This successful program has shown us that we can have confidence that preservation treatments such as fog seal and ultrathin asphalt overlay (0.75 mm) do work on high-traffic-volume roadways in the short term. We can apply this knowledge as we continue to advance, develop, and refine our preservation activities and keep our roadways in better shape using the most cost-effective techniques.

—Binh H. Bui
Research Implementation Manager, Georgia Department of Transportation

The guidelines provide a means of looking at preservation options to reconsider for high-traffic-volume roads because times have changed, the economy has changed, and the applications may be quite different now.

—Richard Miller, Kansas Department of Transportation

**What the Guidelines Contain**

**Preservation Analysis Tool and Instructions**
- Four modules enable the user to identify the right project and the right technique for the conditions of the project.
  - Application Paverment
  - Performance Measures
  - Treatment Toolkit Setup and Management Project Analysis
  - Resources

**Data Collection Guide**
- The guide helps agencies identify the data needed for a number of decisions and analyses, including:
  - Evaluating the suitability of roadway projects for pavement preservation and the feasibility of different treatments for a selected project.
  - Designing the selected project to accommodate a selected treatment and constructing the treatment according to specifications.
  - Monitoring the performance of the constructed treatment and evaluating its cost-effectiveness in a high-traffic-volume scenario.

**Other Guidance Documents to help agencies address:**
- Factors to look for in selecting project and treatment selections.
- Examples of scenarios for identifying feasible treatments.

**Pavement Preservation Solutions in Action**
- **West Virginia:** Following its pilot project, West Virginia Department of Highways (WVDOH) is developing new specifications to expand the use of a variety of preservation techniques. In places where formerly only hot-mix asphalt might be specified, WVDOH is adding options such as cape seals or microsurfacing.
- **Kentucky:** Facing sharply rising asphalt prices, the Kentucky Transportation Cabinet (KYTC) is using the guidelines to broaden its use of pavement preservation. Help them keep good roads in good condition longer, and "catch more miles for less money." Using the guidelines, KYTC built a small-scale "test track" with separate treatments in 1,500-foot segments on a four-lane rural arterial with average daily traffic of 12,800 vehicles. By monitoring the roadway for rutting, cracking, raveling, pitting, and International Roughness Index (IRI), KYTC officials can identify the best treatments that work for certain conditions. KYTC also uses the site for training its staff and local governments, as well as executive leadership.
- **Rhode Island:** The Rhode Island Department of Transportation (RIDOT) already has considerable experience using preservation on its high-volume roads; however, it is using the guidelines to broaden the range of successful treatments being used. RIDOT is testing a stress-absorbing membrane interlayer (SAMI) chip seal on a five-lane rural collector with average daily traffic of 16,200 vehicles, including 2.8 percent truck traffic. The goal is to broaden the preservation options beyond the "usual suspects."

**Just-In-Time Training**

Just-In-Time Training Modules will address 13 topics from pavement preservation 101 to very specific details on the types of treatments available for high-traffic-volume roadways. The modules will include project and treatment selection options, will be accessible online, and will be available for on-demand viewing in the field.

For more information, contact Thomas Van, FHWA, thomas.van@dot.gov; Kate Kurgan, AASHTO, kkurgan@aashto.org; and Pam Hutton, AASHTO, phutton@aashto.org.

Links to all these products, as well as to case studies, presentations, and webinar recordings, are available at: http://shr2.transportation.org/Pages/R26_HighTrafficVolRoadways.aspx

Extending the life of the nation’s busiest roads

The challenges identified for the Preservation of High-Traffic-Volume Roads help transportation agencies save lives, money, and time.

**Saving Lives**
- Extending the life of pavement reduces the frequency of major reconstruction projects. Fewer reconstruction projects reduce the risk and frequency of work zone crashes.
- **Saving Money**
  - Applying the right pavement preservation techniques to a broad range of high traffic roads helps agencies stretch transportation dollars by reducing the frequency of major rehabilitation projects.
  - **Saving Time**
    - The proven preservation strategies reduce lane closures and congestion that come with lengthy rehabilitation and reconstruction projects, saving time for the traveling public.

**Guidelines for the Preservation of High-Traffic-Volume Roadways (R26)** offers easily accessible information and tools that will help transportation agencies determine the right preservation techniques that will extend the life of high-traffic roadways without major reconstruction and traffic disruption. Developed through the second Strategic Highway Research Program (SHRP2), the Guidelines are aimed at those involved in asset management, pavement design and engineering, pavement management, and maintenance.

Included is the publication, *Guidelines for the Preservation of High-Traffic-Volume Roadways*, which includes a selection process and matrices that enable quick identification of treatment options based on key considerations, such as type of road, climate zones, work zone duration restrictions, traffic volumes, and relative costs.

