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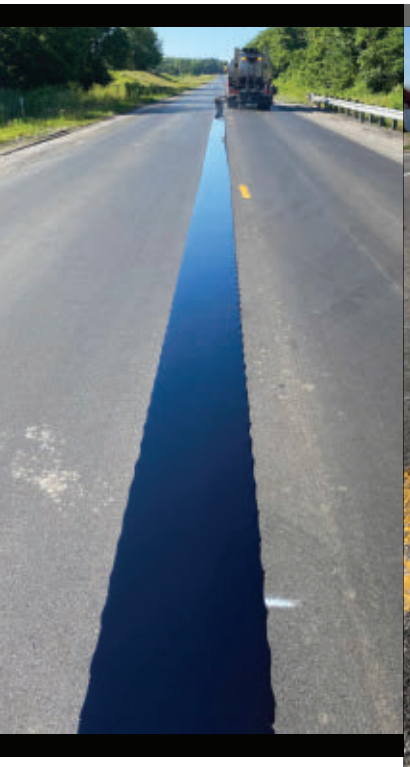

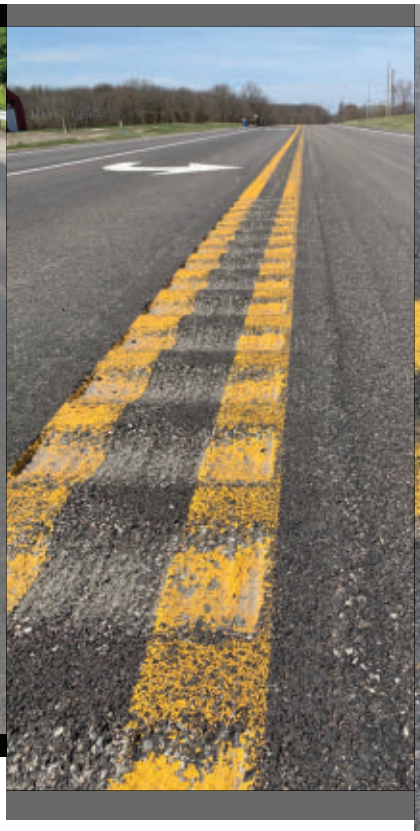

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On the Cover: VSS crew backs up to a joint to place Type II slurry seal in a parking lot at Arches National Park in Utah in summer 2024. In the photo are Matt Valeska, superintendent, and Ricardo Chavez, operator; see article p 22.

IMAGE CREDIT: VSS INTERNATIONAL

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ABOUT FP² INC.

FP² Inc. is a non-profit trade association organized under the Internal Revenue Code Section 501(c)6, and is supported by the pavement preservation industry, contractors, material suppliers and equipment manufacturers.

Formerly known as the Foundation for Pavement Preservation, FP² supports the adoption of pavement preservation at all levels of government, and works to ensure that pavement preservation becomes a part of road programs from coast-to-coast. It also supports valuable research in pavement preservation, and works in close cooperation with the Federal Highway Administration (FHWA), the National Center for Pavement Preservation (NCPP), and regional pavement preservation partnerships and state-based pavement preservation centers.

FP² also sponsors key promotional activity events, such as international and national pavement preservation conferences. It supports distribution of promotional information to support pavement preservation, such as brochures and the quarterly magazine *Pavement Preservation Journal*.

Please consider joining the leading-edge businesses and national associations above in making a financial commitment to the future of pavement preservation by supporting FP². For more information, contact FP² executive director Rick Church, (630) 230-1397, rickc@cmservices.com.

*Displayed organizations and businesses are limited to those contributing in the last six months of 2015

In D.C., FP² Supports Small Agency Preservation

BY DAVE HENDERSON
President, FP² Inc.

I want to acknowledge and thank you, the *Pavement Preservation Journal* reader, for your continued support for FP²'s mission of advancing pavement preservation and recycling. Our core advocacy relies heavily on the strong partnerships we have with our readers and FP² members.

As I write this, we are actively preparing for the **May Transportation Construction Coalition (TCC) Fly-In**, which brings stakeholders from across the country to collaborate on key issues facing our industry. As we visit Capitol Hill, two of our major points of discussion will be:

- **Our current strategy** to secure federal funding for small governmental agencies to implement "new-to-them" technologies like pavement preservation, and
- **The ongoing need** to sustain the Highway Trust Fund (HTF) as revenue sources change and demands increase.

SMALL LOCAL AGENCIES

In the 2026 appropriations we seek to support preservation and recycling at small agencies. While state agencies understand the benefits of pavement preservation and recycling innovations, small and rural local agencies often do not.

One of the primary reasons is a perceived risk related to their lack of resources, and unfamiliarity with these practices. Given that approximately 80 percent of the nation's road miles are maintained by county and local agencies, FP² is working to expand the implementation of effective pavement preservation and recycling strategies at the local level.

To support this, FP² is collaborating with policymakers to request a $800,000 federal appropriation for small and rural local agencies. This funding would **help small local agencies implement pavement preservation** or recycling treatments for the first time by providing matching funds (25–50 percent) to reduce perceived risk.

It would **support training and exposure to new technologies** to increase awareness of cost-effective and sustainable solutions that extend pavement life, **improve technical knowledge** of alternative treatments, and **generate local case studies** to serve as valuable references for future projects. With FP² member support, we plan to expand these opportunities into additional states next year based on the program's success.

***Our James B. Sorenson Award** for Excellence in Pavement Preservation* got national attention for **Sheboygan County, Wis.**, for its preservation program (see the Spring 2025 PPJ, pp 12-15). With 2025 nominations closing on Aug. 1, now is the time for you to nominate a suitable program; find out how at the QR code below, or visit https://fp2.org/fp2-awards-programs/sorenson-award/.

TRUST FUND SHORTFALL

With the existing surface transportation program set to expire on Sept. 20, 2026, Congress must act now to find a permanent solution to the HTF's financial shortfall. If left unaddressed, the HTF is projected to become insolvent by 2028, creating a significant political and economic challenge.

Many don't realize that our federal gasoline tax has remained unchanged since 1993. Due to inflation, improved fuel efficiency and the growing number of electric vehicles (which don't contribute to the fund), HTF future revenues are rapidly declining.

Several potential solutions have been discussed, including **continued and increased General Fund transfers**, but this seems unstainable given the federal budget restraints, while raising the gas tax is a solution that Congress hasn't been able to do in 32 years. We must ensure all road users — including EVs — pay into the HTF, which could be accomplished with a **vehicle-miles-traveled tax** and a **vehicle registration fee** at the federal level.

FP², in partnership with the Highway Users Alliance and a broad coalition of highway users and builders, is advocating for Congress to find a solution before September 2026. Our proposal would

- **Require all users** of the road system — including EVs — to pay an annual state-level registration fee, which would be remitted to the HTF
- **Replace the current** gas tax and all other HTF-related excise taxes (e.g., tire tax, truck/trailer sales tax and heavy vehicle use tax)
- **Maintain the existing** funding ratio of heavy vehicle commercial trucks and personal-use vehicles
- **Utilize the existing** Unified Carrier Registration (UCR) system with easy and cost-effective modification, and
- **Provide scalable**, predictable funding that is critical for effective pavement preservation program planning.

FP² ADVOCACY AND HILL VISITS

FP² conducts two annual group advocacy events, the May Transportation Construction Coalition (TCC) Fly-In, and a second Fly-In exclusively for FP² in September. These visits provide critical opportunities for our members to educate Congress and its staffs on the importance of pavement preservation and recycling.

If we don't actively engage, policymakers won't prioritize our industry's needs, which is why regular Hill visits are essential for the long-term success of our core focus, the *Right Treatment for the Right Road at the Right Time*. Please join us in this important effort!

AEMA, ARRA, ISSA Meet in California as PPRA

The Asphalt Emulsions Manufacturers Association (AEMA), Asphalt Recycling & Reclaiming Association (ARRA), and International Slurry Surfacing Association (ISSA) met together in Rancho Mirage, Calif., under the umbrella of the Pavement Preservation & Recycling Alliance (PPRA) March 3–7.

This annual meeting brought together contractors, suppliers, manufacturers, government agencies and academia from nine different countries. Program chairs **Matt Kennedy**, McAsphalt Industries Ltd. (AEMA), **Bryan Ray**, Alpha Milling Group (ARRA), and **Chris Oakes**, Pavement Solutions, Inc. (ISSA), joined forces to put together a program that included innovative topics, job stories, and ways to keep our employees engaged and safe.

