

LONG TERM PAVEMENT PERFORMANCE PROGRAM DIRECTIVE



*For the Technical Direction of the LTPP
Program*



Program Area:	General Operations	Directive Number: GO-23
Date:	July 30, 1999	Supersedes: SHRP-LTPP-OM-002
Subject:	Guidelines for Signing and Marking of LTPP Test Sections	

INTRODUCTION

This directive was originally issued in July, 1988 as Strategic Highway Research Program (SHRP) Long Term Pavement Performance (LTPP) Operational Memorandum (OM) 002. This version supersedes OM-002 but does not substantially revise the original guidelines (i.e., no change in general policy). The primary purpose for the update is to be more consistent with contemporary LTPP terminology and related Directives.

To assist LTPP data collection crews and participating agency maintenance crews in locating and identifying LTPP sections, signing and marking of the test sites is required. These guidelines describe the signing and marking details.

SIGN LOCATIONS AND DETAILS

A 610 x 910 mm (24 x 36 in.) reflectorized sign, designated Sign A, should be installed facing traffic, 150 m (500 ft.) in advance of the test section (General Pavement Studies - GPS) or group of test sections (Specific Pavement Studies - SPS), as shown in Figure 1. For GPS test sections, the entire six-digit LTPP Section ID should appear on the sign. For SPS projects, only the first four digits of the LTPP Project ID should appear on the sign. At the option of the participating agency, a sign may be placed prior to the beginning of each SPS section. This sign will help alert data collection crews to the proximity of the test section or project.

A 305 x 380 mm (12 x 15 in.) sign, designated Sign B, should be installed parallel to the traffic direction at the edge of right-of-way exactly at the beginning of each test section as shown in Figure 1. This sign will serve as a permanent marker of the test section.

Details of Signs A and B are shown in Figure 2. Sign A will include a SHRP logo, "Road Test," and a six-digit LTPP Section ID number for GPS sections and a four-digit number for SPS projects. Sign B

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will include the word “SHRP,” and the six-digit LTPP Section ID number. The applicable ID number is designated by the LTPP Regional Coordination Office (RCO). Addresses and phone numbers of LTPP RCO’s are listed in Appendix A.

MARKING LOCATIONS AND DETAILS

Test sections should be marked by two white paint stripes, nominally 150 mm (6 in.) wide, across the test lane. The stripes should be located exactly at the beginning and end of the test section, as shown in Figure 1.

For General Pavement Studies (GPS) test sections, the maintenance control zone is located adjacent to the ends of the test section as shown in Figure 1. For Specific Pavement Studies (SPS) projects, which generally consist of multiple test sections, the maintenance control zone is established prior to the first test section and is terminated after the last project test section. For SPS sites with test section(s) located more than 1.6-km (1-mile) apart, the maintenance control zone should be established for each group of test sections. The maintenance control zone should be marked by two white paint stripes, nominally 150 mm (6 in.) wide, across the test lane. The stripes should be located 150 m (500 ft.) in advance of the test section or project, as applicable and 75 m (250 ft.) beyond the test section or project, as shown in Figure 1.

The LTPP Section ID number should be painted at the beginning of the test section near the outside shoulder, as shown in Figure 3. The ID number will be designated by the LTPP RCO.

Each test section is divided into five, 30 m (100 ft.) long subsections. Therefore, “crosses” should be painted at the beginning of the test section and every 30 m (100 ft.), and marked consecutively with the numbers 0, 1, 2, 3, 4, and 5, as shown in Figure 3. The numbers zero and five should be painted at the beginning and end of each test section, respectively. Approximately 150 mm (6 in.) high letters should be used.

Monuments (in the form of nails, spikes, or rebars) should be installed in the shoulder, exactly at the beginning and end of the test section, as shown in Figure 1. These monuments will serve as a section marker in case of sign loss or pavement paint wear.

Also, delineators with 3 and 2 blue reflectors should be installed at the beginning and end of each test section, respectively, as shown in Figure 1.

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QUESTIONS

Questions or concerns related to this directive should be addressed in writing to the FHWA LTPP team and to the appropriate RCO contact.

