Appendix A – Notice of Intent

Job No. 100512, Walnut Ridge – Missouri State Line (Future I-57) P.E.

Prepared by Garver for the
Arkansas Department of Transportation
In cooperation with the Federal Hwy Administration

This report was funded in part by the Federal Hwy Administration, U.S. Department of Transportation. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

DEPARTMENT OF TRANSPORTATION **[4910-22]**

Federal Highway Administration

Docket No. FHWA-2021-0009

Notice of Intent to Prepare an Environmental Impact Statement for a Proposed Highway Project in Arkansas

AGENCY: Federal Highway Administration (FHWA), Department of Transportation.

ACTION: Notice of Intent to Prepare an Environmental Impact Statement.

SUMMARY: FHWA, in coordination with the Arkansas Department of Transportation (ARDOT), is issuing this Notice of Intent (NOI) to solicit comments and advise the public, agencies, and stakeholders of an Environmental Impact Statement (EIS) that will be prepared to study the effects of a highway project under consideration for the Highway 67 corridor in Clay, Greene, Lawrence, and Randolph counties, Arkansas. This notice contains a summary of the information as required in the Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) regulations. This NOI should be reviewed together with the Supplementary NOI Information document which contains important details about the proposed project.

DATES: Comments on the NOI or the Supplementary NOI Information document must be received on or before August 2, 2021.

ADDRESSES: This NOI and the Supplementary NOI Information document are available in the docket referenced above at http://www.regulations.gov and on the project website located at Future57.transportationplanroom.com. The Supplementary NOI Information document also will be mailed upon request. Interested parties are invited to submit comments by any of the following methods:

Web Site: For access to the documents, go to the Federal eRulemaking Portal located at http://www.regulations.gov or the project website located at Future57.transportationplanroom.com. Follow the online instructions for submitting comments.

Fax: Randal Looney at 501-324-6423

Mailing address or for hand delivery or courier: Federal Highway Administration, Arkansas Division, 700 West Capitol Avenue, Room 3130, Little Rock, AR 72201.

Email address: Randal.Looney@dot.gov.

All submissions should include the agency name and the docket number that appears in the heading of this Notice. All comments received will be posted without change to http://www.regulations.gov or Future57.transportationplanroom.com, including any personal information provided.

FOR FURTHER INFORMATION CONTACT: For further information and/or to get on the project mailing list, contact Mr. Randal Looney, Environmental Coordinator, Federal Highway Administration, Arkansas Division Office, 700 West Capitol Avenue, Suite 3130, Little Rock, AR 72201-3298, email: randal.looney@dot.gov, (501) 324-6430; or Mr. Bill McAbee, Environmental Project Manager, Garver, 4701 Northshore Drive, North Little Rock, Arkansas 72118, email: WCMcAbee@GarverUSA.com, (501) 376-3633.

SUPPLEMENTARY INFORMATION: The environmental review of transportation alternatives for the Highway 67 corridor will be conducted in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321, et seq.), 23 U.S.C. 139, CEQ regulations implementing NEPA (40 CFR 1500 - 1508), FHWA regulations implementing NEPA (23 CFR 771.101 - 771.139), and all applicable Federal, State, and local governmental laws and regulations.

The EIS will evaluate the environmental effects of all reasonable project alternatives and determine the potential impacts to social, economic, natural, and physical environmental resources associated with these alternatives. Federal agencies will work together to identify and mitigate any potentially significant impacts through the NEPA process. All reasonable alternatives, including new location alignments and improvements to existing Highway 67, will be considered, screened, and carried forward for detailed analysis in the Draft Environmental Impact Statement (DEIS) based on their ability to address the project's purpose and need while minimizing adverse impacts to the natural and social environments.

The project team sent letters describing the proposed NEPA study and soliciting input to the appropriate federal, tribal, state, and local agencies who have expressed or are known to have an interest or legal role in this project. Additional comments from the public, interest groups, private organizations, and other agencies will be solicited through an additional public hearing for the DEIS. The project is needed because there is a gap in the system linkage that diminishes connectivity and mobility of the National Highway System. Additionally, there is a lack of reliable transportation infrastructure to support economic development and a need to enhance resiliency to extreme weather events along the route. Furthermore, Federal legislation designated this high priority corridor as future Interstate Route 57 (I-57). The project's purpose is to develop an interstate highway system that addresses the above-described needs while minimizing the negative impacts to the natural and social environment.

All build alternatives begin at Walnut Ridge, Arkansas and end at the Arkansas-Missouri state line, a distance of approximately 42 miles. There are currently three build alternatives and the no-build alternative under consideration. The build alternatives include Alternative 1, an evaluation of improvements to existing Highway 67 with new location bypasses around the

towns of Pocahontas and Corning; Alternative 2, which generally lies between Highway 67 and the Dave Donaldson Black River Wildlife Management Area (DDWMA) turning north on the east side of Corning up to the Arkansas-Missouri state line on all-new location; and Alternative 3, which generally parallels the Highway 90 corridor east of the DDWMA until reaching the town of Knobel where the study corridor turns north passing east of Corning and to the Arkansas-Missouri state line and is all on new location. Three approximately 1.7-mile alternatives provide the final connection between the main alternatives and the Arkansas-Missouri state line. These "connector" alternatives are named A, B, and C: Alternative A lies to the east of Highway 67 on new location, Alternative B improves existing Highway 67, and Alternative C lies to the west of Highway 67 on new location. The Missouri Department of Transportation (MoDOT) is a cooperating agency on this project and is working closely with ARDOT on the connector location because this will determine the southern terminal for the MoDOT section of future I-57. The No-build Alternative will not meet the purpose and need but is retained throughout the study process to help evaluate the positive and negative impacts of the build alternatives. Maps of the study area and alternatives are included in the Supplementary NOI Information document and on the project website interactive map.

Anticipated environmental constraints for the project include potential impacts to the DDWMA, the Black and Current Rivers, vegetated and farmed wetlands, floodplains, threatened and endangered species and their habitat, cultural resources, residential homes, businesses, and farmlands. Alternative 1 has the greatest potential to impact homes, businesses, and cultural resources due to improvements to the already developed Highway 67 corridor. Alternatives 2 and 3 are on new location with minor impacts to the human environment but have the greatest

potential impact on farmlands and farmed wetlands. Preliminary estimates of possible impacts can be seen in the Supplementary NOI Information document.

Permits and authorizations anticipated for the project include a U.S. Army Corps of Engineers (USACE) Section 404 of the Clean Water (33 U.S.C. 1344) and Section 10 (33 U.S.C. 403) of the Rivers and Harbors Act standard (individual) permit for wetland/stream impacts and impacts to navigable waters, and Section 408 (U.S.C. 33 U.S.C. 408) approval for Civil Works project impacts such as levees.

Formal coordination with the USACE began in November 2020 when they accepted the responsibility to be a cooperating agency. A Section 401 Water Quality Certification from the Arkansas Department of Energy and Environment (ADEE) will be required for potential impacts to surface waters. Formal coordination began in May 2020 when ADEE accepted the responsibility to be a participating agency. Consultation with the U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the Endangered Species Act (16 U.S.C. Section 1536), will be required for biological assessments and threatened and endangered species surveys. Formal coordination with the USFWS began in May 2020 when they accepted the responsibility to be a cooperating agency. A Request for Technical Assistance for USFWS was completed in early 2020 and a preliminary plan for habitat resource evaluations and bat and mussel surveys was recently submitted to the USFWS for review. Consultation with the State Historic Preservation Officer (SHPO) for compliance with Section 106 regulations will be required for historical and archeological resources potentially impacted. Formal coordination with the SHPO began in January 2021 when they accepted the responsibility to be a participating agency.

Early scoping for this EIS study started with the local official and public meetings held in August and September 2020 and it will continue for 30 days after publication of this NOI.

Project scoping also includes the previous studies' public meetings as described below. In 1996, ARDOT completed a planning study specifically for the current project area. In 2015, ARDOT conducted a second planning study and included substantial public and local official input and consideration of environmental impacts. The 2015 planning study recommendations are the basis for the preliminary range of alternatives currently under consideration. In August 2020, the project team held virtual meetings with local officials and the public and included the draft purpose and need document, three 1,000-foot-wide corridors, and other project information. The project team solicited comments on the presented materials and encouraged the public to be as detailed and specific as possible. Additional public, local official, and agency outreach will be conducted for the DEIS.

The publication date of the NOI will start a two-year time clock for the agency to reach its final decision on the project (40 CFR 1501.10(a) and (b)(2)). The schedule for completing the Draft EIS, Final EIS/Record of Decision (ROD), and permits is as follows: Draft EIS May 31, 2022; Final EIS/ROD February 28, 2023; Section 404, 408, and 10 permit -July 31, 2023; Section 401 certification July 31, 2023; Section 106 consultation May 31, 2022; Section 7 consultation June 15, 2022.

With this Notice, FHWA and ARDOT request and encourage State, Tribal, and local government agencies, and the general public, to review the complete NOI (including the Supplementary NOI Information document) and submit comments on any aspect of the project that might benefit the project understanding. Specifically, agencies and the public are asked to identify and submit potential alternatives for consideration and information such as anticipated significant issues or environmental impacts and analyses relevant to the proposed action for consideration by the lead and cooperating agencies in developing the Draft EIS. There are

several methods to submit comments as described in the "Addresses" section of this Notice. Any questions concerning this proposed action should be directed to FHWA at the physical address, email address, or phone number provided in the "For Further Information Contact" section of this Notice.

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program.)

Authority: 42 U.S.C. 4321 *et seq.*; 23 CFR part 771.

Issued on: [DATE]

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[Vivien N. Hoang, P.E.]
[Division Administrator]
[Little Rock, Arkansas]

Supplementary Notice of Intent Document

Walnut Ridge to Missouri State Line (Future I-57)
ARDOT Job Number 100512

June 2021

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Introduction

This Supplementary Notice of Intent (NOI) document contains important details about the ARDOT's plans for an Environmental Impact Statement (EIS) that will be prepared to study the effects of a highway project under consideration for the Highway 67 corridor in Clay, Greene, Lawrence, and Randolph counties, Arkansas. This Supplementary NOI Document and the NOI published in the Federal Register should be read together. FHWA and ARDOT request and encourage all affected State, Tribal, and local government agencies, and the general public, to carefully review this Supplementary NOI document with the NOI and submit comments on any aspect of the project that might benefit the project understanding. Specifically, agencies and the public are asked to identify and submit potential alternatives for consideration and information such as anticipated significant issues or environmental impacts and analyses relevant to the proposed action for consideration by the lead and cooperating agencies in developing the Draft EIS. Instructions for submitting comments are on the last page of this document. Comments must be received within 30 days after publication of the NOI in the Federal Register.

Purpose and Need

What is meant by purpose and need?

A project's **need** is a detailed explanation of the specific transportation problems or deficiencies that exist or that are expected to exist in the future. A project's **purpose** defines the goals and objectives that should be included as part of a successful solution to the problem. The purpose and need are the foundation for all the project studies and are used to identify the range of alternatives (solutions to the transportation problem) that best address the purpose and need of the project.

The purpose and need statement is a living document until the Draft Environmental Impact Statement is drafted, and therefore, can be changed or modified as needed as new information is gathered. The local officials, agencies, public, and other stakeholders will have an opportunity to provide comments on the purpose and need throughout the National Environmental Policy Act (NEPA) process.

This chapter will describe the social and environmental conditions in the study area, why transportation improvements are needed, and the purpose of this project.

What are the logical termini and study area limits?

Logical Termini

Logical termini identify rational end points for a transportation improvement project. The logical termini for the proposed project are the Hwy. 412/Hwy. 67 interchange at Walnut Ridge, Arkansas, and the Arkansas Missouri State line. The length of the project is approximately 43 miles.

The southern terminus was selected because Hwy. 67 has been constructed to interstate standards from Interstate 40 (I-40) north to the Hwy. 412/Hwy. 67 interchange in Walnut Ridge.

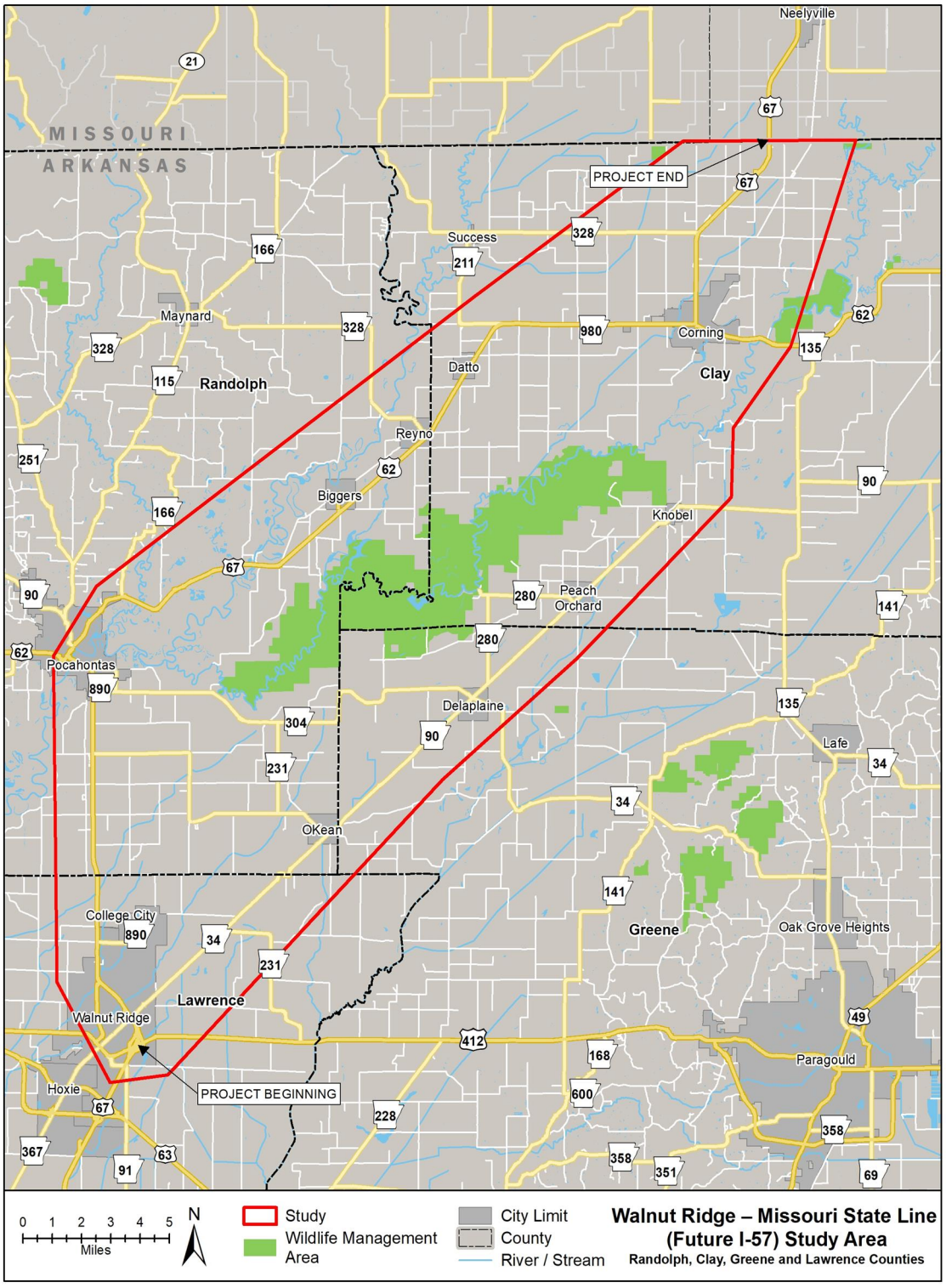
In consideration of the north terminus, a political boundary such as a state line is not necessarily a good choice, but in this case it is appropriate as it serves as a viable location for future coordination between the Arkansas Department of Transportation (ARDOT) and the Missouri Department of Transportation (MoDOT). MoDOT completed a Final Environmental Impact Statement for Hwy. 67 from just south of St. Louis, Missouri to just south of Neelyville, Missouri, approximately two miles north of the Arkansas-Missouri State line. The southern terminus of the MoDOT study was identified because it avoids forcing a specific northern terminus for ARDOT's portion of Hwy. 67. The two-mile gap north of the state line allowed MoDOT to wait to align their final section of Hwy. 67 with the ARDOT terminus. A Memorandum of Understanding (MOU) was signed by ARDOT and MoDOT in 1998 for the two states to cooperate on the northern terminus of Hwy. 67 in Arkansas.

The logical termini, as described above, provide rational end points for this project, provide enough length for a comprehensive review of the project's needs and environmental impacts, and will not preclude staged construction of independent sections as funding becomes available.

Study Area

The study area was developed based on the 2015 ARDOT planning study that examined several new location corridors that met the needs identified in the study while minimizing impacts to the natural and social environments. The study area extends from Walnut Ridge, Arkansas to the Missouri State line within Clay, Greene, Lawrence, and Randolph Counties in northeast Arkansas. The study area is approximately 40 miles in length and 10 miles wide at it broadest point (see **Figure 1**).

Figure 1: Study Area



What is the study area like today?

The study area includes the larger cities of Walnut Ridge, Pocahontas, and Corning. Other smaller cities and towns located in the study area include College City, Manson, O'Kean, Delaplaine, Peach Orchard, Knobel, Biggers, Reyno, and Datto, Arkansas. Population estimates for the study area's four counties and selected municipalities are presented in **Table 1**.

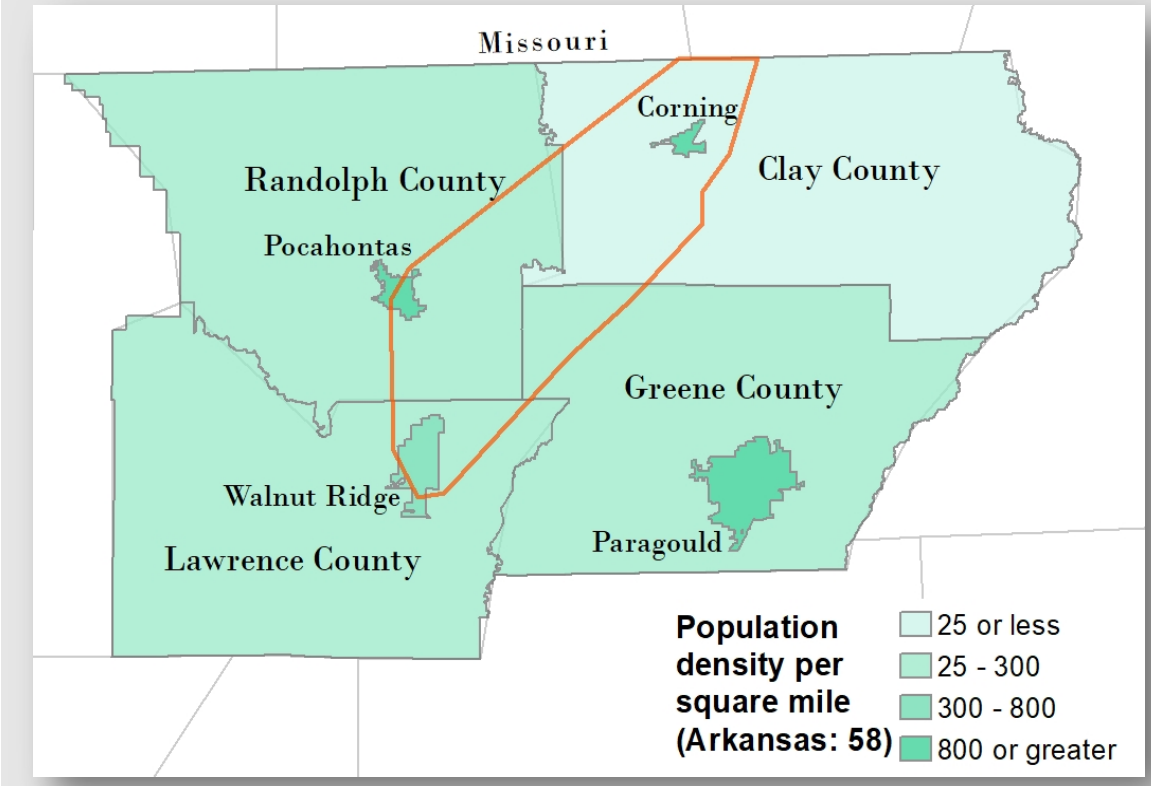
Table 1: Population Estimates

County	County Population	City (within County)	City Population
Clay	15,190	Corning	3,205
Greene	44,197	NA	NA
Lawrence	16,777	Walnut Ridge	5,146
Randolph	17,514	Pocahontas	6,459

Source: U.S. Census Bureau 2013-2017 American Community Survey, Table B01003 – Total Population.

The study area is generally rural with population densities ranging between 25 300 people per square mile (**Figure 2**).

Figure 2: Population Density



U.S. Census Bureau, American Community Survey: 2012-2016. Processed by Demographic Research, Arkansas Economic Development Institute, College of Business Administration, UALR

Most of the population in the study area is white with no less than 94% whites for any of the four study area counties (see **Table 2**). Hispanics and Latinos make up 2.2% of the population and Black individuals make up 0.9% of the population for each of the study area counties combined. The median age is older than the state average of 37.7 years for all counties. with the oldest median age being Clay County at 44.0 years. As shown in **Table 3**, of those over the age of 25, with the exception of Greene County (3.1%), the study area has a greater number of people with less than a 9th grade education than the state average (3.0%). Additionally, the study area has fewer people with a four-year degree than the state average (see Table 3).

Table 2: Demographic Data

Geography*	Total Population	Median Age	White alone	Black or African American alone	Hispanic or Latino (of any race)
CITY					
Corning	3,177	46.9	3,107 (97.8%)	0 (0.0%)	70 (2.2%)
Paragould	27,521	36.1	26,170 (95.1%)	359 (1.3%)	858 (3.1%)
Pocahontas	6,470	38.9	6,224 (96.2%)	143 (2.2%)	113 (1.7%)
Walnut Ridge	4,723	38.5	4,572 (96.8%)	57 (1.2%)	18 (0.4%)
COUNTY					
Greene	43,745	38.2	41,969 (95.9%)	411 (0.9%)	1,144 (2.6%)
Randolph	17,584	42.9	16,981 (96.6%)	184 (1.0%)	312 (1.8%)
Lawrence	16,915	41.8	16,436 (97.2%)	122 (0.7%)	209 (1.2%)
Clay	15,202	44.0	14,632 (96.3%)	76 (0.5%)	275 (1.8%)
Counties Listed Above	93,446	41.7	90,018 (96.3%)	793 (0.8%)	1,940 (2.1%)
State of Arkansas	2,968,472	37.7	2,307,136 (77.7%)	460,638 (15.5%)	207,049 (7.0%)

** U.S. Census Bureau, American Community Survey: 2012-2016. Processed by Demographic Research, Arkansas Economic Development Institute, College of Business Administration, UALR*

Table 3: Education Data

Geography*	Population 25 years and over	Educational Attainment (25 years and over) Number of people (% of population over 25)		
		4-year Degree	High School Equivalent	Less than 9th Grade
CITY				
Corning	2,288	99 (4.3%)	1,109 (48.5%)	251 (11.0%)
Pocahontas	4,366	450 (10.3%)	1,588 (36.4%)	320 (7.3%)
Walnut Ridge	3,114	327 (10.5%)	1,242 (39.9%)	307 (9.9%)
COUNTY				
Greene	29,009	3,262 (11.2%)	12,468 (43.0%)	1,354 (4.7%)
Randolph	12,276	1,059 (8.6%)	4,707 (38.3%)	807 (6.6%)
Lawrence	11,438	969 (8.5%)	4,707 (41.2%)	926 (8.1%)
Clay	10,812	775 (7.2%)	4,586 (42.4%)	1,053 (9.7%)
Counties Listed Above	63,535	6,065 (9.5%)	26,468 (41.7%)	4,140 (6.5%)
Arkansas	1,973,591	273,557 (13.9%)	683,886 (34.7%)	106,297 (5.4%)

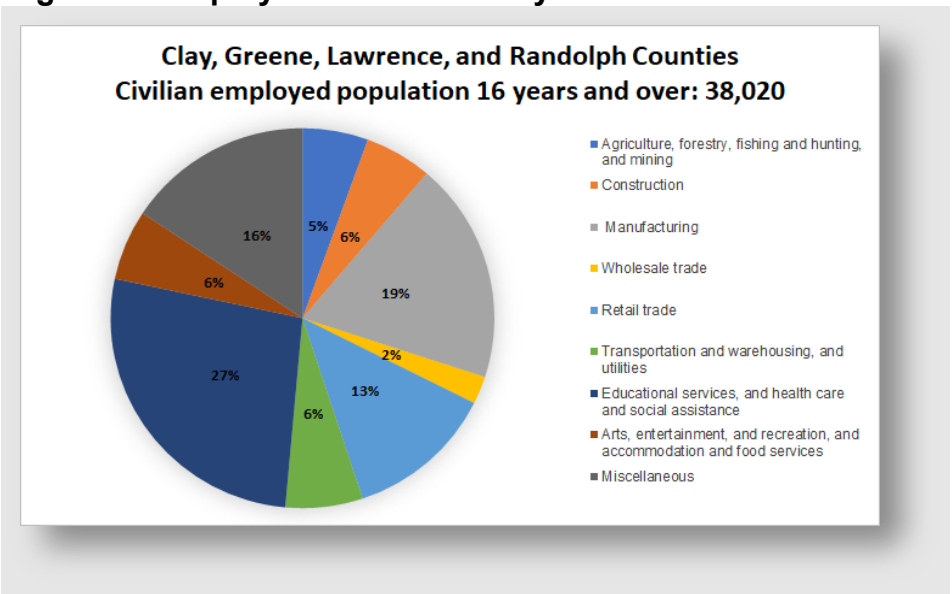
** U.S. Census Bureau, American Community Survey: 2012-2016. Processed by Demographic Research, Arkansas Economic Development Institute, College of Business Administration, UALR*

Economic Information

Manufacturing, retail, educational services, healthcare, and social assistance generally employ the greatest number of residents within the study area. Agriculture and transportation are also prominent industries in terms of the employment numbers. **Figure 3** shows the major breakout of employment for the four counties.

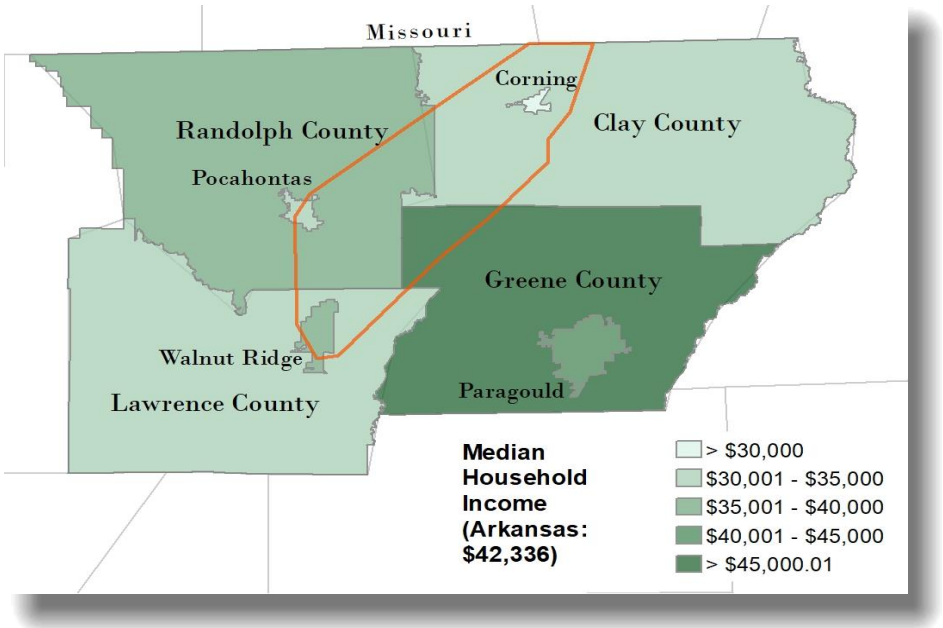
Median household incomes in the study area range from a low of $32,404 in Clay County to a high of $49,195 in Greene County, general household income ranges are presented in **Figure 4**.