NETWORK MANAGEMENT

The General Session started on Wednesday with **Aaron Witt** of BuildWitt kicking off with his keynote presentation on multigenerational workforce development. Workforce development is a hot topic within our industry, and Witt and BuildWitt are doing their best to help the "dirt world" attract, train and retain the next generation.

Next, asphalt paving veteran **Vince Hafeli** spoke on mental health and suicide in the construction industry and how it can be managed. **Robert French** with the City of Elk Grove, Calif., shared the three key areas on which the city focused to achieve a successful pavement management program. Then, **Lindsay Matush**, Vario, interviewed new *Network Hero Award* winner **Mackenzie Kelley** on how Charleston County, S.C. used various tools to transform its preservation program and network management; see related sidebar this issue.

Lastly, brought back by popular demand, **John Rathbun**, Cutler Repaving, moderated a panel on industry themes which included **Reed Ryan**, The Asphalt Institute; **Dr. Adriana Vargas**, NCAT; **Dave Henderson**, FP^2; **Bouzid Choubane**, NCPP; **Dan Koeninger**, AEMA; **Jason Wielinski**, ARRA; and **Brad Pearce**, ISSA.

ARRA held the first meeting technical session on Wednesday afternoon. Kicking off the session was **Dr. John Harvey**, University of California–Davis, discussing environmental Life Cycle Assessment (LCA) of cold recycling and its alternatives. **Dr. Ben Bowers**, Auburn University, shared information on the construction and initial performance of the 9th NCAT Test Track Cycle.

Outgoing AEMA president Dan Koeninger honored by incoming president Matt Kennedy for his service to the association

Chuck Ingram, Slurry Pavers Inc., is congratulated after receiving the ISSA Phil Tarsovich Lifetime Leadership Award

At opening reception are Paul and Ida Aitken, Dalworth Machinery Products

VSS International award winners celebrate in bright California desert sun

Attendees heard from **Leonard Mahserelli** and **Christina Pang**, Caltrans, on its cold recycling pavement program. Lastly, **Amina Mannan** and **Roger Schlierkamp** with GMU Pavement Engineering discussed implementation of full depth reclamation (FDR) for private projects, which included unique insights for cost-effective pavement reconstruction.

AWARDS BREAKFAST

The 2025 Awards Ceremony and Recognition Breakfast was held on Thursday morning. During the ceremony, AEMA, ARRA and ISSA recognized significant projects, and recognized their past presidents and current boards of directors.

Jack Dougherty, VSS Emultech, was awarded the 2025 AEMA *Recognition of Achievement Award* for his instrumental contributions to the promotion of pavement preservation and the asphalt emulsion industry.

Jeffery Reed, VSS International, Inc., was honored for his lengthy and considerable service to the asphalt emulsion industry and to AEMA and was inducted into the *AEMA Hall of Fame*.

The LEAP Program is a 12-month immersive program aimed at developing members of the asphalt emulsion industry. It is intended for AEMA members looking to increase their knowledge of the asphalt emulsion industry. The five individuals that were part of this LEAP Class included: **Amy Morhart**, Cenovus Energy; **Zach Robinson**, Heritage Research Group; **Nolan Graham**, Reed & Graham, Inc.; **Christine Hagele**, Russell Standard; and **Luis Torres Figueroa**, Western Emulsions, Inc. **Kim Gessner**, Asphalt Materials, Inc., was also recognized as the 2024-2025 LEAP Class Dean.

Arizona Department of Transportation, Ergon Asphalt & Emulsions, Inc., and Cactus Asphalt were awarded the 2025 AEMA *Past President's Award* for Emulsion Excellence for their SR2020 Polymer Modified Rejuvenating Fog Seal Program. The project covered 299 lane miles and utilized advanced techniques to ensure minimal disruption. By applying the fog seal during off-peak hours and employing a high-efficiency strategy with seven distributors and 14 transport trucks, the team completed the project in just one weekend.

ARRA RECOGNIZES WINNERS

ARRA honored retired technical director **Dr. Steve Cross** for his lengthy and extensive service to ARRA and the recycling and reclaiming industry by naming him as the recipient of the 2025 *Richard E. Lowell President's Award*. Dr. Ben Bowers has replaced him as technical director.

The *ARRA/Roads & Bridges Hot In-Place Recycling Award* was presented to the **City of Colorado Springs** for its Hot In-Place Recycling project completed in

On industry panel opening session are Dan Koeninger, Terry Asphalt Materials; Jason Wielinski, Asphalt Institute; Brad Pearce, Viking Construction; Bouzid Choubane, NCPP; at podium, moderator John Rathbun, Cutler Repaving; Dr. Adriana Vargas, NCAT; FP² president Dave Henderson, Asphalt Materials Inc.; and Reed Ryan, president, Asphalt Institute

Robert French, City of Elk Grove, Calif., gives keynote address

Dustrol's Noah Dorey and Aaron Hanson with Astec Industries' Tom and Jennifer Lenger, and Dustrol's Ron Wilson and Brian Hanson

Mark and Marchel Ishee, Ergon, with NCPP's Bouzid Choubane and All States Materials' Bobby Betsold

The 2025-26 AEMA board of directors are past president Bob Huitt, Russell Standard; secretary/ treasurer Scott Dmytrow, Pavement ACES; Aaron Walker, Ingevity; Scott Watson, Paragon Technical Services; Donna Kwapis, Nouryon; vice president Arlis Kadrmas, BASF; Stormy Brewster, Marathon Petroleum; president Matt Kennedy, McAsphalt Industries; Cameron Porter, Asphalt Materials, Inc.; and Matt Tremeroli, VSS Emultech. Not pictured is Natalia Oleinik, GP RAD, JSC

The 2025-26 ISSA board of directors are secretary Justin Guiles, Vestal Asphalt; technical director Chris Hollenback, Heritage Research Group; treasurer Jimmy Kendrick, Bergkamp Inc.; Fabio Mendez, MPI Ltda; vice president Chris Oakes, Pavement Solutions, Inc.; Stan Williams, Ergon Asphalt & Emulsions; past president Brad Pearce, Viking Construction; president Jeff Roberts, VSS International Inc.; Jamie Wing, Ingevity; Matt Teto, indus, and Matt May, Slurry Pavers. Not pictured are Tim Harrawood, Vance Brothers, and Dave Kiser, Terry Asphalt Materials.

The 2025-26 ARRA board of directors are president Bryan Ray, Alpha Milling; vice president Mark Stahl, Wirtgen America; past president Jason Wielinski, Asphalt Institute; Michael Concannon, Pavement Recycling Systems; John Morgan, Ingevity; technical advisor Dr. Ben Bowers, Auburn University; and Mark Eiden, Caterpillar Inc. Not pictured are secretary/treasurer Jonathan Pease, Rock Solid; Nick Ware, SurfaceCycle, Eric Baker, Astec; and Chris Gallagher, Gallagher Asphalt.

ARRA Special Recognition Award for FDR went to Mario Simms and Terrill Hughes, Henrico County, Va.

Jason Wielinski presents ARRA Richard E. Lowell President's Award to Dr. Steve Cross for his service as association technical director

Christina Pang, P.E., Caltrans, speaks

New ARRA technical director Dr. Ben Bowers discusses 9th NCAT Test Track cycle

Brad Pearce is honored for his service as ISSA president by VSS International's senior VP and incoming ISSA president Jeff Roberts

Bob Huitt with Russell Standard Excellence in Emulsion Manufacturing Plant awards from AEMA

VSS's Jeff Reed is honored with the AEMA Hall of Fame Award

Gilliam County, Ore.'s Dewey Kennedy won ARRA Charles R. Valentine for Excellence in Cold Recycling; he's flanked by daughters Kacee Lathrop and K'Lynn Lane

Ingevity's Jamie Wing speaks on wet tracks for slurry surfacing systems

2024. Cutler Repaving teamed up with Kiewit Infrastructure, Continental Milling, SafeGuard Traffic Control, and RoadSafe Traffic Systems to deliver this key project for the Public Works Operations & Maintenance Division.

ARRA/Roads & Bridges Award for Cold Recycling went to the rehabilitation project on CKL Road 49, a major 2-lane arterial road that provides access to Bobcaygeon, Ontario. This 17.9-km (11.2-mile) project involved 13 culvert replacements and Cold In-Place Recycling (CIR) across 180,000 m^2 (1,270,141 ft^2 of roadway, followed by a hot-mix asphalt overlay. **Brennan Paving & Construction** and **Miller Paving Ltd.** were honored.

With the ARRA *Special Recognition Awards*, ARRA recognizes public officials and consulting engineers who have made outstanding contributions to the asphalt recycling and reclaiming industry.

