

MAY/JUNE 2017

# Arkansas HIGHWAYS

A PUBLICATION OF THE  
ARKANSAS STATE HIGHWAY & TRANSPORTATION DEPARTMENT | MAGAZINE

## Environmental Accomplishments

HOW THE AHTD STRIVES FOR EXCELLENCE  
WHEN IT COMES TO THE ENVIRONMENT



**ROADSIDE PONDS**  
Help Protect the  
Blind Ozark Cavefish

On the Job  
with District Five's  
CNC MILL

**APP CHALLENGE**  
Brings Improvements  
to Highways

# DIRECTOR'S MESSAGE



## Always Stay Humble And Kind

IT'S BEEN SAID THAT LIFE IS A SONG. AS I'VE AGED, THE RHYTHM AND BEAT OF A SONG ARE NOT NEARLY AS IMPORTANT AS THE LYRICS. My family and those that are around me know that I can hear or see something that reminds me of song lyrics, and I might randomly sing them (no matter the genre and how much it embarrasses Heather or the kids!). I tend to do the same thing with quotes from movies and television shows, but that may be the subject of another letter! In some of my recent travels, I heard Tim McGraw's song "Humble and Kind" again. Every time I hear it, it hits home with me and some of the lyrics stay in mind for quite a while. It has become a favorite song of Heather's and mine, and it reminded me that she used it as the inspiration for her final *Little Rock Family* editor's letter this time last year.

Hold the door, say "please," say "thank you"  
Don't steal, don't cheat, and don't lie  
I know you got mountains to climb  
But always stay humble and kind  
When the dreams you're dreamin' come to you  
When the work you put in is realized  
Let yourself feel the pride  
But always stay humble and kind  
Don't expect a free ride from no one  
Don't hold a grudge or a chip and here's why  
Bitterness keeps you from flyin'  
Always stay humble and kind  
Don't take for granted the love this life gives you  
When you get where you're going don't forget to turn back around  
And help the next one in line  
Always stay humble and kind

We all have important jobs to do that are meant to make things better for the people that use our transportation system every day. We need to feel the pride in that. We don't always get a lot of praise for what we do, or a free ride. But we don't worry about that; we keep pushing forward knowing that we really do make a difference.

We've all been given a gift and a great responsibility. Let's make the most of it, do what is right, realize where we came from and how far we've come, help everyone around us, and always stay humble and kind (and safe!).

I hope you all have a wonderful spring and summer with your family and friends. And that reminds me of one more verse of the song.

When it's hot, eat a root beer popsicle  
Shut off the AC and roll the windows down  
Let that summer sun shine  
Always stay humble and kind

I appreciate everything that you all do to make this Department great.



Scott E. Bennett, P.E.  
Director of Highways and Transportation

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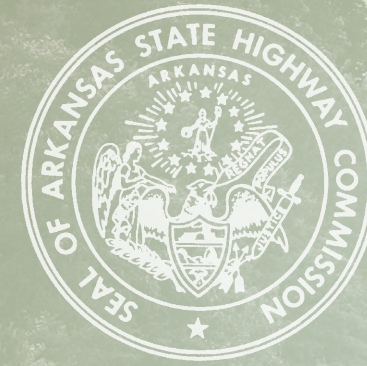
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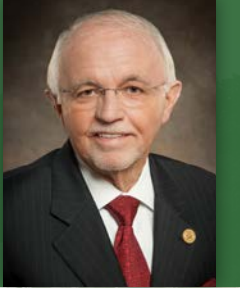
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# *Environmental Initiatives* AT THE AHTD

BY DAVID NILLES

**E**ARTH DAY 2017 WAS CELEBRATED AROUND THE GLOBE LAST MONTH. THE EVENT IS AN ANNUAL REMINDER THAT WE ALL PLAY A ROLE IN BUILDING A HEALTHY, SUSTAINABLE ENVIRONMENT, IN ADDRESSING CLIMATE CHANGE AND PROTECTING THE EARTH FOR FUTURE GENERATIONS. THE UNITED STATES CELEBRATED ITS FIRST EARTH DAY IN 1970. TODAY, MORE THAN ONE BILLION PEOPLE IN APPROXIMATELY 150 COUNTRIES PARTICIPATE IN ACTIVITIES EACH YEAR.

That number includes departments of transportation across our country. Last year, the American Association of State Highway and Transportation Officials (AASHTO) announced that state departments of transportation are using new technologies, innovative programs and partnerships to reduce greenhouse gas emissions, increase travel options, improve traffic flow and save taxpayer dollars. Environmental efforts stretch from the Hawaii Department of Transportation all the way to the Vermont Agency of Transportation, and that includes the Arkansas State Highway and Transportation Department as well.

*(continued on page 6)*



The Central Office Tower's heating system was converted from a steam boiler system to a hot water system.



Installation of a new hot water tank.

Throughout its history, the Department has had an excellent record of being aware of environmental concerns and has been committed to remaining in compliance with environmental regulations. In fact, the AHTD has moved far beyond a regulation-driven policy and strives for excellence when it comes to the environment.

### THE STRATEGIC ENERGY PLAN

The first thing that comes to mind when considering the Department's contributions to keeping our planet green is the AHTD's Strategic Energy Plan. The plan was developed in 2009 with a goal of reducing energy consumption. A seven-member Energy Efficiency Team was formed to guide the plan.

What did the energy plan include? The Department established or reinforced policies that help reduce energy consumption attributable to lighting systems, heating and air conditioning systems, computer systems and Department vehicles, just to name a few.

An example of the Strategic Energy Plan in action was the conversion of the Central Office Tower's heating system from a steam boiler system to a hot water system. The new system uses less energy because it allows running the heating system at a water temperature of 160 degrees as opposed to 212 degrees, thus using less energy and producing savings on the expense of heating the building.



Motion detectors control the lights in restrooms and conference rooms.

As part of its "Going Green" efforts, today many AHTD buildings feature motion detectors that control the lights in restrooms and conference rooms. An increasing number of those spaces now use LED lighting, something that can be found both indoors and outdoors. At the same time lighting was being replaced, recycling barrels were placed in buildings for the recycling of plastic, paper and aluminum.

Many buildings at District Offices across the State replaced insulation to save on heating bills.

### SAVINGS AT THE PUMP

In addition to energy savings in its buildings, in late 2012, the Arkansas State Highway & Transportation Department installed a new Vehicle Management System on its fleet of 2,400 "on-road" passenger vehicles. Called "Networkfleet," the system provides vehicle diagnostics on engines as well as GPS tracking. The Department wanted to improve its fleet's operating efficiency. Judging from the measured results over the past three years, it is working.

Prior to Networkfleet, AHTD vehicles averaged approximately 35% idle time costing up to one gallon of fuel per hour per vehicle. Today, idle time has been reduced to 20%. Cutting average idle times almost in half resulted in annual savings of \$490,000.

Using Networkfleet to route vehicles more efficiently and reduce unnecessary side trips, the agency lowered total miles driven by nearly five percent, generating a fuel savings of more than \$400,000.

An increase in fuel economy of 2.51% due to better driving habits and reduced speeds has been seen resulting in fuel savings of more than \$260,000. Less idle time, fewer miles driven and increased fuel economy resulted in a dramatic reduction in fuel consumption. Monthly purchases of unleaded gasoline were reduced by nearly 15% and diesel fuel purchased declined by 2.8%. Combined savings totaled nearly \$1.2 million.

"It only takes one statement to put the entire GPS program in perspective," comments Mark Holloman, AHTD Fleet Manager. "For every one dollar that the Department spends each month on Networkfleet, it saves two dollars."

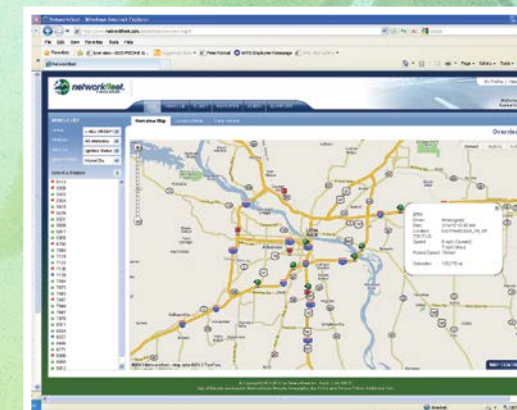
### SAVINGS AT THE SIGNALS

Not only can LED lighting be found in the Department's buildings, it can also be found in traffic signals on Arkansas' State Highway System. In 2010, the Department and the Arkansas Energy Office partnered in a program to successfully upgrade the State's remaining incandescent traffic signals to LED signals.

*(continued on page 8)*



CUTTING AVERAGE IDLE TIME FROM  
**35% to 20%**  
 RESULTED IN ANNUAL SAVINGS OF  
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USING NETWORKFLEET TO ROUTE VEHICLES LOWERED TOTAL MILES DRIVEN BY

**NEARLY 5%**  
 GENERATING A FUEL SAVINGS OF MORE THAN  
**\$400,000**



# THROUGHOUT THE STATE, APPROXIMATELY 1,000 MILES OF HIGHWAYS HAVE BEEN INCLUDED IN A SYSTEM OF WILDFLOWER ROUTES THAT SHOWCASE EXISTING WILDFLOWER POPULATIONS.

“We are using LED Traffic Signal Heads, LED Countdown Pedestrian Signal Heads and LED Luminaire Assemblies in all of our jobs,” stated Brian Bettinardi, Advance Design Engineer in the Roadway Design Division.

The LED signals are brighter, and they use 6 to 25 watts of power while incandescent bulb signals use between 70 to 150 watts. In addition, the new LED lights last at least 10 times as long as common bulbs. The Department now uses LED lights in all of the approximately 1,500 signals found around the State.



## THE AHTD WILDFLOWER PROGRAM

Not all of the Department’s environmental efforts have to do with buildings and equipment. The AHTD is involved in being a conscientious caretaker of flora and fauna as well.

The Department is doing its part to beautify the over 200,000 acres of highway roadsides it maintains through its popular “Wildflower Program.” Throughout the State, approximately 1,000 miles of highways have been included in a system of Wildflower Routes that showcase existing wildflower populations. Maintenance practices along those

routes allow annual and perennial wildflowers to prosper and return year after year.

A second part of the program, titled “Operation Wildflower,” takes a proactive stance. It establishes new roadside wildflower populations with plant seed donated by local sponsors. New flower populations are being established along Interstates and primary highway rights-of-way and result in showy displays in the large areas where they are planted.

A sign program identifying wildflower areas increases public awareness of the program.

The program has helped reduce long-term maintenance costs, enhanced roadside wildlife habitat, provided an attractive roadside environment and preserved native plant populations. It all adds up to roadside areas that erupt into blankets of color as the flowers come into bloom.

In addition to wildflowers, the AHTD is also involved in a Milkweed Management Plan. The plan has been put in place as an independent project due to the growing decrease in Monarch Butterfly populations and the milkweed plants they survive on.

“We were approached by the Botanical Gardens of the Ozarks to see if we could include milkweeds in our wildflower seeding program,” stated Kayti Ewing, Environmental Analyst I. The result has been the planting of native milkweed plugs across the State.

“We hope the milkweed populations will attract Monarch butterflies in great numbers in the years ahead,” Ewing adds.

## WILDLIFE CROSSINGS

Aiding Arkansas’ Monarch butterflies is just the beginning when it comes to native wildlife. Once a highway is constructed on new location, it leaves a lasting impact on the wildlife that live in the area of that highway. The Department is beginning to take great strides to address that impact.

“Just because a highway is there, we can’t expect wildlife to stay on one side of the road or the other,” states Susan Staffeld, Environmental Analyst III. “We are trying to make sure that wildlife can safely get across that highway. It makes it safer for animals and for motor vehicles as well.”

To help solve the problem, scientists, engineers and transportation authorities have begun considering a number of mitigation tools for reducing the conflict between roads and wildlife. One answer has been the construction of wildlife crossings.

The AHTD has been concentrating on three locations on Interstate 40 between North Little Rock and Conway.

“We now are using prefabricated shelving that bolts to the side and the top of culverts allowing animals to use it as a walkway,” Staffeld shares.

In addition to the walkways inside culverts, the Department has been working on “benches” or dirt and rock pathways crossing under bridges.



Susan Staffeld, Environmental Analyst III, at one of the AHTD’s wildlife crossings.

Today, the Department has constructed four benches, with two more under construction as well as seven shelves, with two more on the way.

“Our initial research shows that our shelves are getting a lot of use, primarily by raccoons,” Staffeld adds.

## PROJECTS ON SOME NEW LOCATIONS REQUIRE REFORESTATION

Improving the AHTD’s highway system by building roadways on new location not only affects the wildlife in the area but also the forests. On occasion, that new roadway is built through important wetland. In such a case, actions are put into place by the Department to lessen the impact on the land.

If an AHTD construction project disturbs a wetland area, the Department must mitigate for these impacts, and this is done through reforestation in designated areas.

The Environmental Division’s Special Studies Section identifies how many wetland acres are disturbed on a project and works to mitigate the impacts to the watershed by replanting in other wetland and riparian areas. Some of the mitigation work is done on the Department’s right-of-way or on easements obtained for the purpose. Several different tree species which are native to that area of the State are selected for each mitigation area with an average of over 300 seedlings planted per acre.

In 2014-2015, almost 150,000 trees were planted by contractors in seven different mitigation areas. In addition to taking care of the environment, if 50 percent of the seedlings reach maturity with an average of 100 gallons of water uptake per tree per day, well over seven million gallons of water would be removed from the amount of runoff in those watersheds after a rainfall event.

## MOVING IN THE RIGHT DIRECTION

“Earth Day is an excellent opportunity to demonstrate how states are taking a wide-ranging approach to responsible environmental stewardship,” stated Bud Wright, executive director of AASHTO, in a recent news release.

As the AHTD and other departments of transportation across the country make strides to preserve and protect the environment, they are making sure that every day is Earth Day. ■



Irons Fork burrowing crayfish (*Procambarus reimeri*)

# Arkansas Roadways: HOME TO RARE BURROWING CRAYFISH

BY DAVID NILLES

**I**N 2016, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN GRADUATE STUDENT CODY RHODEN COMPLETED A THESIS AS PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR A MASTER OF SCIENCE IN NATURAL RESOURCES AND ENVIRONMENTAL SCIENCES. THIS ARTICLE IS WRITTEN ON THE BASIS OF RHODEN'S RESEARCH AND FINDINGS.

We see them in the right-of-way as we drive along Arkansas' highways. Roadside ditches, built to collect and drain rain water run-off from our driving surfaces. We usually don't think too much about them, but they serve a purpose in addition to drainage, as Cody Rhoden reveals in his studies. Those roadside ditches provide habitat for something we might not think too much about... crayfish. You may know them as crawfish, mudbugs or ditch daddies among the many other colloquial names.

In the Ouachita Mountain Ecoregion of west central Arkansas, the AHTD's roadside ditches serve as preferred habitat for two \*endemic burrowing crayfish, the Ouachita burrowing crayfish (*Fallicambarus harpi*) and the Irons Fork burrowing crayfish (*Procambarus reimeri*). The Ouachita Mountains are home to a total of six species of endemic burrowing crayfish. For this story, we focus on the two named above. Both of these species are listed as *Species of Greatest Conservation Need* by the State and were recently

petitioned to be listed under the United States Endangered Species Act.

