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Get In. Get it Done. Get Out!

The benefits of asphalt roadways are many: the smooth, quiet ride, 100% recyclability, long-term durability and a low carbon footprint. But in a municipal setting, asphalt's greatest attribute is its speed of construction. Today business and home owners lack the patience for long, drawn-out reconstruction projects and agencies don't have the money to construct them. Agency personnel now must evaluate a project based on limiting the inconvenience to the traveling public and maintaining access to businesses and residences.



This article will evaluate three city projects, including an arterial street, a collector street, and a residential street that utilized the speed of construction of asphalt as the solution to **Get In. Get it Done. Get Out!**

The Arterial Street: 86th St., City of Clive between University Ave. and Hickman.

86th Street is a major arterial running north/south across the cities of West Des Moines, Clive, Urbandale and Johnston. The existing roadway is a 4-lane arterial with left turn lanes that carries 27,000 average daily traffic (ADT). The road is a 45 year old PCC pavement with added turn lanes that has been extensively patched and

was in desperate need of an asphalt overlay to improve the ride and structural strength of the pavement. The asphalt overlay was the final step to tie together a three year, extensive widening and streetscape

project by the City of Clive. "Pavement rehabilitation and maintenance needs on NW 86th Street had continued to increase in recent years. Given the amount of traffic on the corridor, even simple lane closures to repair the worst areas resulted in increased congestion and frustration for property owners and the traveling public." said Jim Hagelie, P.E. at Clive Engineering Services.

The 86th Street project was designed as a three-inch asphalt overlay to be placed over the 60' wide, one-mile stretch of heavily commercialized roadway. Original plans called for a 48-hour closure during one weekend, but protests by local business owners required

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Tales from the Road



"ROAD TRIP"

Just prior to Christmas, the Rosener clan (Tania, Henry, and I) packed our bags and headed west, way west and way south, to visit my wife's family in Australia and New Zealand. This involves approximately 30 hours of airports, connections, stress and cramped plane seats. We arrived in Brisbane on Christmas Eve and anxiously waited to see if Santa could find us. Much to Henry's delight, he did. Traveling is an adventure and I believe some sort of enlightenment can be found on every trip, if you are aware and looking for the opportunity to learn. Here are some things I became enlightened about on this trip:

1. **Patience is a virtue.** I am in short supply of this virtue. Vacation, especially a family vacation, requires a willingness to wait. Wait for the shower to be free, wait for your mother-in-law to finish her hair, wait for the plane, the bus, the boat, your mother-in-law again, etc... Life often moves at a pace we have a hard time accepting, and sometimes it's ok to push forward, but sometimes we need to take a deep breath, relax, and enjoy the moment. Once I was able to achieve this

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Upcoming Events

(Click event for more information)

2014 Work Zone Safety Workshops

Dates / Locations:

- Feb. 24 Waterloo / Hawkeye
Community College
- Mar. 10 Storm Lake / Buena Vista
University
- Mar. 11 Sioux City / Stoney Creek Inn
- Mar. 12 Council Bluffs, Iowa Western
Community College
- Mar. 28 Ames / Scheman Bldg., ISU

NAPA 59th Annual Meeting

Date: February 2-5, 2014
Location: Boca Raton, FL

NCAUPG Annual Meeting

Date: February 18-20, 2014
Location: Kansas City, MO
Crowne Plaza Downtown /
City Center

2014 Greater Iowa Asphalt Conference

Date: February 26 - 28, 2014
Location: Des Moines Airport
Holiday Inn

[Click here to Register.](#)

CONEXPO-CON/AGG 2014

Date: March 4-8, 2014
Location: Las Vegas, NV

APAI Summer Meeting

Date: July 17-18, 2014
Location: To Be Announced



(Tales from the Road – Cont. from Page 1)



enlightenment, my trip became a lot more fun, my interactions with my family were more intense and the singular moments in life became clear and beautiful. Perfect zen.

