

STUDY ON CURRENT PRACTICE OF CONSTRUCTION  
WASTE MANAGEMENT SYSTEM IN GAMBANG,  
KUANTAN, PAHANG

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STUDY ON CURRENT PRACTICE OF CONSTRUCTION WASTE  
MANAGEMENT SYSTEM IN GAMBANG, KUANTAN, PAHANG

NUR FATIN AQILAH BINTI MAT ZIN

Report submitted in fulfillment of the  
requirements for the award of the degree of  
Bachelor Civil Engineering  
(Hons.)

Faculty of Civil Engineering and Earth Resources  
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JUNE 2016

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## TABLE OF CONTENTS

	<b>Page</b>
<b>SUPERVISOR’S DECLARATION</b>	ii
<b>STUDENT’S DECLARATION</b>	iii
<b>DEDICATION</b>	iv
<b>ACKNOWLEDGEMENTS</b>	v
<b>ABSTRACT</b>	vi
<b>ABSTRAK</b>	vii
<b>TABLE OF CONTENTS</b>	viii
<b>LIST OF TABLES</b>	xii
<b>LIST OF FIGURES</b>	xiii
<b>LIST OF ABBREVIATIONS</b>	xv
<b>CHAPTER 1            INTRODUCTION</b>	
1.1    Introduction	1
1.2    Problem Statement	2
1.3    Objectives of Study	2
1.4    Scope of Study	3
1.5    Significance of study	3
<b>CHAPTER 2            LITERATURE REVIEW</b>	
2.1    Introduction	4
2.2    Definition	6
2.2.1    Construction Waste	6
2.2.2    Construction and Demolition (C&D) Debris	6
2.3    Types of Construction Waste	7
2.3.1    Concrete	7
2.3.2    Reinforcement	7
2.3.3    Wood/Timber	7
2.3.4    Glass	8

2.3.5	Brick/Block	8
2.3.6	Plastic	8
2.3.7	Paper	8
2.4	Factors Affecting the Construction Waste Generation	9
2.4.1	Organization and Planning At Construction Site	9
2.4.2	Management of Construction Materials	9
2.4.3	Storage	10
2.4.4	Monitoring of Material	10
2.4.5	Wastage during Construction Work	10
2.4.6	Manner and Skill Worker	11
2.4.7	Wrong Equipment Used	11
2.4.8	Error in Placing Order of Material	11
2.5	Waste Management Hierarchy	12
2.5.1	Avoid	12
2.5.2	Minimize	13
2.5.3	Recycle	13
2.5.4	Treat	14
2.5.5	Dispose	14
2.6	Benefit of Construction Waste Management	14
2.6.1	Cost Saving and Profit Maximization	14
2.6.2	Reduced Demand for Landfill Spaces	15
2.6.3	Improved Resource Management	15
2.6.4	Image Improvement	15
2.6.5	Productivity and Quality Improvement	16
2.7	Policy and Guidelines	16
2.7.1	Malaysia Environmental Quality Act 1974 (EQA)	16
2.7.2	Langkawi Declaration 1989	16
2.7.3	Malaysia National Policy on the Environment	17
2.7.4	Earth Summit-Agenda 21, 1992	17

### **CHAPTER 3            METHODOLOGY**

3.1	Introduction	19
3.2	Methodology	20
3.3	Study Area	21
3.4	Site Visit	22
3.4.1	Method of Sampling	23

3.4.2	Equipments	24
3.4.3	Procedures of Collecting Sample	26
3.5	Waste Characterization Methods	27
3.6	Waste Management Plan	27
3.6.1	Reduce	27
3.6.2	Reuse	28
3.6.3	Recycle	28
3.6.4	Disposal	28
3.7	Analysis Stage	28

