

Jalan merupakan bagian penting dari prasarana transportasi darat yang berperan di berbagai sektor, seperti industri, pertanian, penambangan, dan perdagangan, serta kebutuhan sehari-hari masyarakat. Oleh sebab itu, kondisi dari perkerasan jalan perlu diperhatikan karena seiring berjalannya waktu dan penggunaan dapat menurunkan kondisi perkerasan jalan, bahkan kerusakan yang mengakibatkan menurunnya kenyamanan pengendara. Sehingga, perlu adanya upaya penanganan jalan untuk mempertahankan kinerja jalan. Penelitian ini bertujuan mengevaluasi kondisi perkerasan di ruas Jalan Kebon Agung STA 14+370 – 17+650 sebagai penentuan jenis penanganannya.

Pada penelitian ini, digunakan 2 metode analisis perkerasan jalan yakni metode survei visual yakni metode *Pavement Condition Index (PCI)* dan metode survei ketidakrataan yakni metode *International Roughness Index (IRI)* dengan menggunakan aplikasi *RoadBump Free*. Ruas jalan penelitian menggunakan metode PCI, dibagi menjadi 2 *section*, *section A* sepanjang 1,4 km dan *section B* sepanjang 1,88 km. Tiap sampel memiliki panjang 40 m dan lebar 7 m. Total sampel untuk *section A* sebanyak 35 sampel dan *section B* sebanyak 47 sampel.

Berdasarkan hasil evaluasi, kondisi perkerasan jalan metode PCI diperoleh nilai PCI untuk *section A* sebesar 80,94 (*Satisfactory*) dan nilai PCI untuk *section B* sebesar 52,94 (*Poor*). Kondisi perkerasan jalan menggunakan metode IRI diperoleh nilai IRI untuk *section A* sebesar 7,55 m/km (Sedang) dan nilai IRI *section B* sebesar 8,06 m/km (Rusak ringan). Berdasarkan hasil kondisi perkerasan menggunakan metode PCI, metode penanganan jalan yang sesuai yakni pada *section A* dengan *localized preventive* berupa *partial or full-depth patching* dan *crack sealing*. Pada *section B*, dilakukan jenis penanganan *structural overlay* untuk sampel dengan nilai PCI jauh di bawah nilai rata-rata *section*, selanjutnya dilakukan penanganan *localized safety* berupa *patching* serta *surface treatment*. Berdasarkan kondisi perkerasan menggunakan metode IRI, metode penanganan jalan yang sesuai yakni pada *section A* dengan pemeliharaan berkala berupa *patching* dan *sealing*. Pada *section B*, dilakukan penanganan rehabilitasi berupa *overlay* dan *patching*.

**Kata kunci:** Transportasi Darat, Kondisi Perkerasan, PCI, IRI, Metode Penanganan

*Roads are an essential part of land transportation infrastructure that play a role in various sectors, such as industry, agriculture, mining, and trade, as well as in meeting the daily needs of society. Therefore, the condition of road pavement needs to be maintained because over time and usage, the pavement condition can deteriorate, leading to damage that decreases driving comfort. Consequently, efforts are needed to maintain the road to preserve its performance. This study aims to evaluate the pavement condition of the Kebon Agung Road section STA 14+370 – 17+650 to determine the appropriate maintenance methods.*

*In this study, two road pavement analysis methods were used: the visual survey method known as the Pavement Condition Index (PCI) and the roughness survey method known as the International Roughness Index (IRI) using the RoadBump Free application. The road section studied using the PCI method was divided into two sections: Section A, 1.4 km long, and Section B, 1.88 km long. Each sample had a length of 40 m and a width of 7 m. The total number of samples for Section A was 35, and for Section B, 47 samples.*

*Based on the evaluation results, the pavement condition using the PCI method showed a PCI value for Section A of 80.94 (Satisfactory) and a PCI value for Section B of 52.94 (Poor). The pavement condition using the IRI method showed an IRI value for Section A of 7.55 m/km (Moderate) and an IRI value for Section B of 8.06 m/km (Slightly Damaged). Based on the pavement condition using the PCI method, the appropriate road maintenance methods for Section A include localized preventive measures such as partial or full-depth patching and crack sealing. For Section B, structural overlay is performed for samples with a PCI value significantly below the section average, followed by localized safety measures such as patching and surface treatment. Based on the pavement condition using the IRI method, the appropriate road maintenance methods for Section A include periodic maintenance such as patching and sealing. For Section B, rehabilitation measures include overlay and patching.*

**Keywords:** Land Transportation, Pavement Condition, PCI, IRI, Maintenance Methods