

STRATEGIES TO REDUCE AND MANAGE TRAFFIC IN CHANDIGARH

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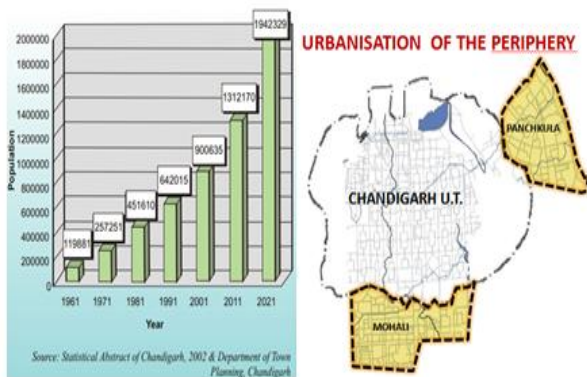
Abstract – Increase in population, explosive growth in the number of private vehicles which has increased the number of personalized vehicle, partly due to the absence of an efficient and reliable public transport system. The estimated urban population in 2011 was 13 lacs. The villages around city are growing ever faster. Steep increases in population of city itself and rapid growth of satellite town like Panchkula and Mohali is resulting in large number of trip making. The study was carried out on the midblock sections of major V-2 road (which includes Madhya Marg) of Chandigarh as that is the major arterial road and each sector is surrounded by V-2 or V 3 roads, with no buildings opening on to them. The peak hour volumes for Madhya Marg are too high so as to get accommodated in the roads. Traffic Congestion along Madhya Marg involves slower speeds and increased travel times, increases large no. accidents during peak hours.

Keywords : personalized vehicle, rapid growth, congestion, vehicular growth

INTRODUCTION

The objective of this approach is to manage or reduce personalized vehicle travel in Chandigarh city by offering more sustainable, through improved public and non-motorized vehicles.

Fig. 1.1 Population trend in Chandigarh from 1961 to 2021



The urban population would be 65.00% 75.00% & 85.00% of total population in corresponding years of 2001, 2011 & 2021 respectively. Hence, total urban population would be 19 lakh in 2021.

Main aim of study is to increase the accessibility in the developing areas of the city, to increase the speed of transportation, to reduce the dependability over private vehicles, and to improve the traffic management in the city.

Many junctions particularly on Madhya Marg, have very high approach traffic volumes and most of the junctions with rotaries have exceeded their capacity.

Publication History

Manuscript Received : 24 November 2017
 Manuscript Accepted : 6 December 2017
 Revision Received : 10 December 2017
 Manuscript Published : 11 December 2017

With expected growth of traffic, the situation at these junctions is likely to deteriorate fast.

The basic aim should be to reduce pedestrian conflicts with vehicular traffic to the minimum. Efforts should be made to reduce traffic along Madhya marg, Chandigarh. Madhya marg is considered as one of the very important road of Chandigarh, connecting P.G.I. at one end to Panchkula on the other end. This is one of the heavily trafficked roads in Chandigarh providing access to many educational institutes, shopping centres and offices.

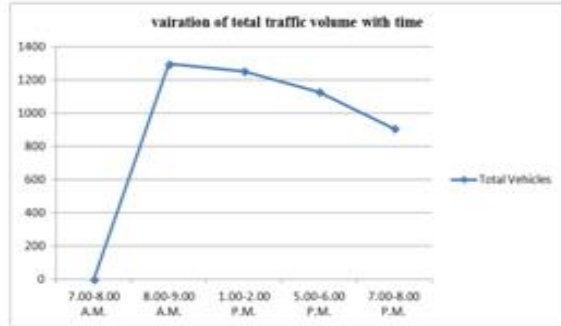
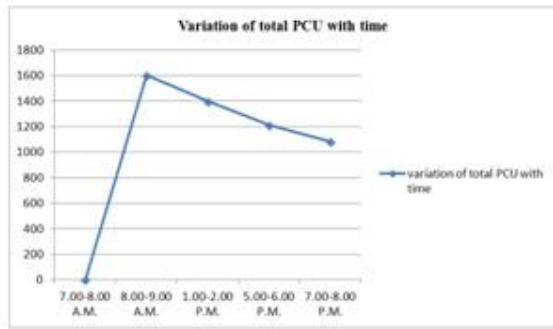
Objectives of the study is to find out the problems and issues of vehicular traffic in Madhya marg and to study the impact of traffic congestion of that area. Existing situation of traffic and transport along Madhya marg Chandigarh:-

Low share of public transport- Modal split in favour of public transport only 16% of total motorised person trips which is much lower than that recommended in National Urban Transport Policy.

