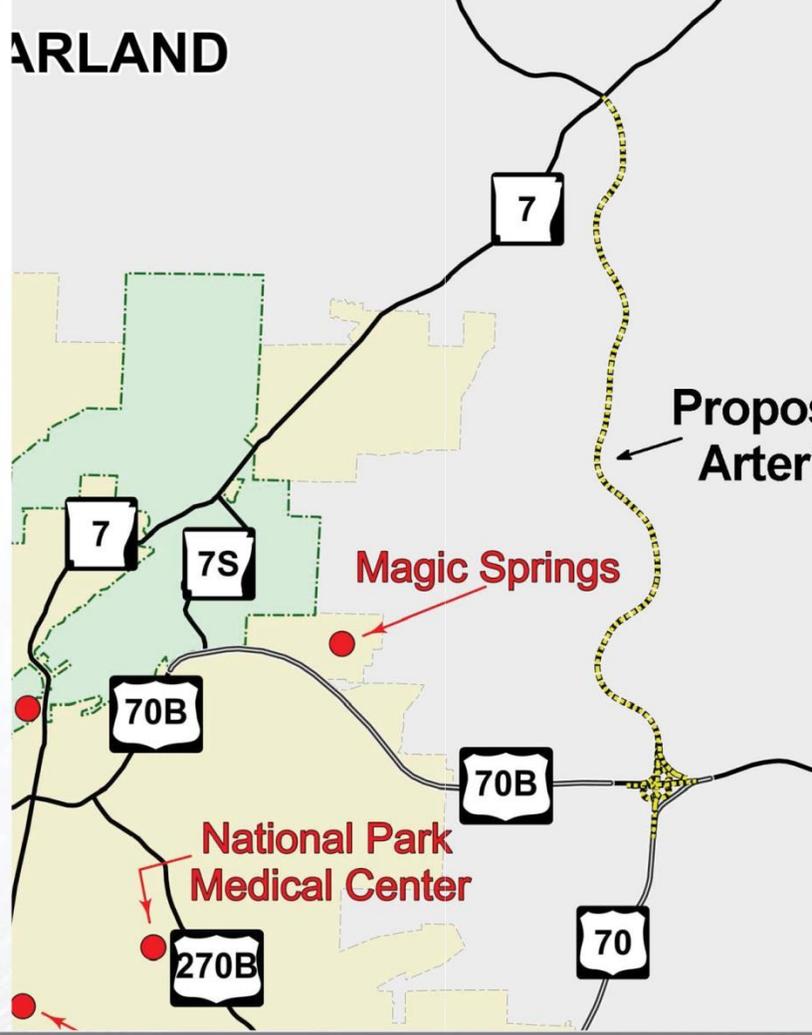




ARLAND



# HOT SPRINGS BYPASS EXTENSION

## TIGER 2017 APPLICATION

Department of Transportation's National Infrastructure Investments  
under the Consolidated Appropriations Act, 2017

**TIGER 2017 Discretionary Grant Program**

Project Name:

**Hot Springs Bypass Extension**

Project Location: Highway 5, Highway 7, and Highway 70  
Arkansas, Garland County  
United States Congressional District 4

Location Type: **Rural**

Total Funds Requested:	<b><u>\$25,000,000</u></b>
Other Federal Funds:	<b><u>\$5,000,000</u></b>
State/Local Match:	<b><u>\$30,000,000</u></b>
Total Project Cost:	<b><u>\$60,000,000</u></b>



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October 2017  
Department of Transportation’s National Infrastructure Investments  
under the Consolidated Appropriations Act, 2017  
TIGER 2017 Discretionary Grant Program

