

Winter 2013

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WISCONSIN ASPHALT NEWS

ASPHALT. Wisconsin rides on us.

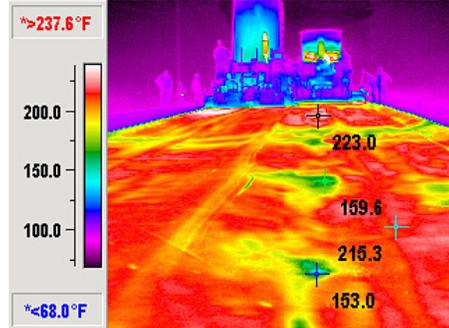
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Calendar of Events

- Jan. 30-31 Middleton
Wisconsin Transportation Builders Association (WTBA) **2013 Contractor-Engineer Conference**
- Feb. 9-13 Scottsdale, Ariz.
National Asphalt Pavement Association (NAPA) **58th Annual Meeting**
- Feb. 14 St. Paul, Minn.
Transportation Engineering and Road Research Alliance (TERRA) **17th Annual Pavement Conference**
- March 19-21 San Antonio
Joint event: World of Asphalt **2013 Show and Conference** and Association of Modified Asphalt Producers (AMAP) **14th Annual Conference**
- April 7-10 Denver
Association of Asphalt Paving Technologists (AAPT) **88th Annual Meeting**

Infrared Thermal Imaging Stops Segregation Cold



Thermal segregation revealed: Infrared thermal imaging displays temperature variation that the human eye can't detect. (Images courtesy of MOBA)

Hot mix asphalt at 300 degrees Fahrenheit and HMA at 250—to the naked eye, it all looks about the same.

And while a freshly placed HMA mat may seem even and consistent in every way, invisible variations in temperature—or thermal segregation—may be a root cause of premature failure in the years to come.

Fortunately, modern technology provides **infrared thermal imaging** as a way to fight thermal segregation. With this tool, IR cameras are mounted on a beam at the rear of the paver and continuously measure and

record the temperature of the mix as it is spread on the roadway. The system also provides a visual representation of the thermal profile to the construction crew.

Why IR thermal imaging

IR thermal imaging provides two unique advantages over other testing methods.

- It provides information in **real time**. This gives operators a chance to detect unacceptable thermal variances and take corrective action.
- It captures and records a **continuous data set** across the length and width of the asphalt mat. Spot checking and random sampling can never provide the breadth of data gathered through automatic, continuous recording. Data from an IR thermal imaging system can also be stored and reviewed years later if necessary.

The system also records paver speed throughout a project as well as the number, location and duration of paver stops.

MOBA AG, headquartered in Germany, produces the IR imaging system PAVE-IR used in Wisconsin and elsewhere. Jim Hedderich, MOBA's Technical Marketing Specialist for Paving Quality, discussed the system's advantages with us. "From a performance perspective,"

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Infrared Thermal Imaging Stops Segregation Cold

from page 1

he says, “it’s not the pavement temperature that matters so much as variations in the temperature. The research out there supports a rule of thumb that a temperature differential of 25°F below the baseline leads to 1 to 2 percent additional air voids.” With excessive air voids as a predictor of shortened pavement life, that’s a big deal.

An IR spec in Wisconsin?

IR thermal imaging is catching on nationally. “About half the states have expressed an interest in IR thermal imaging in some form, whether through demonstrations, pilot projects, or more extensive implementation,” Hedderich says.

“Some state DOTs are writing specifications related to temperature variation limits that would be assured using IR thermal imaging,” he says. Texas, Louisiana, Georgia, Pennsylvania, Alabama and Ohio are among the states that have set thresholds for allowable variances in temperature, ranging from 18°F to 25°F.

To find out whether a specification based on thermal variance might be in Wisconsin’s future, we turned to Tom Brokaw and Judie Ryan of Wisconsin DOT’s Bureau of Technical Services. Based on what they told us, you probably shouldn’t expect one any time soon.

“Whenever new technology like IR thermal imaging comes into the department’s hands,” Ryan says, “we need to be able to differentiate it as a contractor QC tool versus a tool that the department might use as an acceptance or quality assurance tool. I see potential for this technology to be used for either of these two processes, but I think we have to understand it better first.”

Brokaw agrees. “This is one of those tools that will start out as a QC tool that contractors can use to

improve their operations,” he says. “It could possibly transition into a department acceptance tool, but it would be after a period of time.”

