

**CENTRE OF STUDIES BUILDING SURVEYING  
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UNIVERSITI TEKNOLOGI MARA**

**A STUDY OF NOISE LEVELS ON TYPES OF BUILDING  
CONSTRUCTION WORKS**

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**Academic Project submitted in partial fulfilment of the  
requirements for the degree of  
Bachelor of Building Surveying (Hons)  
Centre of Studies for Building Surveying  
Faculty of Architecture, Planning & Surveying**

**December 2014**

## AUTHOR'S DECLARATION

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

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Date : January 22<sup>nd</sup>, 2015

## ABSTRACT

The construction sector is a vital part of the economy in most country, yet it is usually considered to be dirty, dangerous, unreliable, and hard. Construction and noise is very synonym together and it often cause people to make a complaint. As a developing country, Malaysia actively carrying out various construction activities such as construction of roads, administrative buildings, and also residential projects and an increase in activity can affect the safety and health of the parties involved. Although some steps have been taken to reduce the noise level at the area of the local community, but there are still a complained made by the community. The aim of this research is to find out the types of construction works that contribute to noise pollution and the objectives of the study are to identify the level of noise at the construction site, to identify the types of construction works that contribute to certain level of noise, and to identify whether noise from the construction works affects the people staying near the construction site. Noise pollution from construction sites is one of the major sources of noise pollution other than noise pollution from vehicles. High noise levels can lead to discomfort and negative effects to surrounding people. Therefore, a study was conducted to analyze the level of noise generated from the case study area. There are two methods used in this study, first the noise measurement conducted in three residential areas in Shah Alam which is near to the construction site by using Sound Level Meter (SLM) and the second method is in form of questionnaire to determine the level of noise exposure of the case study area to residents living near the construction site. The highest reading noise level using Sound Level Meter (SLM) among the 3 case study is at 10.30 am with 079 dB which is at iCity, followed by at 9.15 am with 078 dB also at iCity and the lowest noise level is at 9.30 am and 5.45 pm with 045 dB at Desa Alam.

## **ACKNOWLEDGEMENTS**

First and foremost, I would like to profess my utmost gratitude to Allah S.W.T. for giving me the strength and patience to complete this dissertation. Secondly, I would like to thank my dissertation supervisor, Mr Yazid bin Sarkom for his invaluable advice and guidance this past year in the preparation of this dissertation. I will always have the highest respect for his vast experience and encouragement toward students like me. I have also had the pleasure of knowing so many people that had selflessly given me their time and effort especially the respondents and all my lecturers in the Center of Studies for Building Surveying Faculty of Architecture, Planning & Surveying, UiTM Shah Alam. I would also like to thank my friends for being there when I needed them. Without all their support and affection, I would not have completed my dissertation on time. Special mention to my family especially my mother, Mrs Faridah binti Tamsir for all the support and understanding during the times when I have to be away from her while researching and writing my dissertation. I would like her to know how much I love and appreciate her and I sincerely hope that in completing this dissertation the best that I can, I have given her some justification for her sacrifices.

NURUL ATIQAH MOHD HIFFNI

# CHAPTER 1

## 1.0 INTRODUCTION

### 1.1 Background of the Study

The construction sector is a vital part of the economy in most country, yet it is usually considered to be dirty, dangerous, unreliable, and hard (Rowlinson, 2004). Where there is construction, there will be noise. That is how we can describe it. Construction and noise is very synonym together and it often cause people to make a complaint. Public will experience higher noise level within longer period of time. Goelzer et al. (as cited in Hansen, 2005) recognizes “noise as the most significant health hazard to the working population in terms of the number of people affected” (p. 1).

Noise pollution unlike other pollution because it is in the local environment of human and sometimes noise pollution occur unnoticed. Noise pollution also have negative effects to humans as air and water pollution. Adverse effects of noise pollution is that it brings negative effects on health and human physiology, that is why a serious attention should be given so that this problem can be overcome .

As a student majoring in building surveying who learned about the noise, the study of cases and the problems were studied in order to solve these problems, as well as to raise awareness of noise pollution that is happening around us. The study was conducted in order to balance the level of development and pollution that is happening around us. To study noise pollution, studies have been conducted in the area of construction, which is located in Shah Alam, Selangor and is located near a residential area. The construction area was chosen because it is close to residential areas which indirectly impacts on local residents.

Noise pollution from construction sites is one of the main causes of noise pollution. Noise pollution occurs as a result of sound reproduction at a high range and it happened in a long period of time.

According to World Health Organisation (as cited in WMA, 2013), noise is the principal environmental nuisance in industrial nations. According to Passchier and Passchier (2000), noise annoyance includes feelings of irritation, distress, discomfort, offence, or frustration when noise interferes with someone's thoughts, feeling or ongoing