

## TRAFFIC CENSUS AND ANALYSIS (A CASE STUDY)

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### Abstract

*Traffic Census is the baseline of Transportation Engineering. All management as well as engineering operations are done on the basis of this only. There is a considerable variations in flow, so for the purpose of designing averaging of these counts is done into single volume count. There are four main methods of Traffic Census namely Manual Method, Automatic Method, Combination of Manual and Automatic Method and Photographic Methods. All these have their pros and cons. These have different preferences with respect to Accuracy, ease of Documentation, Versatility and economics. Three main methods of Traffic Analysis IRC, U.K method and U.S.A practices have been discussed along with IOWA Department of Transport guidelines for measurement of Congestion. For better management of Traffic, duration of Survey as per IRC has to be increased as urban areas are moving from Developed to developing. Sanat Nagar/Rawalpora Intersection is the most important that is encountered in 17.8km stretch of NH1A Bypass which is expected to be the jugular Vein of the Greater Srinagar City. It can be considered as a place where whole of Kashmir meets. A case study of Traffic Census and Analysis of the said intersection is presented.*

**Keywords:** Traffic Census, Traffic Analysis, Transport

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### 1. INTRODUCTION

John F Kennedy said "It was not our wealth that led to good Transport Infrastructure but our good Transport Infrastructure led to our wealth" Transportation and its allied problems are the phenomenon concerning all Road users in various forms and an effective remedy to these is necessary for the overall betterment of the society. Transportation should satisfy Safety, Rapidness, Comfort, Convenience and economic considerations as well as be Eco-Friendly.

"Srinagar, the capital of the state has to function as a place of pride for the people of state who look towards the city as a model city" [9]. With the proposal of Satellite Town of Greater Srinagar likely to Comprehend in very near future, National Highway 1A Bypass Stretching 17.8km's from Panthachowk-Shalteng will be the Jugular Vein of the City. Rawalpora Intersection is the most important intersection that is encountered in the 17.8Km Stretch of NH1A Bypass. It is a Four Armed at Grade junction which is at a Distance of 7,752meters from Athwajan from where NH1A Bypass starts and 10,048 meters from Shalteng where NH1A Bypass ends. It can be considered as the Intersection where whole of Kashmir meets. One side of the Intersection approaches South Kashmir from Athwajan where is the Second side Approaches North Kashmir via Hyderpora-Shalteng, whereas from third side it approaches to Central Business District Lalchowk and Fourth Side meets the Army Airport i.e. Old Airport

### 1.1 Understanding the Problem

In Transportation Engineering thing of primary importance is the measurement of Flow and then analysis of the same, be it in the form of Motorists, Cyclists, Passengers, Pedestrians, etc. A proper estimate is essential for a particular facility to function properly and give the requisite results. Overestimate leads to waste of resources. Underestimate leads to drop in L.O.S, congestion and allied effects.

### 1.2 Need

There are four Basic E's of Transportation Engineering namely, Engineering, Education, Enforcement and Emergency Response. Except for the education, Flow Measurement and Analysis are the pre-requisite for all the other E's. Level and type of Education also depends to some extent Flow Characteristics.

### WHY???

- It is the baseline of Transportation Engineering.
- It serves as the Standard document for the further evaluation.
- Creation of Transport network for a new city is based on this only.
- Only based on Traffic Census an Intelligent Solution can be sought out of a Traffic Problem be it Congestion, lack of facilities, economy of time, diversion.
- All Traffic Management operations are done on the basis of this only e.g. Restriction on Entry, Loading