ABSTRACT

Construction project has a high risk that many important factors that influence the outcome of a project called with 5 M, the man, money, method, material and machine. But, the construction industry still face problems of inefficiency in the implementation phase of the construction process. Still a lot of waste in the form of activities that uses resources but does not adding value. Therefore requires an approach using lean construction methods to identify and eliminate waste.

This research will be identified waste that occurs in the process construction of Widya Mandala University (UWM) Surabaya and then look for alternative solutions to mitigate the impact of waste. By applying lean construction methods projects can become more efficient and timeliness in the execution. To scheduling and project control will be done by applying Critical Chain Project Management (CCPM). The purpose of CCPM scheduling is to avoid the problems that occur on the project, such as student syndrome, Parkinson's law effects that can lead to delays.

The results from this study that indicate of waste in UWM construction building projects. Waste is causing the risk that must be addressed by the implementers. Formulation of these risks made recommendations for improvement using project risk management on the incidence of risk. And implementation of
Critical Chain Project Management scheduling indicates that the project duration can be reduced to 330 days.

**Key word : Lean Construction; Project Management; Critical Chain.**