WAPA members Payne & Dolan and Mathy Construction have both had the opportunity to use IR thermal imaging on paving projects. Payne & Dolan has purchased the PAVE-IR system, says Corporate Technical Services Manager Brett Stanton, who sees the best fit for IR thermal imaging in quality control. “It’s a great QC tool,” says Stanton. “It tells operators in real time how they might need to make temperature and materials more uniform.”

Mathy owns a system as well. “We have been using our PAVE-IR bar on a regular basis on every type of paving project, from county roads to Interstates, from HMA to WMA, dense-graded to SMA mixes, and on warranty and conventional contracts,” says Erv Dukatz, Vice President for Materials and Research at Mathy. “The system works well to help our crews achieve a consistent mix for rolling behind the paver, which improves both density and smoothness.”

Bottom line: IR makes a difference

Whether it is used as an acceptance or quality control tool, the promise of IR thermal imaging for improving pavements is real. “We understand that the thermal characteristics of aggregates and binder have an impact on the final product,” WisDOT’s Ryan says. “The efficiency of being able to



MOBA’s paver-mounted PAVE-IR system captures data across the full asphalt mat in real time. (Image courtesy of MOBA)

capture these thermal data will bring us into a new generation of how we handle performance issues down the road. Anything we can do to lengthen the time between maintenance treatments, we’re very interested in.”

WisDOT’s Brokaw adds, “The biggest thing we’re looking for is consistency across the whole pavement structure: density, permeability, smoothness and stiffness levels. IR thermal imaging is one tool that can help achieve that.”

Ryan notes that the department recently funded a Wisconsin Highway Research Program **project** in this area, which is expected to be completed soon. “The study is looking at systems to enhance the density measurement tools we currently use with an overall goal to improve compaction,” she says. “That research is coming to a conclusion this spring, and we have some initial data on how thermal imaging might help us.”

The continued interest in the technology is echoed from the contractor side. “Nobody mandates that we use IR thermal imaging,” says Payne & Dolan’s Stanton. “We continue to use PAVE-IR because we see the benefit of it as a QC tool. We plan to keep circulating the device to different construction projects around the state.” ■

A Conversation with NAPA's Environmental Expert



Howard Marks, Vice President for Environmental Affairs, National Asphalt Pavement Association

Howard Marks, NAPA's Vice President for Environmental Affairs, stays busy keeping the record straight when it comes to the environmental impacts of pavements. He spoke with us about the work NAPA is doing in several key areas related to asphalt pavement and the environment.

WAPA: Thanks for speaking with us today about this important topic.

HOWARD MARKS: You're welcome. I'm always happy to help.

Can you tell us what NAPA is currently doing in terms of environmental issues?

NAPA has been very active in several key areas. These include

environmental life-cycle assessment, the impact of pavement type on vehicle fuel use, pavement reflectivity, pavement sustainability rating systems, and stormwater management with porous pavements. NAPA is involved in raising awareness and supporting research in all these areas.



Porous asphalt pavement (at right, side-by-side with standard pavement) easily handles runoff in a parking lot. (Image courtesy of NAPA)

Is there a central issue among these areas?

I would say that the life-cycle assessment issues are key. Life-cycle assessment is a way to measure the environmental impacts of a material—in our case, paving material—in terms of carbon dioxide equivalents or energy intensity. We need to be sure to get the boundaries of life-cycle assessments correct so that we can plug in all those other pieces correctly. In the end, life-cycle models need to be appropriate, valid and credible.

Would it be fair to say that in addition to advancing knowledge, NAPA is equally concerned with calling into question some existing studies—those that don't meet the criteria of "appropriate, valid and credible"?

Yes, that's an accurate assessment. For example, we're comparing and contrasting various life-cycle assessment tools, as well as looking at the validity of studies that reference the environmental impact of asphalt pavements—all to make sure they are done in accordance with unbiased, rigorous and valid principles.

Can you give an example?

A well-publicized study funded by the concrete industry on the impacts that pavement has on fuel use is proving to be a very simplistic model.

And it's not just NAPA calling it into question—other researchers have too. NAPA plans to pursue this in greater detail to understand just how credible it is. I suspect there are substantial gaps and omissions in transparency and methodology.

We've seen similar questionable claims about the urban heat island effect from the concrete industry too, haven't we?

Yes. The premise that reflective concrete pavements can reduce the urban heat island is a flawed one rooted in research on roofing materials, not pavements. Research shows that pavement surface temperature has no effect on air temperature as little as 5 to 10 feet above the ground. In fact, reflective pavements are arguably worse. All that reflected radiation has to go somewhere: usually surrounding buildings. This causes glare and, as a recent study out of UC-San Diego showed, increased air-conditioning demands. Although it is hardly ever publicized, the Centers for Disease Control and Prevention recommend that public schools do not place reflective hard surfaces where young children play or congregate.

