

Potential use of overpasses in Pulau Pinang

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ABSTRACT

Land use in high-density areas should be in full accordance of acts, regulations, and related policies. The use of land under viaducts offers a lot of potential to ensure sources of income and employment opportunities for the needy. The objective of this study is to investigate the potential use of land under viaducts. The sample of this study is the viaduct in the Middle Circle, Seberang Jaya, and Pulau Pinang, which was selected using a simple random sampling technique. This research used a descriptive method to analyse data. The findings of this study identified five potentially suitable lands that could be developed for landscaping, pedestrians, murals, parking, and advertising boards. In this case, help and support from the government is necessary to use this land to provide benefits to the surrounding people and other users in general.

Keywords: Viaducts Potential, Overpasses, Descriptive Method

INTRODUCTION

Land use in high-density areas should be in full accordance of acts, regulations, and related policies. The use of land under viaducts offers a lot of potential to ensure sources of income and employment opportunities for the needy. The potential use of this land was divided into categories of acceptable use, and conditional use [1]. Land under viaducts is owned by the state government. Advanced approval must be obtained for any development or use of that land from the state government [2]. Additional approval must be obtained from the state's Chief Minister where the viaduct is located. This approval process is time consuming and quite complicated. Previous studies found that in Malaysia, land under viaducts was not fully utilized. This is because there are negative consequences to be borne, and because of the safety aspects of people near to these flyover developments [3].

Malaysia currently has a lot of vacant land that could be developed. However, to develop this land, there are many guidelines that must be followed. In Malaysia, the law relating to the construction of homes can be found in the National Land Code Act of 1965. This Act seeks to amend and consolidate the law relating to land and land tenure, registration of land title, and transactions related to revenue collection in the States of Johor, Kedah, Kelantan, Melaka, Negeri Sembilan, Pahang, Pulau Pinang, Perak, Perlis, Kuala Lumpur, Terengganu, and the Federal Territory of Kuala Lumpur; and for purposes connected therewith [2].

This study focuses on the viaduct in the Middle Circle, Seberang Jaya, Pulau Pinang. The objective of this study is to investigate the potential use of the land under the viaduct. This study consists of five chapters. Chapters One, Two, and Three form the theoretical framework of the study. Chapter One describes the background of the use of land under viaducts in general. Through that, research questions were identified and are described in conjunction with the objectives, scope, and methodology of the study. Chapter Two explains the use of land under viaducts overseas and in Malaysia in more detail, as well as a description of their design. Chapter Three focuses on the potential use of land under bridges using the conceptual framework formed in this study. Analysis of the potential use of the land under bridges is described in Chapter Four. Finally, Chapter Five summarizes the research findings on the potential use of land under viaducts.

MATERIALS AND METHODS

This study uses observation. Data and information was collected and then analysed using a descriptive method through the Statistical Package for the Social Sciences (SPSS).

RESULTS AND DISCUSSION

Through this analysis of the potential use of land under the viaduct in the Middle Circle, Seberang Jaya, Pulau Pinang, five (5) potentially suitable lands were found that could be developed for landscaping, pedestrians, mural paintings, parking lots, and advertising boards. This analysis was based on acceptable categories of use, in accordance with the Hong Kong Planning Department [1]

Landscaping

Of these potential uses was to create attractive landscape. However, the land under the viaduct was very broad and it would be great if new landscaping could improve the surrounding views. Colourful flowers could be an option for the designer; as shown in Figure 1.



Figure 1: Landscaping In Site Area
Sources : Picture edited by Norazmawati (2012)



Figure 2: Pedestrians In Site Area
Sources : Picture edited by Norazmawati (2012)

Pedestrians

In addition, the land under the viaduct in the Middle Circle, Seberang Jaya, Pulau Pinang could be used by pedestrians. People could walk and enjoy the beauty of the landscaping, as shown in Figure 2.

Mural Wall Paintings

Open views from the flyover could be achieved through mural wall paintings, as shown in Figure 3. This could be done by a professional artist using 3D techniques.



Figure 3: Mural Wall Paintings In Site Area
Sources : Picture edited by Norazmawati (2012)

Car Park

In addition, the land under the viaduct could also be used as a car park, as shown in Figure 4. This would be an appropriate use, because in front of the bridge there is an apartment, with stalls selling fruit, food, and drinks, which are usually packed with vehicles at opening times.



Figure 4: Car Park In Site Area
Sources : Picture edited by Norazmawati (2012)

Advertising Boards

The next potential use of the land under the viaduct is for advertising boards, as shown in Figure 5.



Figure 5: Advertising Boards In Site Area

Sources : Picture edited by Norazmawati (2012)

Through this analysis of the potential use of land under the viaduct in the Middle Circle, Seberang Jaya, Pulau Pinang, five (5) potentially suitable lands were found that could be developed for landscaping, pedestrians, mural paintings, parking lots, and advertising boards.

CONCLUSION

Although there are many potential applications for the land under the bridge, not all use categories that are in accordance with the flyover. This depends on the suitability of the location of the bridge, its surrounding circumstances, traffic flow, and road user safety for users. Relevant factors to be considered are listed in the National Land Code 1965 [2] and Uniform Building Law 1984 [4]. This guarantees and ensures comfortable and safe use for all road users and consumers of this particular bridge in the Middle Circle, Seberang Jaya, Pulau Pinang.

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