

from the roof to the storage tank. In addition, a flush system to divert the dirty water, which contains debris, collected on the roof during non-rainy period and a filter unit to remove debris and contaminants before water enters the storage tank are also provided. The roof top rain water can also be used for recharging of the ground water through recharge pits or putting into the dried bore wells/ open dug wells.

14.4.5 Unit cost and Cost Estimate:

The details of cost estimate, as per unit cost with prevalent cost index, against residential buildings have been elaborated in appendix A.2.2.

14.5 ROAD AND CULVERTS:

14.5.1 Colony Roads & Culverts:

Colony roads as per prevalent norms on the basis of additional houses have been provided. Single lane bituminous road has been considered. Tentative cost in respect of total road length including provision of culverts and tree guards etc. as per norms have been elaborated in Appendix- A.8.2.1.

14.5.2 Haul Roads & Culverts:

As per mine lay out a total of 18.5 Km haul road (new) have been envisaged. This will consist of 7.0 Km main haul road, 5.0 Km approach road to new workshop, 2.0 Km road on western batter and 4.5 Km road on eastern batter from new workshop. Culverts have been proposed as per norm. The detail cost estimates along with tentative specifications have been elaborated in the Appendix A.8.2.3.

14.5.3 Approach Roads & Culverts:

To cater to the need of a separate township and service buildings 4 Km. long new approach road has been envisaged in this report. The proposed bituminous approach road will be of 15m wide. Culverts and drains have been proposed as per the norm. The detail cost estimates along with tentative specifications have been elaborated in the Appendix A.8.2.2.

14.5.4 Coal Transport Roads & Culverts:

A proposal along with cost estimate was initiated by the area authorities for construction of 15m wide concrete road from Boom Barrier Dipka to CISF barrier Gevra

via G.M. office Gevra project & Silo up to junction of Railway Siding for coal transportation. In view of the requirement, this road has been proposed in this report.

A new coal transport road has been proposed from Junadih siding upto Krishna Nagar in this report. A fly over has been proposed for crossing the railway line. This road will shorten the total distance and bypass the residential area.

The detail cost estimates along with tentative specifications have been elaborated in the Appendix A.8.2.5.

14.5.5 Diversion of Roads:

There is a road from Hardi Bazar to Korba passing through the proposed mine. This road needs to be diverted. In this report it has been proposed for diversion of this road. So, provision has been made for 25 Km. long road. The proposed bituminous diverted road will be of 7.5m wide. Culverts have been proposed as per the norm. The detail cost estimates along with tentative specifications have been elaborated in the Appendix A.8.2.2.

Capital requirement against different roads have been summerised in appendix A.8.2.

14.6 WATER SUPPLY AND SEWERAGE DISPOSAL ARRANGEMENT:

14.6.1 Colony water supply and sewage:

Based on conventional norm for water supply, the total water demand for this Project has been assessed. For domestic requirement 135 litres of water per head for a family comprising of 5 members and for non-resident persons 45 litres per head has been adopted. Detailed calculation of water demand has also been provided.

Since the additional quarters have been proposed inside the existing township, the water demand has been envisaged to be met from the existing water supply scheme. To cater this, provision has been made for enhancement of the capacity of the existing integrated water supply scheme.

In this report provision has been made for sewerage treatment plant. The sewerage disposal system for colony has been proposed with conventional arrangement which will ultimately be connected to sewerage treatment plant.

Project Report for Gevra Opencast Expansion Project (35.0 - 70.0 MTY)

Statement showing The Capital Investment on Roads and Culverts


Sl.No.	Particulars	Sanctioned PR Provision 25MTY & 35MTY		Expenditure upto 31.03.2015		Additional Provision (35.0 - 70.0 MTY)		Total Provision	Remarks
		Length(m)	Amount			Length(m)	Amount		
1	Colony Roads and Culverts	27000				2500	224.77		App.-A.8.2.1
2	Approach Roads and Culverts	15000				4000	1558.39		App.-A.8.2.2
3	Diversion of Roads and Culverts	5000				25000	4458.80		App.-A.8.2.4
4	Haul Roads								
	i) For 120T Rear Dumpers	13000							
	ii) For 240T Rear Dumpers	8400				18500	30608.76		App.-A.8.2.3
	iii) Strengthening and Widening of Road from 120T to 240T	13000							
5	Coal Transportation Road					7426	7855.07		App.-A.8.2.5
Total			10103.08		3201.88		44705.79	47907.67	

28.11.2023
 महाप्रबंधक
 General Manager
 एस.ई.सी.एल., गेवरा क्षेत्र
 SECL, Gevra Area

Appendix-A.8.2.4
Project Report for Gevra Opencast Expansion Project (35.0 - 70.0 MTY)

Statement showing the Estimated Additional Capital Investment on Diversion of Road

Sl.No.	Particulars	Unit	Quantity	Rate at 100 CI (Rs.)	Rate at 2865 CI (Rs.)	Total Amount (Lakhs)
1	7.5M Wide Road (Intermediate Width Road) Specifications: i) 40cm th. moorum filling as sub-base. ii) 30cm th. Grade - I & 15cm th. Grade-II WBM as base. iii) 15cm th. Grade - III along with 5.0cm th. bituminous macadam with seal coat. Rate estimated on the basis of CPWD DSOR'2007 (equivalent Cost Index 1727) = Rs. 9570/RM	RM	25000.000	-	15876.11	3969.03
2	Culverts: i) 4.57m span RCC slab culvert ii) 3.05m span RCC slab culvert iii) 0.61m diameter hume pipe culvert	Each Each Each	13.000 12.000 25.000	49500.00 33000.00 4100.00	1418175.00 945450.00 117465.00	184.36 113.45 29.37
3	Extra for poor/ B.C. soil on item no.2					32.72
	Sub Total					4328.93
	Contingencies(3%)					129.87
	Total					4458.80


 महाप्रबंधक
 General Manager
 एस.ई.सी.एल., गेवरा क्षेत्र
 SECL, Gevra Area