

PAVINGtheWAY

A PUBLICATION OF THE PLANTMIX ASPHALT INDUSTRY OF KENTUCKY AND THE KENTUCKY ASPHALT PAVEMENT ALLIANCE

Highways and runways

Asphalt is a smooth, durable, cost-effective and time-efficient paving medium.

It's no secret that nearly 95 percent of all roads in the United States are paved with asphalt. But what many people don't know is that 95 percent of all Federal Aviation Administration (FAA) runways are asphalt as well. Nearly all General Aviation airports, including a significant percentage of the larger ones, have asphalt runways. In addition, a large percent of military airports, which often support heavier equipment, utilize asphalt runways.

Here in Kentucky, major airports—Cincinnati and Lexington—and major military airports—Fort Knox and Fort Campbell—have asphalt runways. In



Eaton Asphalt Crews Paving at the Cincinnati-Northern, Kentucky Airport

fact, NASA recently sent one of its space shuttles via a B-747 carrier plane to be housed at Fort Campbell during recent hurricanes near Cape Canaveral.

Major airports and military bases across the nation are no different. The following is a short list of notable commercial and military airports with asphalt runways.

- Eglin Air Force Base (Florida)
- Dover Air Force Base (Delaware)

Using asphalt on runways was the focus of a recent PAIKY-sponsored Airport Pavement Conference held in September. Representatives from the FAA, the Kentucky Division of Aeronautics, and the Asphalt Institute, spoke to a group of more than 50 participants. Civil consulting engineers and paving contractors were in attendance to hear about topics such as pavement evaluation, thickness design procedures, new computer software, mixture design, specifications and construction.

VISIT OUR WEBSITE

Find out what's new with asphalt by visiting our website at www.paiky.org. Check out our new intersections specification guide. It explains how major advances in technology are helping the asphalt industry meet the intersection challenge while maintaining the added benefits of cost savings, less construction time, and smooth and safe pavements.

Also, learn more about why so many projects choose asphalt. Speed of construction. Cost-effective use of taxpayer money. Durability. Another great resource on the web is www.asphaltalliance.com.

Commercial

- Bluegrass Field (Lexington)
- Baltimore International
- Miami International
- Newark International
- Oakland International
- San Francisco
- McCarren (Las Vegas)
- Pearson International (Toronto)
- Logan International (Boston)

Military

- Fort Knox (Kentucky)
- Fort Campbell (Kentucky)
- Edwards Air Force Base (California)
- Cape Canaveral (Florida)
- Andrews Air Force Base (Maryland)

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Old shingles lining roadways instead of landfills

Old asphalt shingles, an innovative idea and an investment in the future, have made history for Scotty's Contracting. The Bowling Green paving company is the first in Kentucky to use recycled asphalt shingles in the asphalt paving process.

After more than a year of research and development, Scotty's management decided to do something unheard of—recycle a waste material into new pavements. Despite skepticism and a series of hurdles, their extensive testing and positive results paved the way for using the recycled shingles in new asphalt mixes.

Scotty's took nearly 10,000 tons of asphalt shingles—on their way to local landfills after a 1998 storm—and turned them into a new asphalt mixture that is both durable and environmentally friendly.

The innovative idea wasn't without cost. Scotty's spent \$650,000 to purchase new equipment and make plant upgrades just to prepare the old shingles for the asphalt-making process. The largest expense was \$500,000 for a special grinder and its filter screens.

In addition, the company was forced to overcome two important obstacles. First, grinding can only take place during winter months when temperatures are low and the shingles are brittle enough to crush. Second, removing the nails from old shingles required adding a special revolving magnet to the conveyor belt.

"Those are small prices to pay for what it gives us in the long-run," said Mike Law, quality control manager for the company. "We've developed a high-quality, rut-resistant asphalt mix that keeps thousands of tons of waste out of local landfills."

Scotty's uses a mix of about 5 percent shingles that allows the asphalt embedded in the shingles to be re-used in the mix. Scotty's continues to monitor projects utilizing shingles and, to date, the results have been excellent. Recycled shingles are making their way into private, city, county and state road projects that the company is working on.



Stockpile of waste shingles at Scotty's plant



Shingles are finely-ground before entering the asphalt plant

After more than a year of research and development, Scotty's management decided to do something unheard of — recycle a waste material into new pavements.

Traffic results in another work week—without pay



More motorists are driving to work alone and less are using carpools or mass transportation.

Does the morning drive to work seem longer than usual? It should. American commuters are spending as much as an additional work week traveling to and from work every year.

Due to an increasingly crowded transportation system, the average commute increased from 22.4 minutes to 25.5, according to national census data and The Road Information Program (TRIP). Americans spent 14 percent more time commuting in 2000 than they did just a decade ago.

From 1990 to 2000, vehicle travel on the nation's highways increased at a rate of nearly five times greater than the addition of highway capacity. Lane miles increased by only 8 percent while vehicle travel increased by a staggering 38 percent.

Several factors beyond capacity, which is a significant cause, are affecting commute times. Census data revealed that more motorists are driving to work alone and less are using carpools or mass transportation. Individual commuters increased from 73.2 percent in 1990 to 75.7 percent in 2000. Carpooling decreased from 13.4 percent to 12.2, and the use of public transportation declined from 5.3 percent to 4.7 over the same 10-year period.

While the national average increased 26 hours per year, some regions saw significantly higher increases in travel time. Cities such as Atlanta, West Palm Beach and Miami had respective increases of 44, 40 and 40 hours annually. In Kentucky, Louisville and Northern Kentucky had annual increases of 12 and 16 percent, respectively.

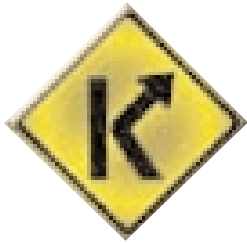
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INCREASING CAPACITY

The increase in highway capacity is falling further and further behind the increase in travel. It's a fact, and nearly 70 percent of Americans agree, that the country is facing a transportation capacity crisis, according to a national survey conducted by Zogby International for the American Road & Transportation Builders Association. Here are some other important findings:

- 67 percent of Americans would support a 2-cent-per-gallon increase in the federal gas tax if the money was used exclusively for transportation improvements;
- 78 percent of voters believe that investment in highways, bridges and mass transit should be considered an important element in homeland security; and
- 60 percent agree that highway and mass transit improvements should be a higher federal government priority.

Kentuckian to lead national organization



Kentucky Transportation Cabinet Secretary James Codell III was selected as president of the American Association of State Highway and Transportation Officials (AASHTO). Codell, who served as last year's vice president, was handed the ceremonial gavel at the group's annual meeting in Anchorage, Alaska.

Codell took the opportunity to outline his three emphasis areas for the coming year—reauthorization of the Transportation Equity Act for the 21st Century, heightened safety in all transportation modes and environmental leadership in transportation.

In addition, Codell emphasized his support for states to enact primary seat-belt laws, citing the 42,000 annual death toll on the nation's highways.

Congratulations Secretary Codell.

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