The first recipient was the **Henrico County, Va., DPW** for *Excellence in Full Depth Reclamation*. Its team developed an innovative FDR program that has reclaimed 50 lane-miles, using a unique procurement process which saved $11.75 million compared to traditional reconstruction methods, which typically cost $450,000 to $500,000 per lane-mile.

The *Excellence in Hot In-Place Recycling* was presented to **Cody Holemo** with the **Massachusetts DOT**, for his work on the I-90 Sturbridge to Auburn project. A mill-and-overlay project was replaced with HIR for improved efficiency and longevity.

Dewey Kennedy, Roadmaster, and the **Gilliam County, Ore., Road Department** were honored with ARRA's *Charles R. Valentine Award for Excellence in Cold Recycling*. Since 2010, Gilliam County has paved over 115 miles of roads in north central Oregon, with 70 miles of those being 100 percent recycled asphalt pavement (RAP). They pioneered the use of ODOT RAP from I-84, addressing challenges like developing a VOC-free emulsion and creating a mix design that could withstand the heavy traffic from wind farms and harvest vehicles.

ISSA's *Excellence in Pavement Preservation Award* was presented to **PennDOT District 3** for its pavement management system. District 3 has been a long-time advocate for pavement preservation. Since 2020, it's allocated over $16.8 million to pavement preservation efforts, with a strong focus on micro surfacing, to extend service life and achieve the lowest life-cycle costs (LLCC).

The ISSA *International Award for Excellence* was presented **to C.I. Manufacturas y Procesos Indsutriales Limitada** (MPI) for its work at Loa Garzones Airport in Colombia, which showcased exemplary work and innovation in slurry seal application.

ISSA honored **Chuck Ingram**, Slurry Pavers, with its *Phil Tarsovich Lifetime Leadership Award* for his long-term service to the industry and association, and named the **Regional Municipality of York** and **The Miller Group** as the recipients of the 2025 *ISSA Preservation Performance Award*.

continue on page 17

First PPRA Network Hero is Mackenzie Kelly

The Pavement Preservation & Recycling Alliance (PPRA) announced that Mackenzie Kelley, PMP, is the inaugural recipient of its *Network Hero Award*, a competitive honor recognizing outstanding leadership and measurable progress in network-level pavement management.

Kelley is pavement manager for Charleston County, S.C. PMP is a certification as Project Manager Professional, awarded by the Project Management Institute.

The Network Hero had to demonstrate success in achieving network-level progress over time, showcase their use of a broad treatment toolbox spanning the entire deterioration curve, and outline their ability to overcome hurdles and engage stakeholders in the process.

Kelley pioneered a comprehensive approach to managing her roadway network — rooted in transparency, data and public trust — that could serve as a national model. She elevated a vast road network, increased treatment diversity, galvanized public support, and positioned her agency for long-term success.

"I'm very honored to be selected for the 2025 PPRA Network Hero Award," Kelley said. "This achievement wouldn't be possible without the help from many fellow employees at Charleston County, including leadership, mentors and partnerships that have greatly contributed to the success of our pavement management program. I am excited to watch our program continue to grow while working towards improving the quality and safety of the roads in Charleston."

Since Mackenzie took the reins of the county preservation program in 2017, her work has delivered exceptional outcomes, including:

- **Increased Road Miles Treated.** Her optimization strategy allowed the county to triple its annual lane miles treated, maximizing impact with the same funding level.
- **Treatment Toolbox Expansion.** Kelley introduced nine new treatments, including multiple firsts in South Carolina and the Southeast, ranging from hot in-place recycling to scrub and cape seals.

At awards ceremony, Charleston County, S.C.'s Mackenzie Kelley receives first PPRA Network Hero Award from PPRA's Lindsay Matush

- **Unprecedented Political Buy-In.** Her clear data and public engagement has led to strong partnerships and support from elected officials, and an upcoming attempt to pass a transportation sales tax that will increase the budget from $4 million to $18 million annually.
- **Transparency and Public Trust.** Enhanced public communication strategies, including a robust public-facing planning website complete with maps, condition scores, project updates, along with other resident communication tools.
- **Regional Leadership.** Helped organize South Carolina's *Pavement Maintenance Roundtable* and now serves on the Board of Directors for the Southeastern Pavement Preservation Partnership.

Mackenzie's strategy began with a major challenge, and opportunity, as she inherited a road network that was transitioning its pavement management system. Data management was limited to exported Excel sheets for several years. Instead of pausing, she pushed forward, leading a full pavement condition survey, importing that data into a proprietary PMS named *AgileAssets*, and developing predictive models and cost-benefit tools that now guide Charleston County's decision-making.

Today, the county uses real-time condition data and scenario planning to deliver the right treatment, on the right road, at the right time — and doing it with impressive efficiency.

Kelley always understood that public confidence is essential to long-term infrastructure investment. That's why she prioritized transparency from the outset. She overhauled the resident-facing website — www.charlestonctc.org — where residents can explore network-wide condition scores, project schedules, ownership breakdowns, funding needs and treatment explanations. It's become a model for other agencies looking to build public engagement through open data.

And when it comes to projects on the ground, many projects include a branded yard sign with high level information about the treatment and information about where to learn more. She also makes heavy use of social media and public relations to keep residents informed and engaged in the work of the county. The result: fewer complaints, more compliments — and stronger public support for the county's progress.

When Kelley inherited the network, the county only had four basic tools in its Preservation Treatment Toolbox. She knew

that efficient roadway management would require filling in the entire deterioration curve with tools to meet each stage of pavement deterioration. Therefore Kelley expanded Charleston's treatment library to include over 13 preservation, rehabilitation and recycling options, including:

- **Hot In-Place Recycling (HIR).** Used in place of mill-and-fill on a recent project that cut costs and improved sustainability. The project earned regional media attention and praise from elected officials.
- **Micro Surfacing** (single and double-layer, including fiber-reinforced)
- **Proprietary surface seals** like HA5 and Onyx
- **Photocatalytic rejuvenators**, resulting in lower pavement surface temperatures, reduction in pollutants by up to 39 percent, and extended service life by as much as five years
- **Scrub and cape seals,** including the first ever applied in the Southeast
- **Pervious pavements** to support stormwater management and reduce right-of-way disruption, and
- **Rejuvenators** applied proactively at three and eight years post-resurfacing.

Every new treatment is thoroughly evaluated, embedded into the optimization model, and tracked over time for performance — ensuring that Charleston County doesn't just try new things, but proves them.

Kelley's focus now is on what comes next. At the top of the list is the proposed third Transportation Sales Tax referendum, which would increase Charleston County's dedicated pavement management funding from $4 million to $18 million annually. While it's not yet passed, she's optimistic about its chances, and has prepared a long-range plan that puts those dollars to work immediately if approved.

She's also expanding her treatment toolbox further, with plans to bring in tools like Cold In-Place Recycling (CIR), and explore strategies that extend pavement life while lowering environmental impact

Want to dig into how Kelley did it? She walks through her full strategy, tools and lessons-learned in a free, on-demand webinar available now at *RoadResource.org/webinars.*

HORIZON WINNERS ANNOUNCED

This year, the PPRA also recognized four regional *Horizon Award* winners, who are public sector leaders across the country who are making powerful strides in pavement preservation, recycling, and long-term network health. They are

- **Bryan Dhume,** Madison County, Ohio
- **Jorge Duran,** Pavement Management Program supervisor for Maricopa County, Ariz.
- **Tyler Lawrason,** chief administrative officer for the Municipal District of Provost, Alberta
- **Bradley Klinger,** Fayette County, Ga., Road Department

Each Horizon Award winner is contributing to the broader success of our industry in unique ways, and their stories will be featured in upcoming issues of *Pavement Preservation Journal.*

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Slurry Pavers' Matt May gives a unique perspective on public outreach and the changes social media have brought

LEAP class includes Luis Torres Figueroa, Western Emulsions, Inc.; Christine Hagele, Russell Standard; Nolan Graham, Reed & Graham, Inc.; Zach Robinson, Heritage Research Group; Amy Morhart, Cenovus Energy; and Kim Gessner, LEAP Class Dean, Asphalt Materials, Inc.

At opening reception are Kathy Rathbun, JoAnn Polak, John Rathbun and Mike Polak

AEMA, ARRA, ISSA Meet...

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ISSA's *President's Award for Excellence — Large Project* was presented to **VSS International Inc.** for its work on the Golden Gate National Recreation Area Project, and its *President's Award — Small Project* also to **VSS International, Inc.** for The Sea Ranch Association slurry surfacing project.

