 2nd layer | 13.00  |                                                                                                                                                          |                    | 13.00   |       |         |       | 19.50          |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| 3rd layer | 13.00  |                                                                                                                                                          |                    |         | 6.00  |         |       | 12.00          |            |        | -        | 0.25        | 3.00       |               | 0.00    |  |
| Total     |        |                                                                                                                                                          | 0.00               | 76.00   | 68.00 | 0.00    | 8.00  | 274.00         |            |        | 350.00   |             |            | 88.60         |         |  |

*[Signature]*  
Assistant Sub-Engineer

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Sub Engineer

*[Signature]*  
Er. Arju Chand  
NEC.No. 30648 Civil 'A'

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रेशम ओली  
प्रमुख प्रशासकीय अधिकृत





**Darma Rural Municipality**  
**Office of The Rural Municipal Executive**  
**Karnali Province, Nepal**  
**Farulachaur, Salyan**  
**Hume Pipe Quantity and cost Estimate Sheet**



**Project Name: Setadhara-Pharula Road Improvement**  
**Location: Darma -4,6**

**Hume Pipe 900**

**QTY**

| S.No. | Description                                                                                                                                                                                                                                                                                                  | Nos  | Length (L) | Breadth (B) | Height (H) | Quantity (L*B*H)           | Unit         | Remarks |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|-------------|------------|----------------------------|--------------|---------|
| 1     | Earthworks excavation for foundation of cross drainage structure, Retaining and Supporting Structure in all types soil and by provide combination of mannual and machine, Sheetting, removal of stumps, other deleterious matter disposal upto 10m and lift upto 1.5 m etc all complete as per specification |      |            |             |            |                            |              |         |
|       | Portion of RCC Hume pipe NP3 90mm dia                                                                                                                                                                                                                                                                        | 3    | 10.00      | 1.20        | 1.85       | 66.60                      |              |         |
|       | Catchment Chamber                                                                                                                                                                                                                                                                                            | 3    | 5.60       | 5.60        | 1.7        | 159.94                     |              |         |
|       | for a Last wall                                                                                                                                                                                                                                                                                              | 3    | 3.00       | 1.00        | 0.5        | 4.50                       |              |         |
|       |                                                                                                                                                                                                                                                                                                              |      |            |             |            | <b>231.0360</b>            | Cum          |         |
| 2     | Stone Soling - Providing and laying of hand pack stone soling with 150 to200 mm thick including levelling and all transportation as per drawing and technical Specification                                                                                                                                  |      |            |             |            |                            |              |         |
|       | Portion of RCC Hume pipe NP3 90mm dia                                                                                                                                                                                                                                                                        | 3.00 | 10.00      | 1.20        | 0.15       | 5.40                       |              |         |
|       | Catchment Chamber                                                                                                                                                                                                                                                                                            | 3.00 | 1.40       | 2.60        | 0.15       | 1.64                       |              |         |
|       | for a Last wall                                                                                                                                                                                                                                                                                              | 3.00 | 3.00       | 1.00        | 0.15       | 1.35                       |              |         |
|       |                                                                                                                                                                                                                                                                                                              |      |            |             |            | <b>Total soling work</b>   | <b>8.388</b> | Cum     |
| 3     | Concrete work- Providing and Placing of plain Cement Concrete M15/40 grade ( or 1:2:4) machine/ manual mix) in foundation including compaaction. Curing, all works complete as per drawing and Technical Specification                                                                                       |      |            |             |            |                            |              |         |
|       | Portion of RCC Hume pipe NP3 90mm dia                                                                                                                                                                                                                                                                        | 3.00 | 10.00      | 1.20        | 0.10       | 3.60                       |              |         |
|       | Catchment Chamber                                                                                                                                                                                                                                                                                            | 3.00 | 1.40       | 2.60        | 0.10       | 1.09                       |              |         |
|       | for a Last wall                                                                                                                                                                                                                                                                                              | 3.00 | 3.00       | 1.00        | 0.10       | 0.90                       |              |         |
|       | Parapit wall capping                                                                                                                                                                                                                                                                                         | 6.00 | 12.00      | 0.40        | 0.10       | 2.88                       |              |         |
|       | Masonry wall Capping                                                                                                                                                                                                                                                                                         | 3.00 | 8.00       | 0.40        | 0.10       | 0.96                       |              |         |
|       |                                                                                                                                                                                                                                                                                                              |      |            |             |            | <b>Total PCC work</b>      | <b>9.432</b> | Cum     |
| 4     | Stone Masonry Works- Random Rubble stone masonry in cement sand ( 1:4) mortar for Cross drainage Structure including curing, placing in postion of weep holes all works complete .                                                                                                                           |      |            |             |            |                            |              |         |
|       | Catchment Chamber                                                                                                                                                                                                                                                                                            | 3.00 | 8.00       | 0.40        | 1.5        | 14.40                      |              |         |
|       | Parapit wall                                                                                                                                                                                                                                                                                                 | 3.00 | 1.00       | 0.4         | 0.6        | 0.72                       |              |         |
|       | for a Last wall                                                                                                                                                                                                                                                                                              | 3.00 | 3.00       | 0.65        | 1.5        | 8.78                       |              |         |
|       | Deduction hp portion                                                                                                                                                                                                                                                                                         | -4   |            | 1.13        |            | -4.52                      |              |         |
|       |                                                                                                                                                                                                                                                                                                              |      |            |             |            | <b>Total Masonary work</b> | <b>19.37</b> | cum     |
| 5     | Supplying and laying 900 mm dia NP3 RCC pipes with or without collars, jointed with stiff mixture of cement mortar in the prorportion of 1:2 cement Sand mortar including transportation of 2.5 m long.                                                                                                      | 12   |            |             |            | <b>30.00</b>               | RM           |         |
| 6     | Earthwork in backfill with earthmass from near (40% of the excavation)                                                                                                                                                                                                                                       |      |            |             |            |                            | cu.m.        |         |
|       |                                                                                                                                                                                                                                                                                                              |      |            |             |            | <b>92.41</b>               | Cum          |         |

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**Assistant Sub-Engineer**

*[Signature]*

**Sub Engineer**

*[Signature]*

**Er. Arju Chand**  
**NEC.No. 30648 Civil 'A'**

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**रेशम ओली**



**Darma Rural Municipality**  
Office of The Rural Municipal Executive  
Karnali Province, Nepal  
Farulachaur, Salyan  
**Hume Pipe Quantity and cost Estimate Sheet**



**Project Name: Setadhara-Pharula Road Improvement**  
**Location: Darma -4,6**

| S.No. | Description                                                                                                                                                                                                                                                                                                    | Nos  | Length (L) | Breadth (B) | Height (H) | Quantity (L*B*H) | Unit       | Re. |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------------|-------------|------------|------------------|------------|-----|
| 1     | Earthworks excavation for foundation of cross drainage structure, Retaining and Supporting Structure in all types soil and by provide combination of manual and machine, Sheet piling, removal of stumps, other deleterious matter disposal upto 10m and lift upto 1.5 m etc all complete as per specification |      |            |             |            |                  |            |     |
|       | Portion of RCC Hume pipe NP3 600mm dia                                                                                                                                                                                                                                                                         | 2    | 10.00      | 0.90        | 1.55       | 27.90            |            |     |
|       | Catchment Chamber                                                                                                                                                                                                                                                                                              | 2    | 5.40       | 5.40        | 1.35       | 78.73            |            |     |
|       | for a Last wall                                                                                                                                                                                                                                                                                                | 2    | 2.00       | 0.90        | 1          | 3.60             |            |     |
|       | <b>Total Earth work</b>                                                                                                                                                                                                                                                                                        |      |            |             |            | <b>110.2320</b>  | <b>Cum</b> |     |
| 2     | Stone Soling - Providing and laying of hand pack stone soling with 150 to 200 mm thick including levelling and all transportation as per drawing and technical Specification                                                                                                                                   |      |            |             |            |                  |            |     |
|       | Portion of RCC Hume pipe NP3 600mm dia                                                                                                                                                                                                                                                                         | 2.00 | 10.00      | 0.60        | 0.15       | 1.80             |            |     |
|       | Catchment Chamber                                                                                                                                                                                                                                                                                              | 2.00 | 1.20       | 2.60        | 0.15       | 0.94             |            |     |
|       | for a Last wall                                                                                                                                                                                                                                                                                                | 2.00 | 2.00       | 0.90        | 0.15       | 0.54             |            |     |
|       | <b>Total soling work</b>                                                                                                                                                                                                                                                                                       |      |            |             |            | <b>3.276</b>     | <b>Cum</b> |     |
| 3     | Concrete work- Providing and Placing of plain Cement Concrete M15/40 grade ( or 1:2:4) machine/ manual mix) in foundation including compaction. Curing, all works complete as per drawing and Technical Specification                                                                                          |      |            |             |            |                  |            |     |
|       | Portion of RCC Hume pipe NP3 600mm dia                                                                                                                                                                                                                                                                         | 2.00 | 10.00      | 0.80        | 0.10       | 1.60             |            |     |
|       | Catchment Chamber                                                                                                                                                                                                                                                                                              | 2.00 | 1.20       | 2.60        | 0.08       | 0.47             |            |     |
|       | Parapet wall capping                                                                                                                                                                                                                                                                                           | 2.00 | 1.20       | 0.40        | 0.08       | 0.07             |            |     |
|       | Masonry wall Capping                                                                                                                                                                                                                                                                                           | 2.00 | 12.80      | 0.90        | 0.08       | 1.73             |            |     |
|       | <b>Total PCC work</b>                                                                                                                                                                                                                                                                                          |      |            |             |            | <b>3.868</b>     | <b>Cum</b> |     |
| 4     | Stone Masonry Works- Random Rubble stone masonry in cement sand ( 1:4) mortar for Cross drainage Structure including curing, placing in position of weep holes all works complete .                                                                                                                            |      |            |             |            |                  |            |     |
|       | Catchment Chamber                                                                                                                                                                                                                                                                                              | 2    | 4.80       | 0.40        | 1.4        | 5.38             |            |     |
|       | parapet wall                                                                                                                                                                                                                                                                                                   | 2    | 1.20       | 0.40        | 0.6        | 0.58             |            |     |
|       | for a Last wall                                                                                                                                                                                                                                                                                                | 2    | 2.50       | 0.65        | 3.4        | 11.05            |            |     |
|       | Deduction hp portion                                                                                                                                                                                                                                                                                           | -4   |            | 0.43        |            | -1.73            |            |     |
|       | <b>Total Masonry work</b>                                                                                                                                                                                                                                                                                      |      |            |             |            | <b>15.27</b>     | <b>cum</b> |     |
| 5     | Supplying and laying 600 mm dia NP3 RCC pipes with or without collars, jointed with stiff mixture of cement mortar in the proportion of 1:2 cement Sand mortar including transportation of 2.5 m long.                                                                                                         | 8    |            |             |            | 20.00            | RM         |     |
| 6     | Earthwork in backfill with earthmass from near (40% of the excavation)                                                                                                                                                                                                                                         |      |            |             |            |                  | cu.m.      |     |
|       |                                                                                                                                                                                                                                                                                                                |      |            |             |            | <b>44.09</b>     | <b>Cum</b> |     |

*[Signature]*  
Assistant Sub-Engineer

*[Signature]*  
Sub Engineer

*[Signature]*  
Er. Arju Chand  
NEC.No. 30648 Civil 'A'

*[Signature]*  
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प्रमुख प्रशासकीय अधिकृत





**Darma Rural Municipality**  
Office of the Rural Municipal Executive  
Farulachaur Salyan  
Karnali Province  
List of Handtools



गठन कार्यपालिकाको  
सदर कार्यालय  
सल्यान

No of Road Schem : 1  
Propose Worker group for each Scheme: 3  
No of worker in one group: 13  
Total No of Worker: 39

| S. No. | Handtool type                          | Specific details | Unit | Quantity | Cost per unit | Total Cost | Remarks                                |
|--------|----------------------------------------|------------------|------|----------|---------------|------------|----------------------------------------|
| 1      | Hammer (large one, for rock splitting) | TATA 16 lb/10 kg | Nos  | 3        | 1370          | 4110.00    |                                        |
| 2      | Hammer (large one, for rock splitting) | TATA 12 lb/8 kg  | Nos  | 3        | 950           | 2850.00    |                                        |
| 3      | Hammer (large one, for rock splitting) | TATA 8 lb/ 6 kg  | Nos  | 3        | 900           | 2700.00    |                                        |
| 4      | Mason hammer                           | 1kg              | Nos  | 6        | 425           | 2550.00    |                                        |
| 5      | Pick                                   | TATA 2-2.5 kg    | Nos  | 9        | 450           | 4050.00    |                                        |
| 6      | Chisel big                             | 4 kg             | Nos  | 3        | 350           | 1050.00    |                                        |
| 7      | Chisel medium                          | 2.5 kg           | Nos  | 6        | 350           | 2100.00    |                                        |
| 8      | Digging Bar                            | 6KG              | Nos  | 6        | 1000          | 6000.00    |                                        |
| 9      | Shovel                                 | 1.6 Kg           | Nos  | 6        | 525           | 3150.00    |                                        |
| 10     | Spade                                  | TATA 2-2.5 kg    | Nos  | 3        | 475           | 1425.00    |                                        |
| 11     | Plumb bob with thread                  |                  | Nos  | 3        | 300           | 900.00     |                                        |
| 12     | Measuring Tape 5m (Still)              |                  | Nos  | 3        | 400           | 1200.00    |                                        |
| 13     | Measuring Tape 30m                     |                  | Nos  | 1        | 970           | 970.00     |                                        |
| 14     | Strings (for layouts)                  |                  | Roll | 6        | 50            | 300.00     | 1 roll of 50m                          |
| 15     | Pliers (Wire cutter)                   |                  | Nos  | 3        | 260           | 780.00     | only for gabion work                   |
| 16     | Level Pipe                             | M                | M    | 45       | 45            | 2025.00    |                                        |
| 17     | Wheel Barrow                           |                  | Nos  | 1        | 7500          | 7500.00    |                                        |
| 18     | Iron Pans (Tasala)                     |                  | Nos  | 6        | 355.00        | 2130.00    | only for masonry wall with cement/sand |
| 19     | Mason trowel (Karni)                   |                  | Nos  | 3        | 145           | 435.00     | only for masonry wall with cement/sand |
| 20     | Mason trowel (rupasa)                  |                  | Nos  | 3        | 135           | 405.00     | only for pointing and plaster work     |

