



**CONTROLLING CONSTRUCTION MATERIAL
PROCUREMENT USING THE MATERIAL REQUIREMENT
PLANNING (MRP) METHOD IN THE FOX LOGGER
OFFICE PROJECT - JAKARTA**

UNDERGRADUATE THESIS

Submitted as one of the requirements to obtain

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TURNITIN

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ABSTRACT

The size of the land area affects the course of the project. An example is the Fox Logger Office construction project which has a small land area of 196.43 m². Many obstacles arose due to these conditions, one of which was that there was no material storage in the project area. If a project does not have space to store materials, it will result in all materials being unable to be stored in the project area. In other words, with the remaining space, there is only a little material that can be stored or material that will be used immediately. Therefore, the project manager usually works around this by renting a warehouse outside the project area. However, renting a warehouse means additional costs are incurred during the material procurement process. In a project, an unexpected cost increase certainly disappoints some parties. Therefore, in this study, the authors try to reduce the additional costs of renting a material warehouse. Storage costs will be eliminated by making a very detailed material ordering schedule according to the needs of each job. This research will be assisted by the Material Requirement Planning method using the Fixed Period Requirement and Lot-for-Lot calculation technique. This method is beneficial for reducing material inventory costs in Fox Logger Office construction projects. After calculation and comparison, the writer saved IDR 36,000,000 on holding costs using Lot-for-Lot technique. Therefore the authors highly recommend using a material management system with the MRP method if the conditions in the project are similar to the Fox Logger Office project.

Keywords: Material Management, Material Requirement Planning, *Lot-sizing*, Lot-for-Lot, Fixed Period Requirement

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