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A Conversation with NAPA's Environmental Expert

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Back to asphalt: What are some of the other environmental benefits that NAPA is investigating and promoting?

We're working hard to better define the role of recycled asphalt pavement, recycled shingles, and other recycled asphaltic materials with regard to life-cycle assessment. We know some of the technologies significantly reduce the energy intensity and carbon footprint of asphalt pavement [see *graphic below*]. Also, our [Greenhouse Gas Calculator](#) is an easy-to-use tool for analyzing gate-to-gate greenhouse gas emissions for asphalt manufacturing.

We can't talk about the environment without mentioning runoff and porous pavement. The analogous concrete product is

hard to construct—and often made incorrectly by contractors.

Yes, porous asphalt pavement is much better suited to addressing stormwater runoff by carrying water through the structure to the subbase. Despite what the concrete people might want you to think, well-documented research shows that the asphalt binder does not contaminate the water as it passes through. In fact, porous asphalt pavement has been shown to actually improve runoff water quality, we think by capturing some of the vehicle-deposited materials. It's characteristic of our responsibilities at NAPA both to research the facts and combat the falsehoods when it comes to the many benefits and advantages of asphalt.

Keep up the good work, Howard. Thanks for fighting the good fight! ■

The “Full Mat” Philosophy: Intelligent Compaction and IR Thermal Imaging

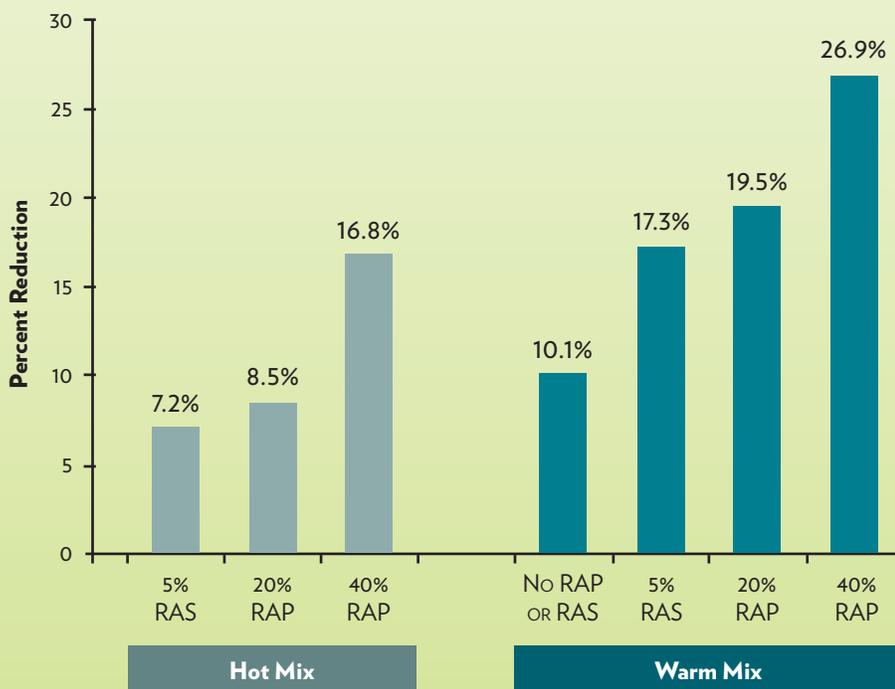
“If you're a smartphone user,” says Brandon Crockett, Marketing and Business Development Manager for compactor manufacturer Sakai, “you know that once you've gotten used to accessing maps and the Web on the go, there's really no returning to an old flip phone.”

Crockett expects just that kind of “no-going-back” technological progression when it comes to intelligent compaction. “I think that sometime in the near future as technology progresses,” Crockett explains, “nobody will imagine wanting to compact an asphalt pavement *without* intelligent compaction. The equipment is simple to operate, yet it provides a very rich set of real-time data on pavement temperature, stiffness and number of roller passes.”

We highlighted intelligent compaction—or IC—in the [Summer 2010 issue](#) [PDF] of *Wisconsin Asphalt News*. With our focus this issue on infrared thermal imaging technology that provides a full-mat data set (see our cover story), we thought it was appropriate to revisit IC as a companion technology.

Tom Brokaw of WisDOT's Bureau of Technical Services sees the potential connection between the technologies. “There are possibilities for using IR thermal imaging and IC together,” he says. “Looking at temperature and stiffness issues together might not be

REDUCTIONS IN GREENHOUSE GAS EMISSIONS BY USING WARM MIX, RAP AND RAS COMPARED WITH 100% HOT MIX ASPHALT



(Image adapted from Robert Lee, Texas DOT)

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The “Full Mat” Philosophy

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easy to do, but we could gain some real insights.”