Approved by

Monte Symons
LTPP Program Manager

Prepared by: Technical Support Services Contractor

NOT TO SCALE

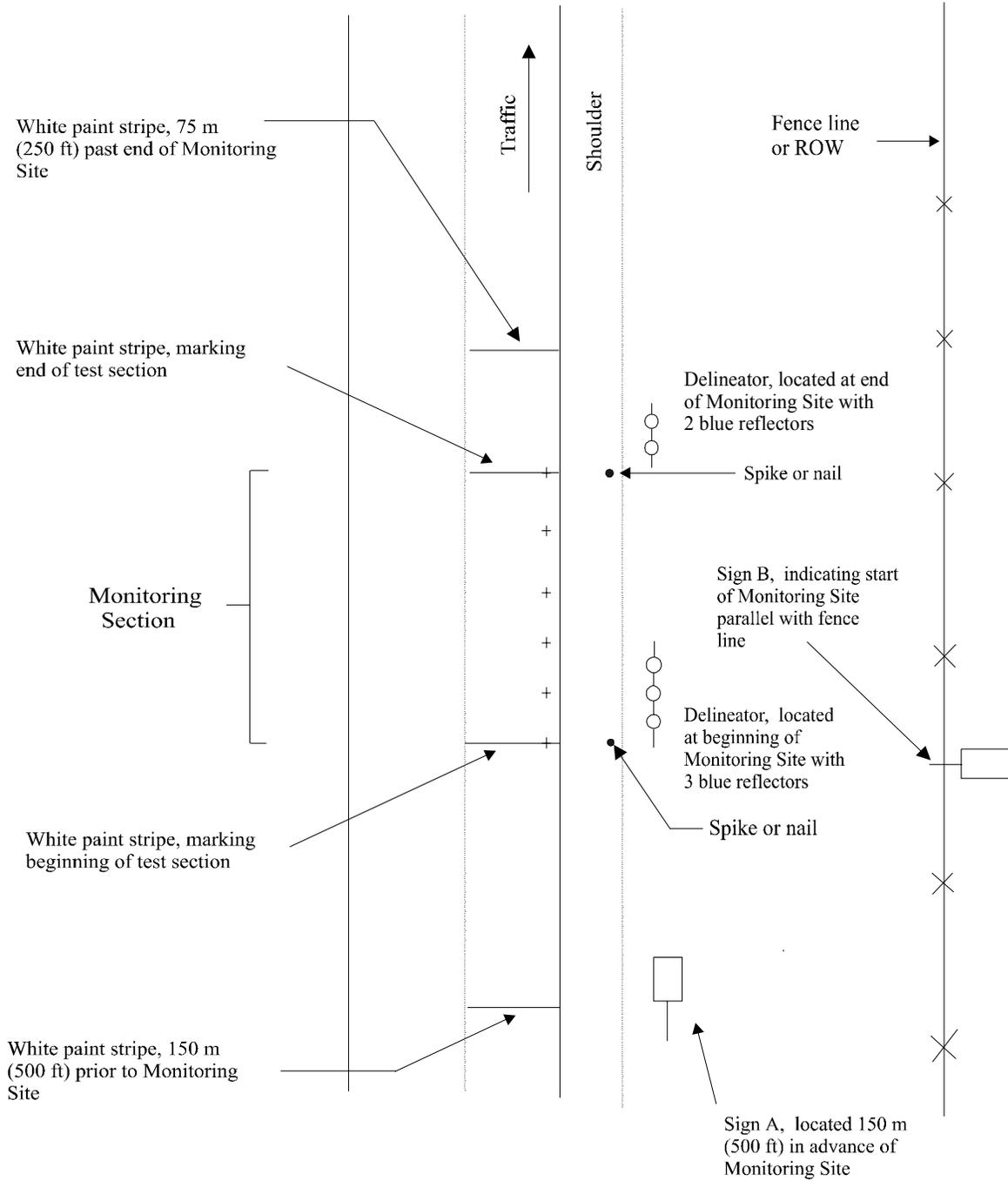
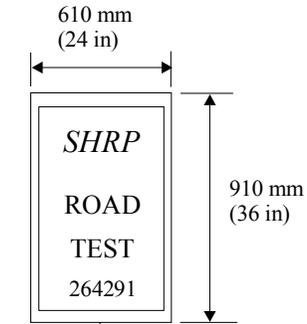


Figure 1. General marking and signing layout of monitoring section or site

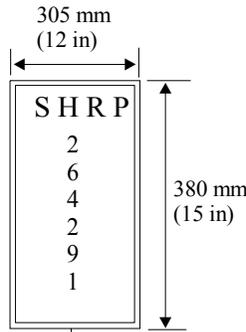
NOT TO SCALE



Sign A Detail

Notes:

- Blue background
- White letters
- White border, 25 mm (1 in) wide, 12 mm (0.5 in) offset from edge
- Letters and numbers, 100 mm (4 in) high
- SHRP logo 150 mm-x 225 mm (6 in by 9 in)



Sign B Detail

Notes:

- Blue background
- White letters
- White border, 13 mm (0.5 in) wide, 13 mm (0.5 in) offset from edge
- Letters and numbers, 38 mm (1.5 in) high

