The New Clearview FXS® fume extraction system provides greater visibility to the front of the paver hopper, to the opposite side, and down to the augers.

- Paver controls are mounted to the pivoting seat station, which hydraulically swings out past the side of the machine for excellent visibility.
- All functions are easily accessible, including feed system and flow gate controls.
- Noise levels cut in half and improved visibility allow the operator to stay in constant communication with the rest of their crew.

LET ROADTEC MAKE YOUR JOB EASIER - VISIT ROADTEC.COM
Columbus Equipment Company and Roadtec Partner to Optimize Uptime and Production Through Industry-Leading Support of Innovative, High-Quality, Dependable Road Building and Asphalt Paving Equipment.

The biggest benefit of Roadtec equipment is uptime. We just don’t have the downtime we have had with other machines.

Dean Breese; Vice President, Gerken Paving Inc.

Serving You From Ten Statewide Locations

COLUMBUS
(614) 443-6541

TOLEDO
(419) 872-7101

CINCINNATI
(513) 771-3922

RICHFIELD
(330) 659-6681

CADIZ
(740) 942-8871

DAYTON
(937) 879-3154

MASSILLON
(330) 833-2420

ZANESVILLE
(740) 455-4036

PAINESVILLE
(440) 352-0452

PIKETON
(740) 289-3757

www.columbusequipment.com
6 The President’s Page
I Build America – Join ‘The Movement’

8 Your Parking Lot – Asset or Liability?

10 Footpaths to Freeways, Part iv
After a Bumpy Ride, New Opportunities Ahead
By Emily Foster

14 FPO Kicks Off Training Season with Technical Seminars

16 FPO Scholarship Program: Impact Report 2017

24 Mark Your Calendars

26 Index to Advertisers

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

Ohio Asphalt is the official magazine of Flexible Pavements of Ohio. Published four times a year, advertising deadline is the 1st of the month preceding publication. Ohio Asphalt is not copyrighted and portions may be reprinted with the permission of Flexible Pavements of Ohio, 6205 Emerald Parkway, Suite B, Dublin, OH 43016; telephone: 614.791.3600, 888.446.8649; website: www.flexiblepavements.org
For more than 70 years, The Shelly Company continues to promote growth, innovation and infrastructure. We are a local business that’s located everywhere. Our focus is growing value for our customers, communities, and employees. We aren’t just fulfilling an order, we are making and delivering the materials that build a better tomorrow.

Visit shellyco.com to learn more!
I BUILD AMERICA –
JOIN ‘THE MOVEMENT’

I build America. Well, not me personally, but I certainly advocate for an industry that makes its livelihood building the types of things this nation needs to prosper and protect our American way of life. With the growing economy the USA is currently experiencing — and the prospects of a mega infrastructure bill yet to come, for which I’m keeping the faith — the need for tradesmen and laborers is becoming all the more a concern.

“Made in the USA”
Recently, President Trump spoke to the nation about the tax reform bill that by the time you will have read this has “likely” been signed into law. The president promises tax reform will grow the economy all the more, and the precious phrase “Made in the USA” will be seen on a growing number of products. That’s encouraging news for all sectors of the economy, especially ours — the construction industry. Stuff has to be built, and since construction is not an import there will be a strong demand for raw materials to build with and a commensurate need for qualified tradesmen to build it.

“Build It and They Will Come”
Some of you will recall the 1989 movie “Field of Dreams.” The phrase: “Build it and they will come,” is an adaptation from that film.

Invoking the phrase has a way of getting an initiative over the hump and making headway toward success — there are no guarantees, however. With all the building that is currently going on — and more construction on the way — there is no guarantee that the labor pool will be adequate with respect to skillsets or number of available workers.

Doing Something About It
In recognition of this labor concern, forces are marshalling around the nation. The Associated General Contractors of America (AGC) has partnered with I BUILD AMERICA to raise awareness of the construction trades to youth around the nation. I BUILD AMERICA aims to educate about the value of construction and recruit new workers to the industry.

Founding members of the I BUILD AMERICA “MOVEMENT” include Flexible Pavements of Ohio members John R. Jurgensen Co., Gerken Paving Inc. and Ohio CAT. I BUILD AMERICA is gaining momentum and doing something about getting the word out about the bright opportunity in the construction trades. How about you?

Join “THE MOVEMENT” — and they will come.

ibuildamerica.com
PRESERVING PAVEMENTS SINCE 1959

The Makers of UPM® Cold Mix.

