



Analysis of Alberta's pavement capacity to support winter weight premiums

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Author: Thiam, Papa-Masseck
Bradley, Allan

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Abstract: FPInnovations, in cooperation with Alberta Transportation and the Laval University i3C Chair, undertook a review of the starting threshold for initiating winter weight hauling in Alberta. The objective of this project was to conduct an engineering analysis of freezing pavements to determine the minimum frost depth at which log hauling at winter weight premiums (WWP) in Alberta could start without compromising pavement service life. The report describes literature on freezing pavement engineering, Canadian winter weight policies, a controlled trafficking simulation of an instrumented pavement as it was frozen, and subsequent modeling to validate results and extrapolate results of a wider range of pavement structures. It was recommended that the current 1.0 m starting frost depth threshold be reduced to a depth of 700 mm.

Documents



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