-
2. **Family is precious.** We all work very hard. The asphalt industry and those of you that work at the agencies we serve, spend long hours away from our families. The time we do spend with our loved ones needs to be engaged, interactive and fun. With the pressure of email, Facebook, twitter, etc., etc., etc., are we engaged with each other? I walked into a room filled with family this vacation where everyone was on their phone or iPad. After announcing that they were all a bunch of nerds, I suggested a board game. There was grumbling, followed by interest, and finally hilarity. Events in my life this year brought forth just how short and precious life can be. This trip reinforced that I cannot afford to waste any time with my family, even time with my mother-in-law.
3. **Time away is important.** Time away lends perspective to your daily life. It provides clarity on people you work with, your job and your priorities. It exposes you to new ideas, new concepts, and new people. Traveling through Australia showed me a world where people have good

balance in their lives (and beautiful bridges surfaced with asphalt). Traveling through New Zealand, I was inspired by the absolute beauty of the landscape. This trip allowed me to reset, refresh and reinspire. New goals were established, new connections were made, new ideas were shaped and relationships were solidified. Time away also allows those around you to step up and help carry the burden of your job. It will surprise them how much you do and it will surprise you how much they can do. A new perspective by both parties can be achieved here.

This trip was important to our family and to me. It was important to Henry to see where he comes from and the people who love him on the other side of the world. We were very fortunate to take a trip like this, but I also savor the weekends camping at the farm pond or the trip west to visit my buddy and his family. We all work too hard to not enjoy these precious moments when we find them. I wish you and your families the best in 2014. Kia ora!

Now back to work....

Bill Rosener

DeWayne Heintz Named APAI Member of the Year

DeWayne Heintz, Project Manager and Estimator for the LL Pelling Co., was announced at the APAI Annual Convention in December as Member of the Year. APAI Executive Vice President, Bill Rosener, had this to say during the presentation of the award, “DeWayne has been the Chairman of the Greater Iowa Asphalt Conference for the past six years and that event has grown exponentially to over 600 attendees. He has been a long-term helper with the APAI County Engineers’ Hospitality Suite and he is the brainchild



behind this year’s live auction to raise money for the APAI Scholarship fund. DeWayne is very humble about the amount of work and effort he gives to this

association, but he is the consummate APAI member that is willing to give of his time, expertise and knowledge to make this Association grow and thrive.”

Congratulations to DeWayne for the well-deserved honor!

Larry Mattusch Receives ICEA Lifetime Achievement Award

APAI Field Engineer Larry Mattusch was recognized by his peers in the Iowa County Engineers Association with the Lifetime Achievement Award at last week’s annual convention. Larry is one of only five Iowa County Engineers to ever receive the prestigious award. The Lifetime Achievement Award is presented to an individual in recognition of a lifetime of service dedicated to the advancement of the profession of civil engineering, through lengthy service and commitment to his peers, unwavering support of local, state, and national professional organizations, and tireless service as a community role model.

The APAI would like to congratulate Larry for this recognition of his tremendous devotion to preserving the ideals and integrity of his profession. This passage was read during his introduction, “Larry may be the most conscientious person I have ever met. He is genuine, forthright and humble. He is a trend setter that is never afraid to go against the grain, but as a leader, he is always willing to bring those around him forward.”

Please help us congratulate Larry, his email is lmatt2@mchsi.com.



(Get In. Get It Done. Get Out! - Cont. from Page 1)

changing the staging of the project to allow continuous access to businesses. The new staging plan allowed the contractor, Des Moines Asphalt and Paving (DMA) to mill butt joints and place the initial 1.5” intermediate course between 8 am and 5 pm during the week while allowing access to local businesses. At 1 am on a Sunday in August, DMA closed the entire stretch of roadway and began paving the 38,800 square yard project. Wedges were milled out, the roadway



was cleaned, and hot-mix asphalt arrived at sunrise. The project allowed only one cold joint to be placed in the street. To accomplish this, DMA utilized three pavers paving in tandem north, and then turned around, and paved three-wide going south. The 3,200 tons of asphalt were paved in 12 hours along with hot-inlay tape placed by Quality Striping of Des Moines. “As the sections of roadway were completed, the road was opened to traffic and most businesses experienced very little inconvenience. Closing the road for that brief time allowed a safer working environment for our employees and the

traveling public,” said DMA project manager Brian Beaird. “This project went as smooth as the road we left behind.” City Engineer Hagelie went on to say, “To add years to the life of the pavement and to achieve it in such a short timeframe was a significant improvement to the City’s infrastructure. We are very pleased with the final product.”

