

ABSTRAK

Judul : Analisis Kinerja Ruas Jalan dan Simpang Bersinyal Empat Lengan (Studi Kasus Simpang JL.MOH TOHA, KOTA TANGERANG) Dengan Metode MKJI 1997 dan Software VISSIM

Pembimbing : Widodo Budi Dermawan, S.T.,M.Sc. 2024

Semakin meningkatnya jumlah penduduk kebutuhan transportasi semakin meningkat sehingga menyebabkan kemacetan

Penelitian dilaksanakan pada ruas jalan dan simpang bersinyal pada Jl. Moh Toha, Kota Tangerang dua periode jam sibuk periode pagi dan periode sore. Data yang dibutuhkan data volume kendaraan, data lampu lalu lintas, kecepatan kendaraan, kondisi geometrik, dan jumlah penduduk.

Dengan metode MKJI 1997 simpang eksisting pagi dan sore didapat nilai LOS E dan F, alternatif 1 pagi dan sore didapat nilai LOS D dan E, pada alternatif 2 pagi dan sore nilai LOS D dan C. Dengan metode software PTV VISSIM simpang kondisi eksisting pagi dan sore didapat nilai LOS E dan F, pada alternatif 1 pagi dan sore nilai LOS D dan F, pada alternatif 2 pagi dan sore didapat nilai LOS D dan C. Metode MKJI 1997 ruas jalan eksisting pagi dan sore didapat nilai LOS C dan B. Dengan metode PTV VISSIM ruas jalan eksisting pagi arah timur dan barat didapat nilai LOS B dan C dan eksisting sore arah timur dan barat didapat nilai LOS C dan B, dan tidak diperlukan solusi alternatif pada ruas jalan.

Kata Kunci : Ruas Jalan. Simpang Bersinyal, Software PTV VISSIM

UNIVERSITAS
MERCU BUANA

ABSTRACT

Title: Performance Analysis of Road Sections and Intersections with Four Arm Signals (Case Study of JL. MOH TOHA Intersection, TANGERANG CITY) Using the 1997 MKJI Method and VISSIM Software

Supervisor: Widodo Budi Dermawan, S.T., M.Sc. 2024

The increasing number of population, the need for transportation is increasing, causing congestion

The study was conducted on the road section and signalized intersection on Jl. Moh Toha, Tangerang City, two peak hours, morning and afternoon periods. The data needed are vehicle volume data, traffic light data, vehicle speed, geometric conditions, and population.

With the MKJI 1997 method, the existing intersection in the morning and evening obtained LOS values of E and F, alternative 1 in the morning and evening obtained LOS values of D and E, in alternative 2 in the morning and evening obtained LOS values of D and C. With the PTV VISSIM software method, the intersection in the morning and evening obtained LOS values of E and F, in alternative 1 in the morning and evening obtained LOS values of D and F, in alternative 2 in the morning and evening obtained LOS values of D and C. The MKJI 1997 method, the existing road section in the morning and evening obtained LOS values of C and B. With the PTV VISSIM method, the existing road section in the morning towards the east and west obtained LOS values of B and C and the existing road section in the afternoon towards the east and west obtained LOS values of C and B, and no alternative solution was needed on the road section.

Keywords : Road section, Signalized intersections, PTV VISSIM software