*Key*

Assistant Sub-Engineer

*Off*

Er. Arju Chand  
NEC.No. 30648 Civil 'A'

Sub Engineer

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|                     |                         |     |   |    |        |                                    |
|---------------------|-------------------------|-----|---|----|--------|------------------------------------|
| 21                  | Finishing wooden trowel | Nos | 3 | 70 | 210.00 | only for pointing and plaster work |
| <b>Total of (A)</b> |                         |     |   |    |        | <b>46840.00</b>                    |

**Safety tools require for 13 workers in one group**

| S. No.                                 | Handtool type                      | Specific details | Unit | Quantity per di (3 groups) | Cost per unit | Total Cost       | Remarks |
|----------------------------------------|------------------------------------|------------------|------|----------------------------|---------------|------------------|---------|
| 1                                      | Safety Glasses                     | Test certified   | Nos  | 6                          | 300           | 1800.00          |         |
| 2                                      | Hard Hat (Helmet)                  | Test certified   | Nos  | 36                         | 525           | 18900.00         |         |
| 3                                      | Cotton Mask                        | Good Quality     | Nos  | 36                         | 35            | 1260.00          |         |
| 4                                      | Safety Footweares (gumboot) normal | Test certified   | Pair | 9                          | 900           | 8100.00          |         |
| 5                                      | Gloves                             | Good Quality     | Pair | 9                          | 900           | 8100.00          |         |
| 6                                      | Reflective Vest                    | Test certified   | Nos  | 18                         | 550           | 9900.00          |         |
| 7                                      | First Aid Kit with medicine        | Test certified   | Set  | 3                          | 2000          | 6000.00          |         |
| <b>Total of (B)</b>                    |                                    |                  |      |                            |               | <b>54060.00</b>  |         |
| <b>Total Cost (A)+(B)</b>              |                                    |                  |      |                            |               | <b>100900.00</b> |         |
| <b>VAT 13%</b>                         |                                    |                  |      |                            |               | <b>13117.00</b>  |         |
| <b>Transportation Tharmare to site</b> |                                    |                  |      |                            |               | <b>10000.00</b>  |         |
| <b>Total cost (A)+(B) with VAT</b>     |                                    |                  |      |                            |               | <b>124017.00</b> |         |

**Note**

- 1 The cost of handtools are based on Salyan District rate
- 2 Safety tools cost are as per district rate salyan

  
Assistant Sub-Engineer

  
Sub Engineer

  
Er. Arju Chand  
NEC.No. 30648 Civil 'A'

  
रमेश भोजी  
प्रमुख प्रशासकीय अधिकृत





Darma Rural Municipality  
Rural Municipal Executive  
Farulachaur, Salyan  
Karnali Province



Quantity Of Bio-Engineering works

Project Name: Setadhara-Pharula Road Improvement  
Location: Darma -4,6

| Item no. | Description Of Works                                                                  | Unit | Quantity      | Item Rate (NRs) | Total Amount (NRs) | Remarks |
|----------|---------------------------------------------------------------------------------------|------|---------------|-----------------|--------------------|---------|
| 1        | Environmental Protection                                                              |      |               |                 |                    |         |
| 1.1      | Collection of shrub slips, and planting to suitable location as indicated by Engineer | sqm  | 50.00         | 515.52          | 25,776.00          |         |
|          |                                                                                       |      | Total         |                 | 25,776.00          |         |
|          |                                                                                       |      | Grand Total = |                 | 25,776.00          |         |

  
Assistant Sub-Engineer

  
Sub Engineer

  
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NEC.No. 30648 Civil 'A'

  
रेशम ओली  
प्रमुख प्रशासकीय अधिकृत



**Darma Rural Municipality**  
**Office Of The Rural Municipal Executive**  
**Karnali Province**



**SUMMARY of RATE ANALYSIS for Road Works 2079/080**

| S.N. | Items                                                                                | Unit           | Contractor's Rate | User's Rate | Remarks |
|------|--------------------------------------------------------------------------------------|----------------|-------------------|-------------|---------|
| 1    | E/W exca. in Roadway & Drain : All types of Soil By machine                          | m <sup>3</sup> | 74.61             | 64.88       |         |
| 2    | E/W exca. in Roadway & Drain : Ordinary Soil By Machine                              | m <sup>3</sup> | 411.13            | 357.50      |         |
| 3    | E/W exca. in Roadway & Drain : Ordinary Rock                                         | m <sup>3</sup> | 223.84            | 194.64      |         |
| 4    | Back filling By manual                                                               | m <sup>3</sup> | 205.56            | 178.75      |         |
| 5    | dry stone soling                                                                     | m <sup>3</sup> | 3401.00           | 2957.39     |         |
| 6    | P.C.C. - 1:3:6 for Foundation                                                        | m <sup>3</sup> | 11656.00          | 10135.65    |         |
| 7    | P.C.C. - 1:2:4 for Foundation                                                        | m <sup>3</sup> | 13090.00          | 11382.61    |         |
| 8    | Gabion Work (3x1x1) box size with Hexagonal, supply, weving and placing in position  | box            | 5631.26           | 4896.75     |         |
| 9    | Gabion Work (2x1x1) box size with Hexagonal supply, weving and placing in position   | box            | 3880.16           | 3374.05     |         |
| 10   | Gabion Work (1.5x1x1) box size with Hexagonal supply, weving and placing in position | box            | 2815.64           | 2448.38     |         |
| 11   | Rubble packing in Gabion box                                                         | m <sup>3</sup> | 2399.71           | 2086.70     |         |
| 12   | Rubble Masonary Works 1:4 Cement Mortar                                              | m <sup>3</sup> | 12104.00          | 10525.22    |         |
| 13   | Rubble Masonary Works 1:6 Cement Mortar                                              | m <sup>3</sup> | 11327.00          | 9849.57     |         |
| 14   | Supply and installation of NP3 RCC Hume Pipe 600 Dia                                 | RM             | 9409.19           | 8181.91     |         |
| 15   | Supply and installation of NP3 RCC Hume Pipe 900 Dia                                 | RM             | 15439.00          | 13425.22    |         |
| 16   | Dry stone masonry works                                                              | m <sup>3</sup> | 4782.00           | 4158.26     |         |
| 17   | Bio Engineering Works                                                                | m <sup>2</sup> | 592.84            | 515.52      |         |
| 18   | Earthwork Materials Transport and dumping upto 200 m                                 | cum            | 163.82            | 142.45      |         |
|      |                                                                                      |                |                   | 0.00        |         |

Assistant Sub-Engineer

Sub Engineer

Er. Arij Chand  
N.E.C. No. 20518 Civil/A

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## Description of works:

For 360.00 cu.m

For 360.00 cu.m

DRAWING and instruction of the Engineer by

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## Description of works:

for 1.00 cu.m

| Excavation in Roadway, Drain and foundation in Ordinary Soil including removal and satisfactory disposal of the materials upto a lead of 50m. Manual    | For 1.00 cu.m |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| 1. Excavation in Roadway, Drain and foundation in Ordinary Soil including removal and satisfactory disposal of the materials upto a lead of 50m. Manual | 1.00          |

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Assistant Sub-Engineer

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Sub Engineer

Er. Arju Chand  
NEC.No. 30648 Civil 'A'

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| Earthwork Excavation  |           |            |       |                          |              |        |          |               |      | For                                                                                                                                                                                         |                  | 16.00 cum |      | For UC      |                                                                                  | 194.64  |      |                  |          |      |          |
|-----------------------|-----------|------------|-------|--------------------------|--------------|--------|----------|---------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------|------|-------------|----------------------------------------------------------------------------------|---------|------|------------------|----------|------|----------|
| Description of works: |           |            |       |                          |              |        |          |               |      | Roadway excavation in Hard rock with rock breakers,including breaking rock, lifts and lead for disposal as per Drawing and Technical Specifications by mechanical method for lead up to 30m |                  |           |      |             |                                                                                  |         |      |                  |          |      |          |
| Spec. cl No: 905      |           |            |       |                          |              |        |          |               |      | Unit : m3                                                                                                                                                                                   |                  |           |      |             |                                                                                  |         |      |                  |          |      |          |
| Norms No.             | Type      | Labour (A) |       |                          | Material (B) |        |          | Equipment (C) |      |                                                                                                                                                                                             | Unit             | Qty.      | Rate | Amount      | Unit                                                                             | Qty.    | Rate | Amount           |          |      |          |
|                       |           | Unit       | Qty.  | Rate                     | Amount       | Type   | Unit     | Qty.          | Rate | Amount                                                                                                                                                                                      |                  |           |      |             |                                                                                  |         |      |                  | Type     | Unit | Qty.     |
| 9.1(V)A               | Skilled   | md         | 1.00  | 1000.00                  | 1000.00      |        |          |               |      |                                                                                                                                                                                             |                  |           |      | 0.00        | Hydraulic Excavator with breaker                                                 | hr      | 6    | 3641.12          | 21846.72 |      |          |
|                       | Unskilled | md         | 10.00 |                          |              |        |          |               |      |                                                                                                                                                                                             |                  |           |      |             | credit for excavated rock for use @ 50% of excavated (if available rock is used) | cum     | -8   | 101.5            | -8120.00 |      |          |
|                       |           |            |       |                          |              | 715.00 | 7150.00  |               |      |                                                                                                                                                                                             |                  |           |      | 0.00        |                                                                                  |         |      |                  |          |      |          |
|                       |           |            |       | Sub total of A =         |              |        | 8150.00  |               |      |                                                                                                                                                                                             | Sub total of B = |           |      | 0.00        |                                                                                  |         |      | Sub total of C = |          |      | 13726.72 |
|                       |           |            |       | Sub total of A + B + C = |              |        | 21876.72 |               |      |                                                                                                                                                                                             |                  |           |      |             |                                                                                  |         |      |                  |          |      |          |
|                       |           |            |       | Contractors overhead 15% |              |        | 3281.51  |               |      |                                                                                                                                                                                             |                  |           |      |             |                                                                                  |         |      |                  |          |      |          |
|                       |           |            |       |                          |              |        |          |               |      | Rate =                                                                                                                                                                                      |                  | 25158.23  |      | Unit Rate = |                                                                                  | 1572.39 |      |                  |          |      |          |

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Assistant Sub-Engineer

**Sub Engineer**

Er. Arju Chand  
NEC.No. 30648 Civil 'A'

रेशम खोली  
प्रमुख प्रशासनिक अधिकारी



Approved by

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| Back filling with approved materials obtain from borrow pits excluding excavation. |          |  |  |                        |        |
|------------------------------------------------------------------------------------|----------|--|--|------------------------|--------|
| Item No.<br>10                                                                     | per<br>I |  |  | Unskilled<br>Equipment | m d    |
|                                                                                    |          |  |  | 3%oof labour           | 0.25   |
| Sub-Total                                                                          |          |  |  |                        |        |
| Contract Rate (1.15)                                                               |          |  |  |                        | 715.00 |
| U.Rate without VAT                                                                 |          |  |  |                        | 178.75 |
| Back filling                                                                       |          |  |  |                        | sq.m.  |
|                                                                                    |          |  |  |                        | 205.56 |
|                                                                                    |          |  |  |                        | 205.56 |