The Collector Street: Beaver Avenue, City of Des Moines

Beaver Avenue is lined by houses and is fed by a myriad of residential streets and subdivisions along its length making it a major feeder street into the City of Des Moines. The existing roadway is full-

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ASPHALT PAVEMENT SMOOTHNESS: Quantifying the Environmental Impacts

FHWA is looking at how best to account for rolling resistance in the use phase of an environmental life-cycle analysis

By Thomas Harman

As a nation, we continue to increase our understanding of environmental impacts, explore innovations and best practices to lessen those impacts, and look for ways to quantify and track our effectiveness. This is true for all industries.

For pavements and materials, the Federal Highway Administration (FHWA) has established the Sustainable Pavements Technical Working Group (TWG), which is managed through the FHWA Office of Infrastructure under the leadership of FHWA Pavement Engineer Gina Ahlstrom. This effort provides the opportunity to discuss pavement-related sustainability topics with experts. This article discusses one of the approaches being debated and

provide an example of how tools like this can be applied.

A key question as we move forward is, “Where are the greatest potentials, within our control, to reduce environmental impacts?” The answers should not surprise us.

ENVIRONMENTAL IMPACT

In the United States, for example, the California Department of Transportation (Caltrans) is developing guidelines for pavement life-cycle assessment (LCA). As Caltrans states on its Web site, “LCA is an approach to quantify the environmental impacts of industrial products and process, and part of an LCA’s value lies in its capacity to provide decision makers with a comprehensive perspective for

considering new projects.” The Caltrans LCA approach is looking at all aspects of a pavement’s life, as shown in Fig. 1.

In the materials and construction phases, we can quantify the impact of innovations such as warm-mix asphalt (WMA). For example, in 2011 the U.S. produced and placed approximately 380 million tons of asphalt pavement. We can use tools like NAPA’s Greenhouse Gas Calculator¹ to estimate the total annual emissions for production, measured in carbon dioxide equivalents (CO₂e).

First, let’s presume we produced *everything* as hot-mix asphalt (HMA).² This would have yielded around 8.2 million U.S. tons of CO₂e. Compared to the total CO₂e emissions from



Fig. 1: The Caltrans LCA Approach. For more information, visit http://www.dot.ca.gov/newtech/roadway/pavement_lca/index.htm

vehicles, this number is small; however, any reductions that can be made are important. And we no longer live in an HMA-only world. Thanks to the industry's visionaries, warm mix is quickly gaining market share. So, what if we produced all the asphalt pavement with a WMA technology? This would yield around 6.1 million US tons of CO_{2e} — that's a 25 percent reduction!

Recently, the focus has been on the use phase of LCA and defining the boundaries of analysis. During the Use Phase we can explore the impacts of several things, including rolling resistance (RR). "Rolling resistance, sometimes called rolling friction or rolling drag, is the resistance that occurs when a round object such as a tire or wheel rolls on a surface."³ Rolling resistance is tied to fuel consumption and ultimately to vehicle emissions.

There has been significant research on rolling resistance in Europe. A consortium of European government research agencies formed MIRIAM: Models for Rolling Resistance in Road Infrastructure Asset Management Systems.⁴ Today, the consortium also includes the University of California-Davis and the Federal Highway Administration.

There are many factors affecting fuel efficiencies, including vehicle propulsion, aerodynamics, and rolling resistance. From a pavement perspective, we are focused on the rolling aspects of the equation — historically, this is nothing new. In 1845, Robert Thompson, a Scottish engineer, received a British patent for his innovation of the pneumatic carriage tire, which greatly reduced rolling resistance force. His work included fundamental definitions for tire energy consumption, which is the foundation of our efforts today. Fast forward 167 years and we continue to work on analyzing and measuring rolling resistance.