AEMA, ISSA TECH SESSIONS

Following the awards breakfast, AEMA held its technical session, including a panel discussing sustainable practices in asphalt emulsion, recycling and applications, including **Dr. Andrew Braham**, University of Arkansas, **John Rathbun**, Cutler Repaving, and **Art Baker**, indus.

Next, Braham shared information on the comparison of lab-produced asphalt emulsions by manufacturing equipment type. Then, **Jeff Weitzel**, Arkema, highlighted the Colorado DOT SH 149 cold-in-place recycling project, which is to-date the largest asphalt emulsion recycling project in the west. **Aaron Roy**, ChemCo, reviewed asphalt emulsion research summaries and takeaways. Finally, **Scott Dmytrow**, Pavement ACES, provided attendees an inside look at the new AEMA training program for agencies.

The last technical session was presented by ISSA. Attendees heard from VSS International's **Matt Ferguson** on both of their 2025 President's Award-winning projects, *Golden Gate National Recreation Area* and *The Sea Ranch Association.*

Then, **Braham** introduced the TREAT Mobile Lab to ISSA. Next, **Jamie Wing**, Ingevity, discussed full-gradation wet tracks for slurry surfacing systems. Lastly, **Matt May** with Slurry Pavers, Inc., gave a forward-looking overview of how community outreach is changing.

Mark your calendars for the 2026 AEMA-ARRA-ISSA Annual Meeting for Feb. 17-21 in Austin. Registration is scheduled to open in late October.

Correction: In our Spring 2025 issue, p 23, we misidentified industry pro Scott Metcalf. He of course is vice president Western Region, Pavement Preservation and Specialty Products, Ergon Asphalt & Emulsions Inc. PPJ regrets the error.


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Use on any asphalt surface to seal over alligator cracking and protect pavement surfaces from water damage and stains.

Salina Orange. The color of world-class pavement preservation equipment.

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Plan for the October ARRA Pavement Recycling Summit in Suburban Nashville

Make plans now to attend the Asphalt Recycling & Reclaiming Association's 2025 *Pavement Recycling Summit* that will take place Oct. 20–23, at the Embassy Suites by Hilton (Nashville South Cool Springs) in Franklin, Tenn.

This highly anticipated gathering will build on the successful 2024 Recycling Summit held in Reno last October (*see ARRA Teams with User-Producer Group to Host 2024 Aspohalt Recycling Summit*, Spring 2025, pp 18–23).

It will be a landmark opportunity, bringing together industry leaders, engineers, contractors, suppliers and sustainability experts. The Recycling Summit will offer valuable opportunities to explore the latest in pavement recycling, making it a must-attend event for anyone involved in the asphalt recycling and reclaiming industry.

Opening general session at 2024 Recycling Summit in Reno

FIND ENGINEERED SOLUTIONS

At this year's summit, participants will learn how to make their resources go the distance with engineered solutions. The conference will dive deep into the powerful technical expertise behind five key disciplines — **hot in-place recycling, cold in-place recycling, full depth reclamation, cold planing**, and **cold central plant recycling** — that are revolutionizing pavement management. These technologies provide major economic savings, reduce environmental impact, and deliver precision engineering that creates smarter, stronger and longer-lasting roads.

With today's infrastructure needs, reuse of existing materials is one of the most cost-effective solutions, and research continues to validate the reliability, longevity and structural equivalency of these methods. Attendees will discover **how these technologies can achieve the same or higher structural numbers** compared to conventional remove-and-replace methods, offering an impactful way to strengthen roadways while saving significant time and money.

The 2025 Pavement Recycling Summit is designed to provide insightful presentations, real-world case studies, and interactive discussions from leading experts in the field. Attendees will gain valuable knowledge about how innovative recycling methods and treatment strategies are transforming the industry, improving sustainability, and driving cost-effective solutions for pavement management. The event will showcase success stories and lessons learned from across North America, demonstrating how pavement engineers are re-engineering cross sections by reusing existing materials and achieving major structural gains.

The summit will take place in Franklin, Tenn., a charming city that is ideally situated near the vibrant music scene and exciting attractions of Nashville. After a day of insightful sessions, attendees can unwind by exploring Franklin's historic downtown, savoring Southern cuisine, or immersing themselves in Nashville's famous live music venues.

Additionally, the Summit will also feature an exhibit hall where attendees can discover the latest products, equipment, and services designed to elevate the quality and efficiency of asphalt recycling and reclaiming efforts.

WHY ATTEND?

- **Expand your network toolbox** with exclusive training designed to equip participants with the essential skills and knowledge to become more effective pavement managers, regardless of their prior experience.
- **Experience innovative case studies** and expert presentations on the latest trends in asphalt recycling and pavement preservation
- **Enjoy engaging discussions** on the **best practices and sustainable solutions** for today's infrastructure challenges
- **Participate in networking opportunities** with industry professionals from around the world, opening the door for collaboration and new business relationships
- **Browse an exhibit hall showcasing** the latest technologies, equipment and services driving innovation within the industry, and
- **Visit a prime location** offering both professional development and a relaxing atmosphere to unwind after sessions.

Save the date for Oct. 20–23, and get ready to join ARRA for the 2025 Pavement Recycling Summit in Franklin.

For more information on the 2025 Pavement Recycling Summit, including registration details, event updates, and how to get involved, please visit arra.org. Registration begins in June.

Micro Surfacing, Chip Seals Environmental Choice for Utah, Nevada National Parks

BY LUKE AFATO
AND JEFF ROBERTS

The national parks of Utah and Nevada are renowned for their breathtaking landscapes, which attract millions of visitors each year.

From the striking red rock formations of Zion and Arches National Parks, to the towering peaks of Nevada's Great Basin National Park, the roadways within these natural wonders are vital for the flow of tourists, park operations and local economies.

However, like all infrastructure, these roads face wear and tear from high traffic volumes, extreme weather conditions, and the natural aging of materials. Pavement preservation programs are essential in maintaining these roads, ensuring they remain safe and accessible while minimizing costly repairs and environmental impacts.

During the summer of 2024, VSS International successfully performed a multi-million-dollar contract within Utah and Nevada national parks to enhance road safety, improve visitor experience, and extend the lifespan of critical infrastructure within these parks.

COMPREHENSIVE CONTRACT

This project covered multiple iconic locations such as **Zion National Park, Canyonlands National Park, Cedar Breaks National Monument, Great Basin National Park**, and **Timpanogos Cave National Monument**. Including this number of historical locations in a single pavement preservation contract highlights the importance of maintaining safe access to these treasured landscapes.

Within this contract, the prime contractor and its subcontractors performed pavement preservation techniques on over 154.7 lane miles of road, approximately 104 parking lots, and dozens of miles of campground loops that also required pavement maintenance.

The majority of the pavement preservation techniques performed consisted of chip seal and micro surfacing. Prior to performing these two techniques, multiple other preservation techniques had to executed, including crack cleaning and sealing, fog seal, permanent striping and asphalt patching at locations where the existing conditions were extremely deteriorated. Addressing base failure and extensive cracking is vital to the quality and longevity of the chip seal and micro surfacing that would soon be applied.

Crews place a Type 2 slurry seal overlay around a ranger station at Arches National Park

IMAGE CREDIT: VSS INTERNATIONAL

NEVADA: GREAT BASIN NP

The majority of work was located throughout Utah, and those parks all came with their own unique list of challenges. But one of the more difficult locations was Great Basin National Park.

This remote location in eastern Nevada came with a wide variety of challenges involving crew lodging, sourcing water, weather delays, limited staging areas, limited space, and steep inclines that created challenges hauling material and equipment up Wheeler Peak Scenic drive. This lesser-known gem required much-needed attention as it received over 150,000 sq. yd. of chip seal, and nearly 50,000 sq. yd. of micro surfacing.

With multiple contractors performing work simultaneously, the single staging area provided was far too small to store everything necessary to complete the work. This forced the prime contractor to not only find more space for equipment, but also find a water source in this remote location.

Fortunately, a rancher with property just outside of the park was able to provide contractors with both water and land for

equipment storage. But this created a new challenge as equipment and material would now have to be hauled into the park daily.

Strategic traffic control measures were put in place as the narrow road widths and steep inclines did not allow visitors to safely travel as trucks traveled up the mountain. Closures of nearly eight miles were required to safely and successfully transport the equipment needed to complete the hot mix asphalt repairs.

The timing and coordination of these closures was vital in keeping any disruption to the park and its visitors at an absolute minimum. These challenges, along with the unpredictable weather at elevations above 10,000 feet, required all parties involved to ensure that the quality of the work performed was not affected.

