

ANALISIS KINERJA RUAS JALAN IMAM BONJOL KOTA SEMARANG
PASCA PEMASANGAN MEDIAN
STUDI KASUS AREA PINTU KELUAR STASIUN PONCOL

Oleh :

Herwin Ariansyah¹⁾, Muhammad Noor Lathif¹⁾, Nina Anindyawati²⁾, Djoko Susilo Adhy²⁾

Abstraksi

Transportasi memiliki posisi yang penting dan strategis dalam pembangunan di segala sektor kehidupan. Kebutuhan akan sarana mobilitas sangat menunjang dalam setiap bidang kehidupan. Dan Kota Semarang sebagai Ibukota Jawa Tengah juga tengah gencar meningkatkan sarana dan prasarana transportasinya. Kereta Api sebagai salah satu moda transportasi massal dapat dijadikan sarana untuk mengakomodir mobilitas orang yang semakin padat dan meningkat. Salah satu stasiun kereta api di Semarang yakni Stasiun Poncol juga tengah dikaji dan ditingkatkan sarana dan prasarannya. Ruas jalan Imam Bonjol sebagai prasarana jalan di Stasiun Poncol baru-baru ini dipasang median di area pintu keluar Stasiun Poncol dengan harapan dapat mengurai kemacetan yang kerap terjadi karena banyaknya kendaraan yang melintas maupun menyebrang dari arah pintu keluar Stasiun Poncol.

Analisis kinerja ruas jalan perkotaan yang dilakukan dengan berbagai indikator kinerja yaitu kecepatan arus bebas (FV), kapasitas (C), derajat kejenuhan (DS), kecepatan tempuh dan waktu tempuh rata – rata (TT), serta menganalisis tingkat pelayanan (LOS) kinerja ruas jalan tersebut.

Tujuan awal penelitian adalah membandingkan kinerja sebelum dan sesudah pemasangan median, namun dalam proses pengamatan masih ditemukan masalah kemacetan pada waktu-waktu tertentu yakni pada saat kereta menurunkan penumpang dan berdampak pada lonjakan hambatan samping yang sangat tinggi dan berkurangnya jalur lalu lintas efektif (W_c). Berdasarkan hasil perhitungan dan analisis ruas jalan di area pintu keluar Stasiun Poncol memiliki kecepatan arus bebas (FV) = 41,85 km/jam, kapasitas (C) = 4564.56 SMP/jam, derajat kejenuhan (DS) = 0.66, kecepatan tempuh (V) = 36 km/jam serta tingkat pelayanan (LOS) dikategorikan tingkat C. Berdasarkan hasil pengamatan dan perhitungan pada Desember 2017, ruas jalan Imam Bonjol mengalami peningkatan setelah dipasang median, dengan nilai derajat kejenuhan yang turun sebesar 0.05 dari sebelum pemasangan median sebesar 0.71. Ruas jalan ini masih dapat menampung arus lalu lintas sampai beberapa tahun kedepan, namun kajian lebih lanjut tetap diperlukan untuk menata badan jalan yang semakin menyempit dan ramai.

Kata kunci: Jalan Imam Bojol, Stasiun Poncol, Kinerja Ruas Jalan, Hambatan Samping, Median

¹⁾ Mahasiswa Fakultas Teknik Jurusan Teknik Sipil UNISSULA

²⁾ Dosen Pembimbing Fakultas Teknik Jurusan Teknik Sipil UNISSULA

THE PERFORMANCE ANALYSIS ROAD SECTION OF IMAM BONJOL STREET IN SEMARANG CITY AFTER THE INSTALLATION OF A MEDIAN

CASE STUDY IN FRONT OF EXIT AREA OF PONCOL TRAIN STATION

By:

Herwin Ariansyah¹), Muhammad Noor Lathif¹), Nina Anindyawati²), Djoko Susilo Adhy²)

Abstract

Transport has an important and strategic position in development in all sectors of life. The need for mobility facilities is very supportive in every area of life. And the city of Semarang as the capital of Central Java is also being aggressively increase the facilities and infrastructure of transportation. Railway train as one of the mass transportation modes can be used as a means to accommodate the increasingly crowded and increasing mobility of people. One of the railway stations in Semarang namely Poncol Station is also being studied and improved in both facilities and infrastructure. Imam Bonjol road which serves as a road infrastructure at Poncol Station recently installed median at the exit area of Poncol Station in hopes to break down the congestion that often occurs due to the number of vehicles passing or crossing from the direction of the exit of Poncol Station.

Performance analysis of urban road segments performed with various performance indicators ie free flow rate (FV), capacity (C), degree of saturation (DS), travel speed and average travel time (TT), and analyzing the Level of service (LOS) of the road.

The initial objective of the study was to compare the performance before and after the installation of the median, but in the process of observation was still found some problem of congestion at certain times when the train is dropping passengers and impact on the sharp rise of side-friction and reducing the effective traffic lane (W_c). Based on the calculation and analysis of the road segment at the exit area of Poncol Station, it has a free current velocity (FV) = 41.85 km/h, capacity (C) = 4564.56 PCE/h, saturation degree (DS) = 0.66, travel speed of 36 km/h and the Level of Service (LOS) is categorized level C. Based on observations and calculations in December 2017, the Imam Bonjol road segment gets slightly better after the median installed, with a saturation degree decreased by 0.05 from before the median installed where it was 0.71. This road segment can still accommodate traffic flow for several years ahead, but further studies are still needed to remedy the roads which getting narrower and crowder each year.

Keywords: Imam Bonjol Street, Poncol Railway Stasion, Performance of Urban Road, Side Friction, Median.

¹) Student of Engineering Faculty in Civil Engineering Department UNISSULA

²) Lecture of Engineering Faculty in Civil Engineering Department UNISSULA