Abstract

In recent years, most of Indonesia's infrastructure development has been fully encouraged by the government so that the economy for the entire region will be more evenly distributed by connecting all regions. Due to widely open connectivity and equally distribution of infrastructure development, Batam City also has an increment interest in the high rise buildings construction. This was also emphasized through a supportive statement from the Batam Local Authority to allocate land for vertical buildings. With the given trend, thus basement constructions in a building is also increasingly popular.

Construction method is the most crucial part in execution of a construction and need to be adapted to on-site conditions. There are two types of basement construction method, namely the bottom-up construction method and the top-down construction method. The purpose of this study is to analyze the comparison of construction method, cost and time difference between bottom-up construction method with top-down construction method. This research uses quantitative research methods, where data is collected, interpreted, and displayed in numerical form.

The results of this study indicate that basement construction with top-down construction methods required special expertises and more concentious than top-down construction method. On the execution, top-down construction method is more time efficient comparing to bottom-up construction method. Due to top-down construction method allow both basement construction and building construction execute in the same time. In cost wise, top-down construction method IDR16,971,100,000,- is pricier by 11.86% compare to bottom-up construction method IDR14,389,900,000,-. In time wise, top-down construction method for 231 days perform more efficient by 27.27% compare to bottom-up construction method for 294 days.

Keywords: Basement, Bottom-up, Top-down, Method, Construction