

**ANALISIS KERUSAKAN JALAN BERDASARKAN METODE
PAVEMENT CONDITION INDEX (PCI) DAN INTERNATIONAL
ROUGHNESS INDEX (IRI) BESERTA RENCANA
ANGGARAN BIAYA PERBAIKAN
(Studi Kasus Ruas Jalan Manggopoh–Padang Luar Sta 155+000-160+000)**

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Abstrak

Ruas jalan Manggopoh-Padang Luar merupakan jalan provinsi yang menghubungkan antara kota madya Bukittinggi dengan ibu kota kabupaten Agam yaitu Lubuk Basung, Sumatera Barat. Jalan ini memiliki kondisi drainase yang kurang terawat dan sering dilalui kendaraan dengan volume lalu lintas yang tinggi, sehingga menjadi pemicu terjadinya kerusakan pada ruas jalan ini. Untuk mengetahui kondisi kerusakan jalan maka dilakukan penelitian menggunakan metode pavement condition index (PCI) dan international roughness index (IRI) sehingga dapat menentukan bentuk penanganan yang tepat dan biaya perbaikan dari kerusakan tersebut. Penelitian ini menggunakan metode pengamatan langsung di lapangan dengan melakukan survei secara visual dengan melakukan pengukuran pada kerusakan perkerasan jalan. Dari hasil penelitian diperoleh tingkat kerusakan keseluruhan permukaan jalan dengan nilai PCI sebesar 55.5 dan nilai IRI sebesar 4.38 dengan kondisi jalan sedang dan dimasukkan ke dalam program pemeliharaan berkala. Total rencana anggaran biaya perbaikan perkerasan jalan adalah sebesar Rp.1.306.373.087.

Kata kunci : Kondisi perkerasan, jenis kerusakan, pavement condition index (PCI), international roughness index (IRI), penanganan kerusakan, biaya perbaikan.

ROAD DAMAGE ANALYSIS BASED ON THE PAVEMENT CONDITION INDEX (PCI) AND INTERNATIONAL ROUGHNESS INDEX (IRI) METHODS AND BUDGET PLAN OF REPAIR COSTS

(Case Study of Jalan Manggopoh – Padang Luar Sta 155 + 000-160 + 000)

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Abstract

The Manggopoh-Padang Luar road section is a provincial road that connects the municipality of Bukittinggi with the capital city of Agam district, Lubuk Basung, West Sumatra. This road has a drainage condition that is poorly maintained and is often traversed by vehicles with high traffic volumes, thus triggering damage to this road segment. To overcome the damage that often occurs on this road, it is necessary to conduct a study on the types of pavement damage. The purpose of this study was to determine the condition of road damage based on the pavement condition index (PCI) and international roughness index (IRI) methods so that it can determine the appropriate form of handling and the cost of repairing the damage. This research uses direct observation in the field by conducting a visual survey by measuring the damage to the pavement. From the research, it was found that the overall level of road surface damage with a PCI value of 55.5 and an IRI value of 4.38 with moderate road conditions. Damage management is carried out based on the value of road conditions, namely a form of periodic maintenance according to the Hardiyatmo Book of 2015. The total budget plan for road pavement repair costs is IDR 1,306,373,087.

Keywords: Pavement conditions, types of damage, pavement condition index (PCI) international roughness index (IRI), damage handling, repair costs.