TIME AND COST ANALYSIS OF SEMI SYSTEM FORMWORK METHOD (HOLLOW STEEL) WITH CONVENTIONAL ONE IN PUNCAK KERTAJAYA APARTMENT PROJECT

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ABSTRACT

The rapid growth of construction technology has led semi system formwork method to be a beneficial alternative method using hollow steel 50.50.1,6 due to time and cost expense aspect. Semi system formwork has more advantages than wood formwork due to the durability from the weather. But the initial cost of hollow steel is more expensive than wood formwork.

The objective of the research was to compare the usage conventional formwork with semi system formwork using hollow steel 50.50.1,6 based on time and cost aspect. Comparison study began from literature study and collecting data. Comparison analysis between 2 alternative consist of some activities as follows, construction analysis, construction method of formwork analysis, material requirement analysis, productivity analysis, duration estimating and cost estimating.

From the analysis, it can be shown that cost estimation of beam and slab formwork using semi system alternative in Puncak Kertajaya Apartment project is IDR. 4,283,940,876.00 while cost estimation using conventional formwork is IDR. 4,514,736,868.00. Duration estimation of conventional formwork activity is ± 7 days longer than semi system formwork.

Keyword : semi system formwork, hollow 50.50.1,6