ABSTRACT

EVALUATION OF STRUCTURE FEASIBILITY OF SUSPENDED SLAB AND BEAM IN 5-STOREY KALIBAN SCHOOL PROJECT

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This study aims to evaluate the feasibility of suspended slab and beam structures on the 5-storey Kaliban School Project based on existing regulations in Indonesia. The reason of this research is the importance of the role of structures in buildings to withstand existing burdens. Errors in structural design can cause a lot of adverse effects including casualities. There are many factors which cause design errors such as lack of skill of a planning consultant, saving construction costs, and other factors.

The research method used by the author is evaluative quantitative research. The study was analyzed based on comparison of data with existing regulations and drawing conclusion. The research data was obtained from interviews with related parties, shop drawings, and applicable regulations in Indonesia.

The output of this study is suspended slab and B2's beam design on the 2nd floor of the Kaliban School Project is unsuitable with the results of the author's calculation. Therefore, the author changes the existing design of the suspended slab and B2's beam reinforcement specifications. So the calculation results of the design revision by the author produce suspended slab and B2's beam design on the 2nd floor which are suitable for use at the Kaliban School Project.

Keywords: Beam, suspended slab, concrete, SNI