## **CHAPTER 4            RESULT AND DISCUSSION**

4.1	Introduction	29
4.2	Position in Company or Organization	29
4.3	Analysis and Results of Types of Construction Waste	30
4.4	Demography of Construction Area	30
4.4.1	Heavy Construction Area Waste (Heavy)	31
4.4.2	Medium Construction Area Waste (Medium)	32
4.4.3	Low Construction Area Waste (Low)	33
4.5	Analysis and Results of Types of Construction Waste	35
4.5.1	Steel	35
4.5.2	Timber	36
4.5.3	Plastic	37
4.5.4	Paper	37
4.5.5	Others	38
4.6	Analysis of All Waste Generated In Waste Production Area	39
4.7	Suggestion for Reducing of Total Amount of Waste Generated in the Study Area	40
4.7.1	Reduce	40
4.7.2	Reuse	41
4.7.3	Recycle	41
4.7.4	Disposal	42

## **CHAPTER 5            CONCLUSION AND RECOMMENDATION**

5.1	Introduction	43
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5.2	Conclusion	43
5.3	Recommendation	44
<b>REFERENCES</b>		45
<b>APPENDICES</b>		47
A	Data of construction waste generated for Heavy Construction Area Waste	47
B	Data of construction waste generated for Medium Construction Area Waste	47
C	Data of construction waste generated for Low Construction Area Waste	48
D	Data of construction waste for all three construction	48

**LIST OF TABLES**

<b>Table No.</b>	<b>Title</b>	<b>Page</b>
3.1	The coordinates for each construction area	22
4.1	Data of construction waste generated in Taman Bukit Gambang Phase 2A construction project within 6 weeks for Heavy Construction Area Waste	32
4.2	Data of construction waste generated in East Coast Bazaar construction project within 6 weeks for Medium Construction Area Waste	33
4.3	Data of construction waste generated in Projek Bekalan Air Fasa III construction project within 6 weeks for Low Construction Area Waste	35
4.4	Data of construction waste for all three construction on six weeks observation	39
4.5	The waste percentage after applied the reducing method	42

## LIST OF FIGURES

<b>Figure No.</b>	<b>Title</b>	<b>Page</b>
2.1	Construction waste illegally dumped in mangrove swamp (Source: The Star Newspaper, 2011)	5
2.2	Construction debris along roadside (Source: The Star Newspaper, 2012)	5
2.3	Waste Management Hierarchy (Source: Wolsink, 2010)	12
3.1	Flow Chart of the Study Methodology	20
3.2	Map of the study area	21
3.3	Flow chart of the Sampling Method	23
3.4	300Kg weigh scale	24
3.5	Plastic bag	25
3.6	Gloves	25
3.7	Sample separations according to the type of waste	26
3.8	The sample was transferred into a plastic bag	26
3.9	The sample was weighed	26
3.10	The weighed then continued with other sample	26
4.1	Construction wastes found at the sites	30
4.2	Heavy Construction Area	31
4.3	Medium Construction Area	32
4.4	Low Construction Area	34
4.5	Percentage of steel waste presented in study area	36
4.6	Percentage of timber waste presented in study area	36
4.7	Percentage of plastic waste presented in study area	37
4.8	Percentage of paper waste presented in study area	38
4.9	Percentage of others waste presented in study area	38

4.10	Graph of the percentage of waste generated for all waste construction area	40
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**LIST OF ABBREVIATIONS**

CDW	Construction and Demolition Waste
CHOGM	Commonwealth Heads of Government Meeting
DECC	Department of Environment and Climate Change
EQA	Malaysia Environmental Quality Act 1974
EU	European Union
MHLG	Ministry of Housing and Local Government
NPE	National Policy on the Environment
UNCED	United Nations Conference on Environment and Development

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## ABSTRACT

Malaysian construction industry had shown a robust growth nowadays and it gives positive impact to the nation. Construction waste becomes a global issue facing by practitioners and researchers around the world. Waste can affects success of construction project significantly. Moreover, the increasing generation of construction wastes has caused significant impacts to the environment and aroused growing public concern in the local community. One of the objectives for this research is to characterize and quantify of construction waste generated in Gambang construction area. The standard procedure method was followed to conduct this research. Base on the research objective, the result shown that the generated steel waste ranged from 0.65% - 14.62%. For generated timber waste ranged 0.45% - 10.86%, the plastic waste ranged from 0.09% - 7.26%, the paper waste ranged from 0.15% - 2.24%, and others generated waste ranged from 0.18% - 47.68%. The result shown that there was lot of waste generated that was not managed properly in construction site. Therefore, the proper waste minimization is needed to control the quantity of construction waste produced.