Figure 3: Employment for All Study Area Counties Combined



Source: U.S. Census Bureau, American Community Survey: 2012-2016. Processed by Demographic Research, Arkansas Economic Development Institute, College of Business Administration, UALR

Figure 4: Median Household Income

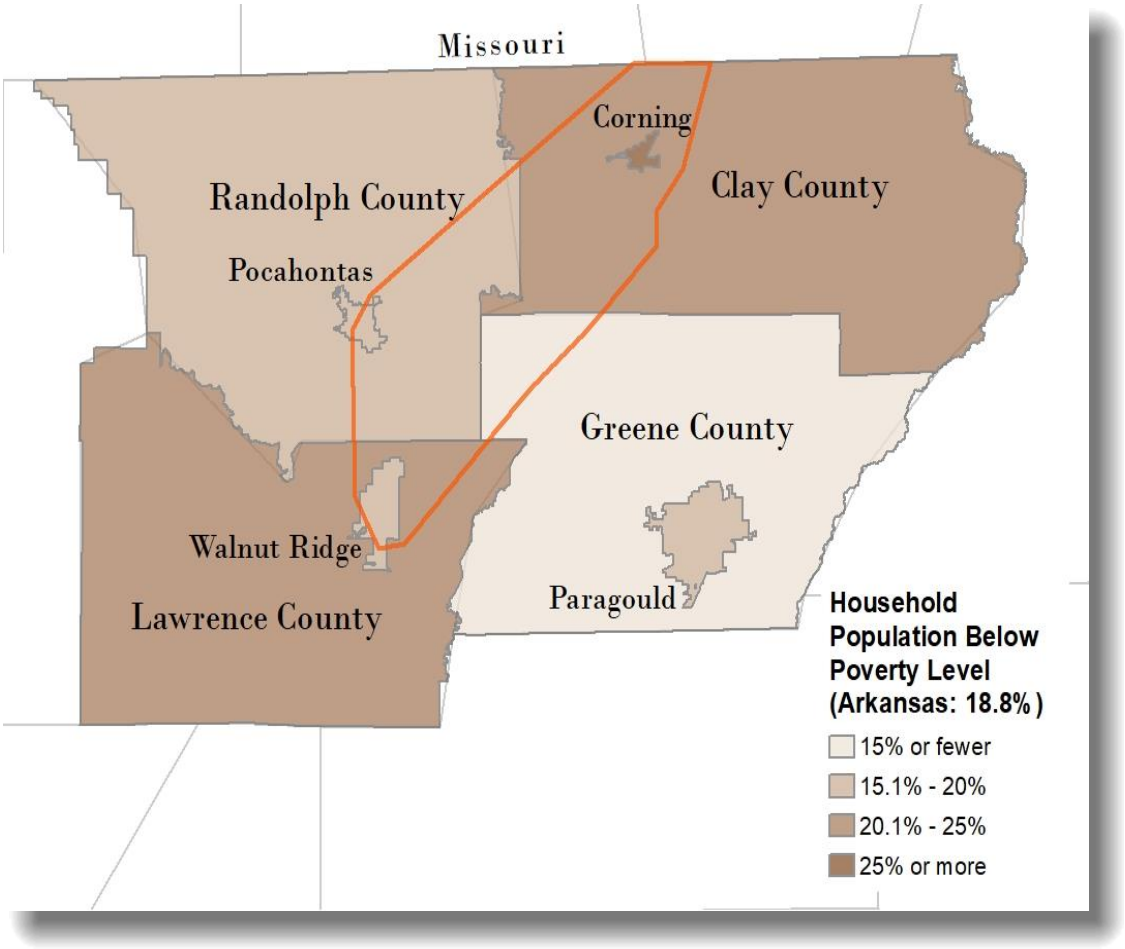


Source: U.S. Census Bureau, American Community Survey: 2012-2016. Processed by Demographic Research, Arkansas Economic Development Institute, College of Business Administration, UALR

Clay County and the City of Corning have the lowest median household incomes and have the highest number of households living below the poverty level (**Figure 5**). Most of the study area has higher poverty levels than the rest of the state.

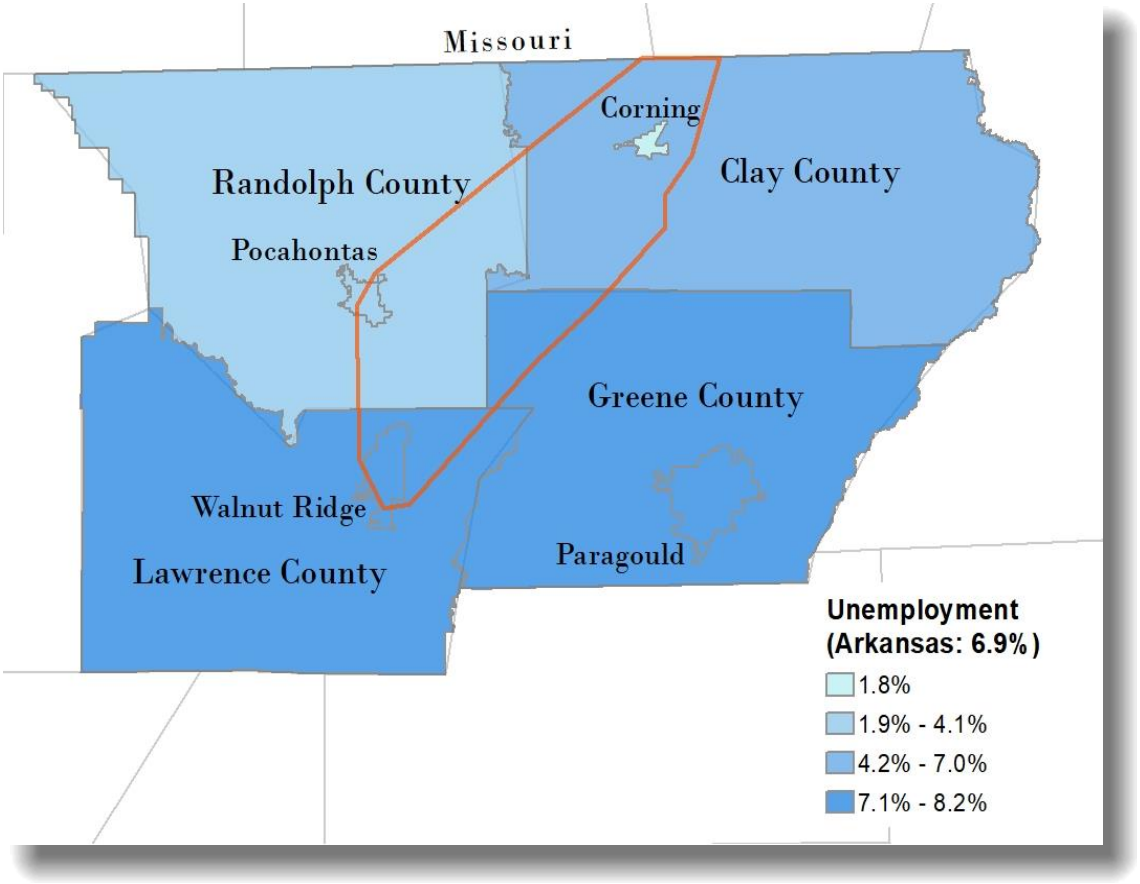
The unemployment rate is lower than the rest of the state in Randolph and Clay counties, while Greene and Lawrence counties have a slightly higher rate than the state average (**Figure 6**).

Figure 5: Household Population Below Poverty Level



Source: U.S. Census Bureau, American Community Survey: 2012-2016. Processed by Demographic Research, Arkansas Economic Development Institute, College of Business Administration, UALR

Figure 6: Unemployment

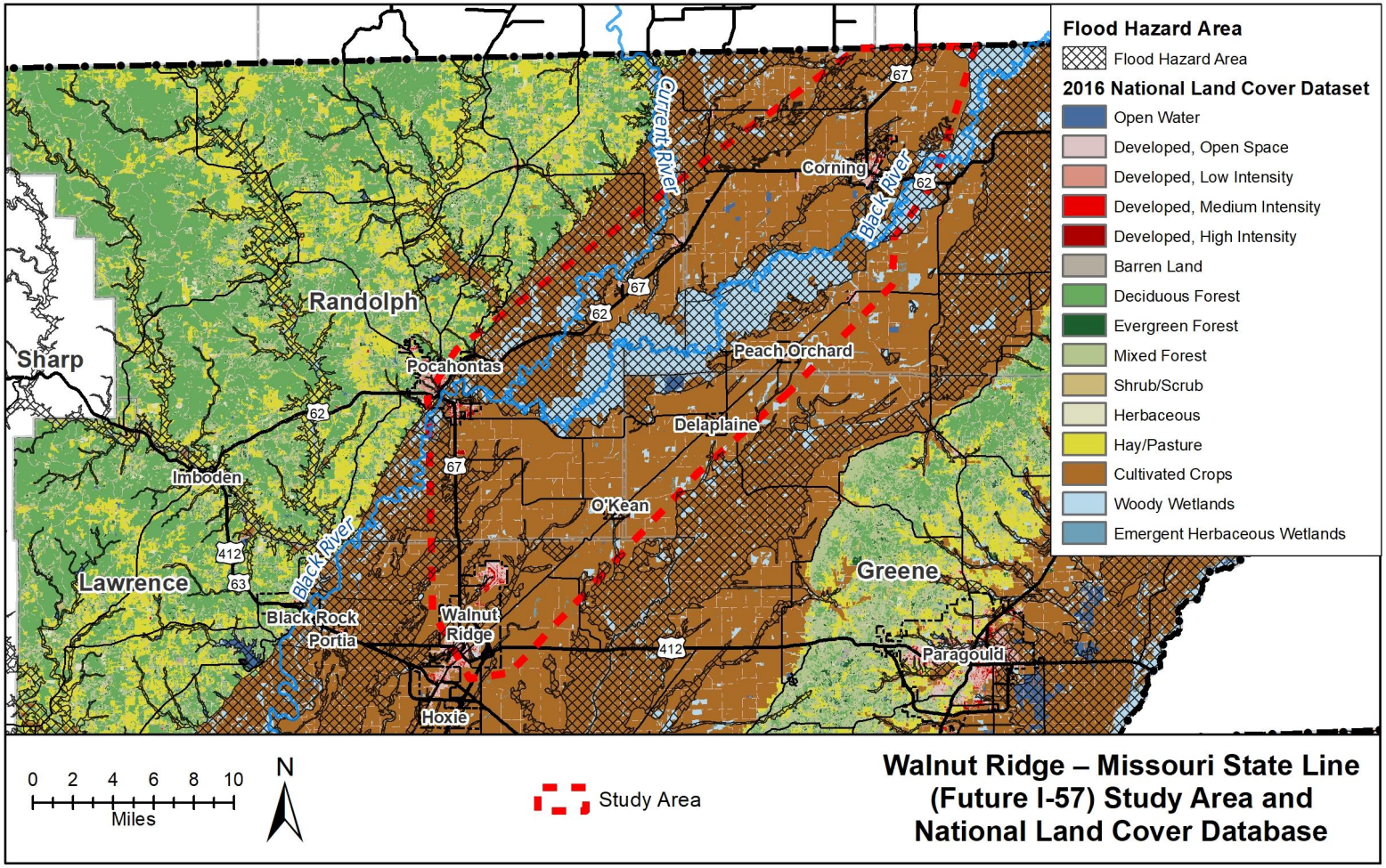


Source: U.S. Census Bureau, American Community Survey: 2012-2016. Processed by Demographic Research, Arkansas Economic Development Institute, College of Business Administration, UALR

Land Use and Environmental Features

Cultivated crops are the dominant land use in the study area as shown in **Figure 7**. The Dave Donaldson Black River Wildlife Management Area (WMA), the Black and Current Rivers, and substantial floodplains and wetlands are the major environmental features in the study area. As shown in Figure 1, the Dave Donaldson Black River WMA lies directly in the middle of the study area. The WMA is approximately 25,000 acres in size and supports important bottomland hardwoods and substantial recreational opportunities.

Figure 7: Land Use



Northeast Arkansas Road Network

Within the study area, there are four primary highways that provide for regional transportation and connect the study area to the rest of the state and beyond: Hwys. 62, 63, 412, and 67 (**Figure 8**). Hwy. 412 is the only continuous principal arterial parallel to, and north of, I-40 in Arkansas. Hwy. 412 extends from New Mexico to Tennessee and connects I 49 to Hwy. 67 in northeast Arkansas. As a Congressionally-designated High Priority Corridor, Hwy. 412 is part of a strategic network of highways that support national economy, defense, and mobility.

There is a network of other minor two-lane roadways in the study area, specifically Hwys. 90, 34, 304, and 135, that provide an alternative route from Walnut Ridge to Corning passing through small communities such as O'Kean, Delaplaine, and Peach Orchard. This alternate route to Highway 67 generally follows the Union Pacific Railroad and is on the eastern edge of the study area.

Regional Roadway Network

Currently, I-57 runs from Chicago, Illinois to Sikeston, Missouri, where it meets I-55 (**Figure 9**). The future I-57 corridor will eventually be extended west from Sikeston, Missouri along Hwy. 60 to Poplar Bluff, Missouri and then south along the Hwy. 67 corridor to North Little Rock, Arkansas, ending at I-40.

Missouri has already upgraded 62 miles of the Hwy. 60/67 corridor between Sikeston and Harviell to a four-lane highway with partial access control, with plans to convert it to a fully-controlled access interstate. An approved alignment for improvements to interstate standards from Harviell to just south of Neelyville has recently been reevaluated. Funding has been secured for design and construction for part of this section. This leaves an approximately 2-mile section of the future I-57 corridor just north of the Arkansas State line that does not have a final alignment approved through the NEPA process.

Traffic Operations

The 2015 Draft Highway 67 Improvement Study found that congestion levels were acceptable then and would still be acceptable without improvements in 2035. For this study, the 2015 and 2035 volumes developed in the previous planning study were updated to show 2018 and 2040 volumes. Annual growth rates used to calculate the 2040 volumes were based on the previous study growth rates. Since the 2040 traffic volumes did not show a significant increase over the 2035 volumes, additional traffic analysis was not performed. The previous study indicated that most of Highway 67 in our study area operates at acceptable levels today, and similar operations are expected in 2040. The exceptions were in Pocahontas and Corning for both 2018 and projected 2040 conditions where conditions were not

always acceptable. Accordingly, traffic congestion and crash rates are the worst in Pocahontas and Corning both now and in 2040 due to the higher traffic volumes, stop light intersections, and residential and business density.

Figure 8: Northeast Arkansas Roadway Network

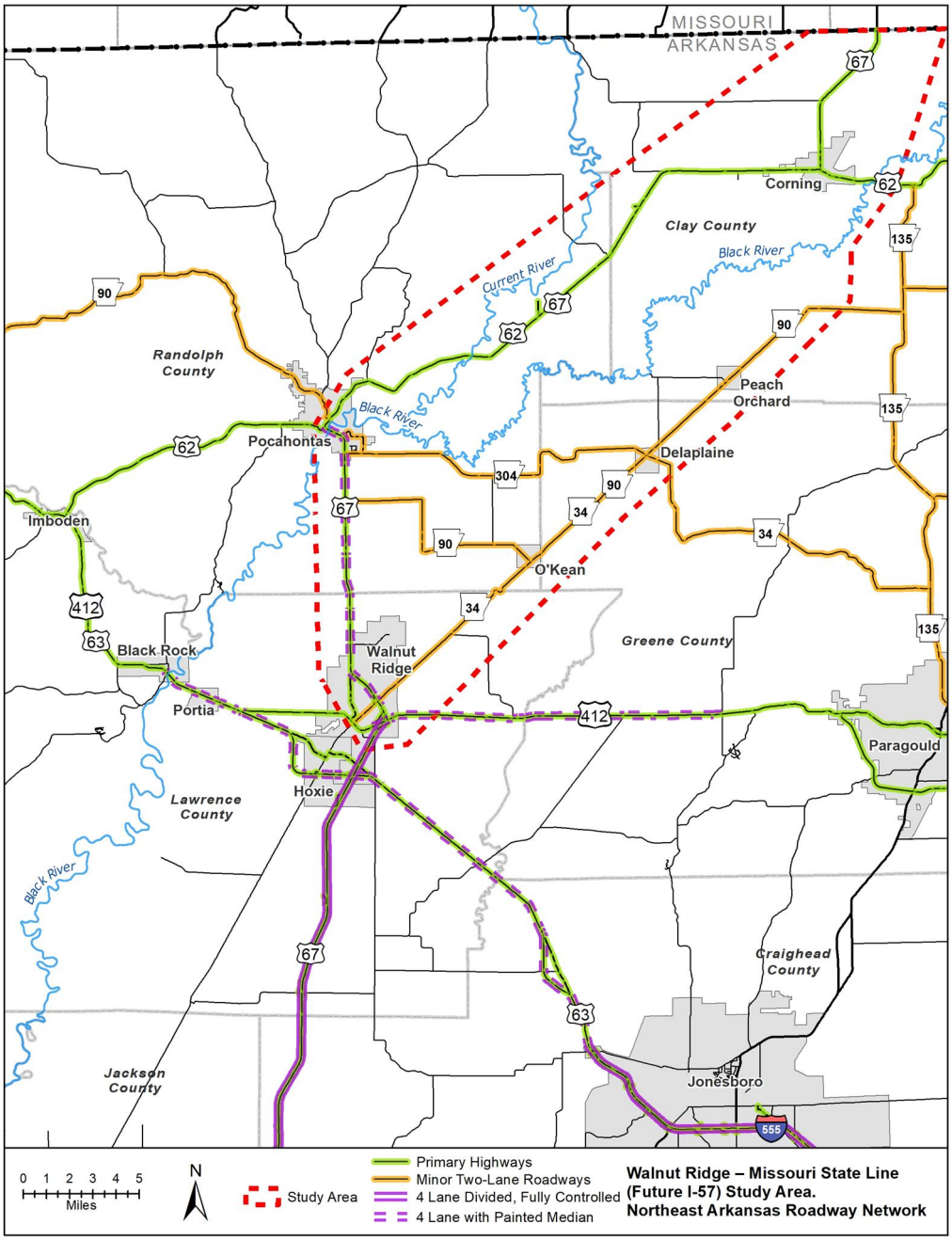


Figure 9: Regional Roadway Network

What studies have been completed in the past for this corridor?

A list of the important actions and reports related to the Hwy. 67 corridor in Arkansas are presented below in **Table 4**.

Table 4: Summary of Project History for the Hwy. 67 Corridor

Action/Report	Date	Details
NE Ark Arterial Highway Study	1975	• Recommended that a freeway facility be studied
Minute Order 78-186	1978	• AHC authorized the updating of the 1975 study.
U.S. 67 from Newport to Walnut Ridge	1988	• Update to the 1978 study • Study led to recommendations for an improved transportation system, not just improvements to selected routes.
Walnut Ridge – Pocahontas (Hwy 67) EA	Aug. 1993	• Proposed action to widen Hwy. 67 from Walnut Ridge to Pocahontas from two-lanes to a four-lane highway, transitioning into a five-lane section inside the city limits of Pocahontas.
U.S. 67 Corridor Study – Walnut Ridge to the Missouri State Line	Feb. 1996	• Purpose of study to recommend a preferred alignment for a freeway-type facility from Walnut Ridge to the Missouri State line. • Recommended a new-location, four-lane freeway approximately 39 miles in length.
Minute Order 2012-025	March 2012	• AHC authorized a study to re-evaluate the long-term improvement needs for the Hwy. 67 Corridor from Walnut Ridge to the Missouri State line.
Highway 67 Improvement Study	Aug. 2015	• Evaluated the long-term improvement needs for the Hwy. 67 corridor from Walnut Ridge to the Missouri State line. • Alternatives retained for further study included improving existing Hwy. 67 with bypasses, a central new location route, and a northern new location route. No action retained as required by NEPA.
H.R. 1625-Consolidated Appropriations Act of 2018 SEC. 128	Jan. 2018	• Section 1105(c)(89) of Public Law 102–240, as amended, is amended to read as follows: "(89) I–57 Corridor Extension as follows: In Arkansas, the corridor shall follow United States Route 67 in North Little Rock, Arkansas, from I–40 to United States Route 412, then continuing generally northeast to the State line, and in Missouri, the corridor shall continue generally north from the Arkansas State line to Poplar Bluff, Missouri, and then follow United States Route 60 to I–57."

Why is the project needed?

The project is needed because there is a gap in the system linkage which diminishes connectivity and mobility of the National Highway System. Additionally, there is a lack of reliable transportation infrastructure to support economic development and a need to enhance resiliency to extreme weather events along the route. Furthermore, legislation designated this route as future Interstate Route 57. The project needs and supporting information are discussed further in the following sections.

System Linkage & Continuity

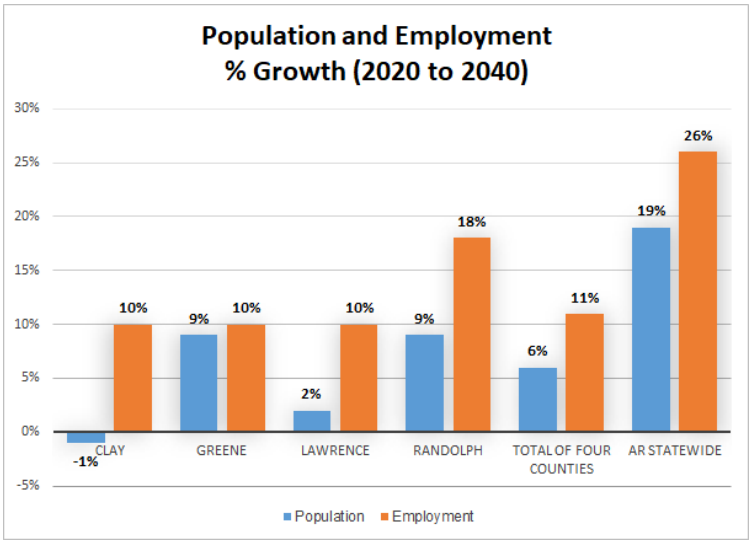
Hwy. 67 in the study area does not match the transportation system in the rest of this regional corridor (Figure 2). South of the study area, Hwy. 67 is a fully controlled interstate type facility from I-40 in North Little Rock to Walnut Ridge. North of the study area, Hwy. 67 is either built or planned to be built to a four-lane interstate type facility from the Missouri State line to Sikeston, Missouri. From Sikeston, existing I-57 heads north through Missouri and Illinois until it ends in Chicago, Illinois.

Improving this section of Hwy. 67 to interstate standards would also provide an important interstate connection between I 55 at Sikeston, MO and I-40 and I-30 in North Little Rock, AR. An improved Hwy. 67 that allows for higher speeds and greater traffic volumes, as well as a more direct route through northeast Arkansas, would enable commercial trucks carrying freight to use this route as an alternative to I-40 and I-55. This improved linkage would allow for more efficient movement of people and goods between the Great Lakes and the Gulf Coast in Louisiana and Texas, as well as within and between localized segments along the proposed corridor.

Economic Development

As presented above, the study area populations have a lower standard of living than the rest of the state. The median age of people in these counties is older than the state average and trending higher. Census data also shows that since 1990 populations in Clay and Lawrence Counties have decreased by 24% and 6%, respectively. Randolph and Greene Counties have increased populations by 6% and 30%, respectively. For comparison, the state population has increased 22% between 1990 and 2019.

The projected population growth between 2020 and 2040 is approximately 6% for the four study area counties as compared to 19% for rest of the state[1]. Employment growth is projected to average 11% for the four study area counties as compared to the state's 26% growth[1]. These demographic characteristics can be directly correlated with reduced economic opportunities and fewer jobs creating an environment where younger people move away to find more work opportunities and higher standard of living.



According to U.S. Department of Transportation studies[2], a region's industrial and employment base is closely tied to the quality of the transportation system. High-quality, dependable transportation systems allow businesses to receive inputs to production facilities and to transport finished goods to market in an efficient manner. An efficient transportation system allows companies to lower transportation costs, which lowers production costs and enhances productivity and profits.

Climate Resiliency

The Federal Highway Administration (FHWA) Order 5520 establishes FHWA policy on preparedness and resilience to climate change and extreme weather events. It encourages state departments of transportation to implement and evaluate risk-based and cost-effective strategies to minimize extreme weather risks and protect critical infrastructure using the best available science, technology, and information.

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[1]-https://arstatedatacenter.youraedi.com/past-census-data/ and https://arstatedatacenter.youraedi.com/demores/demoscripts/subcountyestimates2019.php

[2]- https://www.fhwa.dot.gov/publications/publicroads/96spring/p96sp16.cfm

Hwy. 67 south of Pocahontas in Randolph County in 2017.

Over the past 12 years, the Hwy. 67 corridor has experienced several major flood events causing highway disruption. The first major flood event occurred along the Black River in 2008, submerging portions of Hwy. 67 in Pocahontas[3]. In 2011, Hwy. 67 from Pocahontas to Walnut Ridge was shut down for more than a week due to flooding. From south of Pocahontas to Corning, Hwy. 67 was closed for several days due to high water in May 2017. Additional minor flood events impacting the Hwy. 67 corridor have occurred as well, especially between Pocahontas and Corning.

In recent years, a higher percentage of precipitation in the U.S. has come in the form of intense single-day events[4]. The prevalence of extreme single-day precipitation events remained fairly steady between 1910 and the 1980s but has risen substantially since then. Nationwide, nine of the top 10 years for extreme one-day precipitation events have occurred since 1990. The occurrence of abnormally high annual precipitation totals (as defined by the National Oceanic and Atmospheric Administration) has also increased. Increases and decreases in frequency and magnitude of river flood events generally coincide with increases and decreases in the frequency of heavy rainfall events[5]. This trend is expected to continue.

A resilient Hwy. 67 is needed to withstand such extreme weather events. By remaining open to travel, it would serve to keep valuable commerce moving through the region, give locals the ability to access jobs and commerce, facilitate emergency vehicle access, and serve as an evacuation route for lower lying areas. An improved Hwy. 67 would provide an alternate route to Interstates 40 and 55 during construction work or emergency closures on those facilities, improving not only local and regional but national mobility.

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[3]-https://www.noaa.gov/weather

[4]-https://www.epa.gov/climate-indicators/weather-climate

[5]- http://nca2014.globalchange.gov

Congressional Designation

Recent Federal legislation emphasized the importance of this extension of the I-57 corridor The Consolidated Appropriations Act of 2018 states: "*I-57 Corridor Extension as follows: In Arkansas, the corridor shall follow United States Route 67 in North Little Rock, Arkansas, from I-40 to United States Route 412, then continuing generally northeast to the State line, and in Missouri, the corridor shall continue generally north from the Arkansas State line to Poplar Bluff, Missouri, and then follow United States Route 60 to I-57*".

What is the purpose of the project?

The purpose of the project is to enhance connectivity and continuity of the National Highway System, provide a more resilient roadway, and provide for increased opportunity for economic development in northeast Arkansas.