Brokaw’s colleague Judie Ryan agrees. “If you can paint a better picture of data and quantify wider coverage areas with these tools,” she says, “it could really help increase our understanding of pavement performance and promote success.”

Asked about IC technology in particular, Ryan stressed that WisDOT is not as interested in the technology itself so much as the data it provides. “What we ultimately want is data that helps us make good engineering decisions,” she says. “And since the department can’t put an inspector behind every roller, I have an interest in data that can be provided to me by the rollers themselves and delivered right to my desk in real time.”

As with IR thermal imaging, WisDOT doesn’t expect to see IC used as an agency acceptance tool in the immediate future. “For now we see intelligent compaction as a technology that contractors can use to support their quality control efforts,” Ryan says.

This is particularly important given the loss of skilled compactor operators in Wisconsin’s workforce to retirement, Ryan notes. “A tool like IC can help prevent backsliding from the gains in pavement quality that we’ve seen over the years,” she says.



The pavement might be all black, but the readout of an IC system lets the operator know in living color the number of compaction passes. (Image courtesy of Sakai)

“THREE OF OUR COMPANY’S TOP FOUR SMOOTHEST HMA PROJECTS LAST YEAR USED IC ROLLERS.”

—Erv Dukatz, Vice President for Materials and Research, Mathy Construction

Contractors are reaping the benefits as well. “Three of our company’s top four smoothest HMA projects last year used IC rollers,” says Erv Dukatz, Vice President for Materials and Research for Mathy Construction. “Pavement densities met or exceeded project requirements as measured by cores.”

Dukatz says he envisions two uses of the technology in the near future. “The first is IC as a QC tool to achieve consistency in placement and compaction of the asphalt mix,” he says. “The second is prior to construction, when an IC roller can be used to map the site and for proof rolling on each lift.

“The challenge will be what to do with the data,” Dukatz continues. “Will the data be used to document weak areas so that the cause of future problems can be determined? Or will it be used to identify areas needing repairs during pavement construction and to determine the effect of the repairs?” Dukatz also sees longer-term challenges in developing universal standards independent of roller type and determining required stiffness values for specified pavement performance levels.

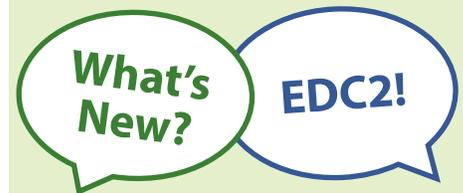
Brett Stanton, Corporate Technical Services Manager with Payne & Dolan, says that IC is making a lot of progress. “One of the great benefits of IC is the GPS mapping that tells operators where they’ve already been,” he says. “It’s not easy to keep track of compaction over miles and miles of new roadway—and all of it black. IC’s readouts on roller passes and positioning take out the guesswork.

“Interpreting stiffness values can be a little trickier,” he notes. “I think that’s what’s driving the research that you’re seeing in Wisconsin.” WisDOT

completed an **evaluation of IC technology** in 2010, and a study on **non-destructive testing for compaction** is expected to conclude this year.

“There’s also a great deal of national interest in IC,” Stanton says. Wisconsin is part of that national discussion: In January, Stanton and Mathy’s Dukatz were among presenters at a Transportation Research Board annual meeting session, “**Innovative Technologies in Asphalt Paving**.” The session featured contractor and agency perspectives on both IC and IR thermal imaging as innovative technologies to improve pavement construction. FHWA has made IC a national priority as well through its Every Day Counts initiative—see the sidebar below for more details. ■

FHWA Weighs In on IC



The federal government has taken a leadership role in helping stakeholders nationwide make the most of intelligent compaction. We contacted the Federal Highway Administration to learn more about the agency’s perspective on IC, and the FHWA Office of Public Affairs’ responses address the potential of IC and its role among other new technologies in the future of paving.

WAPA: We know intelligent compaction is an **Every Day Counts 2 initiative**. Looking at current and potential deployments of IC across the United States, where do you see the leadership and drive to implement IC coming from? State

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FHWA Weighs In on IC from page 5

DOTs? County and local road agencies? Or are industry contractors taking the lead?