Unique Paving Materials Corp.

High performance asphalt and concrete pavement maintenance, repair and preservation products.

UniquePavingMaterials.com • (800) 441-4880 • Cleveland, Ohio

KOKOSING MATERIALS, INC.
P.O. Box 334, Fredericktown, Ohio 43019
Phone: (740) 694-9585 • Fax: (740) 694-1100
www.kokosingmaterials.com

Kokosing CONSTRUCTION COMPANY, INC.
P.O. Box 226, Fredericktown, Ohio 43019
Phone: (740) 694-6315 • Fax: (740) 694-1481
www.kokosing.biz

Asphalt plants located in the following Ohio cities:

Cleveland
Columbia Station
Columbus
East Claridon
Fredericktown

Garfield Heights
Mansfield
Medina
Sheffield

St. Louisville
Upper Sandusky
Westerville
Woodville
Wooster

Liquid AC terminals located in:

Wheelersburg, OH
Mansfield, OH

SBS Polymer manufacturing plant located in:
Mansfield, OH

Tradition • Excellence • Quality • Innovation
As illustrated above, your parking lot can be an attractive asset to your facility. Coupling that with the durability, economy, and sustainability makes asphalt parking lots a good value. A well-designed, well-constructed parking lot can provide long-lasting service to your customers, provide a good appearance to complement your business and be quick, easy and cost-effective to maintain. By contrast, one that is too thin or poorly constructed can suffer early failures and become a liability.

So, how do you ensure that your parking lot becomes an asset and not a liability? Fortunately, there is readily available information to help you through the process.


And lastly, the Asphalt Pavement Alliance, a partnership of the Asphalt Institute, National Asphalt Pavement Association and the State Asphalt Pavement Association, recently published a construction checklist for asphalt parking lots. This checklist provides items to consider throughout the entire construction process, from project planning, soil and climate conditions, material selection and construction best practices. The "Construction Checklist for Parking Lots" is available in its entirety on FPO’s webpage at http://www.flexiblepavements.org/sites/www.flexiblepavements.org/files/apa_parking_lot_checklist_computer_printable.pdf.
Ebony Construction Company, Inc.

Asphalt Paving
Milling
Material Supply

Certified in Ohio & Michigan
8(a), DBE, MBE, SDB, EDGE, NOMBC

419-841-3455 [phone]
419-841-7845 [fax]
ebonyco.com [website]

3510 Centennial Road, Sylvania, Ohio 43560

‘Equal Opportunity Employer’
This is the final installment of a four-part series of articles on the history of roadway construction in Ohio, how asphalt pavement became the dominant roadway building material and what challenges the industry may face in the decades to come. The first, second and third parts of the series appeared in the spring, summer and fall 2017 issues of Ohio Asphalt. We hope you enjoy this look at where our industry came from and how together we can use our hard-earned expertise to meet Ohio's future highway needs.

The asphalt paving industry entered the 21st century at a time of optimism, product improvements, increased organizational strength through Flexible Pavements, and a strong commitment to education. The concrete wars receded into the past. The industry was healthy and vigorous. Then the bottom dropped out. America plummeted into the biggest recession since the Great Depression. Few businesses were left unscathed.

In the asphalt paving business “everything is about tonnage,” explains Tim Bell, president, M&B Asphalt Company. When the tonnage fell in 2008, everyone experienced the dip in business and uncertainty for the future. Federal stimulus money allowed the highway contractors to maintain many programs with the “shovel-ready” projects federal funds supported. Commercial and private business, however, took a hit, and cities and townships put off their roadwork for better times.

The companies that did a little of everything felt the pinch most. “You held back on buying equipment. Your inventories of stone and liquid asphalt dropped. You were warier of how much you were going to buy,” Bell said. Competition for jobs was keen with loads of people bidding at the lowest prices they could manage. There were layoffs and several years of anxious uncertainty.

By Emily Foster

AFTER A BUMPY RIDE, NEW OPPORTUNITIES AHEAD

The asphalt paving industry entered the 21st century at a time of optimism, product improvements, increased organizational strength through Flexible Pavements, and a strong commitment to education. The concrete wars receded into the past. The industry was healthy and vigorous. Then the bottom dropped out. America plummeted into the biggest recession since the Great Depression. Few businesses were left unscathed.
Naturally, the difficult business climate affected the industry organization as well, as Flexible Pavements membership dues were based on tonnage. New hires were put on hold; the Ohio Expo planned for reduced attendance and offered a program addressing how to reduce job costs and raise the appeal of asphalt preservation products.