Preliminary Alternatives

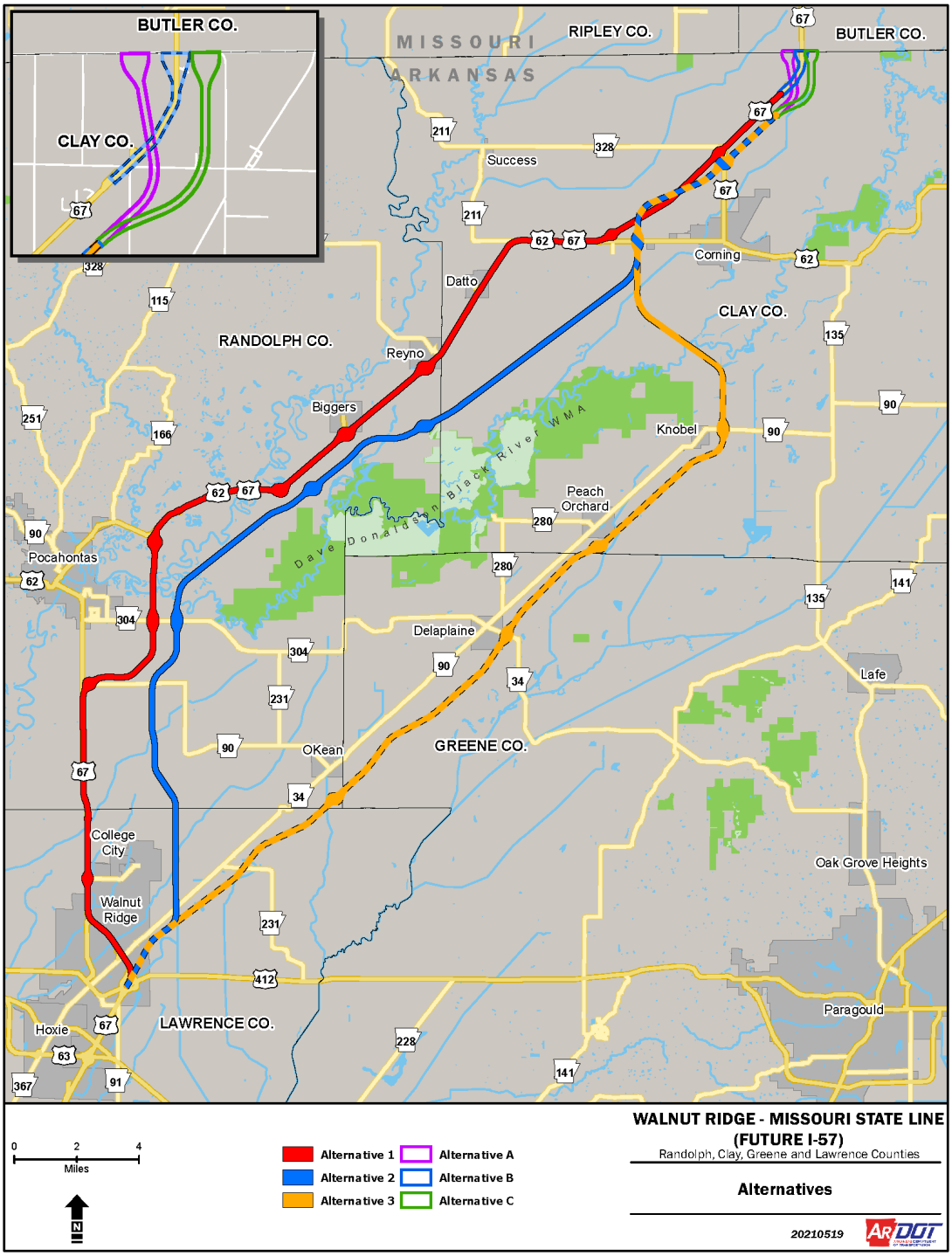
Study Area and Proposed Alternatives

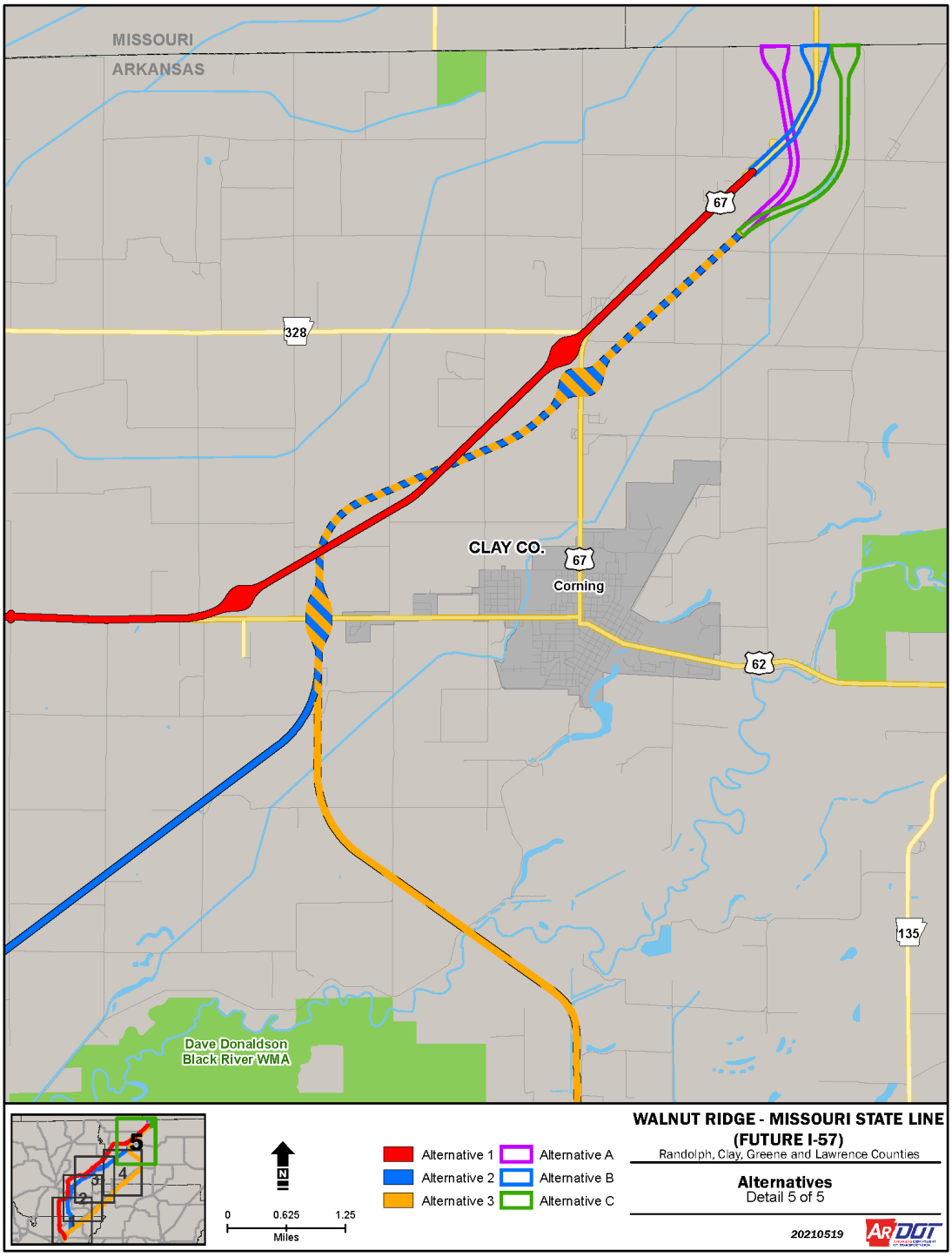
Please refer to **Figure 10** for the general alternatives' location map and additional more detailed maps.

The project starts at the Highway (Hwy.) 412 /67 interchange at Walnut Ridge and extends north to the Missouri State line north of Corning. There are three main alternatives (Alternatives 1, 2, and 3) and three "connector" alternatives (Alternatives A, B, and C) currently under consideration. Alternative 1 essentially improves the existing Hwy. 67 alignment except for bypasses around Pocahontas and Corning on new location. Alternative 2 is on a new location and provides a route generally between the existing Hwy. 67 corridor and the Dave Donaldson Black River Wildlife Management Area (DDWMA). It bypasses Corning to the west and then extends north up to the Missouri State line. Alternative 3 is on a new location and is the easternmost corridor generally following the Hwy. 34/90 corridor between Walnut Ridge and Knobel. At Knobel it then turns north to follow the same alignment as Alternative 2 and proceeds north to the Missouri State line.

At the Missouri State line there are three alternatives to choose from, all three connectors will work with any of the main alternatives. These connectors were separated so that the main alternatives and the connectors could be evaluated separately. Alternative A is just west of Hwy. 67 on new location, Alternative B improves existing Hwy. 67, and Alternative C is east of Hwy. 67 on new location.

Figure 10. Alternative Location Maps




MISSOURI
ARKANSAS
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CLAY CO.
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Corning
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Dave Donaldson
Black River WMA
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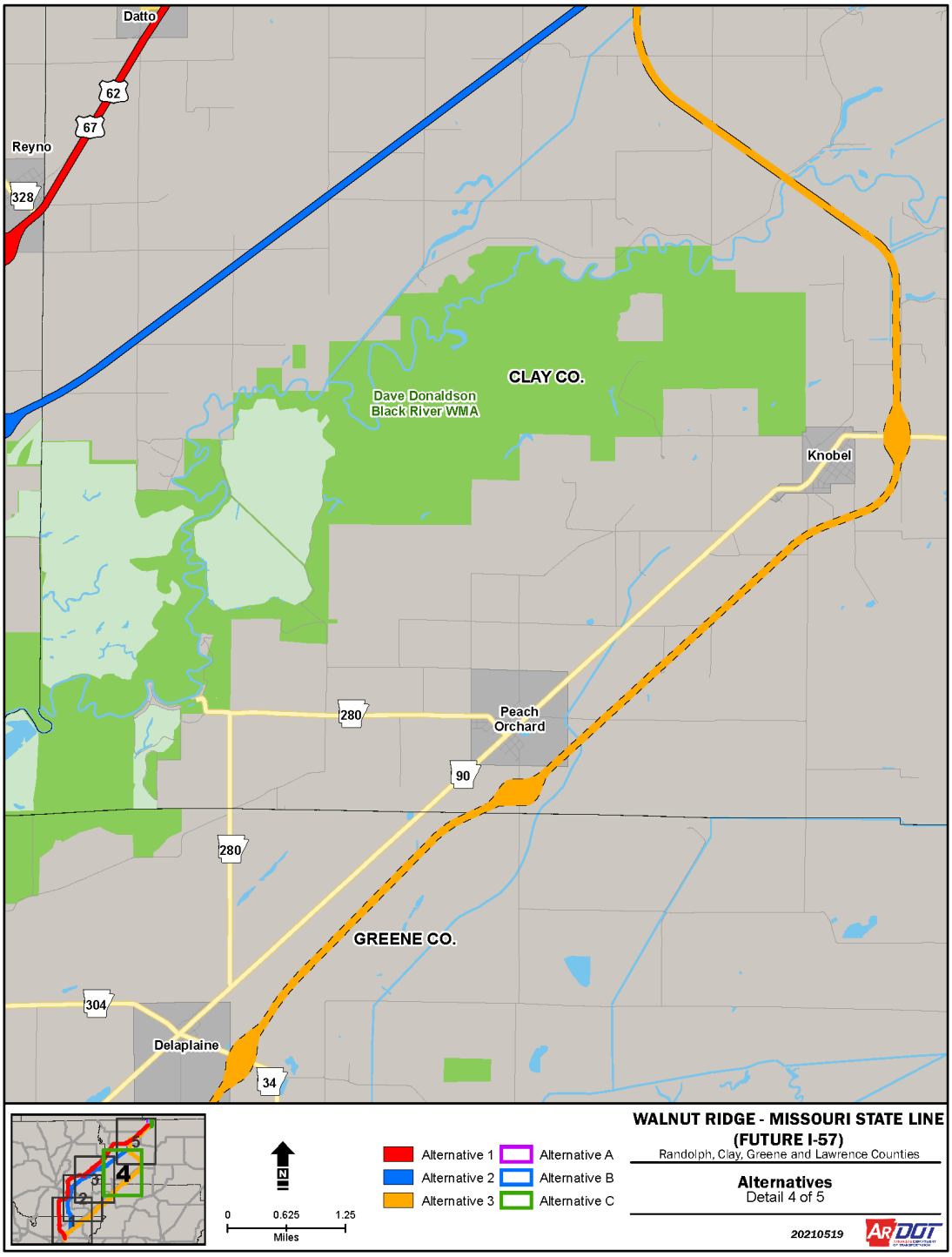
0.625
1.25
Miles
Alternative 1
Alternative 2
Alternative 3
Alternative A
Alternative B
Alternative C
WALNUT RIDGE - MISSOURI STATE LINE
(FUTURE I-57)
Randolph, Clay, Greene and Lawrence Counties
Alternatives
Detail 5 of 5
20210519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Reyno
328
CLAY CO.
Dave Donaldson
Black River WMA
Knobel
280
Peach
Orchard
90
280
GREENE CO.
304
Delaplaine
34
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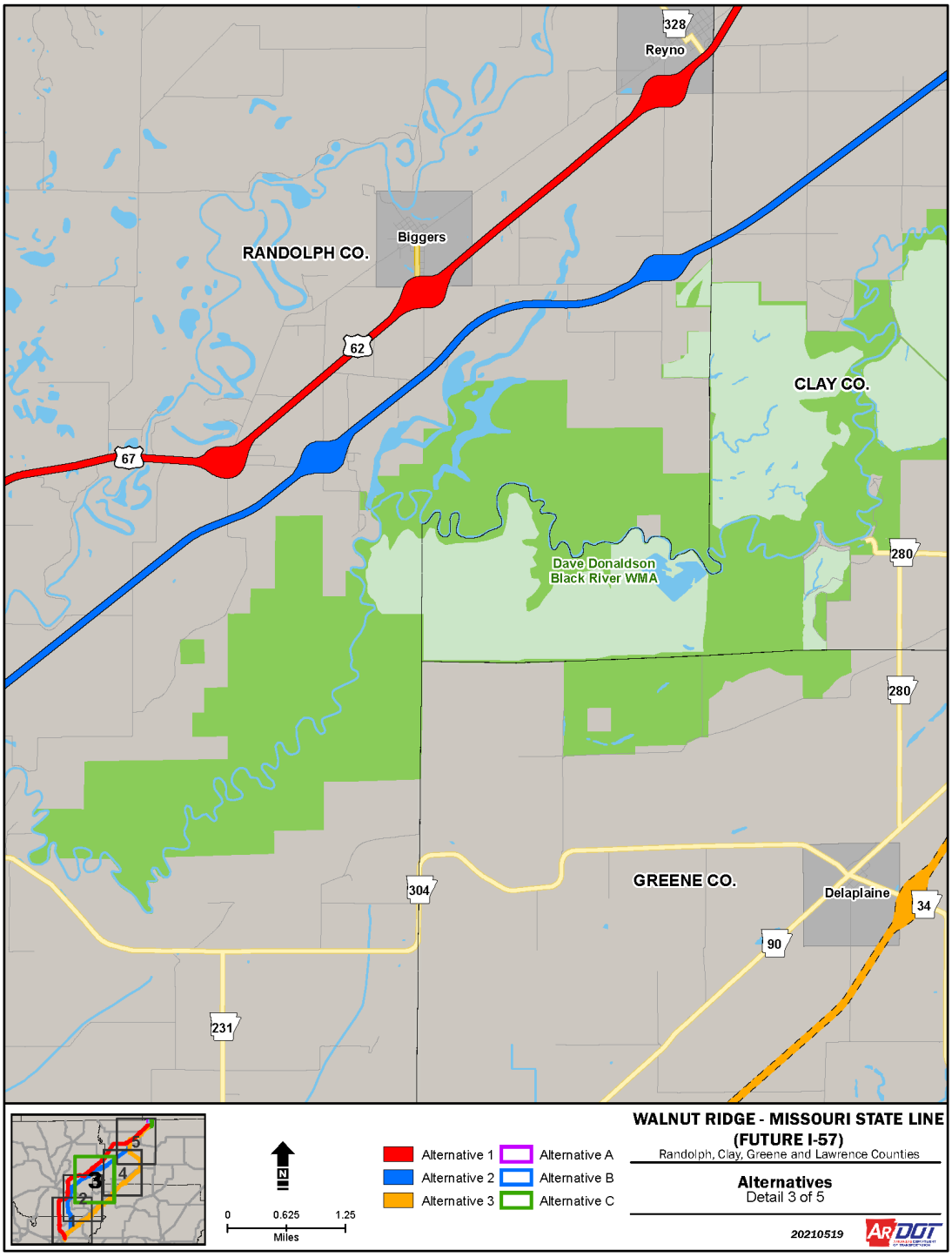
0.625
1.25
Miles
Alternative 1
Alternative 2
Alternative 3
Alternative A
Alternative B
Alternative C
WALNUT RIDGE - MISSOURI STATE LINE
(FUTURE I-57)
Randolph, Clay, Greene and Lawrence Counties
Alternatives
Detail 4 of 5
20210519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Dave Donaldson
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GREENE CO.
Delaplaine
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90
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WALNUT RIDGE - MISSOURI STATE LINE
(FUTURE I-57)
Randolph, Clay, Greene and Lawrence Counties
Alternatives
Detail 3 of 5
Alternative 1
Alternative 2
Alternative 3
Alternative A
Alternative B
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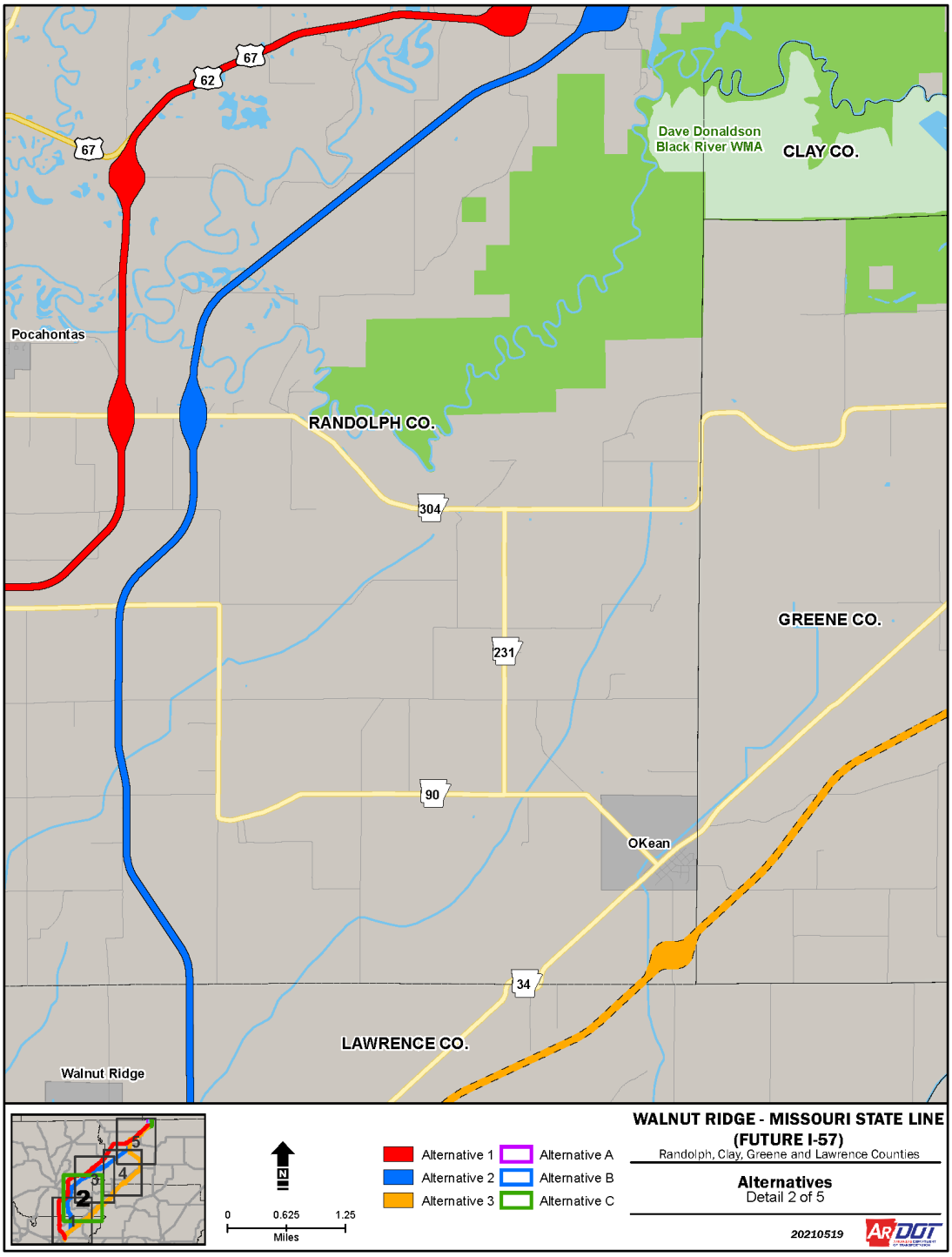
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67
Dave Donaldson
Black River WMA
CLAY CO.
Pocahontas
RANDOLPH CO.
304
GREENE CO.
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90
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34
LAWRENCE CO.
Walnut Ridge
1
2
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4
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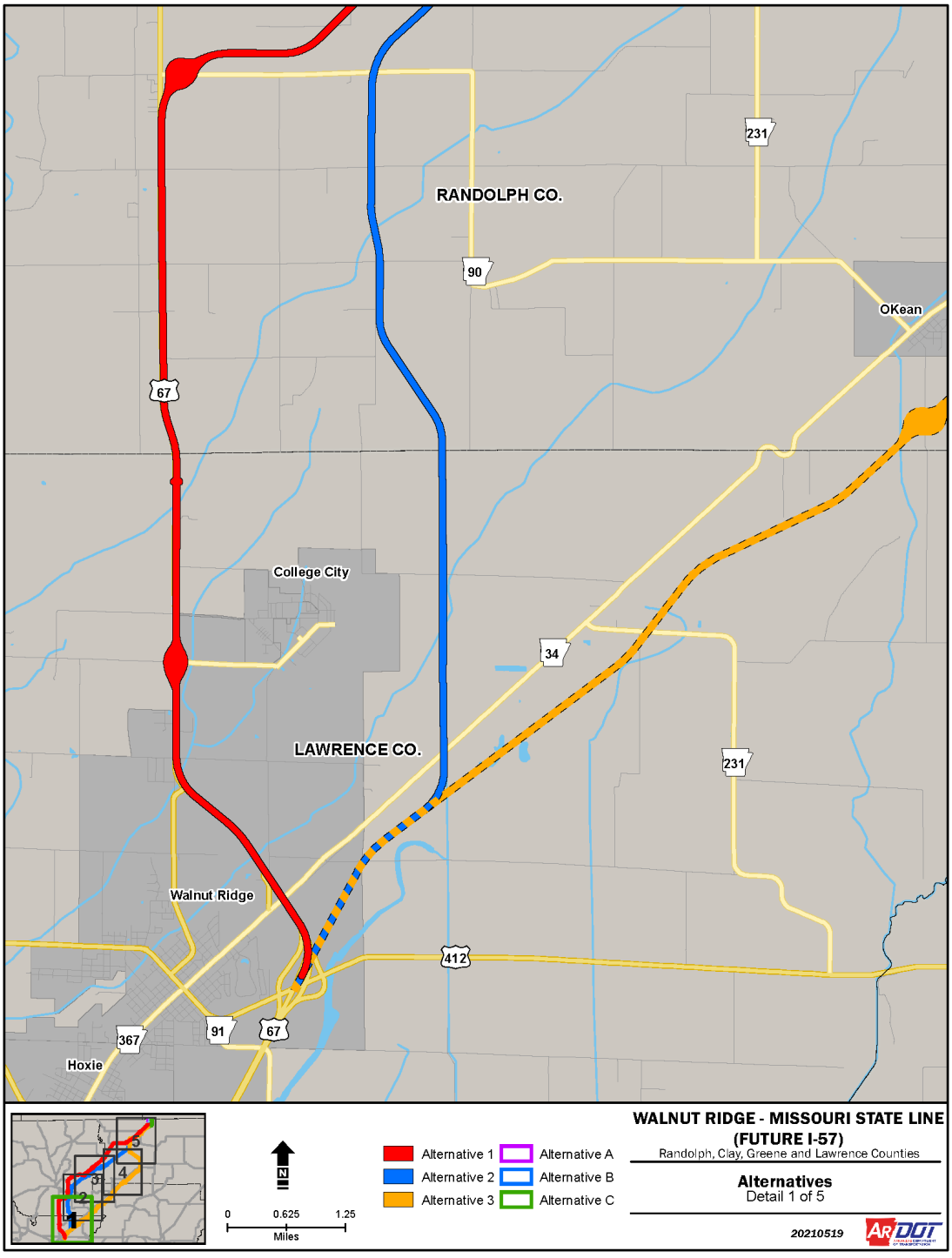
0.625
1.25
Miles
Alternative 1
Alternative 2
Alternative 3
Alternative A
Alternative B
Alternative C
WALNUT RIDGE - MISSOURI STATE LINE
(FUTURE I-57)
Randolph, Clay, Greene and Lawrence Counties
Alternatives
Detail 2 of 5
20210519



Additional detail on each corridor is provided below.

Main Alternatives

Alternative 1: This alternative improves existing Hwy. 67 from Walnut Ridge to Hwy 90 intersection then veers off to the east on new location to cross the Black River at a strategic bridge location and to avoid substantial impacts to the built-up human environment closer to and in Pocahontas. The alignment then proceeds north on new location where it ties back into Hwy. 67 northeast of Pocahontas. The alignment then follows existing Hwy. 67 toward Corning crossing the Current River. Approximately 3.5 miles west of Corning the alignment turns northeast on new location to bypass Corning and avoid substantial impacts to the built-up human environment. To the north of Corning there are several proposed options for the Arkansas-Missouri connection. This alignment is approximately 42 miles long and the estimated construction cost based on preliminary design, not including right of way or utility relocations is approximately $577 million.

Alternative 2: This alternative is completely on new location. It begins at the Hwy 67/412 interchange at Walnut Ridge and extends northeast approximately 2 miles where it turns north to pass approximately one mile east of College City. The alignment follows a path north to the Black River that minimizes splitting of the farmland tracts to the extent possible. It crosses the Black River and floodplain east of Alternative 1 at the best possible crossing location. It then turns northeast to avoid crossing the Current River and proceeds northeast between Hwy. 67 and the DDWMA, eventually turning more northward approximately 2.5 miles west of Corning. After crossing Hwy. 67 the alignment tuns back northeast where there are several proposed options for the Arkansas-Missouri connection. This alignment is approximately 40 miles long and the estimated construction cost based on preliminary design, not including right of way or utility relocations, is approximately $493 million.

Alternative 3: This alternative is completely on new location. Alternative 3 extends northeast from Walnut Ridge approximately 2 miles on the same alignment as Alternative 2 then splits just south of Murta and continues northeast on the east side of Hwy. 34/90 to the town of Knobel. At Knobel the alignment turns north and crosses the Black River and then converges with Alternative 2 just south of Hwy. 67 and east of Corning. Alternative 3 then follows the same alignment as described above for Alternative 2 after crossing Hwy. 67. This alignment is approximately 44 miles long and the estimated construction cost based on preliminary design, not including right of way or utility relocations, is approximately $482 million.

Missouri Connector Alternatives

These alternatives were separated from the main alternatives to offer multiple alignment options for the final connection to Missouri. The Missouri Department of Transportation (MoDOT) has not completed the final studies for the future I-57 alignment in Missouri. Consequently, MoDOT is a cooperating agency on this project and working closely with ARDOT on the connector location because this will determine the southern terminus for the MoDOT section of future I-57. MoDOT has indicated that they want to stay on or very close to the existing Hwy. 67 alignment. The main alternatives (1, 2, and 3) can combine with any of the connector alternatives (A, B, and C) and therefore this location will not impact the selection of the preferred main alternative.

Alternative A: This alternative starts on the east side of Hwy. 67 then crosses Hwy. 67 and terminates at the Missouri State line approximately one-half mile west of Hwy. 67. Other than crossing Hwy. 67, this is all new location. This alignment is approximately 1.7 miles long and the estimated construction cost based on preliminary design, not including right of way or utility relocations, is approximately $25 million.

Alternative B: This alternative improves existing Hwy. 67 up to the Missouri State line. This alignment is approximately 1.5 miles long and the estimated construction cost based on preliminary design, not including right of way or utility relocations, is approximately $27 million.

Alternative C: This alternative starts approximately one-half mile east of Hwy. 67 and parallels the highway, terminating at the Missouri State line approximately one-quarter mile east of Hwy. 67. This alignment is approximately 1.9 miles long and the estimated construction cost based on preliminary design, not including right of way or utility relocations, is approximately $20 million.

Anticipated Impacts

Discussions below separate the main alternatives (1, 2, and 3) and the connector alternatives (A, B, and C) because they will be compared and advanced independently. Please see **Table 5** on following page for the Environmental Impacts Comparison. These estimates, based on 1000-foot-wide corridors, are for comparison or relative impacts between alternatives. Actual impacts will change as the studies advance and the design details are refined down to a typical section of roadway approximately 300 to 400 feet wide.

Table 5: Environmental Impact Comparison

	Alternatives					
	Main Corridors			Missouri Connectors		
Construction	Alt 1	Alt 2	Alt 3	Alt A	Alt B	Alt C
Length (miles)	44	40	41	1.5	1.5	1.5
Social Impacts						
Residences (#)	174	11	15	3	24	8
Businesses (#)	68	0	0	0	14	0
Agricultural Structures (#)	92	54	25	1	4	3
Cemeteries (#)	1	0	1	0	0	0
Other Structures (#)	76	4	6	2	11	9
Cultural Resources (#)	28	8	1	0	0	0
Hazmat Sites (#)	15	1	0	0	0	0
Community features (#)	4**	0	0	0	10*	0
Cell Towers (#)	3	0	0	0	0	0
Pipelines (# crossings)	18	10	3	0	0	0
Public Comment (# stating a preference)	26	68	31	37	46	20
Environmental Impacts						
Farmlands (ac)	3,628	4,304	4,369	193	87	208
100- Year Floodplain (ac)	1,513	1,042	271	105	107	84
Wetlands (ac)	191	123	86	1	0	1
Streams (# crossings)	51	48	73	1	1	1

*State Welcome Center Buildings
**Churches

Main Alternatives

Social Setting - Alternative 1, which improve existing Hwy. 67, would displace significantly more structures directly, and indirectly cause the loss of access and use for many others, than Alternatives 2 or 3 which are located primarily on rural farmlands (see Environmental Impact Table on following page). There is substantially greater risk for impacts to known hazardous materials and cultural resources sites for Alternative 1 when compared to Alternatives 2 and 3, again because of the built-up human environment. Alternatives 2 and 3 are relative similar in most social impacts with the exceptions of pipeline crossing and agricultural structures where Alternative 2 has greater potential impacts.

Environmental Setting – Typically utilizing an existing roadway for improvements project reduces the natural environmental impacts because at least some of the required right-of-way (ROW) is already developed. But even with the developments that are built up around Hwy. 67 there are still many natural

environmental impacts predicted for Alternative 1. Of the four primary environmental concerns listed in the table below, Alternative 1 has the greatest impacts for floodplains, wetlands, and stream impacts. Alternative 3 would impact the least floodplain and wetlands than Alts 1 or 2.

Missouri Connectors

Social Setting - Alternative B which improve existing Hwy. 67 would displace significantly more structures directly, and indirectly cause the loss of access and use for others, than Alternatives A or C which are mostly located on undeveloped farmlands. The impacts to other social resources are relatively similar between all three alternatives.

Environmental Setting – Alternatives A and C would impact similar acres of farmlands while Alternative B impacts the least farmlands. Alternatives A and B impact similar acres of the floodplain while Alternative C impacts the least. Wetland and stream impacts are very minor and comparable between all of the alternatives.

Anticipated Permits and Study Schedule

The following agencies have agreed to be a cooperating agency for this project, meaning they will have a more involved role with review responsibilities: United States Fish and Wildlife Service (USFWS); United States Corps of Engineers (USACE); United States Department of Agriculture; and MoDOT.

These cooperating agencies were provided the draft purpose and need statement and the range of alternatives in January 2021 and all agencies concurred with the proposed project approach.

Permits and authorizations anticipated for the project include a USACE Section 404-10 individual permit for wetland and stream impacts, and Section 408 approval for levee impacts. Coordination with the USACE began in November 2020 when they accepted the responsibility to be a cooperating agency.

A Section 401 Water Quality Certification from the Arkansas Department of Energy and Environment will be required for potential impacts to surface waters and is part of the USACE Section 404 process. Coordination began May 2020 when they accepted the responsibility to be a participating agency.

Consultation with the USFWS pursuant to Section 7 of the Endangered Species Act, will be required for biological assessments and threatened and endangered species surveys. Coordination with the USFWS began May 2020 when they

accepted the responsibility to be a cooperating agency. A Request for Technical Assistance for USFWS was completed in early 2020 and a preliminary plan for habitat resource evaluations and bat and mussel surveys was submitted to the USFWS for review.