**Hot Springs Bypass Extension**

**Table of Contents**

**Project Description** ..... 1

**Project Location**..... 3

**Project Parties** ..... 4

**Grant Funds and Sources/ Use of Project Funds** ..... 4

**Primary Selection Criteria** ..... 5

    Safety ..... 5

    State of Good Repair..... 7

    Economic Competitiveness ..... 7

    Environmental Sustainability ..... 8

    Quality of Life ..... 8

**Secondary Selection Criteria** ..... 9

    Innovation and Partnership ..... 9

**Project Readiness** ..... 10

**Results of Benefit-Cost Analysis** ..... 11

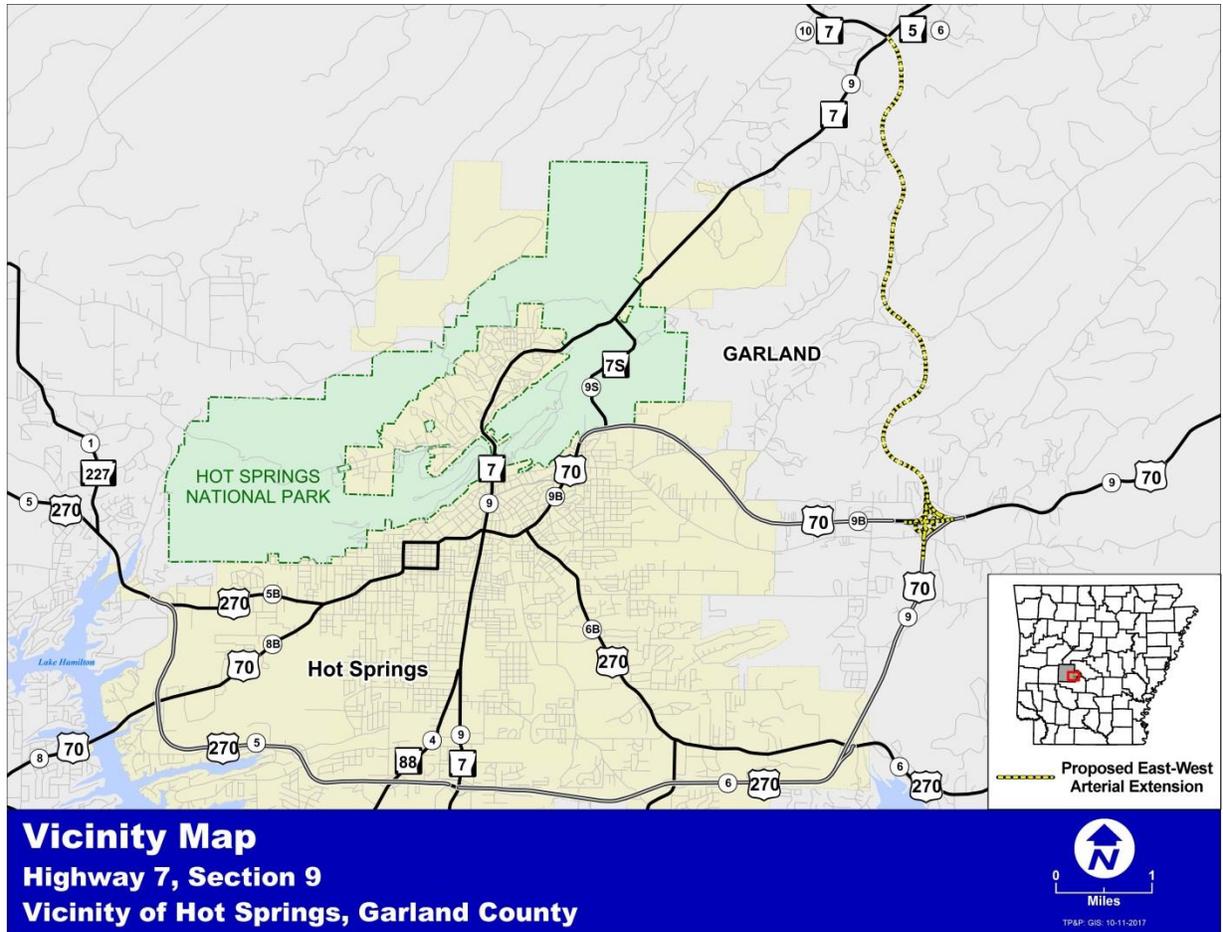
**Cost Share** ..... 11

**Federal Wage Rate Certificate** ..... 12

# Project Description

The Arkansas Department of Transportation (ARDOT) is proposing to construct an extension of the Hot Springs East-West Arterial (Bypass) from the interchange with Highway 70 east of the City of Hot Springs north to the intersection of Highways 5 and 7 north of the City (See Figure 1).