## 7. CONCRETE WORKS

|                                                                                                                                                          | skilled             | m.d.             | 1.00              | 1000.00            | 1000.00            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------|-------------------|--------------------|--------------------|
| Concreting of foundation, vertical faces<br>walls (cement concrete) including supply<br>of materials and haulage distance upto<br>30 m    a) P.C.(1:3:6) | unskilled<br>cement | m.d.<br>m.t.     | 4.00<br>0.22      | 715.00<br>14000.00 | 2860.00<br>3080.00 |
| aggregate 1 = 40 mm<br>2 = 20 mm                                                                                                                         | Aggregate1<br>2     | c.u.m.<br>c.u.m. | 0.65<br>0.24      | 2350.00<br>2350.00 | 1527.50<br>564.00  |
| aggragate 2 = 20 mm                                                                                                                                      | sand                | c.u.m.           | 0.47              | 2350.00            | 1104.50            |
| Item No. 5.1<br>Norms-7 -2-(c) page 44                                                                                                                   | Sub-Total           |                  |                   |                    | 10136.00           |
| P.C.C. - 1:3:6 in foundation, walls etc.                                                                                                                 |                     |                  |                   |                    | 10136.00           |
|                                                                                                                                                          |                     |                  | Including 15 % OH |                    | 11656.00           |

| Concreting of foundation, vertical faces<br>walls (cement concrete) including supply<br>materials and haulage distance upto 30m |  | m.d.   | 1.00              | 1000.00  | 1000.00  |
|---------------------------------------------------------------------------------------------------------------------------------|--|--------|-------------------|----------|----------|
| a) P.C.C. (1:2:4)                                                                                                               |  | m.d.   | 4.00              | 715.00   | 2860.00  |
| aggregate 1 = 40 mm                                                                                                             |  | m.t.   | 0.32              | 14000.00 | 4480.00  |
| aggregate 2 = 20 mm                                                                                                             |  | c.u.m. | 0.52              | 2350.00  | 1222.00  |
| aggregate 3 = 10 mm                                                                                                             |  | c.u.m. | 0.22              | 2350.00  | 517.00   |
| sand                                                                                                                            |  | c.u.m. | 0.11              | 2350.00  | 258.50   |
| Sub-Total                                                                                                                       |  | c.u.m. | 0.4450            | 2350.00  | 1045.75  |
| Item No. 5.2                                                                                                                    |  |        |                   |          | 11383.25 |
| Norms-7- 2(d) page 44                                                                                                           |  |        |                   |          | 11383.00 |
| P.C.C. - 1:2:4 in foundation, walls etc.                                                                                        |  |        | including 15 % OH |          | 13090.00 |

  
Assistant Sub-Engineer

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Sub Engineer

  
Er. Arju Chand  
NEC.No. 30648 Civil 'A'

Prepared by

Checked by

Approved by



| Gabion Work (3X1X1) box size with Hexagonal supply, weaving and placing in position |   |     |                      |      |         |
|-------------------------------------------------------------------------------------|---|-----|----------------------|------|---------|
| 10 SWG heavy coated Machine Made Gabion Box size 3*1*1.0m (16 m <sup>2</sup> )      |   |     |                      |      |         |
| Item No.                                                                            |   | per | skilled              | m.d. |         |
| 24.03.01                                                                            | I | box | unskilled            | m.d. | 1000.00 |
| Dollidar                                                                            |   |     | Gabion box           | 0.13 | 715.00  |
| Gabion Box 3x1x1m                                                                   |   |     | Binding wire         | 1.00 | 92.95   |
|                                                                                     |   |     |                      | 1.30 | 4640.00 |
|                                                                                     |   |     |                      |      | 126.00  |
|                                                                                     |   |     |                      |      | 163.80  |
|                                                                                     |   |     | Sub-Total            |      | 4896.75 |
|                                                                                     |   |     | Contract Rate (1.15) |      | 5631.26 |
|                                                                                     |   |     | U. Rate without VAT  | box  | 5631.26 |

| Gabion Work (2.5X1X1) box size with Hexagonal supply, weaving and placing in position |     |     |                      |      |         |         |
|---------------------------------------------------------------------------------------|-----|-----|----------------------|------|---------|---------|
| 10 SWG heavy coated Machine Made Gabion Box size 2*1*1.0m (11 m2)                     |     |     |                      |      |         |         |
| Item No.                                                                              | per |     | skilled              | m.d. |         |         |
| 24.03.01                                                                              | 1   | box | unskilled            | m.d. | 1000.00 | 0.00    |
| Dollidar                                                                              |     |     | Gabion box           | 0.09 | 715.00  | 64.35   |
| Gabion Box 2x1x1m                                                                     |     |     | Binding wire         | 1.00 | 3190.00 |         |
|                                                                                       |     |     |                      | 0.95 | 126.00  | 119.70  |
|                                                                                       |     |     | Sub-Total            |      |         | 3374.05 |
|                                                                                       |     |     | Contract Rate (1.15) |      |         | 3880.16 |
|                                                                                       |     |     | U. Rate without VAT  | box  |         | 3880.16 |
|                                                                                       |     |     | per                  |      |         |         |

| Gabion Work (1.5x1x1) box size with Hexagonal supply, weaving and placing in position |   |     |                      |       |         |
|---------------------------------------------------------------------------------------|---|-----|----------------------|-------|---------|
| 10 SWG heavy coated Machine Made Gabion Box size 1.5*1*1 (9 m2)                       |   |     |                      |       |         |
| Item No.                                                                              |   | per | skilled              | m. d. |         |
| 24.03.01                                                                              | I | box | unskilled            | m. d. | 1000.00 |
| Dollidar                                                                              |   |     | Gabion box           | 0.07  | 715.00  |
| Gabion Box 1.5x1x1m                                                                   |   |     | Binding wire         | 1.00  | 46.48   |
|                                                                                       |   |     |                      | 0.65  | 2320.00 |
|                                                                                       |   |     | Sub-Total            |       | 126.00  |
|                                                                                       |   |     | Contract Rate (1.15) |       | 81.90   |
|                                                                                       |   |     | U. Rate without VAT  | box   | 2448.38 |
|                                                                                       |   |     | per                  |       | 2815.64 |
|                                                                                       |   |     |                      |       | 2815.64 |

| Rubble packing in Gabion box |   |       |                      |       |         |
|------------------------------|---|-------|----------------------|-------|---------|
| Item No.                     |   | per   | unskilled            | m.d.  |         |
| 22                           | I | cu.m. | Rubble               | 0.50  | 715.00  |
| NG 16(11)                    |   |       |                      | 1.10  | 1572.00 |
| Rubble packing in Gabion box |   |       | Sub-Total            |       | 1729.20 |
|                              |   |       | Contract Rate (1.15) |       | 2086.70 |
|                              |   |       | U. Rate without VAT  | cu.m. | 2399.71 |

Assistant Sub-Engineer

Sub Engineer

Er. Arju Chand  
NEC.No. 30648 Civil 'A'

रेशम शर्मा  
प्रमुख प्रशासकीय अधिकृत

**6. STONE WORKS**

|                                                                                       |                       |       |      |         |         |
|---------------------------------------------------------------------------------------|-----------------------|-------|------|---------|---------|
| Filling by stones in the foundation and levelling including haulage distance upto 30m | Unskilled Block stone | m.d.  | 1.50 | 715.00  | 1072.50 |
|                                                                                       | Bond stone            | cu.m. | 1.00 | 1572.00 | 1572.00 |
|                                                                                       | Sub Total             | cu.m. | 0.20 | 1572.00 | 314.40  |
| Item No. 1.6                                                                          |                       |       |      |         | 2958.90 |
| Norms - 6(5) page 39                                                                  |                       |       |      |         | 2958.00 |
| <b>Stone filling in foundation trench</b>                                             |                       |       |      |         | 3401.00 |

|                                                                                                                                                            |                               |      |       |          |          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|-------|----------|----------|
| Rubble masonry work including supply of hard stone blocks preparing cement sand mortar and construction of the wall upto 5m high haulage distance upto 10m | skilled unskilled cement Sand | m.d. | 1.50  | 1000.00  | 1500.00  |
|                                                                                                                                                            |                               | m.d. | 5.00  | 715.00   | 3575.00  |
|                                                                                                                                                            |                               | m.t. | 0.159 | 14000.00 | 2226.00  |
|                                                                                                                                                            |                               | cu.m | 0.45  | 3325.00  | 1496.25  |
| a) cement sand mortar 1:4                                                                                                                                  | bi-stone                      | "    | 1.00  | 1572.00  | 1572.00  |
|                                                                                                                                                            | bond st.                      | "    | 0.10  | 1572.00  | 157.20   |
| Item No. 3.2                                                                                                                                               | Sub-Total                     |      |       |          | 10526.45 |
| Norms - 6(1-2) page 35                                                                                                                                     |                               |      |       |          | 10526.00 |
| <b>Stone work in c.m. - 1:4</b>                                                                                                                            |                               |      |       |          | 12104.00 |

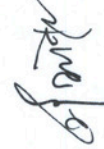
|                                                                                                                                                            |                               |      |       |          |          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|-------|----------|----------|
| Rubble masonry work including supply of hard stone blocks preparing cement sand mortar and construction of the wall upto 5m high haulage distance upto 10m | skilled unskilled cement Sand | m.d. | 1.50  | 1000.00  | 1500.00  |
|                                                                                                                                                            |                               | m.d. | 5.00  | 715.00   | 3575.00  |
|                                                                                                                                                            |                               | m.t. | 0.106 | 14000.00 | 1484.00  |
|                                                                                                                                                            |                               | cu.m | 0.47  | 3325.00  | 1562.75  |
| a) cement sand mortar 1:6                                                                                                                                  | bi-stone                      | "    | 1.00  | 1572.00  | 1572.00  |
|                                                                                                                                                            | bond st.                      | "    | 0.10  | 1572.00  | 157.20   |
| Item No. 3.3                                                                                                                                               | Sub-Total                     |      |       |          | 9850.95  |
| Norms - 6(1-3) page 35                                                                                                                                     |                               |      |       |          | 9850.00  |
| <b>Stone work in c.m. - 1:6</b>                                                                                                                            |                               |      |       |          | 11327.00 |

|                                                                                                                                |                            |      |      |         |         |
|--------------------------------------------------------------------------------------------------------------------------------|----------------------------|------|------|---------|---------|
| Rubble masonry work including supply of hard stone blocks and construction of the wall upto 5m high haulage distance upto 30 m | skilled unskilled bi-stone | m.d. | 1.00 | 1000.00 | 1000.00 |
| a) dry wall                                                                                                                    | bond st.                   | m.d. | 2.00 | 715.00  | 1430.00 |
| Item No. 3.5                                                                                                                   | Sub-Total                  | cu.m | 1.00 | 1572.00 | 1572.00 |
| Norms - 6(2-1) page 36                                                                                                         |                            |      |      |         | 157.20  |
| <b>Dry stone masonry work</b>                                                                                                  |                            |      |      |         | 4159.20 |
|                                                                                                                                |                            |      |      |         | 4159.00 |
|                                                                                                                                |                            |      |      |         | 4782.00 |

  
Assistant Sub-Engineer

  
Sub Engineer

Er. Arju Chand  
NEC.No. 30648 Civil 'A'

  
रेशम ओली  
प्रमुख प्रशासकाय अधिकृत

Prepared by

Checked by

Approved by





**Darma Rural Municipality**  
Office of the rural Municipal Executive  
Pharplachaur, Salyan  
Karnali Province



District Labour and Material Rate, Fuel and Equipment Hire Rate and Rate of Materials at Site

| 1) Labour |                    |      |               |
|-----------|--------------------|------|---------------|
| S.N.      | Description        | Unit | District Rate |
| 1         | Skilled            | md   | 1000          |
| 2         | Semiskilled        | md   | 715           |
| 3         | Unskilled (Labour) | md   | 715           |
| 4         | Operator           | md   | 900           |
| 5         | Engineer           | md   | 1200          |
| 6         | Technician         | md   | 1045          |

| 2) Fuel and Lubricant |             |      |               |
|-----------------------|-------------|------|---------------|
| S.N.                  | Description | Unit | District Rate |
| 1                     | Diesel      | lit. | 172.00        |
| 3                     | Petrol      | lit. | 180.00        |

