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OHIO ASPHALT

THE JOURNAL OF OHIO'S ASPHALT PROFESSIONALS

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CONNECT ON

ON THE COVER: QUALITY ASSURANCE TECHNICIAN MONTY WHITE, OF SHELLY MATERIALS, HELPS ENSURE THE ASPHALT MIXTURE BEING SHIPPED TO A PROJECT IS WITHIN SPECIFICATION AND WILL PROVIDE GOOD QUALITY FOR WEAR AND DURABILITY. SEE PAGE 6

Flexible Pavements of Ohio

Flexible Pavements of Ohio is an association for the development, improvement and advancement of quality asphalt pavement construction.

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The President's Page

Clifford Ursich, P.E.
President & Executive Director

"Not so glamorous is the day-to-day work of the asphalt quality-control technician. These are men and women whose work is a crucial part of a successful asphalt paving program. Often a thankless job, the plant technician quietly goes about his duties ensuring the asphalt mixture being shipped to a project is within specification and the ingredients are of good quality for wear and durability ... The pursuit of quality has defined Ohio's asphalt paving industry, and 'The Technician' has been the heartbeat keeping it alive."

The Technician

Asphalt mix production is a mystery to most people. All they know of asphalt is what they see as they pass through a construction zone: It's black, hot, has a peculiar smell and eventually results in a terrifically smooth ride.

I've always found construction fascinating, even as a kid sitting in the front lawn watching the Cleveland Water workers repairing a blown water main under our street. As a dad, I've sat with my children under the pine trees as they were mesmerized watching a night paving job in front of our residence. They watched the milling machine – a real beast that chews off an asphalt layer. Following it up was a power broom spinning at high speed; it brushed away the crumbs. A tanker truck carrying asphalt emulsion – a blend of asphalt binder, water and emulsifier –"shot" tack coat from a spray bar attached to its rear. The milled surface, now coated with this glue-like material, was ready for bonding the new pavement layer to the old. As the paving train advanced the paving machine came in sight. Illuminated like some alien craft, it emanated a cacophony of sounds ranging from a diesel engine, the whine of hydraulic pumps and voices of the crew made unintelligible for all the activity. Slowly the asphalt paver moved past us leaving behind a perfectly smooth layer. Soon after, the ground on which we sat began to tremble. Stronger and stronger the vibrations were felt. Then we understood why, as compactors with steel drums for wheels vibrated as they went rolling on by. Flat, compact and smooth, the asphalt was pounded into submission to wear long and resist nature's assault. What a night for a dad and his children. That was almost 20 years ago and we remember it like it was yesterday. What we did not see that night were the people on the front line of quality – the technician.

On The Front Line of Quality

Sample preparation

Not so glamorous is the day-to-day work of the asphalt quality-control (QC) technician. These are men and women whose work is a crucial part of a successful asphalt paving program. Often a thankless job, the plant technician quietly goes about his duties ensuring the asphalt mixture being shipped to a project is within specification and the ingredients are of good quality for wear and durability. With an approximate value of $1,100 per truckload for a major project paving 3,000 tons per day, the dollars add up fast – and if the mix runs out of spec – the penalties tally up nearly as quick. Responsibility weighs heavy on the shoulders of QC technicians.

The days (and nights) are long and the work is hard. Expedience in testing is an absolute necessity, since mix production doesn't stop to wait for test results. Asphalt mixtures have three components-aggregate (rock), asphalt binder

Determining Maximum theoretical density – a value needed to measure pavement density

An ignition oven is used to incinerate asphalt binder from a sample of asphalt mix, making ready the aggregate for grading

(the glue) and air. These components are balanced to ensure the asphalt mix has what famed asphalt scientist Francis Hveem called "Esteemed Properties" – density, durability, pavement stiffness, asphalt binder, aggregate friction, fatigue resistance and tensile strength. These components comprise the chain of pavement properties that must withstand the forces of nature while supporting the loads and destructive effects of traffic. The technicians' responsibility is to ensure the asphalt composition of every ton manufactured conforms to the intended proportions such that the Esteemed Properties are achieved in the pavement.