Figure 1: Vicinity Map



Prior to the construction of the Bypass, access into Hot Springs was accomplished by use of Highways 7, 70B, and 270B (See Figure 1). While these routes provided much needed access to the City, they began to become congested as the area grew and businesses located along these routes. In an effort to relieve the congestion within the City, construction of the Bypass began in 1987 near the western city limits of Hot Springs and continued as funding allowed until it connected to Highway 70 east of Hot Springs. A total of \$102 million was spent to construct 10.2 miles of the Bypass.

During the time it took to build the Bypass, the community of Hot Springs Village, which is north of Hot Springs continued to grow as well. Hot Springs Village is a gated community

which covers 26,000 acres in the Ouachita Mountains where the population has grown to just over 13,000. It is known for its championship golf courses and numerous other opportunities for outdoor activities. Since this community is only 20 minutes north of the City of Hot Springs, many of its citizens travel frequently to Hot Springs for dining, shopping, healthcare, recreation and the many other activities that make up daily life. The primary access route for citizens of Hot Springs Village into the City of Hot Springs is Highway 7. Highway 7 is narrow two lane roadway that meanders through the Ouachita Mountains. As the population of Hot Springs Village has grown, so has the amount of traffic on Highway 7 between the two communities.

Highway 7 leads directly into historic downtown Hot Springs, which contains some of the State's finest historic buildings built between 1886 and 1930. The district was added to the National Register of Historic Places on June 25, 1985. Not only is the City of Hot Springs known for its historic downtown area, but Hot Springs National Park (HSPN) is located within the City of Hot Springs. HSPN is well known for the historic Bathhouse Row consisting of eight bathhouses and 5,550 acres in which there are many hiking trails, a campground, display springs, and a visitor center. It is easy to see why downtown Hot Springs is used by many tourists.