| 3) Equipment |                                                       |      |               |          |           |               |
|--------------|-------------------------------------------------------|------|---------------|----------|-----------|---------------|
| S.No.        | Description                                           | Unit | District rate | Fuel ltr | Fuel cost | Rate per hour |
| 1            | Truck 5.5 cum per 10 ton                              | hr.  | 1164.00       | 9.46     | 1627.12   | 2791.12       |
| 2            | Truck 5.5 cum per 10 ton                              | hr.  | 1164.00       | 9.46     | 1627.12   | 2791.12       |
| 3            | Truck 5.5 cum per 10 ton                              | hr.  | 1164.00       | 9.46     | 1627.12   | 2791.12       |
| 4            | Grader                                                | hr.  | 2746.00       | 8.67     | 1491.24   | 4237.24       |
| 5            | Pump 10cm dia                                         | hr.  |               |          | 0.00      | 0.00          |
| 6            | Vibrator Roller 8 ton                                 | hr.  | 1911.00       | 7.28     | 1252.16   | 3163.16       |
| 7            | Smooth wheeled Roller                                 | hr.  | 1054.00       | 5.40     | 928.80    | 1982.80       |
| 8            | Water bowser                                          | hr.  | 1146.00       | 4.32     | 743.04    | 1889.04       |
| 9            | Front end loader, wheeled                             | hr.  | 2182.00       | 8.27     | 1422.44   | 3604.44       |
| 10           | Bitumene Boiler oil fired                             | hr.  | 593.00        | 6.96     | 1197.12   | 1790.12       |
|              | Backhoe (0.2 bucket)                                  | hr.  | 1000.00       | 7.99     | 1374.28   | 2374.28       |
| 11           | Sprayer                                               | hr.  | 300.00        | 125.00   | 21500.00  | 21800.00      |
| 12           | Air compressor                                        | hr.  | 977.00        | 5.73     | 985.56    | 1962.56       |
| 13           | Hand Sprayer                                          | hr.  | 260.00        | 125.00   | 21500.00  | 21760.00      |
| 14           | Hydraulic chips spreader                              | hr.  | 3259.00       | 7.06     | 1214.32   | 4473.32       |
| 15           | Pneumatic road Roller                                 | hr.  | 2546.00       | 8.19     | 1408.68   | 3954.68       |
| 16           | mixer                                                 | hr.  | 2684.00       | 16.38    | 2817.36   | 5501.36       |
| 17           | Vibrator                                              | hr.  | 150.00        | 125.00   | 21500.00  | 21650.00      |
| 18           | Generator                                             | hr.  | 671.00        | 1.30     | 223.60    | 894.60        |
| 19           | Bitumen Pressure Distributor                          | hr.  | 3200.00       | 13.24    | 2277.28   | 5477.28       |
| 20           | Chip Spreader                                         | hr.  | 130.00        | 7.06     | 1214.32   | 1344.32       |
| 21           | Tractor                                               | hr.  | 500.00        | 4.50     | 774.00    | 1274.00       |
| 22           | 20t crane                                             | hr.  | 3500.00       | 10.13    | 1742.36   | 5242.36       |
| 23           | Boring equipment with pump and all accessories        | hr.  | 3500.00       | 125.00   | 21500.00  | 25000.00      |
| 24           | Crane for handling reinforcement cage and tremie pipe | hr.  | 3500.00       | 125.00   | 21500.00  | 25000.00      |
| 25           | Gas cutter                                            | hr.  | 1150.00       | 125.00   | 21500.00  | 22650.00      |
| 26           | Welding machine                                       | hr.  | 1150.00       | 125.00   | 21500.00  | 22650.00      |
| 27           | 10t-crane with grab & accessories                     | hr.  | 3500.00       | 125.00   | 21500.00  | 25000.00      |
| 28           | Screw jack                                            | hr.  | 25.00         | 125.00   | 21500.00  | 21525.00      |
| 29           | Electrical heating plate                              | hr.  | 50.00         | 125.00   | 21500.00  | 21550.00      |
| 30           | Electrical hand drill                                 | hr.  | 50.00         | 125.00   | 21500.00  | 21550.00      |
| 31           | pre mixed mixture                                     | hr.  | 4635.00       | 24.25    | 4171.00   | 8806.00       |
| 32           | Asphalt paver finisher                                | hr.  | 4023.00       | 6.94     | 1193.68   | 5216.68       |
| 33           | Steel tyred roller                                    | hr.  | 440.00        | 125.00   | 21500.00  | 21940.00      |
| 34           | Tipper trucks                                         | hr.  | 1454.00       | 125.00   | 21500.00  | 22954.00      |
| 35           | Prestressing jack                                     | hr.  | 800.00        | 125.00   | 21500.00  | 22300.00      |
| 36           | Grouting Pump                                         | hr.  | 800.00        | 125.00   | 21500.00  | 22300.00      |
| 37           | Drilling machine                                      | hr.  | 130.00        | 125.00   | 21500.00  | 21630.00      |
| 38           | Hydraulic Excavator                                   | hr.  | 1800.00       | 9.12     | 1568.64   | 3368.64       |
| 39           | Excavator with breaker                                | hr.  | 2100.00       | 8.96     | 1541.12   | 3641.12       |
| 40           | Doser                                                 | hr.  | 2000.00       | 14.40    | 2476.80   | 4476.80       |
| 41           | Road marking machine                                  | hr.  | 835.00        | 1.30     | 223.6     | 1058.6        |
| 42           | boiler                                                | hr.  | 51            | 6.96     | 1197.12   | 1248.12       |

| 4) Material |                           |                |                   |                     |             |                          |                       |        |
|-------------|---------------------------|----------------|-------------------|---------------------|-------------|--------------------------|-----------------------|--------|
| S.N.        | Description               | Unit           | District Rate (D) | Collection Rate (C) | Royalty (R) | Transportation Rate (Tp) | Total Rate (D+C+R+Tp) | Remark |
| 1           | Sand                      | m <sup>3</sup> | 1600.00           | 1022                |             | 703.00                   | 3325.00               |        |
| 2           | Rubble                    | m <sup>3</sup> | 1015.00           |                     |             | 557.00                   | 1572.00               |        |
| 3           | Cement pcc                | mt             | 14000.00          |                     |             | 52750.00                 | 66750.00              | 700    |
| 4           | Water                     | lit            |                   |                     |             | 0.15                     | 0.15                  |        |
| 5           | Crushed Aggregate         |                |                   |                     |             |                          | 0.00                  |        |
| 5.a         | 10 mm ( Small)            | m <sup>3</sup> | 2350.00           |                     |             | 0.00                     | 2350.00               |        |
| 5.b         | 20 mm ( Intermediate)     | m <sup>3</sup> | 2350.00           |                     |             | 0.00                     | 2350.00               |        |
| 5.c         | 40 mm ( Large)            | m <sup>3</sup> | 2350.00           |                     |             | 0.00                     | 2350.00               |        |
| 6           | RCC Hume Pipes            |                |                   |                     |             |                          | 0.00                  |        |
| 6.a         | 300 mm diameter           | pcs            | 3850.00           |                     |             |                          | 3850.00               |        |
| 6.b         | 450 mm diameter           | rm             | 5390.00           |                     |             |                          | 5390.00               |        |
| 6.c         | 600 mm diameter           | rm             | 7150.00           |                     |             | 3686.00                  | 10836.00              |        |
| 6.d         | 900 mm diameter           | rm             | 12100.00          |                     |             | 6253.64                  | 18353.64              |        |
| 7           | Reinforcement             |                |                   |                     |             |                          | 0.00                  |        |
| 7.a         | 8-16 mm dia               | mt             | 100480.00         |                     |             | 0.00                     | 100480.00             |        |
| 7.b         | 16-32 mm dia              | mt             | 100480.00         |                     |             | 0.00                     | 100480.00             |        |
| 8           | Binding Wire              |                |                   |                     |             |                          | 0.00                  |        |
| 8.a         | Binding wire Black        | kg             | 111.45            |                     |             |                          | 111.45                |        |
| 8.b         | Binding wire White        | kg             | 111.45            |                     |             |                          | 111.45                |        |
| 9           | G.I Wire heavy coated     |                |                   |                     |             |                          | 0.00                  |        |
| 9.a         | 7 gauge                   | kg             | 116.45            |                     |             | 0.00                     | 116.45                |        |
| 9.b         | 10 gauge                  | kg             | 116.45            |                     |             | 0.00                     | 116.45                |        |
| 9.c         | 12 gauge                  | kg             | 126.00            |                     |             | 1.46                     | 127.46                |        |
| 10          | Geo - Textile             | Sqm            | 110.00            |                     |             |                          | 110.00                |        |
| 11          | GI Pipe 50mm medium class | rm             | 753.50            |                     |             |                          | 753.50                |        |
| 12          | MS steel                  | mt             | 0.00              |                     |             |                          | 0.00                  |        |
| 13          | Enamel                    | ltr            | 525.00            |                     |             |                          | 525.00                |        |
| 14          | Jute                      | kg             | 80.00             |                     |             |                          | 80.00                 |        |
| 15          | Plywood 9mm thick         | sqm            | 480.00            |                     |             |                          | 480.00                |        |
| 16          | Nuts & bolts              | kg             | 199.50            |                     |             |                          | 199.50                |        |
| 17          | bentonite                 | kg             | 25.00             |                     |             |                          | 25.00                 |        |
| 18          | Planks 38mm thick         | m <sup>2</sup> | 35320.00          |                     |             |                          | 35320.00              |        |
| 19          | struts, ballies, etc.     | m <sup>3</sup> | 35320.00          |                     |             |                          | 35320.00              |        |
| 20          | Nails, spikes, etc.       | kg             | 110.25            |                     |             |                          | 110.25                |        |
| 21          | Graded filter material    | m <sup>3</sup> | 1165.56           |                     |             |                          | 1165.56               |        |
| 22          | tumber                    | m <sup>3</sup> | 49448.00          |                     |             |                          | 49448.00              |        |
| 23          | bearing                   | no             | 60000.00          |                     |             |                          | 60000.00              |        |
| 24          | expansion joint           | m              | 17825.00          |                     |             |                          | 17825.00              |        |
| 25          | suitable material         | m <sup>3</sup> | #REF!             |                     |             |                          | #REF!                 |        |
| 26          | subbase aggregate         | m <sup>3</sup> | 1597.00           |                     |             |                          | 1597.00               |        |
| 27          | Grass slips               | no             | 50.00             |                     |             |                          | 50.00                 |        |
| 28          | Line string               | m <sup>2</sup> | 100.00            |                     |             |                          | 100.00                |        |
| 29          | Tendon/wire               | t              | 130000.00         |                     |             | 0.00                     | 130000.00             |        |
| 30          | Tendon sheath             | no             | 330.00            |                     |             |                          | 330.00                |        |
| 31          | anchorage assembly        | no             | 8200              |                     |             |                          | 8200.00               |        |
| 32          | Bitumen                   | t              | 79247.79          |                     |             |                          | 79247.79              |        |
| 33          | Brick                     | no             | 19.99             |                     |             |                          | 19.99                 |        |
| 34          | Plywood 12mm thick        | Sqm            | 640.00            |                     |             |                          | 640.00                |        |
| 36          | Stone dust                | cum            | 1400.00           |                     |             |                          | 1400.00               |        |
| 37          | Chips                     | cum            | 1975              |                     |             |                          | 1975.00               |        |
| 38          | Gabion Box                |                |                   |                     |             |                          |                       |        |
|             | 3*1*1                     | Box            | 4640              |                     |             | 59.644                   | 4699.64               |        |
|             | 2*1*1                     | Box            | 3190              |                     |             | 43.19275                 | 3233.19               |        |
|             | 1.5*1*1                   | Box            | 2320              |                     |             | 40.78525                 | 2360.79               |        |

*[Signature]*

Assistant Sub-Engineer

*[Signature]*

Sub Engineer

*[Signature]*

Er. Anju Chand  
Municipal Engineer

*[Signature]*

रेशम ओली  
प्रमुख प्रशासकीय अधिकृत



FY 2079/80

**Transportation Plus Loading and Unloading of Materials**

2186 113

| SN | Material Type                                             | Unit           | Earthen Km (20 kmph) | Gravel Km (30 kmph) | Blacktop Km (40 kmph) | Load Capacity (Ton) | Unit Weight | Total Travel Time (T) | Loading Unloading   |                     |                    | Load / Unload Time | Truck Hr. | Total Transportation + Loading and Unloading | Remarks |
|----|-----------------------------------------------------------|----------------|----------------------|---------------------|-----------------------|---------------------|-------------|-----------------------|---------------------|---------------------|--------------------|--------------------|-----------|----------------------------------------------|---------|
|    |                                                           |                |                      |                     |                       |                     |             |                       | Total Time (Tipper) | Time (Loader/Crane) | Labour (Unskilled) |                    |           |                                              |         |
| 1  | Excavated earth work                                      |                |                      |                     |                       |                     |             |                       |                     |                     |                    |                    |           |                                              |         |
| a  | Soil Material                                             | m <sup>3</sup> | 0.20                 | 0.00                | 0.00                  | 8.00                | 1400.00     | 0.02                  | 0.33                | 0.33                |                    | 0.33               | 137.23    | 0.00                                         | 142.45  |
| b  | Rock Material                                             | m <sup>3</sup> | 0.00                 | 0.00                | 0.00                  | 8.00                | 2400.00     | 0.00                  | 0.33                | 0.33                |                    | 0.33               | 261.98    | 0.00                                         | 0.00    |
| 2  | Sand                                                      | m <sup>3</sup> | 0.00                 | 1.00                | 5.00                  | 8.00                | 1600.00     | 0.29                  | 0.33                | 0.33                |                    | 0.33               | 261.98    | 0.06                                         | 344.71  |
| 3  | Gravel, river shingle, broken stone aggregates, and bble. |                |                      |                     |                       |                     |             |                       |                     |                     |                    |                    |           |                                              |         |
| a  | Gravel                                                    | m <sup>3</sup> | 0.00                 | 1.00                | 5.00                  | 8.00                | 1800.00     | 0.29                  | 0.33                | 0.33                |                    | 0.33               | 261.98    | 0.06                                         | 344.71  |
| b  | River shingle                                             | m <sup>3</sup> | 0.00                 | 1.00                | 5.00                  | 8.00                | 1900.00     | 0.29                  | 0.33                | 0.33                |                    | 0.33               | 261.98    | 0.07                                         | 344.71  |
| c  | Broken stone aggregates                                   | m <sup>3</sup> | 0.00                 | 1.00                | 5.00                  | 8.00                | 2400.00     | 0.29                  | 0.33                | 0.33                |                    | 0.33               | 261.98    | 0.09                                         | 344.71  |
| 4  | Boulder, Cobbles, quarry done                             | m <sup>3</sup> | 0.00                 | 1.00                | 5.00                  | 8.00                | 2400.00     | 0.29                  | 0.33                | 0.33                |                    | 0.33               | 261.98    | 0.09                                         | 344.71  |
| 5  | Dressed Stone                                             | m <sup>3</sup> | 0.00                 | 0.00                | 0.00                  | 8.00                | 1800.00     | 0.00                  | 0.33                | 0.33                |                    | 0.33               | 261.98    | 0.09                                         | 344.71  |
| 6  | Cement Concrete Block, Kerb etc                           | m <sup>3</sup> | 0.00                 | 0.00                | 5.00                  | 8.00                | 2400.00     | 0.45                  | 6.00                |                     | 1.00               | 6.00               | 960.80    | 0.14                                         | 1004.45 |
| 7  | Cement and Steel, Gabion Wire etc                         | t              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 2.00                |                     | 2.00               | 2.00               | 562.20    | 0.00                                         | 0.00    |
| 8  | Reinforcement Steel and galvanized wire                   | t              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 2.00                |                     | 2.00               | 2.00               | 562.20    | 0.00                                         | 0.00    |
| 9  | Bitumen                                                   | t              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 2.00                |                     | 2.00               | 2.00               | 562.20    | 0.00                                         | 0.00    |
| 10 | CL, PL and filling                                        | t              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 2.00                |                     | 2.00               | 2.00               | 562.20    | 0.00                                         | 0.00    |
| 11 | Timber for temporary works                                | m <sup>3</sup> | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 2.00                |                     | 2.00               | 2.00               | 562.20    | 0.00                                         | 0.00    |
| 12 | Fabricated Structural Timber                              | m <sup>3</sup> | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 2.00                |                     | 2.00               | 2.00               | 562.20    | 0.00                                         | 0.00    |
| 13 | Fabricated Structural Steel                               | t              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 2.00                |                     | 2.00               | 2.00               | 562.20    | 0.00                                         | 0.00    |
| 14 | RCC Precast Element                                       | t              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 2.00                |                     | 2.00               | 2.00               | 562.20    | 0.00                                         | 0.00    |
| 15 | Equipment & accessories requiring careful handling        | t              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 2.00                |                     | 2.00               | 2.00               | 562.20    | 0.00                                         | 0.00    |
| 16 | RCC tube pipe                                             | m              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 1.50                | 1.50                | 0.60               | 3.00               | 379.60    | 0.00                                         | 0.00    |
| a  | 500mm dia                                                 | m              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 1.50                | 1.50                | 0.60               | 3.00               | 379.60    | 0.00                                         | 0.00    |
| b  | 750 mm dia                                                | m              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 1.50                | 1.50                | 0.60               | 3.00               | 227.76    | 0.00                                         | 0.00    |
| c  | 600mm dia                                                 | m              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 1.50                | 1.50                | 0.60               | 3.00               | 227.76    | 0.00                                         | 0.00    |
| d  | 450 mm                                                    | m              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 1.50                | 1.50                | 0.60               | 3.00               | 227.76    | 0.00                                         | 0.00    |
| e  | 300 mm dia                                                | m              | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 1.50                | 1.50                | 0.60               | 3.00               | 227.76    | 0.00                                         | 0.00    |
| 17 | Water                                                     | 1000 lit       | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 1.50                | 1.50                | 0.60               | 3.00               | 151.84    | 0.00                                         | 0.00    |
| 18 | Petrol / Diesel / Kerosene                                | 1000 lit       | 0.00                 | 0.00                | 0.00                  | 8.00                |             | 0.00                  | 1.50                | 1.50                | 0.60               | 3.00               | 151.84    | 0.00                                         | 0.00    |