Technicians are meticulous. They have to be. Their work is recorded to the hundredths (0.01). Knowledge of mathematics is essential. Everything they do involves mathematical computations. They are strong and fit. The work is fatiguing. At 148 pounds per cubic foot, a bucket of asphalt mix is a heavy lift, and there is a lot of lifting as samples are prepared for testing. Test methods must be understood, and with precision the procedural requirements followed. The QC technician is a quick study, astute and has an ability to

Sieve analysis and gradation ensure the asphalt mix gradation meets the desired proportions

Introducing the asphalt mix to the gyratory compactor

Compacted sample is shown. Precise measurements of mass, duration and temperatures are critical in performing quality-control duties

quickly diagnose a mixture quality deficiency and a course of action to bring the asphalt mix into conformance with the specifications.

Technicians are APPROVED. The Ohio Department of Transportation has a comprehensive qualification program that ensures asphalt technicians performing asphalt-mix testing have the needed knowledge. The program includes instruction on asphalt-mix process-control testing, and development of asphalt-mixture formulations. Here, technicians learn the applicable national standards on which ODOT specifications are founded, as well as those in the ODOT Construction & Materials Specifications. In total, the approval program involves six full-days of classroom instruction and laboratory exposure, a practical by which the technician demonstrates competence in test methods and two written exams.

Field technician monitoring pavement density with gauge

In the field, paving site technicians are busy monitoring the compaction operation. The goal is to ensure the Esteemed Properties are attained, such that the pavement lasts the expected life and desired level of service to the motorists is provided. More specifically, the rolling operation is monitored using a gauge or pavement core to ensure density of the pavement is being achieved. The technician's job is not without exposure to danger. Danger is all around when live traffic is involved. ODOT specifications call for coring longitudinal joints, which at times place technicians precariously close to the edge of a work zone where traffic is being maintained.

Little are they seen and rarely do they draw attention, but the importance of their work cannot be understated. The pursuit of quality has defined Ohio's asphalt paving industry, and "The Technician" has been the heartbeat keeping it alive. OA

The TRANSFORMATION OF OHIO'S INTERSTATES TO ASPHALT

Since the original construction of the Interstate Highway System in Ohio, many Interstate pavement sections originally constructed of portland cement concrete pavement (concrete) have gradually changed to asphalt concrete pavement (asphalt). But, when Ohio Interstate highways were originally built, only six projects were constructed as asphalt pavement and the rest were concrete pavements. Some projects were also originally constructed as a composite pavement consisting of a concrete pavement surfaced with asphalt. And, by the 1970s, many concrete pavements evolved into composite pavements, as asphalt overlays were utilized to repair, rehabilitate and extend the life of the original concrete pavements. More recently, the predominant trend has been to remove and replace many original concrete pavements with asphalt pavements based upon both economic and performance advantages.

To further document Ohio's pavement transformation, the Federal Highway Administration (FHWA) publishes *Highway Statistics* each year reporting the status of the roads in each state. A comparison of the reports for 1978 and 2016 for surface type on the Interstate Highway System illustrates the continuing transition of Ohio's Interstates to asphalt pavement. In 1978, the FHWA reported 1,541 miles of Interstate Highway in Ohio, of which 727 miles (47 percent) were concrete and 814 miles (53 percent) were asphalt. In 2016, the latest year for which the statistics have been published, the FHWA reports that of the 1,556 miles of Interstate highway in Ohio, 183 miles (17 percent) were concrete and 1,373 miles (88 percent) were asphalt.

The I-71 Corridor Case Study

The transformation of Ohio's Interstates can be more precisely illustrated by considering the well-documented history of the I-71, Columbus to Cleveland, Corridor. This corridor, from Franklin County straight line mileage (slm) 28.92 to Medina County slm 17.46 was the subject of an economic study by Willis Gibboney, PE, former ODOT Interstate Pavements Engineer (1). This corridor was originally constructed in 1957 and 1958. Two projects from Franklin County slm 28.92 to Delaware County slm 11.50 were constructed as asphalt pavement. The rest of the corridor consisted of concrete pavement sections. Gibboney's study showed that the asphalt pavement projects were less expensive to build and maintain over the approximately 35-year period they were analyzed.

Gibboney's study also showed that the actual performance (serviceability) of the asphalt sections was far better than the performance prediction of the AASHTO equation; whereas, the performance of the concrete sections followed relatively close to what the equation predicts. The concrete sections failed just as predicted (2). And, the study confirmed what Robert Elliot (3) discovered of the AASHO Road Test pavement – that thick asphalt sections do better. This is exactly what we have historically seen of asphalt pavements – perpetual-like performance.

