

# LTPP Newsletter

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## LTPP's MRL: A Warehouse of High-Profile Pavement Research Materials

The Long-Term Pavement Performance (LTPP) program's Materials Reference Library (MRL) is a storage facility established in the late 1980s that houses a wide range of highway research materials, including asphalt binder, natural aggregates, asphalt mixtures, portland cement, and pavement cores from numerous research experiments.<sup>(1,2,3)</sup> This collection includes materials from LTPP, asphalt and aggregate samples from the original Strategic Highway Research Program (SHRP), and material samples from WesTrack and other projects.<sup>(2)</sup> The facility relocated from Austin, TX, to Reno, NV, in 1993 and is operated by a private U.S. engineering company.

The LTPP operations team strives to maintain the MRL facility and is proud to continue supporting the pavement material research community. Some of the MRL's notable achievements over the past year include the following:

- Material testing support for LTPP's Warm-Mix Asphalt Overlay of Asphalt Pavements (SPS-10) experiment:<sup>(4)</sup> The MRL is assisting the Federal Highway Administration (FHWA) in completing post-construction material testing for 14 SPS-10 projects. Since FHWA built the



Source: FHWA.

first SPS-10 project in 2015, the MRL has served as a liaison between the collected field samples and the material testing laboratory. At the time of this writing, all material testing is complete, and the MRL is helping to finalize and close out LTPP's Materials Tracking System for SPS-10 materials.

- New inventory added: The MRL has been adding inventory from Turner-Fairbank Highway Research Center (TFHRC). TFHRC requested the MRL receive and make available older Accelerated Loading Facility samples of interest to the research community to make room for samples from FHWA's newly

constructed Pavement Testing Facility (PTF).<sup>(5)</sup> The MRL received a second batch of these materials last winter. In addition, the MRL received a shipment of legacy materials from the NCHRP 09-65 research project (standard practices and tests for the design of durable asphalt mixtures with high recycled asphalt materials), the FHWA Asphalt Mixture Performance Tester Demonstration project, and untested spare SPS-10 samples returned from the material testing laboratory.<sup>(6)</sup>

- Material request support: The MRL fulfilled a material request from Dr. Fujie Zhou at the Texas Transportation Institute

to support the [NCHRP 09-57B](#) research project, field validation of laboratory cracking tests, and corresponding performance criteria for asphalt mixtures.<sup>(7)</sup> Dr. Zhou provided the following statement:

“The MRL has supported many FHWA and NCHRP cutting-edge research projects, and it will continue to play a vital role in new pavement technology development and construction of long-lasting infrastructure from which everyone will benefit.”

FHWA encourages researchers to utilize the diverse range of research materials available at the MRL and looks forward to discovering what these materials can reveal about pavements. For more information about the MRL, please visit the [InfoPave™ operations web page](#) or contact Larry Wiser at (202) 493-3079 or [larry.wiser@dot.gov](mailto:larry.wiser@dot.gov).<sup>(1)</sup>

### LTPP Restarts State Visits

The LTPP team, including FHWA and contractor staff, successfully conducted visits with two States during the summer of 2024 to discuss LTPP’s activities, products, benefits, and future plans; pavement-related needs specific to each State; and collaboration opportunities between each State and LTPP. The meetings also covered the importance of States contacting the LTPP team prior to performing maintenance or rehabilitation activities at the LTPP test sections.

On July 2, 2024, the LTPP team met with the Washington State Department of Transportation (WSDOT). Over 25 WSDOT staff attended the meeting, which was led by State Pavement Engineer Mohamed Nimeri. FHWA’s Washington Division Administrator Ralph Rizzo attended the meeting and provided opening remarks. WSDOT was highly engaged in

learning about LTPP activities and products, and LTPP provided updates on planned work activities on active LTPP projects. LTPP and WSDOT share mutual excitement about future collaboration, including the National Partnership to Improve the Quality of Pavement Preservation Treatment Construction and Data Collection Practices (PG Phase III).<sup>(8)</sup>

On July 22, 2024, the LTPP team met with North Dakota Department of Transportation (NDDOT) staff in Fargo, ND, led by Materials and Research Division Engineer Amy Beise. Other attendees included Joe Callaway from the FHWA ND Division Office and Brian Zuroff, executive director of the North Dakota Concrete Council (NDCC), who contributed valuable perspectives. The LTPP team addressed NDDOT’s concerns to continue monitoring the Strategic Study of Structural Factors for Rigid Pavements (SPS-2) experiment test sections and provided guidance regarding maintaining other active LTPP test sections. Following the meeting, the participants visited the SPS-2 site.

The next State visit will be in January with the Texas Department of Transportation and looks forward to holding more one-on-one meetings with other State partners to discuss the LTPP program. Please contact [ltppinfo@dot.gov](mailto:ltppinfo@dot.gov) to schedule a State visit.

