

ABSTRACT

Carrying capacity of the road is very important in designing a road, this capacity could be reduced due to many factors, such as increased activity of the side roads because the increase of population. Reduced road capacity coupled with increased traffic flow will reduce the level of safety, comfort and smooth flow of traffic to the research needs to be done. The purpose of this study was to determine the capacity, degree of saturation and the level of service.

Location of the research done on Jalan Raja Eyato Kota Barat District, the data collected in the form of primary data from direct measurements on Jalan Raja Eyato along 1 km for 6 days and secondary data obtained from statistical data from Samsat Gorontalo, the Department of Transportation, and BPS Gorontalo City. Data analysis method is use MKJI 1997.

The maximum traffic flow is obtained at 332 pcu/hour, the road capacity value of 1,373 pcu/hour. The result show that the value of the degree of saturation of 0.24, it means the road is still stable with the level of service B. Forecast on 2018 predicted traffic flow rate increased to 1,603 pcu/hour where the interval volume capacity ratio obtained was $1.17 > 0.75$. This condition is in the level of service F, the volume is exceed the capacity of the road, so that it needs to optimize the use of safety facilities of LLAJ or build a new road construction as an alternative.

Keywords: *road capacity, traffic flow, degree of saturation, the level of service*