The story becomes more compelling in the years since the Gibboney economic study, as additional original concrete pavement sections along the I-71 Corridor have been systematically replaced with asphalt pavements. A series of projects built during the 2000 to 2012 period removed the original concrete/composite pavements and replaced them with asphalt pavements, while the two original asphalt pavement projects remain in service. Of course, all of the original projects received periodic maintenance and rehabilitation and added lanes over the years, but only the original concrete pavement sections have been totally removed and replaced.

The Evolution of Asphalt Pavement Quality in Ohio

The history of the I-71 Corridor also highlights the progress of asphalt pavement quality and economy improvements over the years. The original two asphalt pavement sections were constructed with relatively thin asphalt surface and intermediate courses over flexible bases of water-bound and/or penetration-bound macadam. While successful and still in service, these bases proved to be too labor and time intensive to construct. This experience led to the transition of using economical asphalt-base materials, i.e. ODOT Items 301 and 302, which could be more quickly, economically and consistently constructed – and which have proven to provide long-term performance. Other quality improvements that have been deployed in the maintenance, rehabilitation and reconstruction along the I-71 and other corridors include:

- Improved asphalt materials: 404, Superpave (442), Item 302 (big-rock base)
- Quality assurance improvements, 848, 846, 448 and 446 contractor mix design and quality control
- The widespread re-use of reclaimed asphalt concrete in the production of new asphalt concrete

Other materials and rehabilitation strategies implemented on select projects included the use of free-draining base; the use of fractured slab techniques including crack/break & seat and rubblize & roll of the original concrete pavements; and construction of new asphalt pavements with warranty requirements.

Perpetual Pavement Performance

The performance of the asphalt pavement projects within the I-71 Corridor are functioning proof of the perpetual pavement concept, which indicates that strong asphalt pavements never develop the fatigue cracking anticipated by the AASHTO design equation, and, thus, have indefinite structural life. The concept of perpetual pavement is founded on the discovery of a fatigue limit (strain level) in asphalt pavements below which the pavement never develops fatigue cracking. The fatigue limit for asphalt pavement was first proposed by Dr. Carl Monismith in the 1970s, and confirmed by later studies of thick asphalt pavements in the UK and various states in the U.S. The performance of a perpetual pavement is characterized by a pavement that remains in service indefinitely with only periodic resurfacing. The original asphalt pavements within the I-71 Corridor exhibit this performance; they remain in service after nearly 58 years with only minor maintenance and periodic overlays (4).

Conclusion

Based upon the performance experience of the I-71 Columbus to Cleveland Corridor, it is clear: For best performance, life and economy, start with an asphalt pavement.

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(1) Gibboney, Willis B., "Pavement Performance on a Portion of Ohio's Interstate System", National Asphalt Pavement Association, QIP 103, April 1983.

(2) Flexible and Rigid Pavement Costs on the Ohio Interstate Highway System, Willis B. Gibboney, P.E. , Westerville, Ohio, December 1995

(3) Elliot, Robert P., "Analysis of Performance Data Reported in Illinois DOT Research Report 76", National Asphalt Paving Association, QIP 101, 1981.

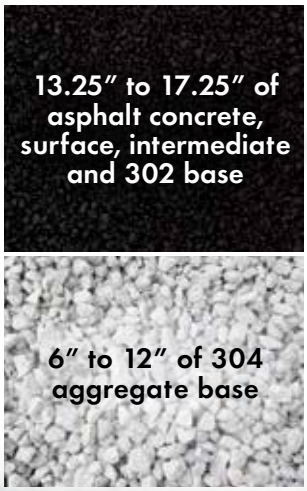
(4) APA 101, Perpetual Pavements, A Synthesis, 2002

I-71 PAVEMENT BUILD-UPS VALIDATE PERPETUAL PAVEMENT CONCEPT

It is interesting to compare the present-day pavement build-up of the original asphalt pavement sections within the Interstate 71 Corridor to those more recently designed as replacements for original concrete pavement sections. As can be seen on the accompanying graphics, the original asphalt sections have been built-up with periodic overlays to a total thickness of 16 inches of asphalt concrete. Those designed to replace original concrete pavements range in thickness from 13.25 to 14.25 inches of asphalt concrete. The original asphalt pavements, now having reached 60 years of service, have been improved over the course of multiple projects to approximately equal the thickness of more recently designed asphalt pavements. The longevity of the original asphalt concrete pavements demonstrates Perpetual Pavement performance; that is, more than 50 years of life without major rehabilitation. These pavements certainly were not designed or built to be perpetual pavements; but, the fact is, retrofitting by use of periodic preventative maintenance asphalt overlays has resulted in pavements exhibiting perpetual pavement performance.