### LTPP InfoPave™ 2024 Enhancements and Standard Data Release 38

The updated [LTPP InfoPave](#) web portal was released on August 26, 2024.<sup>(9)</sup> The 2024 release includes enhancements to the web portal features and functionality for a better user experience, as well as the LTPP database’s 38th Standard Data Release. Following are some highlights from this release:

- Key enhancements have been implemented to improve LTPP data filtering, advance data analysis capabilities, and enhance data visualization features.
- A new analysis-ready construction features dataset has been added to the database. Additional data updates were made to other analysis-ready datasets, performance monitoring and traffic data, and the final warm-mix asphalt test results.
- Raw data files were added to the ancillary information management system for warm-mix asphalt overlay material tests, performance monitoring, and traffic data from 2023 and 2024.
- New data filters were added for pavement family (i.e., asphalt on unbound base) and diurnal profile data availability.

A detailed list of the 2024 enhancements and data updates can be found in the [Release Notes](#) in the Help section of the InfoPave web portal.<sup>(10)</sup>

### LTPP Webinars

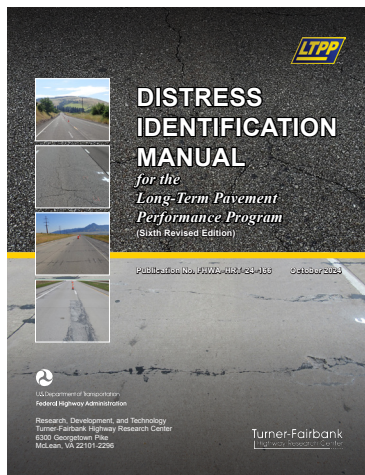
The LTPP program held the following webinars between May 2024 and the end of the year:

- May 23: Analysis-Ready Datasets for Materials and Construction Features Data.
- June 20: Analysis-Ready Datasets for Climate, Traffic, and Performance Data.
- November 14: LTPP Materials Data (Overview of MRL and SPS-10 Materials Data).
- December 12: LTPP Backcalculation Analysis.

Please email [ltppinfo@dot.gov](mailto:ltppinfo@dot.gov) to receive recordings of any of the webinars. LTPP is preparing to host more webinars starting in the first quarter of 2025.



## LTPP Updates Distress Identification Manual



Source: FHWA.

A critical performance metric to the LTPP program is surface distress. In recognition of the importance of quality data to the success of the program, numerous steps have been implemented over time, including FHWA's publication of the *Distress Identification Manual* or DIM—the program's most popular product. The DIM was first issued in 1987 to provide a consistent, uniform basis for collecting pavement distress data for the LTPP program. For the past 10 years, the fifth edition of the DIM has been used. LTPP is delighted to announce the release of an updated DIM (sixth edition), which includes changes addressing errata and revisions issued via [LTPP program directives](#).<sup>(11,12)</sup>

## Distress Rater Workshop

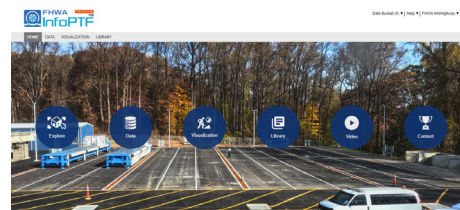
The LTPP program implemented distress rater accreditation workshops soon after the program formed to calibrate participants involved in the collection and quality review of surface distress data. The workshops are intended to calibrate—not to teach—experienced raters. Because LTPP distress surveys can only be performed by accredited raters, the workshops are held every couple of years. At workshops, raters must demonstrate the ability to identify and quantify distresses, as measured via office quizzes and field exercises. The

LTPP program recently completed the reaccreditation of seven long-time distress raters at an Illinois DOT (IDOT) workshop near IDOT's [Illinois Certification and Research Track \(ICART\) facility](#) the week of November 4, 2024.<sup>(13)</sup>

## Profiler Rodeo Held at IDOT ICART Facility

Like pavement surface distress, ride quality (including longitudinal and transverse profiles) is an important performance metric to the LTPP program. LTPP and States use inertial profilers almost exclusively for the collection of such data, and—as part of the quality process—profiler “rodeos” are periodically held to verify the accuracy (via comparison with reference measurements) and precision (via repeat measurements) of the profilers. IDOT held the latest profiler “rodeo” at the ICART facility during the week of November 4, 2024.

## FHWA InfoPTF™ Public Release



Source: FHWA.

The Long-Term Infrastructure Performance team is excited to announce the inaugural release of FHWA's [InfoPTF web portal](#), which contains the data collected from FHWA's Pavement Testing Facility at TFHRC.<sup>(14)</sup> The portal includes data collected from construction, material testing results (including asphalt pavement and geotechnical materials), nondestructive evaluation testing results, onsite weather station data, and soil moisture sensor data.

## Recent Publications

### Reports

[Estimating Design Lane Truck Volumes From HPMS Traffic](#)

[Data for Long-Term Pavement Performance Analyses:](#)  
FHWA-HRT-23-103.<sup>(15)</sup>

### TechNotes

[LTPP Analysis-Ready Datasets: New Features and Exciting Opportunities:](#)  
FHWA-HRT-24-134.<sup>(16)</sup>

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