## A CRASH COURSE ON CRAYFISH

Approximately two-thirds of the 500-plus species of crayfish in the world live in North America, with the highest diversity occurring in the southeastern United States. Arkansas alone is home to over 60 species, fifteen of which are only in Arkansas with two cave dwelling species in the Ozarks with federal protection. No other state west of the Mississippi River has as many species as Arkansas, making this State, once again, truly unique.

There are three basic types of crayfish, based on their lifestyle. First, there are stream dwelling crayfish that we are most familiar with, which live their lives in streams or ponds. Next, we have ones known as "secondary burrowers," which

dig holes during the dry season to hit the water table. Lastly, there are "primary burrowers" such as the previously mentioned ones in the roadside ditches. Primary burrowing crayfish spend the majority of their lives in excavated tunnels in the water table underground. The latter two create the signature "chimneys" from the mud excavated from the holes they dig. Tunnels they create can be up to ten feet underground.

Throughout their range and different habitats, crayfish are vital to ecosystem function. They act as ecosystem engineers by breaking down and consuming waste and debris such as leaf litter, creating terrestrial habitat with all the holes they dig, all the while modifying sediment layers in the process. Crayfish can also act as predators by preying upon aquatic and terrestrial invertebrates, other crayfish and sometimes, even fish. Most importantly, they are eaten by many sport fishes, numerous mammals, and from time to time, humans enjoy them as well.

Unfortunately, approximately one-third of the world's crayfish species are threatened with extinction. In the United States and Canada, 48% of all crayfish are considered imperiled. The specific threats facing crayfish include habitat modification or destruction, over-utilization, disease and exotic species introductions.

## IDEAL HABITAT FOR BURROWING CRAYFISH

Highway construction and maintenance can sometimes change the way an animal moves through the landscape. We might imagine a deer or turtle trying to cross the road. Some animals find it difficult and some avoid the road all together. Not all species, however, find the roads and maintenance around them to be disagreeable. Species can actually benefit from the roadside habitat. Creating open environments by roadside maintenance such as mowing, spraying herbicide and tree clearing, result in an early succession stage in natural landscapes similar to that after a wildfire or other disturbances. Surprisingly, some burrowing crayfish appear to benefit from that environment, and it is found in roadside ditches.

Roadside environment imitates the hypothesized natural habitat of these animals by creating a landscape that is void of trees, supports a perched water table and maintains an open, low-grass microhabitat. It's a complex world we live in where what's good for one species isn't necessarily the best for another. Luckily, for at least two burrowing crayfish found in the Ouachita Mountains, roadsides are very accommodating places to live.

## THE OBJECTIVES OF RHODEN'S STUDIES

Cody Rhoden's objective was to see if the Ouachita and Irons Fork burrowing crayfish actually prefer the microhabitat of the right-of-way.

To do this, he developed a study with three objectives:  
1) to test the habitat use of the two crayfish species in relation

*(continued on page 12)*



A "chimney" made from the mud excavated from a hole dug by crayfish.



The Ouachita burrowing crayfish (*Fallicambarus harpi*)

\*Endemic – a species being unique to a defined geographic location (i.e. found nowhere else on earth).

THE STUDY WAS ALSO THE FIRST TO SHOW A POSITIVE INTERACTION BETWEEN THE CRAYFISH AND THE RIGHT-OF-WAY ENVIRONMENT.

to their occurrence near roadways, 2) to utilize statistical models for predicting where individuals have the potential to be found, and 3) to precisely delineate the geographic distribution of both species using the models and field surveys.

### THE STUDY

First, Rhoden researched what was already known about these species. Information from the Illinois Natural History Survey Crustacean Collection, National Museum of Natural History Invertebrate Zoology Collection and Arkansas Department of Natural Heritage were used to identify known historical locations for the crayfish. For each species, they selected historic localities that were accessible and could be validated geographically.

The study sites were situated in the Ouachita and Caddo River drainages of west central Arkansas. They focused on 13 counties in the Ouachita Mountains Ecoregion that encompassed the entire known ranges of each species. Those counties included Pulaski, Saline, Perry, Garland, Hot Spring, Clark, Yell, Montgomery, Pike, Scott, Howard, Polk and Sevier.

All sampling took place in 2014 and 2015 during the peak activity period of March and April to ensure the highest detection rates.

Sampling sites consisted of three to six 50-meter transects. One-meter quadrats were placed along the transect and searched thoroughly for the presence of active burrows. A burrow was considered active if it had freshly deposited mud around the “chimney” and lacked debris or spider webs at the entrance. To ensure burrows actually had the species of interest inside, some active burrows were hand excavated at each sampling site. Canopy cover and vegetation type and density were also recorded.

The field surveys resulted in the sampling of 690 quadrats across 91 sites for the Ouachita burrowing crayfish and 702 quadrats across 89 sites for the Irons Fork burrowing crayfish.

### CONCLUSIONS OF THE STUDY

Based on field surveys, the Ouachita burrowing crayfish was found to be present in 79 quadrats across 15 sites, and the Irons Fork was found to be present in 90 quadrats across 24 sites. During the field sampling, they also encountered 14 other species of crayfish.

Field observations and models showed the habitat in which both species were largely found in abundance was treeless, wet seepage areas with abundant low grasses and sedges. Adjacent habitats directly outside the maintained right-of-way were absent of crayfish. Basically,

more burrowing crayfish were found in the ditches than anywhere else.

Rhoden’s findings suggest that the highway right-of-ways are beneficial and are functioning as a suitable and preferred habitat within a matrix of unsuitable habitat for these two species in the Ouachita Mountains Ecoregion.

His findings add to the understanding of the interactions between highway right-of-ways and the animal and plant life that use them. The study was also the first to show a positive interaction between the crayfish and the right-of-way environment.

Rhoden further helped to extend the range of both species, albeit still within the Ouachita Mountains and show they were more widely distributed than previously thought.

For the time being, the fate of the two endemic crayfish appears to be stable and protected within the highway right-of-way.

Rhoden’s study reveals that the often forgotten highway ditches we pass by every day are actually teaming with wildlife that have come to call them home. ■

*EDITOR’S NOTE: Josh Seagraves, AHTD Section Head—Special Studies, and Ben Thesing, AHTD Environmental Analyst I, provided permitting and field assistance for the study. The work was funded with a State Wildlife Grant from the Arkansas Game and Fish Commission.*

# PONDS HELP PROTECT THE BLIND OZARK CAVEFISH

BY DAVID NILLES



**M**OTORISTS DRIVING ALONG INTERSTATE 49 NEAR ROGERS MAY HAVE NOTICED SMALL PONDS BEING BUILT NEAR THE PLEASANT GROVE ROAD EXIT (EXIT 81) IN AN AREA WHERE THE AHTD IS WIDENING INTERSTATE 49. THOSE PONDS AREN’T FOR FISHING OR FOR LIVESTOCK. THEY HAVE ACTUALLY BEEN INSTALLED BY THE AHTD IN ORDER TO HELP PROTECT THE BLIND OZARK CAVEFISH AND OTHER SENSITIVE, THREATENED OR ENDANGERED WILDLIFE THAT LIVE IN WHAT IS KNOWN AS THE CAVE SPRINGS RECHARGE AREA.

The town of Cave Springs, near Rogers, is home to the Cave Springs Cave. The cave provides habitat for the largest known population of Ozark Cavefish, a federally listed threatened species. Water quality in the cave is of utmost importance in order to maintain the perfect living environment for the fish and other wildlife.

### GROUNDWATER RECHARGE

When attention is given to water quality, groundwater recharge in the area is a major concern. Groundwater recharge is a hydrologic process where water moves downward from surface water to groundwater. Recharge is the primary method through which water enters an aquifer. The water seeping

into the ground from above is filtered by plants and soil, and in this area, it forms the Cave Springs spring.

Looking at the big picture, the Cave Springs Recharge Area encompasses lands that are included in the towns of Cave Springs, Rogers, Lowell and Springdale, and has a total recharge area of 12,515 acres (19.5 square miles). The Indirect

(continued on page 14)

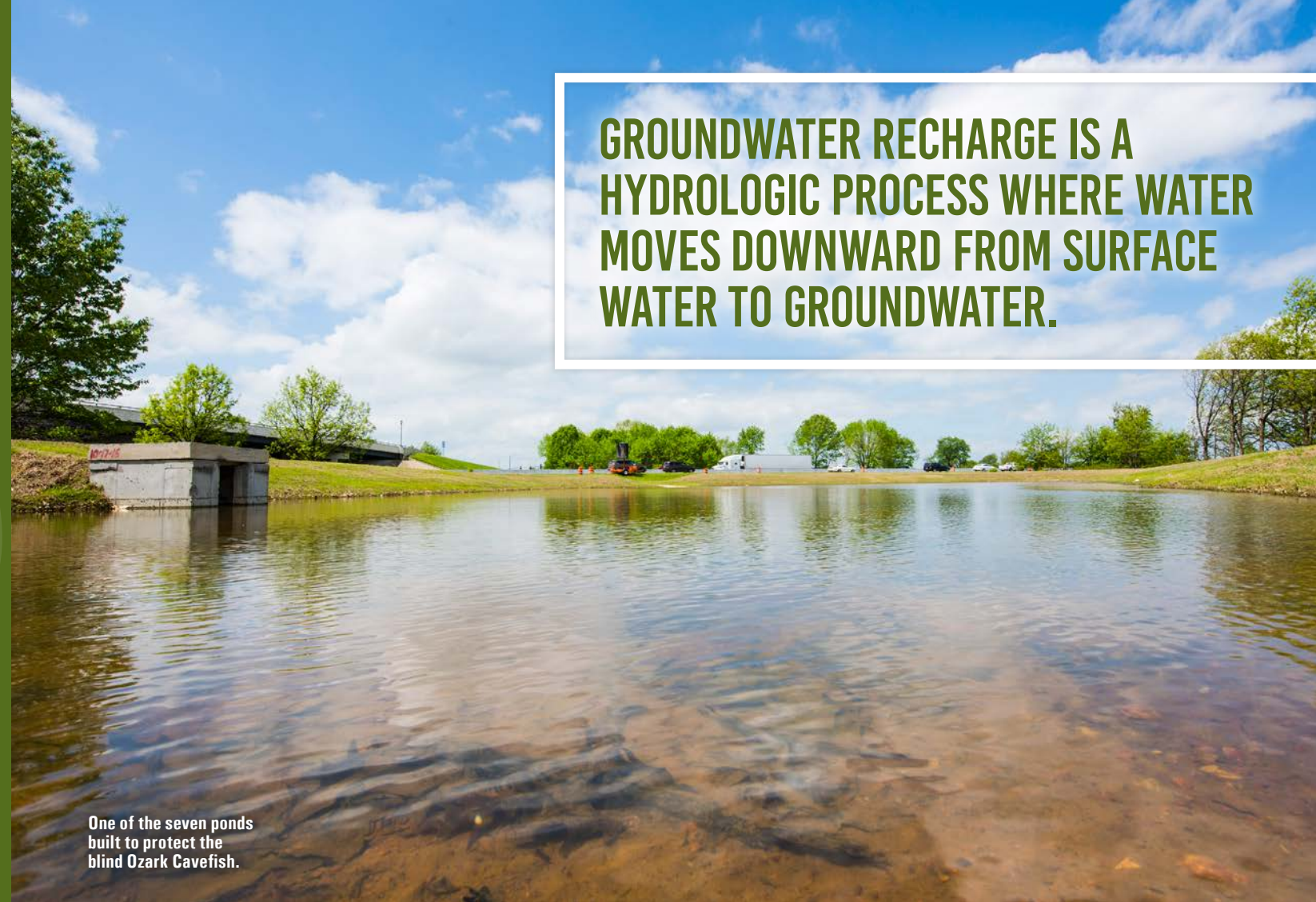


The blind Ozark Cavefish  
Photo Courtesy Missouri Department of Conservation



Photo Courtesy Danté B. Fenolio

“THE PONDS ARE DESIGNED TO CAPTURE STORMWATER RUNOFF AND POTENTIALLY ANY HAZARDOUS SPILL THAT MIGHT OCCUR ON THE SECTION OF THE INTERSTATE THAT LIES WITHIN THE CAVE SPRINGS RECHARGE AREA.”



One of the seven ponds built to protect the blind Ozark Cavefish.

GROUNDWATER RECHARGE IS A HYDROLOGIC PROCESS WHERE WATER MOVES DOWNWARD FROM SURFACE WATER TO GROUNDWATER.

Recharge Area encompasses 6,813 acres (10.6 square miles) and lies to the northeast of the Direct Recharge Area. Groundwater tracing indicates that there is some groundwater movement from the Indirect Recharge Area into the Direct Recharge Area and ultimately to Cave Springs Cave.

With major commercial development and AHTD improvement projects occurring in the Cave Springs area, extra efforts were vital to maintain a high water quality for the wildlife living in the recharge area.

### INTERSTATE 49 IMPROVEMENTS

The towns of Cave Springs, Lowell, Springdale and Rogers have adopted regulations aimed at protecting the recharge area while allowing

development to occur.

The Interstate 49 construction project currently under way is widening five miles of the Interstate in the vicinity from four lanes to six lanes. Three of those miles lie within the recharge area. With the improvements to the Interstate 49 corridor comes an increase in storm water runoff and pollutant loading, so precautions had to be made to preserve the water quality and hydrology of the groundwater system so as not to adversely affect the Ozark Cavefish and the associated biological community. The ponds are part of those extra measures.

### THE ROLE THE PONDS PLAY

The ponds are a result of an Endangered Species Act consultation process with the U.S. Fish and Wildlife Service.

What role do the ponds play? Josh

Seagraves, Section Head of Special Studies in the AHTD Environmental Division, explained.

“The ponds are designed to capture stormwater runoff and potentially any hazardous spill that might occur on the section of the Interstate that lies within the Cave Springs Recharge Area. All but two of the ponds will have a clay liner that would prevent the seepage of water from the pond into the groundwater. In the event of an accidental hazardous materials spill on the Interstate, the roadside ditches and ponds will provide a collection point to contain the material until a response team can properly remediate the site. They also serve the purpose of storing and settling storm water runoff from the Interstate surface which may contain contaminants including heavy metals, salts, hydrocarbons and

suspended solids. Two ponds without the liner are located within the Pleasant Grove Road interchange and are designed to drain quickly due to their proximity to the travel lanes.”

### PLACEMENT OF THE PONDS

As plans for improvements to Interstate 49 began to be developed, a key piece of the puzzle was determining the optimal number of ponds and their location. Crafton, Tull and Associates developed the design criteria for the ponds including the size and locations.

“Crafton Tull’s sub-consultant, Parsons Transportation Group Inc., completed a Pond Siting Report that evaluated suitable pond locations and sizes that met the parameters requested by the Arkansas Field Office of the US Fish and Wildlife Service during the Endangered Species

Act consultation process for the project,” Seagraves explains.

Potential sites were evaluated based upon numerous factors such as hydraulics, aesthetics, maintainability, constructability, public opinion, and cost as well as environmental, social and cultural impacts.

“Additionally, a forested tract near one of the ponds was purchased and preserved as a forested wetland to provide some natural treatment for the storm water runoff,” Seagraves added.