There are two approaches for qualifying rolling resistance (RR): direct measurement and mathematical modeling. The Europeans have

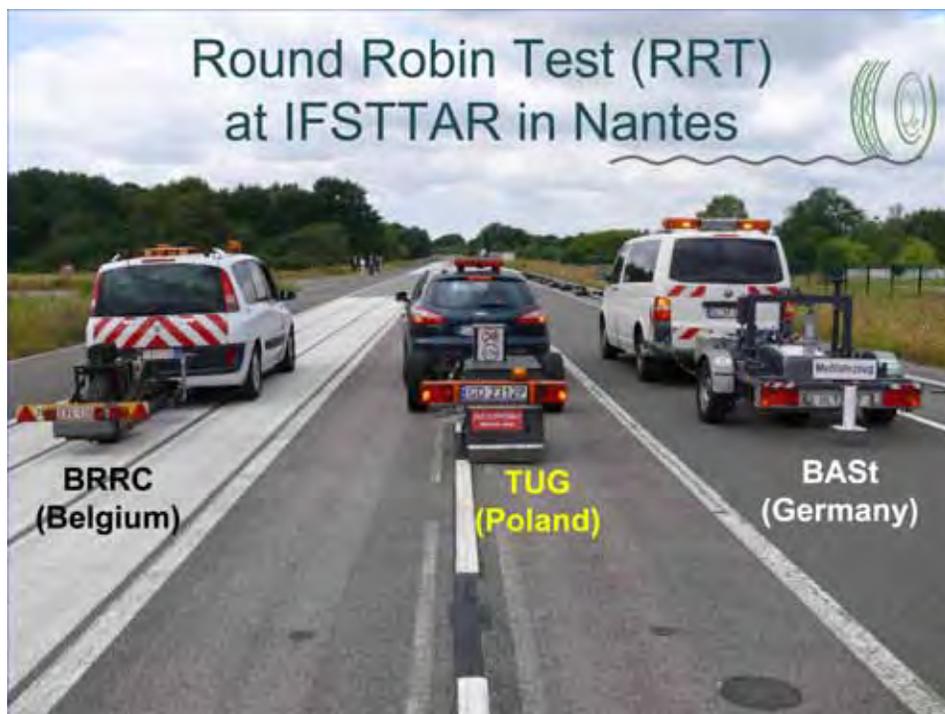


Fig. 2: Three rolling-resistance (RR) trailers conduct a side-by-side study in Nantes, France, in 2011. Image courtesy of Ulf Sandberg, Swedish National Road and Transport Research Institute (VTI).

developed several trailer-based systems. Three of these systems have been part of the MIRIAM research: the TUG from the Technical University of Gdańsk, Poland; the Belgian Road Research Centre (BRRC) RR System; and the Federal Highway Research Institute (BAST) German RR System, see Fig. 2. These trailers directly measure rolling resistance. However, as you may infer, the results depend on a host of variables, including tire tread and material type, air pressure, temperature, and loading.

ROLLING RESISTANCE

On the mathematical modeling side, there are various approaches. The MIRIAM group has developed models for estimating rolling resistance based on smoothness, defined by the International Roughness Index (IRI); surface texture, defined by macrotexture⁵ and measured as Mean Pavement Depth (MPD); and vehicle speed. For example:

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Roughness Index (IRI); surface texture, defined by macrotexture⁵ and measured as Mean Pavement Depth (MPD); and vehicle speed. For example:

$$RRC = C_1 + C_2MPD + C_3IRI + C_4IRI(V - V_{ref})$$

Where:

RRC is the rolling resistance coefficient;
 C₁₋₄ are regression constants;
 MPD is the macrotexture;
 IRI is the smoothness;
 V is vehicle speed; and
 V_{ref} is the reference vehicle speed.

To explore this better, let's investigate a hypothetical asphalt pavement on a rural Interstate highway. Our scenarios will be analyzed over 30 years with an average daily traffic of 30,000 vehicles per day, 29 percent trucks, and a total project length of 25 miles. For those who like to count ESALs,⁶ this is approximately 80 million ESALs over the analysis period.

The first parameter is **smoothness**, measured as IRI and reported in inches per mile (inches/mile) or meters per kilometer (m/km).