Concurrence from the State Historic Preservation Officer (SHPO) for compliance with Section 106 regulations will be required for historical and archeological resources potentially impacted. Coordination with SHPO began January 2021 when they accepted the responsibility to be a participating agency. An Archeological Resource Study (historic structure survey) will be completed prior to the completion of the DEIS. A Phase I Shovel Survey for archeological resources will be completed after the preferred alternative is approved in the DEIS and before the completion of the FEIS/ROD. It is possible, depending on the study findings, that additional studies will need to be completed and those will be identified and defined in memorandum of agreement between ARDOT and SHPO to be included in the FEIS/ROD.

The schedule for permit and approval processes required by NEPA regulations are provided in the following Permitting Timetable worksheet. This schedule is based on assumptions of the level of effort for various tasks within the overall study as well as preliminary coordination with the permitting agencies on the required permits and approvals. This schedule will be captured on the FHWA Permitting Dashboard website Permitting Dashboard (performance.gov) and updated as the project develops.

Environmental Impact Statement
Permitting Timetable Worksheet for Permitting Dashboard
Project Title: Hwy. 412 – Missouri State Line P.E.
State Project Number: Job No. 100512_
Sponsor: Arkansas Department of Transportation

Federal Lead Agency/ Action:
FHWA - Environmental Impact Statement

Milestone	Target Date	Completion Date
Issuance of Notice of Intent to prepare an Environmental Impact Statement (EIS)	7/15/2021	
Scoping	8/15/2021	
Official Notice of Availability of a Draft EIS published in the Federal Register (FR) beginning both the public comment period and concurrent CAA Section 309 Review	6/31/2022	
Official Notice of Availability of a Final EIS published in the FR beginning both the public review period and concurrent CAA Section 309 Review	2/28/2023	

Milestone	Target Date	Completion Date
Issuance of Record of Decision or combined Final EIS / Record of Decision	2/28/2023	

FHWA- Cultural Resources

Milestone	Target Date	Completion Date
Consultation initiated with SHPO/THPO	8/31/2021	
Section 106 Consultation Concluded	5/31/2022	

Responsible Agency: FHWA
Phone: 501.324.6430

POC: Randal Looney
Email: randal.looney@fhwa.dot.gov

Cooperating / Participating Agency Actions:

U.S. Army Corps of Engineers - Section 404, 10, and 408 Clean Water Act

Milestone	Target Date	Completion Date
Pre-construction Notification (PCN)/Form ENG 4345/Joint Application Form Received	2/28/2023	
Complete Pre-Construction Notification (PCN)/Application Received (Submittal includes Section 404-408-10 information)	3/31/2023	
Publication of Public Notice	4/30/2023	
Final Verification/Permit Decision Rendered	7/31/2023	

- **This permit requires ADEE Section 401 Water Quality Certification**

Responsible Agency: USACE
Phone: 501.765.9938
Cooperating Agency YES

POC: Johnny McLean
Email: Johnny.l.mclean@usace.army.mil
Participating Agency Only NO

U.S. Fish and Wildlife Service - Section 7 Endangered Species Act Consultation

Milestone	Target Date	Completion Date
Request for ESA Consultation Received	1/31/2022	
Consultation Package (Formal Consultation):	3/02/2022	
Conclusion of ESA Consultation I	6/15/2022	

Responsible Agency: USFWS
Phone: 501.513.4489
Cooperating Agency YES

POC: Lindsey Lewis
Email: lindsey_lewis@fws.gov
Participating Agency Only NO

State, Local, Tribal, Other Non- Federal Agency and not cooperating or participating agency

Arkansas Department of Energy and Environment - Section 401 Water Quality Certification

Milestone	Target Date	Completion Date
Initial Application Received	1/31/2023	
Issuance of decision for permit/approval	7/31/2023	

Responsible Agency: ADEE
Phone: 501.682.0744
Cooperating Agency NO

POC: Beck Keogh
Email: Keogh@adeq.state.ar.us
Participating Agency Only NO

Agency and Public Coordination Plan

As part of the preparation of the EIS, NEPA requires that there be an early and open process for determining the scope of the issues to be addressed by a study. This process is commonly known as “NEPA scoping,” during which the project lead agency will solicit input on the project. Please refer to Appendix A for the draft 23 USC Section 139 Coordination Plan for details on the scoping and coordination process.

Scoping is a process that continues throughout the planning and early stages of preparation of an EIS. For an EIS, the lead agencies must use scoping to engage State, local, and tribal governments, and the public in the early identification of concerns, potential impacts, and relevant effects of past actions and possible alternative actions. Scoping is an opportunity to introduce and explain the project and solicit information as to additional considerations that should be included. Scoping also provides an opportunity to bring agencies and applicants together to lay the groundwork for setting time limits, expediting reviews where possible, integrating other environmental reviews, and identifying any major obstacles that could delay the process.

Per 40 CFR 1501.9(a) scoping may begin as soon as practicable after the proposal for action is sufficiently developed for agency consideration. Scoping may include appropriate pre-application procedures or work conducted prior to publication of the notice of intent. Scoping for this project began with the 2015 Highway 67 Improvements Planning Study. This study introduced various alternatives and engaged the State and local officials and public for input and comments on the purpose and need and range of alternatives.

As discussed earlier in the Purpose and Need, the current EIS study was built upon the findings of the 2015 Highway 67 Improvements Study. The general corridors recommended by the 2015 Study were reintroduced in the current study along with an updated purpose and need statement and a refined range of alternatives. We

retained the corridors recommended in the 2015 Study. The major change in the project purpose and need from 2015 to the current study is the project is now part of a future interstate system (I-57) and so there are not alternatives with partial access control offered.

This updated information was presented to the local officials and the public in a virtual project meeting held August 13 through September 2, 2020. A full synopsis of that meeting and the comments is provided on the project website. **Table 6** below provides an overview of the results of the public participation at the 2020 virtual public meeting. There were over 2000 unique visitors to the project website and 163 comments received. The public and local official comments and project preferences from this meeting were similar to those resulting from the 2015 public involvement meetings.

Table 6: Results of 2020 Public Meeting

The following questions were provided to the public meeting participants:	
1. Do you believe there is a need for an improved connection between Walnut Ridge and the Missouri State Line?	
Yes	122
No	13
2. Do you believe the proposed project would have any impacts on your community (economic, environmental, social, etc.)?	
Beneficial	67
Adverse	21
Both	34
Neither	3
3. Which corridor alternative do you prefer?	
No Build	7
Corridor 1	26
Corridor 2	68
Corridor 3	31
4. Which Missouri Corridor do you prefer?	
A	37
B	46
C	20

Scoping for this EIS study officially continues until 30 days after the publication of the Notice of Intent in the Federal Register. That will be the end of the official scoping. However, there will still be opportunity to comment on the project through the end of the completion of the DEIS document. The current schedule is set to provide a public hearing before February 2022 for the public to review and comment on the full DEIS document. Project updates will be posted on this website and alternatives and other information can be reviewed and commented on anytime from now through the end of the DEIS comment period.

Request for Input and Contact Information

How to Comment

Public and other stakeholder input is a very important part of any transportation project. Environmental specialists and design engineers working on a project may be unaware of special circumstances or important considerations that only the local residents know about or understand. And that information could directly impact the design or some other aspect of a project's outcome and help this highway project to better fit within the context of the social or natural environment for which it will be a part.

We respectively request and encourage your participation in the proposed project and want to make your involvement as simple as possible. We have provided multiple ways for comments to be submitted and they are listed below:

> *Web Site*: For access to the documents, go to the Federal eRulemaking Portal located at http://www.regulations.gov or the project website located at Future57.transportationplanroom.com. Follow the online instructions for submitting comments.
> *Fax: Randal Looney at* 501-324-6423
> *Mailing address or for hand delivery or courier:* Federal Highway Administration, Arkansas Division, 700 West Capitol Avenue, Room 3130, Little Rock, AR 72201.
> *Email address*: Randal.Looney@dot.gov.
>
> All submissions should include the agency name and the docket number that appears in the heading of this Notice. All comments received will be posted without change to http://www.regulations.gov or Future57.transportationplanroom.com, including any personal information provided.

Your comments can be specific to any of the materials provided as part of the Notice of Intent, or may be provided for any other idea, suggestion, or concern you believe should be considered for the proposed Future I-57 project.

For any additional information and/or to get on the project mailing list, contact Mr. Randal Looney, Environmental Coordinator, Federal Highway Administration, Arkansas Division Office, 700 West Capitol Avenue, Suite 3130, Little Rock, AR 72201-3298, email: randal.looney@dot.gov, (501) 324-6430; or Mr. Bill McAbee, Environmental Project Manager, Garver, 4701 Northshore Drive, North Little Rock, AR 72118, email: WCMcAbee@GarverUSA.com, (501) 537-3259.

APPENDIX A

23 USC Section 139 Coordination Plan

Walnut Ridge to Missouri State Line (Future I-57)
ARDOT Job Number 100512

June 2021

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Overview

The Arkansas Department of Transportation (ARDOT), in conjunction with the Federal Highway Administration (FHWA), has prepared this Coordination Plan ('Plan') to facilitate and document the lead agency's planned coordination with agencies for the Future Interstate 57 (I-57) Project ('Project') under the National Environmental Policy Act (NEPA). Public Outreach is also a component of this plan. This document is in compliance with 23 U.S.C. Section 139 "Efficient environmental reviews for project decision making".

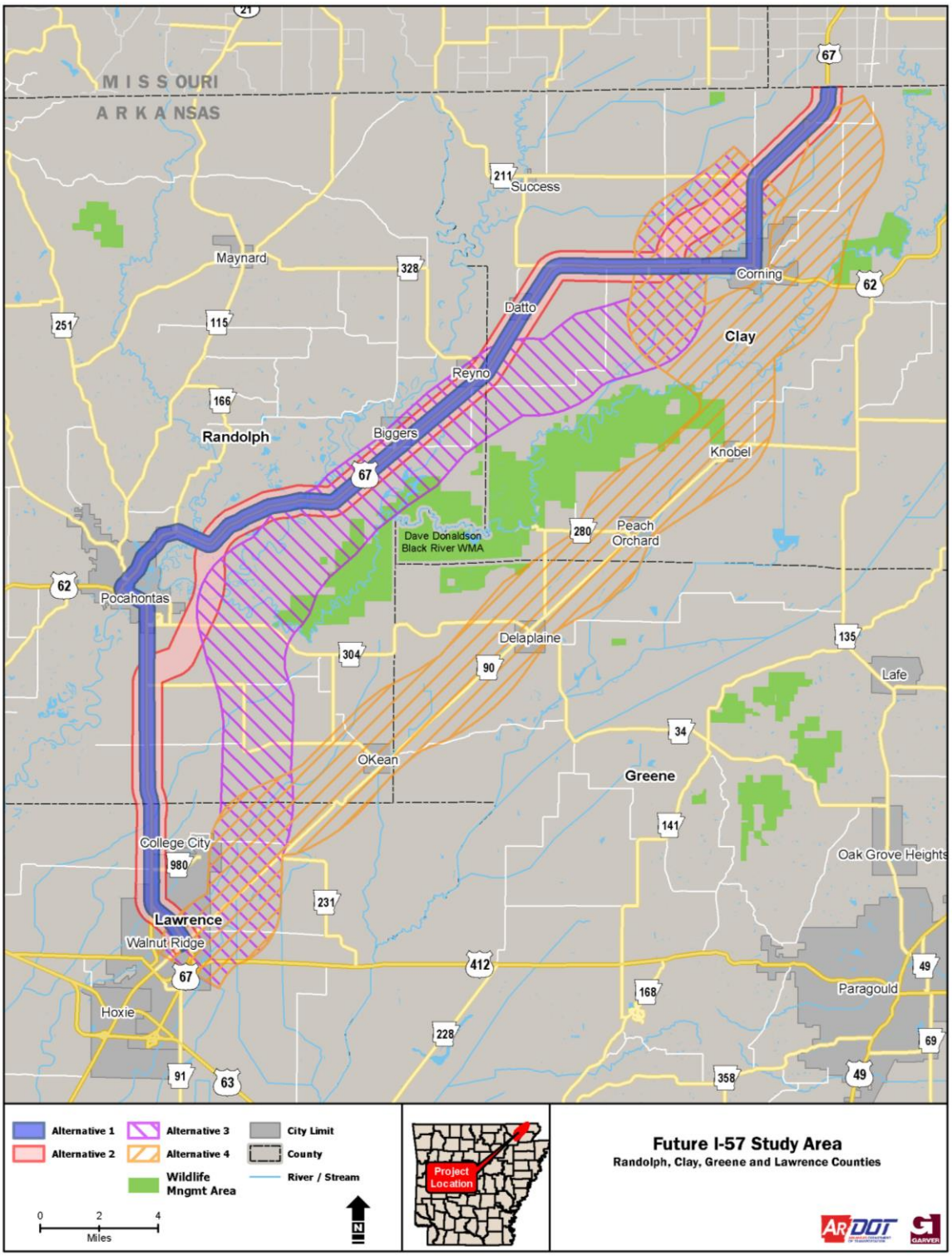
FHWA is the lead agency, while ARDOT, working on behalf of and in conjunction with FHWA, has been designated administrative and technical responsibilities for carrying out NEPA and related processes. The Plan outlines the responsibilities for compliance with the various aspects of the environmental review process and how the lead agency will provide opportunities for input from the agencies and the public and other stakeholders in accordance with applicable laws, regulations, and policies. The Plan may be augmented over the course of the Project as needed.

Project Description and Scope

Project Description

The FHWA has initiated an Environmental Impact Statement (EIS) to improve the Highway 67 (Hwy. 67) corridor in Clay, Greene, Lawrence, and Randolph counties, Arkansas. The proposed limits for the Project extend from Walnut Ridge, Arkansas to the Arkansas-Missouri State line, approximately 40 miles in length (see **Figure 1**). Within these Project limits, Hwy. 67 passes through the cities of (south to north) Walnut Ridge, Pocahontas, and Corning to the Arkansas-Missouri State line. South of the Project limits, between central Arkansas and Walnut Ridge (approximately 125 miles), Hwy. 67 is generally a continuous four-lane interstate facility. North of the Project in Missouri, most of Hwy. 67 to Sikeston (approximately 80 miles) is four-lane divided with a mix of freeway and interstate facilities. Within the Project limits, between Walnut Ridge and Pocahontas, Hwy. 67 is a four-lane highway with partial controlled access; and between Pocahontas and the Arkansas-Missouri State line, Hwy. 67 is a two-lane highway with no access control. The Project will examine alternatives to improve the section of Hwy. 67 from Walnut Ridge to the Arkansas-Missouri State line to interstate standards on existing or new location to enhance connectivity and continuity of the National Highway System. The improvements will be designated as Future I-57.

Figure 1: Future I-57 Study Area



Size and Complexity

The Project will evaluate build alternatives including improving existing Hwy. 67 and various new alignment corridors (shown in **Figure 1**). The Project will also evaluate a no-build alternative and other potential build alternative options such as Travel Demand Management (TDM), Traffic Safety Management (TSM), and High Occupancy Vehicle lanes (HOV) to determine if they meet the purpose and need.

The complexity of the Project lies in the constraints within the study area that require evaluation as part of the EIS process and providing timely coordination with various federal, state, and local agencies.

Goals of Public and Agency Involvement

As outlined herein, the Project will involve, and be responsive to, local communities in an established manner in accordance with Executive Order (EO) 12898[1] and 13166[2], Title VI of the Civil Rights Act of 1964, and compliant with the American Disabilities Act. This PIP shall discuss outreach approaches for both the general public and targeted strategies for Environmental Justice (EJ) and Limited English Proficiency (LEP) populations. This Plan was completed in accordance with ARDOT's Public Involvement Handbook[3] and reflects the Project Team's desire and overriding goal of involving the public in the decision-making process.

This Plan is intended to be proactive and provide opportunities for timely and productive public review and comment. Public meetings and activities will be scheduled to coincide with the Project's various milestones. Public involvement opportunities will be made available through a range of techniques including virtual and scheduled meetings at accessible community meeting places.

Within this context, the following goals have been developed to guide the Project's public and agency involvement:

- Identify important Project issues.

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[1] EO 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. Include Title VI and ADA

[2] EO 13166 – Improving Access to Services for Persons with Limited English Proficiency.

[3] ARDOT Public Involvement Handbook – Public Involvement Section – Environmental Division, 2017.

- Identify stakeholders who are affected and may have an interest in the Project.
- Ensure that traditionally underrepresented populations have opportunities to engage and contribute input.
- Provide facility users, property and business owners, elected/local officials, agencies, community groups, and other stakeholders with opportunities to contribute input.
- Create a forum and opportunities to gather comments, recommendations, and input from stakeholders as well as provide information to stakeholders.

Mailing List

The Project Team[4] will develop and maintain a mailing list database of names/ addresses of stakeholders; elected officials; federal, state and local resource agencies; tribes; media outlets; abutting property owners; and other parties that expressed an interest in the Project. The mailing list will be used to distribute cooperating and participating agency invitations, solicitation of views (described below), meeting announcements, and disseminate other important information as the Project progresses. The mailing list will be updated as needed to assure the appropriate contacts as well as the most current contact information is captured.

Solicitation of Views

Early in the scoping process, a solicitation of views (SOV) letter will be mailed to resource agencies and other stakeholders identified as having an interest in the project. The Project Team will coordinate with ARDOT to identify which stakeholders have an interest in the project and should receive the SOV. The purpose of the SOV letter is to inform and obtain input from interested persons and agencies about the Project. The SOV will request responses within 30 days and is made up of three parts: the SOV cover letter, the preliminary Project description, and the study area map. This will be updated with the SOV letters mailed to each applicable agency/stakeholder once completed.

Agencies Roles and Responsibilities

The sections below outline the roles and responsibilities of agencies in order to establish a protocol for communication, early identification, and resolution of issues, and to resolve issues that could delay completion of the environmental

[4] *The term "Project Team" refers to Garver and its assembled consultant team.*

process or could result in denial of any approvals required for the Project under applicable laws.

Lead Agency

The FHWA will be responsible for the overall direction of the environmental review process and ensure that all environmental commitments are completed for the Project. The lead agency is also responsible for the content of the environmental documents, and will furnish guidance, independently evaluate, and approve documents under their authority, and ensure that Project sponsors comply with mitigation commitments. The lead agency will:

- Identify and involve cooperating and participating agencies.
- Prepare a single environmental document in coordination with cooperating agencies and ensure that the FEIS includes an adequate level of detail to inform decisions by all agencies with review or authorization decision responsibilities.
- Inform cooperating agencies of changes related to the Project.
- Develop the purpose and need, develop the range of alternatives, identify the preferred alternative, and determine whether to develop the preferred alternative to a higher level of detail.
- Provide cooperating agencies the opportunity to review and contribute to key milestones of the EIS; and obtain a written concurrence from cooperating agencies whose authorization is required for the Project at key milestones.[5]
- Prepare and publish a single ROD for all federal agencies with authorization responsibility for the Project to support any necessary authorization decisions.
- Maintain a consolidated Project file of the information used by the cooperating agencies as the basis for their environmental reviews.

Cooperating Agencies

Cooperating agencies are invited to assist in the preparation, coordination, and review of the EIS. Cooperating agencies have jurisdiction by law or special expertise, and have a higher degree of authority, responsibility, and involvement in the preparation and review of the environmental documentation than those of

[5] *Purpose and need, range of alternatives, and preferred alternative.*

participating agencies. The responsibilities specific to cooperating agencies include:

- Designate, at the request of the lead agency, a point of contact to represent the agency in interagency consultations about the Project.
- Coordinate and synchronize their reviews with the lead agency's development of the EIS.
- Identify information necessary to complete application review and authorizations in accordance with the Permitting Timetable (discussed in subsequent section).
- Ensure issues that may delay the Permitting Timetable are promptly brought to the attention of the lead agency.
- Maintain the administrative record associated with its authorization decisions and provide this information to the lead agency upon request.

Any affected cooperating agencies must approve changes to shorten the schedule and evidence of this will be included in the administrative record. The cooperating agencies may develop information or prepare portions of the EIS concerning their area of expertise and may adopt the EIS of the lead agency.

Letters will be sent by FHWA to the following agencies inviting them to serve as cooperating agencies:

- U.S. Army Corps of Engineers (USACE)
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Environmental Protection Agency (EPA)
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)
- U.S. Department of Interior (USDOI) National Parks Service (NPS)
- Missouri Department of Transportation (MoDOT)

If a federal agency chooses to decline, their response letter must state that the agency (1) has no jurisdiction or authority with respect to the Project, (2) has no expertise or information relevant to the Project, or (3) does not intend to submit comments on the Project. If the federal agency's response does not state the agency's position in these terms, then the agency should be treated as a participating agency.

Participating Agencies

All federal, state, tribal, regional, and local government agencies that may have an interest in the Project are invited to serve as participating agencies by FHWA.

Participating agencies are to comply with their reviews and provide necessary input in compliance with the requests of the lead agency. The roles and responsibilities of participating agencies as outlined in *SAFETEA-LU*[6] include, but are not limited to:

- Participate in the scoping process.
- Participate in the environmental process with regard to development of the purpose and need, range of alternatives, methodologies, and the level of detail for the analysis of alternatives.
- Identify and provide early input on issues of concern regarding the Project's potential environmental impacts.
- Provide meaningful and timely input on unresolved issues.

See **Attachment A** for the participating agency list and invitation letters.

Cooperating and Participating Agencies Summary

Accepting a role as a cooperating or participating agency does not imply that an agency supports the Project or has jurisdiction or special expertise with respect to the evaluation of the Project. The following agencies have accepted as cooperating (**Table 1**) and participating agencies (**Table 2**). The Plan will be updated if additional agencies are confirmed.

Table 1: LIST OF FEDERAL COOPERATING AGENCIES
U.S. Army Corps of Engineers (USACE)
U.S. Fish and Wildlife Service (USFWS)
U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)
Missouri Department of Transportation (MoDOT)

Table 2: LIST OF STATE PARTICIPATING AGENCIES
Arkansas Game and Fish Commission
Department of Arkansas Heritage *

*Note: * The Arkansas Historic Preservation Program (AHPP) and Arkansas National Heritage Commission (ANHC) are divisions of the Department of Arkansas Heritage. Unless otherwise instructed, the AHPP and ANHC are included as one entity with the Department of Arkansas Heritage, the proposed participating agency. The AHPP and ANHC are included on the mailing list as agencies/stakeholders and will be included in Project scoping and Project outreach activities.*

[6] *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy of Users (Pub. Law 109-59).*

Permitting Timetable

In consultation with cooperating and participating agencies, a Permitting Timetable that identifies the actions and associated milestones for applicable environmental reviews and authorizations for the Project will be developed.

The Permitting Timetable will account for intermediate and final completion dates for any environmental review or authorization required for the Project. It will include estimated milestones for the Project sponsor to develop and submit complete applications and any other information required for federal authorization of the Project, including required authorization decisions by non-federal entities. The environmental review and authorization milestones to be included in the Permitting Timetable are included in the Permitting Timetable worksheet presented in **Attachment A**.

Following consultations with cooperating agencies, ARDOT and FHWA will update, and, as necessary, modify, the Permitting Timetable at least on a quarterly basis. A modified Permitting Timetable will be transmitted to each cooperating and participating agency point of contact and to the Project sponsor. A copy of the Permitting Timetable and any modifications will be made available to the public online, including, as appropriate and practicable, through the Federal Permitting Dashboard.

Agency Review Time

The environmental review process will be conducted concurrently with the applicable authorization decision processes. Accordingly, ARDOT will obtain a written concurrence from all cooperating agencies whose authorization is required for the Project at three key milestones:

1) Purpose and Need
2) Alternatives to Be Carried Forward for Evaluation
3) Preferred Alternative

Cooperating agency points of contact will be asked to respond to ARDOT's request for concurrence within 10 business days. Failure to respond within 10 business days may be treated as concurrence, at the discretion of the lead agency.

ARDOT will ask for cooperating and participating agency input on the schedule, including agency review time periods, and will make every effort to maintain the time periods established for review. Input will be solicited from cooperating and participating agencies at scheduled agency meetings. All review periods and

circulation periods will follow ARDOT guidelines and be reflected in the schedule. Each agency will implement policies and procedures to ensure completion of the review process in a timely, coordinated, and environmentally responsible manner. It would be assumed that the cooperating and participating agencies agree with the Project schedule if their input has been solicited and they have not commented otherwise.

Other Agencies/Stakeholders & Tribes

Other federal, state, and local agencies (not otherwise included as cooperating or participating agencies), elected officials, and stakeholders are included on the Project mailing list and will be included in Project scoping activities, as applicable, and agency/stakeholder and public outreach activities[7]. Consultation letters were sent to native American tribes that may have ancestral ties to the project area. Native American Tribes will also be included in public outreach activities.

Coordination Meetings

Project coordination meetings will be held throughout the study process as follows:

- Up to three federal and state agency office meetings and two field review meetings.
- Up to three public meetings
- Up to three agency/officials' meetings that will take place the same day and prior to the public meetings, as practicable.
- Up to eight additional stakeholder meetings.

The Project Team will identify, recommend, schedule, and coordinate the logistics for accessible locations for the agency, officials, public, and stakeholder meetings. Meetings will be attended by both technical staff and public involvement representatives. All meeting locations will be approved by ARDOT prior to scheduling the facility.

Agency Meetings

Face-to-face state and federal resource agency meetings will be held at important milestones, as practicable. Agencies invited will include cooperating and participating agencies, as well as other agencies that have important input on the

[7] *Public outreach activities are described in the Future I-57 Public Involvement Plan.*

Project. These meetings will likely be in Little Rock where many of the agency points of contact work.

Stakeholder Meetings

Coordination meetings with stakeholders will be held as needed. Coordination meetings are likely to be held with business owners, political and agency representatives, farmer associations, and homeowners who have a role in, or may be potentially impacted, by the Project. These meetings allow for one-on-one or small group interaction with stakeholders to address specific issues that affect their business or community outside of the regular public meetings/hearings.

Public Meetings and Hearings

There will be up to three public meetings, including one scoping meeting. Two series of public meetings will be held at 3 locations along the project corridor to provide convenient access to interested stakeholders across the project area. These locations will be in or near Corning, Pocahontas, and Walnut Ridge. The scoping meeting will be held at a centralized location along the project corridor and held early in the EIS process to identify the major and important issues for consideration during the study. Local officials meetings will be held just prior to but on the same day and location as the public meetings. The second series of public meetings will be held later in the EIS process and prior to the public hearing to update the public, local officials and other stakeholders on Project alternatives and progress, as applicable.

The Project Team will identify, recommend, schedule, and coordinate the logistics for accessible locations for the public meetings. The public meetings will be attended by both technical staff and public involvement representatives. All meeting locations will be approved by ARDOT prior to scheduling the facility.

The format of the public meetings, including the scoping meeting, will be an open house without any formal presentations. The public meetings will be conducted so that attendees can freely view exhibits and obtain Project information from the Project Team via topic-specific tables and/or exhibits. Project Team members will perform attendee registration, address questions and comments, and guide attendees through the public meeting process. Handouts prepared and distributed by the Project Team at the public meeting may include, but are not limited to, a Project location map, a Project overview, and a comment form.

Attendees will be able to submit written comments. The procedure for submitting comments will be described in the display advertisements for the meeting and at the public meeting. Comment tables will be available for attendees to submit

questions, suggestions, and concerns via comment forms. Attendees will also have the option to study and mail/email the comment form via addresses printed on the comment form. Prepaid postage will be provided at the meetings. Unless otherwise indicated by ARDOT or FHWA, attendees who choose to mail back a comment form must have it postmarked within 15 days after the public meeting date for the comment to be included in the public meeting summary report.

Alternative – Virtual Public Meeting

Due to COVID-19 and social distancing, the Project Team has developed a virtual public meeting plan in place of, or in conjunction with, an in-person open house site.

The Project Team will proceed with traditional advertisement and outreach methods while adjusting messaging for virtual public involvement. A phone number will be included on all outreach materials and advertisements for anyone with limited internet access or has general questions or comments regarding the study and virtual public meeting.

The Project Team will develop an online virtual public meeting website to guide attendees through the meeting information. Participants will be able to inspect materials, such as study background information and presentation materials, as well as provide comments via online, email, and mail.

The virtual public meeting website will launch when outreach begins and will be open 3-4 weeks per ARDOT discretion. Attendees will be able to interact with the virtual meeting materials at their leisure.

Publications

The Project Team will create display advertisements for review and approval by ARDOT. These display advertisements will be published for each public meeting by the Project Team in local newspapers[8].

In addition, the Project Team will develop a news release providing information on the public meetings and opportunities to provide input. The ARDOT Public Information Office will review, approve, and publish (unless otherwise noted by ARDOT) the news release to a list of applicable media outlets included on its mailing list.

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[8] Will include a publication in the Arkansas Democrat Gazette and other local papers, as applicable, in the vicinity of the public meeting locations.

Other announcement documents will be prepared for the public meetings as needed, such as flyers and letters. Census data will be pulled for each county to determine Limited English Proficiency. Reasonable steps will be taken in preparation for and during the public meetings to ensure identified LEP persons have meaningful access to the programs, services, and information provided by ARDOT. This may include flyers distributed to local businesses and communities affected by the Project, letters to minority churches distributed prior to the public meeting, and/or a public service announcement on local minority radio stations, as appropriate, providing interpreters at the public meetings and translating documents. The Project Team will identify active social media sites and invite them to post information on the public meetings by providing a Tweet Sheet of suggested text and graphics to use.