### CONSERVATION MEASURES HELP ALL SPECIES

The extra efforts in the recharge area protect the Ozark Cavefish, and that is important because of their listing as threatened. Additionally, as they inhabit the Cave Spring, the fish are playing

a larger role. The fish are regarded as an indicator species for water quality because they have to have clean water to survive. If they are successfully thriving in the ground water of Cave Springs Cave, chances are strong that other species are living in a healthy environment as well.

The new ponds along Interstate 49 are playing a big role in making sure that a healthy environment is maintained.

Did you know? Clean ground water also aids the health of humans and can reduce costs of water treatment for drinking water purposes. Many Arkansans obtain their drinking water from groundwater sources. The ponds will also improve water quality within the receiving surface waters in nearby project areas like the Manors on Blossom Way Creek, located just west of Interstate 49 in Rogers. ■





Billy Bass holds a replacement part made on District Five's CNC mill.

# DISTRICT FIVE'S CNC MILL

BY DAVID NILLES

SAVING TIME AND MONEY WHEN IT  
COMES TO REPLACING PARTS

**A**HTD DISTRICT FIVE HOLDS THE DISTINCTION OF BEING ONE OF THE LAST DISTRICTS LEFT IN THE STATE THAT STILL HAS A FULLY FUNCTIONAL MACHINE SHOP, AND IT'S A BUSY ONE.

It's at that machine shop, in Batesville, where Billy Bass stays hard at work at the Department's CNC mill. In this case, CNC stands for Computer Numerical Control and it's a machine that stays busy making duplicate parts for the District's equipment.

"Replicating parts that are obsolete or are hard to find was one of the major reasons the Department purchased this CNC," Bass explains.

It can be a time saver and can save the Department money as well.

"If we need a part that is hard to find or is back ordered, it could

be a month before it comes in," Bass adds. "That means equipment stands idle until that part arrives. So, if I think I can replicate that part in reasonable time and it is cost effective, I'll grab it up and knock out a duplicate. When we consider the cost of that part and the cost of that equipment being down, the CNC mill becomes a vital part of keeping things running around here."

## PLANNING FOR THE NEW MILL

The CNC mill at District Five was purchased almost a year ago from Haas Automation, Inc., in Oxnard, California. It's the only one that the Department owns, outside of the old one in the same building that was obtained in 1966. And yes, Bass can operate that one too.

"The people at Haas sat down with me and asked what it was I would like in a new machine," Bass says of the new mill. "I had in mind manufacturing bigger items on the new machine. I had a weight capacity that I wanted because we do some big statewide

(continued on page 18)

jobs like bridge hangers. I had a spindle speed in mind and the tool carriage and chip auger desired. Replacing our old mill became an interesting adventure. It's the first time I've been involved in the entire process from the beginning to actually setting it on the shop floor.

"We bought the mill keeping in mind we would like to add some things to it in the future. I would like to see it have a fourth axis so we can produce some splines and gears for some of our tractor pieces that get broken. It really opens up a door when we can produce some of it ourselves rather than having to purchase it. I want to keep moving forward and build this machine up so the next guy that comes in will have a nice place to work. Future expansion will just open up more avenues.

"We always look for ways to upgrade the shop," Bass shares. "Some of our equipment was put in around 1966 when the building was established. While it still has its place, we want to move into the future with what we need."

### HOW IT WORKS

The new CNC mill is geared for the future and is a vast improvement over the old one. It uses CAD software and is computer-controlled. To make a part, Bass takes his measurements, digitizes it and inputs code into a control panel on the machine. From there, the mill takes over. It reads the code and instructs the machine how to move, what feed rate and spindle speed to use, which cutting tool should be in the spindle and more. The cutter that the machine has in the spindle will carve through the material and create the intended shape.

The mill makes parts out of steel or aluminum.

"We get a lot of our materials through a surplus operation in Little Rock," Bass states. "We receive a very big discount. I have quite a bit of material that I keep on hand here at the shop."

### PARTS FOR A VARIETY OF USES

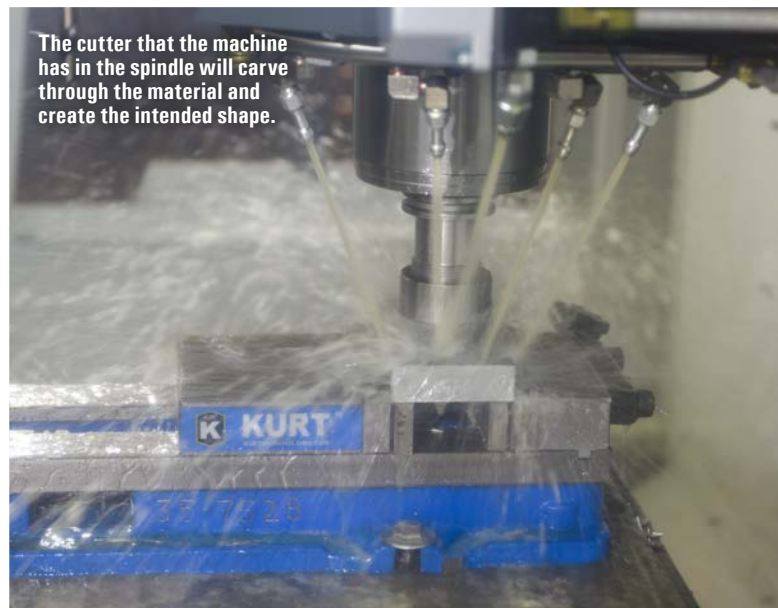
The variety of parts Bass has replicated is impressive. The day the *Arkansas Highways* magazine crew visited, he was working on a three-way wrench used to control valves on water trucks that have been converted to salt brine vehicles. The list of parts he has made also includes handles for wrenches, rod tips for survey measuring staffs, hydraulic knobs, tailgate pins and bridge hangers. That's just the beginning. He has even manufactured gas pedals for some of the District's front-end loaders.

"When I make something, I want it to still be in use 10 years down the road," Bass adds.

But for convenience, once the code for a particular part is programmed into the machine, it is kept and can be recalled down the line for future production.



The CNC mill uses CAD software and is computer-controlled.



The cutter that the machine has in the spindle will carve through the material and create the intended shape.



The variety of parts Bass has replicated is impressive.



Bass works on replicating a three-way wrench used to control valves.



"Replicating these parts is where you save time and money," Bass states.

### ENJOYMENT ON THE JOB

Bass doesn't consider using the machine to be work because the entire CNC process is something he enjoys.

"To me, using this machine is like playing," he reflects.

AHTD Equipment Maintenance Supervisor Stacey Caplener would agree.

"We'll go to Billy and ask him if he can do this or that on the mill, he'll go home that night and come back the next day with a design that he thinks will work," Caplener boasts.

"He has saved us a good deal of money replicating these parts. He's a valuable asset to have around here."

Bass is just as efficient on the machine shop's lathes as he is on the CNC mill.

"We have one of the longest lathes left in Arkansas," Bass shares. It was made by Lyon and is great for making long drive shafts on. It's old but still has its place."

When he's not working on the mill or lathes, you'll find him repairing chain saws or repairing small engines. His job title is Welder, which is something he also does, but he leaves most of the welding work to Jason Moser with whom he shares the shop.

Bass has been with the AHTD for almost three years. He has 22 years of experience working on CNC equipment.

"I've been fortunate enough to have learned a great deal from the guys who have been here for many years," Bass says. "From them, I learned how to operate the older machinery."

"Bass updated our older machinery when he came to the Department," Caplener adds. "He's a rare breed around here because he can operate our older equipment as well as the brand new stuff. He is a high commodity."

Bass has done some work for the other AHTD Districts around the State. When word gets out that he is making replacement parts quickly and at a savings, chances are he will get even busier than he already is.

"I have other Districts that will call and pick my brain about a material type or ask me to order some material for them because I order a lot of steel," Bass adds. "Priority One is District Five, but we are open to help other Districts out if we can get them in. I stay pretty busy."

Reflecting on his job, Bass says "It's something that I just love to do. For example, if we have a dozer with an obsolete part, I'll knock out a replacement in a day's time. This machine makes life a lot better for me and for the District. I really enjoy using it and seeing a project through. I've never had a day where I don't enjoy what I do." ■

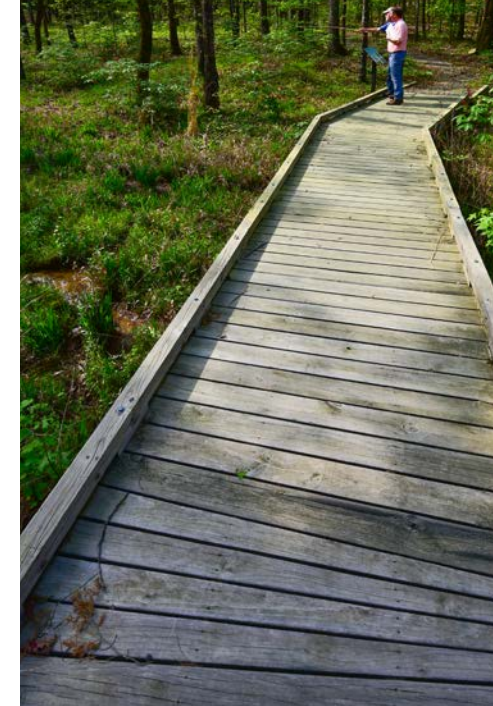
The 100-year-old Riddle Cabin at the South Fork Nature Center.



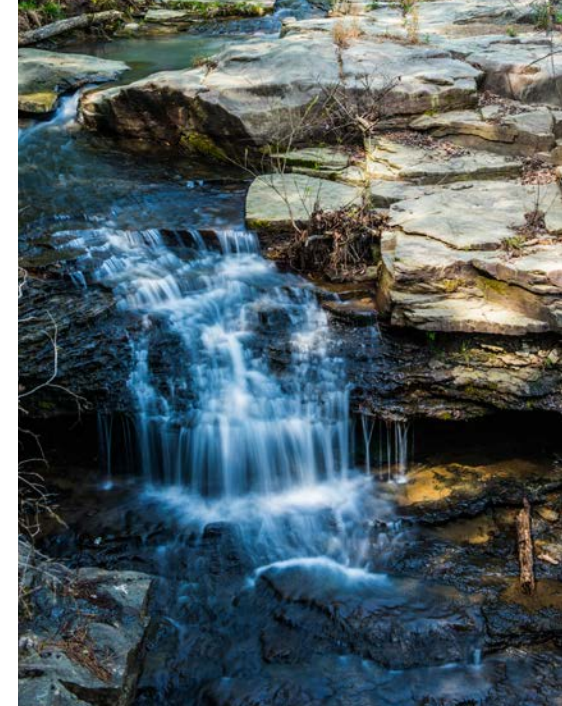
Signs along the way point out tree species, bird species and other wildlife.



At South Fork Nature Center there are two miles of public walking trails.



The Waterfall Trail is a short hike with a rewarding view.



WEEKEND

# ROAD TRIP:

# OZARK MOUNTAINS

BY DAVID NILLES

**S**PRING HAS SPRUNG AND IT'S A GREAT TIME TO GET OUTDOORS. WHAT BETTER SEASON FOR A WEEKEND ROAD TRIP THAT TAKES US TO THE MOUNTAINS OF NORTHERN ARKANSAS. MORE SPECIFICALLY, STATE HIGHWAYS 16 AND 65, AS THEY WIND THROUGH THE OZARK MOUNTAINS. WE'RE HEADED INTO THE WOODS TO DO SOME HIKING.

If you take this trip, essential equipment will include lightweight clothing, comfortable socks and most important, your favorite pair of hiking boots. This trip's trails will lead us to some of our State's most impressive rock formations and great "tucked away" waterfalls.

The town of Clinton is our home base for this trip. It's appropriately known as the "Southern Gateway to the Ozarks."

There are several restaurants and hotels in the area.

This road trip begins on the shores of Greers Ferry Lake, just east of Clinton. It's here that you'll find the **South Fork Nature Center**. Located on 64 acres, the Center is the Gates Rogers Foundation's premier conservancy project. Located on a beautiful peninsula, it serves as a model to educate and inspire young people and

adults to be aware of the environment. It's the perfect place to get in touch with all that nature offers and learn more about what we find there.

"Our goal is to help our visitors stamp out nature deficit syndrome," says Don Culwell, our guide for the day. Culwell is one of the Center's docents and serves on the board.

On the site are two miles of public walking trails including a shoreline trail, a waterfall trail, a ridgeline trail and a trail that leads to a reconstructed 100-year-old cabin. The cabin was the birthplace of noted folk music singer and historian Almeda Riddle. The cabin serves as a gathering point for school groups who come to learn more about

the native flora and fauna along the Greers Ferry Lake shoreline. Over 500 different plant species can be found on site.

"We like everyone to be involved in conservation thinking," Culwell adds.

The Center is an ongoing project in early stages of development. An outdoor pavilion/classroom is on the drawing board. The benefactor for the pavilion is Billiton BHP, a leading global resources company headquartered in Australia.

The Center is a perfect place to enjoy the woods, the lake and to learn more about everything found there.

"We welcome people to come out and walk our trails," Culwell says. Signs along the way point out tree species, bird species and other wildlife that call this area home.

*(continued on page 22)*

Board member and docent Don Culwell.



The South Fork Nature Center is located about five miles south of Clinton at 962 Bachelor Road. From Highway 65 at Choctaw, take County Road 330 East for 3.7 miles, and then turn left onto Klondike Road. Drive two miles to Bachelor Road and turn left. Stay on the main road for one mile. You'll cross a low water bridge and come to an iron gate on the right. If the gate at the Center is closed, you may enter through the rock entrance. A parking lot is available across the road from the gate where you can begin your adventure.

Leaving the lake shore, it's time to head north on Highway 65 just a few miles from Clinton to see one of Arkansas' natural wonders, the **Natural Bridge**. Just look for the large green sign on the right side of the road pointing you down Natural Bridge Road. The paved road leads you into a beautiful valley and to the bridge site. At the far end of the parking lot is a 140-year-old log cabin where you enter.

The area was once home to Quapaw Indian tribes. In later years, outlaw Belle Starr used the area as a hideout. A short walk from the cabin brings you to the bridge formation. The bridge makes a great first impression because of its size. It is made of sandstone and took literally thousands of years to form. It measures 100 feet in length as it crosses over Little Johnny Creek. Early pioneers and loggers actually used the formation as a bridge. Today, visitors are asked not to step onto the bridge for safety reasons. Be sure to watch for the spherical rocks along the trail. They, too, took thousands of years to form. A second cabin on the path features an old still and artifacts from the area.

The Natural Bridge is open March through November. Restrooms and picnic tables are provided. The address is 1120 Natural Bridge Road. There is an admission fee.

Of note, another natural stone bridge, the Alum Cove Natural Bridge, can be



The Natural Bridge.



Kings Bluff Falls, a 114-foot waterfall on the Kings Bluff Loop.

**THE BRIDGE  
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YEARS TO FORM.**



This 140-year-old log cabin is the entrance to the Natural Bridge.



Pedestal Rocks Scenic Area.



There are various displays to enjoy on your way to the bridge.

found in the vicinity of Jasper. But that trip is for another day.

