

***EVALUATION OF ROAD DAMAGE AND PLANNING  
OF RIGID PAVEMENT REPAIR  
(Case Study: Arifin Ahmad Road, Pelintung, Dumai City  
Km 03+700 – 19+200)***

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***ABSTRACT***

*Arifin Ahmad Pelintung Road in Dumai City is a vital route for both the community and industrial transportation. However, the road has suffered significant damage and requires special attention. This study aims to evaluate the road damage using the Bina Marga method and to plan the road structure improvements based on the MDPJ 2017 approach. Additionally, the study calculates the budget required for efficient repairs. The evaluation results indicate that 145 road segments need reconstruction or upgrades. Based on the CESA calculations, to accommodate traffic loads over the next 40 years, a concrete pavement thickness of 305 mm is required. For road sections with a remaining service life of 8.28%, repairs will be carried out using the existing 265 mm thickness, which can sustain the load until 2033. The total budget required for the road reconstruction and upgrades is **IDR 2,913,094,161.90**.*

***Keywords: 1990 Bina Marga Method, 2017 MDPJ, Cost Budget Plan***