Bell remembers a “very tough” two years, followed by a gradual growth in commercial and private business as deferred maintenance came due. By the fourth year, the economy and paving industry were normalizing. Also over time, cities and counties passed levies to catch up with road maintenance.

“Now everybody seems to be busy,” Bell said.

Brent Gerken, president of Gerken Paving Inc., said that the biggest boost out of the recession resulted from the state’s issuance in 2013 of $1.5 billion in Ohio Turnpike revenue bonds. Among the jobs funded was the Interstate 75 upgrade to three lanes. “It was the bridge that allowed us to get from almost no commercial work to today, where commercial work has almost come back from before 2008,” he said.

Because the bond funds will be exhausted in 2018, the Ohio Department of Transportation (ODOT) has introduced a belt-tightening asset management program that emphasizes preservation of road surfaces over new builds. Rod Russell, vice president of Operations at Barrett Paving Materials, said, “The industry must meet the demands of the marketplace. ODOT wants the best value possible. Designers want to introduce the best options available. It’s up to the industry to be innovative.”

In other words, it is in the interest of the paving industry to stay viable with high-value products that meet the current ODOT standards and requirements. One of these has been Smoothseal (ODOT’s “Fine-Graded Polymer Asphalt”). According to life-cycle analysis, Smoothseal has been “a very good performer and good value,” said Russell. A newer product, Thinlay, is designed for lighter traffic. Starting in 2016, it has been applied in several test locations.

Dave Slatzer, deputy director of ODOT’s Division of Engineering, estimates that after three to five years of monitoring, ODOT may also include Thinlay in its specifications. Both products are more expensive initially than low-end chip seal and micro-surfacing, but they give higher value...
over time and, not incidentally, a smoother ride for the driver. They are just part of the industry’s commitment to innovation in a challenging market.

The Great Recession also saw a sea change in asphalt plant technology with the introduction of “WMA” (warm mix asphalt) in 2008. Thanks to the legendary J. Don Brock, who created the technique, equipment is now available that injects a small amount of water into the asphalt, making it “foam-like shaving cream,” according to Larry Shively, vice president for Quality Control, The Shelly Company. The process increases the volume of the asphalt binder, allowing it to coat the aggregate easily at a lower temperature and produce better pavement density. Warm mix has rapidly become the industry standard. It not only saves energy, it also reduces emissions—a win-win for pavement contractors.

Shively said Shelly was “instrumental” in introducing warm mix into Ohio. Learning of Brock’s device, “We installed one in our plant outside Columbus and gave a demo to ODOT with Brock’s company, ASTEC Industries. It was seen as a viable process and accepted.” Today, according to Shelly’s website: “Our warm mix asphalt has been utilized for the U.S. Green Building Council LEED credits.” Another environmental bragging right for the most-recycled product in the world.

A couple of chronic issues with laying asphalt pavement have been addressed in recent years. One is the problem of segregation, in which coarse and fine-materials separate leading to reduced life of the pavement. ODOT Construction Pavement Engineer Craig Landefeld said the problem may begin at the stockpiles of aggregate, at the plant or the silo or even when loaded into the truck or the paver. In the search for a solution, a test project used existing equipment to re-blend the mix at the jobsite. Based on the results, Landefeld said, “We produced modified specifications to require this remixing machine.” The cost benefits are clear, as taking measures to reduce segregation means avoiding repairs later. In addition, ODOT has stepped up education efforts to encourage the use of best practices when paving.

A second nagging issue has been longitudinal joint failure, in which the seam created as lanes are paved presents an opportunity for moisture infiltration to work its damage. Landefeld said that on-average the joints now need repair about two years before the rest of the pavement. If density can be improved at the joint, the savings are significant. The methods contractors use to achieve the optimum joint density is their choice, Landefeld insists. They may slightly overlap the adjacent lane, use non-standard joint configurations or roller patterns, whatever it takes to get better density. They may pave wider, paving two lanes at once, so there is no joint at all. And ODOT is also looking at a void-reducing asphalt membrane, being tested in Illinois, as another tool in the belt.

