

The Prediction and Prevention of Potholes in Road

by Yawen LIU supervised by Dr. Nick Thom, Pro. Gordon Airey

Research Background

Majority of the roads throughout the world are constructed by using asphalt mixtures which deteriorated with the passage of time. Pothole is one of the highly visible deteriorations on footway, cycleway and road defect. However the mechanism inside of pothole formation is not that advanced.

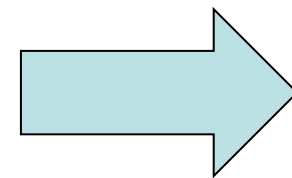


Figure 1: Fracture Pothole and Attrition Pothole

Aim and Object

The main purpose of this project is to improve the engineering understanding of pothole behaviour mechanisms including initiation and distress development and therefore to develop a prototype pothole repair test device.

Current Progress

Wheel tracking test: experiments to simulate pothole formation by producing some cracks and/or potholes on the surface of the specimen.

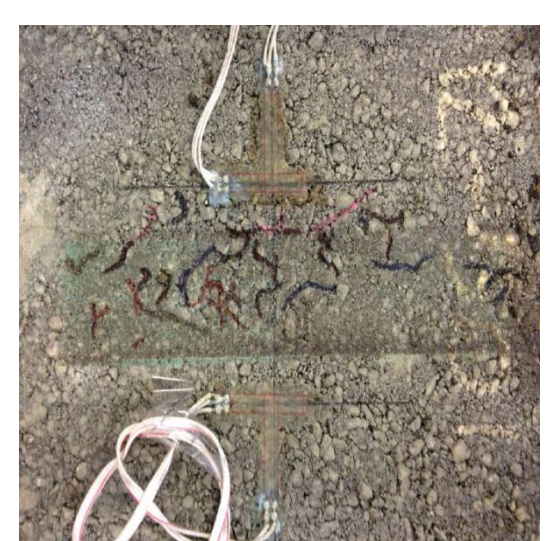


Figure 2: Wheel Tracking Device and finally Sample Surface