FHWA: The Every Day Counts initiative—or EDC—identifies and deploys proven innovations aimed at shortening project delivery, enhancing safety on our roadways, and improving environmental sustainability. The process of identifying the technologies and processes that are advanced through EDC are first solicited nationally. Through an FHWA-led joint effort with AASHTO, the Associated General Contractors of America (AGC), the American Road & Transportation Builders Association (ARTBA), the American Council of Engineering Companies, the National Association of County Engineers, and other national associations, the suggestions are reviewed and refined to only proven technologies. IC is one of those national technologies proven by owners, consultants and contractors to shorten project delivery, enhance safety and improve environmental sustainability. The leadership for the deployment of this technology comes from both state DOTs and the contractor community. FHWA engages all stakeholders to support implementation strategies by holding regionally based summits.

WAPA: For now, intelligent compaction appears to be best suited for use as a contractor quality control tool. The technology and the research don't yet point to specifying IC values in a mix design or to the use of IC as an agency QA or acceptance measure. What do your experience and work with state DOTs tell you about the possibilities of future expanded use of

IC for these purposes?

FHWA: Intelligent compaction is a proven technology utilized by contractors to enhance quality and equipment operators' knowledge of where compaction has occurred. IC improves construction quality and provides a homogeneous

compacted product that the owner may verify and base payment upon. During nighttime construction, IC has been able to enhance worker safety by moving the contractor's quality control of compaction to inside the cab of the equipment with the operator, which eliminates testing by a worker maneuvering among the construction operations on the ground in the dark.

The cost savings of using IC are presented in construction cost savings and long-term performance costs. The construction cost savings are presented in optimizing equipment operations to provide just-in-time compaction magnitude and location (reduced fuel consumption and equipment wear and tear). Performance cost savings are presented within the assurance that the structure is compacted homogeneously as specified in the contract documents.

States and contractors are evaluating and adopting IC because of its demonstrated abilities of saving construction costs and enhancing the quality



(Image courtesy of FHWA)

of compaction. At the same time, there is a dynamic wave of enhancements with construction equipment and project management tools that is helping the highway industry enhance productivity while ensuring quality.

WAPA: What is FHWA's long-term vision for intelligent compaction deployment?

FHWA: IC is just one technology in a new wave of construction-related products for highways. More than 70 intelligent construction systems and technology innovations are being monitored, refined and deployed by AGC, AASHTO, ARTBA and FHWA in the near future. These technologies form the nucleus of the Civil Integrated Management System, which brings together intelligent construction technology and partnering between owners, consultants and contractors to meet the needs of today and tomorrow. ■

Highway Funding After the Election

The votes are counted and the stage is set for a new cast of players in Washington to determine how our nation's roads are funded. And despite the intense national interest in the 2012 election, few pundits spent much time discussing transportation issues. With a second-term Democratic president and Congress split between a Republican-led House and Democrat-led Senate, what do the election results mean for Wisconsin's highway agencies and asphalt pavement industry?

A core mission of the National Asphalt Pavement Association is advocacy for the asphalt pavement industry, and shortly after the election, NAPA conducted a webinar titled "Election Implications for Asphalt Contractors" (the webinar **presentation** [PowerPoint] and **recording** [Windows video] are both online). Jay Hansen, NAPA Executive Vice President, and Van Scoyoc Associates' Steve Palmer together shared their thoughts on the likely priorities of the second Obama administration and the 113th Congress as well as the coming legislation that will impact roads in Wisconsin and across the nation.

The webinar represents a snapshot in time, and some of the topics discussed have already been resolved. However, key points related to highway funding legislation remain timely and bear repeating. As Hansen noted during the webinar, "While we do have MAP-21 enacted, there's a whole lot of implementation that takes place. It's not over." He described a continuing resolution in 2012 that cuts the highway program by \$500 million over the next fiscal year. "The ink is barely dry on MAP-21," Hansen said, "and Congress is already cutting the program. ... One of the issues will be to get that fixed." Hansen said that NAPA is working closely with key senators to develop a strategy to address this topic.

"There's going to be a lot of competition for attention [in 2013]," Palmer added. "As we heard during the campaign, there are going to be three big issues where [Congress will] spend a lot of time—tax reform, immigration and energy policy—two of which could directly affect the industry, and it's something we need to keep an eye on in the bigger picture."

Looking toward future funding issues, Hansen also said that "what was discouraging about MAP-21 was that [Congress] didn't deal with the long-term funding solutions. ... So beginning in 2015, the Highway Account [of the Highway Trust Fund] will be in the red." NAPA will take



Lawmakers in Washington will make many important decisions affecting transportation funding in 2013 and beyond. Get involved and help explain to your federal representatives the nation's vital interest in funding our highways.

an active role with Congress to address the issue of finding new Trust Fund revenues. Otherwise, Hansen said, "in 2015 the program tanks—all the money going into the program will be paying for ongoing projects, leaving no room for new projects. That's our own fiscal cliff for our industry."