*[Signature]*

Assistant Sub-Engineer

*[Signature]*

Sub Engineer

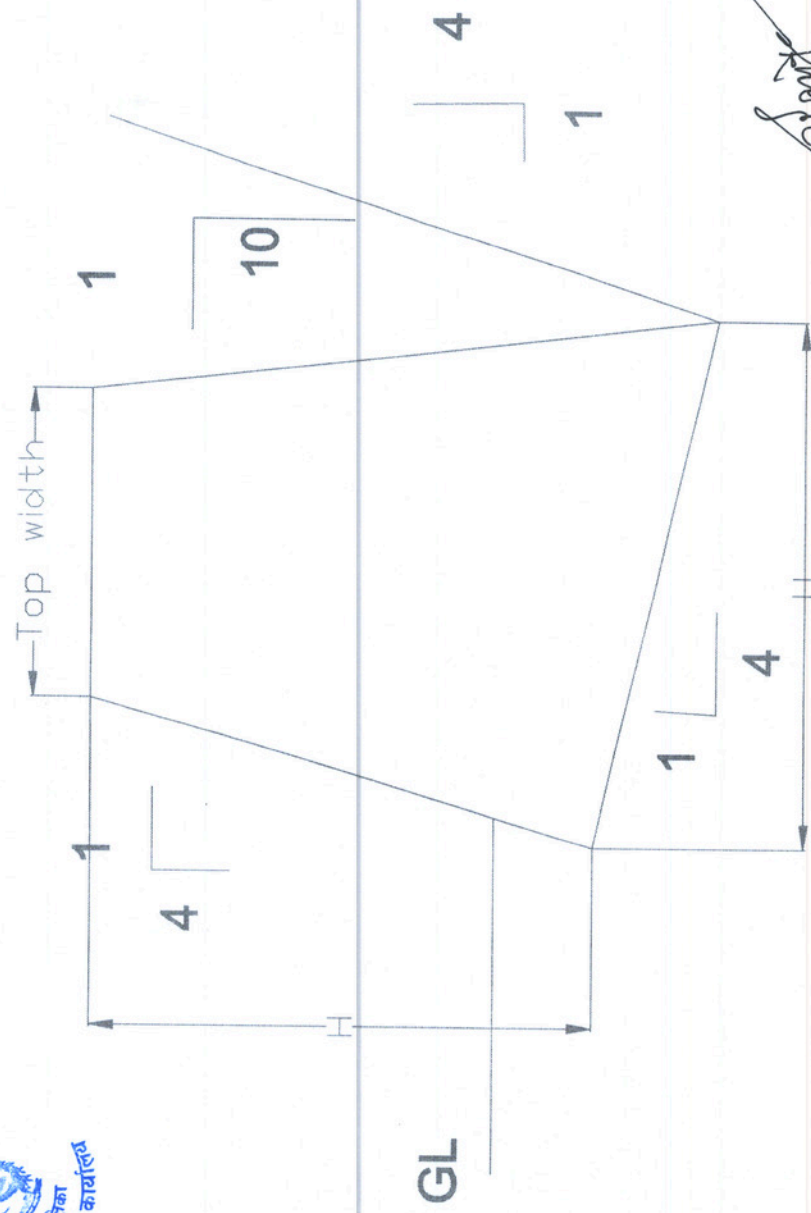
Er. Arju Chand  
NEC.No. 30648 Civil 'A'

*[Signature]*  
रेशम ओली  
प्रमुख प्रशासकीय अधिकृत



# DRAWINGS

# Proportioning Dry masonry Retaining wall



*Red*  
Assistant Sub-Engineer

*OH*  
Engineer

*En. Annu Chand*  
NEC.No. 30648 Civil 'A'

*Pranab*  
प्रमन प्रसादी अधिकृत





GOVERNMENT OF NEPAL  
MINISTRY OF PHYSICAL INFRASTRUCTURE AND TRANSPORT  
DEPARTMENT OF ROADS

ROADS  
RE AND TRANSPORT  
Assistant Sub-Engineer

SCALE (m)

Sub Engineer

RE  
DESIGNED BY  
APPROVED BY

| DESCRIPTION | SIGNATURE |
|-------------|-----------|
|             |           |
|             |           |
|             |           |

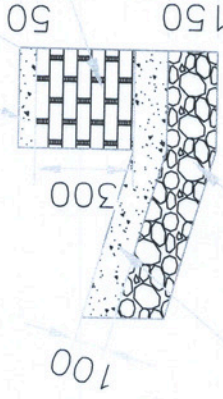
रेशम अली  
प्रमुख प्रशासकीय अधिकृत





CONCRETE-M10

SM WALL 1:6 C/M



CONCRETE-M10

STONE SOLING

ALL DIAMENSION ARE IN MM

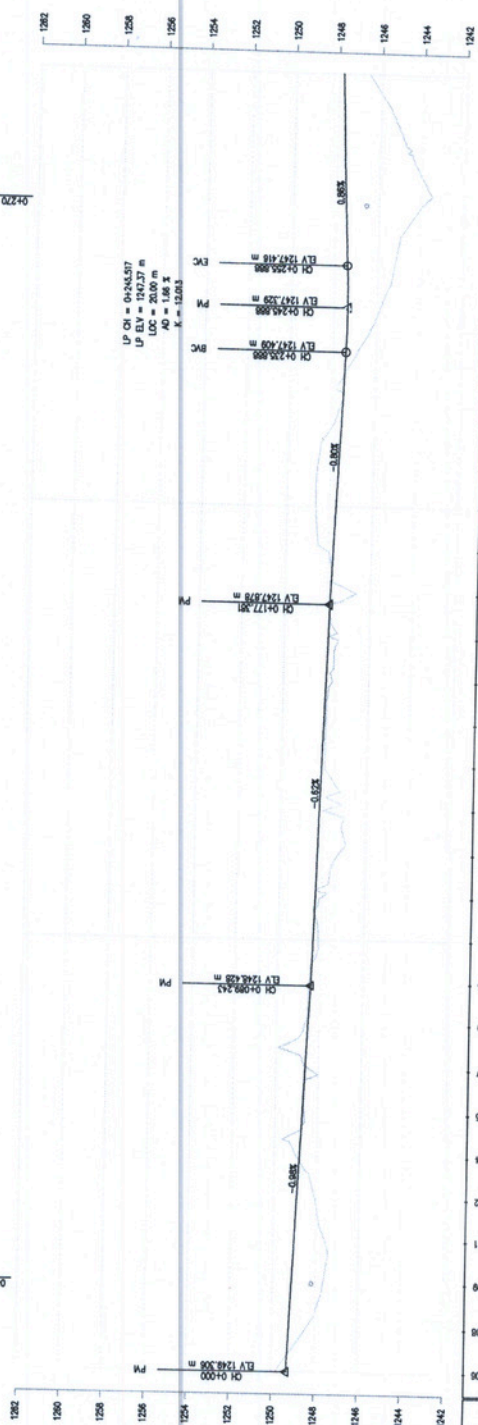
SCALE (m)  
0 500 1000

Assistant Sub-Engineer

Er. Arjun Stand  
NEC.No. 30648 Civil 'A'

|                                                                                               |              |
|-----------------------------------------------------------------------------------------------|--------------|
| Government of Nepal<br>Ministry of Physical Infrastructure & Transport<br>Department of Roads |              |
| STANDARD DRAWINGS FOR ROAD ELEMENTS                                                           |              |
| SIDE DRAINS                                                                                   |              |
| TYPICAL DRAWING                                                                               |              |
| Recommended by                                                                                | Approved by  |
| Signature                                                                                     | Signature    |
| Name                                                                                          | Name         |
| Organization                                                                                  | Organization |

