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## Article

### A Project-Based Sustainability Rating Tool for Pavement Maintenance

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**Research****Sustainable Infrastructure—Article****A Project-Based Sustainability Rating Tool for Pavement Maintenance**

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**ABSTRACT**

Pavements require maintenance to prevent undue distress or to restore performance; however, pavement maintenance and its impacts do not receive enough attention in many cases, and are either ignored or treated as a low priority. Most current maintenance activities have budget issues and only focus on removing deteriorated pavement sections. Deferred pavement maintenance has impacts on the environment and on society, and may thus affect the costs associated with maintenance. A sustainability rating tool is a good way to list, explain, and evaluate such impacts. Various sustainability rating tools have been developed for pavement; however, pavement maintenance has its own features that are different from those of the new construction, expansion, or reconstruction of pavements. This research project reviews nine sustainability rating tools for pavement, although none of these tools fully describe maintenance features or can be directly applied to evaluate maintenance projects. A new sustainability rating tool is then developed for pavement maintenance; this new tool can be used to evaluate individual projects and raise public awareness about the importance of pavement maintenance. Its details are described, and its use is demonstrated through an example to show the evaluation process and results.

**1. Introduction**

When addressing the problems that appear after pavements are built, some transportation agencies or pavement owners wait until the pavements fall into poor condition to take action, while others use preservation while the pavements are still in good condition. Both types of actions can be considered as

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