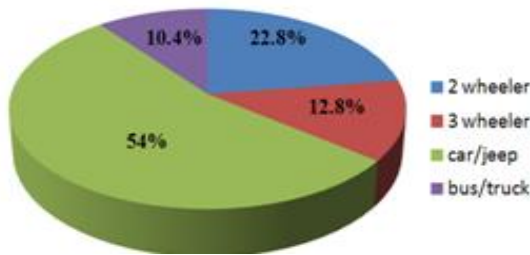
High share of two wheelers : On some roads, share of two wheelers and cars in total traffic is more than 80% indicating inadequacy of public transport system.

Junctions exceeded capacity : Many junctions have very high approach traffic volumes and most of the junctions with rotaries have exceeded their capacity.

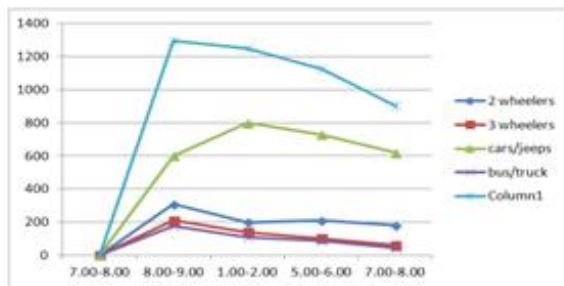
Congested Roads : Major travel corridors viz. Madhya Marg getting congested. V/C of Madhya Marg already exceeded 1



Variation of traffic volume (peak hours)



Variation of traffic volume with time (peak hours)



The above study has revealed that the roads of Chandigarh which were designed and constructed many years ago need to be improved in order to accommodate the huge population of Chandigarh as well as nearby towns. The daily volumes on the major roads are too high so as to get accommodated in the roads.

Sr.No	Name of Road	Vehicle Capacity Ratio 2009
1	Vidya Path	0.8
2	Udyan Path	0.7
3	Jan Marg	0.8
4	Himalaya Marg	0.7
5	Sarovar Path	0.8
6	Sukhna Path	0.8
7	Chandi Marg	0.6
8	Purv Marg	0.8
9	Madhya Marg	1.2
10	Udyog Path	1.1
11	Dakshin Marg	0.8

SOURCE: DEPARTMENT OF URBAN PLANNING CHANDIGARH

RECOMMENDATIONS

- Reducing dependence on Private vehicles by strengthening of Public Transport system.
- Reducing dependence on Private vehicles by promotion of cycle and Public Bicycle Sharing facilities.

cycle sharing: A public transport service, A user can collect the cycle at one location and drop it off at another, Integrated into public transport system to provide last-mile connectivity.

- **Junction Improvement** ensuring design as per growing population and addressing need of NMT.

JUNCTION IMPROVEMENT

PLANNING FOR EASY FLOW OF CYCLISTS AND PEDESTRIANS



AT GRADE ZEBRA CROSSINGS FOR PEDESTRIAN AND CYCLISTS



TABLETOP CROSSING - TRAFFIC CALMING MEASURE



LANE MARKING FOR CYCLISTS

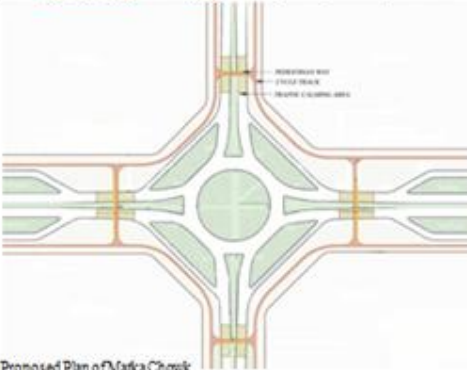


COURTESY: Chandigarh Urban Lab, University Of Washington

DETAIL OF 250'-0" ROTARY WITH SLIPROADS SHOWING LOCATION OF CYCLE TRACKS AND PEDESTRIAN PATH



Existing Plan of Maska Chowk (source Dept. Of Urban planning, Chandigarh Administration)



Proposed Plan of Maska Chowk

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