



**RULE-MAKING ORDER**  
(RCW 34.05.360)

**CR-103** (10/1/89)

Agency: County Road Administration Board

- Permanent Rule  
 Emergency Rule

(1) Date of adoption: May 4, 1993

(2) Purpose: Revises permanent rules for the implementaion of Chapter 42, laws of 1990, regarding pavement management systems

(3) Citation of existing rules affected by this order:

- Repealed:  
Amended: WAC 136, Chapter 320  
Suspended:

(4) Authority for adoption:

- Statute: RCW 36.78.070 and 46.68.095(4)  
Other Authority:

(5.1) **PERMANENT RULE ONLY**

Pursuant to notice filed as WSR 93-07-045 on March 15, 1993 (date).  
Describe any changes other than editing from proposed to adopted version:

(5.2) **EMERGENCY RULE ONLY**

Pursuant to RCW 34.05.350 the agency for good cause finds:

- (a) That immediate adoption, amendment, or repeal of a rule is necessary for the preservation of the public health, safety, or general welfare, and that observing the time requirements of notice and opportunity to comment upon adoption of a permanent rule would be contrary to the public interest.  
 (b) That state or federal law or federal rule or a federal deadline for state receipt of federal funds requires immediate adoption of a rule.

Reasons for this finding:

(5.3) Any other findings required by other provisions of law as precondition to adoption or effectiveness of rule?

- Yes  No If yes, explain:

(6) Effective date of rule:

**Permanent Rules**

**Emergency Rules**

- 31 days after filing  
 Other (specify) \_\_\_\_\_ \*
- Immediately  
 Later (specify) \_\_\_\_\_

\*(If less than 31 days after filing, specific finding in 5.3 under RCW 34.05.380(3) is required)

**CODE REVISER USE ONLY**

CODE REVISER'S OFFICE  
STATE OF WASHINGTON  
FILED

JUN 23 1993

TIME: 2:46  
WSR: 93-13-003  
4

NAME (TYPE OR PRINT)

Vern E. Wagar

SIGNATURE

*Vern E. Wagar*

TITLE

Executive Director

DATE

6/1/93

AMENDATORY SECTION (Amending Order 81, filed 11/6/90, effective 12/7/90)

**WAC 136-320-010 Definition.** A pavement management system ~~((PMS))~~ is a systematic ~~((method used to preserve and maintain paved road systems by analyzing pavement life cycles, determining when and what kind of pavement preservation work is necessary and most cost effective, and budgeting funds accordingly to prevent major road deterioration. A key element of a PMS is the capacity to plan))~~ analytical tool used to preserve and maintain paved road systems by periodic surveys of pavement condition and analysis of pavement life cycles to assess overall system performance and costs, and to determine the alternative strategies and costs necessary to prevent significant road deterioration. A key element of a PMS is its ability to provide pavement preservation ((work)) alternatives based upon a predictive pavement deterioration model ((or process)).

AMENDATORY SECTION (Amending Order 81, filed 11/6/90, effective 12/7/90)

**WAC 136-320-020 Application.** A ~~((county's))~~ pavement management system shall be ~~((applied to the pavement preservation and rehabilitation activities of all county paved arterials. Application to the local access system, although desirable, shall not be required to receive CAPA))~~ used by all counties to guide the pavement preservation and rehabilitation activities on all county paved arterial roads. Beginning January 1, 1996, each county shall utilize a computer-based pavement management system (PMS) meeting the requirements of WAC 136-320-030 on all county paved arterial roads in order to retain eligibility for CAPP funds. Application of the PMS to the local access system will not be required to retain eligibility for CAPP funds.

AMENDATORY SECTION (Amending Order 81, filed 11/6/90, effective 12/7/90)

**WAC 136-320-030 ~~((Submittals by counties.))~~ Pavement management system requirements.** ~~((In order for a county to be eligible for CAPA funds the county road engineer must submit a description of the county's current pavement management system. Work done prior to the submittal of the pavement management system description shall not be eligible for CAPA funding. The description must contain sufficient information, including specific~~

~~policies and/or procedures, to evaluate the adequacy of the following items:~~

~~(1) System definition. The PMS must assure that all paved arterial lane miles are included for analysis and that system changes, additions, and deletions are periodically incorporated into the system definition. This shall also include a system of maintaining a historical record of all resurfacing and/or rehabilitation work on all paved arterials.~~

~~(2) Condition rating criteria. The PMS must contain specific descriptions of how pavement condition is determined, the frequency of the determination, and the threshold(s) at which the various preservation actions should be programmed. Condition determination, frequency, and thresholds may vary depending upon pavement type and operational characteristics of road groups.~~

~~(3) Annual prioritization. The PMS must contain specific description of the county's method for the advance determination of which paved arterial road segments will receive priority in the annual expenditure for pavement preservation and rehabilitation regardless of the source of the funds. This item shall also include discussion of how local access roads are included in the prioritization process.~~

~~(4) Advance programming. The PMS must contain specific description of the county's procedures to estimate future pavement preservation and reconstruction needs on at least an annual basis so as to prevent major arterial road deterioration.)~~ Each county's PMS shall meet the following minimum standards:

(1) All county jurisdiction paved arterials, as defined by the most recently approved county road log as described in chapter 136-60 WAC, shall be surveyed for visual pavement distress at least biennially. Distress rating information must be keyed to the county road log by both road number and mileposts.

(2) All visual distresses (or defects) for both flexible and rigid pavements, both in severity and extent, shall be as defined within the "Pavement Surface Condition Rating Manual" (March 1992, produced by the Washington state transportation center in cooperation with the Northwest Pavement Management Systems Users Group and the Washington state department of transportation). Only those distresses noted as "core program defect" are required to be surveyed. Measurement may be at the project, segment, or sample unit level. Measurement for each distress will be by:

(a) Selection of the most predominant severity and extent combination; or

(b) Determination of the extent percent of each level of severity.