Hansen outlined programs that NAPA has instituted to foster support for the industry's objectives among lawmakers. One of these is the NAPA Political Action Committee—or NAPA PAC—which provides financial support "to candidates and office holders who strongly support federal highway investments" (see the [NAPA PAC Web page](#)). He also highlighted the first-ever **NAPA legislative fly-in**, to be held in September in Washington.

Hansen and Palmer both stressed the ongoing need for members of the asphalt industry to meet with lawmakers and communicate the vitally important role of the industry in supporting jobs and local economies. The fly-in is still months away, and these conversations need to be happening today. Hansen emphasized that NAPA is there to provide support: "Meet with your [Congressional] members back in their districts. Do the plant tours. We have information to help you do that." WAPA can also help you make the right connections in Wisconsin and open dialogues. Please just ask how we can help. ■



NAPA's Political Action Committee is committed to helping elect lawmakers who strongly support federal highway investments.

Battling Silica Dust: Wisconsin Leadership on a National Effort

Ten years ago, silica dust levels associated with pavement milling raised questions about possible worker health hazards. The asphalt industry jumped into action, joining other national stakeholders to tackle the question head-on through a cooperative research partnership. WAPA member Payne & Dolan has been closely involved with the Silica/Milling Machine Partnership ever since. (The company's role in national asphalt issues is nothing new—Chairman Ned Bechthold was recently **honored by the National Center for Asphalt Technology**, and President Kurt Bechthold is the 2012-2013 chair of NAPA's board.)

The Silica/Milling Machine Partnership includes:

- NAPA and its members
- Multiple labor unions
- Milling machine manufacturers (Roadtec, Volvo Construction Equipment, Wirtgen, Terex Roadbuilding, and Caterpillar)
- Association of Equipment Manufacturers
- National Institute for Occupational Safety and Health

The Occupational Safety and Health Administration works in concert with the partnership.

We had an opportunity to speak with Payne & Dolan Operations Manager Tony Bodway, a key player in this partnership since its formation, to learn more about the importance of this work, what has been accomplished so far, and what the future might hold. He detailed the strides that the partnership has made over the past decade.

“The partnership's early research efforts measured silica dust levels from milling operations, which were shown to be within OSHA's permissible exposure limits,” Bodway says. “However, knowing that those limits could change soon, and with an eye toward increasing worker

health and safety if we could, the partnership moved on to test refinements to the water spray systems that are used to suppress silica dust.” The results pointed to improvements in equipment calibration, operation and maintenance that can drive down silica dust levels.

“We still weren't done, though,” Bodway says. “Integrated vacuum systems on milling machines showed potential to further reduce silica dust levels, and we wanted to explore that opportunity.”

The partnership conducted extensive research, testing and demonstration of vacuum systems. Now these activities are nearing completion as well.

“I think we're in the home stretch of the partnership,” Bodway says. “The final testing phases include tracer gas testing as well as personal hygiene tests that measure silica dust levels in the proximity of workers themselves. The tracer gas testing is just about finished, and the results really look outstanding.”

Looking forward, Bodway expects milling equipment design to be impacted as a direct result of this work. “I think that in the not-too-distant future milling machines will all use integrated vacuum systems as a standard feature along with the water-spray systems for dust suppression that are standard today,” Bodway says. “Our research shows this is clearly the right way to go. It's just a matter of time before the industry gets there.”



Payne & Dolan's involvement in the national Silica/Milling Machine Partnership included coordination of new equipment field testing in Shawano.

Bodway gives credit to the participants in the partnership for coming together for a common cause. “The groups involved represent a range of interests, and some are competitors,” he says. “But when it came time for this important work, even competitors put aside their boxing gloves. We're all trying to improve the work environment for the people using this equipment.”

Bodway downplays Payne & Dolan's involvement. “We don't do this for the accolades,” he says. “It's all about the health and safety of our employees.” However, WAPA is more than happy to shine a spotlight on Payne & Dolan's efforts. In addition to Bodway's work and leadership throughout the program, Payne & Dolan played key roles in coordinating and conducting the research activities highlighted in the timeline at right, including the field trials in Marquette, Mich., and in Shawano.

As the partnership approaches its natural conclusion, WAPA extends its gratitude to Bodway and to Payne & Dolan for their contributions to this important work and for representing our state so well on the national stage. ■

SILICA/MILLING MACHINE PARTNERSHIP: A TIMELINE

Participants in the Silica/Milling Machine Partnership have made great strides in silica dust abatement over the past decade. This timeline was adapted from an [article](#) in NAPA's *Asphalt Pavement* magazine.