From the Natural Bridge, travel south back to Clinton and then head west on Highway 16. It's about an hour's drive to our next destination. Expect some twists and turns along the way as you travel through Witts Springs and Ben Hur.

The next stop is the **Pedestal Rocks Scenic Area**, located six miles east of Pelsor. Watch for the sign and the turn-off on the side of the highway. Picnic tables and a restroom allow for relaxation before or after some serious hiking.

The Pedestal Rock Scenic Area offers two loop trails, each leading to its own scenic area. Beginning from the parking area, a display shows the way into the woods and your route for each trail. Both are relatively flat. The trail to the right begins the Kings Bluff Loop, while the trail straight ahead forms the Pedestal Rocks Loop.

The **Kings Bluff Loop** is 1.7-miles long and is best hiked counter-clockwise. A mile down the trail you come to a huge flat bluff overlooking a deep valley about 100 feet below. During wet weather,

*(continued on page 24)*

There are many unique rock features along both trails at Pedestal Rock Scenic Area.



there is an impressive waterfall at the north end of the bluff line, the right side as you look over the bluff. At 114 feet, Kings Bluff Falls is not only spectacular; it's one of the tallest waterfalls in the Ozarks. After spending time taking in the views, the trail leads to the left with numerous columns, cracks, caves, rock shelters and other formations to be seen. The best time to see the waterfall is just after a significant rain shower in Arkansas' wet season, winter or spring. The summer months may find the falls almost dry.

The **Pedestal Rock Loop** is 2.2 miles long and leads to the main attraction, the pedestal rocks. These unique rock formations rise from the valley floor and were formed over eons from water and wind erosion, sculpting these unique

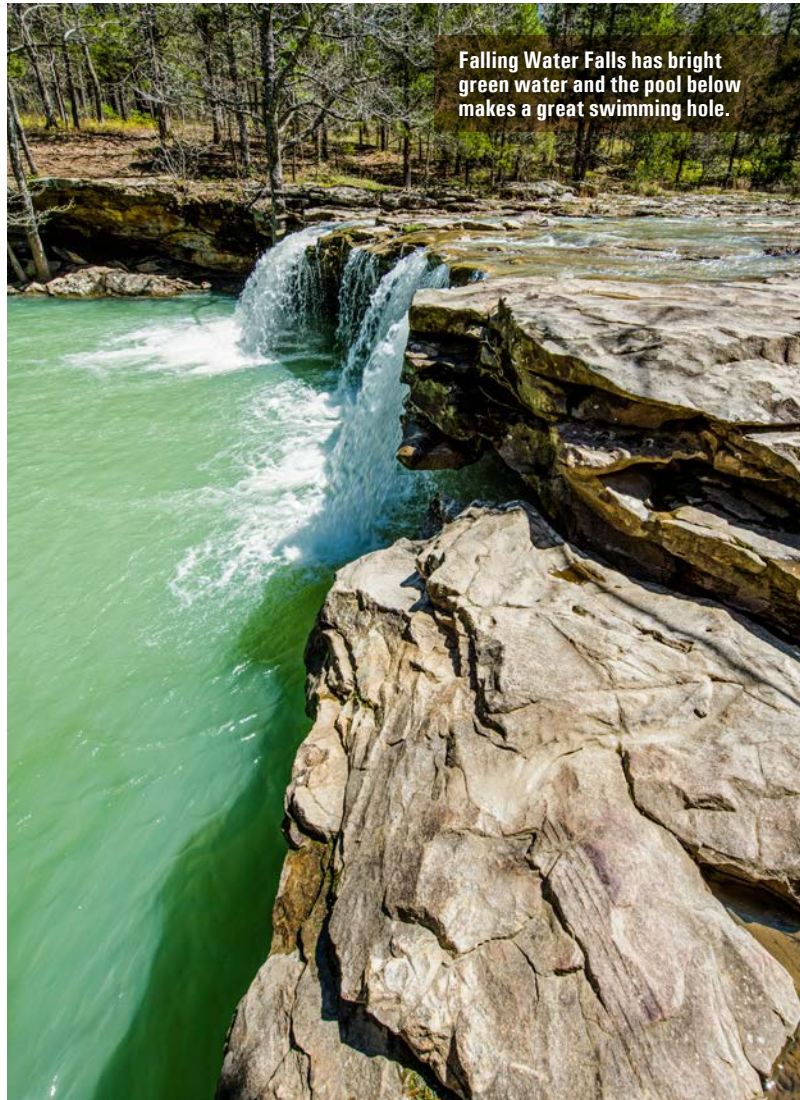
mushroom-shaped columns. Take time to explore the small caves and rock shelters in the sides of the bluff along this trail.

There are so many unique rock features on these two trails you could easily spend most of a day here exploring in the woods. It's the type of outdoor adventure you will want to return to again and again.

If it's hot on the trail, the last stop on this road trip features a great place to cool down.

From Pedestal Rock, head back east on Highway 16 toward Clinton. Pass through Ben Hur and it's just over a mile to the turnoff for **Falling Water Falls**. Look for a dirt road on your left; it's Farm Road 1205, also called Upper Falling Water Road. It's not well marked so watch carefully. You'll see a sign for Falling

Falling Water Falls has bright green water and the pool below makes a great swimming hole.



Water Horse Camp, too. Follow the road for about three miles and you will find the falls on your right, directly beside the road. The falls are impressive and are formed by Falling Water Creek. The water is a bright green and the pool below the falls makes a great swimming hole. Feel free to jump in!

Campers take note, if you follow the dirt road another six or seven miles, you arrive at Richland Creek campgrounds.

After a full day enjoying Arkansas' outdoors in the Ozark Mountains, it's back to Clinton for some rest and relaxation. ■

*EDITOR'S NOTE: The best time to see the Pedestal Rocks is during leaf-off season, over the winter months.*

*Some information on the Pedestal Rock Scenic Area was provided by the Explore the Ozarks website found at [www.exploretheozarksonline.com](http://www.exploretheozarksonline.com).*

Johnson County Peach Festival  
Photo Courtesy AR Parks & Tourism



# OUT & ABOUT

## CALENDAR OF EVENTS AROUND THE STATE

As you travel Arkansas over the next two months, consider checking out some of the listed events. Our State is full of interesting things to do, no matter what highway you take. For additional event listings, check [Arkansas.com/events](http://Arkansas.com/events).

- \* **MOVIES IN THE PARK:** Every Wednesday in June and July at sundown, families and friends can venture to the River Market for movies ranging from action to comedy to animation. Bring your lawn chairs, blankets, coolers and even your pets. No glass please. A limited number of food vendors will be onsite. • JUNE 7 – JULY 7
- \* **MOTOWN: THE MUSICAL:** The true American dream story of Motown founder Berry Gordy's journey from featherweight boxer to the heavyweight music mogul who launched the careers of Diana Ross, Michael Jackson, Smokey Robinson and many others. Featuring classic songs such as "My Girl" and "Ain't No Mountain High Enough," experience the story behind the music in this record-breaking smash hit. • JUNE 21 – JUNE 25
- \* **20TH ANNUAL BUFFALO RIVER ELK FESTIVAL:** A fun-filled weekend in the "Elk Capital of Arkansas" featuring visual artists, craftsmen, elk permit drawings, contests, entertainment, a fishing derby, lots of kids' activities and a fireworks display on Saturday night. • JUNE 23 – 24
- \* **19TH ANNUAL FAT TIRE FESTIVAL:** A festival for bike riders of all ages! This 3-day weekend is packed with downhill, super, short track and cross country racing. There will also be group rides, social gatherings, camping, live music, arts & crafts and good vibes to round out a weekend of cycling for kids and adults. • JULY 14 – 16
- \* **76TH ANNUAL JOHNSON COUNTY PEACH FESTIVAL:** Everything is just peachy for this festival in Clarksville. Peach cobbler, peach jam, peach jelly, a peach pie eating contest, peach pit spitting, peach eating contest and the list goes on! Activities include craft booths, entertainment, a skateboard competition, a horseshoe pitch and much more! • JULY 20 – 22

**THROUGH JULY 30**  
BERRY PICKING TIME  
Wye Mountain Flowers & Berries  
Wye, AR

**JUNE 7 – JULY 7** \*  
MOVIES IN THE PARK  
First Security Amphitheater  
Little Rock, AR

**JUNE 21 – 25** \*  
MOTOWN: THE MUSICAL  
Robinson Center  
Little Rock, AR

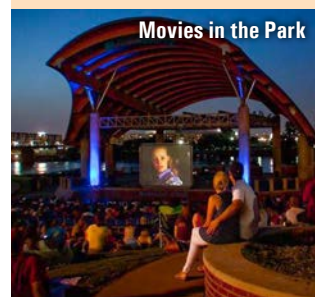
**JUNE 23 – 24** \*  
BUFFALO RIVER ELK FESTIVAL  
Downtown Square  
Jasper, AR

**JULY 5 – 28**  
2017 JURIED ART COMPETITION  
South Arkansas Arts Center  
El Dorado, AR

**JULY 14 – 16** \*  
19TH ANNUAL FAT TIRE FESTIVAL  
Lake Leatherwood City Park  
Eureka Springs, AR

**JULY 20 – 22** \*  
76TH ANNUAL JOHNSON COUNTY PEACH FESTIVAL  
215 W. Main Street  
Clarksville, AR

**JULY 26 – 29**  
WILLY WONKA AND THE CHOCOLATE FACTORY  
Arts & Science Center for Southeast Arkansas  
Pine Bluff, AR



Movies in the Park



Elk Fest

Photo Courtesy AR Parks & Tourism



Fat Tires

# New BROADWAY BRIDGE Officially Dedicated

BY DAVID NILLES



On the program were members of the Arkansas Army National Guard, the Veterans of Foreign Wars and the American Legion.



The bridge dedication was held on the 100th anniversary of the United States' entry into World War I.



The new bridge will now serve as a memorial for all of the Veterans who have served in the military.



It was 1922 when the first vehicle crossed the old Broadway Bridge.

**M**USIC FROM A MILITARY BAND FILLED THE AIR ON APRIL 6TH AS A CROWD GATHERED FOR THE RIBBON-CUTTING ON THE NEW BROADWAY BRIDGE (U.S. HIGHWAY 70) SPANNING THE ARKANSAS RIVER BETWEEN LITTLE ROCK AND NORTH LITTLE ROCK.

A crowd made up of AHTD Commissioners and staff, mayors from both cities, county judges, representatives from Massman Construction and a group of military veterans all were on hand for the historic event.

"It was 1922 when the first vehicle crossed the old Broadway Bridge," AHTD Director Scott Bennett shared. "Now, 95 years later, we have a new bridge."

In late 2014, the Department awarded a \$98.4 million contract to Massman Construction Company of Kansas City to build the new bridge. At the time, it was the single largest contract ever awarded by the AHTD.

"This construction project had relatively few issues," Bennett added. "It's been a great and successful project. The Cities of Little Rock, North Little Rock, the County and our friends with the Arkansas Travelers have been great to work with and we appreciate all they did."

Bennett noted that the bridge includes 24 shafts that were drilled an average of 65 feet into the rock on the floor of the Arkansas River, and roughly 26,000 square feet of retaining walls, 30,000 cubic yards of fill material, 25,000

cubic yards of concrete and 13.5 million pounds of structural steel.

The bridge officially opened to traffic on March 1st of this year. Massmann Construction had estimated the bridge would be closed to traffic for 180 days. They got the necessary construction finished in just 152 days. Construction began on the project in January of 2015.

"I want to compliment the professionalism that was involved in building this structure," Little Rock Mayor Mark Stodola told the crowd. "This project came through on time and on budget."

North Little Rock Mayor Joe Smith reflected on what the new bridge means to the area.

"This is a first-class bridge" he shared. "It tells the world that this is a special place. If we can build a first-class bridge, we can do anything. This bridge will be here for our children and our grandchildren."

The new bridge will now serve as a memorial for all of the Veterans who have served in the military.

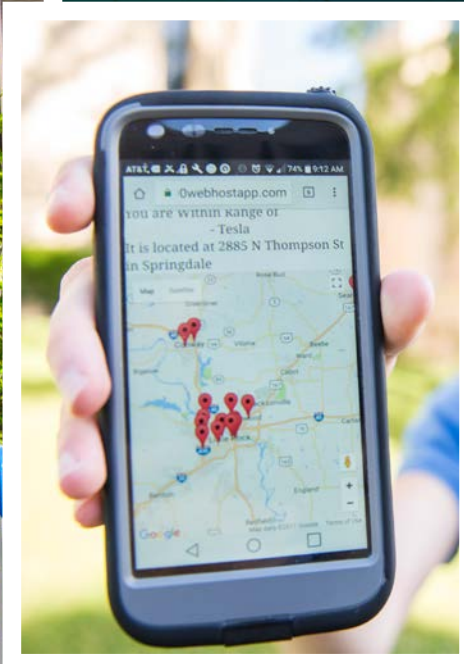
"Our Veterans are the shield that protects us and our way of life," said Pulaski County

Judge Barry Hyde. "This bridge is a reminder of the price of freedom."

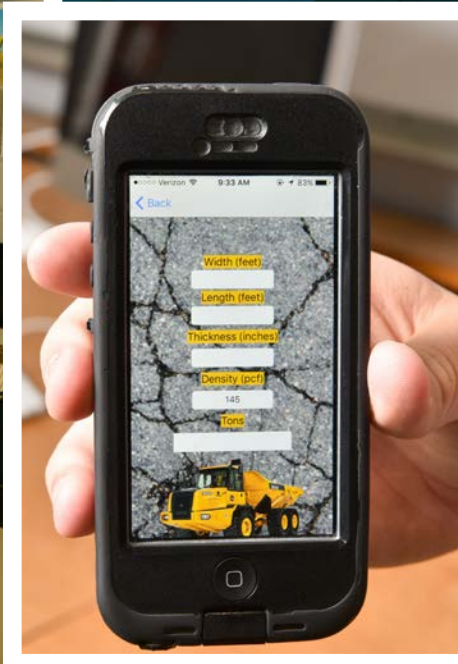
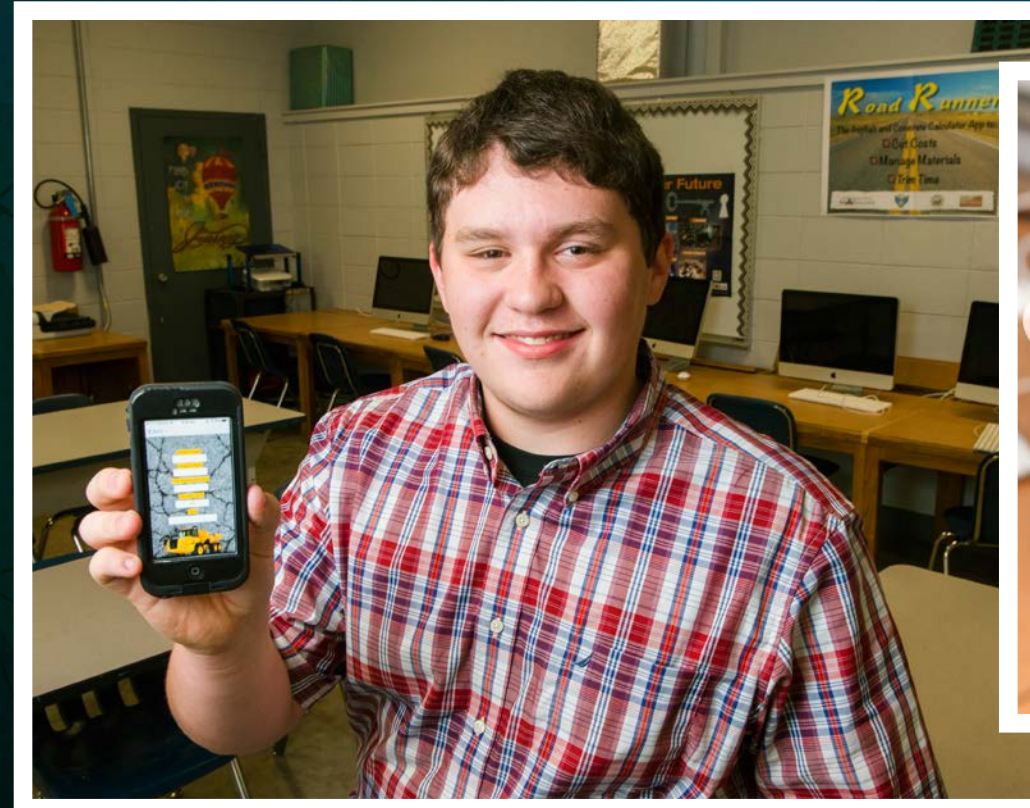
On the program were members of the Arkansas Army National Guard, the Veterans of Foreign Wars and the American Legion.