A dedicated quality control manager monitored and recorded all phases of each operation, including daily aggregate testing with split samples provided to the government, and daily spread rate calculations. Consistent efforts between the prime contractor and the QC manager ensured that our methods and final product satisfied the expectations of the park staff, as well as the Federal Highway Administration.

HEAVY VISITATION IN ZION NP

With an average of 4.5 million visitors annually, nearly 30 lane miles of road, and over 100,000 sq. yd. of micro surfacing required, pavement preservation in Zion National Park was no small feat.

Due to the park's popularity, harsh environmental conditions, and heavy vehicle and bicycle traffic, the prime contractor and its subcontractors had to collaborate closely with themselves and the park staff to successfully complete all of the work required.

The QC Manager worked closely with FHWA representatives and continued to monitor all operations prior to, and following micro surfacing operations to ensure all methods, materials, and final products were satisfactory.

A huge factor to the success within this park was the participation and support received by the park staff. Though the prime contractor had sufficient traffic control measures in place to complete the work safely, the park aided the contractors by setting up additional closures using their own traffic control. This allowed us to better focus its efforts on the placement and quality of the micro surfacing, rather than worrying about working safely around vehicles, bicycles and bus transits that travel through the park.

A Type 2 slurry seal overlay is placed at the day parking lot near the entrance of Zion National Park

An emulsion fog seal goes over chip seal placed on national park road in Arches National Park

Miles within the park, temperatures in the Zion Canyon rise slowly and fall early due to the minimal sunlight received throughout the day. This, along with the strict times put in place for roads to be accessible to the public, left a tight window for micro surfacing to be performed.

Micro surfacing began as soon as surface temperatures allowed, the surface temperature was checked by our QC manager, then verified by the federal inspector. Test strips to visually inspect the final product, aggregate samples, emulsion samples, and application rate would all need to be completed immediately to allow our crews to be in full production as quickly as possible each day. Each crew conducted calibrations prior to starting work at each park to ensure the consistency of materials and compliance with spread rate and mix design requirements.

PAVING ARCHES NP

With over 370,000 sq. yd. combined, chip seal operations in Cedar Breaks National

Monument and Arches National Park were as large as the parks themselves. These operations began immediately following the completion of hot mix asphalt repairs and crack seal in late July.

A critical task required prior to and during chip seal and micro surfacing operations was the protection of any existing historical stone structures or concrete curbing throughout the park. These features were prominent in every park and required crews to place protective barriers to prevent staining or damage to any of these existing structures.

While working in historic locations, leaving these parks in better condition than before is just as important as the work that is to be performed. Another major concern, and another reason the QC manager played a huge role in the success of this project, was oversized aggregate in the chip seal.

With attention drawn towards this, multiple aggregate samples were tested daily, before and during production, to ensure there were no deficiencies in the aggregate placed. Once the chip seal was applied, rolled, and any loose aggregate was swept, temporary traffic control marking were then put in place prior to fog seal. Once fog-sealed, permanent pavement markings were applied.

SUBSTANTIAL PREP WORK

A substantial amount of prep work prior to both micro surfacing and chip seal operations was required throughout this project. Completing this preparatory work as early in the season as possible was important, as it allowed asphalt concrete paving and crack sealing to begin in April.

Starting and completing these preliminary scopes of work earlier in the year allowed subsequent chip seal and micro surfacing operations to begin earlier as well. As elevations in these parks vary from anywhere between 5,000 to 11,000 feet, the cold winter months tend to arrive earlier than expected.

This points up the importance of completing any preparatory work as early in advance as possible. Because work was completed in two different parks simultaneously, it allowed multiple locations to begin the preparation necessary to receive micro surfacing and chip seal.

To successfully manage multiple subcontractors, with multiple crews, in multiple locations across two different states, we mobilized two project engineers' and senior management personnel during this phase of the project. Outside help consisted of two quality control managers, one for each work location, that would monitor and ensure the quality of work.

Two traffic control supervisors were utilized to ensure the safety of all crew members and park visitors. Once the preparatory work was completed, we mobilized a crew consisting of over a dozen workers, along with the crew's superintendent. Communication between the project engineers, traffic control supervisors, park staff, crew superintendents, QC managers and federal inspectors was a vital part of this project's success.

The overall scope of this project required approximately 800,000 sq. yd. of pavement to be treated using various pavement preservation techniques. **Utilizing the resources found at RoadResource.org, it is estimated that the FHWA saved taxpayers over $10 million by using life extending surface treatments.**

The alternative to pavement preservation is allowing the road to completely deteriorate and practicing a more

Type 2 slurry surfacing is placed at all campsites and campground roadways in Great Basin National Park

traditional method of road maintenance such as the removal and replacement of a minimum of 2 in. of hot mix asphalt.

ENVIRONMENTAL GAINS

Roadresource.org estimates that the modern pavement preservation techniques used reduced greenhouse gas emissions by over 90 percent when compared to traditional methods. We were also able to reduce greenhouse gas emissions on multiple occasions throughout this contract. With proper communication between the park staff and VSS International, an agreement was reached between the two parties that any excess aggregate could remain at the park. This provided the park with materials that will be used for future projects.

Consequently, emissions cuts were attained by removing the need for trucks to haul out the excess aggregate, while also removing the need for the park to purchase and haul material in the future. Using pavement preservation methods, reductions in emissions started before the work even began.

The production of the emulsions used in micro surfacing and chip seals require less energy and less material than traditional hot mix production. It is also important to note that the emulsion materials are placed at ambient temperatures, resulting in almost zero emissions when compared to conventional overlays.

The successful completion of a project of such scope and magnitude across two states required exceptional communication and precise execution. Weekly operational meetings were held, which allowed all parties to be aware of the current progress being made, while also ensuring that any closures required were communicated to the parks at least two weeks in advance.

The schedules reviewed in these meetings were constantly changing, as different phases of work began or ended all across the state, and constant communication was extremely important to keep everyone moving efficiently on the project while also giving the National Park Service enough time to make necessary preparations for work to begin.

As crucial as communication between all stakeholders involved was, communication with visitors of the park was just as essential. Meetings with park staff allowed them to know what information to communicate, whether it was through message boards and posting closure information before and throughout the park, or providing information on the park websites.

Afato is project engineer for VSS International, Inc., and Roberts is the senior vice president for VSS International, Inc., responsible for oversight of pavement preservation activities in 12 western states.

Preservation is Paramount at WOA/AGG1

Pavement preservation stood shoulder-to-shoulder alongside classic asphalt paving at the **World of Asphalt Show & Conference** and **AGG1 Aggregates Academy & Expo** in St. Louis March 25–27. There, more than 11,500 industry professionals gathered to view new and existing material and equipment products, learn how to do their jobs better, and network with peers.

A surprising **59 percent of total attendees were under the age of 45**, reflecting the positive future of the industry. Additionally, 10 percent of attendees were women, underscoring this growing segment of the industry. Visitors traveled from across the country and abroad, some traveling from as far as Australia, England, Argentina and Mexico to take part in the asphalt and aggregates trade show and conference, including a special delegation from Nigeria.

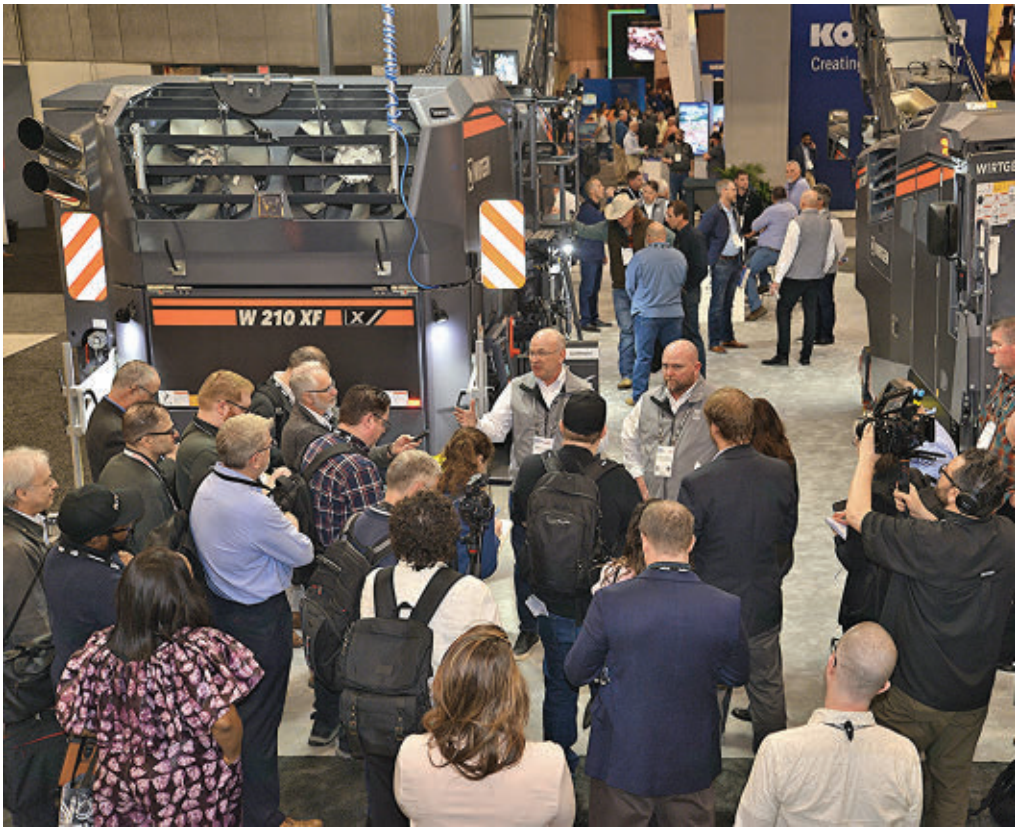
The 2025 event featured a **record amount of square footage**, demonstrating the growth in cutting-edge equipment and technologies from exhibitors. The exhibit floor spanned more than 230,000 sq. ft. of the America's Center Convention Complex; a roughly 23,000-sq. ft. increase from the 2024 event in Nashville.

