FLEXIBLE PAVEMENTS OF OHIO

50 Years of Service, Partnership and Value

1962-2012

FLEXIBLE AT 50
A Preface

Flexible Pavements Inc. was formed in 1962 with the merger of the two existing asphalt pavement organizations, Macadam Pavements, Inc. and the Bituminous Concrete Producers Association (BCPA). Founded during the building of Ohio's interstate highway system and just before the era of automation and environmental protection, Flexible Pavements of Ohio, as it has been known since 2000, has successfully represented a changing industry for 50 challenging years. It has seen enormous changes in the asphalt paving business, from the improved quality of the product to industry consolidation to market domination.

Asked what Flexible Pavements of Ohio does for the business of asphalt paving in Ohio, Larry Shively, Vice President of Quality Control for the Shelly Company, responds, "One, marketing of the product and industry; secondly, helping us achieve technical developments through workshops and classes; third, being the go-between with agencies we work with and sell our product to, such as ODOT, cities and counties."

Over time, FPO has led the industry by a strong commitment to achieving the highest product standards through partnership at all levels of the paving industry. The goal: producing the best pavement for every job, big or small, every time.

From the beginning, the association's efforts have been based on the knowledge that "you can't afford to go it alone," as the FPO literature reads. Don Weber, retired Senior Vice President of S.E. Johnson Companies, recognizes the enduring success realized by competitors who work together on industry issues, when he


Bituminous Concrete Producers Association

1962

Letter from the BCPA explaining the details of the new merger.

comments: “How in the dickens did we all get in the same room and agree on anything? The underlying issue was the quality of the product. From design to laydown to recycling to helping the Ohio Department of Transportation (ODOT) with their problems, Flexible Pavements was always there to support the quality of the product.” For more than 50 years the results have been impressive. Today, asphalt is the material of choice on 98% of Ohio’s roads.

A momentous 1976 decision by ODOT put the responsibility for quality control in the hands of contractors. It had far-reaching consequences, thrusting great change on the industry and FPO to meet new engineering challenges. “When you lay down three-quarters of a mile of pavement and have to take it up because it doesn’t meet specifications, it’s pretty painful,” admits Weber. But over time, the challenges were met and exceeded. Jim Jurgensen, long-time President of Valley Asphalt and the John R. Jurgensen Co., who remembers very well the transition to assuming quality control, now says, “I think it’s a better world that we’re doing it.”

Finding strength and confidence in the growing capabilities of its members, FPO adopted a winning strategy of staying ahead of the curve on product development. As former Executive Director Fred Frecker describes it, “One of the hallmarks of FPO is its willingness to explore new products. Take porous asphalt, the use of polymers, Warm Mix Asphalt, Perpetual Pavement. We were way out ahead.”

Today’s FPO, recognized for its engineering expertise, its fact-based approach to problem solving, and its embrace of innovation, reflects a smart, sophisticated, forward-thinking industry. After 25 years of working on behalf of the Ohio paving industry’s largest customer, Dave Powers, Asphalt Materials Engineer in ODOT’s Office of Materials Management, acknowledges, “The industry has been willing to take a good hard look at issues and tried to come out on the quality side of the fence.”

Among FPO member companies, robust competition for paving jobs remains the name of the game, Shively admits, adding, “When we go out the door, yeah, it’s every man for himself, but Flexible Pavements tries to make it as even a playing field as possible.”

So send up the balloons and shower the confetti! Flexible Pavements of Ohio on behalf of the Ohio asphalt paving industry celebrates 50 years of meeting the needs of every paving customer with the highest standards of quality and service. It’s been a great ride.

1960s
The Formative Years

Challenges

The 1960s were boom years in Ohio during construction of the interstate highway system. President Dwight D. Eisenhower had signed the Federal Aid Highway Act of 1956, which covered 1,500 miles of interstate highway in the crossroads state of Ohio alone. The decade of the ’60s saw the completion of more than 1,000 miles of roadway.

At this time asphalt was regarded as a maintenance material, used mostly for resurfacing and repairing pavements. Concrete was the material of choice for highway construction. Don Mill worked for the Shelly Co. in Thornville, which then was in the cold mix asphalt business. As he remembers, “The industry at the time was very small and fragmented. The hot mix asphalt business was in its infancy. There were probably three or four major players – by major, I mean two to five asphalt plants and small volume.”

In those days, says Mill, “The volume tonnage was in new construction, but the asphalt industry was locked out of that.” The asphalt contractors aspired to improve their market share, but the idea of gaining dominance in the paving industry, he says, “was beyond our wildest imagination.”

The asphalt paving industry still had to prove that its product was not only more economical but also the best value. The role that flexible pavement would play in providing long-term service to motorists travelling on Ohio’s modern, high-volume highways was yet to be demonstrated.

There was much work to be done.

The 1969 annual convention of Flexible Pavements was the largest to date, featuring speeches by then ABC newsman Paul Harvey and Supreme Court Justice C. William O'Neill.

Jean (Schlaechter) Synder served as Flexible Pavements' secretary from its inception to her retirement in 1998.

Accomplishments

Flexible pavement, a term long used by engineers, describes a type of construction consisting of either multiple layers of a bituminous coated aggregate mixture, or layers of large aggregate "choked" with limestone screenings and overlaid with a bituminous mixture.

In the early years, Ohio road construction used both methods. Two associations grew to advocate on behalf of flexible pavement contractors: the Bituminous Concrete Producers Association and Macadam Pavements Inc. Asphalt companies were eager to compete more vigorously head-to-head with rigid pavement for construction contracts, however. In 1962 they joined forces, forming Flexible Pavements Inc., led initially by director Bernard Witten.

This decision to "Go Mainline" coincided with improvements in the formulation of asphalt mixes and the engineering of pavements that signaled a revolution in highway construction practices. FPI represented an industry on the move.

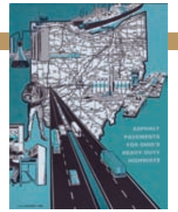
The 1960s saw the Ohio Department of Highways adopt a hot mix base material, "bituminous aggregate base." It was the opening volley of a revolution in highway engineering that paved the way for asphalt to become the dominant construction material in the state.

Starting in 1963, the fledgling association was led by Dale Fulton, about whom Mill says, "He didn't know much about pavement, but he sure knew politics." One of the chief concerns for paving businesses, of course, was ensuring that funds were available for roadwork.

1963

JOINING FORCES TO BUILD CRITICAL MARKET SHARE

Largely shut out of the competition for major road construction, the fragmented Ohio asphalt industry sought strength in a new partnership as the nation expanded its highway system.



The association's first brochure.

1966

Flexible Pavements magazine.

Early ad promoting asphalt.

1966

Officers for Flexible Pavements, Inc., for the years 1966-67 (left to right): Vice President Bill Rhodes, President Arthur Schultz, and Treasurer Robert Monnett.

