PERFORMANCE EVALUATION OF THE INTERSECTION JL. RAYA NGAGEL – JL. SUMATERA – JL. SULAWESI DUE TO THE CONSTRUCTION OF 2ND SILOAM HOSPITALS SURABAYA

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ABSTRACT

Link conditions on JL.Raya Ngagel - JL.Sumatera - JL.Sulawesi a solid motor vehicles. The condition is caused due to the volume density of vehicles is increasing every day on the roads and JL.Raya JL.Sulawesi Ngagel. Geometric conditions unfavorable road on JL segment. Kingdom Nganggel resulting in long waiting lists in the segment. This resulted in the inhibition rate of the vehicle will turn left towards JL.Sulawesi, when it should direct motorists can turn left according to plan. Congestion in the city of Surabaya is the common problems faced in each year, especially in the area of the intersection. Junction is the meeting point between the two roads that will lead to the point of conflict due to the traffic flow. It is thus necessary holding JL Simpang Performance Evaluation. Kingdom Ngagel - JL. Sumatra - JL. Sulawesi due to the construction of Siloam Hospitals Surabaya II, so it can be seen that the capacity of the intersection to be reviewed as a result of the development.

The intersection of performance evaluation method Indonesian Highway Capacity Manual (MKJI) 1997. Preparation starts from a survey volume of vehicles at peak hours and then
processed and multiplied by the volume growth from 2016 through the next 5 years i.e. in 2021, and calculate the volume of traffic due to construction Siloam Hospital II in the junction region.

Based on the analysis and evaluation of existing conditions, namely in 2013, the volume of vehicles in the area of the intersection of Jl. Kingdom Ngagel - Jl. Sulawesi, it is seen from the analysis of peak morning, noon, and evening. One of the most solid peak is the peak morning with the level of service is LOS F with DS > 0.75. With these results, the improvement made by the alternative is to change the signal timing, movement and geometric phase in 2016. Signals a time of change, the movement phase and the geometric average of the results obtained with LOS C in 2016-2021, except in 2021 at the height of afternoon obtain LOS D.

Key Word: Intersection, MKJI 1997, KAJI, LOS