Landefeld said ODOT also is looking at two new technologies. One is thermal imaging using a paver-mounted thermal imaging device, which provides a temperature map of the freshly paved asphalt. He notes that Flexible Pavements of Ohio has developed a new gradation for the 19-millimeter mixture that mitigates segregation. ODOT plans to evaluate it with the thermal unit, concluding that while the new gradation may cost more than the 19-millimeter mixture now used, its cost benefits may be positive. Stay tuned for more news about this innovation. The second new technology is ground-penetrating radar, which can map the pavement density and thereby show areas of deficient compaction. It would be a much more thorough examination of the pavement than the present practice of testing randomly selected core samples. Look for some determination on this technology in the next five or so years.

Looking ahead at the industry’s near future, now that production has recovered from the recession, one big challenge causing a lot of discussion among Flexible Pavements’ board members is that of attracting and retaining the next generation of employees.

“Everyone is experiencing this,” said Amy Hall, president and treasurer of Ebony Construction Company. “I think we have to expand the aging
workforce into demographic and economic areas that haven’t been as appealing to folks in the highway construction industry.” That means attracting more diverse applicants by race and gender, which may in turn mean changes in the workplace to accommodate a different set of needs, such as childcare and family responsibilities for single parents and two-worker families.

That also means responding to the different values of the next generation. Hall points out that younger workers are less inclined to work overtime, for instance, because they value their private time away from work. They are also less inclined to regard their job as lifelong. In fact, they are accustomed to working a job for a couple of years, then moving on. These are values that the industry may simply have to accept and adjust to.

While industry leaders get their heads around the need for change, they also have amped up their outreach efforts. Jackie Alf, executive vice president of the John R. Jurgensen Company, said, “Finding young people in the construction industry is a struggle. There are definitely skills gaps that need to be filled.”

Alf and Hall agree that waiting to communicate about the job potential in the paving industry until high school age may be too late. More and more they reach out to middle schools and even younger students to showcase the industry and start students thinking of a career path. As Hall puts it, “If you don’t want to go to college, here are some opportunities.”

The upside of this effort is that the industry has to step-up to the changing times and workplace culture. In Hall’s opinion, “It may be good to have a different perspective. You have to be a little more flexible. You appreciate people for where they are. They matter and are valued. If you tap into those things you will retain employees going forward.”

For now, solutions are still around the corner. “The conversation is just beginning,” Hall said.

Emily Foster retired as an associate vice president at The Ohio State University. She earlier worked as a public relations specialist and served as editor of Cincinnati Magazine and as senior editor of Columbus Monthly. Foster has published three books about Ohio history.

Butler County Educational Service Center is holding a Discover STEM Conference on Friday, October 13, 2017 from 8:15 a.m. until 3:30 p.m. At Miami University Middletown. This is a one-day conference dedicated to igniting student interest in fields of science, technology, engineering and math (STEM). The conference is intended to give our young men and women an opportunity to:

- Speak with professionals who have excelled in math, science, engineering, and technology careers.
- Meet with representatives from the various businesses and educational institutions.
- Participate in interactive informational sessions.
- Learn from a noted guest speaker.

The conference will include a College and Career Fair featuring area businesses and educational institutions that have a STEM focus. Students will also attend interactive STEM sessions/workshops, and have a special luncheon. The conference also provides students with the opportunity to learn from a noted guest speaker and experience being on a college campus. This day will give the students exposure to many traditional and non-traditional STEM careers and provide them with guidance when considering their educational/career pathway.

More information will be posted on our website soon at www.bcesc.org. Registration will open in August 2017.
Flexible Pavements of Ohio (FPO) started a busy training season with a series of regional technical seminars in northeast, northwest, central and southwest Ohio. Nearly 150 individuals, ranging from asphalt contractors to consultant engineers and public agency staff all interested in learning practical information on the design, construction and maintenance of asphalt pavements, attended these seminars.

FPO’s President & Executive Director Cliff Ursich and Director of Engineering Services Bill Fair provided a comprehensive overview of asphalt binder and mix-type selection as well as pavement design using the web-based PaveXpress software. FPO’s Pavements, Materials & Field Applications Engineer Jim Marszal offered strategies for composite pavements rehabilitation and a discussion on the suite of asphalt treatments available for pavement preservation. Aidan McDonnell, from BOCA Construction, joined the FPO engineering staff and provided a presentation on the use of fine and micro milling to enhance pavement safety and smoothness.

Training continues this winter with schools for Field Quality Control Technicians, Level 2 Asphalt Quality Control Technicians and Comprehensive Asphalt Mix Design. These training programs allow individuals to achieve approval by the Ohio Department of Transportation for roles in asphalt pavement quality control from technicians in the lab to paving crews on projects. FPO is also facilitating the return of the Roadway Work Zone Safety Training Seminar. This seminar is conducted by the American Road & Transportation Builders Association and is focused on promoting construction worker safety in roadway work zones.