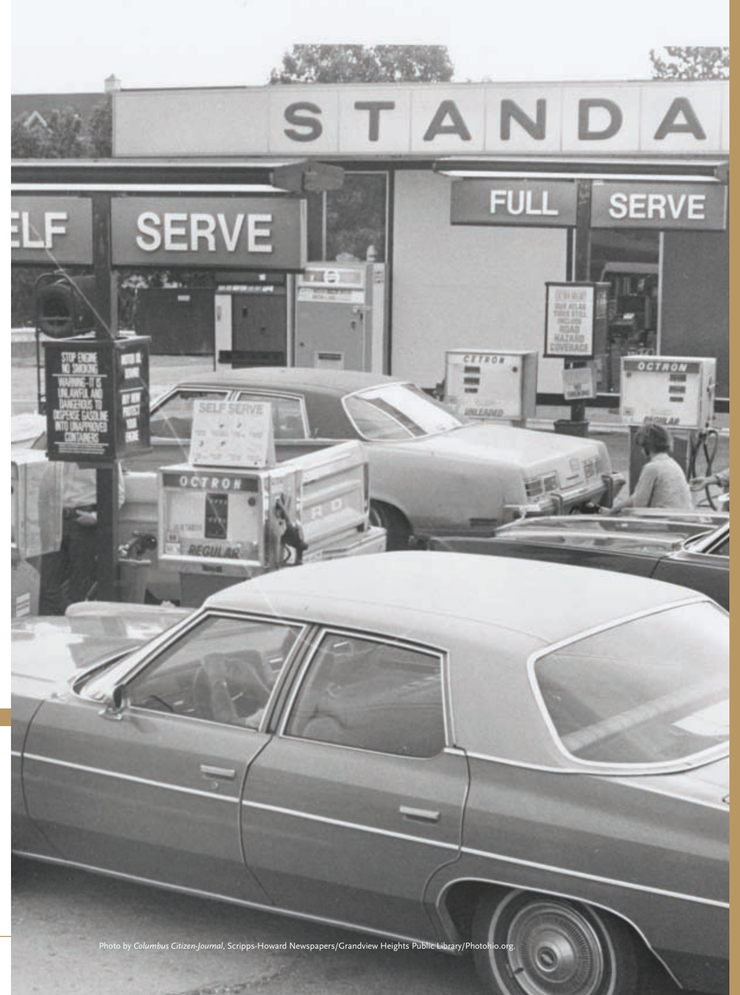


Photo by *Columbus Citizen-Journal*, Scripps-Howard Newspapers/Grandview Heights Public Library/Photohio.org

1970s
From Crisis to Innovation

Challenges

No event had a more profound impact on the asphalt paving industry during the 1970s than the OPEC Oil Embargo of 1973-74, when the world's major producers of crude oil raised prices and embargoed oil shipments in response to America's support of Israel. Oil prices per barrel quadrupled.

For the average American this was a time of rationing, long lines at gas stations, and an unheard-of price per gallon of 55 cents. For highway construction, the soaring cost of oil meant a spike in the price of construction commodities, particularly liquid asphalt binder and fuel, as well as increased cost of operating heavy construction equipment. Asphalt paving contractors saw the price of liquid asphalt skyrocket.

In a letter to its members the National Asphalt Pavement Association (NAPA) noted... "Over 60% of the (asphalt) quotes that are being offered are good for the day of the quote only. Very few quotes are offered for longer than three months. Therefore, the ability for the contractor to bid a fixed price for hot-mix asphalt has been severely or almost totally restricted."

The substantial competitive advantage asphalt pavement had over its competition evaporated as the price of asphalt binder escalated beyond everyone's wildest imaginings. It was a worrisome time not only for asphalt paving contractors but also for agencies that had to deal with the construction inflation brought on by contractors' inability to cope with price volatility and material shortages. To deal with the crisis the Federal Highway Administration published technical guidance, "Combating Inflation in Highway Construction Costs," on measures agencies could take to mitigate escalating construction costs.

One such measure was the bituminous price adjustment. FPI worked with the Ohio Department of Highways to see its implementation as an inflation battling measure. To this day the price adjustment is used in asphalt paving contracts to hold costs in check and provide competitive prices to the asphalt industry's customers.

With the cost of asphalt skyrocketing, a new crisis was born. Asphalt had lost a significant cost advantage over concrete. Concrete promoters had new opportunity to regain market share. Executive Director Bill Baker stirred the FPI membership to action: "The time has come for those whose business survival depends on the paving market to begin getting it together. The marketplace has undergone a terrific amount of change and unless we also change to meet its emerging demands our competition will continue to capture an increasing percentage of the paving market. To survive we must fight – we must accept the challenge, we must compete."

In addition to the Embargo's targeted shock to the American transportation system and a mid-decade economic recession, another new force was at work that would demand change in the way the asphalt business operated. That was the creation of the U.S. Environmental Protection Agency to enforce the recently passed Clean Air and Clean Water Acts.

Crews hard at work on Franklin County Stadium in 1977. Industry officials at the time touted the benefits of asphalt in helping speed construction by eliminating costly curing time delays.

A whole new era was under way, bringing angst to those whose businesses would feel the impact of newly drafted standards. Industry organizations like FPI were kept busy responding to regulations that affected almost every aspect of their work, from asphalt plant air emissions to storm water run-off.

And within the asphalt paving industry itself, the search for quality and consistency continued. As highway travel and transport dominated American life, it was incumbent on engineers, manufacturers and contractors to make a product that was going to be affordable, long-lasting, smooth, quiet and easy to maintain, a product worthy of the vast new highway system stretching across America.

Accomplishments

Out of the decade's challenges came some important innovations and a new era of partnership between business and government.

Just as testing strength produces endurance, FPI was to become a stronger association through this season of increasing competition, a season that would allow it to hone its marketing skills. FPI sprang to action, and under the leadership of its executive director Bill Baker, who took the reins in 1976, the asphalt industry began to move from being "order-takers" to marketers. FPI held marketing seminars around the state and helped its membership to successfully advocate the benefits of asphalt pavement. Marketing materials were developed and deployed to assist members in advancing the message of asphalt's value. When the market would finally right itself, the asphalt contractors would find themselves all the more competitive.

Before retiring as Senior District Engineer for the Asphalt Institute, Jorge Villacres worked at ODOT for 32 years, including some time under Baker, for whom he expresses unqualified respect. "Bill Baker was the

1970

BUILDING THE FRAMEWORK FOR LONG-TERM SUCCESS

The early leaders created the organization and the tools to advance the quality and value of asphalt pavements, working to get the word out to Ohio's key pavement decision-makers.

Captain Asphalt, a character developed by Ashland Petroleum, sums up the spirit of the time.

1971

Marketing brochure promoting asphalt as the "modern highway."

1971

"Glasphalt," one of the asphalt industry's very first environmental initiatives, is introduced to evaluate the performance characteristics of waste glass as a viable substitute for conventional highway construction materials, shown here being installed on Westwood Avenue in Toledo, Ohio.

1971

Ohio Governor John J. Gilligan (second from left) was the keynote speaker at Flexible Pavements' 9th Annual Meeting, one of the most successful in its history. He is flanked (left to right) by FPI Executive Vice President Dale Fulton, FPI President Jack Jurgensen, and Ohio State Highway Director J. Phillip Richley.

1972

Don Mill, president, Flexible Pavements, Inc., 1972-1973

Flexible Pavements, Inc., Board of Trustees 1972-1973 (from left): Dale Fulton, John Morgan, Paul Miller, Jack Jurgensen, Don Mill, Ted Kirkby, Art Schultz, Henry Garlick, Robert Loughman, and Arval Graff.

By the end of the decade, asphalt was becoming a top choice around the state for recreational pavements, such as nature trails.

best thing that ever happened to Flexible Pavements," Villacres says. "In his quiet, Southern-accent way, he was dynamic. He improved viability and trust in asphalt pavements. He was expert in highways in general, and in getting the message out, getting the contractors to do the best they could and projecting an image of quality."

Despite national crises, the interstate highway system construction continued apace. In Ohio the I-270 Outerbelt around Columbus was finished, and I-70 completed its east-west journey across the state.

The Ohio Department of Highways became the Ohio Department of Transportation (ODOT) early in the decade. In 1976, in partnership with the asphalt industry, it launched a groundbreaking Quality Assurance program that shifted responsibility for quality control from government to asphalt contractors, allowing greater efficiency of materials and manpower. Supplemental Specification 848 signaled a historic change in the relationship between ODOT and the businesses with which it contracted. Ohio was a pioneer in forming this advantageous partnership, now nationally adopted.