The Data Collection Guide helps agencies identify the data needed to evaluate the performance and benefits of their pavement preservation treatments while improving their implementation processes.

The Preservation Analysis Tool identifies feasible pavement preservation projects and enables the selection of the preferred treatment based on the conditions and characteristics of the project, the cost effectiveness of the treatment, and other selection factors.

Your guide to the best options for extending pavement life and reducing life-cycle costs

**The Challenge** — Knowing when, what, and how to apply smart preservation techniques for slowing pavement deterioration.

**The Solution** — Strategies and techniques to make the right decision at the right time.

**Guidelines for the Preservation of High-Traffic-Volume Roadways (R26)**

1. **Extending the life of the nation’s busiest roads**
2. **Guidelines for the Preservation of High-Traffic-Volume Roads**
3. **Help transportation agencies save lives, money, and time.**

For more information, contact Thomas Van, FHWA, thomas.van@dot.gov; Kate Kurgan, AASHTO, kkurgan@aashto.org; and Pam Hutton, AASHTO, phutton@aashto.org.
The Guidelines are Being Used on Projects Across the Country

<table>
<thead>
<tr>
<th>State</th>
<th>Projects:</th>
<th>Roads:</th>
<th>Climate Zone:</th>
<th>Contacts:</th>
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<td>Minnesota DOT</td>
<td>1 mill and thin HMA overlay</td>
<td>1851 Donaldson Co. (4-lane urban arterial, 16,000 ADT) with 7% trucks</td>
<td>Web/Pavement</td>
<td>Jennifer Albert (FHWA-PA Division): <a href="mailto:jennifer.albert@fhwa.dot.gov">jennifer.albert@fhwa.dot.gov</a>, <a href="mailto:Jenifer.Buck@dot.state.mn.us">Jenifer.Buck@dot.state.mn.us</a></td>
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<td>Wisconsin DOT</td>
<td>3 projects with multiple treatments using thin HMA overlay</td>
<td>SR 102 Lebanon and Sanford Co. (4-lane rural arterial, 11,210 ADT with 8% trucks)</td>
<td>Web/Pavement</td>
<td>Steve Kriz: <a href="mailto:steven.kriz@dot.wi.gov">steven.kriz@dot.wi.gov</a>, Wolde Makonnen: <a href="mailto:wolde.makonnen@dot.state.wi.us">wolde.makonnen@dot.state.wi.us</a></td>
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<td>Connecticut DOT</td>
<td>1 crack seal, 1 chip seal, 1 stress-absorbing membrane interlayer (SAMI) chip seal, and 1 thin HMA overlay</td>
<td>SR 112 / US 41A Chesters and Robertson Co. (4-lane collector, 5,600 ADT with 9% trucks)</td>
<td>Web/Pavement</td>
<td>Bruce Green: <a href="mailto:bruce.green@ct.gov">bruce.green@ct.gov</a>, Halley Cole: <a href="mailto:halley.cole@ct.gov">halley.cole@ct.gov</a></td>
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<td>Tennessee DOT</td>
<td>3 mill and thin HMA overlays</td>
<td>SR 112 / US 41A (4-lane rural arterial, 10,400 ADT)</td>
<td>Web/Pavement</td>
<td>Greg Garner: <a href="mailto:greg.garner@tn.gov">greg.garner@tn.gov</a>, Tracy Newsom: <a href="mailto:tracy.newsom@tn.gov">tracy.newsom@tn.gov</a></td>
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<td>Arizona DOT</td>
<td>2 crack seals, 2 microsurfacing</td>
<td>SR 68 Blythe Co. (4-lane rural arterial, 13,100 ADT) with 13% trucks</td>
<td>Web/no freeze</td>
<td>Kevin Robertson: <a href="mailto:krobertson@azdot.gov">krobertson@azdot.gov</a></td>
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<td>Georgia DOT</td>
<td>1 cost-in-place recycling, 1 fog seal, 1 thin HMA overlay</td>
<td>SR 60 / US 52 Lumpkin Co. (2-lane rural collector, 4,640 ADT with 4% trucks)</td>
<td>Web/no freeze</td>
<td>Birthe Bisk: <a href="mailto:bisk@dot.ga.gov">bisk@dot.ga.gov</a></td>
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<td>SR 10 / US 131 intersection Bent Co. (4-lane urban arterial, 21,000 ADT with 10% trucks)</td>
<td>Web/Pavement</td>
<td>Jennifer Pinkerton: <a href="mailto:Jennifer.Pinkerton@delaware.gov">Jennifer.Pinkerton@delaware.gov</a>, Rhonda Leach: <a href="mailto:rhonda.leach@del.state.de.us">rhonda.leach@del.state.de.us</a></td>
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