In addition to FPO’s training programs are marquee educational events such as the Ohio Asphalt Paving Conference and the Ohio Asphalt Expo. The programs for these must-attend events are in development and promise to feature dynamic presentations on everything asphalt. The Ohio Asphalt Expo will again feature the popular EXPOEXCEL program with day-long sessions dedicated to providing plant and paver personnel with quality education on best practices in asphalt production and placement.

A detailed listing of FPO’s upcoming technical training and seminars can be found on page 24.

**P.E.s be Aware! New Continuing Education Requirements**

New legislation requires all Professional Engineers in the State of Ohio to complete a minimum of two professional development hours each biennium in the subject of professional ethics relevant to the practice of engineering. This new requirement was effective Dec. 31, 2017.

Guidance on this requirement will be issued by the State Board of Registration for Professional Engineers and Surveyors. Go to www.peps.ohio.gov for additional information.
OVER 60 YEARS OF SUCCESS
IN HIGHWAY CONSTRUCTION

• Government, Commercial
  & Private Contracts
• Asphalt & Aggregate Producer
• Milling & Grinding
• Excavation, Grading, Drainage
• Decorative Asphalt Products Available
• Maintenance of Traffic Specialist

Corporate Office: Napoleon, OH  Regional: Adrian, MI & Gibsonburg, OH

Ph. 419-533-7701  www.GerkenCompanies.com

THE ONE STOP SHOP
FOR ALL YOUR ASPHALT NEEDS

Visit www.bocaconstructioninc.com for more on our services, capabilities, and history

BOCA Construction, Inc.
380 Eastpark Drive, Norwalk, Ohio 44857
Office (419) 668-5575, Fax (419) 663-0377
An Equal Opportunity Employer

Visit www.aspphalt-materials.com
Who is Flexible Pavements of Ohio?

Flexible Pavements of Ohio (FPO) is an association representing the interests of the asphalt paving industry in the state of Ohio to federal, state and local governments, private industry and other construction organizations. FPO supports active educational, technical and outreach programs designed to improve and advance quality asphalt construction.
An Investment in Our Industry’s Future

Over the past two decades the Flexible Pavements of Ohio (FPO) Asphalt Industry Scholarship Program has awarded more than a half-million dollars to more than 400 deserving students across many of Ohio’s major universities and colleges.

In addition to the significant financial support it provides for our next generation of leaders, the FPO program has helped to increase awareness of asphalt pavement technologies in and around the schools’ civil engineering, construction management and construction engineering curricula.

It has consistently provided both our scholarship recipients and their classmates in Ohio with greater opportunities for gaining exposure to and practical experience with an underrepresented area of study, as well as a means of developing professional contacts to aid in their careers.

How Does The Program Work?

To be eligible for an FPO Asphalt Pavement Industry Scholarship, sophomore and junior class students must be working toward a civil engineering, construction management or construction engineering degree at a university in Ohio that offers an accepted course in asphalt pavement technology. Graduate students studying and/or researching asphalt pavement technology may also be eligible.

Recipients of the scholarships ranging from $1,000 to $1,500 are selected competitively from the applicants and must agree to take the required course in asphalt technology before graduation. Students may be awarded a scholarship for up to two years.
In a recent survey of past scholarship recipients conducted by Flexible Pavements, the respondents from throughout the program’s history rated the asphalt technology coursework as one of their best college learning experiences.

Unlike many of students’ other program requirements, which are heavy on theory, the asphalt courses have offered hands-on experience with materials and techniques – often both in the classroom and in the field.

It’s a dimension of their overall education experience that these students found particularly valuable.

Even for those who intended to work outside of construction management said the coursework rounded out their perspective and provided insight into important areas they hadn’t had much previous exposure to.

All of the respondents agreed that more courses like the Asphalt Technology Course are needed and should be offered in these programs.

To complement the scholarship program, FPO conducted an annual asphalt mix design competition from 1997 to 2009, with teams sponsored by their universities. The high-point of the competition was achieved in 2005, when the team from Ohio University, consisting of Jonathan Kovach, Brett Mann and Yun Liao (pictured above with Past FPO President Fred Frecker) and mentored by Dr. Sang-Soo Kim, won both the Ohio and national competitions.

The practical nature of course content and students’ ability to work directly with different mix recipes and techniques has also been a help in searching for and securing internships.