An ODOT research project (SJN 465970) conducted by Ohio University confirmed just such an alternative. OU researchers found that 13 to 15 inches of asphalt concrete (depending on the foundation) was all that was needed to qualify as a Perpetual Pavement. Researchers also found that a strategy of successive and timely overlays to strengthen existing pavements could be employed to achieve perpetual pavement performance. The performance of the original I-71 asphalt pavement sections certainly demonstrate the feasibility of upgrading an asphalt-base pavement to achieve perpetual pavement performance. For additional information on the OU Study, see the *Ohio Asphalt* article in the Spring 2012 issue at http://www.flexiblepavements.org/sites/www.flexiblepavements.org/files/ohio-asphalt-pdf/ohio_asphalt_spring_2012_web_version.pdf, or read the research report at http://cdm16007.contentdm.oclc.org/cdm/ref/collection/p267401ccp2/id/12760.

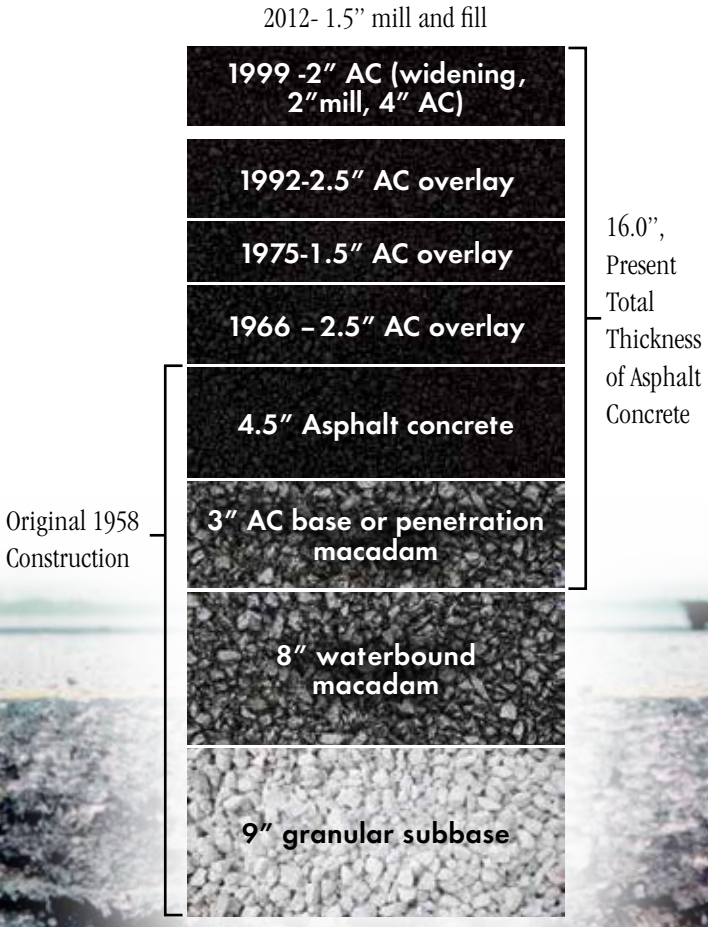
DEL/MED-71, SLM 11.50 TO 26.41 FLEXIBLE PAVEMENT TYPICAL SECTION REPLACING ORIGINAL RIGID PAVEMENTS