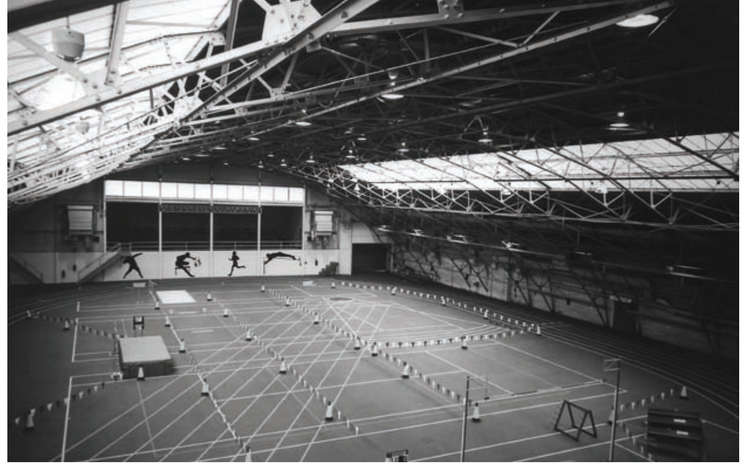
Former ODOT Director Gordon Proctor describes the transition as one in which "the contractor was measured on the final product rather than on individual steps." leaving both contractor and ODOT "worrying more about good outcomes than auditing every step."

Of course, taking over quality control did not come without "bumps in the road," says Larry Shively. "Back when it started, most of the asphalt companies didn't have a technical representative. They relied on the Agency to tell them what to make, how to make it. Over the years it's evolved into now we're the innovators. We have a lot of technical people. In 1976 there were just a few of us. Today in our company alone there are over 60 of us."

In addition, Flexible Pavements itself had to change. Prior to this, the organization had little technical expertise on staff. Baker, a former deputy director with the Ohio Department of Highways, was the first executive director to be an engineer. His successor, Fred Frecker, says that Baker commented that when he arrived on the job "the most technical document in the office was the *Wall Street Journal*." That soon changed.

As for those "bumps in the road," ODOT's Dave Powers shrugs them off, saying, "At times it's been very contentious from both the state and contractor perspective, but nobody should be surprised. It just goes with the territory."

If necessity is the mother of invention, then the oil crisis spawned the invention of recycling. As early as 1978 Baker asked in an



The Denison University Fieldhouse utilized asphalt base for its grass infield comprised of four courts for tennis and volleyball, as well as its multi-lane running track.

1977

New magazine design.

1977

Flexible Pavements' Annual Meeting continues to grow in size and scope during the 1970s, becoming a cornerstone of the association's marketing and outreach efforts. The banquets are attended by members, guests and dignitaries from around the state.

1977

"Ohio's Transportation Outlook – Present and Future" Panel presented to standing-room only audience at the 15th Annual Meeting. From left: Columbus Mayor Tom Moody, FPI President James Walls, ODOT Director Dave Weir, and NAPA President John Gray.

1978

FPI PROMOTIONAL ITEM

Governor James A. Rhodes gives the keynote address at FPI's 16th Annual Meeting.

1978

First publication to promote full-depth asphalt.

FPI ASSOCIATION PIN (1960s-1970s)

article, “Pavement Recycling: Key to the future or a hopeless dream?” No environmentally conscious suburban neighborhood took to this innovation with more long lasting effect than the asphalt industry has done. Jorge Villacres admits, “When they first started recycling asphalt pavement, I was a skeptic.” He became a convert. “When all the benefits of it were discovered, it really took off.”

Today, asphalt paving is the most recycled material in the world, a point of pride and bragging right from a most unexpected source. As Don Weber says, “The economics drove that ship.” But while recycling has become a strong marketing message for the industry, Weber adds, “It’s not propaganda; it’s the real thing.”

Turning old pavement into new through recycling played a major role in restoring asphalt’s competitiveness. With recycling, asphalt contractors were now able to rein in the highest cost element of its product – asphalt binder. By replacing one-for-one virgin asphalt binder with recycled asphalt, contractors could improve efficiency and economy.

The use of hot-mix asphalt increased in all areas of transportation, including the runways of Port Columbus Airport.

The impact of these two innovations is still felt some 40 years later. Having grasped a firm knowledge of asphalt mix design and quality control through ODOT Supplemental Specification 848, asphalt contractors began using more recycled materials. Today, Ohio’s asphalt mixes incorporate multiple recycled materials: recycled asphalt pavement (RAP), recycled asphalt shingles (RAS), and rubber from scrap tires. Asphalt was well on its way to becoming the “sustainable” pavement.

Asphalt was a popular choice for playgrounds and other recreational areas due to its fast and easy construction.

1979

Chairman Jim Morris (left) receives an Award of Appreciation from FPI President Bill Baker for his service to the association.

1979

Planning begins on the state's first asphalt recycling initiative in Stark County. Cleveland Avenue, originally constructed as a four-lane brick road, is ultimately replaced in 1980-1981 with a blend of 50% recycled material and a 50% virgin material.

1980s
The Scientific Awakening

Challenges

The 1980s saw increased acceptance of asphalt pavement as the material of choice for most highway construction. As older concrete highways reached the end of their useful lives, they were systematically being replaced with asphalt. And while asphalt still needed years of technical improvement to respond robustly to every pavement situation, from parking lots to interstates and airport runways, it was already showing signs it was the paving material of the future.

In many ways, the 1980s signaled the maturing of Ohio’s asphalt paving industry. From small, seat-of-the-pants production and construction companies that scrapped for a wide variety of jobs, the industry had grown into a group of smart, focused, and highly technical companies interested in the science and engineering of their products. “The asphalt industry has gone from a fragmented, short-sleeve industry to one that has gone through consolidation and has embraced new technologies and techniques,” says Doug Rauh, past President and CEO of The Shelly Company. “The industry has become more sophisticated, and so FPO has become more sophisticated.”

The Goodyear Test Track in Akron, paved by Thomas Asphalt, featured a 60,000 sq. yd. vehicle dynamics area, a main track of about one mile in length, an acceleration area, tethered circle, and a simulated paved area involving special surface finishes.

No one typifies that decade better than Bill Baker, who, during his leadership from 1976 to 1991, recognized that it was time to appreciate and exploit the increasing know-how of his members and the scientific underpinnings of their work.

Accomplishments

In 1983, Willis Gibboney, PE, formerly ODOT Interstate Pavements Engineer, published a landmark study of asphalt and concrete pavement performance on the interstate highways. It showed unequivocally that asphalt not only was less costly for construction and maintenance but also provided superior service in terms of lasting riding comfort. What had been widely believed was now demonstrable to engineers and elected officials alike.

Federal policy, too, began to reflect that asphalt was clearly the dominant paving material both in Ohio and nationally. The decade of technological breakthroughs was spurred at the federal level by the launch of the first Strategic Highway Research Program (SHRP) under the Federal Transportation Act of 1987. Some $50 million was authorized for a five-year applied research initiative to improve asphalt paving techniques, durability and performance. One quarter of one percent of Ohio's federal highway funds contributed to this effort.

Indeed, with the deterioration of the original concrete interstates and the stress from mounting weights of truck traffic, the performance of asphalt was being tested as never before. As evidence of increased industry/government partnership, in 1989 ODOT and FPI worked together to develop Type1H heavy asphalt mixture with larger aggregate to resist rutting on heavy-use highways. Ohio's experimental Supplemental Specification 846, which included a mat density provision, would incorporate this latest asphalt technology to ensure durable and long-lasting pavement performance for Ohio's motorists.