Delegates also engaged in 120 educational sessions through the *People, Plants, and Paving & AGG1 Academy* learning programs. These conferences covered a wide range of topics essential to the asphalt and aggregates industries. FP^2 members spread the word about pavement preservation at a number of these workshops.

WOA/AGG1 is majority owned by FP^2 Inc. member **National Asphalt Pavement Association** (NAPA), and partially owned by the **Association of Equipment Manufacturers** (AEM), with the participation of the **National Stone, Sand & Gravel Association** (NSSGA). The next World of Asphalt, co-located with the AGG1 Academy & Expo, will be held March 15–17, 2027 in New Orleans, with Conexpo-Con/Agg 2026 intervening in Las Vegas.

Pavement Preservation Journal was there as well! Please enjoy these images of pavement preservation exhibitors and presentations at World of Asphalt/AGG1 in St. Louis

Cimline showed its versatile M-4 melter applicator for joint and crack sealing
www.cimline.com



Wirtgen Group's Matt Graves and Tom Chastain describe its advanced technology W 210 XF and W 120 Fi cold mills to trade press gaggle
https://www.wirtgen-group.com/en-us/

President of BioSpan Technologies, Lindsey Hermes, describes firm's variety of bio-based solutions for pavement preservation and maintenance
https://biospan.odoo.com/

Unique Paving Materials develops asphalt and concrete repair solutions, and advanced technology pavement preservation products. At WOA UPM introduced Trick Shot asphalt solvent and cleaner
uniquepavingmaterials.com

FP² president Dave Henderson, Asphalt Materials Inc., introduces Sorenson Award winners Bryan Olson, transportation director, Sheboygan County, Wis., and Pulaski County, Ark., Judge Barry Hyde, in panel on future of pavement preservation

Pavement Preservation Journal *publication director Paul Walley and publisher Darryl Lazarenko plot marketing strategies at WOA*

Technical and training sessions are a major part of World of Asphalt; here Bruce Barkevich, New York Construction Materials Association, and Bill Schmitz, Gernatt Asphalt Products, discuss road to Thinlays in New York State

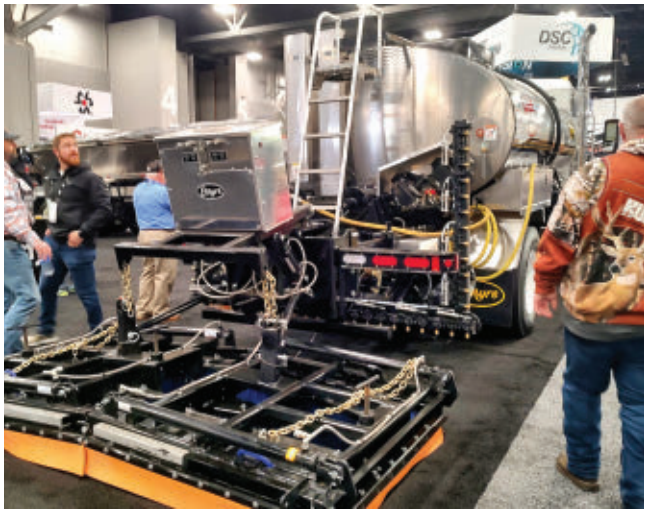
Reed International displays associated subsidiaries such as Stepp Mfg asphalt maintenance equipment, Kasi Infrared pavement heaters, and RTDensity real-time compaction density measurement technology
www.reedfamilycompanies.com/

Among other products, Sealmaster Inc. shows its Crack Pro mastic machine
www.sealmaster.net

Illinois DOT's John Senger discusses void-reducing asphalt membrane (VRAM) performance with Randy Miller, Evergreen Roadworks (left), and Tim Zahrn, Asphalt Materials Inc.

FP² director Bobby Betsold, All States Materials, explains evolving AASHTO pavement preservation specs

Crafco Inc. showed its pavement preservation products including its EZ Patcher and crack sealant melter/applicator
www.crafco.com



In a large stand, E.D. Etnyre & Co. displayed its scrub seal applicator attached to emulsion distributor truck
https://etnyre.com/

Etnyre's director of dealer development and training Brad Horner leads session on chip and fog seals
https://etnyre.com/

J-Band void-reducing asphalt membrane (VRAM) draws crowd at Asphalt Materials Inc.' stand
https://thejointsolution.com/

Panel on recycled materials in pavement preservation is chaired by Travis Walbeck, NCAT; Scott Bergkamp, Bergkamp Inc.; Joe Yaede, Forta; Ryan Brown, Ingevity; and Bobby Betsold, All States Materials

World of Asphalt is majority owned by the National Asphalt Pavement Association
https://www.asphaltpavement.org/

Bitumen Emulsions Spearhead Sustainability in Pavement Preservation, Construction

What comes to mind in one word when you hear the term "sustainability"?

Environment, conservation, efficiency, renewal, responsibility, resources, recycling, the future…these are typical answers you might receive if you pose this question to a group of engineers.

Simply defined, sustainability is the ability to meet our needs without compromising the ability of future generations to meet their own needs.

In the context of road construction and maintenance, sustainability refers to practices that minimize environmental impact, conserve resources, and promote the longevity and safety of roadways while ensuring they meet both current and future transportation needs. This encompasses the use of eco-friendly materials, waste reduction, and consideration of the effects on surrounding ecosystems.

The International Bitumen Emulsion Federation (IBEF) recognizes its responsibility to define and promote sustainability within the bitumen emulsion sector.

Acknowledging the essential role that bitumen, or asphalt, emulsion plays in pavement construction and maintenance, IBEF affirms its status as one of the most sustainable products available.

By prioritizing eco-friendly practices and innovative solutions, IBEF aims to support the development and use of bitumen emulsion in ways that not only enhance the durability and performance of roadways, but also contribute positively to environmental stewardship and resource conservation.

THIRD REPORT NOW AVAILABLE

After two years of collaboration among a group of 14 specialists, the first revision of IBEF's sustainability white paper was released exclusively to IBEF members during the 8th Eurasphalt-Eurobitume Congress in June 2024 in Budapest.

Asphalt, or bituminous, emulsions offer sustainable solution to pavement ills, according to new edition of IBEF white paper

Following this initial release, feedback and reviews were gathered to refine the document further. Consequently, the third revision of the bitumen emulsion sustainability white paper has been published for public access free of charge as of February 2025. This updated white paper is now available in four languages — English, French, Spanish and Chinese — through the IBEF website, promoting a broader understanding and application of sustainable practices in the industry.

The sustainability white paper released by the IBEF underscores the pivotal role that bitumen emulsions play in the construction and maintenance of road networks, aligning with sustainable development principles on a global scale.

IBEF serves as a recognized authority uniting bitumen emulsion producers through national associations and partners, comprising 35 members from around the world. This document is dedicated to Carl Robertus, a former executive committee member whose contributions were instrumental in its development.