Each state highway agency collects

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- Utilizing Life Cycle Cost Analysis on Low Volume Roads
- Improving Safety In the Work Zone
- 5 Keys to Designing and Constructing the Perfect Project
- 2013 APAI Quality Construction Awards
- Iowa DOT Technicians Update
- Best Exhibitors in the Midwest
- Remarkable Asphalt Research Projects
- Keynote Speaker: Mitch Holthus, KC Chiefs Announcer
- Most Interesting Asphalt Projects in Iowa
- Entertainer: Willie Farrell, World Class Comedian
- Developing Accountability in Your Leaders
- Great Networking Opportunities
- Fabulous Prizes

APAI 58th Annual Convention Sets New Records for Attendance and Scholarship Money

The 58th Asphalt Paving Association of Iowa Convention held December 4-5 at the West Des Moines Marriott topped all-time attendance records with over 320 attendees and raised over \$20,700 for the APAI Scholarship Fund. “We really couldn’t be prouder” said APAI Executive Vice President, Bill Rosener, “our members continue to give of their time to support the APAI and their money to help the next generation of engineers in the construction industry. The APAI is stronger than it has ever been with over 130 members, active participation in our committees, and last year, the APAI and its Member scholarships were able to give out 25 scholarships, totaling \$26,150.”

The 58th APAI Annual Convention was two days of information, camaraderie and fun. Wednesday’s

Business Meeting was highlighted by new APAI President, Bob Wagner’s inaugural speech. He outlined why the Asphalt Paving Industry of Iowa should take heed of the conventions’ theme Opportunity is Now. Wednesday evening was full of fun and prizes at the Casino Royale.

Thursday’s schedule included great technical information from NAPA’s Audrey Copeland; Colorado’s Asphalt Paving Association Executive Director, Tom Peterson; IDOT Director Paul Trombino III; IDOT Highway Director, John Adam and IDOT Bituminous Engineer, Scott Schram. Great vision, technical transfer and exchange of ideas highlighted Thursday’s presentations.

The “Best of the Best” asphalt paving projects were recognized at the 2013 APAI Quality Paving Awards

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This year's Convention would not have been possible without the help of the following sponsors.

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GENEROSITY AND ASSISTANCE!**

(Get In. Get It Done. Get Out! - Cont. from page 3)

depth asphalt with PCC curb and gutter. The existing asphalt surface was showing wear and was in need of rehabilitation. The Beaver Avenue project was designed as a one-inch nominal milling of the surface, a 1/2 -inch leveling course to improve ride and structure, and a 1.5" surface course. The project was designed to be constructed during two successive Saturdays, with Sunday being held in reserve if the weather did not cooperate.

Local residents and the traveling public were notified of the closures the week beforehand by local contractor, Grimes Asphalt and Paving. The milling process was completed in four hours and the underlying pavement was inspected by the City of Des Moines Engineer to see if any patching was needed. The distresses were limited to the wearing course and no further rehabilitation was needed. The following Saturday was rainy and the work was postponed until the following morning at 8 am. "We had inconvenienced the adjoining neighborhood the year before with a major reconstruction project, so completing this project in two successive Saturdays was important to the City," said City of Des Moines Engineer, Matt Becker. "We started at 8 am on that Sunday and had the road finished and opened by 3:15 that afternoon." The City of Des Moines also specified doing echelon/tandem paving on its projects to improve performance of the longitudinal joints. The Beaver Ave. job utilized three Grimes Asphalt crews paving in echelon. "It's the way to go, if possible," said Becker, "no cold joints insures better life of the pavement."

Residential Street: Ellis Ave, Iowa Falls

Ellis Avenue is located in a quiet residential neighborhood on the south side of Iowa Falls, IA. The project was designed and let by Fox Engineering of Ames, IA in 2011. The project was predominately a water main and sewer replacement project that

included removal of the existing four-inch asphalt street. The project was let with an alternate pavement bid: 7" Hot-Mix Asphalt (HMA) vs. 7" Portland Cement Concrete (PCC), both on a six-inch rolled stone base. The asphalt bid was low by over

"The fact that it went so well proves to the city that choosing the asphalt option was the right choice. It saved them money and got the project done expeditiously."

Mitch Holtz
Fox Engineering

\$60,000, but the city council, led by the Mayor (a former Redi-mix plant owner) were keen on using PCC. After hearing from local citizens about spending more money on a pavement that would take a lot longer to construct in front of their individual properties, the Iowa Falls City Council voted unanimously to take the asphalt street alternate. It proved to be a wise decision.