Ohio Center Parking Facility, Hyatt Regency Parking Lot (1980)

The Asphalt Equipment Exhibition has always been an intregral part of the association's annual meeting, and during the '70s it grew to become one of the largest events of its kind in the region.

1980

BECOMING THE MATERIAL OF CHOICE FOR OHIO HIGHWAYS

FPO leaders worked with architects, engineers, legislators, and communities to get the word out about asphalt's superiority and cost effectiveness.

Redesigned newsletter rings in the new decade.

1980

Ad touts asphalt as smart investment.

1980

FPI Bill Baker discusses Ohio highway funding with U.S. Transportation Secretary Neil Goldschmidt in Washington, DC.

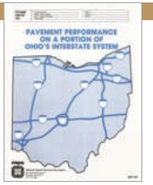
FPI PROMOTIONAL ITEM

1981

Officers and Directors 1981. Standing (from left): James Morris, Don Mill, P.J. "Bud" Brewer, H.P. "Herke" Wolfe, Chairman; Bill Baker, president; and Charlie Stayton, co-chairman. Seated (from left): Richard McClelland, Arval Graff, immediate past chairman; Raymond Schloss, M.H. Leahy, and James Walls, treasurer.

1983

A landmark study, "Pavement Performance on a Portion of Ohio's Interstate System," by Willis Gibboney, PE, formerly ODOT Interstate Pavements Engineer, demonstratively proves that asphalt is less costly than concrete for pavement construction and maintenance and also provides a smoother ride.

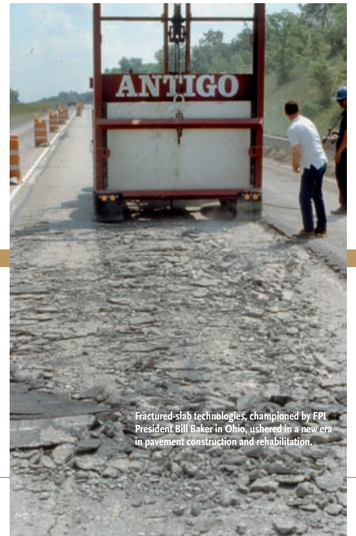


1984

FPI's "40 Reasons" summarizes the facts about asphalt and helps educate the marketplace.

A nagging question among highway engineers that arose in this period was how to deal cost-effectively with aging concrete pavements. As Director of ODOT, Gordon Proctor was well aware that not only does Ohio have a "very old paving inventory," with some of the country's earliest interstates, but also has the nation's fifth highest truck volume. By the 1980s, concrete pavements were wearing out, and the cost to remove and replace them was exorbitant.

In Ohio, Bill Baker championed technology eventually dubbed "fractured slab" in which concrete pavements would be broken in place and serve as a base for thick asphalt overlays. "Crack-and-Seat," "Break-and-Seat," and "Rubblization" comprised the slate of fractured slab technologies that are used to this day. Fractured slab techniques reduced pavement rehabilitation costs, expedited



Fractured slab technologies, such as rubblization (above) and break-and-seat (left) helped expedite construction and improve safety and travel through work zones.

construction, and improved safety and travel through work zones. The old concrete pavements became the bases of new asphalt highways.

1987

The Strategic Highway Research Program (SHRP) is launched to improve the quality of asphalt pavements nationwide, aimed at quantifying factors that affect performance and introducing specifications for new materials.

1988

Fractured-slab technologies, championed by FPI President Bill Baker in Ohio, ushered in a new era in pavement construction and rehabilitation.

FPI ASSOCIATION PIN
(1980s)

1989

The Shelly Company paves Ohio's first rubblization project on I-70 in Muskingum County.

1990s
Looking Ahead

Challenges

The maturing asphalt paving industry now dominated its field. But significant challenges remained. When Fred Frecker succeeded Bill Baker in 1991, he personally visited all 12 ODOT district deputy directors to find out what asphalt's chief customer, the State of Ohio, thought of the quality of the product. "To a man, they complained," Frecker says. A real problem, or a perceived problem? Either way, it was a problem, it had to be solved, and it was Frecker's first priority.

Flexible Pavements made up a checklist of concerns, itemized in the 1994 Annual Report:

- Quality and performance demands
- Funding for capital projects
- Expanding government and environmental regulations
- Changes in the traditional job mix
- Business consolidation and downsizing

Not on the list, but still one of the industry's important challenges in an increasingly technical environment, was

educating the next generation of workers. Only by nurturing young experts and innovators would asphalt ensure the quality of its product and its dominance in the paving business.

In addition, the '90s ushered in a period of hot debate over federal and state funding priorities. The ODOT Biennial Budget was passed in 1997 with no funding increase. Few issues challenged the fortitude and persistence of Flexible Pavements and its counterparts in the industry more than the need to ensure adequate investment in America's highways.

Accomplishments

The organization's response to its identified challenges was its first-ever long-range strategic plan "that provides us with a clear vision of where we want this organization to head." The plan's objective clearly was to position the industry and Flexible Pavements as leaders in the pursuit of quality and fast partners with ODOT in making asphalt central to Ohio's highway paving program.

Nothing was a higher priority than the commitment to total quality management based on performance criteria. After all, that's where at least a decade's worth of research and technology had been heading. And perhaps no single step of the 1990s was more significant than the adoption of warranty pavement construction in Ohio. According to Doug Rauh, "Warranties were a very progressive move. The industry came out and stuck their hand up." Soon warranties were the new standard.

The state's Biennial Budget Bill adopted in 1999 made ODOT the nation's number one transportation department in their use by mandating that 20 percent of all ODOT projects (150 to 200 a year) would require a warranty. Ohio's asphalt paving industry was well in front of this mandate having adopted a warranty specification in 1997. Shelly & Sands laid the first ODOT warranty project that year on SR 7 in Monroe County.

More than ever, the asphalt industry focused on the quality of its product during the 1990s and establishing the means to prove its superiority over concrete.

The Strategic Plan also drove other performance-related activities during this busy decade. In all of these endeavors ODOT was a major partner, without whose cooperation and support such remarkable progress would not have been possible.

- A European Asphalt Study Tour in 1990 sponsored by the Federal Highway Administration, the American Association of State Highway and Transportation Officials (AASHTO), NAPA, the federal Strategic Highway Research Program (SHRP), the Asphalt Institute, and the Transportation Research Board introduced Stone Mastic Asphalt into the U.S. among other asphalt technologies and contracting practices. Included in the tour participants was ODOT Director Bernard B. Hurst. Flexible Pavements advocated for use of SMA and in cooperation with ODOT and The Shelly Company demonstrated on Logan SR 33 the technology before its members and transportation agencies. SMA was eventually adopted for use in Ohio and is marked as a trophy in Flexible Pavements' quality pursuit.
- SUPERPAVE, an acronym for Superior Performing Asphalt Pavements, was a revolutionary new asphalt mix design system born of the SHRP. Its first use in Ohio was in Fulton County in 1994. An industry-sponsored demonstration of SUPERPAVE was hosted in Athens County on US 33 in 1996. ODOT undertook nine more SUPERPAVE projects in 1997. Today, SUPERPAVE mixes are used on all ODOT interstates and pavements exposed to high amounts of truck traffic.

SUPERPAVE ushered in a new era in asphalt pavement construction.

1990 1992 1993 1994 1995

TAKING A LONGER TERM PERSPECTIVE ON SUCCESS

Flexible Pavements introduced programs and strategic initiatives that would have significant impact on the industry long into the future.

Quality Asphalt Paving Schools are launched to educate contractors and agencies alike on asphalt pavement construction. As of 2010, more than one thousand contractor and agency personnel have been trained.

New Hot-Mix Asphalt newsletter is developed for the industry.

The Strategic Highway Research Program led to the development of a revolutionary asphalt mix design, called SUPERPAVE, an acronym for Superior Performing Asphalt Pavements.