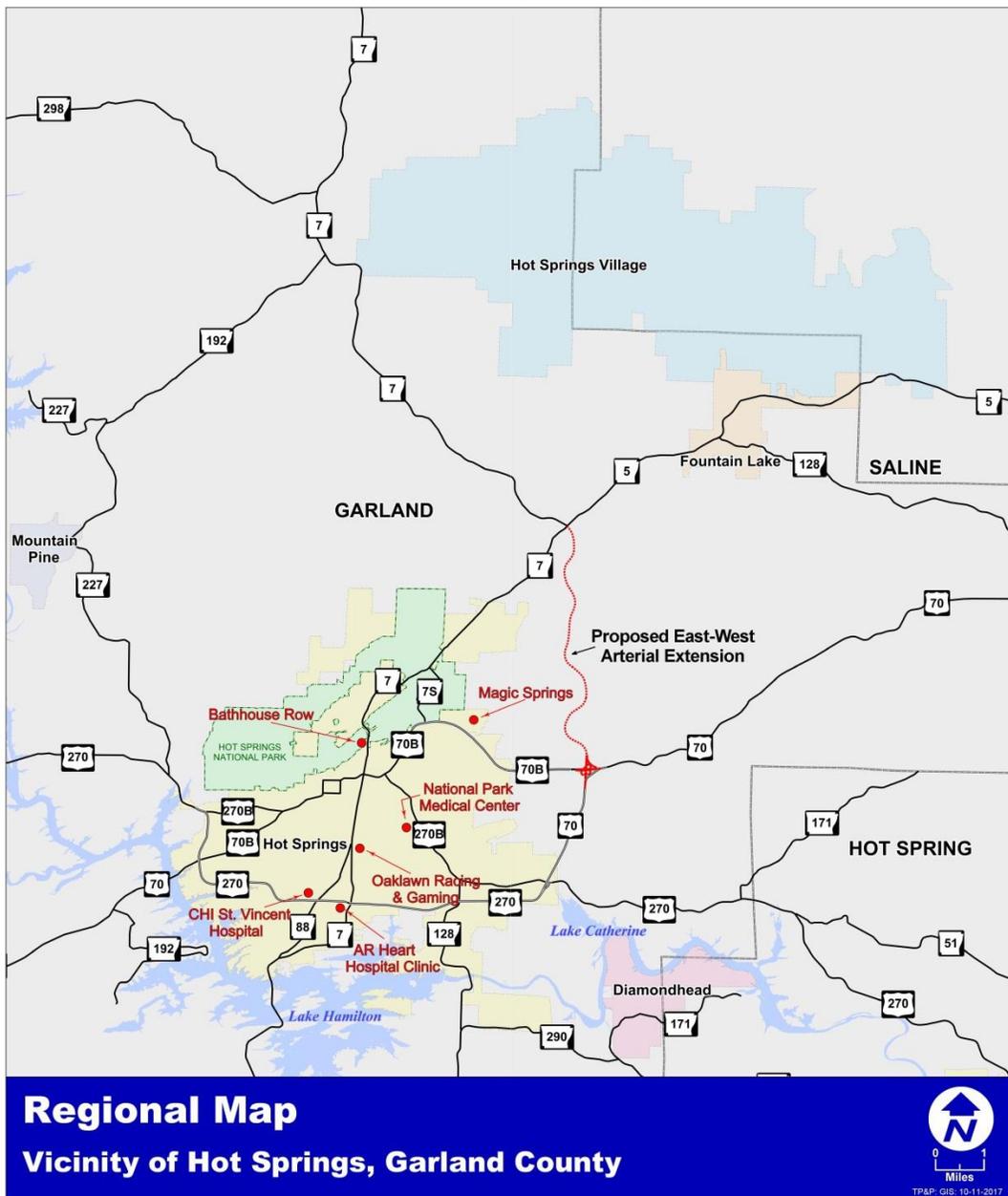
Due to the historic nature of downtown Hot Springs and the fact that it is located within HSNP, leaders have worked together to maintain the dual mission of preserving the historic integrity and natural setting of the area while assuring that it remains a viable retail and tourist center. These goals are, at times, in competition with providing access to those who are traveling by vehicle on Highway 7 to and from Hot Springs Village or other areas of the State.

The purpose of this project is to provide an alternative for those who need access to the City of Hot Springs and the opportunities it offers while avoiding the historic downtown area and the HSNP. It will also reduce through traffic in downtown Hot Springs, which will reduce congestion and enhance the downtown area by providing a better opportunity for tourists and pedestrians to enjoy the area. The proposed extension of the Bypass provides the solution to this challenge.

# Project Location

This project extends the Hot Springs East-West Arterial (also known as the Martin Luther King (MLK) Expressway) from the intersection with Highway 70 east of the City of Hot Springs in a north direction to the intersection of Highways 5 and 7 in Garland County. The existing Hot Springs East-West Arterial currently begins on the western side of the City of Hot Springs and travels along the southern and eastern city limits of Hot Springs to the intersection with Highway 70 east of the City of Hot Springs (See Figure 2).

Figure 2: Regional Map



## Project Parties

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ARDOT is partnering with Garland County to complete the project. In June 2016, Garland County voters approved a five-eighths percent sales tax. Part of revenue from this sales tax will be used to provide a contribution of \$30 million toward the cost of the project.