Those respondents who participated in internships that involved pavement construction or rehabilitation felt more prepared and more able to contribute as a result of the coursework. They attributed this directly to the asphalt class content and experience.
A Statewide Partnership That Benefits All Ohio Motorists

A priority of Flexible Pavements of Ohio’s long-range strategic planning has always been working with the educational institutions throughout the state to raise awareness for the role that asphalt plays in quality pavement construction and maintenance, and to promote asphalt research.

Over the past two decades, the number of schools in the area offering coursework in asphalt technology and methods has risen steadily and dramatically.

As of 2017, more than 12 Ohio universities and colleges have incorporated asphalt classes in their curricula, helping students gain valuable insight into construction practices and mix designs. Each of these schools has had students receive scholarships from the annual FPO Scholarship Program.

But even beyond these important aspects the work among our collective organizations has led to a strong and growing partnership that continues to provide far-reaching benefits for all Ohio motorists.

Cooperative initiatives – like those with The Ohio Research Institute for Transportation and the Environment (ORITE) and The Advanced Asphalt Research Laboratory (AARL) in Ohio University’s Russ College of Engineering and Technology – have led to bringing together the some of the brightest minds to help solve Ohio’s infrastructure challenges and promote more sustainable construction practices.

What Schools Participate?

Awards have been made to qualifying students selected from applicants at the following participating institutions:

- Bowling Green State University
- Case Western Reserve University
- Ohio Northern University
- The Ohio State University
- Ohio University
- University of Akron
- University of Cincinnati
- University of Dayton
- University of Toledo
- Youngstown State University

"The asphalt technology coursework provided a skill set other classes just can’t give you."

BENJAMIN JORDAN, M.S., P.E.
Research Engineer, Ohio University
Russ College of Engineering and Technology
FPO Scholarship Recipient, 2011-2012
The FPO Scholarship Program offers another key benefit unique to this particular initiative, which is the full support and deep commitment of Ohio’s asphalt industry.

Most recipients, as a result of the award, have had opportunities to network with key people in the industry and begin to build contacts that have served them well throughout their careers.

Several of the schools have brought in industry experts as speakers in their courses, as well as organize field trips to area construction jobsites and asphalt plants.

Many of the past recipients stated that they still maintain connections with the Flexible Pavements staff and other industry executives and find it to be a valuable resource in their jobs.

Who Are the Industry Sponsors?

The FPO Asphalt Pavement Industry Scholarship is one of the organization’s most popular programs, with support coming from all across the industry, including the following companies and individuals:

- Barrett Paving Materials, Inc.*
- Bowers Asphalt
- Burgett Family/Kokosing Construction*
- Columbus Bituminous
- Columbus Equipment
- Cunningham Asphalt Paving, Inc.
- Erie Blacktop*
- Bill Fair
- Fred and Teresa Frecker
- General Insurance Co.
- Gerken Paving, Inc.*
- Hardrives Paving Construction, Inc.
- Hy-Grade
- John R. Jurgensen Company/Valley Asphalt*
- Kenmore Construction Company/ Northstar Asphalt, Inc.*
- Koski Construction Co.
- M&B Asphalt
- Martin Marietta Aggregates*
- McLean Equipment
- Meeker Equipment Company, Inc.
- Mid-Ohio Paving & Friends
- Northeastern Road Improvement
- Northern Ohio Paving
- Ohio CAT and Caterpillar, Inc.*
- Osterland
- Schloss Paving
- Shelly and Sands, Inc.*
- The Shelly Company*
- H.P. Streicher
- Thomas Asphalt
- Valley Paving Co.

*Contributed $50,000 or more.
# FPO Scholarship Distribution by Ohio Universities and Colleges, 1996-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>OSU</th>
<th>OU</th>
<th>UC</th>
<th>ONU</th>
<th>UT</th>
<th>UA</th>
<th>UD</th>
<th>YSU</th>
<th>BGSU</th>
<th>CWR</th>
<th>RSC</th>
<th>CSTCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>9</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>13</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>18</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>12</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>27</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>28</td>
<td>7</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>26</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>19</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>17</td>
<td>1</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>26</td>
<td>3</td>
<td>8</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>26</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>20</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>26</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>20</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>27</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>7</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>25</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>11</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>16</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>17</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>19</td>
<td>8</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>17</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>19</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>21</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Number | 448 | 93  | 89  | 57  | 41  | 35  | 77  | 21  | 13  | 18  | 2  | 1  | 1   |
| Amount  | $130,000 | $118,366 | $77,000 | $46,200 | $49,100 | $97,700 | $30,900 | $18,300 | $24,300 | $3,500 | $1,500 | $1,500 |

