

ABSTRACT

The city of Yogyakarta is one of the largest cities on the island of Java and is a destination city for tourists from various regions and also known as the "Student City" because of the many universities in Yogyakarta. The two things above caused the city of Yogyakarta to become congested and mobility getting higher. One of the traffic jams is Jalan Prawirokuat Condong Catur, Sleman Yogyakarta. The purpose of this study was to determine the performance of the Jalan Prawirokuat section before and after setting one-way traffic and the impact that resulted from the application of one-way traffic to the surrounding roads.

This study uses descriptive quantitative methods. The data in this study were obtained from a survey on the location of the study then analyzed using MKJI and modeled using VISSIM software for the one-way traffic method.

The results of the analysis on the existing conditions on the Prawirokuat Road segment are 0.71 and the speed is 24.14 km / hour. The impact of the one-way system design on Jalan Prawirokuat influences the degree of saturation of each road segment, on the Jalan Prawirokuat section from the South-North direction it can reduce the degree of saturation in the section from 0.71 to 0.43. In the Jalan Ringin raya section the degree of saturation from 0.79 to 0.47. The gebang temple road segment has a degree of saturation from 0.28 to 0.17. The west ring Road Road section has increased from 0.99 to 1.21. The vehicle speed of each road segment changes, namely on Jalan Prawirokuat which was originally 24.14 km / h to 35.04 km / hr, on Jalan Ringin Raya 25.89 km / h to 27.82 km / hr, on Jalan Candi Gebang 29.57 km / h to 33.45 km / hr, and on the Ring Road 26.88 km / hr it drops to 19.52 km / hr.

Keywords: Degree of Saturation, Speed, Roads, MKJI 1997, VISSIM.