"I'm thrilled that we are going to recognize all of the branches of our military along the new bridge's pedestrian and bicycle walkway," added Mayor Stodola.

The bridge dedication was held on the 100th anniversary of the United States' entry into World War I. ■



Joe Sartini and his Fuelr app.



Ryan Callicott and his Roadrunner app.

# Congressional App Challenge BRINGS IMPROVEMENTS TO ARKANSAS HIGHWAYS

BY DAVID NILLES

**E**ACH YEAR, MEMBERS OF CONGRESS IN WASHINGTON, D.C. HOST A COMPETITION FOR STUDENTS CALLED THE CONGRESSIONAL APP CHALLENGE (CAC). The App Challenge is a public effort to encourage students to learn how to code through annual district-wide competitions hosted by members of Congress for their district. The goal of the CAC is to give students hands-on practice exploring the fields of Science, Technology, Engineering and Math (STEM), coding and computer science.

For the 2016 Challenge, a total of 2,160 students across the country signed up, and the result was 650 new apps.

In Arkansas, there were four winners. Two of those students, Ryan Callicott and Joe Sartini, just happen to be a part of the AHTD extended family, and the apps they created are making a difference on travel in Arkansas.

## ROADRUNNER APP

Ryan Callicott is a junior at Cross County High School and is the son of Cannon Callicott, District One Construction Engineer. Not only was Ryan a winner, the app he created has

potential to be of benefit to the AHTD and to contractors the Department works with.

Ryan's app was selected as a winner in Representative Rick Crawford's District. He says his dad inspired the creation.

"We were doing a couple of app challenges and my dad had wanted one for the Highway Department," Ryan told KAIT Region 8 News.

The resulting app calculates the amount of asphalt needed for any particular area of a construction project.

"The app combines the length, width, thickness and density of your asphalt and calculates how much you are going to need for a specific area," Ryan explains. "On the app, you type in each of those variables and

the amount of asphalt needed is provided in metric tons."

## FUELR APP

Joe Sartini's app is geared more for motorists traveling our highways. The son of Joe Sartini, State Maintenance Engineer, and a senior at the Arkansas School for Math, Sciences and the Arts, the younger Joe and Jackson Gregory were selected as winners in Representative Bruce Westerman's District.

Their computer app is aimed at motorists who drive cars with electric engines and who must find charging stations to refuel.

"Charging stations can be rare, especially in rural states such as

Arkansas," Joe states.

The Fuelr app includes a map that indicates the location of charging stations across the nation.

It alerts drivers that they are leaving a zone where they can charge.

"The app determines user location and then, using latitude and longitude, determines the distances to each available fueling station for the motorist," Sartini explains.

## #HOUSE OF CODE

On April 4th, more than 120 Representatives and the student app winners were honored with a Demo Day and reception titled "#House of Code" in

Washington, D.C. Winners of the challenge received recognition by their member of Congress, won prizes and will now have their work put on display for a year in the Capitol Building.

The apps of the 2016 winners can also be found on [House.gov](http://House.gov) and the CAC website at [CongressionalAppChallenge.us](http://CongressionalAppChallenge.us).

The CAC is executed by the Congressional staff of each participating district and is coordinated by the Congressional Internet Caucus and the non-governmental sponsor of the project, the Internet Education Foundation.

In the first two years of the Challenge, it has reached nearly 4,000 students across 33 states. ■

# Home is Where THE TOLL BRIDGE IS

BY DAVID NILLES

**T**HOUGH NONE STILL EXIST IN ARKANSAS TODAY, TOLL BRIDGES ARE A PART OF ARKANSAS' HIGHWAY HISTORY.

Tolls were common on some bridges beginning in the early 1800s and continued to be collected through 1938. At that time, prices could range anywhere from a nickel to one dollar.

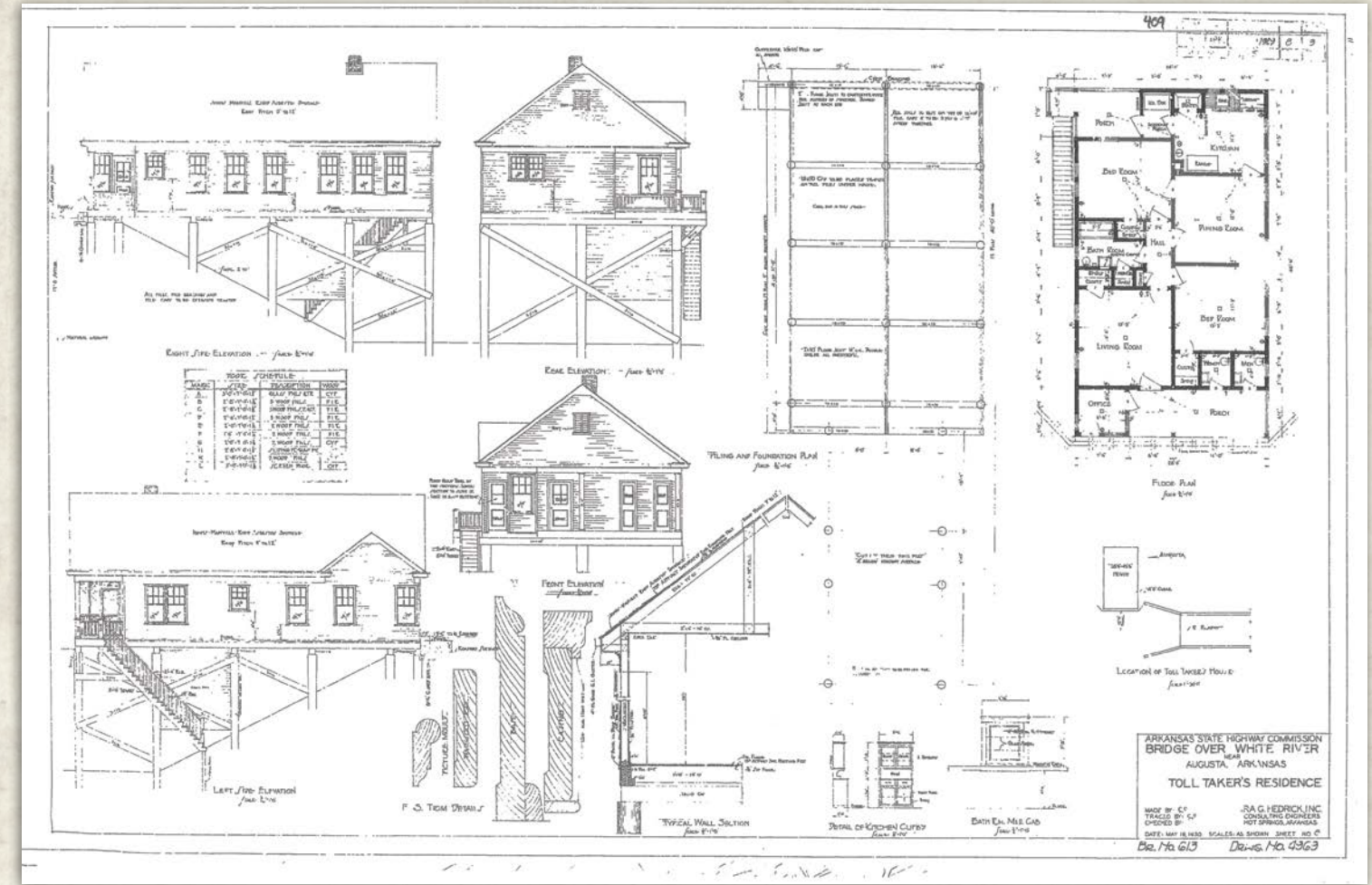
Some of Arkansas' toll bridges built in the 1930s included toll taker's residences, something not seen in this day and age. The structures were built at the same time as the bridge. A typical residence would include an office, living room, kitchen, dining room, two bedrooms, a bathroom and a porch.

Research by intern Shelby Linck of the AHTD Environmental Division turned up blueprints for three residences in Arkansas. Two were over the White River at Augusta and Newport. A third was built on a bridge over the Ouachita River at Felsenthal.

Nationally, by the 1940s, toll residences were replaced with small collection houses. Ten years later, motorists began dropping their tolls into free-standing, automated machines.

Probably the most popular toll change in Arkansas came in 1938 when they were dropped all together in favor of free bridges. ■

*EDITOR'S NOTE: Research for this article was completed by Shelby Linck, Architectural Historian Intern for the Environmental Division Cultural Resources Section.*



Blueprint of toll taker's residence for the bridge over the White River near Augusta, Arkansas



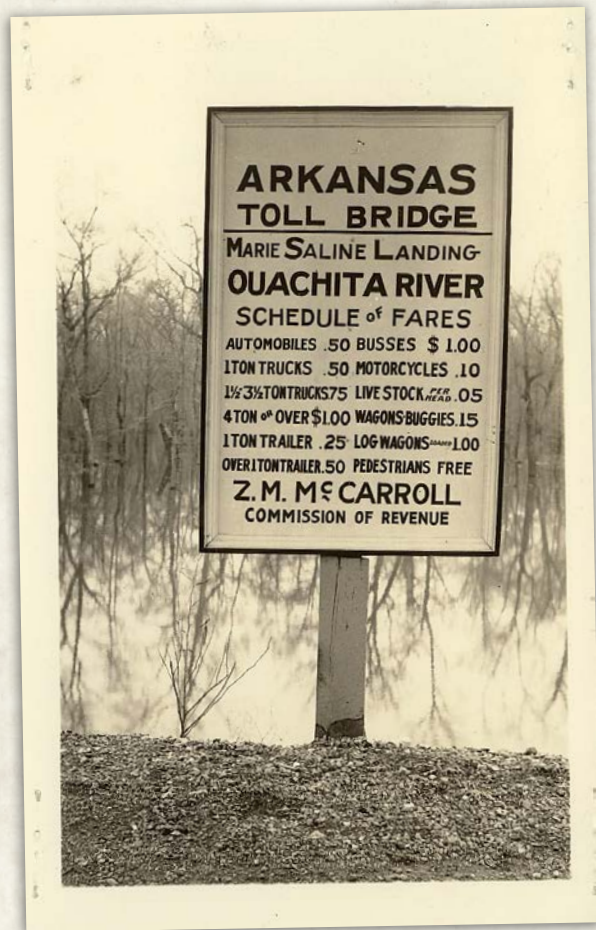
Toll-Taker's Home at Calion, Arkansas Feb. 9, 1938, Union County



Collecting tolls in canals in the United States often required toll taker boats

(continued on page 32)





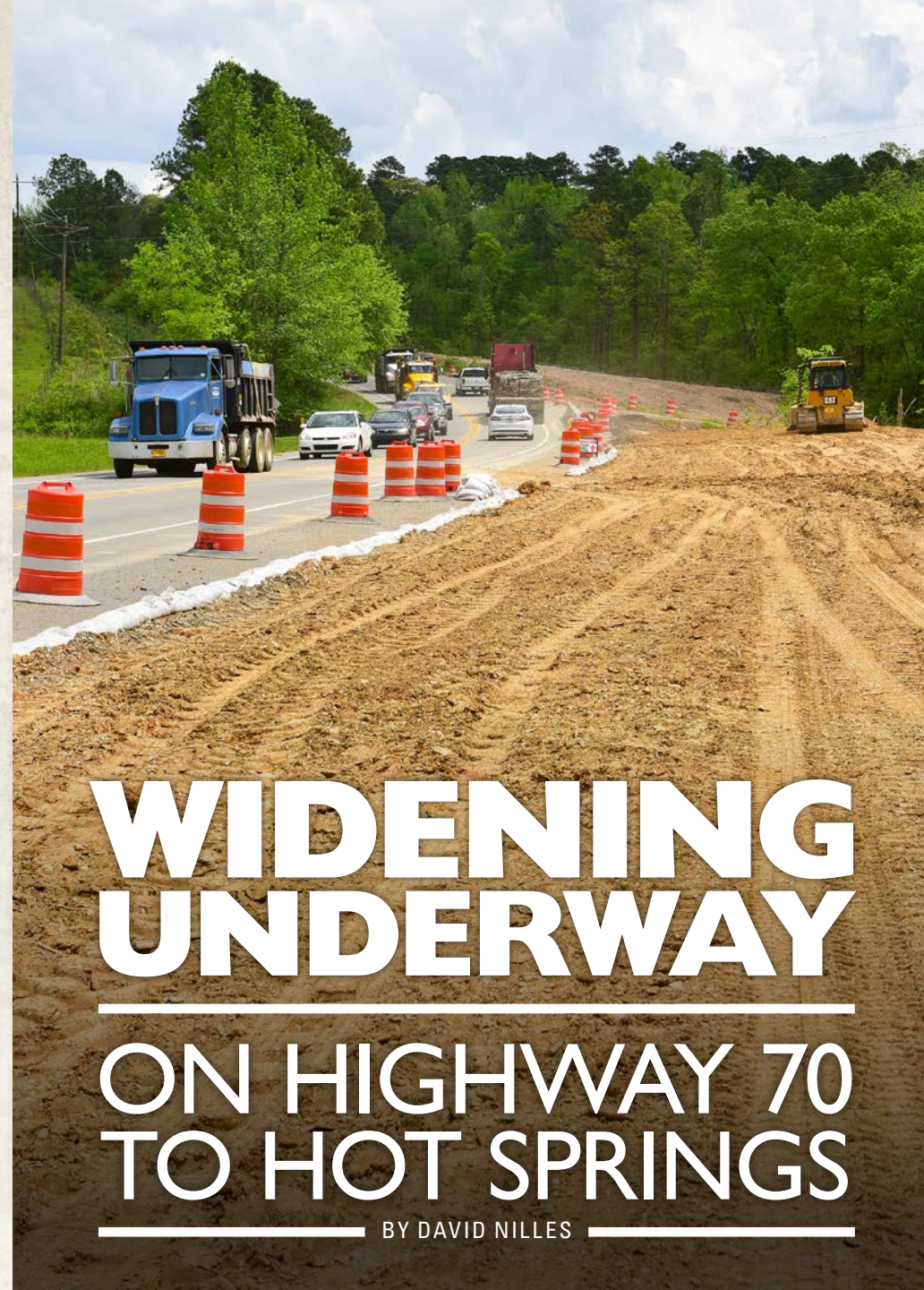
1930 Tolls sign at Marie Saline Bridge (Ouachita River, Felsenthal) on Highway 82 in Union County

# TOLL TRIVIA:

- ☛ The original London Bridge across the river Thames opened as a toll bridge.
- ☛ The Golden Gate Bridge is a toll bridge but only in the southbound direction.
- ☛ Today, tolls are collected electronically using names such as EZ-Pass, FasTrak and GoodToGo.
- ☛ Finding an alternate route to avoid paying a toll is called “shunpiking.”



