

CENTRE OF STUDIES
BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITITEKNOLOGI MARA

MAINTENANCE WORK OF WASTE MANAGEMENT SYSTEM ON
HIGH RISE RESIDENTIAL BUILDING

MUHAMMAD FARES BIN PARUDI

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

July 2013

ACKNOWLEDGEMENT

"In the name of Allah, the Most Merciful and the most Compassionate"

First and foremost, I would like to express my deepest gratitude upon Allah S. W.T for giving me strength and patience in completing my Academic Project for these semesters. A special of appreciation also goes to my supervisor, Puan Hasnizan Binti Aksah for her encouragement, guidance, critics and friendliness.

Credit for Mr Kamarohaimi Kamaluddin and Mr Lim Kim from Envac (M) SDN BHD, S.M. Zulhaikal Ayunni B. Syed Jamaluddin from RMCORC and Mr. Azhar Abd Wahab from Stream Environment SDN BHD for providing the precious information about waste management system on the high rise residential building. Not forget to these both company how sharing the information in detail on the Automated waste collection system and their maintenance management.

I am in great indebtedness to my colleagues and friends for their constructive assistance and criticism. But last not least, a million of thanks goes to my parent and family for being such understanding and supportive. They have indeed gave me a constant support and motivation throughout the way.

ABSTRACT

Human activities generate wastes that are often discarded as they were measured as worthless on the high rise residential building. The waste management system was the method of the dispose solid waste to the waste collection centre or point. In Malaysia, the dispose of waste is under the legislation to Environmental Quality Act 1974. The purpose of this research was for maintenance work of waste management system on high rise residential building and it was for identified the ways of maintenance work, the issue and problem of A WCS system and to give the better approach of the maintenance work on the system operation. Subang Olive's Residence and Royal Malaysian Customs Office and Residential complex was selected for the research case study and two difference suppliers company that helping to complete this research based on the interview session and site observation. From the research, both supplier company from Envac (M) SDN BHD and Stream Environment SDN BHD are related in performing on the maintenance work for waste management system and managing the A WCS on the high rise residential building. Maintenance work of waste management on high rise residential building shows a positive result where the users are acknowledging the solid waste disposal system that give comfortable as user of high rise property. The recommendations have been made to give some better approach on the maintenance work to create more effectiveness for user who use the waste management system on the high rise residential building in Malaysian.

TABLE OF CONTENTS

<i>ACKNOWLEDGEMENT</i>	<i>i</i>
<i>ABSTRACT</i>	<i>ii</i>
<i>TABLE OF CONTENT</i>	<i>in</i>
<i>LIST OF FIGURE</i>	<i>viii</i>
<i>LIST OF PHOTO</i>	<i>ix</i>
<i>LIST OF TABLE</i>	<i>xi</i>
<i>LIST OF ABBREVIATIONS</i>	<i>xii</i>
<i>LIST OF APPENDICES</i>	<i>xiii</i>
CHAPTER ONE: INTRODUCTION	
<i>1.1 INTRODUCTION</i>	<i>1</i>
<i>1.2 PROBLEM STATEMENT</i>	<i>3</i>
<i>1.3 RESEARCH OBJECTIVE</i>	<i>6</i>
<i>1.4 METHODOLOGY</i>	<i>7</i>
<i>1.5 SCOPE AND LIMITATION OF STUDY</i>	<i>8</i>
<i>1.6 SIGNIFICANT OF STUDY</i>	<i>11</i>
<i>1.7 THESIS OVERVIEW</i>	<i>13</i>

CHAPTER TWO: MAINTENANCE WORK ON WASTE MANAGEMENT SYSTEM FOR HIGH RISE RESIDENTIAL BUILDING

<i>2.1 INTRODUCTION</i>	<i>15</i>
<i>2.2 OVERVIEW OF WASTE MANAGEMENT SYSTEM</i>	<i>16</i>
<i>2.3 TYPE OF WASTE MANAGEMENT SYSTEM</i>	<i>21</i>
<i>2.3.1 AUTOMATED WASTE COLLECTION SYSTEM</i>	<i>22</i>
<i>2.3.1.1 FULL VACUUM</i>	<i>23</i>
<i>2.3.1.1.1 EQUIPMENT FOR FULL VACUUM</i>	<i>25</i>
<i>2.3.1.1.2 OPERATION FOR FULL VACUUM</i>	<i>29</i>
<i>2.3.1.2 GRAVITY VACUUM</i>	<i>31</i>
<i>2.3.1.2.1 EQUIPMENT FOR GRAVITY VACUUM</i>	<i>33</i>
<i>2.3.1.2.2 OPERATION FOR GRAVITY VACUUM</i>	<i>37</i>
<i>2.3.1.3 PUBLICAREA SYSTEM</i>	<i>40</i>
<i>2.3.1.4 FOOD WASTE SYSTEM</i>	<i>42</i>
<i>2.3.2 FUSWTON SYSTEM</i>	<i>44</i>
<i>2.3.3 REFUSE VACUUM SEAL CONVEYING SYSTEM</i>	<i>47</i>
<i>2.3.4 MOTORIZED VACUUM COLLECTION SYSTEM</i>	<i>49</i>
<i>2.4 HIGH RISE RESIDENTIAL BUILDING</i>	<i>52</i>
<i>2.5 MAINTENANCE WORK ON WASTE MANAGEMENT SYSTEM</i>	<i>56</i>
<i>2.5.1 DEFINATION OF MAINTENANCE WORK</i>	<i>56</i>
<i>2.5.2 MAINTENANCE PROGRAMMED</i>	<i>58</i>
<i>2.5.2.1 LONG TERM PROGRAMMED</i>	<i>58</i>
<i>2.5.2.2 MEDIUM TERM PROGRAMMED</i>	<i>59</i>