Estimate of Barbed wire fencing for safety zone at River Chandarbhaga

S. N.	Particulars of item of work	No	Dimension in M			Qty	Unit	Rate ~	DSR-18	Amount
			L	B	HD					
1	2	3	4	5	6	7		8	9	10
1	Earth work in excavation in foundation for grouting angle iron post at C/C	1	0.3	0.3	0.3	0.027	Cum	181.85	2-6-1	4.91
2	Cement concrete work in 1:3:6 in cement, coarse sand and 40mm gauge stone ballast including supply of all material, labour, t&p etc for proper completion of the work	1	0.3	0.3	0.3	0.027	Cum	6126.25	4-1-6	165.41
3	Supplying at site Angle iron post & Strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. Etc. complete. (50×50×50)	1	1.82	-	1.82m@of 3.80KG per rm 6.91KG		Kg	92.4	16-19	638.48
4	Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and sides and end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, trun buckles etc. With G.I. barbed wire	4	3.04	-	-	12.16	rm	19.05	16-18-1	231.65
								Total		1040.45
								Say		1040.00

There for per running metre of barbet wire fencing = 1040÷3.04
= 342.11
Say 342/-running metre

The approximate cost of wire fencing for Chandarbhaga River = 15628 m@ 342 rm
= Rs 53,44,746.00

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Transportation Plan of River Bed Material from Chandarbhaga River

Mine is well connected to NH- 72, NH-58, NH-94 and Haridwar by pass Road is wide enough to facilitate easy and smooth movement of vehicles.

Traffic analysis is carried out by understanding the existing carrying capacity of the roads near to the project site and the connecting main roads in the area. Then depending on the capacity of the mine, the number of trucks that will be added to the present scenario will be compared to the carrying capacity.

Table:- Existing Traffic Scenario & LOS

Road	V	C	Existing V/C Ration	LOS
NH-72	1973	15000	0.13	A
NH-58	630	7000	0.09	A
NH-94	560	7000	0.08	A
Haridwar by Pass Road	152	6000	0.02	A

Source: Capacity as per IRC: 64-1990

V= Volume of Vehicles in PCU's/day & C = Capacity of Road in PCU' S/day

The existion level of Services (LOS) is "A" i.e. excellent.

V/C	LOS	Performance
0.0-0.2	A	Excellent
0.2-0.4	B	Very Good
0.4-0.6	C	Good/Average/Fair
0.6-0.8	D	Poor
0.8-1.0	E	Very Poor

Reference: ENVIS Technical Report,IISC, Bangalore.

During Mine operation

Proposed Capacity of mine/annum	-	31,35,000 Tons
No of Working days	-	270 days
Proposed capacity of mine/day	-	11611 TPD
Truck Capacity	-	10 tonnes
No. of trucks deployed/day	-	1161
No. of trucks trips/ day	-	2322

Considering both loaded & empty trucks

Increase in PCU/day will be 2322 PCUs

Table: Modified Traffic Scenario & LOS

Road	V	C	Existing V/C Ration	LOS
NH-72	2773	15000	0.18	A
NH-58	1030	7000	0.15	A
NH-94	882	7000	0.13	A
Haridwar by Pass Road	952	6000	0.16	A

Results

From the traffic study it is observed that there is not much load on the exustuing roads and highways. There from, the additional load on the carrying capacity of the concerned roads is not likely to have any adverse affect on the LOS. However, the traffic management has been proposed as given below.

Traffic Management

1. Roads will be repaired regularly and maintained in good conditions.
2. A supervisor will be appointed to regulate the traffic movement near the site.
3. Speed breakers will be constructed accident prone areas to calm the traffic and its speed.
4. Signage will be eracted at the sensitive & precarious places to caution or provide information to road user.

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