Flexible Pavements publishes its first Five-Year Strategic Plan that propels quality initiatives that lead to a stronghold market position and set direction for addressing environmental regulations, marketing the industry, and other institutional issues.

Members of the association's task force outline the vision for the organization and the industry at large.

FPI Scholarship program is instituted to invest in training the next generation of engineers in quality asphalt construction. Left, Bill Heffner presents the award to an early winner.

- Polymer modification of asphalt mixes increased substantially in this decade. Ohio had used latex polymer since the mid-1960s for sand asphalt mixes, but its use was limited geographically. In 1996 a recommendation to ODOT by the FPI board of directors made polymer-modified asphalt commonplace in Ohio, increasing the pavement life of Ohio's heavy traffic surface mixes.

SR 7 in Monroe County, the first ODOT project to include a warranty, was constructed by Shelly & Sands in 1997.

The European Asphalt Study Tour of 1990 introduced the U.S. paving industry to Stone Mastic Asphalt, displayed here.

- With the goal of some day using a certification as the means of asphalt mix acceptance, Flexible Pavements and ODOT jointly introduced the Advanced Quality Control Process. It sought to improve quality control at asphalt mixing facilities and has since been incorporated as standard operating procedure for all ODOT asphalt projects.

The adoption of new methods and mixes, the industry wide adoption of computerized quality control, and the need to respond nimbly to increasingly high industry standards all called for Flexible Pavements to be ahead of the game in educating its members and the next generation of leaders and innovators. No previous decade had seen such a surge in educational initiatives and opportunities.

In 1990 Flexible Pavements launched Quality Asphalt Paving Schools to educate contractors and agency persons alike in proper asphalt construction techniques. In 1997 it sponsored 14 schools attended by 437 people. The next year Don Weber, chairman of Flexible Pavements' Education Committee, announced the creation of the Ohio Center for Asphalt Pavement Education (OCAPE) to educate member companies, specifiers, and customers "on what the future would be and how we would manage it," as he puts it.

Tying the industry's future to nurturing a highly educated workforce, FPO steadily expanded its efforts to encourage and support the next generation of highway engineers and technicians. Founded in 1995 through NAPA's Research and Education Foundation, the Hot Mix Asphalt Scholarship Program introduced asphalt education into the undergraduate curriculum at Ohio's engineering universities. It was championed in Ohio by Fred Frecker and William Burgett of Kokosing Construction Company. Frecker envisioned the day when the ODOT director would be someone who went through college on an Asphalt Scholarship.

Since its inception, the Hot Mix Scholarship Program has awarded 335 scholarships totaling over $400,000. The program's significance cannot be overstated. The greatest return on the asphalt industry's investment will come from ensuring the value of asphalt pavement is understood by the young engineer. The industry's prosperity rests on this. Frecker and Burgett's visionary leadership was extraordinary.

The 1990s was a decade marked by advocacy with members of Flexible Pavements regularly visiting state and federal officials in Washington, DC, to secure the future of our state highways.

At about the same time, the Master Craftsman Award was established through the FPI Marketing Committee to recognize excellent Hot Mix Asphalt craftsmanship as demonstrated through long-term performance. The Master Craftsman Award added a new dimension to an already successful asphalt paving awards program. To recognize HMA production facilities

1996

FPI sponsored advocacy billboard.

1996

Educational opportunities expand. Ron Morrisson (left), Shelly & Sands, demonstrates a test during a Methylene Blue Seminar.

1997

Technical Committee discusses new Performance Graded system for asphalt binder grading.

1997

Representatives of Osterland Co. receive a Quality Paving Award, a long-standing FPI program that encourages quality asphalt construction.

1998

Doug Anderson and William Burgett meet with Senator Mike Dewine during one of the association's legislative fly-ins.

FPI ASSOCIATION PIN (1990s)

1998

Officers and Directors 1998. From left: Dean Miller, Chuck Rauh, Dean Wikel, Bill Heffner, Brent Gerken, Pete Alex, Jim Tharp, Don Weber, and Doug Anderson.

1998

Flexible Pavements spreads the news about asphalt recycling on Earth Day, at the State Capitol.

that best demonstrate safe and responsible environmental practices, FPI introduced the Ecological Award at its 1998 annual meeting.

The '90s marked a period of partnership with federal regulators that resulted in significant developments in environmental and safety areas. Flexible Pavements worked closely with the Ohio Environmental Protection Agency to develop Ohio's first Storm Water Pollution Prevention Plan and was among the first to endorse NAPA's campaign for safer highway pavers; the resulting agreement between industry and government was a model effort of cooperation.

The industry did chalk up modest victories on the federal budget side. In 1997 Congress passed a bill returning 4.3 cents per gallon of gas taxes to the Highway Trust Fund. And vigorous lobbying succeeded in defeating a proposal to earmark .5 cents per gallon for Amtrak.

A history of the 1990s is not complete without mentioning Willis Gibboney's 1995 study of the long-term performance of side-by-side asphalt and concrete pavements, "Flexible and Rigid Pavement Costs on the Ohio Interstate Highway System." It confirmed his findings of 12 years previously that, over time, asphalt was the best choice. The study was based on the actual cost to construct and maintain asphalt and concrete pavements on various interstates in Ohio. It confirmed, hands down, that asphalt pavements are both less costly to construct initially and less costly to maintain.

In 2005, Jorge Villacres synthesized for the Asphalt Pavement Alliance the work of Gibboney and researchers in Iowa and Kansas in his report Pavement Lifecycle Cost Studies Using Actual Cost Data. The results of all three studies support Villacres' conclusion that HMA is "more economical . . . in both initial construction cost and life cycle cost."

These studies shattered the longstanding misperception of many that concrete may cost more initially but costs less over time. Asphalt is IN FACT the superior value.

Armed with more and more research about its superior value, the industry aggressively promoted deep strength asphalt pavements.

1998

Flexible Pavements wins OSPE New Product of the Year Award for Polymer Modified Asphalt Concrete.

1998

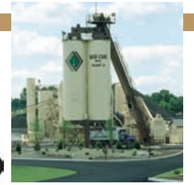
Participants at FPO's Comprehensive Asphalt Mix Design School.

1999

The Ohio Center for Asphalt Pavement Education is founded to promote education and certification in asphalt-related fields of study.

1999

Mansfield Asphalt Paving Company's Mar-Zane Plant 21 became one of the first plants to receive NAPA's Diamond Achievement Commendation for Excellence in HMA plant operations.



2000s
Asphalt's Prime

Challenges

As the 21st century rang in, the asphalt paving industry had never been stronger. Asphalt was far and away the leading choice for pavement, yet it remained a dynamic product, still in a lively period of technical improvement. FPI reflected the status and confidence of its membership with sophisticated technical capabilities and a strong partnership with ODOT. It stayed in the vanguard of developments in engineering, offering an array of technical assistance and education programs.

But the new century did not bring utopia. The first few years were marred by the heating up of the decades-long competition between asphalt and concrete, as the concrete industry looked to increase its market share of the highway construction business. Concrete's intense campaign took the subject of highway design and specification out of the highway engineers' offices and into the public arena.

"We were no longer dealing with the customer but with newspaper reporters who know nothing of the product and into the area of the Legislature," Fred Frecker recalled. "It took us out of the normal way we operate."

Nicknamed "Tar Wars," it required the acquisition of new communications skills.

Heading off the challenge took FPI in a new direction. Having honed its skills producing technical answers to technical problems and providing innovative paving solutions for its members' customers, FPI had never before needed a public relations, media relations or government relations consultant. "We had a very small PAC," Frecker says. "We were not a major player. All the associations depended upon the Ohio Contractors Association to do the heavy lifting."