2003

NIOSH researchers find measurable quantities of silica in asphalt milling fines.

NIOSH asks NAPA to organize a research team to quantify silica exposure in asphalt milling and find ways to reduce it. Partners include labor, industry, government and contractors.

2006

Initial field studies establish baseline levels of dust exposure. Although exposure is lower than the existing OSHA standard, the team resolves to achieve reductions through water system modifications.

2008



Marquette, Mich. — Prototype water and evacuation system field trials are conducted at an abandoned airport using real-time monitors adapted from NIOSH mining research at critical locations around the machine.

2010

Shawano, Wis. — Field trials focus on improving upon the best-performing systems tested in the Marquette trials. Trials occur on a controlled-access highway.

2011

Final data analysis from the Shawano trials suggests that vacuum evacuation systems used in conjunction with modified water systems can further reduce dust significantly. Team elects to conduct further testing and development of evacuation systems.

2012



Complete vacuum system optimization testing is performed in a controlled environment using tracer gas method developed by NIOSH.

Field tests of combination water/evacuation systems begin. Goal: three runs on three different typical work sites for each machine.

2013

Field tests to be completed. New OSHA standard proposal for respirable dust exposure expected.

AsphaltFACTS.com APA Campaign Delivers “Just the Facts”

As part of a long-standing commitment to sharing the truth about asphalt (and also about asphalt's competition), the Asphalt Pavement Alliance recently launched a comprehensive new marketing and communications campaign committed to spreading some eye-opening facts about asphalt.

Central to the campaign is a new website, [AsphaltFACTS.com](#), which highlights upwards of a hundred facts about the benefits of asphalt. The site focuses on three main categories—Perpetual Pavement, cost-effectiveness and smoothness—and it addresses many other beneficial aspects of asphalt pavements as well. Each fact is backed up with more information, including links to documents, photos and videos on [APA's website](#) and other industry websites.

In a complementary effort, APA's campaign includes ads featuring key facts in the online and print issues of several industry magazines: *CE News*, *Better Roads*, *Public Works* and *Roads & Bridges*. These ads direct readers to [AsphaltFACTS.com](#) for more information.

The website is an excellent resource for anyone who wants to learn why asphalt is the best choice in pavements. Kudos to APA for leading this informational campaign and keeping asphalt's many benefits at center stage. ■

The screenshot shows the AsphaltFACTS.com website interface. At the top, it says "Asphalt. FACTS THE TRUTH ABOUT ASPHALT PAVEMENT". There are navigation tabs for "ABOUT ASPHALT", "THE FACTS", "NEWS", and "CONTACT US". A social media bar includes "Socialize with us" and icons for Facebook and Twitter. A large green banner features the fact: "AMERICAN TAXPAYERS SAVE OVER \$300 MILLION PER YEAR BY RECYCLING ASPHALT." with a "Find out how..." link and a "FACT # 64" badge. To the right is a search box titled "GET THE FACTS" with a "GET IT" button. Below the banner is a grid of fact categories: "COST EFFECTIVENESS ECONOMICS FACTS", "PERPETUAL PAVEMENTS ENGINEERING FACTS", and "SMOOTHNESS ENGINEERING FACTS". A social media feed shows a tweet from @NAPAtweets. At the bottom, there are four fact cards: "FACT #38" (Asphalt pavements save taxpayers dollars, 48 people found this fact useful), "FACT #80" (Asphalt provides a smooth ribbon of pavement without joints like k-t-runk, k-t-runk, k-t-runk, 247 people found this fact useful), "FACT #07" (A paving demonstration in Iowa showed how low-volume local roadways can be cost-effectively turned into Perpetual Pavements, 13 people found this fact useful), and "FACT #44" (Watch a video showing how city streets can be milled and resurfaced, saving costly resurfacing of manholes, curbs, and sewer drains, 69 people found this fact useful).

Find and share the facts about asphalt's many advantages at [AsphaltFACTS.com](#).

Mission

Promote quality hot mix asphalt pavements which are safe, efficient and in the best interest of the customer.

Vision

Professionals dedicated to making HMA the customer's preferred choice in pavement solutions through innovation, education and exceptional service.

Values

- * STEWARDSHIP
- * EXCELLENCE
- * INNOVATION
- * PROFESSIONALISM
- * ACCOUNTABILITY

Contact Us!

