

**THE EVALUATION OF ROAD DAMAGE AND
REPAIRING OF RIGID PAVEMENT
STA 00+000 - STA 14+400
(Case Study : Soekarno Hatta Street, Dumai City)**

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ABSTRACT

Soekarno Hatta Road is a road that connects Dumai City and Duri City, the city produces many companies, especially in the industrial sector. To transport industrial goods and materials, of course, heavy trucks are used which causes Soekarno Hatta road to be damaged so that it needs special attention to road maintenance. The purpose of this research is to evaluate and formulate a strategy for handling road damage using the Bina Marga method to ensure the sustainability of road infrastructure on the Soekarno Hatta road section in Dumai City. Then to determine the need for pavement thickness, foundation layer, rigid pavement structure based on field data and standards using MDPJ 2017. And plan the optimal cost budget for periodic maintenance and road improvement. The results of the Bina Marga method damage evaluation are 63 road segments that require road upgrades and 12 segments for periodic maintenance. The results of the ESAL calculation with LHR show a 270 mm thick concrete slab pavement, 100 mm LMC foundation, and 150 mm drainage to withstand traffic loads until 2034. The cost budget for road improvement is Rp 921.576.997 and for periodic maintenance Rp 174.336.176

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