



# Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

January 11, 2001

WET-PAVEMENT CRASH REDUCTION PROGRAM  
COUNTY ENGINEERS/SUPERINTENDENT OF HIGHWAYS  
MUNICIPAL ENGINEERS/DIRECTORS OF PUBLIC WORKS  
CONSULTING ENGINEERS

#01-01

Information regarding the Illinois Department of Transportation's Skid Accident Reduction Program was introduced in 1984 as Circular Letter 84-12 and revised in 1990 as Circular Letter 90-28. This program is designed to minimize wet-pavement skidding accidents by ensuring that the new roadway surfaces have adequate, durable skid resistance properties and by identifying and improving sections of roadway with high skid-accident incidence. While this program is mandatory on all federal-aid and State funded projects, use on MFT projects is optional.

Attached for use is revised Department Policy TRA-16, which establishes guidelines for this program and an update of Figure 5-8h of the Bureau of Local Roads and Streets' Administrative Policies and the Federal-Aid Procedures Manuals. Circular letter 01-01 replaces Circular Letter 90-28 and is effective immediately. The new bituminous concrete mixtures should be used on all appropriate sites.

Please direct any questions that may arise to your District Office.

Sincerely,

A handwritten signature in cursive script that reads "Darrell W. McMurray".

Darrell W. McMurray, P.E.  
Engineer of Local Roads and Streets

Please replace Figure 5-8h in Chapter 5 Section 8.3.c(3) on page 5-8-34 of the Administrative Manual and on page 5-8-34 of the Federal-Aid Procedures with the following figure.

**Figure 5-8h. Skid-Resistant Mixtures (Class I)**

| Mixture | Suggested ADT Usage  |
|---------|--|
| C       | All roads and streets - ADT of 5,000 or less   |
| D       | 2 lane roads and streets - ADT greater than 5000<br>4 lane roads and streets - ADT between 5,001 and 25,000<br>6 lane roads and streets - ADT 60,000 or less |
| E       | 4 lane roads and streets - ADT between 25,001 and 100,000<br>6 lane roads and streets - ADT between 60,001 and 100,000                                       |
| F       | All roads and streets - ADT of 100,001 or greater  |



# Illinois Department of Transportation Departmental Policies

TRA-16  
February 4, 2000

## WET-PAVEMENT CRASH REDUCTION PROGRAM

### 1. Policy

It is the policy of the Department to maintain procedures to minimize wet-pavement skidding crashes. These guidelines are intended to provide high skid resistance qualities using available materials and techniques, within available resources.

### 2. Purpose

The purpose of this policy is to provide new roadway surfaces which incorporate adequate, durable skid resistant properties which may prove effective in the reduction of wet-pavement skidding crashes, and which can be implemented in a cost-effective way given available resources. This policy applies to all federal and state funded projects on the interstate, primary, federal-aid secondary, and federal-aid urban systems, except maintenance and intermittent resurfacing projects.

### 3. Guidelines for Implementation

#### A. Primary Activities

- 1) The first activity (3B) consists of incorporating adequate, durable skid-resistant roadway surfaces during construction and rehabilitation of highway pavement segments.
- 2) The second activity (3C) involves identifying, analyzing, and improving wet-pavement cluster sites located within rehabilitation/resurfacing projects.
- 3) The third activity (3D) concerns analyzing field testing data to evaluate the effectiveness of previous wet-pavement crash reduction efforts.

B. Incorporation of Skid-Resistant Surfaces During Construction and Rehabilitation

1) Portland Cement Concrete

- a) Final finishing (of surfaces) on highways with posted speed limits in excess of 40 mph (65 km/hr) will be a Type A final finish as outlined in the Standard Specifications for Road and Bridge Construction.
- b) Final finishing (of surfaces) on highways with posted speed limits not exceeding 40 mph (65 km/hr) will be a Type A or Type B final finish as outlined in the Standard Specifications for Road and Bridge Construction.

2) Bituminous Concrete

New surface courses shall have friction qualities equivalent to or greater than those provided by the following guidelines. Traffic levels from the expected year of construction should be used to determine the mixture.

- a) Mixture C shall be used as the Class I surface course on roads and streets having an ADT of 5,000 or less.
- b) Mixture D shall be used as the Class I surface course on two-lane roads and streets having an ADT greater than 5,000, on four-lane highways having an ADT between 5,001 and 25,000, and on six-lane (or greater) highways having an ADT of 60,000 or less.
- c) Mixture E shall be used as the Class I surface course on four-lane highways having an ADT between 25,001 and 100,000 or on six-lane (or greater) highways having an ADT between 60,001 and 100,000.
- d) Mixture F shall be used as the Class I surface course on any facility having an ADT greater than 100,000.