The mile-long project was designed to be constructed in six phases over two years to accommodate the residents of the 128 homes along the Ellis Avenue project. Due in large part to the use of asphalt, the project was done in three phases and was completed in one year. Once the pipe work was complete, the rock base was placed, the PCC curb and gutter was slipped, and the asphalt base course was paved. Residents had access to their houses during most of the construction processes during the day and each night and had full access immediately after the asphalt base course was paved. At the end of the project, the surface course was placed over the entire length of the street in two days, giving the project a clean and uniform look for the neighborhood residents. The homeowners along Ellis Avenue were very complimentary of Heartland Asphalt of Mason City, IA and of the quality of the work and the speed of the construction.

Mitch Holtz, Project Engineer for Fox Engineering, had this to say about the project. "It's pretty obvious that going with the asphalt made sense in getting this project done in a timely manner and to the benefit of the many residents along Ellis Avenue. The fact that it went so well proves to the city that choosing the asphalt option was the right choice. It saved them money and got the project done expeditiously."

Summary - Asphalt is the RIGHT CHOICE

These three roadways, with three different levels of traffic, three different construction processes, and three different contractors, all had one thing in common – SUCCESS! Using the speed of construction of asphalt pavements allowed these engineers to design and construct projects that will serve their communities for decades with the minimum inconvenience to the traveling public and the taxpayers of their cities. Asphalt was their choice and Asphalt was the Right Choice!

(Quantifying the Environmental Impacts – Cont. from Page 5)

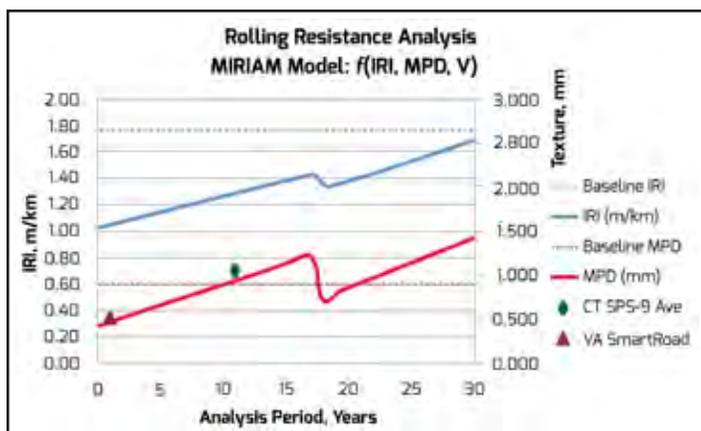


Fig. 3: Summary of Rolling Resistance Parameters for Asphalt Pavement Scenario

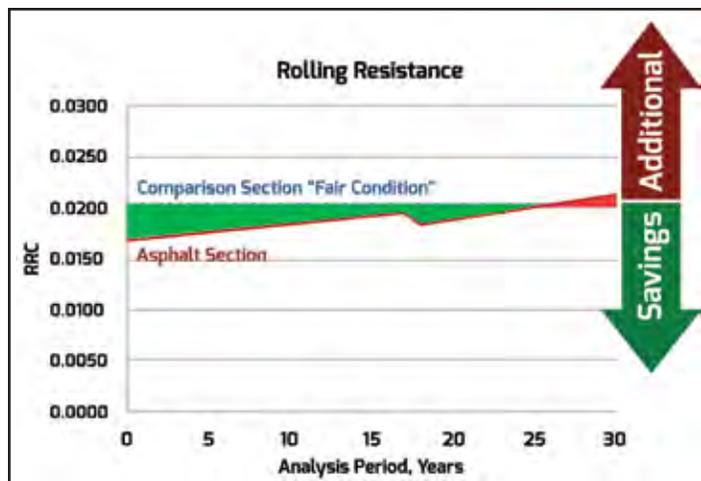


Fig. 4: Summary of MIRIAM Rolling Resistance Coefficient (RRC) for Asphalt Pavement Scenario

project- and network-level smoothness. However, we can draw on the data resource of the Long Term Pavement Performance (LTPP) program. The LTPP program has been collecting performance data since 1987. We can find general pavement studies (GPS), which include standard dense-graded asphalt mixes (designed under Marshall and Hveem), in addition, the Specific Pavement Studies (SPS) include Superpave sections.⁷ Through the LTPP program we can estimate typical smoothness curves over time and traffic loading. From the Superpave SPS sections we can determine a typical initial ride and annual increase rate.

