

UNIVERSITI TEKNOLOGI MARA

**DEVELOPING QUALITY
ASSESSMENT ELEMENTS FOR
TREE PLANTING WORKS**

JASASIKIN BIN AB SANI

Thesis submitted in fulfilment
of the requirements for the degree of
Doctor of Philosophy

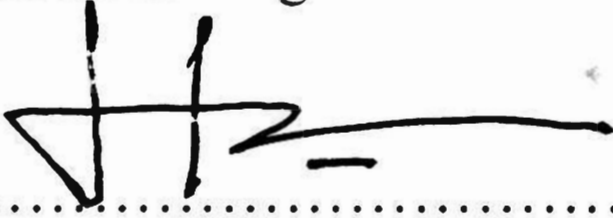
Faculty of Architecture, Planning & Surveying

July 2015

AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

Name of Student	:	Jasasikin Bin Ab Sani
Student I.D. No.	:	2008559167
Programme	:	PhD in Specialisms of The Built Environment
Faculty	:	Architecture, Planning & Surveying
Thesis Tittle	:	Developing Quality Assessment Elements for Tree Planting Works
Signature of Student	:	
Date	:	July 2015

ABSTRACT

Malaysia is experiencing a major change in landscape development. In relation to the aim of turning Malaysia into 'Garden Nation', various strategies have been mapped including the campaign of greening the country through optimizing the number of tree planted over the country. Millions of trees have already been planted and many more will be planted in order to achieve a target of twenty millions of trees by the year of 2020. Despite the fact that the campaign is successfully carried out, the issue of quality for tree planting work still need to be duly addressed. The government of Malaysia under the Quality Management System (QMS) programme through Construction Industry Development Board (CIDB) in the year of 2006, has established Quality Assessment System in Construction (QLASSIC) as a tool to measure the quality of construction work. QLASSIC is a system or method to measure and evaluate the quality of workmanship of a construction work based on the relevant approved standard. QLASSIC enables the quality of workmanship between construction projects to be objectively compared through a scoring system. The aim of this study is to develop a set of quality assessment elements for landscape works which focusing on tree planting to be a part of an important components to facilitate QLASSIC program for landscape work. The development of quality assessment elements for tree planting was carried out through the survey on Landscape Architects' opinions on the level of Critical success factors of landscape work element. The opinion of Landscape Architects was gathered through five ordinal value or likert-type scale of every element. The data were then been used to develop a weightage for every element based on Contribution Weightage Formula. The findings reveal that soil-mixture, root ball and planting hole are the elements that are ranked as the three most critical elements for the success of tree planting work. Finishing & treatment, staking and mulching are among the three elements that have been ranked as three lowest critical success factors for tree planting works. It is hoped that the findings would help to facilitate the QLASSIC in addressing quality assessment for landscape work. Besides, the findings can be a reference in the process of betterment the quality documents for landscape work in Malaysia.

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to many people who made this thesis possible. First of all my very special thanks to my supervisors, Dr. Noriah Othman and Associate Professor Dr. Khamarul Bahrain Shuib for their enthusiasm, inspiration and persistent guidance in helping me throughout the study.

I am also deeply indebted to Lar. Dr. Suhardi Maulan from UPM, Ir. Mukhtar Che Ali from CIDB, Marzifah Simis from NLD, LAr. Amir Shariffuddin from SP Setia Bhd and LAr. Siti Zakiah from DBKL and all respondents involved in the survey for their cooperation and contributions to this research.

Finally yet importantly, my deepest gratitude goes to my beloved wife Azny Azmi and sons Jas Zafran Adam and Jas Danish Maliq for their love, understanding, sacrifices and patience throughout my study.

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

This chapter outlines the background, aim and objective of the research. It also presents the conceptual framework of the research which includes the synopsis of research methodology, significance of the research and scope of the research. This chapter also presents the list of research questions which will aid the process of the research. Finally, the chapter presents the organization of the whole research process.

1.2 BACKGROUND OF THE RESEARCH

On 3rd March 2013, in conjunction with National Landscape Day, the Ministry of Federal Territories has launched a program to plant 1,970 trees in the Federal Territories (Utusan Malaysia, Jun 13, 2013). The program was part of the Greening Program that aimed to achieve 37,000 trees to be planted in three federal territories within the year of 2013. It was stated that among the objectives of the program is to support the campaign to turn Malaysia into a ‘Garden Nation’ by the year 2020. One of the missions was to plant a total of three millions trees by the year of 2000 and twenty millions by the year of 2020 (Noriah, 2004).

The inspiration of turning Malaysia into a ‘Garden Nation’ was conceived by the fourth Prime Minister, Tun Dr. Mahathir Bin Mohamed in 1997. Since then, landscape development in Malaysia has been experiencing a major change. Development of new urban centres and new townships and the expansion of the existing cities have shown a dramatic change in terms of landscape development in the projects. This vision has boosted rapidly the landscape development throughout the country that can be observed in Putrajaya, Cyberjaya and KLCC (Abdullah, 2003).

In the efforts to ensure the realization of a Garden Nation, the government of Malaysia through National Landscape Department (NLD) has established the National Landscape Policy in 2011. In conjunction with the establishment of the policy, Deputy Prime Minister of Malaysia, Tan Sri Dato’ Muhyiddin Yassin in his message highlighted that *“in the efforts to chart the development towards a high*