Figure 2. Sign details

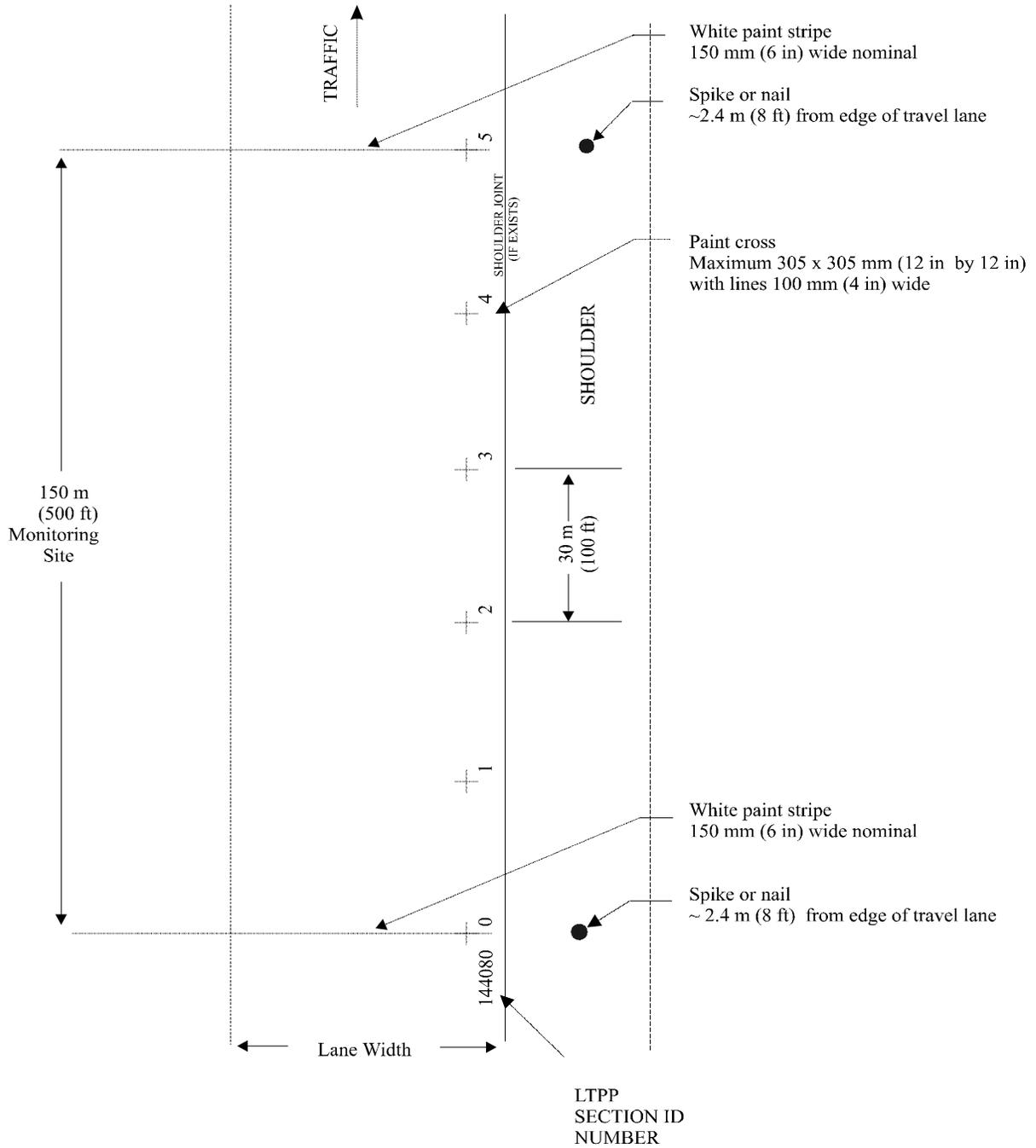


Figure 3. Details of monitoring site paint configuration

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Appendix A
FHWA LTPP Program Contacts

LTPP Headquarters

U.S. Department of Transportation
Federal Highway Administration
Turner-Fairbank Highway Research Center
Office of Infrastructure R&D
6300 Georgetown Pike, HRDI-13
McLean, VA 22101-2296
Tel: (202) 493-3143
Fax: (202) 493-3161

LTPP Regional Coordination Offices

North Atlantic Region

Area: North Carolina, Virginia, West Virginia, Maryland, Delaware, District of Columbia, New Jersey, Pennsylvania, New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, Maine, Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland.

Contractor: Stantec Consulting, Inc.
415 Lawrence Bell Drive, Suite 3
Amherst, NY 14221
Phone: (716) 632-5205
Fax: (716) 632-4808

North Central Region

Area: Kansas, Missouri, Kentucky, Ohio, Indiana, Illinois, Iowa, Nebraska, South Dakota, North Dakota, Minnesota, Wisconsin, Michigan, Manitoba, and Saskatchewan.

Contractor: ERES Consultants, Inc.
505 West University Avenue
Champaign, IL 61820-3918
Phone: (217) 356-4500
Fax: (217) 356-3088

Southern Region

Area: New Mexico, Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Tennessee, Alabama, Georgia, South Carolina, Florida, and Puerto Rico.

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Contractor: FUGRO-BRE
8240 MoPac Expressway, Suite 220
Austin, TX 78759
Phone: (512) 346-0870
Fax: (512) 346-8750
Western Region

Area: Arizona, California, Hawaii, Nevada, Utah, Colorado, Wyoming, Idaho, Oregon, Washington, Montana, Alaska, British Columbia, and Alberta.

Contact: Nichols Consulting Engineers, Chtd.
1885 S. Arlington Avenue, Suite 111
Reno, NV 89509
Phone: (702) 329-4955
Fax: (702) 329-5098