The second parameter is **macrotexture**, measured as mean pavement depth (MPD) and is commonly reported in millimeters (mm), which can be converted to inches (in). MPD can be obtained with the sand patch test (ASTM E965) or more high-tech, laser-based systems like circular track (texture) meter.

Unlike smoothness, we do not have 20-plus years of macrotexture data available. However, several research studies have collected macrotexture, including the Connecticut DOT investigation of its LTPP SPS sections; the Virginia Smart Road Project; and the National Center for Asphalt Technology (NCAT) Pavement Test Track. Similar

to smoothness, pavements appear to start out with a certain macrotexture that tends to increase almost linearly with time and traffic. However, this trend could be the opposite for poorly designed or constructed pavements with surface distresses like polished aggregate or flushing.

The third parameter is **speed**; let's assume 55 mph (89 km/h).

APPLYING THE MODEL

For this hypothetical demonstration, we need to establish a base-line comparison section. The comparison section is always in “fair condition” with a smoothness of 112 inches/mile (1.77 m/km) and a macrotexture of 0.90 mm (0.0354 in). For our asphalt scenario we will assume the section is overlaid at 18 years, resulting in the predicted performance shown in Fig. 3.

Taking this predicted performance and applying the MIRIAM models results in the estimation of rolling resistance shown in Fig. 4.

The relative potential impact of rolling resistance on fuel-efficiency in the MIRIAM models appears reasonable. In the mid 1990s, we learned during the FHWA WesTrack⁸ research that “Under otherwise identical conditions, trucks used 4.5 percent less fuel on smooth than on rough pavement.” Similarly, the MIRIAM models show a range for asphalt pavements of around 5 percent

on fuel efficiency. The models also imply that smoothness is three times more significant than macrotexture.

So, from a use phase perspective, where are the greatest potentials to reduce environmental impacts? We need to “build it smooth” to reduce the impact of rolling resistance on vehicle emissions and we need to “build it right” to ensure a long-life pavement. These answers are not surprising.

As we look to the future, we will continue looking at research products that advance our understanding of pavement sustainability.

Thomas Harman is Manager of the Pavement & Materials Technical Service Team at the Federal Highway Administration.

This article originally published in *Asphalt Pavement Magazine*, Sept./Oct. 2012.

¹ <http://asphaltpavement.org/ghgc/ghgcv3.htm>
² Additional assumptions used: No. 2 oil, 4 percent stockpile moisture, 330°F mix temperature, and 350°F stack temperature
³ Wikipedia. http://en.wikipedia.org/wiki/Rolling_resistance
⁴ <http://miriam-co2.net/>
⁵ Macrotexture has a wavelength of 0.5 to 50 mm
⁶ 18,000 pound Equivalent Single Axle Load (ESAL)
⁷ SPS-9: Validation of SHRP Asphalt Specification and Mix Design (Superpave)
⁸ Epps, J.A., A. Hand, S. Seeds, T. Schulz, S. Alavi, C. Ashmore, C.L. Monismith, J.A. Deacon, J.T. Harvey, and R. Leahy. NCHRP Report 455: Recommended Performance-Related Specification for Hot-Mix Asphalt Construction: Results of the WesTrack Project. TRB, National Research Council, Washington, D.C., 2002.

APAI Welcomes New Members

APAI continues to add new members. At their last Board Meeting, the Board of Directors elected three two Contractor Producing Members and four Associate Member: Consulting Engineers to the Association. Thank you to those who have helped recruit these new members.



Clapsaddle-Garber Associates (CGA) has provided full civil engineering and land surveying services to central Iowa for over 50 years. CGA has offices in Marshalltown and in Ames. Their areas of expertise include the planning, design and construction of streets and highways; aviation facilities; public, commercial, and private site designs; residential, commercial, and industrial subdivisions; and trails and recreation facilities. They staff fully equipped survey crews specializing in boundary surveys, topographic surveys, ALTA surveys, plats of survey, and subdivision plats. CGA also provides right of way acquisition; laboratory and field testing; construction observation; and construction administration services.