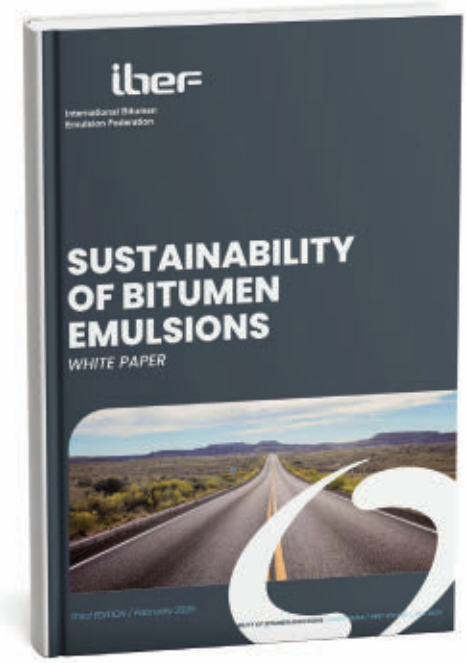
THREE PILLARS OF SUSTAINABILITY

At the heart of the white paper are the key pillars of sustainability concerning bitumen emulsions.

- **The first pillar**, pavement durability, emphasizes the importance of maximizing the lifespan of pavements through various applications of bitumen emulsions.

The use of prime, bond or tack coats is critical in achieving this goal. Prime coats create strong adhesion between the hot mix asphalt and the aggregate base, waterproofing and stabilizing the road base. This prevents common issues such as cracking and delamination, which can lead to expensive repairs.

In contrast to traditional methods that employ fluxed bitumen or cutbacks, emulsion prime coats offer several advantages, including enhanced safety, reduced environmental impact, and quicker curing times, thereby improving overall pavement durability.



New edition of sustainability white paper released by IBEF underscores pivotal role that bitumen or asphalt emulsions play in the construction and maintenance of road networks

- **The second pillar** focuses on pavement structural improvement. Rehabilitation techniques aim to restore the structural integrity of distressed pavements requiring more than routine maintenance

Methods such as **cold in-place recycling** (CIR) and **full-depth reclamation** (FDR) utilize existing materials, significantly reducing energy consumption and greenhouse gas (GHG) emissions associated with material extraction and transportation.

In-place applications of bitumen emulsions not only lower transportation-related emissions, but also reduce construction time, leading to shorter disruptions for road users. The economic advantages of using these methods are substantial, as they can be 20 to 50 percent less expensive than traditional mill-and-pave techniques.

- **The third pillar** addresses the environmental and social impacts of bitumen emulsions and their technologies.

The document highlights how preventive treatments using bitumen emulsions effectively reduce the embodied carbon of existing pavements while conserving natural resources through increased durability.

Pavement preservation practices, which evaluate the life cycle costs of maintaining a road, promote the use of these treatments as a means of conserving energy and virgin materials. The material production phase significantly contributes to CO_2e emissions in the road life cycle. By focusing on preventive maintenance, road agencies can extend the life of pavements and minimize their carbon footprint.

In exploring environmental impact, the white paper discusses the benefits of recycling and utilizing **reclaimed asphalt pavement (RAP)** in surface treatments, which reduces dependency on virgin materials.

The integration of RAP has demonstrated considerable cost savings and environmental benefits, including substantial reductions in GHG emissions and energy consumption. For instance, case studies highlight how certain sustainability programs have achieved remarkable reductions of over 80 percent in GHG emissions along with significant energy savings.

SUPPORTING HEALTH, SAFETY

The health, safety, and environmental (HSE) aspects of bitumen emulsions play a significant role in their sustainability profile. The document emphasizes that bitumen emulsions, when applied at lower temperatures, produce significantly fewer fumes and volatile organic compounds (VOCs) compared to traditional hot bitumen.

This not only enhances the safety of workers on-site, but also contributes to improved air quality. Furthermore, the absence of hot mixing and reduced transportation needs during the application process minimize environmental impacts, making these methods safer and more sustainable.

The social impacts of using bitumen emulsions extend beyond immediate construction benefits. The document notes a reduction in odors typically associated with hot bitumen, which contributes to a more favorable environment for construction workers and nearby residents. Enhanced road safety is another notable benefit, as bitumen emulsions improve skid resistance through various maintenance applications, ensuring safer conditions for road users.

ECONOMIC CONSIDERATIONS

Economic considerations are integral to the argument for increasing the use of bitumen emulsions in road construction.

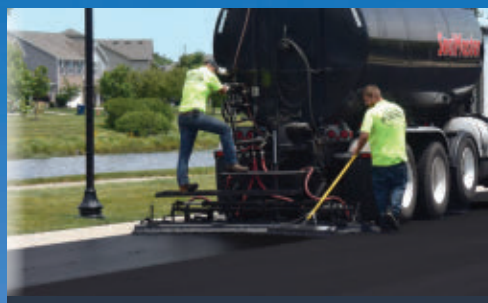
The potential for significant cost savings through reduced material and energy use presents a compelling incentive for road agencies. Treatments that leverage existing materials not only lower overall costs but also enhance sustainability by conserving resources. The lower temperatures associated with bitumen emulsion applications reduce energy demands during production, further supporting their economic viability.

In conclusion, the IBEF white paper on the sustainability of bitumen emulsions positions these materials as a critical component of modern road construction and maintenance practices. The emphasis on durability, structural improvement, and minimized environmental and social impacts underscores the multifaceted benefits of adopting bitumen emulsions. As the road construction industry moves toward more sustainable practices, the insights provided in this white paper serve as a valuable resource for promoting the adoption of bitumen emulsions, highlighting their role in advancing both economic and environmental sustainability in road infrastructure.

Edited by Pavement Preservation Journal from material provided by the International Bitumen Emulsion Federation. Download your copy of the IBEF sustainability white paper by using the QR code below, or visit https://www.ibef.net/en/report/sustainability-of-bitumen-emulsion-whitepaper/

THE ROAD TO PAVEMENT PRESERVATION

More than 55 years of material and equipment innovation has positioned SealMaster as an industry leader in pavement preservation technologies.



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New DOT Secretary Duffy: 'Build More, Faster, Better'

BY TRACY TAYLOR

President Trump is well into the second "100 days" of his administration at this juncture. Unquestionably his second term, for which he and his team had four years to prepare, has gotten off to a much more rapid start than his first term eight years ago.

One indication of this is the scale and scope of executive orders that President Trump signed his first day in office, the most since 1937! This has continued and as of today, he has signed well over 100 executive orders, surpassing those signed by both presidents Obama and George W. Bush during their entire first terms. At this writing, he has yet to surpass President Biden's first term record for executive orders — but may soon!

President Trump's actions reversed many of President Biden's policies and introduced measures aligned with his agenda as was developed and refined during his four years out of office.

In addition to executive orders, which are essentially policy initiatives, the new administration came into the office ready to begin nominating individuals for leadership positions. With Republican control of the Senate, many of these key nominees have been confirmed, jump-starting policy work in the administration.

'BUILD MORE, FASTER, BETTER'

New **Secretary of Transportation Sean Duffy** was sworn in Jan. 29. In a speech before AASHTO shortly after becoming secretary, Duffy said that Trump's vision for the DOT is "to help you build more, build faster, build better, and probably more beautifully as well," he said. "I do want to build more but I want to build more with less money and I want us to build in a shorter period of time."

To this end, we have, and will continue to see, a goal to shrink, what this administration believes, are regulatory excesses that slow down the process and increase costs.

Meanwhile, Congress has been busy working on FY 2025 and 2026 appropriations, the reconciliation bill to extend the 2017 Tax Cuts and Jobs Act (TCJA) tax cuts, finding a fix to the Highway Trust Fund Shortfall, and initial drafting of the 2026 surface transportation reauthorization legislation.

While we are very early in the process of much of this work, the good news is there seems to be an increased understanding and appreciation for the fact that electric vehicles need to pay into the Highway Trust Fund to compensate their wear and tear on our nation's roads. This is something long advocated by FP².

Additionally, Republican leadership in Congress seems to be more focused on efficiently building, maintaining and preserving our nation's roads rather than expanding what many in the industry consider to be peripheral programs.

Emphasizing the need for strong investment, the American Society of Civil Engineers (ASCE) earlier this year released its quadrennial *Report Card for America's Infrastructure*. The report — which emphasizes the need for continued investment in America's infrastructure — notes that demands on infrastructure have intensified.

Even with increased investment from the *Inflation Reduction and Jobs Act* (IIJA), ASCE estimates that over the next decade, the funding gap for roads will be $685 billion. The report also notes that "39 percent of major roads in the U.S. are in poor or mediocre condition, an improvement from the 43 percent recorded in 2020, but driving on deteriorated and congested roads still costs the average driver over $1,400 per year in vehicle operating costs and lost time."