Public Hearing

A public hearing will be held in or near Corning, Pocahontas, and Walnut Ridge to formally present the DEIS findings and receive public and stakeholder input on those findings. The public hearing will be conducted after approval of the DEIS by FHWA. This hearing may be conducted under the alterative virtual meeting process described above.

The Project Team will identify, recommend, schedule, and coordinate the logistics for an accessible location for the public hearing. The public hearing will be attended by both technical staff and public involvement representatives. The public hearing will be held at locations along the Project corridor and will be approved by ARDOT prior to scheduling the facility.

The public hearing format will be an open house without any formal presentations. It will be conducted so that attendees can freely view exhibits and obtain Project information from the Project Team via topic-specific tables and/or exhibits. Project Team members will perform attendee registration, address questions and comments, and guide attendees through the public hearing process.

Materials prepared and distributed by the Project Team at the public hearing may include, but are not limited to, the following:

- A *Welcome to the Public Hearing Packet* – May include right-of-way acquisition and relocation assistance program procedures; environmental impact documentation.
- Handouts – Project location map, Project overview, and comment form.

Attendees will be able to submit written and/or verbal comments. The procedure for submitting comments will be described in the notice for the public hearing and at the public hearing. Comment tables will be available for attendees to submit questions, suggestions, and concerns via comment forms. Attendees will also have the option to study and mail/email back the comment form via addresses printed on the comment form. Prepaid postage will be provided. Unless otherwise indicated by ARDOT or FHWA, attendees who choose to mail back a comment form must have it postmarked within 15 days after the public hearing date for the comment to be included in the public hearing summary report.

Publications

The Project Team will publish one legal notice and two display ads in local newspapers[9].

- Notice 1: A legal notice published no less than 30 days before the public hearing date that includes information on the hearing, where documents may be reviewed, and announcing the 45-day comment period.
- Notice 2: A display ad published approximately 15 days before the public hearing date.
- Notice 3: A display ad published the week of the public hearing date.

The notices will state when and where the public may review the Project information, will include a brief description of the Project, and the location and time of the public hearing.

In addition, the Project Team will develop a press release providing information on the public hearing and opportunities to provide input. The ARDOT Public Information Office will review, approve, and publish (unless otherwise noted by ARDOT) the news release to a list of applicable media outlets included on its mailing list.

Other announcement documents will be prepared for the public hearing as needed, such as flyers and letters. Census data will be pulled for each county to determine LEP. Reasonable steps will be taken in preparation for and during the public hearing to ensure identified LEP persons have meaningful access to the programs, services, and information provided by ARDOT, as determined necessary. This may include flyers distributed to local businesses and communities affected by the

[9] Will include a publication in the Arkansas Democrat Gazette and other local papers, as applicable, in the vicinity of the public hearing location.

Project, letters to minority churches distributed prior to the public hearing, and a public service announcement on local minority radio stations, as appropriate.

Summary Reports

Upon completion of each public meeting and the public hearing, a summary report will be prepared by the Project Team and submitted to ARDOT for review and approval. The closing date to receive public meeting/hearing comments will be 15 days after the meeting/hearing date, unless otherwise noted by ARDOT and/or FHWA. Comments received after 15 days will not be considered in the summary report (official public record), but will be maintained within the study record.

The summary reports will include an accounting of the meeting/hearing logistics and attendees. They will also include, as applicable, a written transcript of oral statements recorded, the written comments received at each public meeting/hearing, copies of the public meeting/hearing display advertisements and/or public hearing legal notice, copies of any handouts and materials utilized at the meeting/hearing, meeting/hearing photographs, and a summary analysis of comments received concerning the Project. The public hearing summary will include an adequate response to the received comments.

MoDOT Coordination

The Missouri Department of Transportation (MoDOT) completed a FEIS for Hwy. 67[10] from just south of St. Louis, Missouri to a point just south of Neelyville, Missouri, which is approximately two miles north of the Arkansas-Missouri State line. The southern termini of the MoDOT study was identified because it would not dictate where ARDOT had to locate their northern terminus. The two-mile gap north of the state line would allow MoDOT to align their final section of Hwy. 67 to be compatible with the future ARDOT termini.

In order to provide a basis for a coordinated planning process between the states of Arkansas and Missouri, ARDOT and MoDOT signed a Memorandum of Understanding (MOU) in August 1998 allowing the two states to cooperate on the northern terminus of ARDOT's section of Hwy. 67. In accordance with this MOU, ARDOT will set up coordination points with MoDOT at the following project milestones: range of alternatives identification and preferred alternative identification. These coordination points are subject to change based on project progress and coordination needs.

[10] *Final Environmental Impact Statement, U.S. Route 67, June 22, 2005.*

ATTACHMENT A

Environmental Impact Statement Permitting Timetable Worksheet for Permitting Dashboard

Project Title: Hwy. 412 – Missouri State Line P.E.
State Project Number: Job No. 100512
Sponsor: Arkansas Department of Transportation

Federal Lead Agency/ Action:

FHWA - Environmental Impact Statement

Milestone	Target Date	Completion Date
Issuance of Notice of Intent to prepare an Environmental Impact Statement (EIS)	7/15/2021	
Scoping	8/15/2021	
Official Notice of Availability of a Draft EIS published in the Federal Register (FR) beginning both the public comment period and concurrent CAA Section 309 Review	6/31/2022	
Official Notice of Availability of a Final EIS published in the FR beginning both the public review period and concurrent CAA Section 309 Review	2/28/2023	
Issuance of Record of Decision or combined Final EIS / Record of Decision	2/28/2023	

FHWA- Cultural Resources

Milestone	Target Date	Completion Date
Consultation initiated with SHPO/THPO	8/31/2021	
Section 106 Consultation Concluded	5/31/2022	

Responsible Agency: FHWA
Phone: 501.324.6430

POC: Randal Looney
Email: randal.looney@fhwa.dot.gov

Cooperating / Participating Agency Actions:

U.S. Army Corps of Engineers - Section 404, 10, and 408 Clean Water Act

Milestone	Target Date	Completion Date
Pre-construction Notification (PCN)/Form ENG 4345/Joint Application Form Received	2/28/2023	
Complete Pre-Construction Notification (PCN)/Application Received (Submittal includes Section 404-408-10 information)	3/31/2023	
Publication of Public Notice	4/30/2023	
Final Verification/Permit Decision Rendered	7/31/2023	

- This permit requires ADEE Section 401 Water Quality Certification

Responsible Agency: USACE
Phone: 501.765.9938
Cooperating Agency YES

POC: Johnny McLean
Email: Johnny.l.mclean@usace.army.mil
Participating Agency Only NO

U.S. Fish and Wildlife Service - Section 7 Endangered Species Act Consultation

Milestone	Target Date	Completion Date
Request for ESA Consultation Received	1/31/2022	
Consultation Package (Formal Consultation):	3/02/2022	
Conclusion of ESA Consultation I	6/15/2022	

Responsible Agency: USFWS
Phone: 501.513.4489
Cooperating Agency YES

POC: Lindsey Lewis
Email: lindsey_lewis@fws.gov
Participating Agency Only NO

State, Local, Tribal, Other Non- Federal Agency and not cooperating or participating agency

Arkansas Department of Energy and Environment - Section 401 Water Quality Certification

Milestone	Target Date	Completion Date
Initial Application Received	1/31/2023	
Issuance of decision for permit/approval	7/31/2023	

Responsible Agency: ADEE
Phone: 501.682.0744
Cooperating Agency NO

POC: Beck Keogh
Email: Keogh@adeq.state.ar.us
Participating Agency Only NO

Project Schedule

I-57
ARDOT Job No. 100512 TO 033 last schedule update June 24, 2021

Description	Year	2021												2022												2023		
	Month	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	Decemebr	January	February	March
FEASIBILTY AND ENVIRONMENTAL STUDY																												
Cooperating Agencies Accepted																												
Identify Alternatives Carried Forward																												
DEIS (FHWA and Coop Agency review concurrent)																												
Notice of Intent																												
Public Hearing																												
Hisotric Structure Survey																												
Phase I Shovel Survey																												
Bat Survey																												
Mussel Survey																												
Wetland Delineation																												
FEIS/ROD																												

Onging Task
ARDOT Reviews and/or Approvals
FHWA Review
Complete
Comment Period

Appendix B – Executive Summary of the 2015 Highway 67 Improvement Study

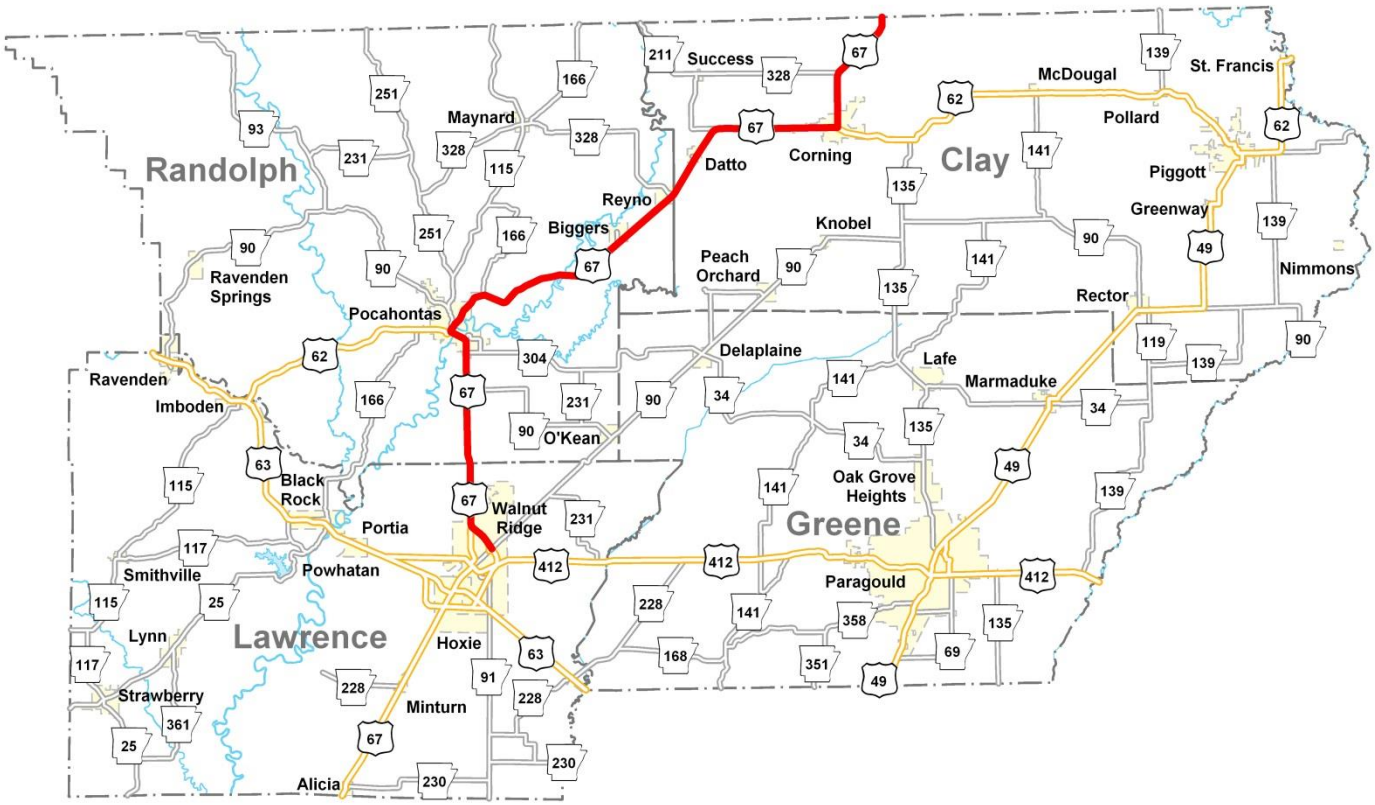
Job No. 100512, Walnut Ridge – Missouri State Line (Future I-57) P.E.

Prepared by Garver for the
Arkansas Department of Transportation
In cooperation with the Federal Hwy Administration

This report was funded in part by the Federal Hwy Administration, U.S. Department of Transportation. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

Highway 67 Improvement Study

Clay, Greene, Lawrence and Randolph Counties



Executive Summary

August 2015

Highway 67 Improvement Study

Clay, Greene, Lawrence and Randolph Counties

Executive Summary

August 2015

Prepared by the Transportation Planning and Policy Division
Arkansas State Highway and Transportation Department
In Cooperation with the Federal Highway Administration

This report was funded in part by the Federal Highway Administration, U.S. Department of Transportation. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
NOTICE OF NONDISCRIMINATION

The Arkansas State Highway and Transportation Department (Department) complies with all civil rights provisions of federal statutes and related authorities that prohibited discrimination in programs and activities receiving federal financial assistance. Therefore, the Department does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in the admission, access to and treatment in Department's programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. McFadden Section Head – EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: joanna.mcfadden@ahtd.ar.gov.

Free language assistance for Limited English Proficient individuals is available upon request.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

AHTD:TPP:MPP:AJW:sag:8/13/2015

Introduction

Highway 67 is a National Highway System route that begins in Texas, continues through Arkansas, Missouri and Illinois, and ends in Iowa. Regionally, the route connects central Arkansas to eastern Missouri via northeastern Arkansas, and is a principal route through such cities as Newport, Hoxie, Walnut Ridge, Pocahontas and Corning. This route will be completed as a freeway between North Little Rock and Walnut Ridge in the near future, and has also been completed as a multilane expressway in Missouri between St. Louis and Highway 160. Upon completion of all the construction projects, a 58-mile gap will be left in this continuous four-lane facility between North Little Rock and St. Louis, of which 47 miles are in Arkansas.

Arkansas State Highway Commission (AHC) adopted U.S. 67 Corridor Study – Walnut Ridge to the Missouri State Line (Minute Order 96-042) that recommended a four-lane freeway on new location in Arkansas. However, the Missouri Department of Transportation's current improvement plan for Highway 67 is no longer compatible with the study recommendation. In order to address the compatibility issue, the AHC approved Minute Order 2012-025 to re-evaluate the long term improvement needs for the Highway 67 Corridor from Walnut Ridge to the Missouri state line.

Purpose and Need

The purposes of the proposed improvements are to increase accessibility to northeast Arkansas, enhance the economic viability of this region of the state, aid interstate commerce, and improve a vital regional connector by providing a four-lane facility through the Highway 67 Corridor between Walnut Ridge and the Missouri state line.

Existing Highway Network

Completion of jobs currently underway will provide a four-lane, fully controlled access Highway 67 facility from North Little Rock to Walnut Ridge. Between Walnut Ridge and Pocahontas, Highway 67 includes four travel lanes and a flush median, with no control of access. In Pocahontas, through traffic experiences higher traffic volumes and must pass

through four traffic signals. The route narrows to two lanes between Pocahontas and the Missouri State line. Through traffic in Corning is required to turn at a signalized intersection to remain on Highway 67. Current (2015) and projected (2035) traffic volumes are shown Figure ES-1.

Network Connectivity

A primary motivation for improving Highway 67 is to increase accessibility to northeast Arkansas, in turn enhancing the economic viability of the region, and to complete a missing link in the planned four-lane corridor between central Arkansas and eastern Missouri. This facility would ultimately provide an alternate route to Interstates 40 and 55, which would divert some truck traffic from these facilities. Such a route would also provide redundancy in the overall transportation system through northeast Arkansas.

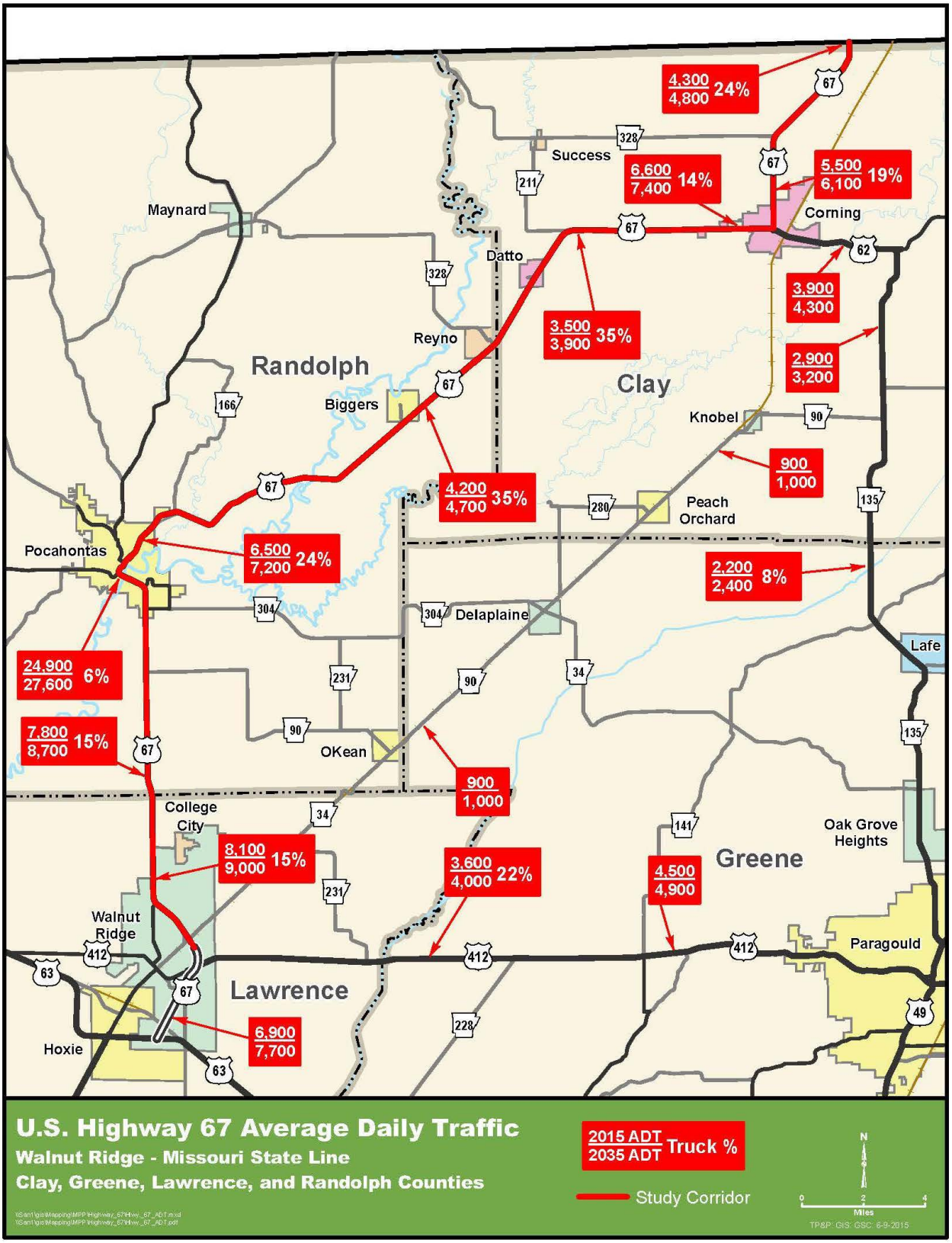
Travel Time

Traffic along existing Highway 67 is currently required to pass through the center of multiple cities with higher traffic volumes, lower speed limits, and occasional traffic signals. Delays are sometimes exacerbated by farm equipment operations. Even though traffic volumes are modest, motorists sometimes experience delay on the existing two-lane highway north of Pocahontas due to the limited passing opportunities inherent of two-lane highways. Speed limits on existing two-lane Highway 67 are lower than those of a multi-lane facility with improved geometry and access control. A more direct route would reduce travel distances, which in turn reduce travel time. Reductions in travel time would not only help current users, but also better serve regional movements that currently use other highways.

Traffic Operations Analysis

Methodologies from the *2010 Highway Capacity Manual* (HCM) were used to quantify the operational performance of existing Highway 67. Level of Service (LOS), A through F, is a qualitative measure describing conditions in a traffic stream, considering such measures as speed, freedom to maneuver, traffic interruption, and comfort and convenience. Typically, LOS C (rural areas) or LOS D (urban areas) is considered acceptable. Most of Highway 67 operates at LOS A or B today, and this operation is expected to continue through 2035.

Figure ES-1 – Study Area and Average Daily Traffic



Operations decline to LOS D in Pocahontas and LOS C in Corning both today and in 2035. All of these values are considered acceptable. While roadway improvements could further improve traffic operations on Highway 67, congestion alone does not warrant the proposed improvements.

Safety Analysis

Crash data along Highway 67 through the study area were analyzed for 2010, 2011 and 2012, which are the most recent years that data are available. Results are shown in Figure ES-2 and Tables ES-1. Crash rates for all seven analysis segments of Highway 67 are below the statewide average for similar facilities with the exception of the two-lane segment through central Pocahontas (Segment D), which is only slightly higher than the statewide average.

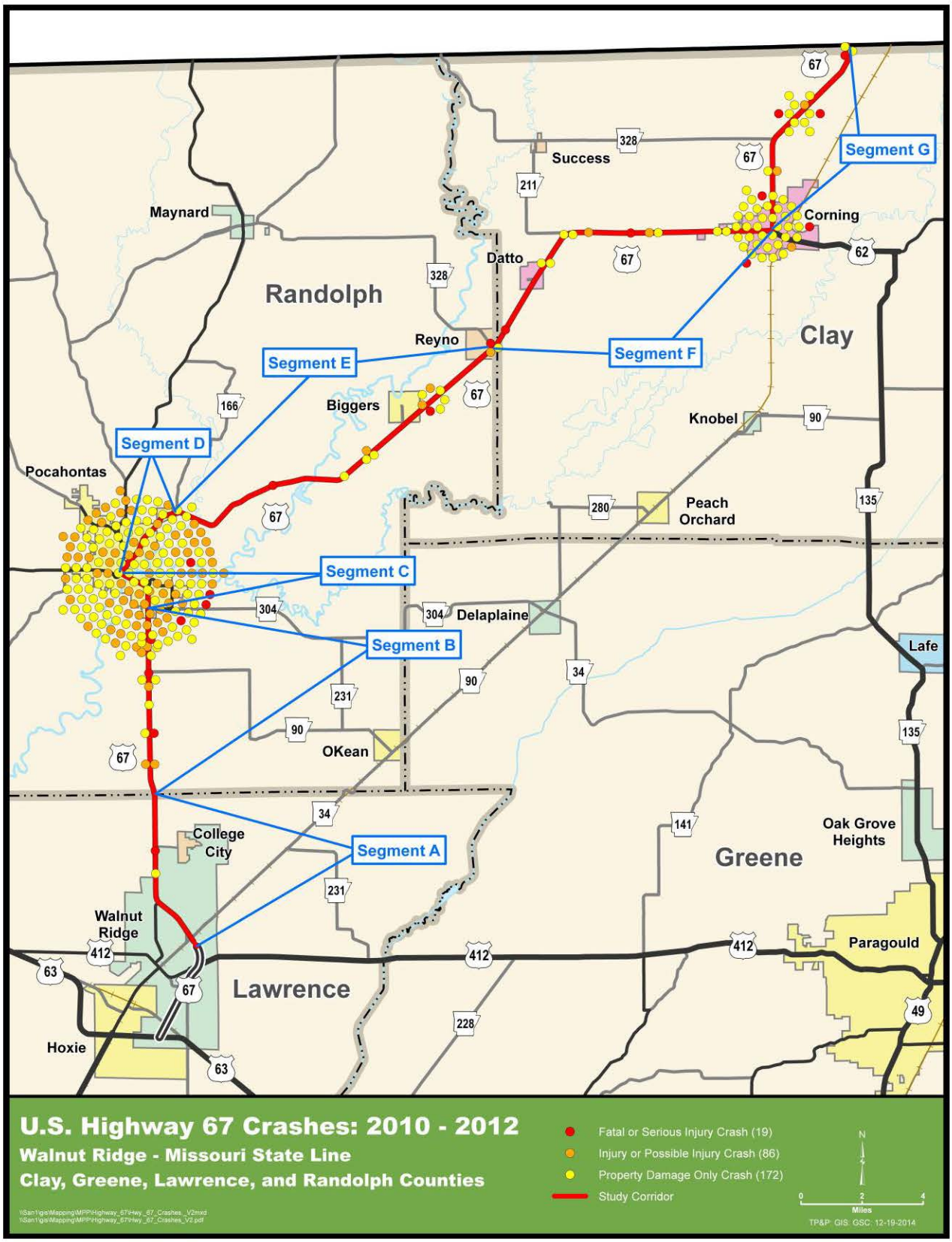
Table ES-1 – Summary of Crash Rates (2010-2012)

Segment	County	Location	Type of Roadway (Length)	Weighted ADT	Crashes (KA Crashes)	Crash Rates per MVM[1] (KA Crash Rates per 100 MVM[1])	Statewide Average Crash Rates per MVM[1] (KA Crash Rates per 100 MVM[2])
A	Lawrence	Sec. 17 LM 3.38 to 8.87	Rural Four-Lane Undivided	7300	2 (1)	0.05 (2.28)	0.76 (8.95)
B	Randolph	Sec. 18 LM 0.00 to 6.01	Rural Four-Lane Undivided	8200	17 (3)	0.31 (5.55)	0.76 (8.95)
C	Randolph	Sec. 18 LM 6.01 to 7.75	Urban Four-Lane Undivided	17800	112 (2)	3.30 (5.89)	4.51 (9.75)
D	Randolph	Sec. 19 LM 0.00 to 2.65	Urban Two-Lane Undivided	6500	55 (1)	2.91 (5.30)	2.83 (10.08)
E	Randolph	Sec. 19 LM 2.65 to 15.52	Rural Two-Lane Undivided	3600	24 (4)	0.47 (7.88)	1.01 (15.22)
F	Clay	Sec. 20 LM 0.00 to 11.02	Rural Two-Lane Undivided	3800	36 (3)	0.78 (6.54)	1.01 (15.22)
G	Clay	Sec. 20 LM 11.02 to 18.07	Rural Two-Lane Undivided	4800	31 (5)	0.84 (13.48)	1.01 (15.22)

[1]MVM represents million vehicle miles.

Ten of the 19 fatal or serious injury (KA) crashes were roadway departure crashes. One KA crash occurred at a signalized intersection, and five KA crashes occurred at un-signalized access points. Alcohol was also involved in two of the 19 KA crashes. A total of two fatal crashes occurred during the three-year study period.

Figure ES-2 – Crash Locations (2010-2012)



Discussion of Alternatives

A range of alternatives were considered to improve Highway 67 in northeastern Arkansas. These options are introduced in Table ES-2 and illustrated in Figure ES-3. Each alternative was reviewed with respect to several goals identified in the Purpose and Need. These are:

- Traffic Operations
- Travel Time
- Network Connectivity
- Safety
- Service to Local Communities
- Environmental and Community Impacts

The cost and constructability of each alternative were also considered. All cost estimates are in 2014 dollars and include costs for construction, right of way acquisition, utility relocation, preliminary engineering and construction engineering. The results of this analysis are summarized in Tables ES-3 and ES-4.

Public Involvement

Due to the high level of local interest in this study, two sets of public meetings were held to gauge the desires of local citizens and public officials. An initial set of meetings was held in 2012 to gain insight from the community for this study, and a second set of meetings was held in 2014 to present the preliminary findings and receive feedback. Both sets included separate meetings in Pocahontas and Corning as well as a local officials meeting where public officials from across the region attended. Over 400 comments were collected during the public involvement process.

There was an overwhelming consensus that improvements were needed along the route, primarily for economic development reasons. Preferred alternatives, however, varied greatly by the respondent’s county of residence.

Table ES-2: Description of Alternatives

Alternative	Name	Description
No-Action	No-Action Alternative	• Make no improvements to existing route.
Alternative 1	Improve Existing Highway 67	• Widen existing highway to four travel lanes on existing location.
Alternative 2	Improve Existing Highway 67 with Bypasses	• Widen existing highway to four travel lanes on existing location. • Provide bypasses to the east of Pocahontas and to the west of Corning.
Alternative 3E	Southern New Location Alternative (East of Corning)	• Construct a freeway or expressway[1] on new alignment through the southernmost and easternmost portion of the study area. • This route passes Corning to the east.
Alternative 3W	Southern New Location Alternative (West of Corning)	• Construct a freeway or expressway[1] on new alignment through the southernmost and easternmost portion of the study area. • This route passes Corning to the west.
Alternative 4E	Central New Location Alternative (East of Corning)	• Construct a freeway or expressway[1] along a route that generally follows the Union Pacific Railroad from Walnut Ridge to Corning. • This route passes Corning to the east.
Alternative 4W	Central New Location Alternative (West of Corning)	• Construct a freeway or expressway[1] along a route that generally follows the Union Pacific Railroad from Walnut Ridge to Corning. • This route passes Corning to the west.
Alternative 5	Northern New Location Alternative	• Construct a freeway or expressway[1] along a route that closely parallels existing Highway 67 to the east and south. • This route passes Pocahontas to the east and Corning to the west.

[1] A freeway is assumed as a facility built to Interstate standards with full control of access. An expressway is assumed as a facility with partial control of access and at-grade intersections that could reasonably be improved to Interstate standards in the future. All new location alternatives include an interchange at Highway 67 west of Corning or Highway 62 east of Corning.

