



**A STUDY ON REPEATED FRACTURES OF HIGHWAY CONSTRUCTION
(CONCENTRATION ON MRR2 HIGHWAY)**

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DECLARATION OF ORIGINAL WORK



**BACHELOR OF BUSINESS ADMINISTRATION (HONS) INTERNATIONAL
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“DECLARATION OF ORIGINAL WORK”

I, Irzaidah binti Kamarudin, (I/C Number : 870819-04-5186)

Hereby, declare that,

- This work has not previously been accepted in substance for any degree, locally or overseas and is not being concurrently submitted for this degree or any other degrees
- This project paper is the result of my independent work and investigation, except where otherwise stated
- All verbatim extracts have been distinguished by quotation marks and sources of my information have been specifically acknowledged.

Signature: _____

Date: _____

LETTER OF SUBMISSION

7th May 2010

The Head of Programme,
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Dear Madam,

SUBMISSION OF PROJECT PAPER

Attached is the project paper of HIGHWAY CRACKS ON MRR2 to fulfill the requirement as needed by the Faculty of Business Management, Universiti Teknologi MARA.

Thank you.

Yours sincerely,

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“HIGHWAY CRACKS ON MRR2”

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ABSTRACT

The purpose of this study is to know the reasons or causes behind the repeated pillar fractures on MRR2. Is it cracked because "hungry man's head" or because construction did not follow the standards. The Public Works Department (PWD) is the organization that responsible towards this issue. The disagreement between the Works Minister and PWD seem to stem from the question of which report to follow. After facing several disputes, the government of Malaysia then appointed British Halcrow Consultancy Ltd on 12 August, 2004 to study the cracks that have appeared on 31 of the 32 crossbeams since 2000. Halcrow has found a rare phenomenon--the expansion of a chemical compound, ettringite, had caused serious cracks. The main cause of excessive cracking in the crosshead to the T-shaped pier is a deficiency in the design and the anchorage of the columns reinforced into the crosshead. There is also a deficiency in the design of the transverse reinforcement in the top of the crossheads to resist splitting forces between bearings.

Keywords: Public Works Department (JKR), Highway Cracks

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