A STUDY ON ROAD TRAFFIC NOISE IN BANDAR SEBERANG JAYA S.P.T PULAU PINANG

By

WAN EIKA TANSUKASIH B. CHE DAUD

Report is submitted as the requirement for the degree of **Bachelor Engineering (Hons) (Civil)**

UNIVERSITI TEKNOLOGI MARA SEPTEMBER 2005

ACKNOWLEDGEMENT

In The Name of Allah, The Most Beneficent and The Most Merciful. All praises to Allah, God of the universe and peace be upon his messenger.

I would like to give my appreciation to all individual and group that had been helping me in preparing my research project. I am deeply indebted to my supervisor, Puan Satira Binti Hambali as a main advisor and Dr Ahmad Hilmy b. Abd Hamid as a co-advisor, for his guidance, comments and suggestion during the process of completing this project.

I also like to give my respect to Dr Mohd Sanusi S.Ahmad, Deputy Dean (Academic and Student Development), School Of Civil Engineering USM because his willingness to teach me IDRISI32 software.

I would also like to extent my appreciation to my family, especially my friend Mohd Aasyiq Tammimuddin b. Hashim, my cousin Mahadi Ibrahim for their support and understanding, also to Mr Muhammad Fauzan B. Jali and Mr Suffian my highway and traffic laboratory technicians for helping me to prepare on equipment facilities for this research.

Last but not least, I would like to thank to UiTM and all those involved, either directly or indirectly in making this project till success.

Thank You.

TABLE OF CONTENTS

	PAGE
TITLE PAGE	
DECLARATION BY CANDIDATE	
ACKNOWLEDGEMENT	i
TABLE OF CONTENT	ii
LIST OF TABLE	vi
LIST OF FIGURE	vii
LIST OF ABBREVIATIONS	x
LIST OF APPENDICES	xi
ABSTRACT	xii

CHAPTER

1.0	INTRODUCTION		
	1.1	Background	1
	1.2	Problem Statement	5
	1.3	Objectives	6
	1.4	Significant of Research	6
	1.5	Scope Of Study	7
2.0	LITE	CRATURE REVIEW	
	2.1	Background	8

2.2 Definition Of Traffic Noise	9
---------------------------------	---

ABSTRACT

This study produce noise map in Bandar Seberang Jaya SPT Pulau Pinang. It determines road traffic noise and it will be use in IDRISI32 software to produce map layer. It will be compare to the noise exposure level with the World Health Organization (WHO) standard. The field works involved are the determination of the noise level.. This study also showed that the noise exposure level from all the 20 sites exceeded the WHO standard for day and night.

Keywords: Road Traffic Noise, Noise Level, Noise Map.

CHAPTER 1

INTRODUCTION

1.1 Background

No one on earth can escape the sounds of noise- an unwanted, disturbing sound that causes a nuisance in the eye of the beholder.

Noise pollution can be defined as unwanted or offensive sounds that unreasonably intrude into our daily activities. It has many sources, most of which are associated with urban development: road, air and rail transport; industrial noise; neighborhood and recreational noise. A number of factors contribute to problems of high noise levels, including:

- Increasing population, particularly where it leads to increasing urbanization and urban consolidation; activities associated with urban living generally lead to increased noise levels
- Increasing volumes of road, rail and air traffic.

Community awareness of environmental noise has increased and there is a higher expectation for commonwealth, state and local government to reduce noise levels.

Noise is a disturbance to the human environment that is escalating at such a high rate that it will become a major threat to the quality of human lives. In the past thirty years, noise in all areas, especially in urban areas, has been increasing rapidly.

1