## Grants Funds and Sources/Uses of Project Funds

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Table 1: Project Funding Sources

Sources	Costs	Percent
TIGER 2017 Funds	\$25.0	42%
Other Federal Funds	\$5.0	8%
Local	\$30.0	50%
<b>Total Project Funds</b>	<b>\$60.0</b>	<b>100%</b>

Table 2: Project Funding Activities

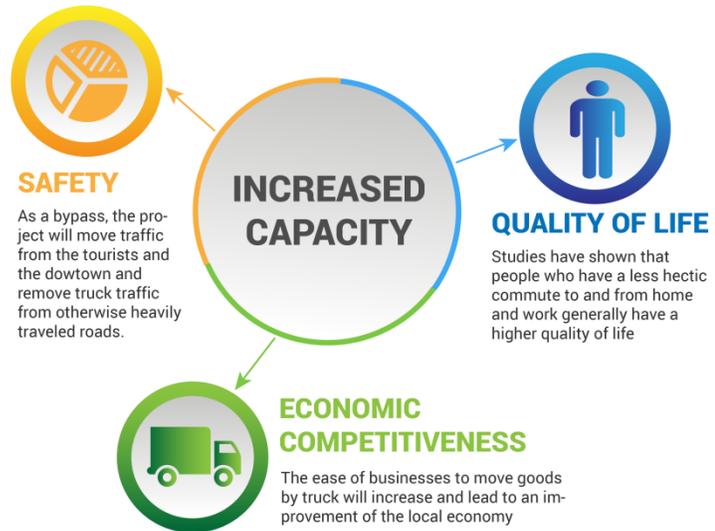
Activities	Costs
Preliminary Engineering	\$5.0
Right-of-Way	\$6.4
Utilities	\$5.6
Construction Inspection	\$3.0
Construction	\$40.0
<b>Total Project Funds</b>	<b>\$60.0</b>

# Primary Selection Criteria

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## SAFETY

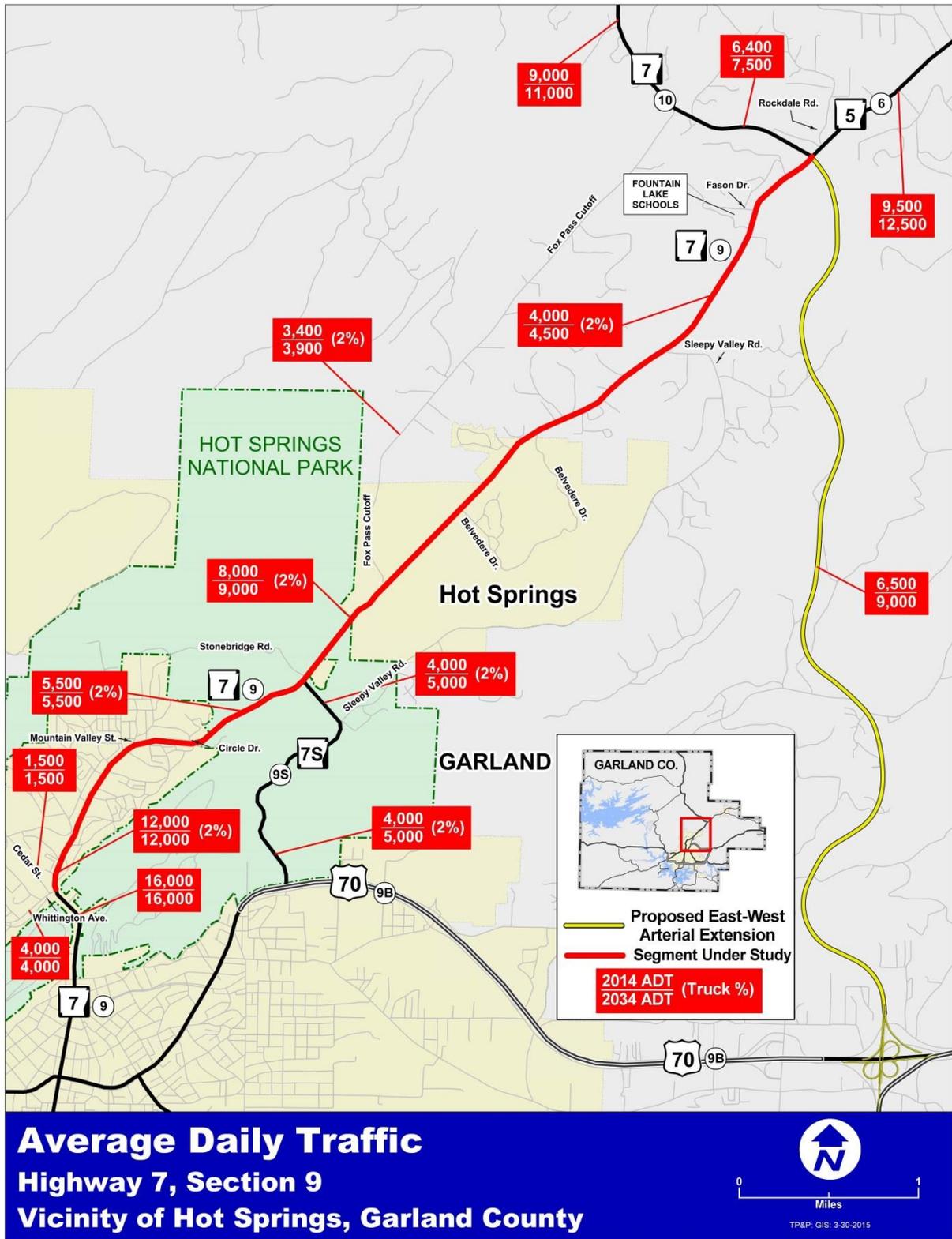
A recent study of traffic patterns in and around Hot Springs projected the traffic on the Bypass in 2034 to reach 9,000 vehicles per day (Figure 3). Since this traffic will be using the Bypass, they will not be traveling Highway 7. By reducing the traffic on Highway 7, which runs through downtown Hot Springs, it is reasonable to expect that fewer crashes will occur on Highway 7. Additionally, pedestrians and tourists will be able to move about the downtown area with less interaction with vehicles which will increase pedestrian safety.



