

ABSTRACT

Muhammad Rizky Saputra
15316097

The intersection is a place of traffic conflict which is a meeting area of the highway network and also a meeting place for vehicles from various directions and changes in direction including the facilities needed for traffic movement. The intersection on Jl Tole Iskandar – Jl Raya KSU is an intersection with a fairly high traffic jam. The purpose of this paper is to determine the performance of the unsignalized intersection of capacity, degree of saturation, delay, and opportunity based on the 1997 Yearly Road Capacity Manual. To plan to improve the performance of unsignaled deposits at the intersection of Jalan Tole Iskandar - Jalan Raya KSU using the MKJI formulas. At the intersection of Jalan Tole Iskandar – Jalan Raya KSU, the traffic flow $Q=2820$ pcu/hour which is close to the capacity $C=2707$ pcu/hour, and produces a degree of saturation value $DS=1,04$. Based on the Level of Service (LOS), the value of the degree of saturation is included in category E, for that it is necessary to regulate traffic. Traffic regulation in an intersection is the most important thing, because traffic regulation can prevent or reduce conflicts. The purpose of this research is to improve the performance of the Jl. Tole Iskandar - Jl. Raya KSU. In this case, traffic is carried out on time for each arm of the intersection. The results obtained are the degree of saturation is getting better, namely $DS = 0,76$ for each arm of the intersection. And the green time is obtained by: 31 seconds on the Jl. Tole Iskandar from the left, 21 seconds On Jl. Raya KSU and 25 seconds on Jl Tole Iskandar to the right.

Keywords: Intersection, Capacity, Degree of Saturation