ABSTRAK

Surabaya City is flood-prone areas and frequent congestion. The road condition in Surabaya is considered less meet the capacity of existing vehicles. Those things that cause the closure of the city of Surabaya to develop alternative channels to the Box Culvert. Construction of Box Culvert is one development that pose high risks to the project and the surrounding environment. Therefore we need a special handling in accordance with the risk that be a problem on this project. This study aims to conduct a series of risk analysis in construction projects in Surabaya Box Culvert.

In general, the stages in this research can be classified into three steps, namely identification, risk analysis and risk response. Identification is performed to find out risk factors that are relevant in this project. This stage is conducted by studying literature, and were then validated by a preliminary survey using interview method. Risk analysis is aimed at discovering some significant risk factor in terms of time and cost aspects. Risk analysis is carried out based on the main survey result as the follow up from a preliminary survey. The method used in the analysis is Severity Index, combined with Probability-Impact Matrix (Probability-Impact Grid). Risk response made to the risk variables which are significant to the time and cost aspects. In
overall, the survey was conducted through a combination of structured interview method (face-to-face interviews) and questionnaires involving some of stakeholder od Box Culver project in Surabaya.

The results of this research found four kinds of risks are significant risks to the cost of flooding, the error cost estimation, congestion, and error to determine elevation and 10 are significant risks with respect to time of late payment by the owner, buttress root circumference, erratic weather, cost estimation error, estimation error time, low kualitad supervision, lack of landfill material, jams, floods that occurred in the vicinity of the project, the error in determining the elevation.

Key Words: Risk Analysis, Risk Identification, Box Culvert. severity index, probability-impact matrix.