EVALUATION PERFORMANCE OF SIGNALIZED INTERSECTION JL. DR. IR. H. SOEKARNO – JL. KERTAJAYA INDAH – JL. KERTAJAYA INDAH TIMUR AS A RESULT DEVELOPMENT OF ONE EAST RESIDENCE APARTMENT SURABAYA

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ABSTRACT

As the second largest metropolitan city in Indonesia, Surabaya has always been progressing. Building continues to support the economy. Construction of the building is covered in this final project is the construction of an apartment One East Residence is located at Jl. Kertajaya Indah 79, Surabaya. Planned to be operational early in 2016, there will be a revival of activity and the pull of the apartments that have an impact on the volume of traffic at the intersection of JL. Dr. Ir. H. Soekarno - JL. Kertajaya Indah - JL. Kertajaya Indah Timur.

Evaluating the performance of signalized intersection based on the method of MKJI 1997 begins with a counting survey the volume of vehicles, geometric survey, building survey comparison, intersection performance evaluation of existing conditions in 2014, analysis of the amount of the additional volume due to the operation of vehicles apartment One East Residence in 2016, a performance improvement of existing conditions intersection until the time of the next 5 years in 2021.

The results of the evaluation of existing conditions with 4-phase movement in 2014, the performance results obtained signalized intersection at peak hours morning, afternoon, and evening with the range of the average delay (DI) = 71,16 to
133.57 seconds / smp with the level of service (LOS) F, is not in accordance with MKJI 1997, the necessary repairs. The selected alternative is to change the 4-phase to 3-phase as well as a ban on right turn on North and South approach produces peak Morning, Afternoon, and Evening with DI range = 27.88 to 31.13 seconds / smp with LOS D. Then in 2016 when the apartment One East Residence in operation until 2021, obtained LOS D - F with DI range from 30.37 to 111.69 seconds / smp. This alternative is better than the previous alternatives and existing conditions.

Keywords:
Signalized Intersection, MKJI 1997, KAJI, Traction and Resurrection, Delay Average Intersection, Level Of Service Signalized Intersection.