CENTRE OF STUDIES FOR BUILDING SURVEYING FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING UNIVERSITI TEKNOLOGI MARA

A STUDY ON WASTE MANAGEMENT AND MINIMISATION IN CONSTRUCTION INDUSTRY MALAYSIA

ASMIDA BINTIMAHAMAD YUSOFF

Academic Project submitted in partial fulfillment of the requirements for the degree of

Bachelor of Building Surveying (Hons)

Centre of Studies for Building Surveying

Faculty of Architecture, Planning & Surveying

ABSTRACT

The surrounding environment has faced a greater impact from the construction waste on site. There are more productions of waste materials on site since there is increasing of materials demand in the construction industry. The demand of materials has increased since there are increased in the development of infrastructures, commercial buildings, housing and other types of the construction projects. This study had identified on how do the waste management system being implemented at the construction site in Malaysia. Since there is increasing of wastes generated at the construction site, it is needed for a good management system in minimizing the waste on site to achieve the sustainable environment. Hence, by carried out this study, the major factors of waste production on site can be well determined. Generally, this study provides an evidence of the common methods used at the construction site in reducing the amount of waste been generated. Thus, an overall conclusion and some recommendations are derived from this study to conclude the findings got based on the questionnaires survey on waste management system at the construction site which being selected randomly for this purpose study.

i

ACKNOWLEDGEMENT

All praise to ALLAH S.W.T, the Most Beneficial and Most Merciful. First and foremost, I would like to express my grateful to Him in giving me strength and ability to complete this dissertation on time to be submitted.

Next, a special appreciation to my supervisor, Puan Julaida binti Kaliwon for the countless hours she spent in guidance, encouragement, proofreading and providing helpful tips and suggestions in preparing this dissertation. Thank you a lot for your help and guidance to me.

Besides that, special thanks also be given to the construction players and those who have been directly or indirectly involved in answering the questionnaires survey and providing a valuable information and ideas along the completion of this dissertation.

Last but not least, I would like to gratitude to all my family members for their endless love, support and encouragement. Thank you a lot to all my fellow friends for their kindly help and support in giving more ideas for me to complete this study. By having their endless support and encouragement I do succeed to complete this dissertation by on time.

Thank you.

TABLE OF CONTENTS

ABSTRACT	i
ACKNOWLEDGEMENT	ii
TABLE OF CONTENTS	iii
LIST OF FIGURES	v
LIST OF TABLES	vii
CHAPTER 1	1
INTRODUCTION	1
1.1 Introduction	1
1.2 Background	2
1.3 Problem Statement	4
1.4 Aim of Study	5
1.5 Objectives of Study	5
1.6 Scope and Limitation of Study	6
1.7 Methodology of Study	7
1.8 Tentative Chapter	9
CHAPTER 2	11
LITERATURE REVIEW	11
2.1 Introduction	11
2.2 Implementation of Waste Management System	12
2.3 Problems on Waste Management on Sites	18
2.4 Waste Management Hierarchy	20
2.5 The Need of Legislation for Waste Management on Site	23
2.6 The Significant of Waste Management Planning on Site	24
2.7 Conclusion	25

CHAPTER 3	26
RESEARCH METHODOLOGY	26
3.1 Introduction	26
3.2 Design Study	28
3.3 Data Collection	28
3.4 Data Analysis	28
3.5 Conclusion.	29
3.6 Case study	30
CHAPTER 4	40
DATA COLLECTION AND ANALYSIS	40
4.1 Introduction	40
4.2 Analysis Of Result	42
4.2.1 Section A - Company's And Personal's Demographic Information	42
4.2.2 Section B-Waste Management System	45
4.2.3 Section C - Implementation of Waste Management	56
CHAPTER 5	75
CONCLUSIONS AND RECOMMENDATIONS	75
5.1 Introduction	75
5.2 Overall Conclusion	76
5.3 Research Objective Discussion	78
5.4 Recommendations	81
5.4.1 Improve Waste Recycling Operation on Site	81
5.4.2 Organize Waste Awareness Programmes	81
5.4.3 Just-in-Time Delivery Strategy	82
5.4.4 Design Management to Prevent Over Specification Materials	82
5.4.5 Frequent Maintenance Services of Plant and Machineries	82
5.5 Further Recommendation	83
LIST OF REFERENCES	84
APPENDICES	86