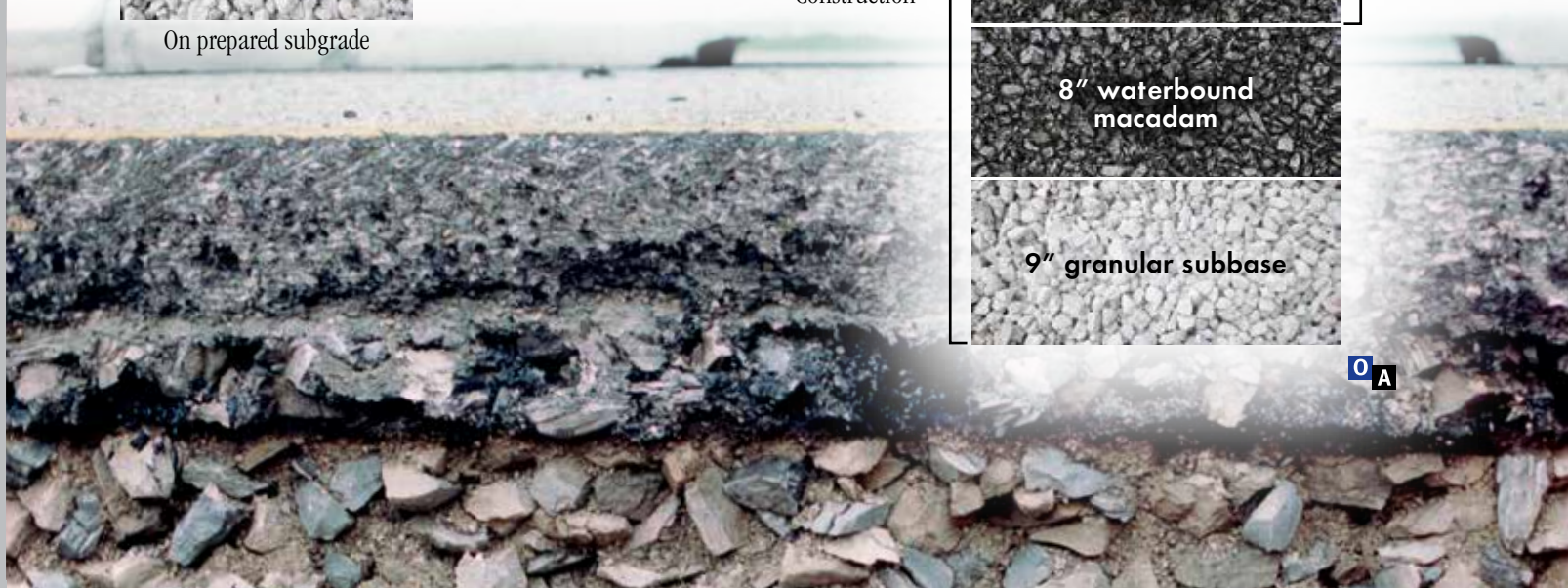


Two replacement projects included a 4" lift of asphalt-treated, free-draining base that was not considered in the structural design

On prepared subgrade

DEL-71, SLM 1.59 TO 11.50, ORIGINAL FLEXIBLE PAVEMENT PROJECTS





'SURVEY SAYS:'

FPO SCHOLARSHIP PROGRAM IS 'WORK'ING

Don't be surprised if you see the 17 people pictured on the next page again. Chances are you will.

If history repeats itself, you are likely to be working with one of this year's Ohio Asphalt Pavement Industry Scholarship recipients. That has been the case with nearly seven of every 10 scholarship winners in the program's first 22 years.

To measure the success of the scholarship program, Flexible Pavements of Ohio conducted a 2017 study to find out if recipients of an Ohio Asphalt Pavement Industry Scholarship become working professionals in the industry. The "survey says" they are! According to survey respondents, nearly seven of 10 people receiving a scholarship in the program have remained affiliated with the industry by either working for a consulting engineering firm (24%), construction firm (16%), public agency (11%), or in association with academia (10%). The survey also showed that 4% of past scholarship recipients are affiliated with FPO-member companies.

The most-recent group of potential industry professionals – the recipients of a 2018-2019 Ohio Asphalt Pavement Industry Scholarship – were officially announced this past March at the 2018 Ohio Asphalt Expo. This academic year's class of 17 scholars each received $2,000, bringing the total numbers of scholarship recipients since the program's 1993 inception to 465 students that have received a total of $633,099.

This academic year's scholarship winners represent six Ohio colleges that offer civil engineering or construction management degrees. There are also two firsts in the program's 23rd year: an increase in scholarship amount and the addition of a new scholarship. 2018-2019 scholarship recipients are receiving one-year scholarships of $2,000 – an increase of $500 over past amounts. Also, The Chase Nichols/Mid-Ohio Paving Scholarship was created this year by the company and friends in memory of Nichols.