Figure ES-3 – Construction Alternatives

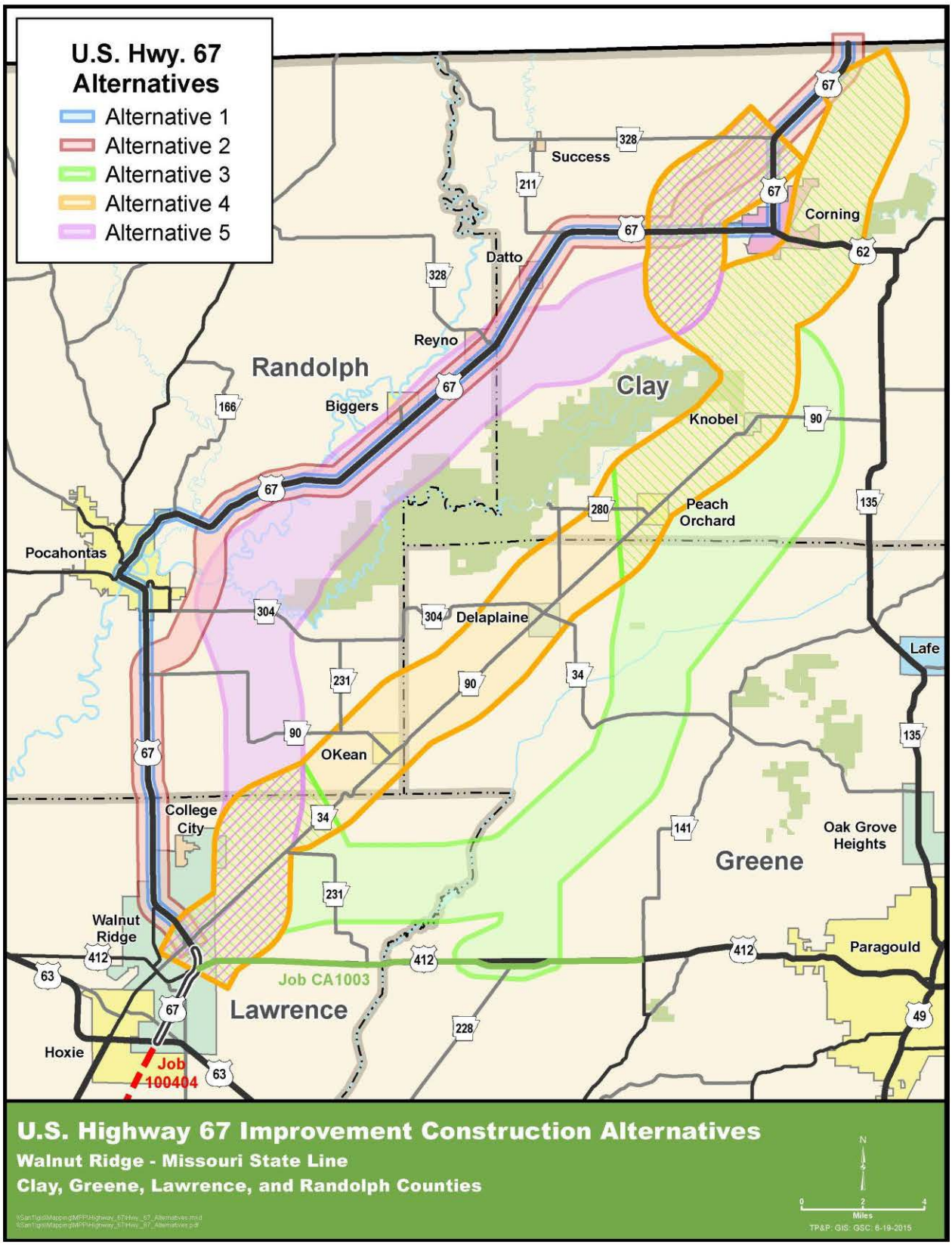


Table ES-3: Alternatives Comparison

		Total Cost (millions)	Construction Cost (millions)	Corridor Travel Distance (miles)	Urban Traffic Operations (LOS)	Rural Traffic Operations (LOS)	Travel Time Improvements	Diversion from Existing Routes[1]	Safety	Service to Communities			Environmental/ Community Impacts[2]	Construction Phasing	Public Support	Benefit/ Cost Ratio[3]
										Corning	Paragould	Pocahontas				
No-Action Alternative		$0	$0	47.2	D	B	None	None	No Change	No Change	No Change	No Change	Minimal	N/A	Limited	1.00
Alternative 1		$193.8	$151.6	47.2	D	A	3 minutes	Low	Modest	Minimal	No Change	Modest	High	Very Easy	Some	1.41
Alternative 2		$246.6	$200.1	43.9	A	A	10 minutes	Modest	Good	Good	No Change	Good	Modest	Easy	Public Officials and Pocahontas Residents	2.65
Alternative 3E	Freeway	$442.4	$371.0	44.0	A	A	15 minutes	Good	Excellent	Excellent	Modest	No Change	Modest	Difficult	Limited	2.24
	Expressway	$410.0	$341.8													2.42
Alternative 3W	Freeway	$431.0	$360.5	44.6	A	A	14 minutes	Good	Excellent	Excellent	Modest	Minimal	Modest	Difficult	Limited	1.97
	Expressway	$398.6	$331.2													2.12
Alternative 4E	Freeway	$378.3	$317.7	39.3	A	A	19 minutes	Good	Excellent	Excellent	Modest	No Change	Modest	Difficult	Corning Residents	3.18
	Expressway	$345.9	$288.4													3.47
Alternative 4W	Freeway	$367.0	$307.1	39.9	A	A	18 minutes	Good	Excellent	Excellent	Modest	Minimal	Modest	Difficult	Corning Residents	3.08
	Expressway	$334.5	$277.8													3.37
Alternative 5	Freeway	$400.5	$335.3	41.7	A	A	17 minutes	Excellent	Excellent	Excellent	No Change	Good	Modest	Moderate	Some Pocahontas Residents	2.98
	Expressway	$368.1	$306.0													3.24

Notes:
[1]Diversion from existing routes considers both regional diversion from Interstates 40 and 55 as well as local diversion from existing Highway 67.
[2]Environmental/Community Impacts are based on a cursory assessment of impacts to existing developments, floodways and farmlands. Further consideration will occur during the NEPA process.
[3]Benefit/Cost ratio is based on travel time savings, reduced vehicle operating costs and safety benefits. Improvements to regional economic competitiveness or environmental/community impacts were not quantified. Does not consider benefits provided by segments of independent utility before the full facility is constructed.

Table ES-4: Discussion of Alternative Suitability

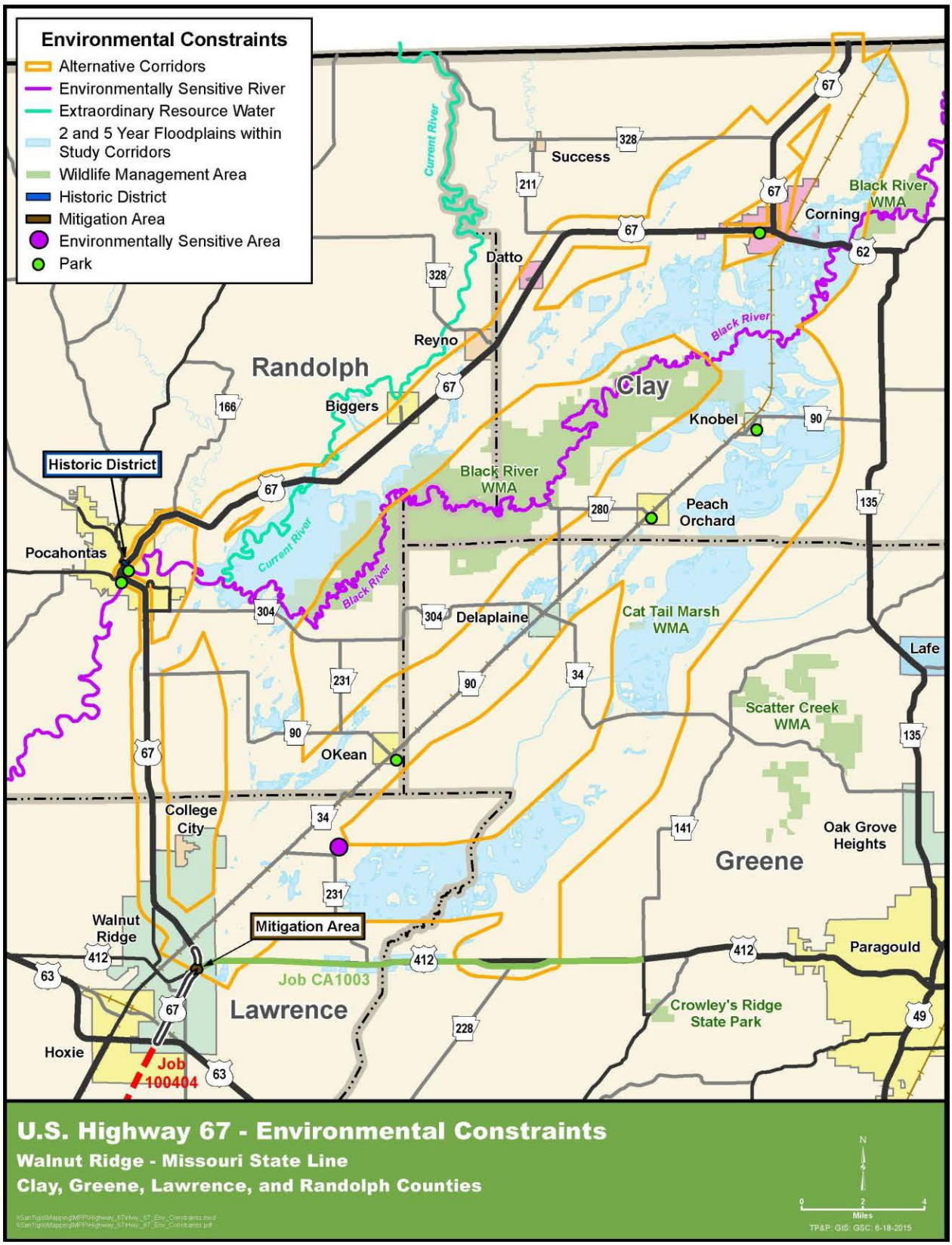
Corridor Travel Distance
• All construction alternatives reduce total travel distance. • Alternatives 4E and 4W provide the greatest travel distance reduction, followed by Alternative 5.
Traffic Operations
• All alternatives, including No-Action, meet operational goals. • Alternatives 2, 3E, 3W, 4E, 4W and 5 allow motorists to avoid slower routes through Pocahontas and Corning.
Travel Time Improvements
• Alternative 1 provides minimal travel time improvements. • Alternative 2 provides relatively modest travel time improvements (about 10 minutes). • Alternatives 3E, 3W, 4E, 4W and 5 provide large travel time improvements (about 14 to 19 minutes).
Diversion from Existing Route
• Alternatives with shorter travel times also divert more traffic from Interstate 40 and 55. Traffic on these Interstates, however, will still remain relatively high. • Alternative 5 also attracts regional trips between Pocahontas and Corning**.**
Safety
• Alternative 1 utilizes same corridor in urban areas, where access densities are high and most crashes occur. Geometric improvements are provided in some rural areas. • Alternative 2 avoids more crash-prone urban segments. Geometric improvements are provided in rural areas, but control of access is not provided. • Alternatives 3E, 3W, 4E, 4W and 5 provide partial or full control of access and a favorable geometric alignment throughout the corridor.
Service to Communities
• All alternatives provide improved service to Corning. • All alternatives provide minimal benefit to Paragould due to geography and a lack of connecting routes. • Alternatives 3E, 3W, 4E and 4W are located far from Pocahontas and provide minimal benefit. Alternatives 2 and 5 provide greater service to Pocahontas. Alternatives 3W and 4W would provide a slightly improved benefit when compared to Alternatives 3E and 4E because traffic from Missouri would not have to travel through central Corning to reach Pocahontas.
Construction Phasing
• Alternative 1 could easily be constructed in segments of any length as funds became available. • Alternative 2 includes two short bypasses that would need to be completed to provide utility, but can otherwise be constructed as funds become available. • Alternatives 3E, 3W, 4E and 4W require completion of a 32 to 36 mile segment before any portion is able to provide independent utility. • Alternative 5 provide the opportunity to construct short connectors between the new facility and the existing route, allowing shorter sections of new location highway to provide independent utility.
Benefit/Cost Ratio
• All construction alternatives demonstrated benefits that exceeded the project cost. • Alternatives 4E and 4W provided the greatest benefit/cost ratio, followed by Alternative 5 and then Alternative 2. • The expressway alternatives had a better benefit/cost ratio than the comparable freeway alternatives.

- Residents of Randolph County were strongly opposed to any alternative that did not directly serve Pocahontas. They believe that relocating Highway 67 farther from Pocahontas would greatly impact the economic viability of the City, and prefer improving existing Highway 67 with bypasses (Alternative 2). Some participants suggested incorporating the existing route into a freeway, although this would be difficult due to the high cost associated with controlling access while maintaining local mobility. Many residents verbally stated that they would rather see no improvements than have Highway 67 relocated farther from Pocahontas.
- Residents of Clay County generally supported a more direct freeway alternative (Alternative 4). This was primarily because it provides the shortest, most direct connection.
- Residents of smaller communities along the Union Pacific Railroad corridor generally opposed a new freeway near their communities (Alternative 4). They are very concerned about farm severance.
- Participants generally desired a practical, less expensive facility that could be funded and constructed in a reasonable amount of time.
- Most respondents supported bypasses around central Pocahontas and Corning due to property impacts and traffic congestion.
- A western bypass of Corning was more popular than an eastern bypass due to such issues as floodplains, existing development, and proximity to Pocahontas.
- Local officials across the region are currently unified in their support of Alternative 2, as indicated by their 2013 letter to the Governor and Arkansas Highway Commission.

Environmental Impacts

A cursory environmental review was performed along each of the proposed Highway 67 corridors. Identified constraints are shown in Figure ES-4. The environmental and community impacts of each alternative were briefly summarized. All summarizations are cursory in nature, and further study will be required through the National Environmental Policy Act (NEPA) process. The no-action alternative was considered to have minimal impact because it would only affect the region in terms of higher traffic volumes and continued

Figure ES-4 – Environmental Constraints



maintenance. Alternative 1 was considered to have high environmental and community impacts because it would impact developed areas in both Pocahontas and Corning and because it crosses three floodways. Alternatives 2, 3E, 3W, 4E, 4W and 5 all avoid these developed areas and floodways; however, these alternatives cross floodplains, farmlands and the Black River. Therefore, these alternatives were considered to have modest environmental and community impacts.

Summary of Findings

This study considered improvement options for Highway 67 between Walnut Ridge and the Missouri state line with the goals of improving network connectivity, enhancing safety, aiding interstate commerce, and ensuring the economic viability of northeast Arkansas. A comprehensive set of alternatives was studied including improving the existing route, constructing a new location facility, and taking no action. The results are summarized below and in Table ES-5.

- **No-Action** – This alternative carries no cost (other than continued maintenance), but achieves none of the study goals. Congestion levels are still acceptable under this alternative in 2035. The No-Action Alternative **should be retained** for NEPA purposes.
- **Improve Existing Highway 67 (Alternative 1)** – This alternative provides a four-lane facility through the study area, but travel time improvements are minimal, and congestion slightly worsens in Pocahontas. A high number of relocations are likely in Pocahontas and Corning, and a floodway is impacted. Through traffic is still exposed to higher urban arterial crash rates. For these reasons, Alternative 1 **should be eliminated** from further consideration.
- **Improve Existing Highway 67 with Bypasses (Alternative 2)** – This alternative improves on the previous alternative's shortcomings by providing new-location bypasses around Pocahontas and Corning, which in turn shortens travel distances and travel times, reduces community impacts, and diverts traffic from more crash prone facilities. Access control is not provided anywhere other than on the bypasses, and upgrading this alternative to an Interstate type facility would be difficult. Local officials have indicated their unified their support of this alternative.

Because it meets the purpose and need in a prudent and feasible manner, Alternative 2 **should be retained**.

- **Southern New Location Alternative (Alternative 3)** – Under this alternative, travel times are greatly improved, urban congestion is reduced, and safety is enhanced. However, of the new location alternatives, this alignment is the longest, most time consuming and most expensive, and it crosses the greatest number of floodplains. Because multiple options exist with greater benefits and a lower cost, Alternative 3 **should be eliminated**.
- **Central New Location Alternative (Alternative 4)** – This alternative provides the shortest distance and fastest travel times of all new location alternatives, and does so at the lowest cost. This alternative bypasses the majority of Randolph County, and is strongly opposed by residents of both Pocahontas and communities along Highway 90, but is preferred by Clay County residents. The 32 mile segment between Walnut Ridge and Corning would need to be fully constructed before any portion of the highway could provide local benefits. Because it strongly meets the purpose and need, Alternative 4 **should be retained**. While a cursory review of traffic diversion, environmental constraints and public opinion indicate a preference for constructing the route to the west of Corning, both alternatives are considered to be viable at this time.
- **Northern New Location Alternative (Alternative 5)** – This new location alternative is slightly longer (by about two miles) and slightly slower (by about two minutes) than Alternative 4. However, this alternative remains much closer to developed areas and would attract more users by serving regional trips between Pocahontas and Corning. By utilizing short connectors between the existing and new route, this alternative could be constructed in phases. Because this alternative meets the identified purpose and need, Alternative 5 **should be retained.**

Conclusion

It is recommended that Alternatives 2, 4 and 5 be considered for further environmental studies and project development as funds become available. Upon determination of a preferred alignment, corridor preservation should be encouraged with the local stakeholders. Furthermore, due to the high costs associated with improving Highway 67, cost sharing through a partnering arrangement with the local jurisdictions should be explored. At a minimum, possible removal of existing highways from the State Highway System should be considered.

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Table ES-5: Summary of Alternatives

Alternative	Description	Benefits	Drawbacks	Total Costs (million)	Benefit/Cost Ratio[1]	Recommendation
No-Action	No capital improvements	• No capital costs • No environmental or community impacts	• Travel through the region is not improved	$0	1.00	**Retain (for NEPA)**
Alternative 1	Improve Existing Highway 67	• Provides a four-lane connection at the lowest costs • Easiest alternative to construct in phases	• Improvements to traffic operations, travel times, and safety are minimal • Significant environmental and community impacts	$193.8	1.41	**Eliminate**
Alternative 2	Improve Existing Highway 67 with Bypasses	• Provides modest improvements to traffic operations, travel times and safety • Lower costs than new location alternatives • Supported by local officials and Randolph County residents • Reasonably easy to construct in phases	• Traffic operations, travel times and safety are not as improved as under new location alternatives • Difficult to improve the corridor into an Interstate type facility in the future	$246.6	2.65	**Retain**
Alternative 3E	Southern New Location Alternative (East of Corning)	• Provides significant improvements to traffic operations, travel times and safety	• Least beneficial of all new location alternatives • Most expensive of all new location alternatives • No public support • 36-mile segment must be constructed for independent utility	$442.4 (Freeway) $410.0 (Expressway)	2.24 (Freeway) 2.42 (Expressway)	**Eliminate**
Alternative 3W	Southern New Location Alternative (West of Corning)			$431.0 (Freeway) $398.6 (Expressway)	1.97 (Freeway) 2.12 (Expressway)	**Eliminate**
Alternative 4E	Central New Location Alternative (East of Corning)	• Provides greatest improvement to traffic operations, travel times and safety • Least expensive of all new location alternatives • Strongly supported by Clay County residents	• 32-mile segment must be constructed for independent utility • Strongly opposed by Randolph County Residents	$378.3 (Freeway) $345.9 (Expressway)	3.18 (Freeway) 3.47 (Expressway)	**Retain**
Alternative 4W	Central New Location Alternative (West of Corning)			$367.0 (Freeway) $334.5 (Expressway)	3.08 (Freeway) 3.37 (Expressway)	**Retain**
Alternative 5	Northern New Location Alternative	• Provides very good improvement to traffic operations, travel times and safety • Attracts greatest number of users from existing Highway 67 facility • Provides new location route that stays relatively close to Pocahontas • Can be built in shorter segments of independent utility by use of short connector roads	• Travel times and total costs are not quite as favorable as Alternative 4E/4W	$400.5 (Freeway) $368.1 (Expressway)	2.98 (Freeway) 3.24 (Expressway)	**Retain**

[1]Benefit/Cost ratio is based on travel time savings, reduced vehicle operating costs and safety benefits. Improvements to regional economic competitiveness or environmental/community impacts were not quantified. Does not consider benefits provided by segments of independent utility before the full facility is constructed.

Appendix C – Traffic and Safety Analysis Technical Report

Job No. 100512, Walnut Ridge – Missouri State Line (Future I-57) P.E.

Prepared by Garver for the
Arkansas Department of Transportation
In cooperation with the Federal Hwy Administration

This report was funded in part by the Federal Hwy Administration, U.S. Department of Transportation. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

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INTRODUCTION

The 2015 *Draft Highway 67 Improvement Study* (2015 Study) was updated with regards to traffic volumes and safety analysis for the current Purpose and Need statement. The primary purposes of the study are to improve connectivity and strengthen economic competitiveness for this region of the state by providing a four-lane facility through the Highway 67 corridor between Walnut Ridge and the Missouri state line. Additional goals include improving mobility, improving reliability, enhancing safety and security, improving resiliency, and minimizing impacts to the natural, historic, and cultural environments. Using the goals established in the Arkansas Long Range Intermodal Transportation Plan (LRITP), the *Traffic and Safety Analysis* addresses issues which were identified based on an evaluation of existing and future traffic operations and historical crashes.

2015 STUDY

According to the results of the 2015 Study, congestion levels would be acceptable without improvements in 2035; therefore, retaining the No-Action option for NEPA was recommended. While improvements were not necessitated by congestion levels, the safety analysis reveals some need for improvements. Additionally, improvements would provide increased accessibility to northeast Arkansas, enhance economic viability of this region of the state, aid interstate commerce, and improve connectivity.

NEEDS IDENTIFIED

Based on primary purposes and goals of this study and information gathered from the 2015 Study, the needs identified for the *Traffic and Safety Analysis* were examined using the most recent crash data and updated volumes, general observations on the existing corridor including its geometry and connectivity, and operational performance results from the 2015 Study. The findings are presented below.

TRANSPORTATION DEMAND

The volume and classification count data collected annually was used to develop the design hourly volumes used in the operational analysis of the corridors. For the signalized intersection analysis in Pocahontas and Corning, existing turning movement counts from ARDOT were utilized. **Table 1** shows the historical data at key locations along the Highway 67 corridor. These Average Daily Traffic (ADT) volumes are available on the ARDOT website. ADT for 2020 is shown for information only but was not utilized in any calculations. Several stations had intermittent time frames of missing data. In instances where one or two years of data was missing, the average of the year before and the year after was used to fill in the missing data point. Filled in data points are shown in red.

To project 2040 No-Action traffic volumes, the trend function in *Excel* was used. This method utilizes historic data and is based on the equation y=mx+b, where y represents the traffic volume and x represents the year. For these calculations, the true "b" value was selected.

Table 1: Historical ADT on Highway 67

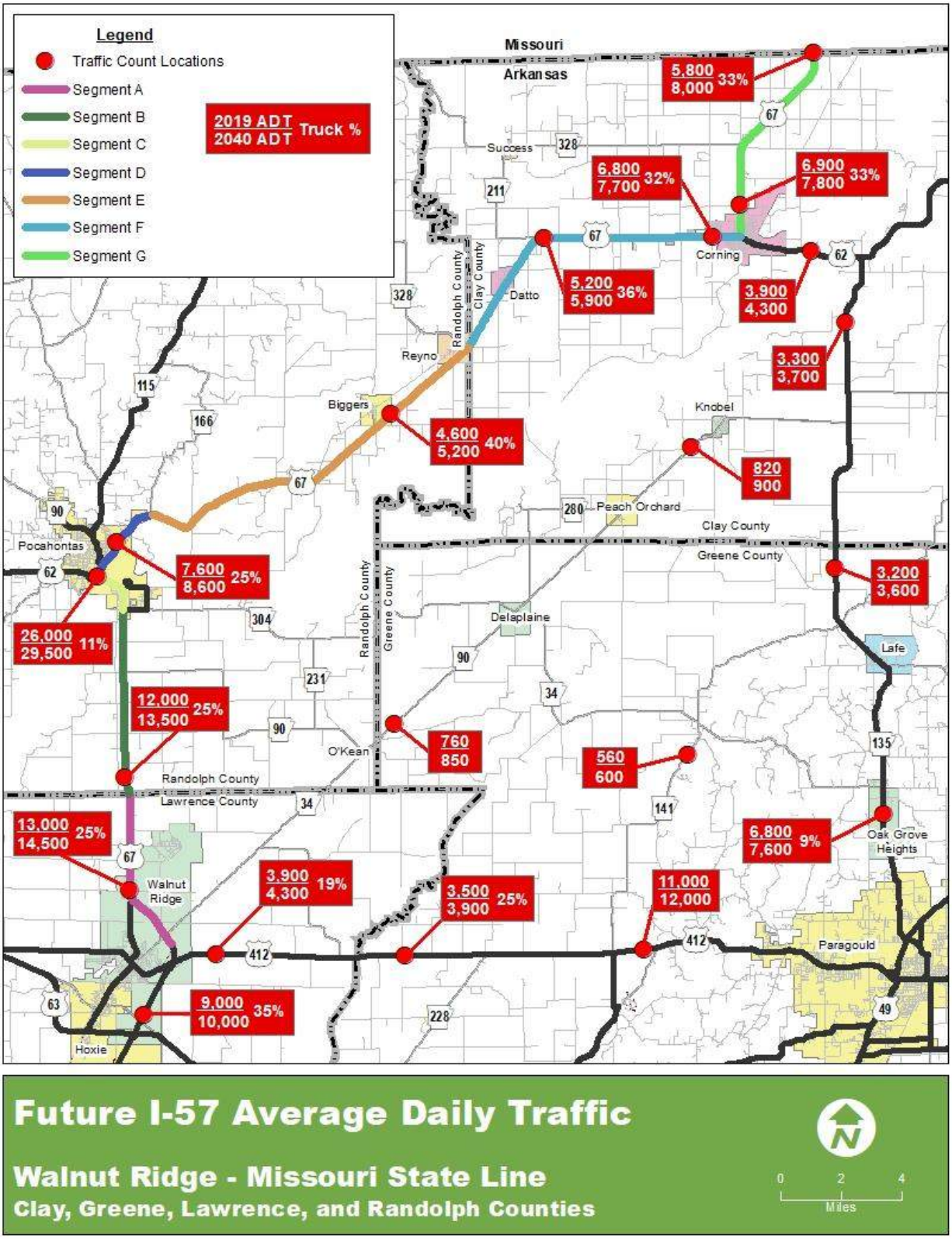
Hwy 67											
Approach	Hwy 63 Interchange to Hwy 412 Interchange (Walnut Ridge)	Hwy 67 to CR 410	CR 414 (Country Club Rd) to Lawrence/ Randolph County Line	Lawrence/ Randolph County Line to Hwy 90 (Tenco Rd)	Hwy 62/Hwy 67 Intersection (Pocahontas)	Hwy 115 (Broadway St) to Geneva Dr (Pocahontas)	Hwy 67 (Main St) to Randolph/Clay County Line (Biggers/Reno)	Hwy 211 to Airport Rd	CR 143 to Hwy 67/Hwy 62 (Corning)	B/t Lee Dr & David St to Hwy 328	Hwy 328 to Missouri State Line
Station	380058	380031	381986	611986	610206	610208	610018	110019	110020	110021	110022
1999		8,900	6,900	6,900	10,000	6,000	3,000	4,200	5,400	6,100	4,700
2000		7,800	7,300	7,300	15,000	4,900	2,800	4,600	7,000	6,100	4,600
2001		7,600	7,100	7,100	15,000	5,500	3,000	4,000	6,900	6,000	4,400
2002		8,000	8,100	8,100	16,000	5,300	3,000	4,100	7,100	5,900	4,500
2003		7,900	7,900	7,900	14,000	5,700	3,100	3,400	6,900	5,100	4,800
2004	7,200	8,200	8,500	8,500	17,000	5,900	3,200	4,000	7,000	6,200	6,100
2005	5,300	7,900	8,100	8,100	16,100	4,800	3,100	3,800	6,700	6,100	4,600
2006	5,100	7,600	7,300	7,300	17,200	5,400	3,000	4,200	6,900	5,800	4,200
2007	5,700	7,400	7,100	7,100	16,300	6,200	3,000	3,700	6,300	5,600	4,200
2008	4,900	7,700	6,800	6,800	15,000	5,800	2,600	3,500	6,300	5,600	4,100
2009	5,000	7,700	7,400	7,400	24,000	6,100	2,900	3,300	5,800	5,100	4,000
2010	5,400	8,400	8,000	8,000	23,000	6,300	3,000	4,000	6,900	5,900	4,700
2011	4,900	7,900	7,900	7,900	25,000	6,100	2,800	3,700	6,400	5,200	4,000
2012	5,600	8,200	7,600	7,600	25,000	6,100	2,700	3,500	6,300	5,400	4,300
2013	5,800	10,000	8,000	8,000	24,000	6,100	2,800	3,600	6,200	5,400	4,200
2014	5,800	9,900	8,500	8,500	23,000	5,400	2,800	3,600	6,200	5,400	4,300
2015	6,300	11,000	8,600	8,600	23,000	6,200	3,100	3,800	6,200	5,900	4,600
2016	6,400	11,000	9,100	9,100	23,750	6,900	3,300	4,100	6,100	6,000	4,700
2017	8,000	12,000	11,000	11,000	24,500	7,200	4,200	4,600	7,200	6,800	5,300
2018	8,000	13,000	11,000	11,000	25,250	7,400	4,400	5,400	7,400	7,000	4,600
2019	9,000	13,000	12,000	12,000	26,000	7,600	4,600	5,200	6,800	6,900	5,800
2020	8,000	13,000	11,000	11,000	-	-	-	-	7,000	7,200	-

For the final annual growth rates (AGR) along the corridors, an average for each individual segment was calculated. At locations with a negative AGR from the Trend function, a 0.00% AGR was assumed prior to averaging. These locations are highlighted in yellow in **Table 2** below. Based on the latest ADT volumes, the average AGR at the key locations is 0.60%. This AGR is similar to the average AGR of 0.55% from the 2015 Study. **Table 2** summarizes the forecasted volumes at key locations compared to the 2015 Study. The 2019/2040 ADT along Highway 67 as well as adjacent highways is depicted in **Figure 1**.

