

Department Memorandum

Idaho Transportation Department



DATE: February 6, 2013 **Program Number(s)**

TO: Pavement Management System Consumers **Key Number(s)**

FROM: Karen A. Strauss, PE **Program ID, County, Etc.**

RE: 0.3 crack index increase for sealcoats

The purpose of this memo is to inform you that effective 2013, the 0.3 crack index increase will no longer be included in the current year percent good/fair pavement percentage calculation. It will remain in the Pavement Management System.

Summary

Effective 2013 (and for 2012 reporting), the 0.3 increase given for preventative maintenance projects will be manually removed from reporting numbers. The increase will remain in the Pavement Management System and in our business practices.

Users of the pavement management system will see absolutely no changes in values or business practices or predictions. The only change is the numbers reported annually for the Key Performance Indicator. This subtraction will be done manually, outside the system.

In the meantime, the 0.3 crack index will remain in all data and will remain a business practice. Sealcoats and other preventative maintenance will still be given the raise, and the system will operate as designed. This is essential to how the system predicts deterioration of our pavements. The only place the 0.3 will be removed is manually from the numbers used to calculate and report our Percent Good/Fair Pavement Key Performance Indicator, and they will only be manually removed for the current year. For example, 2012 sealcoat credits are removed for the 2012 KPI, but will be included in the calculation of the 2013 KPI.

Cause

Traditionally, the cracking index of our pavements has been a reflection of our pavement's condition. We perform an annual survey to determine the crack index of our state highways, and use it to calculate our overall Good/Fair Pavement Condition Index.

A pavement becomes a 5.0 after any pavement project that increases structural strength. Examples are reconstruction, CRABS, mill and inlay, cold in place recycle, and the like. The thinnest of these projects that would still return a pavement to 5.0 is a pavement overlay of 1.8".

In the past, pavement preventative maintenance projects, such as thin overlays, zipper patching, maintenance patching, sealcoats, microseals, and BSTs would not change the crack index of pavement because they did not change the structural strength of a pavement.

In 2010, we went live with the new Pavement Management System in TAMS. This system uses a complex system of pavement deterioration curves, decision trees and performance models to determine how to predict future pavement condition. In order to make a decision tree pick a sealcoat project, there had to be a mathematical

benefit. Thus, we instituted a rule where a sealcoat would give a pavement a crack index increase of 0.3. The system can calculate the benefit of the selection and quickly determine if it's a good choice.

However, we did not predict how much this would affect our deficiency percentage calculation. We perform sealcoats on pavements that are deficient, and they suddenly appear as Fair condition instead of Poor condition, where in fact their structural strength has not changed. Thus, we are giving our percent good/fair pavement a false low. Subtracting out this false low will give us a more accurate reading of our pavement's condition.

Conclusion

Removing the 0.3 crack index increase from the TAMS Pavement Management System will be a complex operation and we will want to replace it with something just as effective that still encourages the system (and district programmers) to choose preventative maintenance. Thus it will stay in the system for the immediate time being, until we can consult with pavement engineers, planners and designers in the districts and at Headquarters and come up with a solution that best reflects how our preventative maintenance projects behave.

We expect that this will be the only year where this manual subtraction has to be done.

If you have any questions about this decision, please contact me.



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