



U.S. Department
of Transportation

**Federal Highway
Administration**

Memorandum

6300 Georgetown Pike
McLean, Virginia 22101

Subject: **ACTION**: LTPP Directive D-68
*Errata—Distress Identification Manual
for the Long-Term Pavement Performance Program*
Publication No. FHWA-HRT-13-092 Revised May 2014

Date: March 3, 2021

From: Deborah Walker
Long-Term Infrastructure Performance Team

Reply to
Attn of: HRDI-30

To: Mr. Gabe Cimini, PM - LTPP Data Collection Contract

Attached is the Long-Term Pavement Performance (LTPP) Program Directive D-68. This directive is to document the changes made to the descriptions for fatigue cracking on flexible pavements and the new requirements for measuring transverse profile (rutting) in the *Distress Identification Manual for the Long-Term Pavement Performance Program*, FHWA-HRT-13-092.

Please ensure that all personnel involved with the distress data collection for the LTPP program are aware of this new directive. Should you have any questions or would like to discuss this directive, please do not hesitate to contact Deborah Walker via email at deborah.walker@dot.gov or (202) 493-3068.

Attachments (2)

FHWA:HRDI-30 D. Walker:jeh:202-493-3068:03/03/21

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cc:

Jonathan Groeger
Deborah Walker
Directive Binder
LTPP Team
Official file

LONG-TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



For the Technical Direction of the LTPP Program



Program Area:	Monitoring	Directive Number:	D-68
Date:	March 3, 2021	Supersedes:	N/A
Subject:	<i>Errata–Distress Identification Manual for the Long-Term Pavement Performance Program Publication No. FHWA-HRT-13-092 Revised May 2014</i>		

The Long-Term Pavement Performance (LTPP) program performed a review of the descriptions for fatigue cracking on flexible pavements and made changes to the requirements for measuring transverse profile (rutting). The changes made to the descriptions because of this review including the new requirements for measuring transverse profile are documented in the attached errata to the *Distress Identification Manual for the Long-Term Pavement Performance Program*, FHWA-HRT-13-092.

The LTPP data collection contractor shall immediately implement these changes to the program's pavement distress data collection protocols.

Prepared by: FHWA/TSSC

Approved by:

Jean A. Nehme, Ph.D., P.E.
Long-Term Infrastructure Performance
Team Leader (HRDI-30)



Errata

Date: March 3, 2021

Issuing Office: Federal Highway Administration—Office of Research, Development, and Technology: Infrastructure R&D

Address: Turner-Fairbank Highway Research Center, 6300 Georgetown Pike, McLean, VA 22101

Name of Document: *Distress Identification Manual for the Long-Term Pavement Performance Program*

FHWA Publication No.: FHWA-HRT-13-092

The following changes were made to the description and severity levels for fatigue cracking and the requirements for measuring transverse profile (rutting) described in the document after publication on the Federal Highway Administration website:

Location	Incorrect Values	Corrected Values
Page 4	Revision to Description	<p>This distress is a progressive cracking pattern that can be observed as a series of interconnected meandering mostly longitudinal cracks in the low severity stages and transforms into many-sided, interconnected cracks in an alligator or chicken-wire pattern in the moderate to high severity stages.</p> <p>The cracking patterns in this category must have a quantifiable area. In most cases these cracks initiate from the wheel path, but are not always constrained to the wheel paths. Areas of shortly spaced (<0.3 m) transverse cracks in the wheel path are classified as Fatigue Cracking. Fatigue Cracking is also known as “alligator cracking.”</p> <p>While this distress is named Fatigue Cracking, it should not be interpreted as representing classical forms of mechanistic-based fatigue cracking since cracks conforming to this definition are not always constrained to wheel path locations.</p>
Page 4	Revision to Low Severity Level	<p>An area of cracks with no or only a few connecting cracks; areas of closely spaced (<0.3 m) transverse cracks in the wheel path; cracks are not spalled or sealed; and pumping is not evident.</p>



Location	Incorrect Values	Corrected Values
Page 4	Revision to Moderate Severity Level	An area of many-sided, interconnected cracks, containing sharp-angle pieces, usually less than 0.3 m in the longest side, forming a complete chicken-wire/alligator-skin pattern; cracks may be slightly spalled; cracks may be sealed; and pumping is not evident.
Page 4	Revision to High Severity Level	An area of moderately or severely spalled interconnected cracks containing sharp-angle pieces, usually less than 0.3 m in the longest side, forming a complete chicken-wire/alligator-skin pattern; cracks may be sealed; and pumping of subsurface materials may be evident on the pavement surface.
Page 4	Revision to How to Measure	Record affected areas at each severity level in square meters. If different severity levels existing within an area cannot be distinguished, rate the entire area at the highest severity present. Where fatigue cracking and edge cracking exist, and overlap in the same area, both should be rated.
Page 22	Revision to How to Measure	All other LTPP sections: Transverse profile is measured according to the requirements in the latest version of the <i>LTPP Manual for Collection and Processing of Longitudinal Profile, Macrotexture, and Transverse Profile Data</i> .
Page 85	Revision to Glossary, Fatigue Cracking	Areas of mostly longitudinal meandering interconnected cracks, regions of shortly spaced transverse cracks in the wheel paths, and areas of alligator patterned cracks that typically initiate from the wheel paths, but are not constrained to the wheel paths (also called “alligator cracking”).
Appendix C	Revision to Current LTPP Profile Manual	<p>Publication Number: TBD (Under editorial review)</p> <p>Date: Summer 2021</p> <p>Title: <i>LTPP Manual for Collection and Processing of Longitudinal Profile, Macrotexture, and Transverse Profile Data</i></p> <p>Contact LTPP Customer Support Service Center at ltpinfo@dot.gov if you have any questions.</p>