

ABSTRACT

Car Free Night Impact Analysis of Traffic Performance at Enggal Region Bandar Lampung

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Car Free Night challenges a city to spend a whole night without turning the vehicles on at all, this kind of program applies the prohibition for vehicles to use certain roads at night. The goal of this car free night program is to reduce the risk of congestion by providing some available areas for public. The purpose of this study is to simulate assignment of traffic flows as the result of car free night route selection by applying management and traffic engineering as the solution. The purpose is also to calculate the car free night impact over the road network level of service at Enggal Region Bandar Lampung, considered from the traffic flow and Degree of Saturation (V/C Ratio) value.

From this research and analysis, found that car free night didn't provide the significant impact to traffic performance at Enggal Region, this is shown by the calculation of all road network level of service in the study area which are all of the V/C Ratio values below 0,75. This calculation means the handling scenarios of management and traffic engineering become unnecessary. The choice of trip assignment during the car free night is: traffic flow towards Jl. Diponegoro to Jl. Raden Intan may through Jl. Ahmad Yani continue to Jl. Let. Jend. Suprpto and Jl. S. Parman. Whereas for 20% validation between traffic performance comparison during manual calculation (MKJI) and simulation (Tranplan) at Enggal Region, the result shows only performance of Jl. Majapahit had 240,40% difference in traffic flow. This is caused by the differences in perception between two condition which are intangible. If the actual condition traveler prefer Jl. Sriwijaya to Jl. Majapahit for so many reasons like safety, comfort and convenience. Then the opposite condition happen on simulation, Jl. Majapahit preferred over Jl. Sriwijaya. Because of the theory a user will select the shortest route between any origin and destination, as the result traveler always selects route that represents minimum travel time.

Keywords : Car Free Night, Road Traffic Performance, Assignment of Traffic Flow, Simulation