प्रमुख प्रशासकीय अधिकारी



| DATE              |  | Plan & Profile |  | SCALE |  | DESIGNED BY : |  | SIGNATURE |  | REVISION |  | DATE     |  | Alignment1 |  | DRAWN BY : |  | CHECKED BY : |  |
|-------------------|--|----------------|--|-------|--|---------------|--|-----------|--|----------|--|----------|--|------------|--|------------|--|--------------|--|
| 0+300             |  | 1247.796       |  | 1:100 |  | 0+300         |  | 1247.796  |  | 0+300    |  | 1247.796 |  | 1247.796   |  | 0+300      |  | 1247.796     |  |
| 0+290             |  | 1247.770       |  | 1:100 |  | 0+290         |  | 1247.770  |  | 0+290    |  | 1247.770 |  | 1247.770   |  | 0+290      |  | 1247.770     |  |
| 0+280             |  | 1247.826       |  | 1:100 |  | 0+280         |  | 1247.826  |  | 0+280    |  | 1247.826 |  | 1247.826   |  | 0+280      |  | 1247.826     |  |
| 0+270             |  | 1247.557       |  | 1:100 |  | 0+270         |  | 1247.557  |  | 0+270    |  | 1247.557 |  | 1247.557   |  | 0+270      |  | 1247.557     |  |
| 0+260             |  | 1247.401       |  | 1:100 |  | 0+260         |  | 1247.401  |  | 0+260    |  | 1247.401 |  | 1247.401   |  | 0+260      |  | 1247.401     |  |
| 0+250             |  | 1247.379       |  | 1:100 |  | 0+250         |  | 1247.379  |  | 0+250    |  | 1247.379 |  | 1247.379   |  | 0+250      |  | 1247.379     |  |
| 0+240             |  | 1247.383       |  | 1:100 |  | 0+240         |  | 1247.383  |  | 0+240    |  | 1247.383 |  | 1247.383   |  | 0+240      |  | 1247.383     |  |
| 0+230             |  | 1247.457       |  | 1:100 |  | 0+230         |  | 1247.457  |  | 0+230    |  | 1247.457 |  | 1247.457   |  | 0+230      |  | 1247.457     |  |
| 0+220             |  | 1247.557       |  | 1:100 |  | 0+220         |  | 1247.557  |  | 0+220    |  | 1247.557 |  | 1247.557   |  | 0+220      |  | 1247.557     |  |
| 0+210             |  | 1247.817       |  | 1:100 |  | 0+210         |  | 1247.817  |  | 0+210    |  | 1247.817 |  | 1247.817   |  | 0+210      |  | 1247.817     |  |
| 0+200             |  | 1247.887       |  | 1:100 |  | 0+200         |  | 1247.887  |  | 0+200    |  | 1247.887 |  | 1247.887   |  | 0+200      |  | 1247.887     |  |
| 0+190             |  | 1247.777       |  | 1:100 |  | 0+190         |  | 1247.777  |  | 0+190    |  | 1247.777 |  | 1247.777   |  | 0+190      |  | 1247.777     |  |
| 0+180             |  | 1247.857       |  | 1:100 |  | 0+180         |  | 1247.857  |  | 0+180    |  | 1247.857 |  | 1247.857   |  | 0+180      |  | 1247.857     |  |
| 0+170             |  | 1247.826       |  | 1:100 |  | 0+170         |  | 1247.826  |  | 0+170    |  | 1247.826 |  | 1247.826   |  | 0+170      |  | 1247.826     |  |
| 0+160             |  | 1247.887       |  | 1:100 |  | 0+160         |  | 1247.887  |  | 0+160    |  | 1247.887 |  | 1247.887   |  | 0+160      |  | 1247.887     |  |
| 0+150             |  | 1248.048       |  | 1:100 |  | 0+150         |  | 1248.048  |  | 0+150    |  | 1248.048 |  | 1248.048   |  | 0+150      |  | 1248.048     |  |
| 0+140             |  | 1248.111       |  | 1:100 |  | 0+140         |  | 1248.111  |  | 0+140    |  | 1248.111 |  | 1248.111   |  | 0+140      |  | 1248.111     |  |
| 0+130             |  | 1248.174       |  | 1:100 |  | 0+130         |  | 1248.174  |  | 0+130    |  | 1248.174 |  | 1248.174   |  | 0+130      |  | 1248.174     |  |
| 0+120             |  | 1248.236       |  | 1:100 |  | 0+120         |  | 1248.236  |  | 0+120    |  | 1248.236 |  | 1248.236   |  | 0+120      |  | 1248.236     |  |
| 0+110             |  | 1248.288       |  | 1:100 |  | 0+110         |  | 1248.288  |  | 0+110    |  | 1248.288 |  | 1248.288   |  | 0+110      |  | 1248.288     |  |
| 0+100             |  | 1248.381       |  | 1:100 |  | 0+100         |  | 1248.381  |  | 0+100    |  | 1248.381 |  | 1248.381   |  | 0+100      |  | 1248.381     |  |
| 0+090             |  | 1248.423       |  | 1:100 |  | 0+090         |  | 1248.423  |  | 0+090    |  | 1248.423 |  | 1248.423   |  | 0+090      |  | 1248.423     |  |
| 0+080             |  | 1248.519       |  | 1:100 |  | 0+080         |  | 1248.519  |  | 0+080    |  | 1248.519 |  | 1248.519   |  | 0+080      |  | 1248.519     |  |
| 0+070             |  | 1248.817       |  | 1:100 |  | 0+070         |  | 1248.817  |  | 0+070    |  | 1248.817 |  | 1248.817   |  | 0+070      |  | 1248.817     |  |
| 0+060             |  | 1248.715       |  | 1:100 |  | 0+060         |  | 1248.715  |  | 0+060    |  | 1248.715 |  | 1248.715   |  | 0+060      |  | 1248.715     |  |
| 0+050             |  | 1248.814       |  | 1:100 |  | 0+050         |  | 1248.814  |  | 0+050    |  | 1248.814 |  | 1248.814   |  | 0+050      |  | 1248.814     |  |
| 0+040             |  | 1248.912       |  | 1:100 |  | 0+040         |  | 1248.912  |  | 0+040    |  | 1248.912 |  | 1248.912   |  | 0+040      |  | 1248.912     |  |
| 0+030             |  | 1249.011       |  | 1:100 |  | 0+030         |  | 1249.011  |  | 0+030    |  | 1249.011 |  | 1249.011   |  | 0+030      |  | 1249.011     |  |
| 0+020             |  | 1249.109       |  | 1:100 |  | 0+020         |  | 1249.109  |  | 0+020    |  | 1249.109 |  | 1249.109   |  | 0+020      |  | 1249.109     |  |
| 0+010             |  | 1249.208       |  | 1:100 |  | 0+010         |  | 1249.208  |  | 0+010    |  | 1249.208 |  | 1249.208   |  | 0+010      |  | 1249.208     |  |
| 0+000             |  | 1249.306       |  | 1:100 |  | 0+000         |  | 1249.306  |  | 0+000    |  | 1249.306 |  | 1249.306   |  | 0+000      |  | 1249.306     |  |
| DESIGN LEVEL(m)   |  |                |  |       |  |               |  |           |  |          |  |          |  |            |  |            |  |              |  |
| EXISTING LEVEL(m) |  |                |  |       |  |               |  |           |  |          |  |          |  |            |  |            |  |              |  |
| CHAINAGE(km)      |  |                |  |       |  |               |  |           |  |          |  |          |  |            |  |            |  |              |  |
| SOIL TYPE         |  |                |  |       |  |               |  |           |  |          |  |          |  |            |  |            |  |              |  |

Assistant Sub-Engineer

**Sub Engineer**

EC.No. 30648 CIVIL

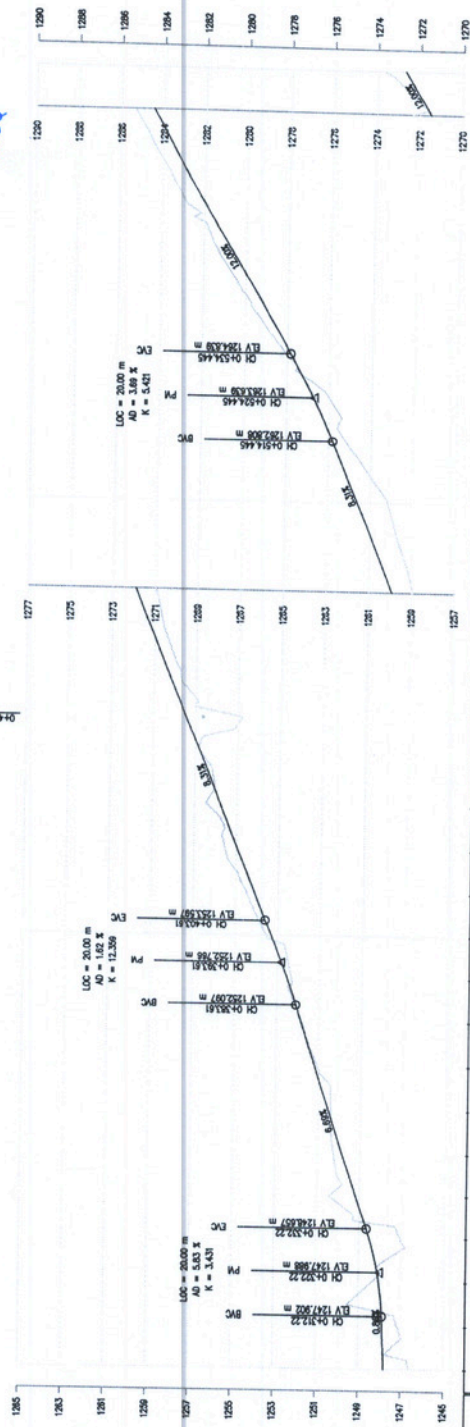
| Plan & Profile |
|----------------|
| 0+000-0+300    |

|          |            |
|----------|------------|
| DATE:    | 10/10/2024 |
| DRG NO : | 1          |
| SHEET NO | 1          |

रेशम भास्कर  
पामख प्रशासकीय अधिकृत



The drawing illustrates a road plan with two distinct curved segments. The upper segment spans from stationing 0+480 to 0+600, featuring control points P109, P137, and P138. It includes a note about 'Clear Cut-off Details' and 'Clearance at Right of Way'. The lower segment spans from stationing 0+280 to 0+300, also featuring control points P109, P137, and P138, with similar notes regarding cut-off details and clearance. Both segments are accompanied by north arrows indicating orientation.

[illegible]

Assistant Sub-Engineer

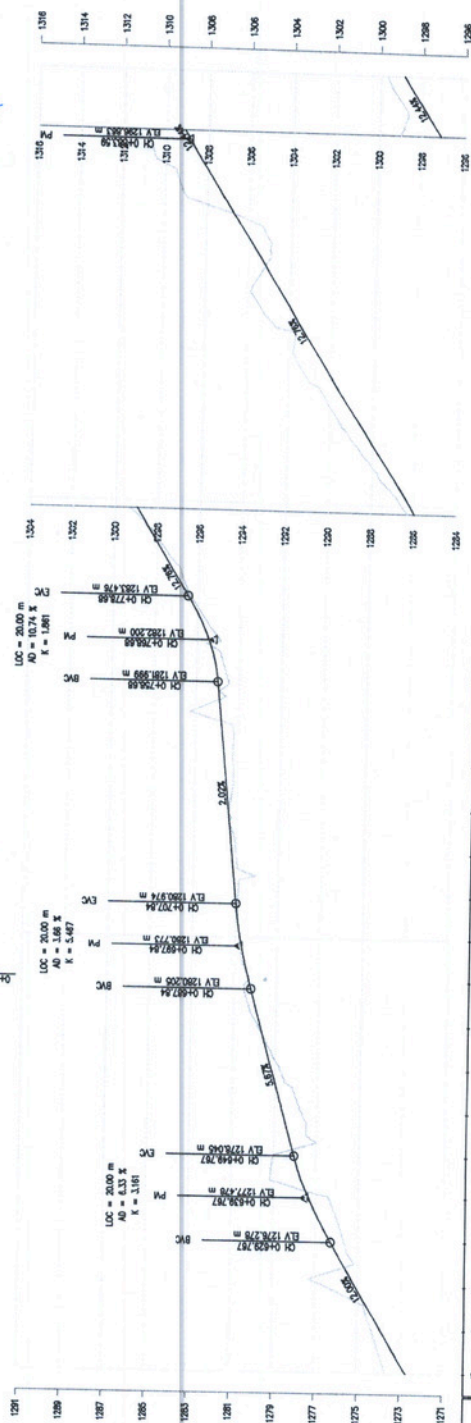
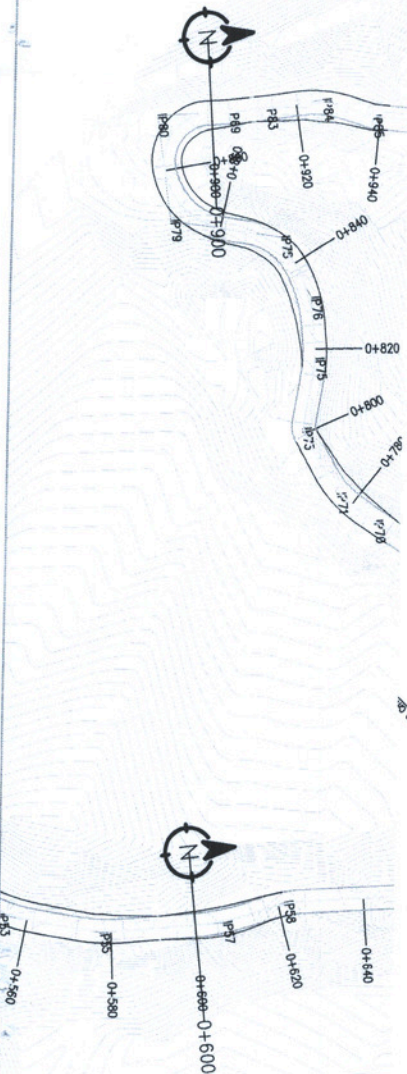
~~Sub Engineer~~

MEC.No.: 30648 Civil-A.  
Er. Arju Chand

पुस्तक प्रशासकीय आधिकार



pipe Culvert Details  
450  
Chadnager



| DESIGN LEVEL(m) |          | EXISTING LEVEL(m) |          | CHAINAGE(km) |          | SOIL TYPE |  |
|-----------------|----------|-------------------|----------|--------------|----------|-----------|--|
| 1272.706        | 1272.446 | 0+600             | 1273.446 | 0+600        | 1272.706 |           |  |
| 1273.906        | 1273.436 | 0+610             | 1273.436 | 0+610        | 1273.906 |           |  |
| 1275.106        | 1273.856 | 0+620             | 1273.856 | 0+620        | 1275.106 |           |  |
| 1276.306        | 1273.806 | 0+630             | 1273.806 | 0+630        | 1276.306 |           |  |
| 1277.506        | 1273.366 | 0+640             | 1273.366 | 0+640        | 1277.506 |           |  |
| 1278.006        | 1273.016 | 0+650             | 1273.016 | 0+650        | 1278.006 |           |  |
| 1278.806        | 1272.746 | 0+660             | 1272.746 | 0+660        | 1278.806 |           |  |
| 1279.193        | 1272.796 | 0+670             | 1272.796 | 0+670        | 1279.193 |           |  |
| 1279.790        | 1272.900 | 0+680             | 1272.900 | 0+680        | 1279.790 |           |  |
| 1280.323        | 1280.277 | 0+690             | 1280.277 | 0+690        | 1280.323 |           |  |
| 1280.760        | 1280.790 | 0+700             | 1280.790 | 0+700        | 1280.760 |           |  |
| 1281.016        | 1280.975 | 0+710             | 1280.975 | 0+710        | 1281.016 |           |  |
| 1281.216        | 1281.056 | 0+720             | 1281.056 | 0+720        | 1281.216 |           |  |
| 1281.421        | 1281.056 | 0+730             | 1281.056 | 0+730        | 1281.421 |           |  |
| 1281.422        | 1281.177 | 0+740             | 1281.177 | 0+740        | 1281.422 |           |  |
| 1281.424        | 1281.080 | 0+750             | 1281.080 | 0+750        | 1281.424 |           |  |
| 1281.571        | 1281.199 | 0+760             | 1281.199 | 0+760        | 1281.571 |           |  |
| 1283.645        | 1283.502 | 0+780             | 1283.502 | 0+780        | 1283.645 |           |  |
| 1284.821        | 1284.747 | 0+790             | 1284.747 | 0+790        | 1284.821 |           |  |
| 1286.187        | 1286.877 | 0+800             | 1286.877 | 0+800        | 1286.187 |           |  |
| 1286.473        | 1286.958 | 0+810             | 1286.958 | 0+810        | 1286.473 |           |  |
| 1286.749        | 1286.989 | 0+820             | 1286.989 | 0+820        | 1286.749 |           |  |
| 1290.025        | 1291.184 | 0+830             | 1291.184 | 0+830        | 1290.025 |           |  |
| 1291.301        | 1291.097 | 0+840             | 1291.097 | 0+840        | 1291.301 |           |  |
| 1292.577        | 1293.709 | 0+850             | 1293.709 | 0+850        | 1292.577 |           |  |
| 1293.653        | 1293.846 | 0+860             | 1293.846 | 0+860        | 1293.653 |           |  |
| 1294.719        | 1294.719 | 0+870             | 1294.719 | 0+870        | 1294.719 |           |  |
| 1296.405        | 1296.324 | 0+880             | 1296.324 | 0+880        | 1296.405 |           |  |
| 1297.660        | 1294.728 | 0+890             | 1294.728 | 0+890        | 1297.660 |           |  |
| 1298.603        | 1298.705 | 0+900             | 1298.705 | 0+900        | 1298.603 |           |  |