Under sustained fire, that quickly changed. FPI hired advisers who helped hone messages that clarified the issues, communicated the industry's position and demonstrated the benefits of asphalt paving in language that the taxpayer and public official could easily grasp. FPI reached out to new audiences with

FPO board members Jim Jurgensen and Mike Thompson met with President George W. Bush during his visit to Ohio.

strong, timely communications. Not only did it beat back a major challenge and maintain its position successfully over several years, it also broke new ground as an organization. At the end, Frecker says, "It was a great learning experience."

During this time FPI did some self-evaluation regarding how it communicates to the non-engineering community. Did they understand who FPI was, and what FPI did? Under advisement FPI changed its name to Flexible Pavements of Ohio to better communicate that it was an association that advocated on behalf of Ohio's asphalt paving industry.

Highway funding challenges carried over from the preceding decade. And they were exacerbated in the next 10 years by roller coaster oil prices, Ohio's decade-long economic decline and the nation's worst recession since the Great Depression. FPO had its work cut out for it not only maintaining asphalt's market share of 98 percent but also navigating an era in which every Ohio industry experienced the pain of budget freefall.

The paving industry suffered a double whammy in 2008 when oil prices spiked, inflating the price of liquid asphalt. For a time the federal government invested in highway projects as part of its economic stimulus package to push the country out of recession. When the stimulus funds dried up, however, Ohio's economy remained sluggish, and a new austere 2011-2012 state budget did no more than maintain status quo funding for highways. Given the persistent high cost of oil, the asphalt industry remained seriously challenged as FPO prepared to celebrate its 50th anniversary.

Accomplishments

Asphalt continued to demonstrate its superiority with technical advances that increased longevity, smoothness, and environmental friendliness. In an era of tight federal and state budgets and shifting spending priorities, FPO focused on marketing asphalt as the most economical choice for construction and maintenance, with an emphasis on extended wear and preventive maintenance.

By the turn of the new century, the asphalt paving industry had long been a full partner with its government customers in developing high standards for paving formulas, processes, and applications. In recognition of the industry's critical contributions to improving highway construction and the need for close collaboration to achieve improvement, FPO was made a voting member of the ODOT Specification Committee in 2001.

Indeed, the new millennium saw major steps forward in pavement design. FPO was in the forefront as usual. As Fred Frecker says, "One of the hallmarks of FPO is its willingess to evaluate new products. We always tried to be on the cutting edge but stay off the bleeding edge." After all, the bottom line for the industry is customer satisfaction, says Don Weber: "So many smooth riding interstates, many paved by my competitors—that sells asphalt."

Perpetual Pavement was rolled out with great fanfare in 2002. Pete Alex, Chief Estimator, Cook Paving and Construction Co. and former CEO of Osterland Co., calls it a "huge" addition to the arsenal of asphalt paving options. The superior long-life performance of

Northstar Asphalt places Ohio's very first Perpetual Pavement on Stark County Interstate Route 77.

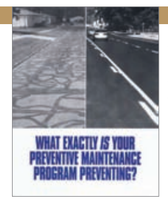
2000

TAKING ADVANTAGE OF ITS MOMENTUM IN THE MARKET

The investment the asphalt industry made in new technologies and its commitment to quality helped break new ground in highway construction.

Columbus CEO magazine covers the battle between asphalt and concrete producers as the pavement of choice for Ohio's roadways.

2002



Smoothseal marketing brochure explains the benefits behind the new thin asphalt treatment.

2002

FPI ASSOCIATION PIN (2000s)

2002

FPO Executive Director Fred Frecker explains the concept of Perpetual Pavement to the news media at the I-77 demonstration project.

2002

Perpetual Pavement demonstration is held on Interstate 77 in Summit and Stark counties.

2002

Flexible Pavements staff at the association's 40th anniversary celebration (from left): Cliff Ursich, Flo Flowers, Fred Frecker, and Bill Fair.

2003

Marketing brochure.

2004

New *Ohio Asphalt* magazine is launched.

Smoothseal would grow to be the preferred preventive maintenance treatment for Ohio's moderate and heavy traffic pavements.

early deep-strength asphalt pavements in Ohio and around the nation would be the genesis of a new asphalt thickness design methodology for new construction. Implemented in Ohio through a joint effort by FPO, ODOT and academia, Perpetual Pavement is a three-layer, deep-strength asphalt thickness design concept aimed at ensuring a pavement with inexhaustible structural life requiring only preventive maintenance of the surface layer. Perpetual Pavement would provide unimpeded mobility to highway travelers by eliminating the need for invasive roadway work the likes of concrete reconstruction. The earliest Perpetual Pavement projects were a segment of I-77 near Canton and the newly constructed US 30 in Wooster. Three pavements in Ohio have been selected for Perpetual Pavement awards.

Smoothseal, a thin hot mix asphalt overlay initially developed in 1992 as a competitive material in the preventive maintenance market, showed promise in providing an economical, smooth and skid-resistant surface. The '90s, however, would see preventive maintenance take a back seat.

New opportunity came to Smoothseal when in 2002 the Federal Highway Administration would begin to encourage states to invest in preventive maintenance treatments as a means of preserving roadways, thus deferring more extensive (and expensive) construction.

Research required by the Ohio Legislature would show that of all preventive maintenance treatments analyzed, Smoothseal was the most economical. "You might have to do a little milling, but basically one ton will cover a heck of a lot more. You're buying more coverage per dollar," Pete Alex says. Smoothseal would grow to be the preferred preventive maintenance treatment for Ohio's moderate and heavy traffic pavements. As Alex points out, "There are several different resources that ODOT has now because we have provided various product lines that fit into the needs of our customers."

The need to maintain safe and efficient travel through highway construction work zones would demonstrate once again asphalt's value. Stealthpaving, a term coined by the media for night-time asphalt paving, would become an important component of the industry's repertoire as agencies seek to keep traffic moving. Asphalt preventive maintenance projects would afford agencies the ability to maintain their roadway networks efficiently and effectively. Asphalt pavement cold-milled from the roadway would be returned to the asphalt mixing plants, reincorporated into new asphalt mix and shipped back to the project to provide a renewed surface. The "sustainable" practices of the asphalt industry which had been going on for decades with the advent of recycling were now beginning to blossom.

January 1, 2002 would see the full implementation of Superpave with its inclusion in the ODOT Construction & Materials Specifications as Item 442. The mid-1990s and years up to 2002 would see parts of the specification implemented as ODOT judiciously evaluated the asphalt binder and mixture requirements to ensure the switch to a new asphalt mix design system would result in superior performing asphalt pavements. In "Evaluation of the Variation in Pavement Performance Between ODOT Districts" Eddie Yein Juin Chou, Director of the Infrastructure Information Systems Research Laboratory at the University of Toledo, would write, "In general, priority system pavement performance and average pavement conditions have improved since the mid-1990's due to improved material specifications, design, and construction quality control."

In response to the public's growing environmental concerns, the asphalt industry under the leadership of NAPA under-took a number of efforts to put the industry squarely on the green side of the ledger. Not least of the accomplishments in this area was the removal of asphalt plants from the USEPA's list of major pollution sources in 2002. This was a huge victory for asphalt, as it demonstrated that modern asphalt plants are designed to operate in a people environment. It also short-circuited unnecessary regulation and the accompanying compliance costs that would have resulted. Major investments associated with retrofitting existing plants and designing new ones were avoided. FPO helped in the delisting effort by joining the Ohio EPA's Public

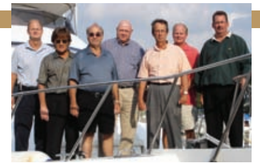
2005

National demonstration of Warm Mix Asphalt technologies on SR 541.