OSU: The Ohio State University  
OU: Ohio University  
UC: University of Cincinnati  
ONU: Ohio Northern University  
UT: University of Toledo  
UA: University of Akron  
UD: University of Dayton  
YSU: Youngstown State University  
BGSU: Bowling Green State University  
CWR: Case Western Reserve  
RSU: Rhodes State College  
CSTCC: Cincinnati State Technical and Community College

“There is a lot of opportunity for students in this industry. The FPO program does a good job of building awareness for asphalt pavement construction.”

DONALD CASH  
General Superintendent, Civil Engineer at Barrett Paving & Materials, Inc.  
FPO Scholarship Recipient, 1997-1998
Since 1944, from locations throughout the state, Shelly & Sands has been safely and efficiently delivering the highest quality construction materials and projects in Ohio and Ohio’s neighbor states.

Contact us today to let us know how we can earn the opportunity to assist you in making your project a success.
AT JUST A FRACTION OF AN INCH,
IT’S THE BIGGEST THING IN PAVEMENT PRESERVATION.

By any measure, Thinlay™ thin asphalt overlays are the answer to our nation’s immediate demand for pavement preservation. Starting at a depth of 3/4”, this armor-like suite of asphalt mixes is tailored to local needs to prolong pavement life — making roads stronger, smoother, safer and more drivable. Driver safety is enhanced and fuel consumption and noise are reduced, all while using a process that can also recycle and reuse natural resources. In fact, Thinlays are the most cost-effective pavement preservation option for ensuring the long-lasting performance drivers demand.

LEARN MORE AT WWW.ASPHALTPAVEMENT.ORG/THINISIN
Mark Your Calendars

Level 2 Asphalt Quality Control Technician Training
January 31 to February 2, 2018
Ohio University Lancaster Campus
1570 Granville Pike
Lancaster, Ohio 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 7, 2018
The Fawcett Center
The Ohio State University
2400 Olentangy River Rd.
Columbus, Ohio 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, 2018
Crowne Plaza Hotel Dublin
600 Metro Place N.
Dublin, Ohio 43017

This seminar provides the training required to become approved to perform the Field Quality Control Supervisor (FQCS) function required under ODOT specifications, and to acquire re-approval after five years since the previous training.

Comprehensive Asphalt Mix Design School
February 26 to March 2, 2018
Ohio Department of Transportation
Testing Laboratory, Lower Conference Room
1600 West Broad St.
Columbus, Ohio 43223

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 20-21, 2018
Columbus/Polaris Hilton Hotel
8700 Lyra Dr.
Columbus, Ohio 43240

The Asphalt Expo is Ohio’s premier asphalt pavement event with multiple, concurrent educational sessions and an indoor and outdoor trade show and equipment 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.

Roadway Work Zone Safety Training Seminar
April 5, 2018
Crowne Plaza Hotel Dublin
600 Metro Place N.
Dublin, Ohio 43017

This seminar provides the training to help workers, supervisors and inspection personnel develop the awareness needed to implement best practices in safety while working within roadway work zones. It will introduce the Roadway Safety Plus training program and tools for workers, supervisors and managers of roadway construction activities. The program is focused expressly on preventing fatalities and injuries during road construction activities. These courses were produced under grants from the Occupational Safety & Health Administration and/or the Federal Highway Administration, managed by the American Road & Transportation Builders Association (ARTBA). The Roadway Safety Program was developed by a consortium of the Laborers’ Health and Safety Fund of North America, ARTBA, National Asphalt Pavement Association, International Union of Operating Engineers, American Association of State Highway and Transportation Officials, Texas A&M Transportation Institute and the Laborers’ International Union of North America.

For additional information or to register for these events, go to www.flexiblepavements.org.
Industry knowledge, experience, efficiency and outstanding client service define Hahn Loeser’s results-oriented Construction Law Team. We welcome Andy Natale and Aaron Evenchik to our team of more than 20 attorneys dedicated to serving clients in all aspects of construction law and who pride themselves on hard work, responsiveness, and an unyielding commitment to achieving outstanding results for their clients.