Table 2: AGR and Forecasted ADT

Hwy 67							
Year	2015 Study	Trend Function	Recommended	Year	2015 Study	Trend Function	Recommended
Hwy 63 Interchange to Hwy 412 Interchange (Walnut Ridge)				Hwy 67 (Main St) to Randolph/Clay County Line (Biggers/Reno)			
2015		6,900		2015		4,200	
2019		9,000		2019		4,600	
AGR (%)	0.55%	0.97%	0.60%	AGR (%)	0.55%	0.09%	0.60%
2035	7,700		-	2035	4,700		-
2040	-	11,012	10,000	2040		4,692	5,200
Hwy 67 to CR 410				Hwy 211 to Airport Rd			
2015		8,100		2015		3,500	
2019		13,000		2019		5,200	
AGR (%)	0.55%	1.13%	0.60%	AGR (%)	0.55%	-0.36%	0.60%
2035	9,000		-	2035	3,900		-
2040		16,468	14,500	2040		4,819	5,900
CR 414 (Country Club Rd) to Lawrence/ Randolph County Line				CR 143 to Hwy 67/Hwy 62 (Corning)			
2015		7,800		2015		6,600	
2019		12,000		2019		6,800	
AGR (%)	0.55%	0.57%	0.60%	AGR (%)	0.55%	-0.11%	0.60%
2035	8,700		-	2035	7,400		-
2040		13,529	13,500	2040		6,644	7,700
Lawrence/ Randolph County Line to Hwy 90 (Tenco Rd)				B/t Lee Dr & David St to Hwy 328			
2015		7,800		2015		5,500	
2019		12,000		2019		6,900	
AGR (%)	0.55%	0.57%	0.60%	AGR (%)	0.55%	-0.16%	0.60%
2035	8,700		-	2035	6,100		-
2040		13,529	13,500	2040		6,666	7,800
Hwy 62/Hwy 67 Intersection (Pocahontas)				Hwy 328 to Missouri State Line			
2015		24,900		2015		4,300	
2019		26,000		2019		5,800	
AGR (%)	0.55%	2.30%	0.60%	AGR (%)	0.55%	-0.76%	0.60%
2035	27,600		-	2035	4,800		-
2040		41,928	29,500	2040		4,939	6,600
Hwy 115 (Broadway St) to Geneva Dr (Pocahontas)							
2015		6,500					
2019		7,600					
AGR (%)	0.55%	0.76%	0.60%				
2035	7,200	-	-				
2040		8,917	8,600				

Figure 1: Average Daily Traffic Volumes



SAFETY

KA Crashes are defined as either fatal or serious injury crashes.

The historical crashes occurring within the study area were updated from the 2015 Study to include the five-year period between 2013 and 2017. Although crash data is now available through 2019, the minimal increase in traffic volumes is not expected to alter the safety results; thus, no additional analysis was performed. Crash rates for total crashes and KA crashes were calculated as follows:

$$\textbf{Crash Rate (R)} = (C * 10^6)/(V*365*N*L)$$

- R = Roadway crash rate expressed as crashes per Million Vehicle-Miles (MVM) of travel
  - KA crash rate is expressed as crashes per 100 MVM of travel, thus $(C*10^8)$
- C = Total number of roadway crashes in the study period
- V = Traffic volumes using Average Annual Daily Traffic volumes
- N = Number of years of data
- L = Length of the roadway segment in miles

Table 3 presents crash rates for all crash severities as well as crash rates for KA crashes only along the existing Highway 67 corridor. The average crash rates were lower than the statewide average crash rates for all locations except for Segments C and D. Segment C is a segment of urban four-lane undivided roadway through Randolph County, and Segment D is a segment of urban two-lane undivided roadway through Randolph County. The average KA crash rates were lower than the statewide average KA crash rates for all locations except for Segment C.

Table 3: Annual Average Crash Rates (2013-2017)

Segment	County	Location	Type of Roadway (Length)	Weighted ADT	Total Crashes	Crash Rates per MVM[1]	Statewide Ave. Crash Rates per MVM[1]	Crash Rate Ratio[2]	KA Crashes	KA Crash Rates per 100 MVM[1]	Statewide Ave. KA Crash Rates per 100 MVM[1]	KA Crash Rate Ratio[2]
A	Lawrence	Sec. 17 LM 14.26 to 19.75	Rural Four-Lane Undivided	8,600	10	0.11	0.80	0.13	3	3.23	7.65	0.42
B	Randolph	Sec. 18 LM 0.00 to 6.10	Rural Four-Lane Undivided	8,300	45	0.43	0.80	0.53	5	4.74	7.65	0.62
C	Randolph	Sec. 18 LM 6.11 to 7.74	Urban Four-Lane Undivided	17,800	247	4.44	4.37	1.02	8	14.37	9.12	1.58
D	Randolph	Sec. 19 LM 0.00 to 2.83	Urban Two-Lane Undivided	6,400	113	3.13	2.56	1.22	1	2.77	11.35	0.24
E	Randolph	Sec. 19 LM 2.84 to 15.51	Rural Two-Lane Undivided	3,600	42	0.43	1.07	0.40	5	5.12	14.28	0.36
F	Clay	Sec. 20 LM 0.00 to 11.00	Rural Two-Lane Undivided	4,400	48	0.50	1.07	0.47	5	5.25	14.28	0.37
G	Clay	Sec. 20 LM 11.01 to 18.05	Rural Two-Lane Undivided	4,700	49	0.71	1.07	0.66	4	5.76	14.28	0.40

[1]MVM represents million vehicle miles.

[2]Crash Rate Ratio = Crash Rate/Statewide Average

The crashes were also plotted by location, type, and severity using GIS as shown in **Figures 2 and 3**. As these figures show, the largest clusters of crashes occur in locations of sharp curvature along the existing Highway 67 corridor such as the intersections with Highway 304 and with Highway 62 in Segment C and with Highway 62 (Mission Avenue) between Segment F and Segment G.

Figure 2: Crash Types (2013-2017)

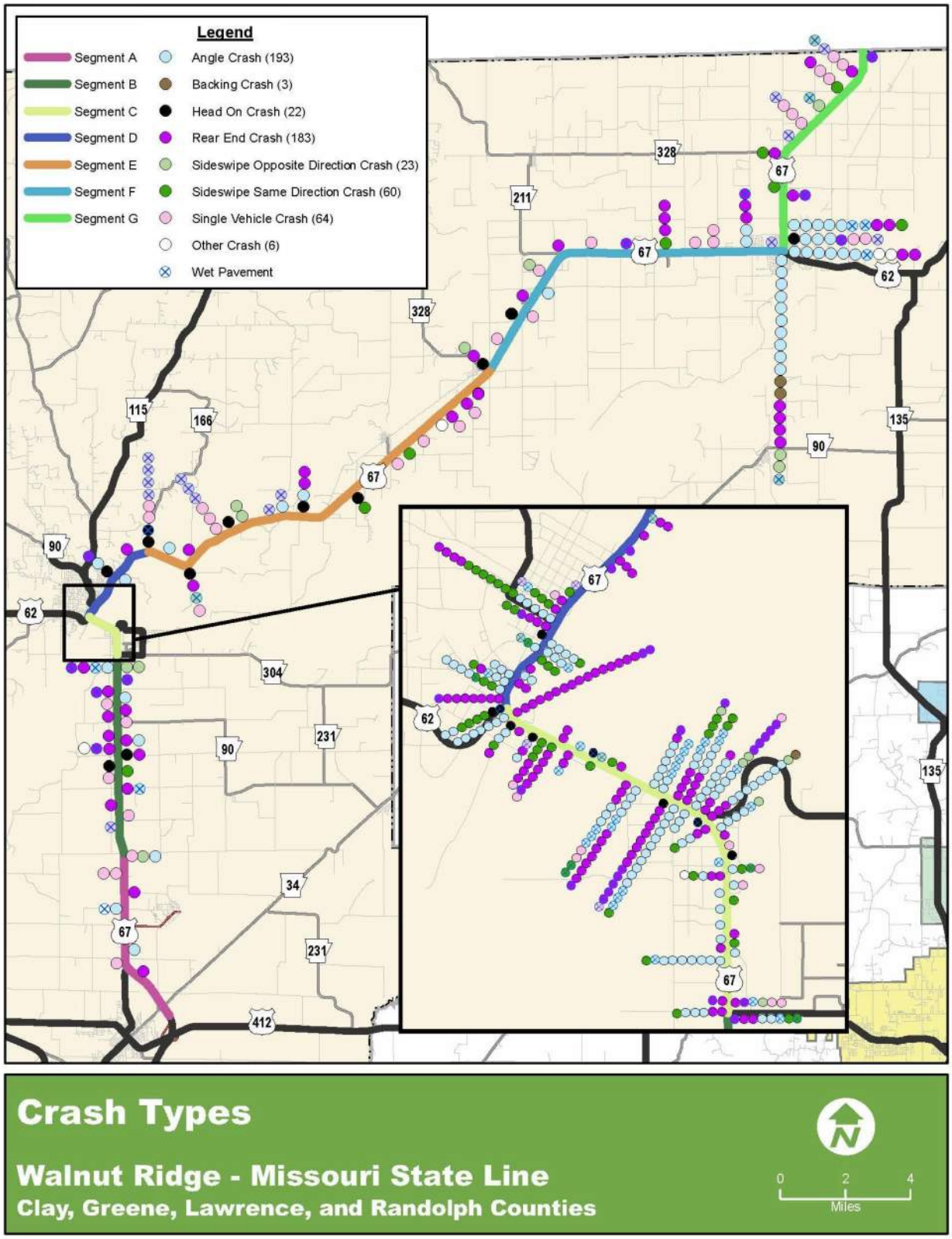
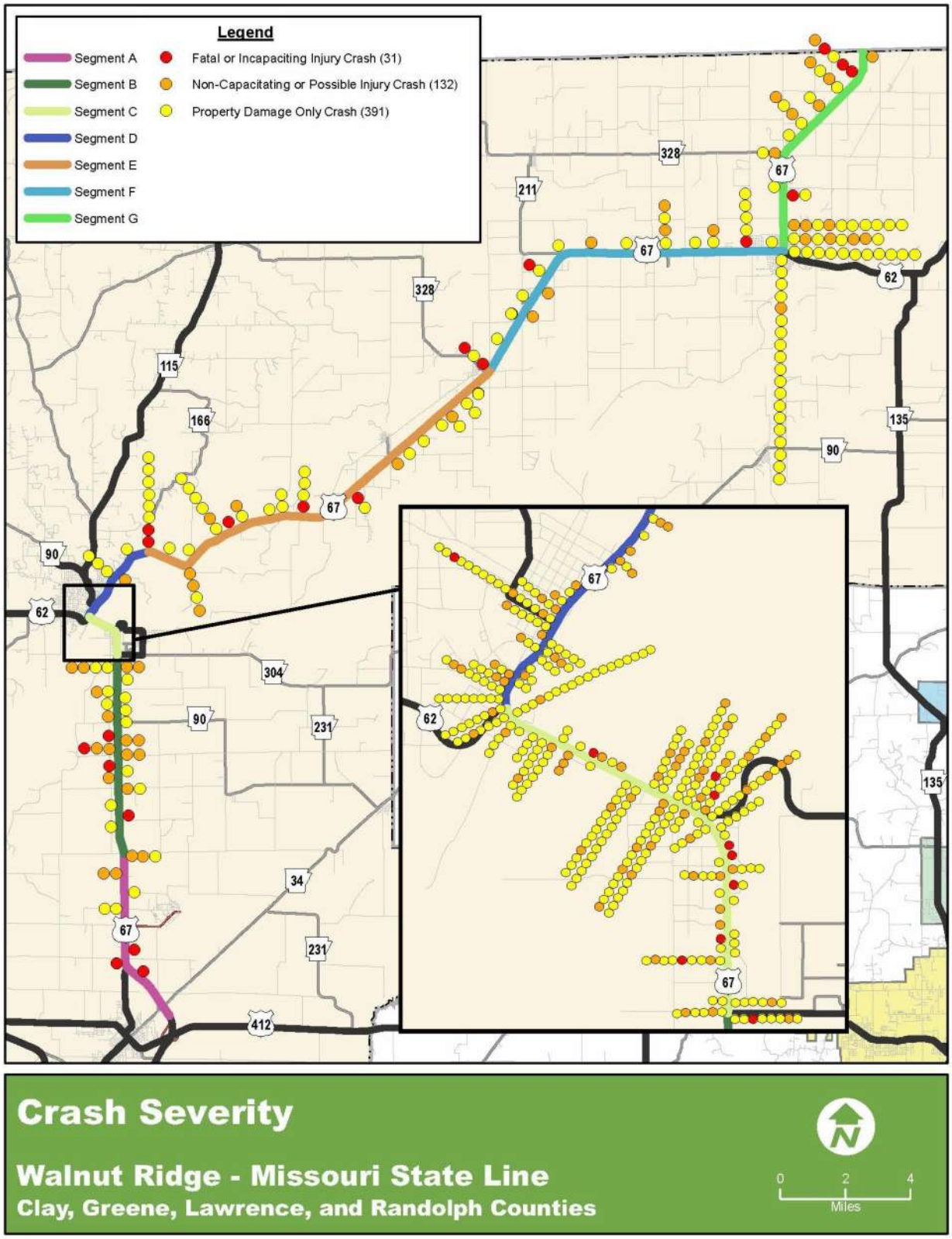


Figure 3: Crash Severity (2013-2017)



Segments A and B, located between Walnut Ridge and Pocahontas, do not show any notable clusters of crashes or pattern in type of crashes. However, all three of the fatal or incapacitating injury crashes that occurred within Segment A were located within the curve along Highway 67 at its intersection with Highway 67 Business. Sight distance issues and speed are likely contributing factors to these crashes.

Segment C, located in Pocahontas, experienced mainly rear-end and angle type collisions. Several driveways line Highway 67, particularly near its intersections with Highway 304 (Townsend Drive) and with Highway 62. The lack of access management along Highway 67 leads to a higher number of conflict points and a higher likelihood of rear-end and angle collisions. The intersection of Highway 67 with Highway 62 is also signalized and located in the middle of a sharp curve. Inadequate sight distance, sharp curvature, and possible signal timing issues along with lack of access management are contributing factors to the high number of angle and rear-end crashes occurring throughout Segment C.

Segment D, located in Pocahontas, showed a cluster of crashes at the intersection of the Highway 67 with Highway 90 (Broadway Street). These crashes were mainly angle, rear-end, and sideswipe same direction type crashes which resulted in property damage only. Congestion and signal timing issues are likely contributing factors at this location.

Segment E, located between Pocahontas and Reyno, experienced a large cluster of crashes within a curvy portion of the Highway 67 at its intersection with Highway 166 (Engelberg Road). Two head-on and six single vehicle crashes occurred at this location, and over half of these occurred in wet pavement conditions. Two of these crashes resulted in incapacitating injury or death. The roadway geometry, limited sight distance, and speed are likely contributing factors at this location.

Segments F and G extend from Reyno to the northern border of Arkansas. Within these two segments, the most notable cluster of crashes occurred where Highway 67 makes a sharp turn at its intersection with Highway 62 (Mission Avenue) in Corning. Most of the crashes were angle crashes, and no crashes resulted in incapacitating injury or death. This intersection is signalized and contains several driveways very close to the intersection on all approaches. Congestion, signal timing issues, and access management issues are possible contributing factors at this location.

SECURITY

Enhancing resiliency is the study goal related to ensuring security of the transportation system. Resilience is the ability of the transportation system to recover and regain functionality after a major disruption or disaster. Resiliency can be evaluated by considering the impacts to the transportation system resulting from disruptions to normal traffic flow. A traffic incident, flooding, or infrastructure failure on most of the state highways in the study area would result in moderate inconveniences for travelers in the region, with detours adding a few miles or minutes to their trip. However, an incident or failure along Highway 67 could result in serious inconveniences to local travelers and could have much more severe impacts to long distance travelers and freight shippers. Improvements to the Highway 67 corridor could also relieve the strain on the transportation system along Interstates 40 and 55.

To demonstrate the resiliency of the transportation network and in particular the diversion of truck traffic, Streetlight Data from ARDOT was evaluated for 30 days before and 30 days after the May 11, 2021, closing of the I-40 bridge over the Mississippi River. While there was a slight drop in total volume (typical Tuesday-Thursday data) from the pre-closure period to the post-closure period, the truck volume increased as shown in

Table 4. The average increase in truck volume was 10.69% which resulted in the total increase in truck percentage from 30.57% to 37.52%.

Table 4: Truck Diversions Due to the I-40 Bridge Closure

Location	Hwy 328 to Missouri State Line	Hwy 67 (Main St) to Randolph/Clay County Line (Biggers/Reno)	CR 414 (Country Club Rd) to Lawrence/Randolph County Line	Average
Station	110022	610018	381986	-
2021 Daily Traffic (Pre-Closure)	6,260	5,998	14,608	8,955
2021 Truck Traffic (Pre-Closure)	2,322	2,530	3,361	2,738
2021 Truck % (Pre-Closure)	37.09%	42.18%	23.01%	30.57%
2021 Daily Traffic (Post-Closure)	6,013	5,624	12,591	8,076
2021 Truck Traffic (Post-Closure)	2,580	2,726	3,785	3,030
2021 Truck % (Post-Closure)	42.91%	48.47%	30.06%	37.52%
2021 % Increase in Truck Volume	11.11%	7.75%	12.62%	10.69%

MOBILITY AND SYSTEM RELIABILITY

Mobility and System Reliability are measures used to describe how well a corridor serves travelers. Mobility is the efficiency in both travel distance and travel time for road users. Connectivity and recurring delay directly affect mobility. System Reliability is the variability of travel time for a given trip along a corridor and is affected by non-recurring delay and a system's ability to accommodate and recover from nonrecurring events. Needs for improvements based on connectivity, recurring delay, and non-recurring delay are discussed in the following subsections.

CONNECTIVITY

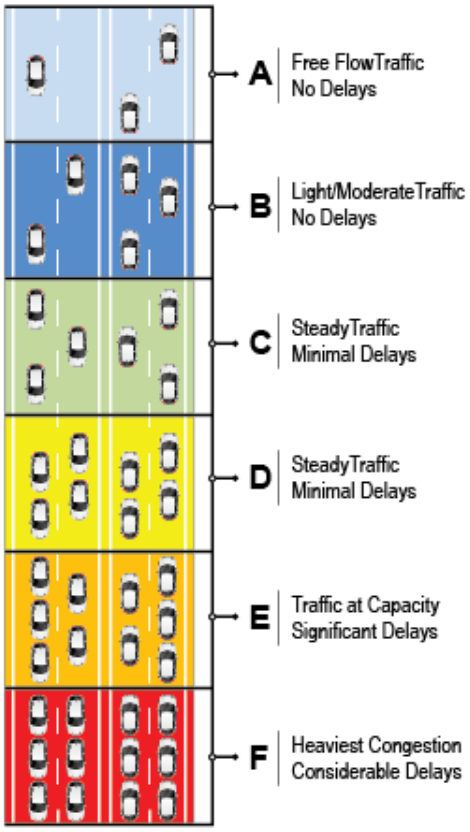
Connectivity refers to the number of links in a transportation network and how directly travelers can reach their destinations. As connectivity increases, travel distances decrease and route options increase. While minimizing indirection is desirable for a cross-state route, such as Highway 67, directness of travel for such a route is limited by many factors such as topography and maintaining connectivity to developed areas. In many cases, increasing connectivity offers significant improvement for local travel patterns which outweigh the conversely small impact overall on travel times/distances for regional or long-distance trips.

The existing Highway 67 corridor is comprised of both multilane highway (southern end through Pocahontas) and two-lane highway north of Pocahontas. North of Pocahontas, Highway 67 bisects several developed areas but offers limited passing opportunities. In some areas, farm equipment commonly utilizes the corridor which makes the lack of passing opportunities even more problematic. The corridor experiences several areas of reduced speed limits and occasional stops for traffic signals as it passes through the more developed areas of Pocahontas and Corning. Completion of a four-lane corridor connecting central Arkansas and eastern Missouri would provide a shorter high-type facility between central Arkansas and eastern Missouri. Additionally, this facility would also provide an alternate route to Interstates 40 and 55 for truck traffic.

RECURRING DELAY

To quantify the recurring delay of each corridor segment or intersection, the *Highway Capacity Manual (HCM), 6th Edition* methodology was utilized. The *HCM* qualitatively describes operating conditions within a traffic stream or at an intersection using a concept known as Level of Service (LOS). LOS is typically designated into six categories. These range from LOS A indicating free-flow, low density, or nearly negligible delay conditions to LOS F where demand exceeds capacity and large queues are experienced. A graphical representation of LOS is presented in **Figure 3**.

Figure 4: Level of Service (LOS) Categories



LOS Methodology

For the initial screening process, a generalized LOS tool was used to evaluate the 2019 Existing and 2040 No-Action operations. Where the LOS tool indicated LOS C or below, a more detailed analysis along the Highway 67 segment was performed using the *Highway Capacity Software (HCS7)*. At the signalized intersections in Pocahontas and Corning, *Synchro* software was utilized to model the intersection(s) and determine corridor LOS.

For freeway and highway segments, LOS is based on density which is measured in passenger cars per mile per lane (pc/mi/ln). For Class II two-lane highways, the LOS is based on percent time spent following (PTSF). For Class III highways, the LOS is based on percent of free flow speed (PFFS). **Table 5** depicts the LOS thresholds for these segment types as stated in the *HCM*, pp. 12-19 and 15-8.

Table 5: LOS Thresholds from HCM

Level of Service	Description	Freeway or Multilane Highway	Class II Two-Lane Highway	Class III Two-Lane Highway
		Density (pc/mi/ln)	PTSF (%)	PFFS (&)
A	Free flow	0 to 11	0 to 40	> 91.7
B	Slight restriction of free flow	> 11 to 18	> 40 to 55	> 83.3 to 91.7
C	Restriction to free flow	> 18 to 26	> 55 to 70	> 75.0 to 83.3
D	Noticeable restriction, declining speeds	> 26 to 35	> 70 to 85	> 67.7 top 75.0
E	No gaps in traffic, volatile speeds	> 35 to 45	> 85	≤ 66.7
F	Breakdown, large queues, recurring congestion	> 45 or Demand > Capacity	Demand > Capacity	Demand > Capacity

To quantify the operational conditions of signalized intersections within the study corridor, *Synchro 10* software along with its companion *SimTraffic* software was used to analyze the expected delays and LOS based on the *HCM* methodology and *SimTraffic* micro-simulation methodology. **Table 6** describes the LOS thresholds for signalized intersections (*HCM 6th Edition*, pg. 19-16).

Table 6: Intersection Level of Service Thresholds

Level of Service	Description	Control Delay Range (sec/veh)
		Signalized
A	Usually no conflicting traffic	0 to 10
B	Occasionally some delay due to conflicting traffic	> 10 to 20
C	Dleay noticeable, but not inconveniencing	> 20 to 35
D	Delay noticeable and irratating, increased likelihood of risk-taking	> 35 to 55
E	Delay approaches tolerance leve, risk-taking behavior likely	> 55 to 80
F	Delay exceeds tolerance level, high likelihood of risk-taking	> 80

LOS Analysis Results

As shown in **Table 7** below, the Highway 67 corridor currently operates at an acceptable LOS throughout the study area. However, by the year 2040, the LOS around Pocahontas and Corning will decline to LOS D. The improvements to the Highway 67 corridor could result in better LOS throughout; however, the congestion alone does not warrant the proposed improvements.

Table 7: 2019 Existing and 2040 No-Action Level of Service Results

Location	2019 Existing			2040 No-Action		
	ADT	Truck %	LOS	ADT	Truck %	LOS
North of State Line	4,928	28%	B or Better	6,800	28%	B or Better
Hwy 328 to Missouri State Line	5,800	33%		7,700	33%	
B/t Lee Dr & David St to Hwy 328	6,900	33%		7,800	33%	
Hwy 67/Hwy 62 to b/t Lee Dr & David St (Corning)	10,000	33%		11,500	33%	D
CR 143 to Hwy 67/Hwy 62 (Corning)	6,800	32%		7,700	32%	
Airport Rd to CR 143	6,800	34%		7,700	34%	B or Better
Hwy 211 to Airport Rd	5,200	36%		5,900	36%	
CR 110 to Hwy 211	6,100	39%		6,900	39%	
CR 111/1st St to CR 110 (Datto)	6,100	39%		6,900	39%	
Randolph/Clay County Line to CR 110	4,900	41%		5,600	41%	
Hwy 67 (Main St) to Randolph/Clay County Line (Biggers/Reno)	4,600	40%		5,200	40%	
CR 166 (Engelberg Rd) to Hwy 67 (Main St)	6,500	38%		7,400	38%	
Maple St to CR 166 (Engelberg Rd)	6,100	35%		6,900	35%	
Geneva Dr to Maple St (Pocahontas)	9,400	30%	C	10,500	30%	C
Hwy 90 (Broadway St) to Geneva Dr (Pocahontas)	7,600	25%	B or Better	8,600	25%	B
Hwy 62/Hwy 67 to Hwy 90 (Broadway St) (Pocahontas)	19,000	25%		21,500	25%	
Hwy 62/Hwy 67 Intersection (Pocahontas)	26,000	25%	C	29,500	25%	D
Hwy 304 (Pace Rd) to Hwy 62/Hwy 67 (Pocahontas)	25,000	25%	B or Better	28,500	25%	C
Hwy 304 (Carter Ln) to Hwy 304 (Pace Rd) (Pocahontas)	18,000	25%		20,500	25%	B or Better
Hwy 90 (Tenco Rd) to Hwy 304 (Carter Ln)	13,000	25%		14,500	25%	
Lawrence/Randolph County Line to Hwy 90 (Tenco Rd)	12,000	25%		13,500	25%	
CR 414 (Country Club Rd) to Lawrence/Randolph County Line	12,000	23%		13,500	23%	
CR 410 to CR 414 (Country Club Rd)	13,000	25%		14,500	25%	
Hwy 67 to CR 410	13,000	25%		14,500	25%	
Hwy 67Y to Hwy 67 (Walnut Ridge)	11,000	25%		12,500	25%	
Hwy 412 Interchange to Hwy 67Y (Walnut Ridge)	7,800	25%		8,800	25%	

ALTERNATIVES ANALYSIS

The study team developed three alternatives in the study area. The traffic performance of each of these Alternatives compared to the 2040 No-Action Alternative is discussed throughout the following sections. All alternatives would consist of a four-lane divided highway built to interstate standards.

ALTERNATIVES

ALTERNATIVE 1

Much of the alignment would follow the existing corridor with the exceptions of bypasses around Pocahontas and Corning. Curves with a degree of curvature greater than 2 degrees were modified to fall within criteria while keeping as close to the existing Highway 67 alignment as possible. A new alignment (Pocahontas Bypass) starts just south of Hwy 90 intersection and continues to just north of the intersection with Highway 105/Poluca Road. A second new alignment (Corning Bypass) branches off to the northeast of the intersection with Highway 62 and Highway 131. This new alignment ties back into Highway 67 near the intersection with Highway 328 and then continues to the Missouri State Line. Alternative 1 is shown in red in **Figure 5**.

