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**MANAGING VARIATION ORDER IN MAJLIS AMANAH RAKYAT (MARA)  
PROJECT**

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**A project report submitted in partial fulfillment of the requirement for the award  
of the degree of Master of Science in Construction Management**

**Faculty of Civil Engineering  
University Technology Malaysia**

**May 2009**

I declare that this project report entitled “*Managing Variation Order in Majlis Amanah Rakyat (MARA) Project*” is the result of my own research except as cited in the references. The report has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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Date : **12 MAY 2009**

*Specially dedicated to my beloved family and fiancé, thank you very much for your  
love and support*

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## **ABSTRACT**

Construction industry is frequently related with variation order and the project holders have to believe that no construction method is free of variation. A document review was done for three (3) projects on building construction project in Majlis Amanah Rakyat ( MARA ) during the period of Eight Malaysian Plan from 2001-2005. The objectives of the study are to identify the causes of variation, the effect of variation on project performance and to identify strategies to minimize them. The method of this study involved literature review, document study, interview and questionnaire. Based on the literature review, there are eight root causes of variation are found to be design errors, client requirement, contractor proposed change, construction change, discrepancies between work and statutory, extra work, design change and plan deficiency. Meanwhile, the effect of variation order as found in the study are cost overruns, time overruns, professional relations, delay in payment, increase overhead expenses, procurement delay, additional payment for contractor, progress effected without any delay, poor safety condition, dispute among professionals and completion schedule delay.

## ABSTRAK

Industri pembinaan seringkali di kaitkan dengan perubahan kerja an ia seolah-olah sudah tidak dapat mengelak dari terlibat dengan sebarang perubahan kerja.Ulangkaji dokumentasi pembinaan telah di lakukan terhadap tiga (3) kajian kes pembinaan di Majlis Amanah Rakyat (MARA ) di dalam tempoh Rancangan Malaysia Kelapan iaitu dari Tahun 2001-2005.Objektif kajian ini adalah untuk mengenalpasti punca berlakunya perubahan kerja serta kesannya ke atas prestasi projek dan kaedah yang boleh digunapakai bagi mengurangkan berlakunya perubahan kerja.Kaedah yang terlibat di dalam kajian ini adalah merangkumi kajian kesusasteraan, dokumen pembelajaran, temuduga dan juga borang soal selidik .Hasil daripada analisis data yang diperolehi punca utama perubahan kerja adalah disebabkan oleh kesilapan rekabentuk, kehendak pelanggan, cadangan pertukaran oleh kontraktor, perubahan pembinaan, perselisihan di antara kerja dan undang-undang, pertambahan kerja, perubahan rekabentuk dan kekurangan pelan.Sementara itu, kesan perubahan kerja yang telah di kenalpasti di dalam kajian ini adalah sebagaimana berikut; peningkatan kos, peningkatan masa, hubungan profesional, kelewatan pembayaran, peningkatan perbelanjaan, kelewatan perolehan, pertambahan pembayaran kepada kontraktor, kesan peningkatan kerja tanpa melibatkan kelewatan, keadaan keselamatan yang tidak terjamin, pertikaian di antara professional dan kelewatan di dalam penjadualan.

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