Ozark Toll Bridge Collection House, Franklin County, c. 1930



# WIDENING UNDERWAY ON HIGHWAY 70 TO HOT SPRINGS

BY DAVID NILLES

**A** NEWS CONFERENCE WAS HELD ON FEBRUARY 24TH TO ANNOUNCE THAT THE WIDENING OF U.S. HIGHWAY 70 FROM INTERSTATE 30, NEAR BENTON, TO HOT SPRINGS IS NOW UNDERWAY.

Improvements will widen the highway to four travel lanes with a continuous center turn lane. Four bridges are also being reconstructed as part of the project.

Representatives from a number of Hot Springs tourist attractions were on hand at Magic Springs amusement park for the announcement.

“The message here today is that Hot Springs is open for business,” stated Jim Fram, president and CEO of the Hot Springs Chamber of Commerce.

Officials from Mid-America Science Museum, Oaklawn Park and Magic Springs echoed

Fram’s sentiments and invited tourists to come to Hot Springs because their doors are open.

“We want everyone to continue coming to Hot Springs,” stated Magic Springs spokesman Steve Honeycutt.

Though Highway 70 remains open, attraction representatives stressed that there are alternate routes leading to Hot Springs for travelers on Interstate 30.

The most efficient route is U.S. Highway 270 West at the Malvern Exit (Exit 98B) off of Interstate 30. It is just a 15-minute drive and is four lanes as it leads into the Spa City. State Highway 5 at Benton is an option for motorists coming from the north; State Highway 7 at Arkadelphia is an option if coming from the south.

“Highway 70 will remain open in both directions during construction but a great deal of work is underway,” stated AHTD Director Scott Bennett. “We will move traffic the best that we can through the area and will make this job as smooth and painless as possible. But there may be delays so motorists may want to consider using the alternate routes.”

The improvements to Highway 70 were made possible with the passing of the Half-Cent Sales Tax in November 2012. The widening project is part of the AHTD’s “Connecting Arkansas Program” which is improving approximately 200 miles of Arkansas’ highways.

“We thank the voters of Arkansas for supporting this project,” Bennett added.

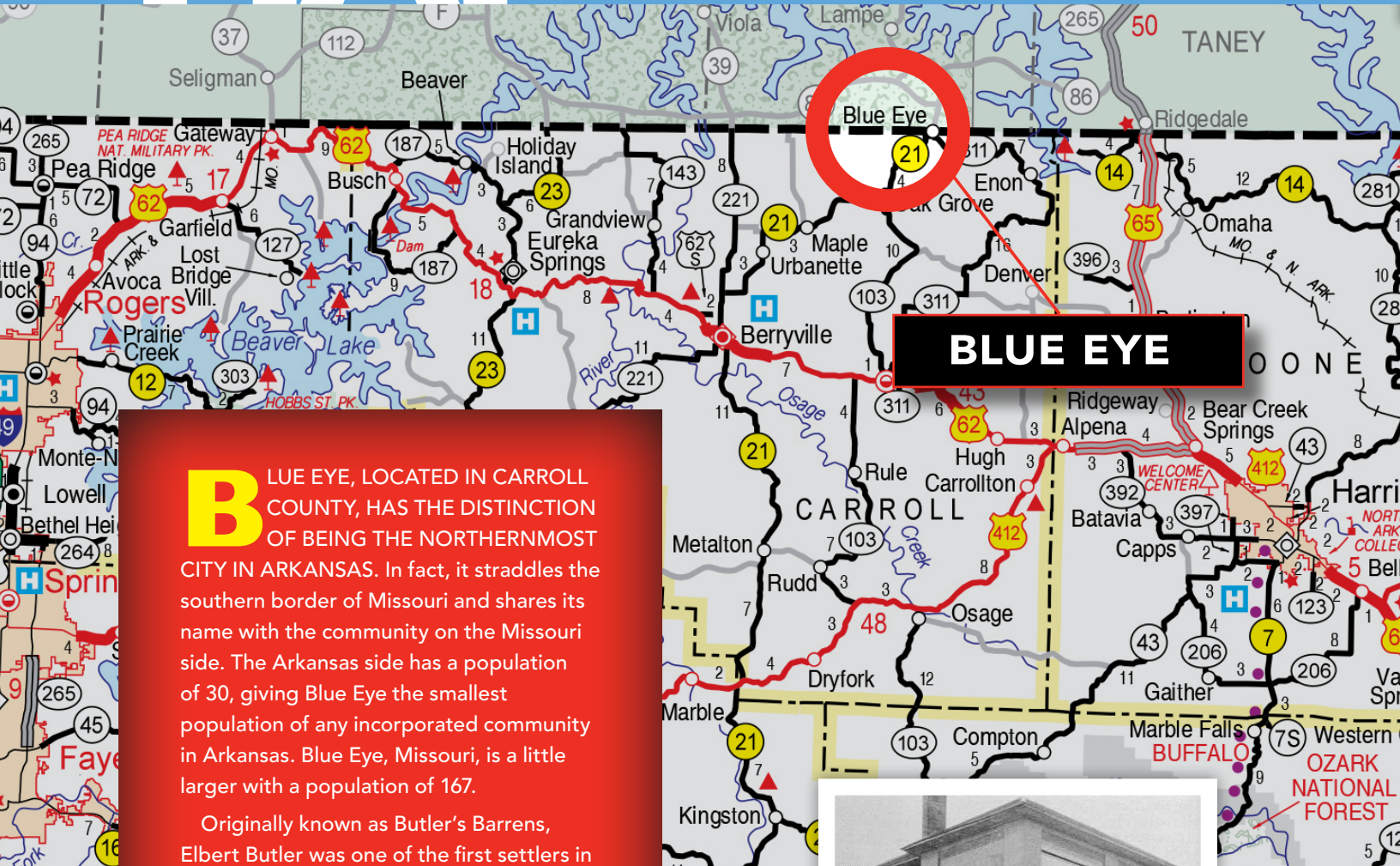
Highway 70 carries between 15,000 and 17,500 vehicles per day. The contract for improvements was awarded to McGeorge Contracting Company, Inc. of Pine Bluff for \$78.5 million. Work will be completed in late 2018.

“We look forward to the completion of this job,” Bennett added. “This will make Highway 70 much safer and more efficient for travel.”

Motorists are encouraged to “know before you go” and visit the **[IDriveArkansas.com](http://IDriveArkansas.com)** website for the latest conditions through the construction area. ■

# ON THE MAP

SPENDING TIME WITH AN ARKANSAS HIGHWAY MAP CAN BE INTERESTING. THE FOLLOWING IS THE NAME OF A HISTORIC LOCATION IN ARKANSAS. HAVE YOU EVER VISITED HERE?

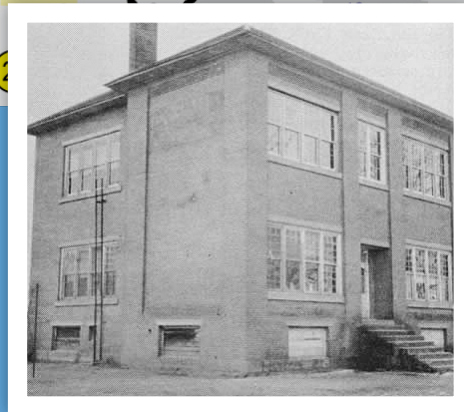


**B**LUE EYE, LOCATED IN CARROLL COUNTY, HAS THE DISTINCTION OF BEING THE NORTHERNMOST CITY IN ARKANSAS. In fact, it straddles the southern border of Missouri and shares its name with the community on the Missouri side. The Arkansas side has a population of 30, giving Blue Eye the smallest population of any incorporated community in Arkansas. Blue Eye, Missouri, is a little larger with a population of 167.

Originally known as Butler's Barrens, Elbert Butler was one of the first settlers in the area prior to the Civil War. He returned at the war's end and opened the first post office in the area in 1870. It is said the name Blue Eye was given to the post office because of Butler's notable blue eyes.

Blue Eye was the home of the fictional character Bob Lee Swagger who is found in numerous novels by author Stephen Hunter.

The town was well known as a haven for migratory pigeons in its heyday and hunters would come to the area from bordering states to hunt. Not only that, the men of the area developed a reputation for being quite skilled at the game of marbles. ■



Blue Eye Elementary School for Arkansas children. The building housed the Mo-Ark Baptist Academy until 1930. Photo courtesy of White River Valley Historical Society

## LETTERS

Dear AHTD,

As we pulled out onto the highway in the procession, there were Arkansas Highway Department workers standing at attention with their hats over their hearts. I'm sure they were raised right and were simply showing respect, but what they may not know is that my Papa worked for the AHTD for many years before retiring and always spoke very highly of the Department. Seeing them there made my heart warm. An act of kindness and respect that meant so much to me. So if you work for the AHTD and were working in Bellefonte [on March 30th], thank you so much.

Sincerely,  
Shawna Woehl

*Harley Thomason worked for the AHTD for 30 years, from 1952-1980, with three years of military service.*

### WORK TEAM APPRECIATION

I would like to commend Cpl. John Clark and Pfc. S.B. Mackey on their presentation at the American Rental Association of Arkansas Spring Meeting on Thursday, March 16, in Little Rock. As ARA Region 4 director, I attend meetings in Arkansas, Oklahoma, Texas and Louisiana, as well as meetings on a national scale. To be blunt, most DOT meetings end up with the ARA members feeling defensive and targeted; they leave with an us-against-them attitude. They feel as if they've been lectured to by someone who doesn't really understand what their jobs are like. Cpl. Clark and Pfc. Mackey were exactly the opposite. They didn't lecture or condescend; they explained in a conversational, friendly tone. As a result, they covered a lot of ground. They answered the specific questions the ARA members had and kept their entire presentation on track with issues that we all have to deal with. Their down-to-earth, common sense approach reached far more people than it would have if they had taken a hardline route. They even offered to arrange free training days with drivers at our member rental stores in AR, and I noticed more than one store owner that seemed really receptive to that idea. My only wish is that I could invite them to speak in the other three states in my region! Thank you for sending us two of your top guys.

Sincerely,  
Trish Southard, Region 4 Director  
American Rental Association

### FROM ONE AHTD EMPLOYEE TO ANOTHER

I wanted to send a thank you to Highway Police Lt. Nancy Harmon and the officers that assisted us last night with traffic control for REA Electric to repair the downed power line across Interstate 30. It went very smooth with their assistance in maintaining the safety of the crew working and ensuring the safety of the traveling public on the road. Please pass along to Officer Mays and Officer Russell our appreciation for their help. I would also like to say thank you for all the assistance that you provide us out on these construction jobs on the Interstate. On behalf of the crew of R.E. 32 and myself, thank you for your assistance.

Chris Taylor  
Engineer, AHTD R.E. 32

### WELL-RECEIVED PRESENTATION

I would like to first extend our gratitude here at the Electric Cooperatives of Arkansas for you allowing Cpl. Brandon Clark to speak at our Safety Coordinators Meeting yesterday, secondly I would like to say that he did very well with his presentation.

Everyone enjoyed what he had to say and the material did shed some light for them in several key areas that can tend to be a bit confusing at times. Cpl. Clark answered everyone's questions with very good clarification as well as presented himself in a professional manner in which I can see us calling upon him in the future.

Kevin Riddle  
Supervisor - Job Training/Safety  
Safety and Loss Control  
Arkansas Electric Cooperatives Inc.

# ARKANSAS WELCOME CENTERS

**T**hey're positioned at strategic locations across the State, welcoming motorists to Arkansas. Attractive and inviting places to take a break from the road. They are the State's thirteen Arkansas Welcome Centers (AWC). Each Center is open 8:00 a.m. to 5:00 p.m. daily (6:00 p.m. during summer months). Restrooms are available at all hours. An interactive map of AWC locations can also be seen at [IDriveArkansas.com](http://IDriveArkansas.com). Just click the "Traveler Information" tab.