The specification will describe the allowable coarse aggregates and proportions for use in Mixtures C, D, E, and F. The plans for each project will indicate the mixture type.

C. Identifying, Analyzing, and Improving Wet-Pavement Cluster Site Locations

1) Identification

When a route is selected for rehabilitation/resurfacing, the wet-pavement crash records, furnished by the Division of Traffic Safety/local agency, shall be analyzed for the entire project. The identification of cluster sites shall be as outlined in Section I of "A Procedure for Identifying, Analyzing, and Improving Wet-Pavement Crash Locations Within Rehabilitation/Resurfacing Projects," which is included in the "Illinois Safety Improvement Processes."

2) Analysis

Each cluster site that is identified must be analyzed by District/local agency personnel. The analysis shall comply with Section II of "A Procedure for Identifying, Analyzing, and Improving Wet-Pavement Crash Locations Within Rehabilitation/Resurfacing Projects," which is included in the "Illinois Safety Improvement Processes."

3) Corrective Treatment

After analyzing each cluster site, the District/local agency shall select the appropriate corrective treatment in accordance with Section III of "A Procedure for Identifying, Analyzing, and Improving Wet-Pavement Crash Locations Within Rehabilitation/Resurfacing Projects," which is included in the "Illinois Safety Improvement Processes."

4) Documentation of Process

The identification, analysis, and improvement of each cluster site must be documented and become part of the location study report for State projects or project development report for local agency projects.

D. Evaluating and Reporting on the Effectiveness of the Wet-Pavement Crash Reduction Program

- 1) The Bureau of Materials and Physical Research will continue to evaluate current pavement design practices to ensure that skid resistance properties are suitable for traffic needs. This will be accomplished by friction testing and evaluating a representative sample of pavements containing common aggregates and blends.
- 2) The Bureau of Materials and Physical Research will maintain a representative friction-test data base for retrieval and for subsequent data analysis.
- 3) The Bureau of Materials and Physical Research will conduct evaluations of experimental projects which provide a broad body of knowledge concerning frictional characteristics applicable to Illinois surfaces.
- 4) The Bureau of Materials and Physical Research, in cooperation with the Bureaus of Operations and Local Roads and Streets and the Division of Traffic Safety, will prepare a report every 5 years summarizing activities of Illinois' Wet-Pavement Crash Reduction Program on both the State and local highway systems.
- 5) The Division of Traffic Safety, in cooperation with the Bureau of Operations and the Districts, will determine whether selected countermeasures on rehabilitation/resurfacing projects have been effective in reducing wet-pavement crashes. The results of the evaluation will be furnished to the Bureau of Materials and Physical Research for inclusion in their 5-year reports.

E. Exceptions to the Policy

While the intent is to follow this policy, there may be circumstances when exceptions may be allowed.

- 1) A shortage of materials may require substituting aggregate types or modifying aggregate blends. Such changes are only allowed with the approval of the Director of Highways.
- 2) The use of new aggregates or aggregate blends is allowed in accordance with experimental feature policies.

4. Responsibilities

- A. The Directors of Highways and Traffic Safety are responsible for assuring that their Divisions comply with the procedures set forth in this Policy.
- B. The Bureau of Operations is responsible for the maintenance, updating and dissemination of this Policy.
- C. The Bureau of Materials and Physical Research is responsible for pavement friction testing.

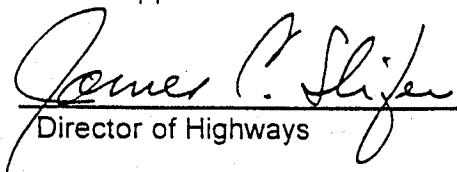
5. Accessibility

Copies of this policy may be obtained from the Bureau of Operations, Harry R. Hanley Administration Building.

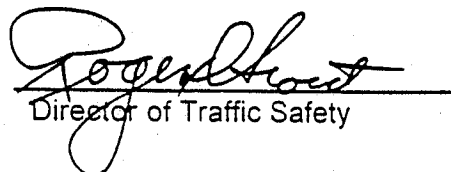
CLOSING NOTICE

Supersedes: Departmental Policy SKID ACCIDENT REDUCTION PROGRAM, Effective December 1, 1988

Approval:

  
Director of Highways

2/09/00  
Date

  
Director of Traffic Safety

9 Feb 2000  
Date