EVALUATION OF CONCRETE PAVEMENT CRACKS ALONG VINAGRE – HUYONHUYON TIGAON TO STO NINO SANGAY ROAD, CAMARINES SUR

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ABSTRACT

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This study was conducted to evaluate of Concrete Pavement Cracks along Vinagre-Huyonhuyon,Tigaon to Sto. Niño Sangay. The study specifically aims to : The present road condition in terms of: a) Pavement Condition, b) Road Utilization. We identified what are the types of cracks present in the Portland cement concrete pavement per 500 meter length, in term of: a) Pavement Cracking, b) Pavement Deformation, c) Pavement Texture Deficiencies and was rated based on Pavement Surface Evaluation Rating(PASER) Manual. The possible causes of cracks on concrete pavement per 500 meter length, due to presence of: a) Pavement Structure, b) Drainage Structure c) Traffic Loading.

This study made used of descriptive evaluative method as research design and the researchers used the formula of standard deviation, weighted mean, frequency counts. To determine the type of pavement Cracks that take place in concrete pavement for every 500 meters length. Rating enable the research to rate the condition of the concrete pavement road and the rating is based on the PASER Manual.

The findings for surface road condition in terms of Pavement Condition and Road Utilization, Pavement Condition, was rating (1) failed. Its percentage came to 91-67%, with the study is not enough to sustain its serviceability due to poor construction. Road utilization base on traffic counting conducted the most numbers of vehicles arrived was in a peak hour which is 5:00-6:00 PM.

The findings for the types of cracks present in the Portland cement concrete pavement(PCCP) in terms of Pavement Cracking, the identified types of cracks are Alligator crack ,Transverse Cracks, Meander, Blocks, Slippage, Diagonal and Longitudinal Cracks. In terms of Pavement Deformation, the identified types of Cracks on a pavement settlement are Corrugation, Shoving, Depression, and Rutting. In terms of Pavement Texture Deficiencies are Polishing, Flushing, Raveling.

The findings for the possible causes of cracks in Concrete Pavement due to the presence of Pavement Structure, Drainage Structure, Traffic Loading. Base on Pavement Structure the researches identified the road does not comply the proper requirements of flexible Pavements. For drainage structure, we identified that no drainage construct that cause the water to stay in. In the concrete pavement and the traffic loading is one of the most affects the concrete pavement that causes of cracking or breaking.