**1. BELLA VISTA — HIGHWAY 71 B**

13750 Visitors Center Drive  
Bella Vista, AR 72714  
Phone: 479-855-3111

**2. BLYTHEVILLE — INTERSTATE 55**

5241 Interstate 55  
Blytheville, AR 72315  
Phone: 870-762-2512

**3. CORNING — HIGHWAY 67**

6717 Highway 67  
Corning, AR 72422  
Phone: 870-857-6014

**4. EL DORADO — HIGHWAYS 82 & 167**

3315 Junction City Highway  
El Dorado, AR 71730  
Phone: 870-881-9160

**5. HARRISON — HIGHWAY 65 N**

3391 Highway 65 N  
Harrison, AR 72601  
Phone: 870-741-3343

**6. HELENA-WEST HELENA — HIGHWAY 49**

1506 Martin Luther King Jr. Drive  
Helena, AR 72342  
Phone: 870-338-7602

**7. LAKE VILLAGE — HIGHWAYS 65 & 159**

3697 S. Highway 65 82  
Lake Village, AR 71653  
Phone: 870-265-5832

**10. TEXARKANA — HIGHWAY 71**

12555 Highway 71  
Texarkana, AR 71854  
Phone: 870-772-7511

**8. MAMMOTH SPRING — HIGHWAY 63 N**

17 Highway 63 N  
Mammoth Spring, AR 72554  
Phone: 870-625-7364

**9. SILOAM SPRINGS — HIGHWAYS 412 W & 59**

2000 Highway 412 West  
Siloam Springs, AR 72761  
Phone: 479-524-4445

**11. TEXARKANA — INTERSTATE 30**

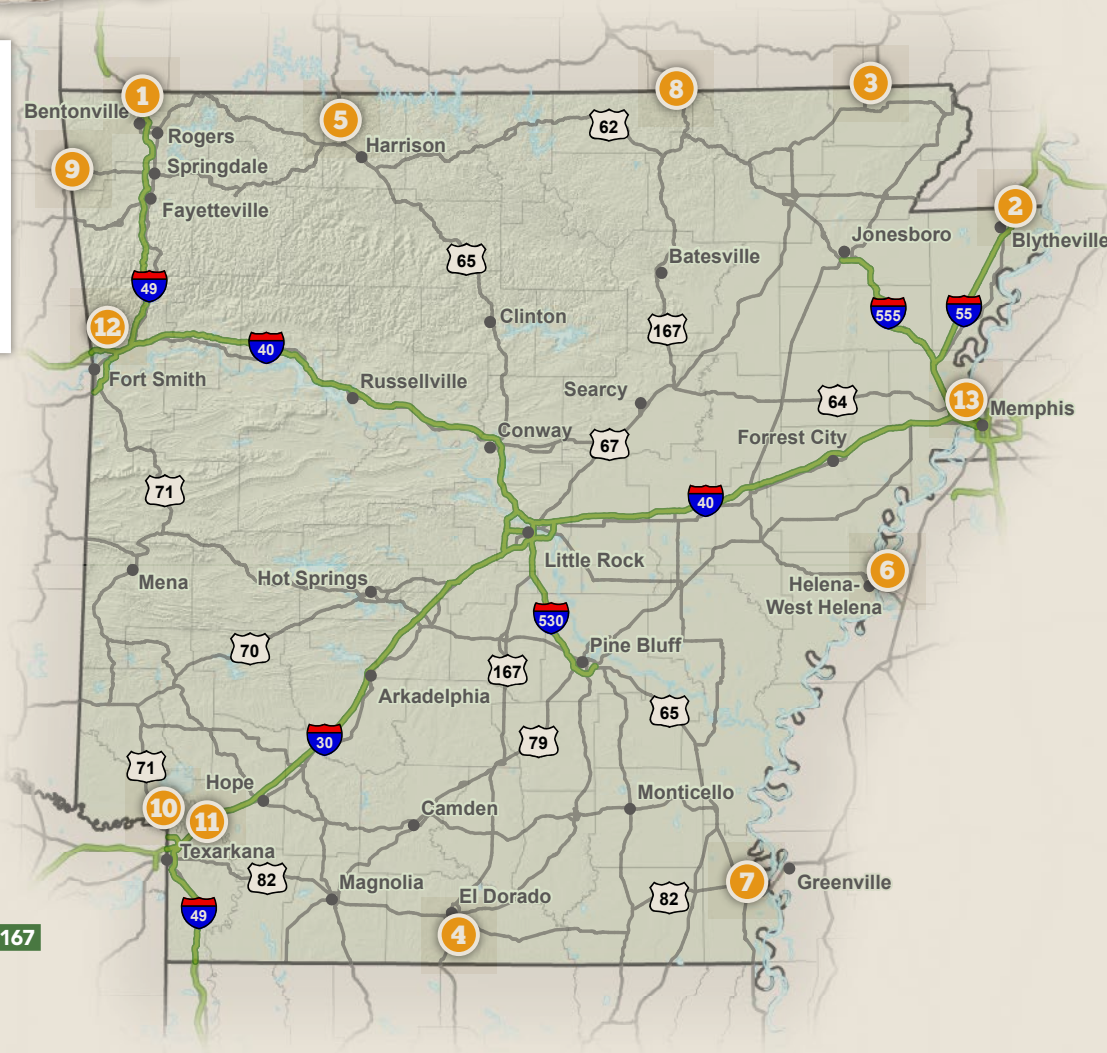
10000 Interstate 30  
Texarkana, AR 71854  
Phone: 870-772-4301

**12. VAN BUREN — INTERSTATE 40**

2915 Interstate 40  
Van Buren, AR 72956  
Phone: 479-474-9515

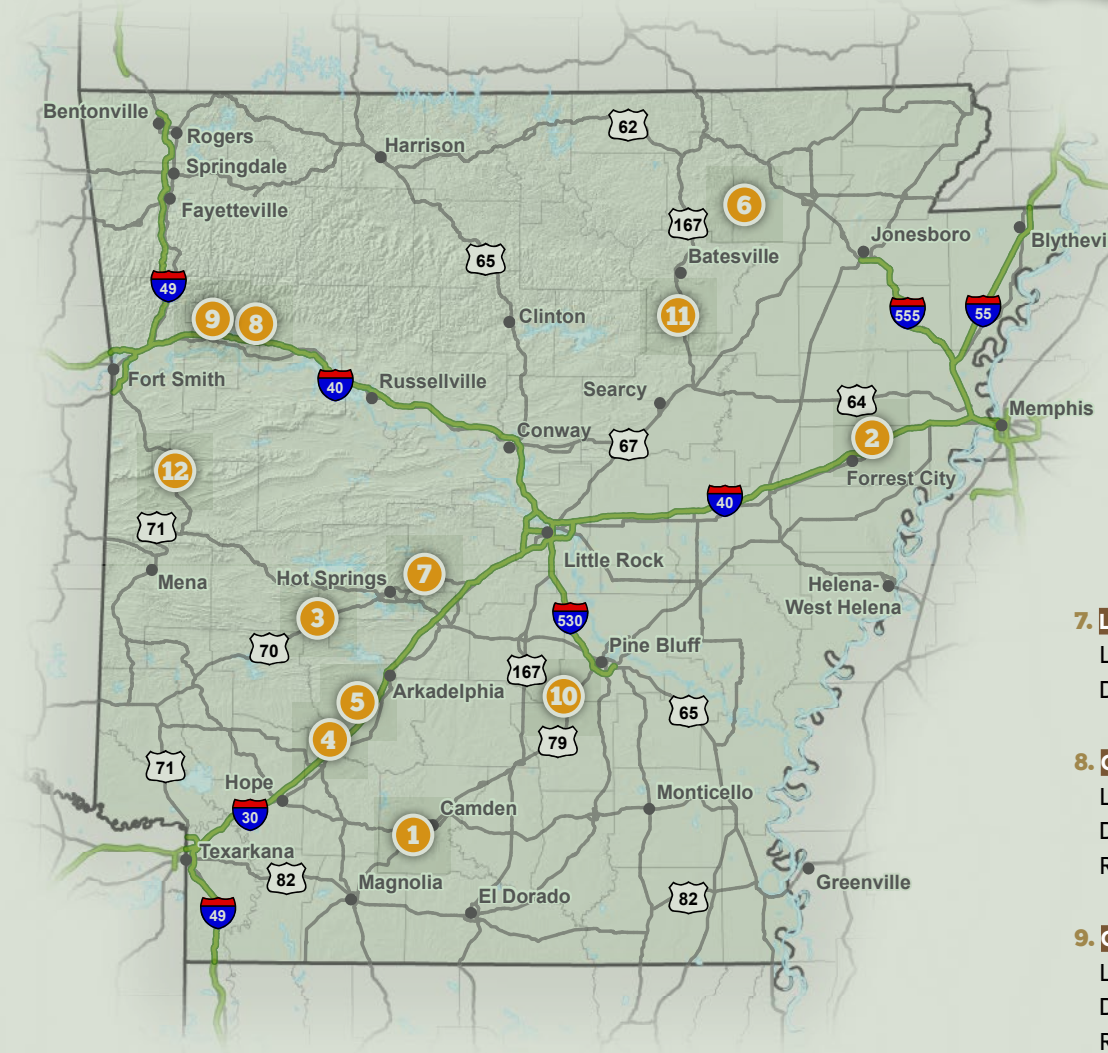
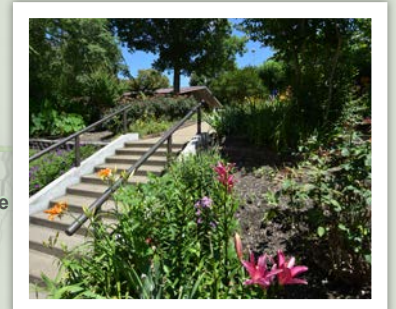
**13. WEST MEMPHIS — INTERSTATE 40**

704 East Service Road  
West Memphis, AR 72301  
Phone: 870-735-3637



**I**n addition to Arkansas Welcome Centers, travelers will find Rest Areas at locations across the State. Each location offers restrooms and picnic tables and, like our Welcome Centers, is a great place to rest and enjoy some time off of the road.

# ARKANSAS REST AREAS



**1. BUENA VISTA — HIGHWAY 79**

Location: 1 mile south of the intersection with Highway 376  
Direction: Both

**2. FORREST CITY — INTERSTATE 40**

Location: Mile marker 242.6  
Direction: Westbound  
RV and Truck parking, Vending

**3. GLENWOOD — HIGHWAY 70**

Location: 1.8 miles east of Highway 70B  
Direction: Both  
RV and Truck parking

**4. GURDON — INTERSTATE 30**

Location: Mile marker 57.5  
Direction: Westbound  
RV and Truck parking, Vending

**5. GURDON — INTERSTATE 30**

Location: Mile marker 56.1  
Direction: Eastbound  
RV and Truck parking, Vending

**6. IMBODEN/BLACK ROCK — HIGHWAY 63**

Location: 1.2 miles north of Highway 117  
Direction: Both  
RV and Truck parking

**7. LONSDALE — HIGHWAY 70**

Location: 5.2 miles east of Highway 70B  
Direction: Both

**8. OZARK — INTERSTATE 40**

Location: Mile marker 35.3  
Direction: Eastbound  
RV and Truck parking, Vending

**9. OZARK — INTERSTATE 40**

Location: Mile marker 36.5  
Direction: Westbound  
RV and Truck parking, Vending

**10. RISON — HIGHWAY 79**

Location: Intersection of Highway 79 and 212  
Direction: Both

**11. SALADO CREEK — HIGHWAY 167**

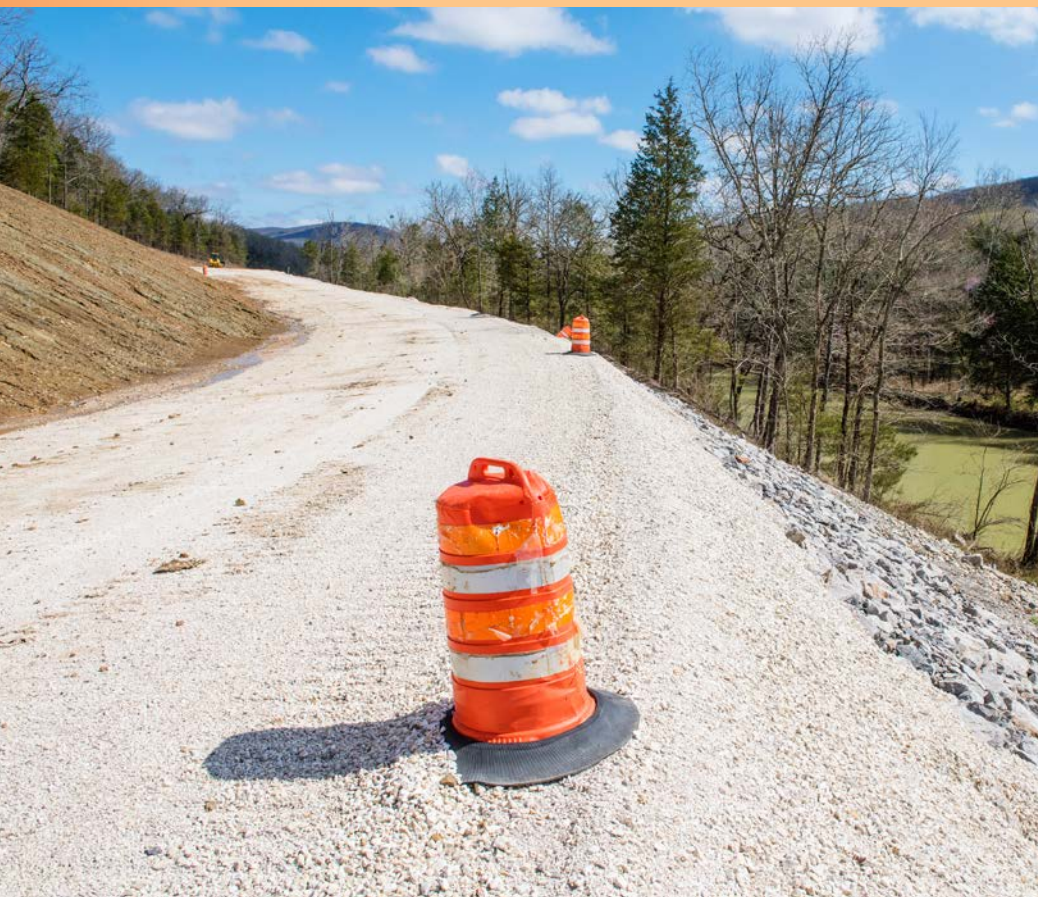
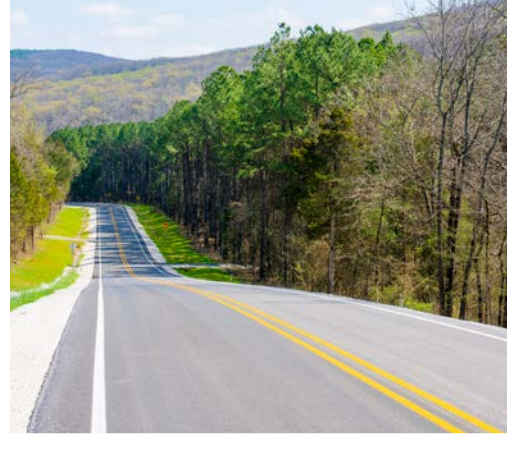
Location: 4.3 miles north of Highway 87  
Direction: Both  
RV and Truck parking

**12. WALDRON — HIGHWAY 71**

Location: .8 miles north of Highway 71B  
Direction: Both  
RV and Truck parking

DISTRICT 4

# CONSTRUCTION



## CORNER

**T**wo projects on State Highway 220 in the Ozark National Forest are closing the curtain on Arkansas' last gravel highway.

An eight-mile section of the highway crossing the boundary between Washington and Crawford Counties below Devil's Den State Park was the only stretch of unpaved highway remaining on the Arkansas highway system.

Crews for Nabholz Construction Corporation and Pace Construction Company are paving the highway for a total of \$12.2 million. In addition to paving the roadway, the project also replaces a one-lane bridge over Ellis Branch.

The Department worked closely with the U.S. Forest Service, Arkansas Department of Environmental Quality and Arkansas State Parks to ensure that the project caused minimal disturbance to the surrounding land. In addition to providing safer travel for motorists using that section of Highway 220, the new, paved surface will provide better access to the southern entrance to Devil's Den State Park. □

# AHTD PEOPLE

The AHTD employs approximately 3,700 people. We welcome our new employees, congratulate others on promotions and service, and say goodbye to those retiring.