DATE: \_\_\_\_\_

SCALE: 1:1000

DESIGNED BY: \_\_\_\_\_

DRAWN BY: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

REVISION: \_\_\_\_\_

DATE: \_\_\_\_\_

Alignment 1

DESIGNER: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

Assistant Sub-Engineer

**Sub Engineer**

BY : Er. Arju Chandra  
No. 30648 Civil/A/

|                |             |
|----------------|-------------|
| Plan & Profile | 0+600-0+900 |
|----------------|-------------|

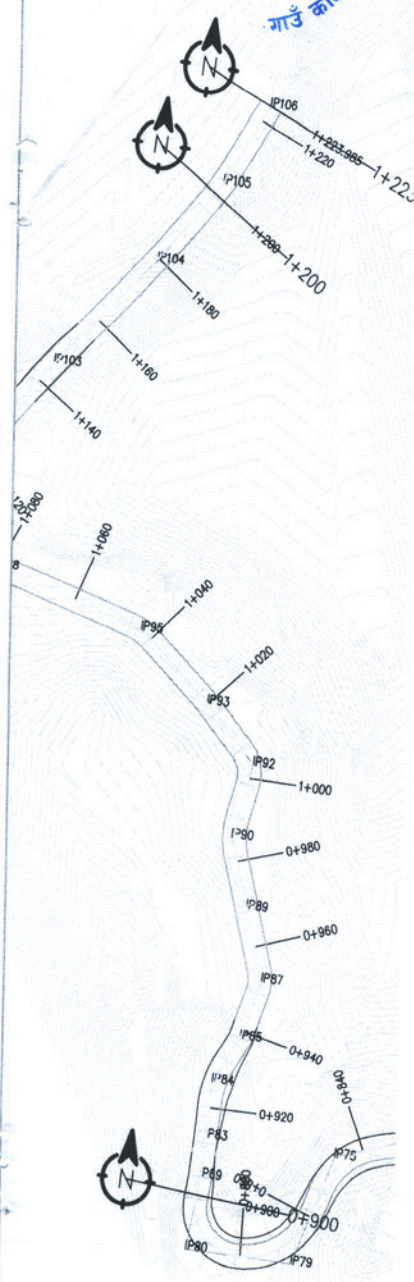
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| DRG NO :   | 1 |
| SHEET NO : | 3 |

|          |   |
|----------|---|
| SHEET NO | 3 |
|----------|---|

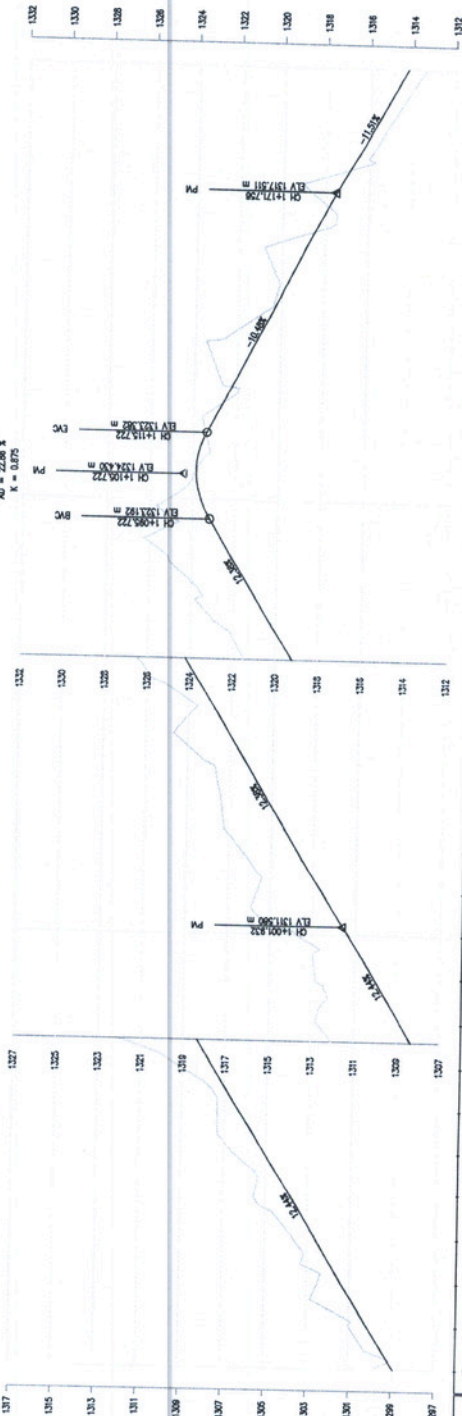
डॉ. अ. वि. शर्मा



Design & Drawing by SW Road V2



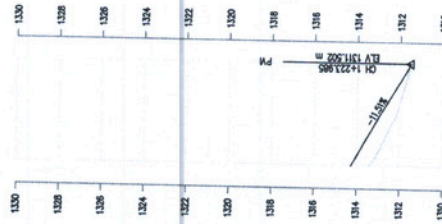
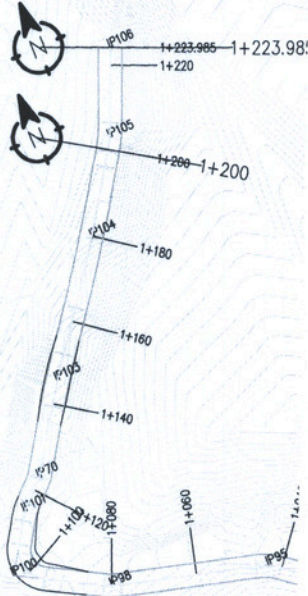
HP CH = 1+108.554  
HP ELV = 1233.86 m  
LOC = 20.00 m  
AD = 22.86 m  
K = 0.875