Scot Schwandt, P.E.
WAPA Executive Director

620 Water Street, Suite A
Prairie du Sac, WI 53578

Phone: (608) 255-3114

Fax: (866) 398-2857

Email: scot@wispave.org

Website: www.wispave.org

Hang Up and Drive! Distraction.gov Builds National Awareness About Distracted Driving

“Distracted driving is an epidemic on America’s roadways. You see it every day: Drivers swerving in their lanes, stopping at green lights, running red ones, or narrowly missing a pedestrian because they have their eyes and minds on their phones instead of the road. Yet people continue to assume that they can drive and text or talk at the same time.”

With these words, Secretary of Transportation Ray LaHood issued a call to action to put an end to distracted driving. This statement appears on Distraction.gov, a website created by the National Highway Traffic Safety Administration (NHTSA) to “raise awareness and provide information to people who want to get the facts on the issue, get involved in their communities, and help make our roads safer for all Americans.”

WAPA commends the federal government for taking such an active role in fostering dialogue on this important issue that impacts all transportation users. We extend our thanks to Thomas Harman of the FHWA Resource Center for giving a presentation on this topic during the 2012 WAPA conference. The facts Harman shared are eye-opening. Among them:

- A reported 3,092 people were killed in crashes in 2010 involving a distracted driver, and an estimated 416,000 were injured.
- Texting creates a crash risk 23 times worse than driving while not distracted.
- Driving using a cell phone reduces brain activity associated with driving by 37 percent.
- Headset cell phone use is not substantially safer than using a hand-held phone.

These are sobering facts, and it’s important to remember that *any* driver can be a distracted driver. That includes asphalt industry workers heading to or from work sites. Distracted driving is an issue that everyone in our industry needs to think about, since we share the same responsibility as all drivers to be at our most attentive on the road. All parties involved in asphalt pavements—private companies and public road agencies alike—should consider policies that explicitly prohibit employees from engaging in distracting activities while driving on public roads.

NHTSA’s Distraction.gov is a good place to learn more about this issue. The site offers more statistics like the ones above, case studies, and strategies for reducing distracted driving. ■



Distraction.gov is your first stop for learning about distracted driving—and what you can do about it.

2012 WAPA Conference Features Technical Breakout Sessions

WAPA held its annual conference in November 2012 in Wisconsin Dells. Thanks, as always, to the participants, presenters, sponsors and exhibitors who helped make this premier event of the Wisconsin asphalt industry such a success.

A new feature at this year's conference was the inclusion of two tracks of technical breakout sessions running in parallel with the main program. Half-hour presentations by experts addressed a wide range of technical topics, including advanced asphalt mixes, new paving techniques, lab and field testing equipment, and advances in maintenance and monitoring. Feedback collected from participants during and after the conference confirm that the technical breakout sessions were widely regarded as a success.

Here's a bit of what we heard about the technical breakout sessions in an online survey:

“Very useful”

“Awesome”

“Lots of good topics to choose from”

“Great”

“Successful”

“I only wish I could have attended more.”

We plan to respond to feedback to improve the sessions next year, addressing session scheduling and space issues. Also, about half of the survey respondents said that receiving continuing educational credits for attending technical sessions would be of value to them. We'll definitely keep working on that and will keep you posted on plans for the 2013 conference.

WAPA also continued its annual tradition of acknowledging the winners of the **Environmental Leadership Awards** at the conference. All awards this year were renewals, including 19 for permanent plants and five for portable plants. The HMA plants recognized demonstrate outstanding green stewardship and community involvement. Many of these plants achieved this three-year distinction for the fifth time since the inception of the program in 2000. WAPA congratulates all the 2012 winners!

Environmental Leadership Award—Permanent Plants (Renewal Awards)

American Asphalt of Wisconsin

Plant 22 (Mosinee)

Plant 83 (Arnott)

D.L. Gasser Construction

Plant 65 (Baraboo)

Monarch Paving Company

Plant 5 (Amery)

Plant 14 (New Richmond)

Plant 26 (Menomonie)

Plant 46 (Hager City)

Northeast Asphalt

Control 55 (Burnett)

Control 56 (Ripon)

Control 63 (Larsen)

Control 64 (Menasha)

Control 65 (Green Bay)

Payne & Dolan

Control 1 (Sussex)

Control 2 (Waukesha)

Control 7 (Franklin)

Control 8 (Cedar Lake)

Control 12 (Muskego)

Control 23 (Paris)

Control 31 (Racine)



Monarch Paving Company's Menomonie plant was among several fifth-time winners of the Environmental Leadership Award in 2012. Congrats!

Environmental Leadership Award—Portable Plants (Renewal Awards)

American Asphalt of Wisconsin

Plant 54 (Wausau)

Plant 76 (Park Falls)

Mathy Construction Company

Plant 23 (Black River Falls)

Monarch Paving Company

Plant 20 (Centuria)

Plant 75 (Chetek)

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