ALTERNATIVE 2

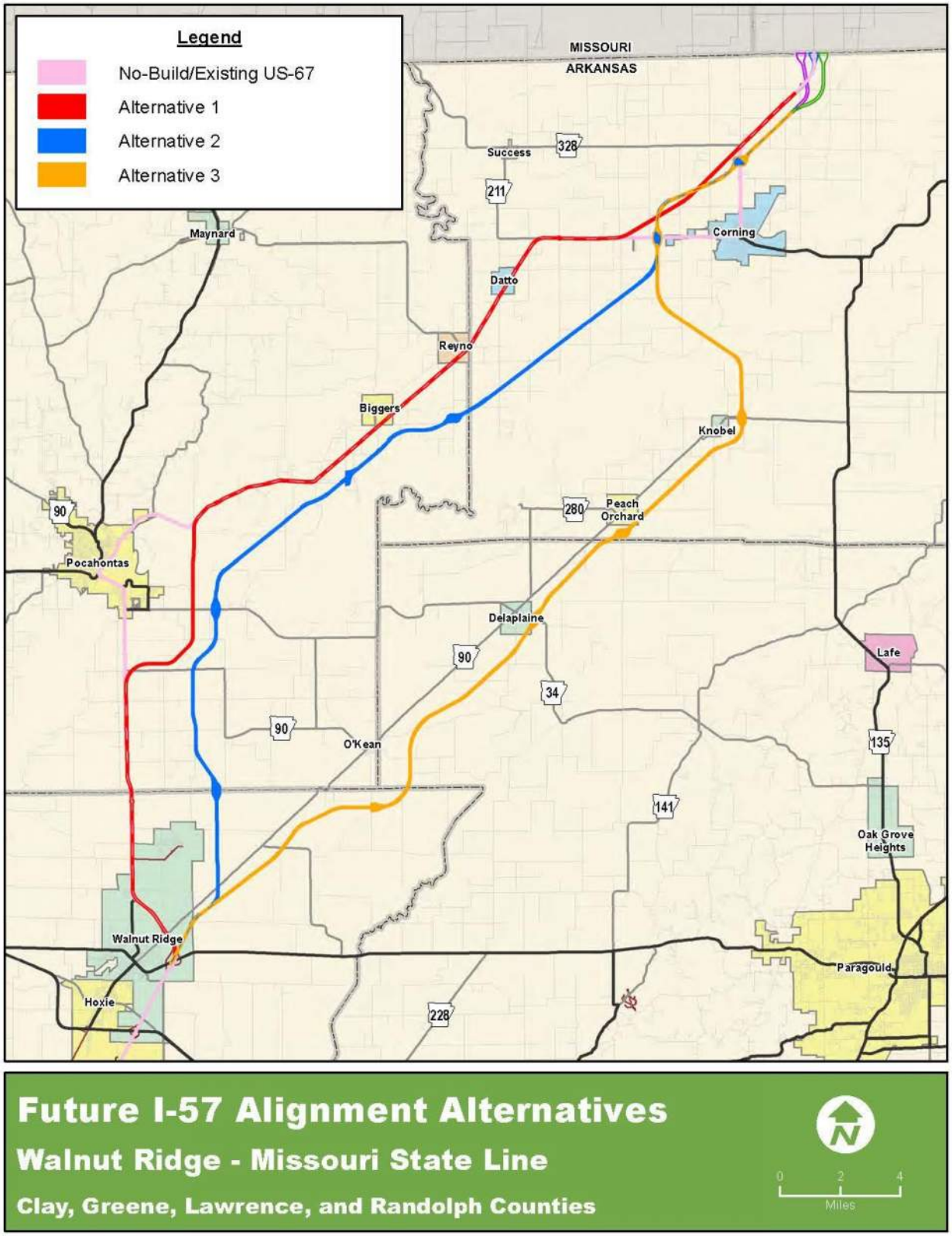
This alignment provides the shortest route to the Arkansas/Missouri State line. Alternative 2 begins at the Highway 412 and Highway 67 interchange and continues northeast on new alignment. After crossing Highway 34, the alignment continues north crossing both Highway 90 and Highway 304. North of Highway 304, the alignment continues northeast to just south of Highway 62 and west of Corning. The alignment continues north crossing Highway 62 and then turns northeast to the Missouri State Line.

This alternative has multiple tie-in options at the state line. Alternative 2 is shown in blue in **Figure 5**.

ALTERNATIVE 3

Alternative 3 is the eastern most alternative. The alignment begins at the Highway 412 and Highway 67 interchange and continues northeast crossing County Road 231 and Highway 34, and continuing northeast to just west of Knobel. From there, the alignment turns north to cross Highway 90 and then turns northwest towards the Alternative 2 alignment just south of Highway 67 and west of Corning. From there, the Alternative 3 alignment follows the Alternative 2 alignment to the Missouri State Line. This alternative also offers multiple tie-in options at the state line. Alternative 3 is shown in orange in **Figure 5**.

Figure 5: Alternatives



SAFETY

The safety impacts of each Alternative were evaluated qualitatively by comparing the relative values of applicable Crash Modification Factors (CMFs) of each to the No-Action Alternative. It should be noted that this is a simplified method and only provides the potential percent change in crashes and not the change in the number of crashes. A detailed evaluation would require a more rigorous analysis method.

The Crash Modification Factors Clearinghouse was used as the resource to search and determine applicable CMFs. After comparing the design features of the Action and No-Action Alternatives including the number of lanes, median widths, and shoulder widths the following applicable CMFs were considered:

- Convert two-lane roadway to four-lane divided roadway (CMF ID 7566)
- Convert median width from 10 feet to 60 feet (CMF ID 4548)
- Change right shoulder width from x to y (CMF ID 3012)

Multiple CMFs were combined to represent the overall safety impact of each alternative. **Table 7** displays the safety impact of the Action Alternatives compared to the No-Action Alternative and the estimated percent change in crashes. The analysis shows that all Build Alternatives will provide significant reduction in crashes when compared to the No Action Alternative.

Table 8: Relative Comparison of Alternatives using CMFs

Alternatives	Location	Type of Roadway	Total Length (miles)	Safety Impact Relative to No-Action	
				CMF	Reduction
Alternative 1 - Improve Existing Alternative	Hwy 67 - Hwy 412 (Walnut Ridge) to Lawrence/Randolph County Line	Four-Lane Divided w/ Frontage Roads	44.91	0.219	78.14%
	Hwy 67 - Lawrence/Randolph County Line to Randolph/Clay County Line	Four-Lane Divided w/ Frontage Roads			
	Hwy 67 - Randolph/Clay Line to Missouri State Line	Four-Lane Divided w/ Frontage Roads			
Alternative 2 - New Location Alternative	Hwy 67 - Hwy 412 (Walnut Ridge) to Lawrence/Randolph County Line	Four-Lane Divided w/ Frontage Roads	41.68	0.219	78.14%
	Hwy 67 - Lawrence/Randolph County Line to Randolph/Clay County Line	Four-Lane Divided w/ Frontage Roads			
	Hwy 67 - Randolph/Clay Line to Missouri State Line	Four-Lane Divided w/ Frontage Roads			
Alternative 3 - New Location Alternative	Hwy 67 - Hwy 412 (Walnut Ridge) to Lawrence/Greene County Line	Four-Lane Divided w/ Frontage Roads	43.98	0.219	78.14%
	Hwy 67 - Lawrence/Greene County Line to Greene/Clay County Line	Four-Lane Divided w/ Frontage Roads			
	Hwy 67 - Greene/Clay County Line to Missouri State Line	Four-Lane Divided w/ Frontage Roads			
No-Action Alternative	Hwy 67 - Hwy 412 (Walnut Ridge) to Lawrence/Randolph County Line	Four-Lane Undivided	48.12	1.0	0.0%
	Hwy 67 - Lawrence/Randolph County Line to Hwy 90 (Broadway St) (Pocahontas)	Four-Lane Undivided			
	Hwy 67 - Hwy 90 (Broadway St) (Pocahontas) to Randolph/Clay County Line	Two-Lane Undivided			
	Hwy 67 - Randolph/Clay Line to Missouri State Line	Two-Lane Undivided			

MOBILITY AND SYSTEM RELIABILITY

CONNECTIVITY

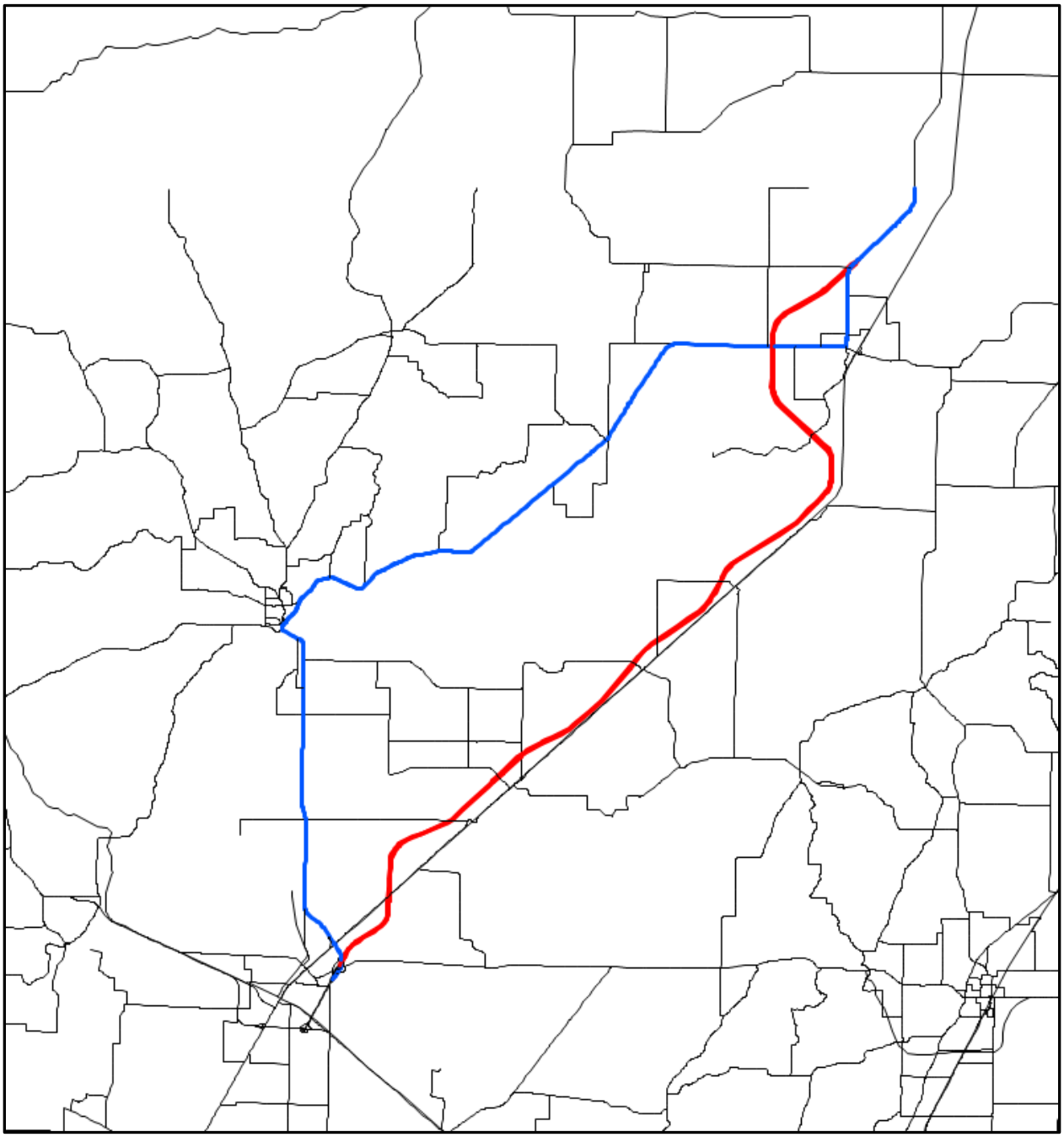
From a connectivity standpoint, each of the Action Alternatives will reduce the overall trip duration for regional movements. Additionally, Alternatives 2 and 3 will reduce the travel length as well as remove some of the truck traffic from streets that serve local traffic, which improves safety and efficiency for all road users.

For this study, the vehicle miles traveled (VMT), vehicle hours traveled (VHT) and travel time were limited to information from the ARDOT Statewide Travel Demand Model (TDM) 2040 Long Range Transportation Plan (LRTP) scenario and were not run specifically for this project. **Table 9** below shows the results for an alignment similar to Alternative 3 (Shown in red in **Figure 5**) and the comparison with the 2040 No-Action Alternative. As shown, the VMT along the existing corridor is reduced by approximately 15%. Based on the VMT shown along the new alignment, it is expected that some traffic will divert, plus there could be additional traffic drawn from other corridors such as Interstate 55. Similar results would be expected for Alternatives 1 and 2, although the lengths would change to 44.91 miles and 41.68 miles, respectively.

Table 9: Travel Comparison

Alternative	Length (miles)	VMT	VHT	Speed (mph)	Travel Time (Min.)
2040 No-Action (Along Existing Hwy 67)	48.12	353,880	6,671	53	54.29
Alternative 3 (Remaining on Existing Hwy 67)	48.12	300,189	5,657	53	54.27
Alternative 3 (Shifted to New Alignment)	43.98	150,919	2,264	67	36.00

Figure 6: Statewide TDM 2040 LRTP Scenario



At the local level, Alternative 1 would provide a freeway facility connecting with the national roadway network along the existing alignment except in the areas around Pocahontas and Corning. These cities would be connected via the bypasses. The benefits

of the bypass include reduction in traffic congestion and still having nearby access to a freeway. Alternative 2, which runs closest to the existing Highway 67 corridor would provide the best connectivity for Pocahontas. Additionally, it would improve connectivity for Corning to the cities south of the study area as the distance between Walnut Ridge and Corning would be reduced. Alternative 3 is the shortest corridor and provides the best accessibility to Corning. The connectivity benefits of Alternative 3 for Pocahontas would be less than Alternative 2.

VOLUME DEVELOPMENT

To determine traffic volumes for the Build scenarios, the 2015 Study was referenced. For the 2015 Study, growth trends were conducted using several tools, including the Arkansas Statewide Travel Demand Model (ARTDM), as well as the Freight Analysis Framework, Volume 3 (FAF3). The ARTDM is a traditional four-step travel demand model that is useful for forecasting longer distance travel within Arkansas. It includes separate traffic models used for freight (i.e. trucks) and for passenger vehicles. These tools allowed truck and passenger car trips to be forecasted independently.

The ARTDM freight model includes a rudimentary nationwide roadway network. For this reason, it was suitable for projecting how future I-57 freeway completion would result in some interstate trucks using this new roadway, instead of other longer routes (like I-40 and I-55). A higher growth rate was applied to trucks attracted from other routes than to local truck trips that currently used Highway 67 through the project area. Generally speaking, both freeway alternatives (Alternative 2 and Alternative 3) attracted similar volumes of through traffic. The Alternative 2 scenario attracted more local trips, particularly between Pocahontas and Corning, because the alternative provided improved times for these trips.

The ARTDM passenger model does not extend beyond the state boundaries. For this reason, it was not a useful tool in forecasting how many interstate passenger car trips would reassign to future I-57. The original 2015 study assumed that 1,000 interstate passenger trips would reassign to future I-57, a value chosen based on local knowledge and judgement. Similar to trucks, reassigned passenger trips were grown at a higher growth rate than background trips on the existing route. Based on the results from the ARTDM freight model, as well as a review of each alternative's through travel time, it was assumed that either freeway alternatives would attract a similar number of interstate

passenger trips. The Alternative 2 scenario, however, would attract more local passenger trips between Pocahontas and Corning than the Alternative 3.

Traffic Data Along Existing Highway 67

For each alternative scenario, the 2015 Study volumes were used to determine the change from 2015 Existing and 2035 No-Action to the 2015/2035 Build volumes for each alternative. The resulting ratios were then applied to the 2019 Existing and 2040 No-Action volumes in this updated study. **Tables 10 and 11** show the daily volumes and truck percentages along Highway 67 for the years 2019 and 2040, respectively. For Alternative 2, information from the Statewide Travel Demand Model resulted in low volumes (below 600 vpd or negative) which were not utilized for this study. It is expected that those volumes should be similar to the Alternative 3 volumes.

Table 10: Daily Traffic Volumes and Truck % on Existing Highway 67 (2019)

Location	2019 Existing		2019 Alternative 1		2019 Alternative 2		2019 Alternative 3	
	ADT	Truck %	ADT	Truck %	ADT	Truck %	ADT	Truck %
North of State Line	4,928	28.02%	6,800	36.02%	8,100	38.02%	8,300	39.02%
Hwy 328 to Missouri State Line	5,800	33.00%	7,700	27.01%	9,300	28.01%	3,300	28.01%
B/t Lee Dr & David St to Hwy 328	6,900	33.00%	5,400	18.00%	4,500	18.00%	4,400	17.00%
Hwy 67/Hwy 62 to b/t Lee Dr & David St (Corning)	10,000	-	8,200	-	7,300	-	6,900	-
CR 143 to Hwy 67/Hwy 62 (Corning)	6,800	32.00%	5,900	24.00%	5,500	24.00%	5,000	23.00%
Airport Rd to CR 143	6,800	-	10,000	-	-[1]	-	3,600	-
Hwy 211 to Airport Rd	5,200	36.00%	8,200	45.00%	-[1]	-	2,700	14.00%
CR 110 to Hwy 211	6,100	-	9,600	-	-[1]	-	2,800	-
CR 111/1st St to CR 110 (Datto)	6,100	-	9,800	-	-[1]	-	2,800	-
Randolph/Clay County Line to CR 110	4,900	41.00%	7,800	50.00%	-[1]	-	2,300	19.00%
Hwy 67 (Main St) to Randolph/Clay County Line (Biggers/Reno)	4,600	40.00%	6,800	49.00%	1,300	16.00%	2,800	18.00%
CR 166 (Engelberg Rd) to Hwy 67 (Main St)	6,500	-	4,500	-	2,200	-	4,000	-
Maple St to CR 166 (Engelberg Rd)	6,100	35.00%	4,700	20.00%	3,100	19.00%	4,500	19.00%
Geneva Dr to Maple St (Pocahontas)	9,400	-	7,200	-	5,100	-	6,900	-
Hwy 90 (Broadway St) to Geneva Dr (Pocahontas)	7,600	25.00%	5,800	10.00%	4,100	9.00%	5,600	9.00%
Hwy 62/Hwy 67 to Hwy 90 (Broadway St) (Pocahontas)	19,000	-	17,500	-	16,000	-	18,000	-
Hwy 62/Hwy 67 Intersection (Pocahontas)	26,000	-	24,500	-	23,000	-	24,500	-
Hwy 304 (Pace Rd) to Hwy 62/Hwy 67 (Pocahontas)	25,000	-	23,000	-	22,000	-	23,500	-
Hwy 304 (Carter Ln) to Hwy 304 (Pace Rd) (Pocahontas)	18,000	-	16,500	-	15,000	-	16,000	-
Hwy 90 (Tenco Rd) to Hwy 304 (Carter Ln)	13,000	-	11,000	-	9,600	-	11,000	-
Lawrence/Randolph County Line to Hwy 90 (Tenco Rd)	12,000	25.00%	15,000	29.00%	8,600	19.00%	9,700	20.00%
CR 414 (Country Club Rd) to Lawrence/Randolph County Line	12,000	23.00%	15,000	27.00%	8,600	17.00%	9,700	18.00%
CR 410 to CR 414 (Country Club Rd)	13,000	-	16,500	-	9,100	-	10,500	-
Hwy 67 to CR 410	13,000	-	16,000	-	9,300	-	10,500	-
Hwy 67Y to Hwy 67 (Walnut Ridge)	11,000	-	13,000	-	8,700	-	9,500	-
Hwy 412 Interchange to Hwy 67Y (Walnut Ridge)	7,800	-	9,500	-	5,100	-	5,400	-

[1] Information from Travel Demand Model resulted in unrealistic volumes

Table 11: Daily Traffic Volumes and Truck % on Existing Highway 67 (2040)

Location	2040 No-Action		2040 Alternative 1		2040 Alternative 2		2040 Alternative 3	
	ADT	Truck %	ADT	Truck %	ADT	Truck %	ADT	Truck %
North of State Line	6,800	28.02%	9,800	36.02%	12,000	38.02%	12,500	39.02%
Hwy 328 to Missouri State Line	7,700	33.00%	11,000	27.01%	13,500	28.01%	4,400	28.01%
B/t Lee Dr & David St to Hwy 328	7,800	33.00%	6,600	18.00%	5,000	18.00%	4,900	17.00%
Hwy 67/Hwy 62 to b/t Lee Dr & David St (Corning)	11,500	-	10,000	-	8,200	-	7,800	-
CR 143 to Hwy 67/Hwy 62 (Corning)	7,700	32.00%	7,100	24.00%	6,000	24.00%	5,600	23.00%
Airport Rd to CR 143	7,700	-	12,500	-	-[1]	-	4,000	-
Hwy 211 to Airport Rd	5,900	36.00%	9,800	45.00%	-[1]	-	3,000	14.00%
CR 110 to Hwy 211	6,900	-	11,500	-	-[1]	-	3,000	-
CR 111/1st St to CR 110 (Datto)	6,900	-	12,000	-	-[1]	-	3,200	-
Randolph/Clay County Line to CR 110	5,600	41.00%	9,500	50.00%	-[1]	-	2,600	19.00%
Hwy 67 (Main St) to Randolph/Clay County Line (Biggers/Reno)	5,200	40.00%	8,100	49.00%	1,500	16.00%	3,100	18.00%
CR 166 (Engelberg Rd) to Hwy 67 (Main St)	7,400	-	5,800	-	2,500	-	4,600	-
Maple St to CR 166 (Engelberg Rd)	6,900	35.00%	5,700	20.00%	3,600	19.00%	5,100	19.00%
Geneva Dr to Maple St (Pocahontas)	10,500	-	8,800	-	5,500	-	7,700	-
Hwy 90 (Broadway St) to Geneva Dr (Pocahontas)	8,600	25.00%	7,200	10.00%	4,500	9.00%	6,300	9.00%
Hwy 62/Hwy 67 to Hwy 90 (Broadway St) (Pocahontas)	21,500	-	20,500	-	18,000	-	20,000	-
Hwy 62/Hwy 67 Intersection (Pocahontas)	29,500	-	28,000	-	26,000	-	27,500	-
Hwy 304 (Pace Rd) to Hwy 62/Hwy 67 (Pocahontas)	28,500	-	26,500	-	25,000	-	26,500	-
Hwy 304 (Carter Ln) to Hwy 304 (Pace Rd) (Pocahontas)	20,500	-	19,000	-	17,000	-	18,500	-
Hwy 90 (Tenco Rd) to Hwy 304 (Carter Ln)	14,500	-	13,000	-	10,500	-	12,000	-
Lawrence/Randolph County Line to Hwy 90 (Tenco Rd)	13,500	25.00%	17,500	29.00%	9,600	19.00%	11,000	20.00%
CR 414 (Country Club Rd) to Lawrence/Randolph County Line	13,500	23.00%	17,500	27.00%	9,600	17.00%	11,000	18.00%
CR 410 to CR 414 (Country Club Rd)	14,500	-	19,000	-	10,000	-	11,500	-
Hwy 67 to CR 410	14,500	-	18,500	-	10,500	-	12,000	-
Hwy 67Y to Hwy 67 (Walnut Ridge)	12,500	-	15,000	-	9,900	-	10,500	-
Hwy 412 Interchange to Hwy 67Y (Walnut Ridge)	8,800	-	11,500	-	6,200	-	6,600	-

[1] Information from Travel Demand Model resulted in unrealistic volumes

TRAFFIC DATA ALONG NEW CORRIDORS

For the new corridors, the 2015 and 2035 ADT from the 2015 Study was projected to 2019 and 2040 ADT using the 0.60% historical growth rate noted in the *Transportation Demand* section of this report. The truck percentages used in this study match the 2015 Study. **Tables 12 and 13** show the daily volumes and truck percentages along the new corridors for the years 2019 and 2040, respectively.

Table 12: Daily Traffic Volumes and Truck % on New Alignment (2019)

Location	2019 Alternative 1		2019 Alternative 2		2019 Alternative 3	
	ADT	Truck %	ADT	Truck %	ADT	Truck %
New Alignment - Corning Bypass	3,400	59.00%	4,700	55.00%	5,100	54.00%
New Alignment - South of Hwy 62	-	-	6,900	41.00%	5,900	48.00%
New Alignment - Black River Bridge (Pocahontas)	4,100	51.00%	7,000	42.00%	5,900	48.00%
New Alignment - North of Walnut Ridge	-	-	5,400	51.00%	5,100	52.00%

Table 13: Daily Traffic Volumes and Truck % on New Alignment (2040)

Location	2040 Alternative 1		2040 Alternative 2		2040 Alternative 3	
	ADT	Truck %	ADT	Truck %	ADT	Truck %
New Alignment - Corning Bypass	4,200	59.00%	6,100	55.00%	6,600	54.00%
New Alignment - South of Hwy 62	-	-	8,300	41.00%	7,400	48.00%
New Alignment - Black River Bridge (Pocahontas)	5,000	51.00%	8,600	42.00%	7,400	48.00%
New Alignment - North of Walnut Ridge	-	-	6,900	51.00%	6,600	54.00%

RECURRING DELAY

The recurring delay of each corridor segment or intersection in each Action Alternative was quantified in the same manner as for the Existing and 2040 No-Action Alternative. Based on the output from the LOS Tool (supplemented by *HCS7* and *Synchro* analysis where needed), most of the existing corridor will operate at an acceptable LOS through the year 2040. The exceptions are in Pocahontas and Corning where LOS D is anticipated. With each of the alternatives, LOS improvements are expected in Pocahontas and Corning. Along the new alignments, LOS B or better is expected through 2040. **Tables 14-17** summarize the LOS findings.

Table 14: LOS Results on Existing Highway 67 (2019)

Location	2019			
	Existing	Alternative 1	Alternative 2	Alternative 3
North of State Line	LOS B or Better	LOS B or Better	LOS B or Better	LOS B or Better
Hwy 328 to Missouri State Line				
B/t Lee Dr & David St to Hwy 328				
Hwy 67/Hwy 62 to b/t Lee Dr & David St (Corning)				
CR 143 to Hwy 67/Hwy 62 (Corning)				
Airport Rd to CR 143		C		
Hwy 211 to Airport Rd		LOS B or Better		
CR 110 to Hwy 211				
CR 111/1st St to CR 110 (Datto)				
Randolph/Clay County Line to CR 110				
Hwy 67 (Main St) to Randolph/Clay County Line (Biggers/Reno)				
CR 166 (Engelberg Rd) to Hwy 67 (Main St)				
Maple St to CR 166 (Engelberg Rd)				
Geneva Dr to Maple St (Pocahontas)	C			
Hwy 90 (Broadway St) to Geneva Dr (Pocahontas)	LOS B or Better			
Hwy 62/Hwy 67 to Hwy 90 (Broadway St) (Pocahontas)				
Hwy 62/Hwy 67 Intersection (Pocahontas)	C			
Hwy 304 (Pace Rd) to Hwy 62/Hwy 67 (Pocahontas)	LOS B or Better			
Hwy 304 (Carter Ln) to Hwy 304 (Pace Rd) (Pocahontas)				
Hwy 90 (Tenco Rd) to Hwy 304 (Carter Ln)				
Lawrence/Randolph County Line to Hwy 90 (Tenco Rd)				
CR 414 (Country Club Rd) to Lawrence/Randolph County Line				
CR 410 to CR 414 (Country Club Rd)				
Hwy 67 to CR 410				
Hwy 67Y to Hwy 67 (Walnut Ridge)				
Hwy 412 Interchange to Hwy 67Y (Walnut Ridge)				

Table 15: LOS Results on Existing Highway 67 (2040)

Location	2040			
	No-Action	Alternative 1	Alternative 2	Alternative 3
North of State Line	LOS B or Better	LOS B or Better	LOS B or Better	LOS B or Better
Hwy 328 to Missouri State Line				
B/t Lee Dr & David St to Hwy 328				
Hwy 67/Hwy 62 to b/t Lee Dr & David St (Corning)	D			
CR 143 to Hwy 67/Hwy 62 (Corning)				
Airport Rd to CR 143	C	D		
Hwy 211 to Airport Rd	LOS B or Better	LOS B or Better		
CR 110 to Hwy 211				
CR 111/1st St to CR 110 (Datto)				
Randolph/Clay County Line to CR 110				
Hwy 67 (Main St) to Randolph/Clay County Line (Biggers/Reno)				
CR 166 (Engelberg Rd) to Hwy 67 (Main St)				
Maple St to CR 166 (Engelberg Rd)				
Geneva Dr to Maple St (Pocahontas)	D			
Hwy 90 (Broadway St) to Geneva Dr (Pocahontas)	B			
Hwy 62/Hwy 67 to Hwy 90 (Broadway St) (Pocahontas)				
Hwy 62/Hwy 67 Intersection (Pocahontas)	D	C	C	C
Hwy 304 (Pace Rd) to Hwy 62/Hwy 67 (Pocahontas)	C	LOS B or Better	LOS B or Better	LOS B or Better
Hwy 304 (Carter Ln) to Hwy 304 (Pace Rd) (Pocahontas)	LOS B or Better			
Hwy 90 (Tenco Rd) to Hwy 304 (Carter Ln)				
Lawrence/Randolph County Line to Hwy 90 (Tenco Rd)				
CR 414 (Country Club Rd) to Lawrence/Randolph County Line				
CR 410 to CR 414 (Country Club Rd)				
Hwy 67 to CR 410				
Hwy 67Y to Hwy 67 (Walnut Ridge)				
Hwy 412 Interchange to Hwy 67Y (Walnut Ridge)				

Table 16: LOS Results on New Alignment (2019)

Location	2019 Alternative 1	2019 Alternative 2	2019 Alternative 3
New Alignment - Corning Bypass	LOS B or Better	LOS B or Better	LOS B or Better
New Alignment - South of Hwy 62			
New Alignment - Black River Bridge (Pocahontas)			
New Alignment - North of Walnut Ridge			

Table 17: LOS Results on New Alignment (2040)

Location	2040 Alternative 1	2040 Alternative 2	2040 Alternative 3
New Alignment - Corning Bypass	LOS B or Better	LOS B or Better	LOS B or Better
New Alignment - South of Hwy 62			
New Alignment - Black River Bridge (Pocahontas)			
New Alignment - North of Walnut Ridge			