HAHN LOESER & PARKS LLP | HAHNLAW.COM | 216.621.0150
Rob Remington | Construction Group Chair | rrr@hahnlaw.com
Andy Natale | anatale@hahnlaw.com
Aaron Evenchik | aevenchik@hahnlaw.com

CLEVELAND | COLUMBUS | NAPLES | FORT MYERS | SAN DIEGO | CHICAGO

NORTHSTAR ASPHALT: PAVING THE WAY TO YOUR NEXT DESTINATION
Experienced asphalt paving contractor serving the Akron-Canton metropolitan area and surrounding counties.
Innovative paving solutions for difficult projects.
Service, quality and commitment.

www.wengercompanies.com  7345 Sunset Strip N.W. | P.O. Box 2646 | North Canton, Ohio 44720-2646 | 330-497-0936
##Advertisers Index

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Materials Inc.</td>
<td>15</td>
</tr>
<tr>
<td>BOCA Construction</td>
<td>15</td>
</tr>
<tr>
<td>Columbus Equipment Company</td>
<td>3</td>
</tr>
<tr>
<td>Dine Comply Inc.</td>
<td>22</td>
</tr>
<tr>
<td>Ebony Construction Company</td>
<td>9</td>
</tr>
<tr>
<td>Hahn Loeser &amp; Parks LLP</td>
<td>25</td>
</tr>
<tr>
<td>The Gerken Companies</td>
<td>15</td>
</tr>
<tr>
<td>JASA Asphalt Materials / Russell Standard Corp.</td>
<td>26</td>
</tr>
<tr>
<td>John R. Jurgensen Company</td>
<td>5</td>
</tr>
<tr>
<td>Kokosing Construction Company Inc.</td>
<td>7</td>
</tr>
<tr>
<td>The McLean Company</td>
<td>11</td>
</tr>
<tr>
<td>The McLean Company</td>
<td>11</td>
</tr>
<tr>
<td>Northstar Asphalt Inc.</td>
<td>25</td>
</tr>
<tr>
<td>Ohio CAT</td>
<td>26</td>
</tr>
<tr>
<td>ROADTEC</td>
<td>IFC</td>
</tr>
<tr>
<td>SealMaster</td>
<td>13</td>
</tr>
<tr>
<td>The Shelly Company</td>
<td>5</td>
</tr>
<tr>
<td>Shelly &amp; Sands Inc.</td>
<td>22</td>
</tr>
<tr>
<td>Southeastern Equipment Company Inc.</td>
<td>IBC</td>
</tr>
<tr>
<td>Transtech Systems Inc.</td>
<td>9</td>
</tr>
<tr>
<td>Unique Paving Materials Corporation</td>
<td>7</td>
</tr>
</tbody>
</table>

---

### JASA High Performance Cold Patch (JASA HP-5)

- Workable in sub-zero temperatures
- Permanently repairs potholes
- Compatible with limestone or gravel (#9)
- Available year round for pick-up or delivery
- Can be manufactured in AC plant (w/no heat) or;
- Can be manufactured on site with our pugmill

**JASA Asphalt Materials / Russell Standard Corp.**

“A name you can trust since 1989 (ODOT Certified)”

Manufacturing asphalt emulsions, cutbacks and specialty products

990 Hazel Street  Akron, OH 44305  Tel.: 330-733-9400  www.jasarussell.com

---

### YOU HAVE AN OPTION

EXPERIENCE OUR TWO NEWLY DESIGNED COLD PLANERS

FOR MORE DETAILS CONTACT:

- Chuck Barnes – 216-906-5862
- Tim Cox – 513-518-8619
- Jack Weiskittel – 513-240-1379

www.OhioCat.com
Built to Keep the World Moving
State-of-the-art road building equipment

- Pavers
- Compaction Equipment
- Cold Milling Machines
- Stabilizers
- Recyclers

- Chip Spreaders
- Asphalt Distributors
- Asphalt Transports and Tanks
- Live Bottom Trailers

Call Today! 800-798-5438
Serving Ohio, Indiana, Kentucky, and Michigan
www.southeasternequip.com
UNBEATABLE TEAM.

ROAD AND MINERAL TECHNOLOGIES


Whether new construction or rehabilitation – roads are our customers' domain. With future-oriented technologies, reliable machinery, unceasing innovation, and highest demands on customer service and advice, we pursue one single goal: The perfect road!

CLOSE TO OUR CUSTOMERS

Find out more: www.wirtgen-group.com/amERICA

WIRTGEN / VÖGELE / HAMM / KLEEMANN

Hudson, OH 330.655.5900
Columbus, OH 614.475.2880
West Chester, OH 513.777.5556