THE SCHOLARSHIP PROGRAM IS 'WORK'ING

The Ohio Asphalt Pavement Industry Scholarship was formed at a time when no Ohio universities offering civil engineering or construction management degrees were providing coursework in flexible pavements technology. FPO's 1994 Long Range Strategic Plan changed that with the 1995 inception of the Asphalt Pavement Industry Scholarship Awards Program. The scholarship program has not only encouraged the advancement of asphalt technology coursework at 10 Ohio universities, but also provided:

- Incentive for students to gain knowledge in asphalt pavement technology by requiring scholarship recipients to take at least one asphalt pavement course
- Incentive for colleges/universities to raise awareness of asphalt pavement in the academic community
- A workforce trained in asphalt pavement technology

2018–2019

FPO ASPHALT PAVEMENT INDUSTRY SCHOLARSHIP RECIPIENTS

Barrett Paving Materials Inc.

NATHAN HOHULIN
U. of Cincinnati

Wayne & Debbie Brassell Asphalt Pavement Industry Scholarship

AUSTIN SCOTT
Ohio U.

Burgett Family/ Kokosing Construction Co.

ALLYSON FOMICH
Ohio State U.

Erie Blacktop Inc.

SARAH CARLSON
Case WR U.

Flexible Pavements of Ohio

HANNAH GAGE
U. of Akron

Flexible Pavements of Ohio

ELAINA PATITSAS
U. of Akron

Flexible Pavements of Ohio

SURAJ RAO
Case WR U.

Fred & Teresa Frecker

DAVID GAYDOS
U. of Dayton

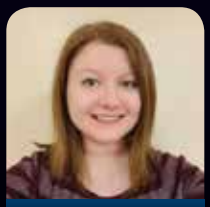
Gerken Paving Inc.

ABIGAIL FOSTER
Ohio State U.

John R. Jurgensen Co./Valley Asphalt

LINCOLN PARSLEY
U. of Cincinnati

Martin Marietta Materials Inc.



KATHRYN BUSS
U. of Cincinnati

The Chase Nichols/ Mid-Ohio Paving Scholarship

JORDAN FORRY*
Ohio State U.

Northstar Asphalt/ Kenmore Construction Co.

WILLIAM SHEA
U. of Akron

Ohio CAT/ Caterpillar Inc.

MITCHELL LAMBERT
U. of Cincinnati

The Shelly Co.

DEVIN CARTWRIGHT
Ohio State U.

The Shelly Co.

CRAIG LAIR
U. of Cincinnati

Shelly & Sands Inc.

NICHOLAS VALIN
Ohio State U.

**Repeat Scholarship Recipient*

FPO ASPHALT PAVEMENT INDUSTRY SCHOLARSHIP FUND CONTRIBUTORS

The following more than 30 companies and individuals have contributed to endow the Ohio Asphalt Pavement Industry Scholarship Fund:

Osama Abdulshafi, Ph.D.
Barrett Paving Materials Inc.*
Bowers Asphalt & Paving Inc.
Wayne & Debbie Brassell
Burgett Family/Kokosing Construction Co. Inc.*
Columbus Bituminous Concrete Corp.
Columbus Equipment Co.
Cunningham Asphalt Paving Inc.
Dine Comply Inc.
Erie Blacktop Inc.
Fred & Teresa Frecker
General Insurance Co.
Gerken Paving Inc.*
Hardrives Paving Construction Inc.
Hy-Grade
John R. Jurgensen Co./Valley Asphalt Corporation*
Kenmore Construction Co.*
The Koski Construction Co.
M&B Asphalt Co. Inc.
The McLean Co.
Martin Marietta Aggregates*
Meeker Equipment Co. Inc.
Mid-Ohio Paving & Friends
Northeastern Road Improvement
Northern Ohio Paving
Northstar Asphalt, Inc.*
Ohio CAT & Caterpillar Inc.*
Osterland
Schloss Paving
The Shelly Co.*
Shelly & Sands Inc.
H.P. Streicher Inc.
Thomas Asphalt Paving Co.
Valley Materials, Inc.
William H. Fair, P.E.

*Denotes pledges of $50,000 or more

2019-2020 FPO SCHOLARSHIP ENTRY DATES SET

Flexible Pavements of Ohio is pleased to announce its Ohio Asphalt Scholarship program for the 2019-2020 academic year. The period for submitting online applications will be open from Dec. 1, 2018 through Jan. 31, 2019. During this period, students may find information about the program and apply using the online application on the Flexible Pavements of Ohio website at: http://www.flexiblepavements.org/scholarships/asphalt-scholarships-program.

