

A Pavement Rating System for Low-Volume Asphalt Roads

ASPHALT PAVEMENT RATING FORM

STREET OR ROUTE _____ CITY OR COUNTY _____
 LENGTH OF PROJECT _____ WIDTH _____
 PAVEMENT TYPE _____ DATE _____

(Note: A rating of "0" indicates defect does not occur)

DEFECTS	RATING
Transverse Cracks	0-5
Longitudinal Cracks	0-5
Alligator Cracks	0-10
Shrinkage Cracks	0-5
Rutting	0-10
Corrugations	0-5
Raveling	0-10
Shoving or Pushing	0-10
Pot Holes	0-5
Excess Asphalt	0-10
Polished Aggregate	0-10
Deficient Drainage	0-10
Overall Riding Quality (0 is excellent; 10 is very poor)	0-10
Sum of Defects	_____

Condition Rating = 100 - Sum of Defects
 = 100 - _____

Condition Rating =

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INTRODUCTION

For those individuals or agencies with the responsibility of maintaining low-volume roads and streets, deciding which roads should get first attention is often difficult. One factor complicating the decision is the variety of types of pavement distress — some serious, others rather insignificant. This publication presents a system that utilizes the experience of an engineer, maintenance superintendent, or foreman to assign a numerical value to each type of pavement defect, taking into account both the extent of distress and its relative seriousness. The sum of these numerical values provides a fairly accurate, though subjective, index of the general condition of the road. The index can be useful in setting maintenance priorities.

Part 1 of this publication explains the pavement condition rating system. Part 2 contains photographs and descriptions of the different types of distress.

PART 1

WHERE THE SYSTEM APPLIES

The rating system is intended for agencies or organizations not having the benefit of specialized highway engineering experience and without access to conventional testing facilities. It is designed to apply to relatively low-volume roads and streets — those that carry fewer than 1,000 cars and 50 trucks per day.

MAKING THE INSPECTION

An effective way of inspecting a pavement is first to drive slowly over the road to get an overall impression of its condition. Then, to make a thorough inspection on foot, making rough notes on the type and extent of distress as one goes along. When the inspection is completed, the rating form is filled out. It may be useful to drive again slowly over the pavement after filling out the rating form. Since the system is based on personal judgment, better results are obtained when two or more experienced individuals independently rate the pavements and the results are averaged.

RATING A ROAD

As mentioned earlier, some defects affect the performance of a pavement more than others. Under this rating system, the less serious problems are assigned values between 0 and 5. Defects of a more serious nature — those directly related to the strength of the pavement — are rated on a scale of 0 to 10. A rating of 0 means that the pavement is free of that particular type of distress. Part 2 of this publication should be helpful in identifying the different types of defects.

When assigning a rating to a particular type of defect, it is important to consider both its extent and severity. For example, a rating of 10 for “rutting” would indicate that it occurs on much or all of the road, and that the ruts are probably deep enough to be a safety hazard, especially during rain, and an impediment to traffic at all times. On the other hand, a rating of 1 for “corrugations” would indicate that corrugations, although evident, are not numerous and that at present the distortions are not very large.

After each defect is rated, the individual ratings are added. This sum is then subtracted from 100, and the result is simply called the “condition rating.”

The procedures contained herein are considered reliable. However The Asphalt Institute can accept no responsibility for inappropriate use of this rating system.

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Excess Asphalt	0-10	_____
Polished Aggregate	0-5	_____
Deficient Drainage	0-10	_____
Overall Riding Quality (0 is excellent; 10 is very poor)	0-10	_____
Sum of Defects		_____

Condition Rating = 100 - Sum of Defects

= 100 - _____

Condition Rating =

Figure 1. Asphalt pavement rating form.