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HGM Associates Inc. provides Architectural, Engineering and Surveying services to the Midlands. HGM Associates, Inc. offices are located in Omaha, Nebraska and Council Bluffs, Iowa. Their professional team of architects, engineers and surveyors features a variety of design services to meet all your needs and expectations.



Since its founding by Bob Veenstra and Jim Kimm in 1961, Veenstra & Kimm, Inc. (V&K) has tailored its services to meet the engineering needs of Iowa municipalities. Since its founding, V&K has grown to its current staff of approximately 68 serving a variety of municipal, other governmental and private clients.

Since 1961 V&K has provided services to communities throughout the state of Iowa from our office in West Des Moines. In the mid 1990s V&K made a commitment to improve the delivery of services to clients throughout the state of Iowa. To fulfill this commitment V&K embarked

on a program of opening branch offices. The six branch offices are located at strategic locations to improve the delivery of services to their clients throughout Iowa and adjoining states. These branch offices are designed to provide local delivery of services throughout the state of Iowa and surrounding areas, and to improve V&K's commitment to improve the delivery of services to clients throughout the state of Iowa.

V&K uses a branch office service center concept which fully integrates the resources of all of their offices. V&K's approach to branch offices integrates the resources of their main office and their branch office. Their offices are fully integrated, including modern communication technology and electronic interchange of data.

APAI has added more students to the new Student Membership level. APAI has been fortunate to have fourteen University of Iowa Undergraduate and Ph.D. students sign up as members. These students are Russell Carlson, Rachel Cortez, Alexandra Dowty, Matthew Gazdziak, Jaclyn Gutman, Sarah Gutowski, Chris Huss, Eric Mortensen, Jeremy Nash, Colton Rogers, Matt Schindel, Clinton Van Winkle, Scott Whiting and Alex Zeppieri. In addition to the University of Iowa students, four Dordt College students have also signed up as members. These students are Trevor Johnson, Anthony Maule, Andrew Ter Haar and Alan Van der Woerd. It is asked that all members encourage their student interns to join APAI.

Please welcome these new members and show your support for them, by contacting them and utilizing their services. To find contact information for these members, go to www.apai.net/members.aspx.

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Luncheon. In addition, IDOT Director, Trombino was presented with Iowa's second Perpetual Pavement Award by Asphalt Pavement Alliance Director, Mike Kvach, for the 52 year old stretch of Highway 151 east of Cedar Rapids, IA. Two new Hall of Fame inductees were introduced: Bob Burnett, recently retired from Manatts, Inc., was recognized for over 50 years of service in building Iowa's asphalt industry and John Smythe, recently retired from the IDOT, was recognized for his outstanding leadership and for his role in developing the partnership between the IDOT and the members of the APAI.

The President's Banquet was another show-stopper event. The APAI Scholarship Fund Silent Auction was held again with great success, but the addition of a six-item live auction stole the show and raised over \$12,000 towards the Scholarship Fund. Special auctioneer guest, Clete Schultz, fired up the crowd and loosened the purse strings of the APAI members. Through his leadership, and the generosity of

the APAI members, this year's event doubled the amount raised for the event from the year before to over \$20,700.

DeWayne Heintz of the LL Pelling Co. Inc., was announced as the APAI Member of the Year for his leadership and hard work on behalf of the Greater Iowa Asphalt Conference (GIAC) held in March each year. Thanks to Mr. Heintz's efforts, GIAC has grown to over 600 attendees and is the premiere technical training asphalt conference in

the Midwest. Outgoing APAI President, Greg Kinser, was given a plaque recognizing his outstanding leadership of the APAI in 2013 and incoming APAI President, Bob Wagner was given the gavel and spoke of his vision for the APAI in 2014.

The evening concluded with the APAI house band, The Johnny Holm Band of Minneapolis, wowing the crowd with great music, laughter and dancing. We really can't wait to see what happens next year!



APAI Members

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 Duinick Inc., Prinsburg, MN
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