The college scholarship program is available to undergraduate civil engineering and construction management/engineering students in their sophomore or junior years who will be juniors or seniors during the 2019-2020 academic year. Scholarship recipients must agree to take a course in asphalt pavement technology before graduating. Graduate civil engineering students studying asphalt pavement technology are also eligible.

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Milling Strategies for Composite Pavement Rehabilitation Projects

– *Tips & Recommendations*

(Editor's note: This is a continuation of our Technical Seminar series on Composite Pavement Rehabilitation. In Part 1 (Spring 2018), we addressed the importance of conducting a Pre-Design Pavement Investigation and emphasized the benefits of implementing a pavement coring program. In Part 2 (Summer 2018), we defined and described the various types of milling items of work available when incorporating ODOT milling specifications into the design of your composite pavement rehabilitation project.)

In Part 3 of our Technical Seminar series on Composite Pavement Rehabilitation, we will complete the overview of composite pavement milling strategies by providing various tips and recommendations on how to best utilize ODOT Item 252 – Pavement Planing, Asphalt Concrete; Item 202 – Wearing Course Removed; and Item 897 - Fine/ Micro Planing when designing your rehabilitation project. Although the following tips primarily apply to composite pavement rehabilitation, many can also be utilized or applied to other types of maintenance, resurfacing and rehabilitation projects.

Consider the following tips when milling composite pavements:

- Use Item 202 – Wearing Course Removed if your intent is to remove all asphalt from the pavement surface to the top of concrete.
- When milling depth corresponds to existing lift thickness, consider increasing milling depth +¼ inch to avoid scabbing (see photograph page 20). For example, if intent is to remove the existing 1¼-inch surface, specify a 1½-inch milling depth to address possible variability in surface thickness and minimize the potential for scabbing.
- Use caution when milling composite pavements at or near the end of their design life. Exposing old concrete can be risky and could lead to excessive repairs and or replacement, especially when concrete is exposed to traffic and wet weather conditions during construction. It is often prudent to adjust milling depth so that a portion of the existing asphalt remains in place. By not exposing the old concrete, pavement repair quantities can be appropriately managed and the pavement can be resurfaced to extend life until additional funding is available and replacement can be scheduled.
- When intent is to avoid exposing concrete surface, adjust milling depth so that a minimum 1 inch of asphalt concrete remains in place. In most cases, a 1-inch minimum will minimize the possibility of delamination during construction operations.
- On single-course paving projects, especially thinlay preservation type projects, consider performing pavement repairs first, followed by Item 897 – Fine Planing. This sequence will provide a uniformly milled surface that will allow the paving contractor to optimize smoothness when placing the overlay.
- When resurfacing polished concrete pavements, mill to texture the concrete surface to create mechanical aggregate interlock to avoid overlay slippage. Note that when milling/texturing polished concrete pavement, scarification of 100 percent of the surface is required to avoid random or scattered areas that could be susceptible to overlay slippage (see photograph page 20).
- Consider variable-depth gutter milling for pavements with curbing to maintain adequate curb reveal.
- Use SS 897 Fine Planing for single-course overlays of 1 ¼ inches or less.
- Use SS 897 Micro Planing for short-term, i.e. one-to-three year, skid correction.

What milling specification is appropriate for your project? That depends largely upon project scope, which depends upon type and severity of pavement distress; proposed repair methods and overlay thickness; available funding; and other factors. To determine project scope and milling strategy, always perform a detailed field review to document existing conditions; review your pavement coring report (See *Ohio Asphalt*, Spring 2018) and consider supplemental testing (FWD, GPR, profilometer) if necessary. Consult with construction and maintenance personnel to learn of pavement conditions when last repaired or resurfaced. Also, inquire about pavement conditions encountered during recent maintenance operations. The collection and review of this information will guide you toward an appropriate scope of work and milling strategy.

Polished concrete pavement surface after milling; ensure overlay interlock to avoid slippage

Pavement Scabbing (Courtesy of Craig Landefeld)

Milling a local roadway to maintain existing curb and gutter. (Courtesy of Boca Construction)

OA

Mark Your Calendars

OHIO ASPHALT INDUSTRY CONFERENCES & TECHNICAL TRAINING

2019 Quality Asphalt Production Training
January 8, 2019
Crowne Plaza Dublin
600 Metro Place N.
Dublin, OH 43017

January 10, 2019
Clarion Hotel - Cincinnati North
3855 Hauck Rd.
Cincinnati, OH 45241

January 16, 2019
Holiday Inn French Quarter
10630 Fremont Pike
Perrysburg, OH 43551

January 17, 2019
Holiday Inn Independence
6001 Rockside Rd.
Independence, OH 44131

This seminar will provide practical information for asphalt plant operations personnel in operating the plant safely, efficiently and consistently in producing mix that meets specification requirements. If you operate an asphalt plant, this seminar has the information you need to ensure success in producing mix that satisfies customer requirements.