PRESERVE OUR ROADWAYS

ASCE's first recommendation is that the U.S. needs to be "dedicating resources to preserving a state of good repair." The emphasis on prioritizing roads in the next surface transportation reauthorization — as well as maintaining a state of good repair — are welcome focuses which we look forward to seeing memorialized in the next reauthorization.

U.S. Secretary of Transportation Sean Duffy

This focus on building, maintaining and preserving roads fits in well with FP²'s initiatives, which FP² President **Dave Henderson** has explained well in his *President's Message*. We will be continuing to advocate for support for pavement preservation and recycling training and investments in small agencies, a permanent source of adequate Highway Trust Fund revenue, and retaining current *Buy America* exclusions in the funding and the authorization bills as they move forward this year and into next year.

As always, your work educating your federal representatives both locally and in Washington is essential to FP²'s advocacy work. Resources for your advocacy work can be found at https://fp2.org/advocacy-for-preservation/ and executive director **Rick Church** or D.C. counsel **Tracy Taylor** always are available to assist you in your efforts.

Taylor is principal at Alignment Government Strategies, Washington, D.C., and is FP² Inc.'s legislative counsel

New Preservation Insights from PG3 Study

BY DR. ADRIANA VARGAS

The Pavement Preservation Group Study (PG3) has entered its third phase, building on the valuable lessons from Phases I and II. This third phase focuses on helping agencies with planning, construction, monitoring, documentation and analysis of test sections.

Led by MnDOT and supported by the National Center for Asphalt Technology (NCAT), the National Center for Pavement Preservation (NCPP), FP², the Federal Highway Administration (FHWA), and various sponsoring agencies, the Technical Advisory Panel (TAP) has been diligently coordinating efforts since early 2024.

The TAP recently convened in March in Richmond, Va., following the Southeastern Pavement Preservation Partnership annual meeting. The discussion centered on upcoming projects for 2025 and 2026, which will see new test sections constructed and monitored across the United States. These projects will feature a variety of treatments, ensuring a more comprehensive consideration of pavement preservation techniques.

INNOVATIVE PROJECTS NATIONWIDE

- **Alaska DOT** plans to address rutting caused by studded tires with a thin mill-and-inlay section on a high-traffic roadway. This project will use a highly modified binder and hard aggregate, building on successful test strip results. The goal is to evaluate the performance of this treatment on a larger scale, which could lead to broader implementation across the state if successful.
- **Delaware DOT** is focusing on shoulder repairs, particularly in areas affected by horse and buggy traffic of the Amish community. The project involves patch repairs in the worst areas, followed by a two-stage micro surfacing treatment. The first stage will be a rut-fill operation to level the surface, followed by a standard micro surface to provide a smooth and durable finish. This approach aims to extend the life of the shoulders and improve safety for all road users.
- **Idaho DOT** will experiment with a reclaimed asphalt pavement (RAP) chip seal in a remote location, aiming to address the shortage of quality virgin aggregates. This treatment is expected to provide a cost-effective and sustainable solution by recycling existing materials. The remote location ensures minimal risk to the traveling public while allowing for thorough monitoring and evaluation of the treatment's effectiveness.
- **Michigan DOT** is set to apply multiple treatment variations to compare their performance. These include a mill-and-fill followed by a chip seal and fog seal, a Texas underseal, and a mill-and-fill with fog seal for centerline rumble strips. Each treatment will be compared to a standard mill and fill section serving as the control.
- **Minnesota DOT** plans to expand its use of cape seals based on the promising results from Phases I and II of the study. They will construct multiple test sections, including a standalone scrub seal, a scrub cape seal, a cape seal, a double layer micro surface, and a double layer micro surface over crack seal.
- **Mississippi DOT** will incorporate scrub cape seals into its pavement preservation program, targeting a state route with low traffic and significant cracking. The treatment aims to seal the cracks and prevent further deterioration, extending the pavement's lifespan. This project will serve as a pilot for potential wider application of cape seals in Mississippi's preservation efforts.
- **North Carolina DOT** aims to preserve suburban routes and subdivisions by

During field trip, SEPPP delegates visit Slurry Pavers Inc .emulsion plant; SEPPP was site of Technical Advisory Panel meeting

applying a rejuvenator on a newly resurfaced roadway with moderate traffic. The pavement has little distress, and this treatment is expected to delay the rate of deterioration by restoring the asphalt's flexibility and extending its service life. This proactive approach will help maintain the quality of suburban roads and reduce future maintenance costs.

- **Washington DOT** will implement a chip seal with rut treatment on a low-traffic state route. Additional test sections will be constructed to include crack sealing, thin overlays, and chip seals. These treatments will be monitored to assess their effectiveness in preserving low-traffic roads and preventing common pavement issues such as cracking and rutting.

COLLABORATION DRIVES INNOVATION

Other sponsoring states are closely monitoring these projects before selecting their own. Once a project is nominated, the research team provides training, specification review, guidance, and other technical support as needed throughout the planning process.

During construction, on-site support is available, and material samples and treatment information are collected. Performance data will be gathered post-construction and analyzed by the research team.

As the PG3 progresses into its Third Phase, the collaborative efforts of state DOTs, research institutions, and industry partners continue to drive innovation in pavement preservation.

The diverse range of projects planned for 2025 and 2026 will provide valuable insights into the effectiveness of various treatments across different climates and traffic conditions. By sharing knowledge and best practices, the PG3 study aims to enhance the longevity and performance of our nation's roadways, ensuring safer and more sustainable infrastructure for the future. The commitment and dedication of all involved stakeholders underscore the importance of ongoing research and collaboration in advancing pavement preservation techniques.

Vargas is associate research professor, National Center for Asphalt Technology (NCAT) at Auburn University.

Optimizing Cold-Recycled Asphalt Pavements

Editor's Note: *This is the 31st of a series of profiles of civil engineering students who are undertaking pavement preservation as a course of study. These students bring their own perspective of why a young civil engineer would pursue pavement preservation and recycling study. This issue, we look at* ***Saed Aker****, a doctoral graduate of Arizona State University. Thanks to ASU's* ***Dr. Hasan Ozer*** *and* ***Dr. Andrew Braham P.E.,*** *University of Arkansas, for their assistance with this article.*

WHAT GOT YOU INTERESTED IN PAVEMENT PRESERVATION?

Early on in my career, I focused on other areas of infrastructure, so my knowledge of pavement design and maintenance was limited.

When I started my Ph.D. program in pavements at ASU, I had a lot to catch up on. So, I tried to make the most of every opportunity to learn, and with the help of my advisor, Dr. Hasan Ozer, I built a strong understanding of pavement engineering, from the fundamentals of materials and design, to the factors that influence the pavements' performance, sustainability, and long-term management.

HOW IS YOUR RESEARCH RELATED TO PAVEMENT PRESERVATION?

A major part of my research focuses on improving pavement preservation techniques through better material performance and design. My doctoral work has been centered on cold recycling of asphalt pavements, where I've worked on optimizing gradation, refining mix designs, studying curing behavior, and improving structural design.

This has involved analyzing material behavior to understand how recycled pavements perform under real-world conditions.

Beyond recycling, I've worked on different studies looking at how surface treatments affect pavement performance. One of them focuses on evaluating the life-cycle performance of preservation treatments in Arizona, analyzing long-term costs, environmental impact, and overall effectiveness.

Aker evaluates in-place recycling as part of his cold-recycling research

Saed Aker in lab at Arizona State University

I've also been part of research examining the effects of diamond grinding on tire wear emissions, specifically how surface texture influences wear rates and particulate emissions under different traffic conditions.

HOW HAS YOUR PERSPECTIVE CHANGED ABOUT OUR ROAD INFRASTRUCTURE SINCE BEGINNING RESEARCH?

I would say it changed quite a bit!

I got into pavement research at an exciting time, with advancements in engineering and other fields reshaping how we approach designing and maintaining infrastructure.

Early on, my research focused on identifying shortcomings in existing methods and making targeted improvements to specific issues.

Over time, I've adopted a broader perspective that ties together different stages of a pavement's life including design, construction and management, so that each improvement builds on the next.

Rather than addressing problems in isolation, I now select research topics within a framework that considers how these elements interact over the full lifespan of a pavement.

DO YOU HAVE PLANS TO CONTINUE IN THE FIELD OF PAVEMENT PRESERVATION UPON GRADUATION?

Absolutely! I've already graduated and am now working as a postdoctoral researcher at ASU, continuing my work in pavement preservation. It's a fascinating field with plenty of room for improvement, and with new advancements, the way we approach challenges is constantly evolving.

Looking ahead, I plan to keep working on ways to improve how we design and maintain our infrastructure, including pavements, to make them more effective and long-lasting.

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