

**A CASE STUDY OF HIGHWAY MAINTENANCE AT  
LEBUHRAYA UTARA – SELATAN  
( BERTAM – SUNGAI PETANI )**

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**Bachelor Engineering (Hons) (Civil)**

**UNIVERSITI TEKNOLOGI MARA**

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By

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Report is submitted as

the requirement for the degree of

**Bachelor Engineering (Hons) (Civil)**

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## **DECLARATION BY THE CANDIDATE**

I, Siti Noor Jusmila Binti Aziz UiTM no 2003339883 confirm that the work is my own and the appropriate credit has been given where reference has been made to the work of others.

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Siti Noor Jusmila Binti Aziz

(4/ 12/ 2006)

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## **ABSTRACT**

Good highways are so important with every phase of our daily activities that it is almost impossible to imagine what life would be like without them. We depend on highways for the movement of goods, for travel to and from work, for services, functioning of our complex society. The planning, design, construction operation, and maintenance of highways depend largely on the efforts of the highway engineer, who must translate the desires of the people for better highway transportation into physical being which is involves the integration of vehicle, driver, and pedestrian characteristics to improve the safety and capacity of streets and highways. Maintenance is work such as pavement patching, repair, and other actions necessary to maintain the roadway pavement at a desired level of serviceability. Maintenance also involves record keeping and data management for work activities and project needs, as well as analyses of maintenance activities to determine that they are carried out in the most economical manner. The work of the civil engineer in the area of maintenance involves redesign of existing highway sections, economic evaluation of maintenance programs, testing of new products, and scheduling of manpower to minimize delay and cost. Hence, this research is to studies the highway maintenance works such as prescribing of the defect, determination of the causes, and damage failure especially on pavement maintenance and the maintenance cost of rehabilitation along Lebuhraya Utara Selatan Bertam - Sungai Petani (north). The result of this project shows there are many causes of pavement defect and the defect can classified into several types. That is means, the results of the evaluation carried out on the pavement are used to establish the most appropriate and economical method of rehabilitation.