**Illustrating how increased capacity benefits multiple criteria**

Another point to be made regarding safety is that the Bypass will be a fully controlled access facility. The benefits of this type of access include improved movement of traffic, reduced crashes, and fewer vehicle conflicts. It is reasonable to state that the 9,000 vehicles using the Bypass will be safer traveling on the Bypass as compared to traveling on Highway 7, which is a narrow meandering 2-lane highway.

Figure 3: Existing and Projected Traffic Volumes with East-West Arterial



## STATE OF GOOD REPAIR

The addition of the Bypass to the transportation system in this part of the State will enhance the movement of traffic by providing access to areas of Hot Springs in a way that avoids traveling through the downtown area. This will reduce the amount of traffic on Highway 7, which will prolong the benefits of maintenance expenditures to the pavement and structures. This improvement will also reduce travel time for road users wishing to access many area of Hot Springs. Since the Bypass will become part of the State Highway System, the State funds allocated to ARDOT will be used to maintain it in a state of good repair.

## ECONOMIC COMPETITIVENESS

One of the primary considerations of economic competitiveness for this project is the opportunity to construct a \$60 million transportation project by leveraging \$30 million in non-Federal funding. Garland County voters have decided they are willing to tax themselves in order to make this project a reality.



**Downtown Hot Springs During World's Shortest Saint Patrick's Day Parade**

The project will also bridge a glaring service gap from rural Garland County into the City of Hot Springs and all it has to offer. Trucking and shipping, when arriving from north of the City, is required to travel through a heavily pedestrian and tourist populated downtown area, which slows travel time and decreases safety for all involved. The Bypass will fulfill its function by providing economic benefit to shipper and receiver alike.

The burdens of commuting are also relieved by the Bypass. Residents who live north of the City who work at the large medical facility, the retail and food industry, the tourism industry, as well as many other employment opportunities, will benefit from reduced congestion and travel times that the Bypass will provide.

Combining the opportunity to leverage federal funds with a safer, more efficient, and more reliable route for people and goods is the definition of economic competitiveness. Faster travel time, less delay, less wasted fuel, reduced emissions, reduced congestion, state of good repair, and increased safety all weigh in favor of the economic benefits that will occur.

