

TRAFFIC DENSITY

Preliminary Traffic Assessment: The estimated traffic in the proposed project is driven by the trip generated by the proposed land use within the project area. The estimated traffic is then appropriately assigned on the networks to obtain the quantum of traffic that will be handled by the road network. The following key issues are identified by the Government —

- ☞ Strengthening and development of roads network.
- ☞ Development of alternate road link.
- ☞ Developing of parking facilities.

With an ever-increasing urbanization, road traffic is also increasing.

The traffic study was done in the nearby road ascertain the present traffic was on the road and thereafter impact be because of addition of traffic due to the Himachal Pradesh Power Corporation Ltd project.

PCU values are used to convert various vehicles in to one standard vehicles i.e. Passenger car units (PCU). The PCU values as per IRC are as given below:

Table; PCU values of various vehicles					
S. No.	Vehicle Type	PCU Value	S. No.	Vehicle Type	PCU Value
1	Car	1	5	LCV	2
2	Two-wheeler	0.5	6	Tractor and Trailor	5
3	Truck/ bus	2.2	7	Cycle rickshaw	1.5
4	Auto	1.2			

The basis of conversion factor as per IRC 106, 1990, is given ahead —

Table; Conversion Factor (Ref: IRC 106, 1990)			
S.No	LOS Value (Ratio of V:C) (V/C)	Category	Inference based on IRC 106: 1990
1	0-0.2	A	Represents a condition of free flow; individual users are generally unaffected by others in the traffic and this condition is generally considered in the Excellent Category.

2	0.2-0.4	B	Represents a condition of stable flow; individual users have a level of comfort and convenience but less than that of A.
3	0.4-0.6	C	Represents a condition of zonal stable flow; individual users are starting in a bit of discomfort; users start to feel inconvenience due to presence of other users on the road. General level of discomfort increases and there is a noticeable decline in convenience.
4	0.6-0.8	D	Represents the level of stable flow; Level of comfort of users is poor and discomfort is significant in the flow of traffic. This category traffic streams are extremely susceptible to traffic problems.
5	0.8-1	E	Represents operating conditions close to capacity level; freedom to traffic stream is low and the speed is relatively uniform but very less. Comfort and convenience is relatively poor and discomfort is visible.
6	1 or above	F	Breakdown Flow; These streams often and broken down, susceptible to long delays and therefore there is huge discomfort in these streams.

I. Traffic Analysis: PWD Road, 2 Lane, two ways -3 Meters

The traffic density on 2 Lane road (PWD Road) was measured. The traffic analysis is given below;

Road Width – 3 meters

Time	Car/LTV		Truck/Bus		Two-wheeler		Others		PCU/day
	Volume	In PCU	Volume	In PCU	Volume	In PCU	Volume	In PCU	
6.00 - 12.00	61	61	12	54	82	41	4	5	27
12.00 - 17.00	45	45	6	27	60	30	2	2	21
17.00 - 21.00	36	36	8	36	42	21	3	4	24
21.00 - 6.00	8	8	0	0	10	5	0	0	1
Total in 24 hr.	150	150	26	117	194	97	9	11	16

Carrying capacity of PWD Road, 3-meter road (2- lane) =1610 PCU/day.

Existing traffic density at PWD Road =16 PCU/day.

Existing LOS = 0.01 i.e. Cat A

Proposed traffic from site=77 PCU/day.

Total Traffic density at PWD Road = Existing traffic at PWD road + proposed traffic at site
=16 + 77 =93 PCU /day.

Total after proposed LOS = 0.057 i.e. Cat A

Hence it is concluded that since carrying capacity of road (PWD road) is much higher than proposed traffic volume. Therefore, the traffic to & from of proposed, project will not create any traffic congestion.