## NEW EMPLOYEES

- ARKANSAS HIGHWAY POLICE** • Jason Bowen, Motor Carrier Safety Auditor
- COMPUTER SERVICES** • Douglas Mote, Network Services System Support Tech; Robert Peronia, Network Administrator
- CONSTRUCTION** • Christopher Moore, Construction Aide I; Brinda Bates, Field Clerk; Jordan Chatters, Construction Helper; Travis Black, Engineer; Charlene Haynes, Field Clerk
- FACILITIES MANAGEMENT** • Justin Davis, Janitor; Polly Dominick, Janitor
- HUMAN RESOURCES** • Ellen Hoppe Miller, Office Administrative Assistant II
- SURVEYS** • Nicholas Wommack, Surveys Aide I; William Housley, Surveys Aide I
- SYSTEM INFORMATION & RESEARCH** • Caleb Lambert, Electronics Technician
- DISTRICT 1** • Russell Hathcock, Maintenance Aide I; Jonathan Beshears, Maintenance Aide I; John Powell, Maintenance Aide I; Hunter Williams Maintenance Aide I; Thomas Coats Jr., Maintenance Aide I; Rodney Armstrong, Maintenance Aide I; Henry Henderson III, Maintenance Aide I; Jon Owens, Maintenance Aide I; Kevin Caffey, Maintenance Aide I; Larry Smith, Maintenance Aide I; Bryan West, Maintenance Aide I; Larry Milton, Maintenance Aide I; Ronnie Beltran, Maintenance Aide I; Matthew Woodall, Maintenance Aide I
- DISTRICT 2** • Eddie Gardner, Janitor; Ernest Oliver, Maintenance Aide I; William Nelson, Maintenance Aide I; Constance Thacker, Maintenance Aide I; Taylor Hawkins, Maintenance Aide I; Charles Decker, Maintenance Aide I; Carla Jordan, Maintenance Aide I; Earl Hopper, Maintenance Aide I; Jordan Mason, Maintenance Aide I
- DISTRICT 3** • Darrell Aikens, Maintenance Aide I; William Whisenhunt, Maintenance Aide I; Kylan Ford, Maintenance Aide I
- DISTRICT 4** • James Green, Maintenance Aide I; Johnathon Terry, Maintenance Aide I; Jeremy McMellon, Maintenance Aide I; Barry Vaught, Maintenance Aide I; Cody Sanders, Maintenance Aide I
- DISTRICT 5** • Donna Jones, District Caretaker; Joseph Waldrip III, Maintenance Aide I; Korbin Ratliff, Maintenance Aide I; Fallon Blevins, Maintenance Aide I; Shawn Braswell, Maintenance Aide I; Jeremy O'Dell, Maintenance Aide I
- DISTRICT 6** • Robert Lancaster, Maintenance Aide I; Leandrew Cranford, Maintenance Aide II; Tony Skarda, Maintenance Aide II
- DISTRICT 8** • Frank Vargas, Parts Runner; Dustin Cochran, Maintenance Aide I; Anthony Hardimon, Maintenance Aide I; John Price, Maintenance Aide I; Clayton Lee, Maintenance Aide I
- DISTRICT 9** • William Smith, Maintenance Aide I; Justin Harris, Maintenance Aide I
- DISTRICT 10** • John Jarrett, Mechanic; Russell Allen Jr., Maintenance Aide I; Bret Snyder, Maintenance Aide I; Kenneth Womack, Maintenance Aide I; James Watson, Maintenance Aide I; Randal White, Maintenance Aide I; Trayce Williams, Maintenance Aide I; Cody Brannon, Maintenance Aide I; Danny Summerville Jr., Maintenance Aide I; Billy Wilchie Jr., Maintenance Aide I; Stephen Leal, Rest Area Attendant; Anthony Smith, Maintenance Aide I
- ARKANSAS HIGHWAY POLICE** • Peter Lopez, AHP Captain
- COMPUTER SERVICES** • Henry Frasher, Server Administrator
- CONSTRUCTION** • Bob Reddell, Resident Engineer; Kevin Seals, Construction Aide III; Mark English, Construction Aide III; Dillard Fletcher Jr., Construction Materials Inspector; Cory Leslie, Construction Aide II; Joseph McNeely, Construction Materials Inspector; Caleb Saxby, Construction Aide II; Terry Evans, Advanced Construction Field Engineer; William Lake, Construction Field Engineer II; Michael Wood, Assistant Resident Engineer
- EQUIPMENT & PROCUREMENT** • Cynthia Spencer, Storeroom Supervisor
- FISCAL SERVICES** • Lauren Brakebill, Administrative Aide I
- HEAVY BRIDGE** • Rhett Franks, Statewide Bridge Inspector; Anthony Wood, Assistant Bridge Inspector
- HUMAN RESOURCES** • Eddie Tanner, Workforce Development, Health & Safety Section Head
- INTERNAL AUDIT** • Tammy Powell, Administrative Aide III
- MAINTENANCE** • Linda Howard, Sign Fabricator; Dnka Chaba, Traffic Investigator

- SURVEYS** • James Sibley, Surveys Aide II; Timmy Wilson, Surveys Aide II; Jeffrey Wesley, Surveys Aide II; Leslie Freeman, Surveys Aide II; Robert Kest Jr., Photogrammetric Specialist
- TRANSPORTATION PLANNING & POLICY** • Paulette Rice, Railroad Coordinator Assistant; Thomas Nation, Public Transportation Administrator
- DISTRICT 2** • Dominick Clark, Maintenance Aide II; Bathel Cupples, Maintenance Aide II
- DISTRICT 3** • David Martin, Maintenance Aide II; Roger Hawthorne, Maintenance Aide II; Justin Pinkerton, Maintenance Aide II; Michael Winemiller, Maintenance Aide II; John King, District Bridge Inspector
- DISTRICT 4** • Russell Hale, Crew Leader; John Canada, Maintenance Aide III; James Trammell, Maintenance Aide III; Jeremy Risner, Maintenance Aide II; Kara Wallace, Maintenance Aide III; Matthew Darden, Maintenance Aide II; Serrita Pense, Maintenance Aide III; Edward Ingle, Maintenance Aide II
- DISTRICT 5** • Lauren Vinson, District Clerk
- DISTRICT 6** • Moses Waiters, Crew Leader; Troy Cole, Maintenance Aide III; Michael Strickland, Maintenance Aide II; Heather Pledger, Storeroom Assistant II
- DISTRICT 7** • John Pate, Maintenance Aide II; Patrick Temple, Area Maintenance Supervisor; Michael Brown, Maintenance Aide III; Ken Brooks, Maintenance Aide II; Lillian Nutt, Storeroom Supervisor; Lamondra Chaney, Maintenance Aide II
- DISTRICT 9** • Duane Young, Maintenance Aide II; Lacy Wiseman, Assistant Bridge Inspector; Chad Ellis, Maintenance Aide II
- DISTRICT 10** • Jordan Belknap, Maintenance Aide II; Kyle Metz, Maintenance Aide III; Jason Duncan, Maintenance Aide III; David Herko, Maintenance Aide II

## SERVICE

- ARKANSAS HIGHWAY POLICE** • Tracy Morris, AHP Sergeant, 25 yrs.; Scott Fraley, AHP First Lieutenant, 25 yrs.
- COMPUTER SERVICES** • John Abercrombie, Network Support Engineer, 30 yrs.
- CONSTRUCTION** • James Hogan, Inspector, 30 yrs.; William Evans, Senior Inspector, 25 yrs.; John Ballard, Advanced Construction Field Engineer, 20 yrs.; Terry Evans, Construction Field Engineer II, 15 yrs.; Bruce Anthony Jr., Construction Aide II, 15 yrs.; John Callender, Senior Construction Materials Inspector, 15 yrs.; Paola Castellanos, Estimates Analyst, 15 yrs.; Luther Drye, Resident Engineer, 15 yrs.; Rodger Frost, Construction Aide III, 10 yrs.; Bryan Brown, Inspector, 10 yrs.; Thomas Penn, Estimates Technician, 10 yrs.; Sarah Davis, Field Clerk, 10 yrs.; Dawn Boyd, Senior Construction Materials Inspector, 10 yrs.; Alex Roofe, Advanced Construction Field Engineer, 5 yrs.; W. Goodman, Construction Aide II, 5 yrs.
- ENVIRONMENTAL** • Karla Sims, Environmental Analyst III, 10 yrs.; Kristina Boykin, Environmental Scientist I, 5 yrs.
- EQUIPMENT & PROCUREMENT** • David Munson, Welder, 10 yrs.
- FISCAL SERVICES** • Julie Kesterson, Federal Aid Billing Coordinator, 5 yrs.; Melissa Shamin, Accountant, 5 yrs.
- HEAVY BRIDGE** • Paul Voss, Bridge Repairer II, 15 yrs.; Ronnie Honeycutt, Bridge Repairer II, 5 yrs.
- INTERNAL AUDIT** • Kevin Chadwick, Auditor, 5 yrs.
- MAINTENANCE** • Ragnar Anderson, Pavement Profiler Operator, 5 yrs.; Jacob Trotter, Sign Crew Leader, 5 yrs.
- MATERIALS** • Steven Faulkner, Geotechnical Drill Party Chief, 30 yrs.; Eric Hasley, District Materials Supervisor, 25 yrs.; Terry Standard Jr., District Materials Supervisor, 15 yrs.
- PERMITS** • Diane Gates, Permit Technician, 10 yrs.
- RIGHT OF WAY** • Linda Cope, Senior Abstractor, 10 yrs.
- SURVEYS** • Wesley Wyeth, Surveys Research Technician II, 15 yrs.
- SYSTEM INFORMATION & RESEARCH** • Elisha Wright-Kehner, Staff Research Engineer, 15 yrs.; Darren Smith, Data Collection Technician, 15 yrs.
- TRANSPORTATION PLANNING & POLICY** • Jessie Jones, Division Head, 15 yrs.
- DISTRICT 1** • Jimmy Pulley Jr., Bridge Job Superintendent, 25 yrs.; Anthony Burnett, Maintenance Job Superintendent, 15 yrs.; Anthony Flex, Bridge Repairer II, 15 yrs.; William Johnson, Maintenance Aide II, 5 yrs.; Christopher Jones, Maintenance Aide III, 5 yrs.
- DISTRICT 2** • Eddie Kling, Maintenance Aide III, 25 yrs.; Thomas Ferrell, Maintenance Aide III, 5 yrs.; Justin Wilson, Mechanic, 5 yrs.;

- Kenneth Jackson, Maintenance Aide II, 5 yrs.; Greg Tenison, Maintenance Aide II, 5 yrs.
- DISTRICT 3** • Michael Funderburk, Crew Leader, 35 yrs.; Steven Muldrew, Maintenance Aide III, 15 yrs.; Aaron Ratcliff, Mechanic, 10 yrs.; Michael Winemiller, Maintenance Aide I, 10 yrs.; Aaron Morton, Crew Leader, 10 yrs.; Maynard Douglass, Maintenance Aide II, 5 yrs.; Dennis Burke, Body Repairer and Painter, 5 yrs.
- DISTRICT 4** • David Lawson, Crew Leader, 20 yrs.; Kent Little, Crew Leader, 20 yrs.; Eric West, District Bridge Inspector, 15 yrs.; Jose Malagon, Bridge Repairer II, 10 yrs.; Charles Brummett, Maintenance Aide III, 10 yrs.; Cynthia Thompson, Maintenance Aide II, 10 yrs.; T.J. Brown, Area Maintenance Supervisor, 10 yrs.; Jeremy Young, Maintenance Aide II, 5 yrs.; Randy Pounds, Crew Leader, 5 yrs.; Justin Leding, Assistant Bridge Inspector, 5 yrs.; Toney Kendall, Mechanic, 5 yrs.
- DISTRICT 5** • James Kelley Jr., Shop Supervisor, 25 yrs.; Willie McCord, Maintenance Aide III, 25 yrs.; Ricky Herring, Area Headquarters Attendant, 15 yrs.; Coleen Stevens, Office Administrative Assistant V, 15 yrs.; Justin Robertson, Maintenance Aide II, 5 yrs.; David Taylor, Maintenance Aide II, 5 yrs.
- DISTRICT 6** • Michael Byrd, District Bridge Inspector, 25 yrs.; Lee Burrow, Maintenance Aide II, 10 yrs.; Brian Glenn, Mechanic, 5 yrs.; Steve Chastain, Body Repairer and Painter, 5 yrs.; Antonio Bass, Maintenance Aide II, 5 yrs.
- DISTRICT 7** • Ronald Hudson, Maintenance Aide II, 15 yrs.; David Arnold, Maintenance Aide III, 15 yrs.; Roberto Hernandez, Bridge Repairer II, 15 yrs.; Cody Stell, Area Headquarters Attendant, 5 yrs.
- DISTRICT 8** • Seth Houghton, Crew Leader, 20 yrs.; Randall Burris, Maintenance Aide II, 10 yrs.; David Smith, Maintenance Aide II, 10 yrs.
- DISTRICT 9** • Keith Carpenter, Bridge Job Superintendent, 15 yrs.; Robert McEntyre, District Bridge Inspector, 15 yrs.; Bobby Young, Maintenance Aide II, 10 yrs.; Donnie Billups, Maintenance Aide II, 10 yrs.; Lacy Wiseman, Storeroom Assistant II, 5 yrs.
- DISTRICT 10** • Richard Carmack, District Permit Officer, 20 yrs.; Irven Reece, Welder, 15 yrs.; Christopher McMillon, Bridge Repairer II, 10 yrs.

## RETIREMENT

- ARKANSAS HIGHWAY POLICE** • John Gerloff Jr., Guard, 9+ yrs.
- EE/D/BE** • Janette Thompson, Office Administrative Assistant I, 35 yrs.
- HUMAN RESOURCES** • Ken Jordan, Training & Safety Section Head, 29+ yrs.
- MAINTENANCE** • Lee Greene, Sign Fabricator, 28+ yrs.
- MATERIALS** • Reggie Cobb, Laboratory Coordinator, 39+ yrs.
- ROADWAY DESIGN** • Martin Cruce, Staff Design Engineer, 36+ yrs.
- SYSTEM INFORMATION & RESEARCH** • Karen Peters, Data Collection Supervisor, 32+ yrs.
- TRANSPORTATION PLANNING & POLICY** • Don McMillen, Public Transportation Administrator, 29 yrs.; Michael Schiffli, Cartographer IV, 36+ yrs.
- DISTRICT 1** • Clarence Carter, Maintenance Aide II, 21+ yrs.
- DISTRICT 4** • Ronny Bugg, Maintenance Aide III, 16+ yrs.; Stanley Arocha, Maintenance Aide II, 41+ yrs.; Sandra Kivett, Senior Inspector, 36+ yrs.
- DISTRICT 5** • Joe Gilbert, Area Maintenance Supervisor, 36+ yrs.
- DISTRICT 6** • Eric Paulus, Area Maintenance Supervisor, 34+ yrs.; Ray Chamberlain, Senior Inspector, 30+ yrs.
- DISTRICT 7** • Elbert Lybrand, Area Maintenance Supervisor, 37+ yrs.; James Finks, Maintenance Aide III, 22+ yrs.
- DISTRICT 8** • Paul Athey, Mechanic, 28+ yrs.
- DISTRICT 9** • Willard Crow, Area Headquarters Attendant, 22+ yrs.

## MEMORIALS

- ARKANSAS HIGHWAY POLICE** • Melvin R. Polk, 2/15/17, retired; James A. Mathews, 3/3/17, retired
- MAINTENANCE** • Frank R. Dobbins, 2/16/17, retired
- DISTRICT 1** • Johnny G. Chambers, 2/15/17, retired; Luther Davis, 2/28/17, retired
- DISTRICT 2** • Jesse Jasper, 2/13/17, retired
- DISTRICT 6** • Wilburn Dycus, 2/18/17, retired
- DISTRICT 9** • Joe Truoiolo, 2/27/17, retired
- DISTRICT 10** • J.P. Real, Jr., 2/25/17, retired



Arkansas State Highway and  
Transportation Department  
Post Office Box 2261  
Little Rock, AR 72203-2261

PRSR STD  
U.S. POSTAGE  
**PAID**  
Little Rock, AR 72203  
Permit No. 2556

FORWARDING SERVICE REQUESTED