Measurement may be by a manual or automated visual condition rating process. The distress information will be converted to a pavement condition rating in accordance with a standard deduct matrix or continuous deduct value curves as provided by the CRABoard. Alternate deduct matrices may be used by a county for internal management analyses. Alternate distress determination and evaluation methodologies may be used if approved by the CRABoard in accordance with WAC 136-320-040.

(3) The PMS shall provide for the recording and storage of pavement resurfacing, rehabilitation, and reconstruction history data, including surfacing and base layer types and thicknesses, and year of application. Counties will not be required to determine

such information for any work done prior to the county's implementation date.

(4) The PMS shall include a future pavement condition prediction model that uses the periodic pavement condition distress data to forecast future pavement condition and to determine an estimate of service life.

(5) The PMS shall provide for annual downloading to the CRABoard of one of the following for all paved arterials surveyed for pavement condition in the previous twelve months:

(a) The individual pavement distresses;

(b) The resultant pavement condition rating based on the CRABoard-provided standard deduct matrix; or

(c) The resultant pavement condition rating for an approved alternative PMS as described in WAC 136-320-040.

Such downloading shall be called the pavement condition data file. It shall be keyed to the county road log, and shall be transmitted in the electronic medium and format specified by the CRABoard, along with the annual road log update required by chapter 136-60 WAC.

AMENDATORY SECTION (Amending Order 81, filed 11/6/90, effective 12/7/90)

WAC 136-320-040 ((Evaluation-)) **Alternative pavement management system requirements.** ((Upon receipt of a county's pavement management system description, the executive director shall evaluate it as to its adequacy in meeting the requirements. The executive director shall notify the county road engineer of the evaluation.)) **Alternative PMS distress determination and evaluation methodologies, processes, or systems may be used if they yield pavement condition ratings comparable to the process described in WAC 136-320-030(2).** Counties intending to use an alternative process must satisfactorily demonstrate to the CRABoard that the alternative process is based on sound pavement engineering principles and is comparable in quality and scale through research results, documented conversion equations, statistical sampling, or other methods.

AMENDATORY SECTION (Amending Order 81, filed 11/6/90, effective 12/7/90)

WAC 136-320-050 ((Modifications-)) **State-wide pavement condition data file.** ((Subsequent to the initial submittal of a county's pavement management system description, the county road engineer shall notify the executive director, in writing, of any substantive changes in the county's PMS process. All changes will be evaluated by the executive director in the same manner as the original evaluation and notification provided to the county road engineer.)) **The county road administration board shall maintain a**

pavement condition data file, organized by county, containing the pavement condition ratings as provided annually by each county.

AMENDATORY SECTION (Amending Order 81, filed 11/6/90, effective 12/7/90)

**WAC 136-320-060 Annual review.** (~~In conjunction with the annual determination of CAPA allocations as set forth in chapter 136-310 WAC, the executive director shall review the status of each county's pavement management system and report his findings to the CRABoard. The review shall consider the original description submittal, any subsequent modifications and a staff evaluation of the adequacy of implementation. The staff evaluation shall be drafted and a copy sent to the respective county engineer not less than two weeks prior to the CRABoard's annual CAPA allocation meeting.~~) On an annual basis, beginning in calendar year 1993, the executive director of the county road administration board shall review the implementation of and, beginning in calendar year 1995, the compliance with the requirements of WAC 136-320-030 or 136-320-040 and report the results to the CRABoard.

AMENDATORY SECTION (Amending Order 81, filed 11/6/90, effective 12/7/90)

**WAC 136-320-070 (~~Standardization~~) CRAB assistance.** (~~(1) Distress methodology. In order to achieve uniformity in pavement condition determination for analysis and reporting purposes, the CRABoard shall adopt one or more standard pavement distress identification and analysis methodologies. Upon adoption, the standard or standards shall be provided to each county. Each county shall utilize the adopted standard/standards or an acceptable alternate.~~

(2) ~~Alternate methodologies. Any county which utilizes pavement condition or distress data different from a CRAB standard shall either modify its PMS process to accommodate the standard or shall demonstrate to the satisfaction of the CRABoard the equivalency of county's method to the CRAB standard. The county shall be responsible for providing any research documents, conversion equations, or other technical support such that the county's pavement condition data can be correctly converted to the CRAB standard.~~

(3) ~~Retention of CAPA eligibility. No county shall be eligible for CAPA funds that have not met the requirements of subsections (1) and (2) of this section within three years of CRAB's promulgation of standards.)~~ To enable each county to meet its eligibility requirements, CRAB shall provide a PMS software application and training as part of its agency-supported county road information system. CRAB shall also provide to counties, upon request, administrative and technical assistance related to

defining, developing, operating, managing, and utilizing pavement management technology.

AMENDATORY SECTION (Amending Order 81, filed 11/6/90, effective 12/7/90)

WAC 136-320-080 ((CRAB—assistance.)) Use of pavement management system data for distribution of county arterial preservation account funds. ((To enable each county to meet its eligibility requirements, CRAB will update its existing WSC2 PMS micro computer software so that it is fully integrated with the county road log through the county road information system (CRIS). Upon completion, CRAB will make the updated software and appropriate training available to counties on request. CRAB shall also provide, on request, administrative and technical assistance related to defining, developing, operating, managing, and utilizing current pavement management technology.)) The results and/or data from the individual or collective county PMS's will not be used to distribute county arterial preservation funds nor to establish priorities for specific projects or otherwise alter the statutory fund distribution. Said results and/or data will be used to evaluate regional or state-wide arterial pavement preservation and rehabilitation needs and to demonstrate compliance with the enabling legislation.