## ABSTRAK

Industri pembinaan Malaysia telah menunjukkan pertumbuhan yang kukuh pada masa kini dan ia memberi kesan positif kepada negara. Sisa pembinaan menjadi isu global yang dihadapi oleh pengamal dan penyelidik di seluruh dunia. Sisa boleh memberi kesan kepada kejayaan projek pembinaan dengan ketara. Selain itu, bahan buangan yang semakin meningkat telah menyebabkan kesan yang besar kepada alam sekitar dan menimbulkan kebimbangan orang ramai dalam masyarakat setempat. Salah satu objektif kajian ini adalah untuk mencirikan dan kuantiti sisa pembinaan yang dihasilkan di kawasan pembinaan Gambang. Kaedah prosedur standard diikuti untuk menjalankan kajian ini. Berdasarkan objektif kajian, hasilnya menunjukkan bahawa sisa keluli yang terhasilkan dari julat 0.65% - 14.62%. Untuk sisa kayu yang terhasilkan dari julat 0.45% - 10.86%, sisa plastik yang terhasilkan dari julat 0.09% - 7.26%, sisa kertas yang terhasilkan dari julat 0.15% - 2.24%, dan sisa lain yang terhasilkan dari julat 0.18% - 47.68%. Dapatan kajian menunjukkan bahawa terdapat banyak sisa yang terhasilkan tidak diuruskan dengan baik dalam tapak pembinaan. Oleh itu, pengurangan sisa yang betul diperlukan untuk mengawal kuantiti sisa pembinaan yang terhasilkan.

## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

All countries in the world are expanding rapidly. Cause of the world growth, the construction sectors also impressed. The construction sectors are growing rapidly and have generates waste of the construction sector. In Malaysia, the construction sectors play a significant role both in the economic sectors and infrastructure development. Due to ‘Malaysia Plan 2020’, the numbers of construction sectors have increased dramatically.

In Malaysia, the construction sectors become one major impact to the environmental issues. Malaysian greater concern is the increasing amount of waste of construction and demolition. The construction sectors registered a strong growth of 5.8% in 2009, and subsequently 8.7% for the first quarter of 2010 as against the overall GDP growth of 10.1% during the first quarter of the year (Mansor, 2010). In Malaysia, disposal of solid waste onto lands or landfill is still the most common method. (Nagapan et al., 2012).

A serious approach must be made to reduce environmental pollution issues. Therefore, any remaining construction waste at construction sites should give very serious approach to control the pollution. A good disposal is a responsibility that must be shouldered in order to protect the earth, also to profit development and a sustainable future.

## **1.2 Problem Statement**

Construction wastes have a significant effect on the environment. There are various methods of execution request mega projects in Malaysia, along with many commercial buildings and housing development program, a large number of construction wastes generated by the construction sector.

Growth in construction activities in Gambang area generates construction waste has become a serious environmental problem with fatal consequences. Most of the construction and demolition waste in Gambang construction sites are not recycled but end up in landfills. Accordingly, a study on the construction waste generated was conducted to investigate the current practice of construction waste management system in Gambang.

## **1.3 Objective**

For this study, two (2) objectives have been list out accordance to the problem statement that has been identified.

1.3.1 To characterize and quantify of construction waste generated in Gambang construction area.

1.3.2 To make a recommendation to reduce the waste for sustainable management.

#### **1.4 Scope of Study**

My scope of study covered here is; the construction site area in Gambang, Kuantan, Pahang. Gambang is a town in Kuantan District, Pahang, Malaysia. It is located at a junction between Federal route 2, MEC Highway (Federal route 222) and Tun Razak Highway (Federal route 12). Nowadays, Gambang grows rapidly with many building constructions. This study focuses on the construction waste management at construction site. Through site visit, I overcome this study.

#### **1.5 Significant of Study**

This study done due to many reasons, the first reason and it is the importance one which is considered as major environmental problems as construction sector waste grows. That gives impact to the environmental so we can reduce that by construction management on construction site.

Also in this research is looking how to reduce the construction burden to the landfill and give more life to the landfill. Other reason of this study is how to prevent construction waste by which way and which method to minimized construction waste.