| SOIL TYPE | CHAINAGE(Km) | EXISTING LEVEL(m) | DESIGN LEVEL(m) |
|-----------|--------------|-------------------|-----------------|
|           | 0+900        | 1298.903          | 1314.261        |
|           | 0+910        | 1300.147          | 1315.412        |
|           | 0+920        | 1301.391          | 1316.562        |
|           | 0+930        | 1302.634          | 1317.713        |
|           | 0+940        | 1303.878          | 1318.864        |
|           | 0+950        | 1305.122          | 1319.991        |
|           | 0+960        | 1306.365          | 1321.118        |
|           | 0+970        | 1307.609          | 1322.245        |
|           | 0+980        | 1308.852          | 1323.372        |
|           | 0+990        | 1310.096          | 1324.500        |
|           | 1+000        | 1311.340          | 1325.627        |
|           | 1+010        | 1312.584          | 1326.754        |
|           | 1+020        | 1313.827          | 1327.881        |
|           | 1+030        | 1315.071          | 1329.008        |
|           | 1+040        | 1316.315          | 1330.135        |
|           | 1+050        | 1317.559          | 1331.262        |
|           | 1+060        | 1318.802          | 1332.389        |
|           | 1+070        | 1320.046          | 1333.516        |
|           | 1+080        | 1321.289          | 1334.643        |
|           | 1+090        | 1322.533          | 1335.770        |
|           | 1+100        | 1323.776          | 1336.897        |
|           | 1+110        | 1325.019          | 1338.024        |
|           | 1+120        | 1326.262          | 1339.151        |
|           | 1+130        | 1327.505          | 1340.278        |
|           | 1+140        | 1328.748          | 1341.405        |
|           | 1+150        | 1330.000          | 1342.532        |
|           | 1+160        | 1331.243          | 1343.659        |
|           | 1+170        | 1332.486          | 1344.786        |
|           | 1+180        | 1333.729          | 1345.913        |
|           | 1+190        | 1334.972          | 1347.040        |
|           | 1+200        | 1336.215          | 1348.167        |
|           | 1+210        | 1337.458          | 1349.294        |
|           | 1+220        | 1338.701          | 1350.421        |
|           | 1+230        | 1339.944          | 1351.548        |
|           | 1+240        | 1341.187          | 1352.675        |
|           | 1+250        | 1342.430          | 1353.802        |
|           | 1+260        | 1343.673          | 1354.929        |
|           | 1+270        | 1344.916          | 1356.056        |
|           | 1+280        | 1346.159          | 1357.183        |
|           | 1+290        | 1347.402          | 1358.310        |
|           | 1+300        | 1348.645          | 1359.437        |
|           | 1+310        | 1349.888          | 1360.564        |
|           | 1+320        | 1351.131          | 1361.691        |
|           | 1+330        | 1352.374          | 1362.818        |
|           | 1+340        | 1353.617          | 1363.945        |
|           | 1+350        | 1354.860          | 1365.072        |
|           | 1+360        | 1356.103          | 1366.199        |
|           | 1+370        | 1357.346          | 1367.326        |
| 1+380     | 1358.589     | 1368.453          |                 |
| 1+390     | 1359.832     | 1369.580          |                 |
| 1+400     | 1361.075     | 1370.707          |                 |
| 1+410     | 1362.318     | 1371.834          |                 |
| 1+420     | 1363.561     | 1372.961          |                 |
| 1+430     | 1364.804     | 1374.088          |                 |
| 1+440     | 1366.047     | 1375.215          |                 |
| 1+450     | 1367.290     | 1376.342          |                 |
| 1+460     | 1368.533     | 1377.469          |                 |
| 1+470     | 1369.776     | 1378.596          |                 |
| 1+480     | 1371.019     | 1379.723          |                 |
| 1+490     | 1372.262     | 1380.850          |                 |
| 1+500     | 1373.505     | 1381.977          |                 |
| 1+510     | 1374.748     | 1383.104          |                 |
| 1+520     | 1375.991     | 1384.231          |                 |
| 1+530     | 1377.234     | 1385.358          |                 |
| 1+540     | 1378.477     | 1386.485          |                 |
| 1+550     | 1379.720     | 1387.612          |                 |
| 1+560     | 1380.963     | 1388.739          |                 |
| 1+570     | 1382.206     | 1389.866          |                 |
| 1+580     | 1383.449     | 1390.993          |                 |
| 1+590     | 1384.692     | 1392.120          |                 |
| 1+600     | 1385.935     | 1393.247          |                 |
| 1+610     | 1387.178     | 1394.374          |                 |
| 1+620     | 1388.421     | 1395.501          |                 |
| 1+630     | 1389.664     | 1396.628          |                 |
| 1+640     | 1390.907     | 1397.755          |                 |
| 1+650     | 1392.150     | 1398.882          |                 |
| 1+660     | 1393.393     | 1399.999          |                 |
| 1+670     | 1394.636     | 1401.126          |                 |
| 1+680     | 1395.879     | 1402.253          |                 |
| 1+690     | 1397.122     | 1403.380          |                 |
| 1+700     | 1398.365     | 1404.507          |                 |
| 1+710     | 1399.608     | 1405.634          |                 |
| 1+720     | 1400.851     | 1406.761          |                 |
| 1+730     | 1402.094     | 1407.888          |                 |
| 1+740     | 1403.337     | 1409.015          |                 |
| 1+750     | 1404.580     | 1410.142          |                 |
| 1+760     | 1405.823     | 1411.269          |                 |
| 1+770     | 1407.066     | 1412.396          |                 |
| 1+780     | 1408.309     | 1413.523          |                 |
| 1+790     | 1409.552     | 1414.650          |                 |
| 1+800     | 1410.795     | 1415.777          |                 |
| 1+810     | 1412.038     | 1416.904          |                 |
| 1+820     | 1413.281     | 1418.031          |                 |
| 1+830     | 1414.524     | 1419.158          |                 |
| 1+840     | 1415.767     | 1420.285          |                 |
| 1+850     | 1417.010     | 1421.412          |                 |
| 1+860     | 1418.253     | 1422.539          |                 |
| 1+870     | 1419.496     | 1423.666          |                 |
| 1+880     | 1420.739     | 1424.793          |                 |
| 1+890     | 1421.982     | 1425.920          |                 |
| 1+900     | 1423.225     | 1427.047          |                 |
| 1+910     | 1424.468     | 1428.174          |                 |
| 1+920     | 1425.711     | 1429.301          |                 |
| 1+930     | 1426.954     | 1430.428          |                 |
| 1+940     | 1428.197     | 1431.555          |                 |
| 1+950     | 1429.440     | 1432.682          |                 |
| 1+960     | 1430.683     | 1433.809          |                 |
| 1+970     | 1431.926     | 1434.936          |                 |
| 1+980     | 1433.169     | 1436.063          |                 |
| 1+990     | 1434.412     | 1437.190          |                 |
| 2+000     | 1435.655     | 1438.317          |                 |
| 2+010     | 1436.898     | 1439.444          |                 |
| 2+020     | 1438.141     | 1440.571          |                 |
| 2+030     | 1439.384     | 1441.698          |                 |
| 2+040     | 1440.627     | 1442.825          |                 |
| 2+050     | 1441.870     | 1443.952          |                 |
| 2+060     | 1443.113     | 1445.079          |                 |
| 2+070     | 1444.356     | 1446.206          |                 |
| 2+080     | 1445.599     | 1447.333          |                 |
| 2+090     | 1446.842     | 1448.460          |                 |
| 2+100     | 1448.085     | 1449.587          |                 |
| 2+110     | 1449.328     | 1450.714          |                 |
| 2+120     | 1450.571     | 1451.841          |                 |
| 2+130     | 1451.814     | 1452.968          |                 |
| 2+140     | 1453.057     | 1454.095          |                 |
| 2+150     | 1454.300     | 1455.222          |                 |
| 2+160     | 1455.543     | 1456.349          |                 |
| 2+170     | 1456.786     | 1457.476          |                 |
| 2+180     | 1458.029     | 1458.603          |                 |
| 2+190     | 1459.272     | 1459.730          |                 |
| 2+200     | 1460.515     | 1460.857          |                 |
| 2+210     | 1461.758     | 1461.984          |                 |
| 2+220     | 1463.001     | 1463.111          |                 |
| 2+230     | 1464.244     | 1464.238          |                 |
| 2+240     | 1465.487     | 1465.365          |                 |
| 2+250     | 1466.730     | 1466.492          |                 |
| 2+260     | 1467.973     | 1467.619          |                 |
| 2+270     | 1469.216     | 1468.746          |                 |
| 2+280     | 1470.459     | 1469.873          |                 |
| 2+290     | 1471.702     | 1471.000          |                 |
| 2+300     | 1472.945     | 1472.127          |                 |
| 2+310     | 1474.188     | 1473.254          |                 |
| 2+320     | 1475.431     | 1474.381          |                 |
| 2+330     | 1476.674     | 1475.508          |                 |
| 2+340     | 1477.917     | 1476.635          |                 |
| 2+350     | 1479.160     | 1477.762          |                 |
| 2+360     | 1480.403     | 1478.889          |                 |
| 2+370     | 1481.646     | 1480.016          |                 |
| 2+380     | 1482.889     | 1481.143          |                 |
| 2+390     | 1484.132     | 1482.270          |                 |
| 2+400     | 1485.375     | 1483.397          |                 |
| 2+410     | 1486.618     | 1484.524          |                 |
| 2+420     | 1487.861     | 1485.651          |                 |
| 2+430     | 1489.104     | 1486.778          |                 |
| 2+440     | 1490.347     | 1487.905          |                 |
| 2+450     | 1491.590     | 1489.032          |                 |
| 2+460     | 1492.833     | 1490.159          |                 |
| 2+470     | 1494.076     | 1491.286          |                 |
| 2+480     | 1495.319     | 1492.413          |                 |
| 2+490     | 1496.562     | 1493.540          |                 |
| 2+500     | 1497.805     | 1494.667          |                 |
| 2+510     | 1499.048     | 1495.794          |                 |
| 2+520     | 1500.291     | 1496.921          |                 |
| 2+530     | 1501.534     | 1498.048          |                 |
| 2+540     | 1502.777     | 1499.175          |                 |
| 2+550     | 1504.020     | 1500.302          |                 |
| 2+560     | 1505.263     | 1501.429          |                 |
| 2+570     | 1506.506     | 1502.556          |                 |
| 2+580     | 1507.749     | 1503.683          |                 |
| 2+590     | 1508.992     | 1504.810          |                 |
| 2+600     | 1510.235     | 1505.937          |                 |
| 2+610     | 1511.478     | 1507.064          |                 |
| 2+620     | 1512.721     | 1508.191          |                 |
| 2+630     | 1513.964     | 1509.318          |                 |
| 2+640     | 1515.207     | 1510.445          |                 |
| 2+650     | 1516.450     | 1511.572          |                 |
| 2+660     | 1517.693     | 1512.699          |                 |
| 2+670     | 1518.936     | 1513.826          |                 |
| 2+680     | 1520.179     | 1514.953          |                 |
| 2+690     | 1521.422     | 1516.080          |                 |
| 2+700     | 1522.665     | 1517.207          |                 |
| 2+710     | 1523.908     | 1518.334          |                 |
| 2+720     | 1525.151     | 1519.461          |                 |
| 2+730     | 1526.394     | 1520.588          |                 |
| 2+740     | 1527.637     | 1521.715          |                 |
| 2+750     | 1528.880     | 1522.842          |                 |
| 2+760     | 1530.123     | 1523.969          |                 |
| 2+770     | 1531.366     | 1525.096          |                 |
| 2+780     | 1532.609     | 1526.223          |                 |
| 2+790     | 1533.852     | 1527.350          |                 |
| 2+800     | 1535.095     | 1528.477          |                 |
| 2+810     | 1536.338     | 1529.604          |                 |
| 2+820     | 1537.581     | 1530.731          |                 |
| 2+830     | 1538.824     | 1531.858          |                 |
| 2+840     | 1540.067     | 1532.985          |                 |
| 2+850     | 1541.310     | 1534.112          |                 |
| 2+860     | 1542.553     | 1535.239          |                 |
| 2+870     | 1543.796     | 1536.366          |                 |
| 2+880     | 1545.039     | 1537.493          |                 |
| 2+890     | 1546.282     | 1538.620          |                 |
| 2+900     | 1547.525     | 1539.747          |                 |
| 2+910     | 1548.768     | 1540.874          |                 |
| 2+920     | 1550.011     | 1542.001          |                 |
| 2+930     | 1551.254     | 1543.128          |                 |
| 2+940     | 1552.497     | 1544.255          |                 |
| 2+950     | 1553.740     | 1545.382          |                 |
| 2+960     | 1554.983     | 1546.509          |                 |
| 2+970     | 1556.226     | 1547.636          |                 |
| 2+980     | 1557.469     | 1548.763          |                 |
| 2+990     | 1558.712     | 1549.890          |                 |
| 3+000     | 1559.955     | 1551.017          |                 |
| 3+010     | 1561.198     | 1552.144          |                 |
| 3+020     | 1562.441     | 1553.271          |                 |
| 3+030     | 1563.684     | 1554.398          |                 |
| 3+040     | 1564.927     | 1555.525          |                 |
| 3+050     | 1566.170     | 1556.652          |                 |
| 3+060     | 1567.413     | 1557.779          |                 |
| 3+070     | 1568.656     | 1558.906          |                 |
| 3+080     | 1569.899     | 1560.033          |                 |
| 3+090     | 1571.142     | 1561.160          |                 |
| 3+100     | 1572.385     | 1562.287          |                 |
| 3+110     | 1573.628     | 1563.414          |                 |
| 3+120     | 1574.871     | 1564.541          |                 |
| 3+130     | 1576.114     | 1565.668          |                 |
| 3+140     | 1577.357     | 1566.795          |                 |
| 3+150     | 1578.600     | 1567.922          |                 |
| 3+160     | 1579.843     | 1569.049          |                 |
| 3+170     | 1581.086     | 1570.176          |                 |
| 3+180     | 1582.329     | 1571.303          |                 |
| 3+190     | 1583.572     | 1572.430          |                 |
| 3+200     | 1584.815     | 1573.557          |                 |
| 3+210     | 1586.058     | 1574.684          |                 |
| 3+220     | 1587.301     | 1575.811          |                 |
| 3+230     | 1588.544     | 1576.938          |                 |
| 3+240     | 1589.787     | 1578.065          |                 |
| 3+250     | 1591.030     | 1579.192          |                 |
| 3+260     | 1592.273     | 1580.319          |                 |
| 3+270     | 1593.516     | 1581.446          |                 |
| 3+280     | 1594.759     | 1582.573          |                 |
| 3+290     | 1596.002     | 1583.700          |                 |
| 3+300     | 1597.245     | 1584.827          |                 |
| 3+310     | 1598.488     | 1585.954          |                 |
| 3+320     | 1599.731     | 1587.081          |                 |
| 3+330     | 1600.974     | 1588.208          |                 |
| 3+340     | 1602.217     | 1589.335          |                 |
| 3+350     | 1603.460     | 1590.462          |                 |
| 3+360     | 1604.703     | 1591.589          |                 |
| 3+370     | 1605.946     | 1592.716          |                 |
| 3+380     | 1607.189     | 1593.843          |                 |
| 3+390     | 1608.432     | 1594.970          |                 |
| 3+400     | 1609.675     | 1596.097          |                 |
| 3+410     | 1610.918     | 1597.224          |                 |
| 3+420     | 1612.161     | 1598.351          |                 |
| 3+430     | 1613.404     | 1599.478          |                 |
| 3+440     | 1614.647     | 1600.605          |                 |
| 3+450     | 1615.890     | 1601.732          |                 |
| 3+460     | 1617.133     | 1602.859          |                 |
| 3+470     | 1618.376     | 1603.986          |                 |
| 3+480     | 1619.619     | 1605.113          |                 |
| 3+490     | 1620.862     | 1606.240          |                 |
| 3+500     | 1622.105     | 1607.367          |                 |
| 3+510     | 1623.348     | 1608.494          |                 |
| 3+520     | 1624.591     | 1609.621          |                 |
| 3+530     | 1625.834     | 1610.748          |                 |
| 3+540     | 1627.077     | 1611.875          |                 |
| 3+550     | 1628.320     | 1613.002          |                 |
| 3+560     | 1629.563     | 1614.129          |                 |
| 3+570     | 1630.806     | 1615.256          |                 |
| 3+580     | 1632.049     | 1616.383          |                 |
| 3+590     | 1633.292     | 1617.510          |                 |
| 3+600     | 1634.535     | 1618.637          |                 |
| 3+610     | 1635.778     | 1619.764          |                 |
| 3+620     | 1637.021     | 1620.891          |                 |
| 3+630     | 1638.264     | 1622.018          |                 |
| 3+640     | 1639.507     | 1623.145          |                 |
| 3+650     | 1640.750     | 1624.272          |                 |
| 3+660     | 1641.993     | 1625.399          |                 |
| 3+670     | 1643.236     | 1626.526          |                 |
| 3+680     | 1644.479     | 1627.653          |                 |
| 3+690     | 1645.722     | 1628.780          |                 |
| 3+700     | 1646.965     | 1629.907          |                 |
| 3+710     | 1648.208     | 1631.034          |                 |
| 3+720     | 1649.451     | 1632.161          |                 |
| 3+730     | 1650.694     | 1633.288          |                 |
| 3+740     | 1651.937     | 1634.415          |                 |
| 3+750     | 1653.180     | 1635.542          |                 |
| 3+760     | 1654.423     | 1636.669          |                 |
| 3+770     | 1655.666     | 1637.796          |                 |
| 3+780     | 1656.909     | 1638.923          |                 |
| 3+790     | 1658.152     | 1640.050          |                 |
| 3+800     | 1659.395     | 1641.177          |                 |
| 3+810     | 1660.638     | 1642.304          |                 |
| 3+820     | 1661.881     | 1643.431          |                 |
| 3+830     | 1663.124     | 1644.558          |                 |
| 3+840     | 1664.367     | 1645.685          |                 |
| 3+850     | 1665.610     | 1646.812          |                 |
| 3+860     | 1666.853     | 1647.939          |                 |
| 3+870     | 1668.096     | 1649.066          |                 |
| 3+880     | 1669.339     | 1650.193          |                 |
| 3+890     | 1670.582     | 1651.320          |                 |
| 3+900     | 1671.825     | 1652.447          |                 |
| 3+910     | 1673.068     | 1653.574          |                 |
| 3+920     | 1674.311     | 1654.701          |                 |
| 3+930     | 1675.554     | 1655.828          |                 |
| 3+940     | 1676.797     | 1656.955          |                 |
| 3+950     | 1678.040     | 1658.082          |                 |
| 3+960     | 1679.283     | 1659.209          |                 |
| 3+970     | 1680.52600</ |                   |                 |

Design & Drawing by SW Road V2

रामा गाउँपालिका  
गाउँ कार्यपालिकाको कार्यालय  
सल्यान  
२०७३



|                    |               |          |          |          |
|--------------------|---------------|----------|----------|----------|
| DESIGN LEVEL (m)   | 1314.281      | 1313.111 | 1311.900 | 1311.502 |
| EXISTING LEVEL (m) | 1313.281      | 1312.111 | 1310.900 | 1310.502 |
| CHAINAGE (km)      | 1+080         | 1+100    | 1+120    | 1+220    |
| SOIL TYPE          | OS 70% OF 30% |          |          |          |

DAWA BUN, JHARKHATI  
EXECUTIVE OF TOWN ENGINEER  
DOWNSIDE

*[Signature]*

Assistant Sub-Engineer

Sub Engineer

DESIGNED BY:  
DRAWN BY:  
CHECKED BY:  
APPROVED BY:

SIGNATURE

DATE

Alignment1

*[Signature]*

Sub Engineer

SCALE

1:1000

1:1000

1:1000

1:1000

1:1000

Plan & Profile

1+200-1+223.985

DATE

DRG NO

SHEET NO

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