2005

Fred Frecker with the National Champions of the Asphalt Mixture Competition from Ohio University.

2006



FPO Directors 2005 (from left): Jim Tharp, Wayne Brassell, Pete Alex, Jim Jurgensen, Mike Thompson, Brent Gerken and Nick Little.

2007

Sustainable Pavements initiative is launched to guide architects and engineers in sustainable asphalt construction practices and attain LEED credits by using asphalt pavements.

2008

Porous Asphalt Pavement, the industry's innovation for more effectively managing stormwater, is installed at Sand Run, Metro Park Serving Summit County.

2008

Asphalt wins again – at the 2008 Soap Box Derby.

2009

Direct mail series promoted both the quality and value of asphalt pavements.

2011

Schloarship Awards program.

Fred Frecker and Ohio University researcher Shad Sargand survey the US 30 Test Road, developed to validate the design principles and extended life of the Perpetual Pavement.

Advisory Group and distributing a NAPA study demonstrating that asphalt plant emissions compared favorably with emissions from benign sources such as bakeries.

In 2007, FPO launched its Sustainable Pavements initiative, which offered technical assistance to architects and engineers on how to acquire LEED (Leadership in Energy and Environmental Design) certification credits using asphalt pavements. Changing the public's perception of asphalt paving as a dirty business has been an ongoing effort. Jim Jurgensen says, "It's difficult to convince people we are a recycler and care about the environment. When they see one of our plants, they don't know what's going on there." The USEPA's delisting of asphalt plants helped immensely in this education process. In addition, among the positive environmental messages that FPO has aggressively communicated is the fact that asphalt is the world's most recycled material.

Air permits for asphalt plants had come to the point where little consistency existed in the terms and conditions of operations. In an effort to see streamlining and efficiency FPO also worked with the Ohio EPA on trying to standardize practices among OEPA districts, and design a general air emission permit like the existing stormwater runoff permits.

Ongoing research to perfect Porous Pavements and Warm Mix Asphalt (WMA) would only enhance the industry's reputation for being environmentally sensitive. Porous Pavements would change the paradigm for pavement engineers. Where in the past pavements were designed to keep water out, porous asphalt was developed to drink it in. Porous asphalt in Ohio is well on its way to grabbing hold as a cost-effective tool to manage stormwater. FPO would develop mixture specifications and educational literature to advance the concept to Ohio's architects and engineers and see its successful implementation as a lasting sustainable practice.

The story of Warm Mix Asphalt in Ohio demonstrates the FPO philosophy of keeping Ohio in the forefront of emerging technologies. Fred Frecker encouraged ODOT to demonstrate Warm Mix Asphalt technology because it promised to reduce emissions from asphalt mixing facilities, improve worker environment and extend the paving season.

On September 12, 2006 the Warm Mix Asphalt Technologies Field Trial/Open House was successfully conducted in Cambridge on SR 541. Sponsored by the Federal Highway Administration, ODOT, the Asphalt Pavement Alliance, Shelly & Sands Inc. and FPO, it was a national event that incorporated the production and placement of multiple WMA technologies. It was just one of several conferences and demonstrations

FPO and the Ohio EPA worked toward the standardization of practices among OEPA districts to help streamline operations.

that introduced new technologies, including the International Conference on Perpetual Pavement in Columbus and the Stone Matrix Asphalt demonstration project near Marysville.

By 2008 WMA would become another recycling tool and an important technology in mitigating escalating production costs caused by skyrocketing oil prices, since WMA is less energy intensive and allows greater percentages of RAP. By 2010 the ODOT Construction & Materials Specifications would fully embrace WMA. By 2011 over 55 percent of the asphalt mixing plants in Ohio would be converted to utilize Warm Mix Asphalt. Pete Alex agrees with many others who expect WMA to become the preferred asphalt manufacturing method of the future because, as he says, "It will reduce our carbon footprint and make HMA plants more acceptable."

October, 2011 would bring the culmination of twenty years of study on the health effects of asphalt fume. An investigation by the International Agency on the Research of Cancer (IARC) would deem fume from straight-run asphalt cement in the same category as coffee and cell phones for carcinogenicity. The asphalt industry had been working in partnership with government agencies, academic institutions, and unions during this time to reduce workers' exposure to asphalt paving emissions. The asphalt paving industry has always taken questions about workers' health and safety seriously.

Heading into its 50th anniversary, FPO would have every reason to celebrate. Its history had been one of tremendous accomplishment and a continuing pursuit of excellence, marked by leaps forward in the quality of its product, success in the marketplace, and investments in educating tomorrow's leaders and protecting its workforce.

With strong leadership and a clear vision, it laid down a deep-strength foundation that would help it overcome the significant challenges of the day, such as constricted investment in transportation infrastructure and increased manufacturing costs that challenge competitiveness. These would only serve to energize the association's efforts on behalf of its members. "Asphalt...Defining Value! Safe, Smooth, and Sustainable" would become the umbrella under which all marketing efforts would be cast.

Asphalt 404-LVT proved to be a better value than surface treatments for rehabilitating low volume pavements, first placed in Fayette County in 2009.

The reconstructed pavement for Fort Washington Way (I-71 and US 50) was one of the first applications of Stone Mastic Asphalt in Ohio.

FPO would communicate the value of asphalt pavement as a sustainable pavement system in meeting motorists' expectations of safe, smooth, and speedy conveyance to their destinations – first by quality pavement construction, and then through improvement and innovation.

THE PERPETUAL PAVEMENT

Asphalt's Bright Future

Cliff Ursich
Executive Director

Fifty years have come and gone. The half-century's many successes and challenges have forged Ohio's asphalt paving industry into the State's premier pavement provider and Flexible Pavements of Ohio as its respected advocate. But what about the future? With the uncertainties of highway funding, binder supply, evolving market dynamics all of pressing concern, what is a realistic outlook for Ohio's asphalt paving industry?

In his 1947 novel The Wayward Bus, John Steinbeck wrote:

> *The highway to San Juan de la Cruz was a black-top road. In the twenties hundreds of miles of concrete highway had been laid down in California, and people had sat back and said, "There, that's permanent. That will last as long as the Roman roads and longer, because no grass can grow up through the concrete to break it." But it wasn't so. The rubber-shod trucks, the pounding automobiles, beat the concrete and after a while the life went out of it and it began to crumble. Then a side broke off and a hole crushed through and a crack developed and a little ice in the winter spread the crack, so the resisting concrete could not stand the beating of rubber and broke down.*
>
> *Then the county maintenance crews poured tar in the cracks to keep the water out, and that didn't work, and finally they capped the roads with an asphalt and gravel mixture. That did survive, because it offered no stern face to the pounding tires. It gave a little and came back a little. It softened in the summer and hardened in the winter. And gradually all the roads were capped with shining black that looked silver in the distance.*

Steinbeck adeptly describes the attributes of asphalt pavement that define its superior value – it offers no stern face, it gives a little and comes back a little; it survives.

In 1816 John Loudon McAdam, a Scottish engineer and road builder, advanced a road building concept that today we call flexible pavement construction. The profundity of McAdam's efficient and effective concept is demonstrated by its prolific use on the heaviest traveled roadways across the nation and in Ohio. The concept is proven. The engineering is sound.

Through adversity the OPEC oil embargo of the 1970s offered the asphalt pavement industry a tremendous opportunity to demonstrate another attribute that today has taken center stage worldwide: sustainability. Asphalt roads are completely reusable, and when designed as Perpetual Pavement they are enduring. Where sustainability is a paramount consideration, asphalt provides paramount value.

In the two decades I have served the FPO membership, I have come to respect and admire asphalt contractors. Faced with the most daunting challenges, they rise to meet adversity and overcome it, be it a new specification, a regulation, an oil embargo or

even a “Great Recession.” Brilliance and grit see them through. Even when asphalt’s superiority in the marketplace was severely tested a few years ago, asphalt pavement construction in Ohio prospered.