Level 2 Asphalt Quality Control Technician Training
January 29-February 1, 2019
Ohio University Lancaster Campus
1570 Granville Pike
Lancaster, OH 43130

Flexible Pavements of Ohio (FPO) offers this training course to prepare individuals having basic lab familiarity to take the ODOT Level 2 Asphalt Technician Exam. After the training, students will have the opportunity to take the ODOT written examination for Level 2 Asphalt Concrete Technician approval.

Ohio Asphalt Paving Conference
February 6, 2019
The Fawcett Center
The Ohio State University
2400 Olentangy River Rd.
Columbus, OH 43210

The Ohio Asphalt Paving Conference is a collaborative effort of state and local government, academia and the asphalt industry to present practical, usable technologies and strategies for the design and construction of asphalt pavements.

Field Quality Control Supervisor Training
February 20, 2019
Crowne Plaza Dublin
600 Metro Place N.
Dublin, OH 43017

This seminar provides the training required to become approved to perform the Field Quality Control Supervisor (FQCS) function required under ODOT specifications or to acquire re-approval after five years since the previous training. This session will include training to become approved to construct porous asphalt pavement.

Comprehensive Asphalt Mix Design School
February 25-March 1, 2019
Ohio University Lancaster Campus
1570 Granville Pike
Lancaster, OH 43130

This course meets the requirements for ODOT HT.306, Asphalt Level 3 training. It is designed to give the participants a working knowledge of the principles associated with asphalt concrete volumetric mix design. On the final day of the course, students will have the opportunity to take the ODOT examination for Level 3 Asphalt Concrete Technician approval.

Ohio Asphalt Expo
March 26-27, 2019
Columbus/Polaris Hilton Hotel
8700 Lyra Dr.
Columbus, OH 43240

The Asphalt Expo is Ohio's premier asphalt pavement event with multiple concurrent educational sessions and an indoor and outdoor trade show and exhibition. If you construct, inspect, manage or maintain local or private transportation infrastructure, the Ohio Asphalt Expo has the information you need to ensure a successful, long-lasting asphalt pavement.

For more information regarding these events, visit FPO's website at www.flexiblepavements.org.

Mr. Compaction Chuck Deahl Passes

Charles "Chuck" Deahl passed away September 8, at the age of 75. Chuck was widely known as "Mr. Compaction" in the asphalt industry and was a great partner of the national and state asphalt pavement associations. Chuck was respected throughout the industry and regarded for his honesty, integrity and knowledge.

A U.S. Army Reserves and a graduate of both Bradley University and the University of Illinois, Chuck became a sales representative for the Hyster Company, a well-known manufacturer of compaction equipment. Traveling the country in various sales and management roles for Hyster, Chuck retired in 2012 as the company's National Accounts manager.

Chuck was not one to sit idle. In his retirement he started Fat Boy Roller LLC, devoting himself to providing education on compaction methods and best practices. He was always willing to visit Ohio and presented at numerous industry events.

Flexible Pavements of Ohio members and staff extend their sympathy to the family and many friends of Chuck Deahl.

ASPHALT WORD SEARCH

Locate the asphalt terms below, running horizontally, vertically or diagonally. Words may be forward or backwards.

H T T M T R B G G S M F P R N
C S I N L H N J S U K R E I O
R X M D E I I U X W F H R S I
A X T O L M P N V Y A R P A T
E I U L O E E I L B N O E C A
S V I M R T K V I A U L T A Z
E M M P E L H L A O Y L U M I
R E A M O O I S E P E E A I L
P V C N N T Y Y E X B R L Q I
E D M S A N D Q U A L I T Y B
S Q E T E L B I X E L F V G A
Y T I L I B A N I A T S U S T
O O P R E S E R V A T I O N S
N Z R C P I K P K Q T C N T H
Y T U C Z N F E I F F Z M D Q

FLEXIBLE
MILLING
MIX
PAVEMENT
PERPETUAL
PRESERVATION
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