## ENVIRONMENTAL SUSTAINABILITY

This project does not address this criterion.

## QUALITY OF LIFE

Connectivity from north of Hot Springs down into the City is limited. The reason for this is that the City is located in a valley between two mountain ridges, which are part of the Ouachita Mountains. There are only a few State highways that provide connections to population hubs and recreational areas north of Hot Springs. Additionally, access to the south and west of the City is constrained by lakes and rivers. The proposed construction of the Bypass addresses this limited connectivity. The Bypass will provide residents of north Hot Springs with access to the City and all it has to offer.

Hot Springs Village, a well-known retirement community, will be afforded faster and safer access to health care, shopping, and leisure by using the Bypass. Those who work in the healthcare industry and provide in-home health care will have a faster and safer route for getting to Hot Springs Village without traveling through the downtown area. Faster travel times also means faster response times by other emergency services as well, such as law enforcement or the fire department.



This project will also allow residents of Hot Springs Village improved access to necessary amenities within the City. Road users may avoid the narrow two-lane Highway 7, which travels through the downtown Hot Springs historic district. They will have the option of a fully controlled access facility, which provides faster and safer access to the southern part of the City.

Hot Springs is well known across the country for its bathhouses and horse racing at Oaklawn Racing & Gaming. The City also serves the citizens of Garland County and surrounding areas with numerous restaurant and shopping options. In addition, the southern part of Hot Springs has access to boating and fishing at Lake Hamilton, Lake Catherine, and Lake Ouachita, all of which will be more accessible to people located north of Hot Springs.

## Secondary Selection Criteria

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### INNOVATION AND PARTNERSHIP

The innovation with this project is the partnership that is working to bring it to fruition. Even though part of the project is in an urban area, the majority of it is in a rural area. This rural area shares a common characteristic with many other rural areas across the nation. That is, funding options for much needed transportation projects are limited. The citizens of this area realized this fact. They also realized that they needed to take action if this project is to be built. So, they did.

They voted to impose a five-eighths percent sales tax on themselves to generate funding for improvements to the transportation system in and around Hot Springs. The local leaders in Garland County committed \$30 million of the amount raised by this tax toward funding the extension of the Bypass. However, since the cost of the project is \$60 million, they did not have enough to build it. This is why a partnership was formed.

Table 3: Garland County Election Sequence

Date	Event
February 29, 2016	Public Health Welfare & Safety Meeting.
March 7, 2016	Finance meeting.
March 14, 2016	Quorum Court calls election
June 28, 2016	Special election date.
July 1, 2017	County puts up \$5 million to match AHTD's \$5 million for design and right of way acquisition.
July 1, 2017	5/8¢ capital road improvement sales tax collection commences.
June 1, 2019	County puts up \$25 million to be combined with AHTD's funds for the MLK Expressway extension.

ARDOT and Garland County have joined together to pool their resources to complete this project. These two entities are now seeking another partner to help complete the project. If this application is successful in obtaining TIGER funding, the U.S. Department of Transportation will join the partnership and complete the team that can and will build this project.

# Project Readiness

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## TECHNICAL FEASIBILITY

ARDOT is proposing to construct the Bypass from the interchange with Highway 70 east of the City of Hot Springs north to the intersection of Highways 5 and 7 northeast of the City. The purpose of this project is to provide a continuation of the East-West Arterial as an alternate north-south route to Highway 7 or 7 Spur through HSNP. The 5.5 mile facility will initially consist of two 12-foot paved travel lanes with 8-foot shoulders with an ultimate build out of four 12-foot travel lanes, 8-foot shoulders, and a variable width grass median. Access to the facility will be accommodated at interchanges located at Highway 70, Promise Land Drive, Mill Creek Road, and at the intersection of Highways 5 and 7. Since project development is well under way, the contingency and risk level is low.

