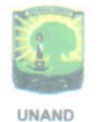


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DAMAGE EVALUATION OF FLY-OVER BRIDGE STRUCTURE IN PULAU BRAYAN AFTER EXPOSED TO FIRE

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ABSTRACT

This research is a field study on the Pulau Brayan fly-over in Medan after exposed to fire on January 18, 2011. The preliminary study of a series of studies to be done. The purpose of this study is limited to characteristic of damage concrete and the visual mapping of structural elements after exposed to fire. The study was conducted four days after the fire.

In general, exposure to fire only on the west side of the road bridge Yos Sudarso. Crack damage concrete visually only on the west side of the road bridge Yos Sudarso span beams along 3 rows and 2 columns. Worst damage occurred in the beam spans the western abutment and two of the worst field conditions occurred on the second line of the abutment. Forecast temperatures occur in the worst affected districts in the range 500°C-800°C. Typical damage in the form of the release of the side surface of the structural elements and only a few points that occur to exposed reinforcement. The spread of spalling occurs in two spans on the west side of the abutment nearest well on the column or logs.

I. INTRODUCTION

A. Background of Study

Fly-over in Brayan Island on Wednesday evening January 18, 2011 suffered considerable fire. These fires have caused damage the structure of the beam (girder) bridge suffered severe damage. One of visual observation of the instructions of the beam had cracked in several sections.

Based on the evaluation at a glance by the manager of the Road and Bridge