Fifty years of prosperity can be attributed to the vision of the FPO board of directors, who have unswervingly held that the industry must provide a product marked by high value. The industry’s future prosperity rests upon continuing this commitment.

Value is more than a measure of cost; it includes a measure of the benefit received. Among the benefits that make asphalt a good value, it is quickly constructed, long lasting, easily maintained, safe, smooth, quiet and completely reusable and recyclable. To the extent the asphalt industry continues to provide its customers with the highest value of all road building materials, we will prosper.

The industry has changed dramatically over 50 years. Greater plant productivity, improved environmental stewardship, expansion of quality control, new raw material streams, consolidation of companies, have all contributed to its viability. Change will not stop here. The commitment to providing value will thrust the industry into new methods that increase efficiency, raise quality and improve profitability. Paving equipment, methods and materials will change to meet future demands. Specifications, regulations, technological breakthroughs, and forces beyond our control will be felt by the industry. The market will ebb and flow, but asphalt will prevail because of three enduring truths:

- As Steinbeck wrote, asphalt offers no stern face, it gives a little and comes back a little. It survives!
- It rests on the genius of McAdam’s sound road building system that is proven through its superior performance.
- It is engineered and produced by an industry with true grit that is pledged to providing superior quality and high value.

These enduring truths will ensure the future of asphalt.

ACKNOWLEDGMENTS

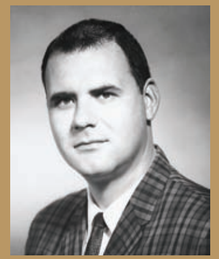
Our thanks to the following persons for their generous assistance in putting together this history of Flexible Pavements of Ohio:

- Pete Alex
- Fred Frecker
- Jim Jurgensen
- Don Mill
- Dave Powers
- Gordon Proctor
- Doug Rauh
- Larry Shively
- Jorge Villacres
- Don Weber

Thanks also to Willis Gibboney for supplying the photos on the cover and on p. 13, to Highway Rubber Products, Inc. for the photo on p. 3, and to Ron Hicks, E C O Productions, for the Mar-Zane Plant 21 photo on p. 22.

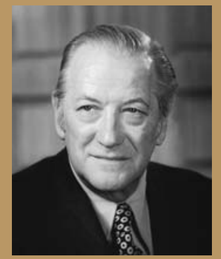
The photo of the “Tar Wars” cover of *Columbus CEO* on p. 24 is reprinted by permission of the magazine.

FLEXIBLE PAVEMENTS Executive Directors



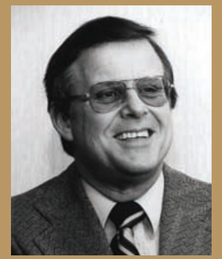
Bernard G. Witten
1962

Hired from City Asphalt Paving Company as interim director of Flexible Pavements, Inc., Bernard led the fledgling organization during its first year, until he was replaced by Dale Fulton, who had been director of Macadam Pavements, Inc.



Dale E. Fulton
1963-1976

A past master at securing highway paving resources, Dale brought powerful political skills and contacts to his office. What he lacked in technical knowledge he made up for by promoting the organization and its product to the industry’s biggest customers.



William W. Baker
1976-1991

A former Assistant director and Chief Engineer with the Ohio Department of Highways, Bill was the first engineer to be appointed FPI executive director. He served from 1976 until 1991, during a period when the industry took on the responsibility for highway project quality control, became more technologically sophisticated and innovative and successfully expanded its market.

Fred F. Frecker
1992-2007

Fred became executive director in 1992, and oversaw the drafting of FPI’s first long-range strategic plan and the adoption of project warranties. He also led the association through the “Tar Wars” of the early 2000s. He was known for championing FPI’s education initiatives and its commitment to quality and innovations such as Perpetual Pavement.

Clifford Ursich
2007-present

An engineer who began his career with ODOT, Ursich joined FPI in 1990 and rose to lead the organization. He contributed his expertise to warranty construction, Smoothseal for preventive maintenance, SUPERPAVE implementation and the Field Quality Control Supervisor initiative. As President and Executive Director, he has encouraged culture change and promoted asphalt as the highest value paving material.

FLEXIBLE PAVEMENTS
Chairmen of the Board

Year	Name	Company
1962	John T. “Ted” Kerby	S.E. Johnson Company, Inc.
1963	John T. “Ted” Kerby	S.E. Johnson Company, Inc.
1964	P. J. “Bud” Brewer	The Brewer Company
1965	Arthur Schultz	H & S, Inc.
1966	Arthur Schultz	H & S, Inc.
1967	Bill Rhodes	American Aggregates
1968	Robert Heston	Shelly & Sands, Inc.
1969	John Morgan	Tri-State Asphalt Corporation
1970	Paul Miller	Miller-Mason Paving Company
1971	John “Jack” C. Jurgensen	Valley Asphalt Corporation
1972	Don Mill	The L.P. Cavett Company
1973	Raymond Schloss	The Wm. L. Schloss Paving Company
1974	Henry Garlick	The City Asphalt Paving Company
1975	Richard H. McClelland	Shelly & Sands, Inc.
1976	James Walls	Walls Brothers Asphalt Company
1977	M. H. Leahy	The McCourt Construction Company
1978	James Morris	Clinton Asphalt Paving Company
1979	Arval Graff	Standard Materials, Inc.
1980	H. P. “Herk” Wolfe	Hancock Asphalt Paving, Inc.
1981	Charlie Stayton	Triasco Corporation
1982	P. J. “Bud” Brewer	The Brewer Company
1983	Charles “Chuck” Rauh	Northern Ohio Paving Company
1984	Gerald “Jerry” Jones	Walter Jones Construction Company
1985	John “Jack” C. Jurgensen	Valley Asphalt Corporation
1986	Charles “Chuck” Rauh	Northern Ohio Paving Company
1987	Jerry Churchill	Churchill Construction Company
1988	Charlie Stayton	Triasco Corporation
1989	Don Mill	The Shelly Company
1990	William “Bill” G. Heffner	The Heffner Construction Company
1991	Don Weber	S.E. Johnson Company, Inc.
1992	Richard H. McClelland	Shelly & Sands, Inc.
1993	James “Jim” P. Jurgensen	Valley Asphalt Corporation
1994	William “Bill” B. Burgett	Kokosing Construction Company, Inc.
1995	Brent Gerken	Gerken Paving, Inc.
1996	Peter “Pete” M. Alex	The Osterland Company
1997	William “Bill” G. Heffner	Agg Rok Materials
1998	Doug Anderson	Columbus Bituminous Concrete Corp.
1999	James “Jim” S. Tharp	The L.P. Cavett Company
2000	Dean Wikel	Erie Blacktop, Inc.
2001	Paul L. Scala	Highway Asphalt Company
2002	Michael “Mike” D. Thompson	Barrett Paving Materials, Inc.
2003	Wayne Brassell	Kokosing Construction Company, Inc.
2004	Howard J. Wenger	Northstar Asphalt, Inc.
2005	Gerald “Nick” N. Little	Shelly & Sands, Inc.
2006	James “Jim” S. Tharp	The Shelly Company
2007	Brent Gerken	Gerken Paving, Inc.
2008	Douglas C. Rauh	The Shelly Company
2009	Frank “Tim” T. Bell	M & B Asphalt Company, Inc.
2010	James “Jim” P. Jurgensen	Valley Asphalt Corporation
2011	Howard J. Wenger	Northstar Asphalt, Inc.
2012	Robert D. Bailey	Kokosing Materials, Inc.

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