## REQUIRED APPROVALS

The project has received a Finding of No Significant Impact for the preferred alternative location. A Design Reassessment is in progress and should be complete in the near future. Several Federal and State Agencies have been involved during the project's development and the NEPA approval process: National Park Service, U.S. Geological Survey, U.S. Corp of Engineers, U.S. Fish and Wildlife Service, and the State Historic Preservation Officer. Coordination with each agency is progressing and FHWA approval of the Design Reassessment and a Finding of No Significant Impact for the preferred alternative design is expected in the near future.

Table 4: Project Schedule

Task	Completion Date
Design Surveys	December 2017
Environmental	May 2018
Right of Way	November 2019
Utilities	November 2019
Let to Contract	November 2019
Construction Begins	January 2020
Open to Traffic	September 2022

# Results of Benefit Cost Analysis

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Table 5 summarizes the approach used for conducting the benefit-cost analysis (BCA) for extending the Hot Springs Bypass. The benefits of the project are primarily derived from travel time and safety improvements. The benefit cost-ratio (BCR) for the project ranges from 1.56 to 3.25, depending upon discount factor.

**Table 5: Summary of Benefit-Cost Analysis**

<i>Benefit/Cost Category</i>	<i>No Discount</i>	<i>Discounted at 7%</i>	<i>Discounted at 3%</i>
Benefits/Disbenefits			
Travel Time Savings	\$133,927,768	\$50,329,227	\$85,746,741
Safety Improvements	\$67,987,854	\$25,540,020	\$43,521,820
Vehicle Operating Costs	(\$13,731,600)	(\$4,840,059)	(\$8,548,174)
Maintenance	(\$2,200,000)	(\$568,522)	(\$1,218,087)
Residual Value	\$9,000,000	\$1,658,243	\$4,298,450
<b>Sum of Benefits/Disbenefits</b>	<b>\$194,984,022</b>	<b>\$72,118,909</b>	<b>\$123,800,750</b>
Costs			
Capital	\$60,000,000	\$46,275,633	\$53,523,752
<b>Sum of Costs</b>	<b>\$60,000,000</b>	<b>\$46,275,633</b>	<b>\$53,523,752</b>
<b>Benefit-Cost Ratio</b>	<b>3.25</b>	<b>1.56</b>	<b>2.31</b>
<b>Net Present Value</b>	<b>\$134,984,022</b>	<b>\$25,843,275</b>	<b>\$70,276,999</b>

## Cost Share

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The total cost of this project is \$60 million. In order to bring this project to fruition, the citizens of Garland County, where the project is located, voted to impose a five-eighths percent sales tax to generate funding for improvements to the transportation system in and around Hot Springs. The local leaders in Garland County committed \$30 million of the amount raised by this tax toward the funding for the extension of the Bypass. The remaining \$30 million is to be provided by ARDOT.

To date, ARDOT has identified \$5 million in Federal funding for this project. This amount is allocated for this project in the 2016-2020 Statewide Transportation Improvement Program. The remaining \$25 million has not yet been identified. Award of TIGER funds to this project in the amount of \$25 million will provide enough funds to complete the project. At this time, without the award of this TIGER Grant, this project cannot be readily and efficiently completed.

If TIGER funds are awarded to this project and it is completed, it will become part of the State Highway System. Therefore, the full life-cycle costs associated with the project and operations and maintenance funding will be provided by ARDOT through Arkansas’ motor fuel tax. This funding will be used to ensure that the roadway is maintained in a state good of repair.

**WAGE RATE CERTIFICATION  
FOR  
THE CONSOLIDATED APPROPRIATIONS  
ACT OF 2017**

Pursuant to the Fiscal Year 2017 Consolidated Appropriations Act (Pub. Law 115-31, May 5, 2017), I, Scott E. Bennett, Director of the Arkansas Department of Transportation, certify that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the federal government pursuant to the Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of Chapter 31 of Title 40, United States Code, the Davis-Bacon Act.

I understand that the Arkansas Department of Transportation may not receive TIGER 2017 funding unless this certification is made and posted.

  
\_\_\_\_\_  
Scott E. Bennett, P.E.  
Director

10-11-2017  
\_\_\_\_\_  
Date