ENVIRONMENTAL ASSESSMENT

AHTD JOB NUMBER 090373

FAP NUMBER CA-0004(45)

Hwy. 264 – Hwy. 94

Benton County

Submitted Pursuant to 42 U.S.C. 4332(2)

By the

U.S. Department of Transportation

Federal Highway Administration

And the

Arkansas State Highway and Transportation Department

October 2012

10/12/2012

Date of Approval

Randal Looney
Environmental Specialist
Federal Highway Administration

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PROJECT DESCRIPTION

In conjunction with the Federal Highway Administration (FHWA), the Arkansas State Highway and Transportation Department (AHTD) is proposing improvements to construct an eastern north-south corridor in northwest Arkansas, extending existing Highway 265 from Highway 264 north to Highway 94, in the Cities of Springdale, Bethel Heights, Lowell, and Rogers in Benton County. See Figure 1 for the eastern north-south corridor project area. The proposed project would require a combination of improvements to existing routes and construction on new location. Nine alternatives consisting of a No Action Alternative and eight build alternatives were analyzed for the project.

PURPOSE AND NEED

Purpose of the Proposed Project

The purpose of the proposed project is to improve north-south connectivity in the eastern portions of Springdale, Lowell, Bethel Heights and Rogers and to continue the eastern north-south corridor route of Highway 265 from Highway 264 north to Highway 94. The proposed connectivity improvements would provide another avenue for motorists to travel north and south without having to access Highway 71B and Interstate 540 in the Northwest Arkansas metro area.

Needs Analysis

In July 2011, the *Northwest Arkansas Eastern North-South Corridor Study* investigated the need for improvements for an eastern north-south corridor from Highway 16 in Fayetteville to Highway 62 in Rogers, with a possible extension to Bentonville. The findings of the study indicated that traffic congestion on the existing north-south routes, especially Highway 71B, were approaching carrying capacity and that in order to connect the fast growing areas in Northwest Arkansas, Highway 265 would need to be extended to Highway 62 in Rogers. The study also suggested that if the project development did

not receive full funding, phasing priorities would be recommended that would extend Highway 265 as a two-lane facility to Highway 94, while acquiring ROW for an eventual four-lane facility. Without a new continuous north-south route, the congestion on the existing routes will continue to worsen. The study area for the proposed facility has been analyzed in the 2035 Northwest Arkansas Regional Transportation Plan prepared by the Northwest Arkansas Regional Planning Commission (NWARPC), and a portion of the corridor improvements are included in the Financially Constrained Plan of the NWARPC.

In the *Northwest Arkansas Eastern North-South Corridor Study* it was recognized that any extension of Highway 265 to Highway 62 or beyond would likely not attract a significant amount of regional or long-distance through traffic. Rather, it would likely attract more local traffic that would otherwise use Highway 71B or other north-south city streets to connect to other east-west highways or city streets.

Highway 265 has become one of the preferred routes for many motorists traveling between eastern Springdale and Fayetteville. Recent transportation facility enhancements in the region, both proposed and implemented, include:

1. Accelerated interchange improvements to the Interstate 540 corridor.

2. Improvements to the Highway 265 corridor (Figure 2).

3. Planned capacity improvements to Interstate 540.

4. Capacity improvements to Highway 71B by improved signal coordination and minor lane widening.

5. Planned realignment and widening of Monte Ne Road and planned widening of a portion of 1st Street in the City of Rogers (Figure 2).

These improvements have reaffirmed the need to provide connectivity in the eastern portion of Springdale, Bethel Heights, Lowell and Rogers rather than a high speed

regional arterial. A 2012 update to the Corridor Study based on the updated traffic forecast, extending Highway 265 to Highway 94 would complete a critical link in the regional transportation system and provide the needed connectivity for an important north-south route. North of Highway 94, much of the traffic east of Highway 71B is accessing the downtown area in the City of Rogers. With the improvements planned for 1st Street and Monte Ne Road in the City of Rogers, the roadway capacity should be adequate to handle the traffic north of Highway 94.

Existing Conditions

The Fayetteville-Springdale-Rogers urbanized area includes numerous cities along a north-south orientation extending from Greenland, Arkansas, into McDonald County, Missouri, which is more than 35 miles in length. Most of the population is in the eastern portion of Benton and Washington Counties in Arkansas. Within Benton and Washington Counties, there are only three north-south principal arterials: Interstate 540, Highway 71B and Highway 265. Interstate 540 is currently a four-lane freeway that is part of the planned future Interstate 49. Highway 71B is generally a four-lane highway with a continuous, two-way, left turn lane, in a highly developed commercial corridor. Most of the north-south portion of Highway 71B in Rogers has narrow ten-foot lanes. Highway 265 currently has two through lanes in most areas with four through lanes in portions of Fayetteville and Springdale. The northern terminus of Highway 265 presently ends at its junction with Highway 264. Highway 265 presently consists of two ten-foot paved travel lanes with no shoulders. The existing cross sections for the roadways are shown in Figure 1.

While there are other minor arterials and collectors east of Highway 265 in Washington County, there is currently no adequate north-south connection east of Highway 71B into and through Benton County. Due to constraints such as terrain, increasing development, Beaver Lake, and other environmentally sensitive areas, few opportunities exist to provide a north-south arterial connection east of Highway 71B in Benton County.

Traffic Analysis

The traffic analysis conducted for this project included estimating current and projected average daily traffic (ADT) demand. This information is shown in Figure 3. The percentage of truck traffic along Highway 265 ranges from four to six percent at an operational speed of 45 miles per hour (mph) and a directional split of 60/40.

The level of service (LOS) along Highway 265 and other routes was considered for this analysis. The 2010 Highway Capacity Manual (HCM 2010) defines LOS as levels of performance measures that represent quality of service such as travel time, speed, delay, maneuverability, and comfort. The HCM 2010 considers this blended approach of quantitative and qualitative measures more appropriate than using the Highway Capacity Software (HCS). Six levels of service, A through F, are defined in Appendix A. For an urban setting such as the project area, LOS D is considered acceptable. The analysis of 2012 traffic indicates numerous locations of unacceptable traffic conditions along the Highway 71B and Highway 265 corridors (Figure 4). Table 1 provides details about each location identified in Figure 4. Much of the unacceptable traffic conditions are due to the lack of an adequate number of lanes or geometry for capacity. However, some of it is also due to uncoordinated traffic signals, poor signal timing, or malfunctioning traffic detectors and signal controllers. The LOS shown in Figure 4 is a combination of measures of effectiveness, including speed, traffic control delay (e.g., at a stop sign or a traffic signal), and volume to capacity ratio based on multiple field observations and several years of traffic data.

Economic Analysis

An economic analysis was conducted which included a review of the demographic data (Table 2) that was compiled for the Cities of Bethel Heights, Lowell, Rogers, and Springdale; Benton County; and the State. The Benton County area has experienced a population growth rate of 44% in the last decade. Compared to the state average; the

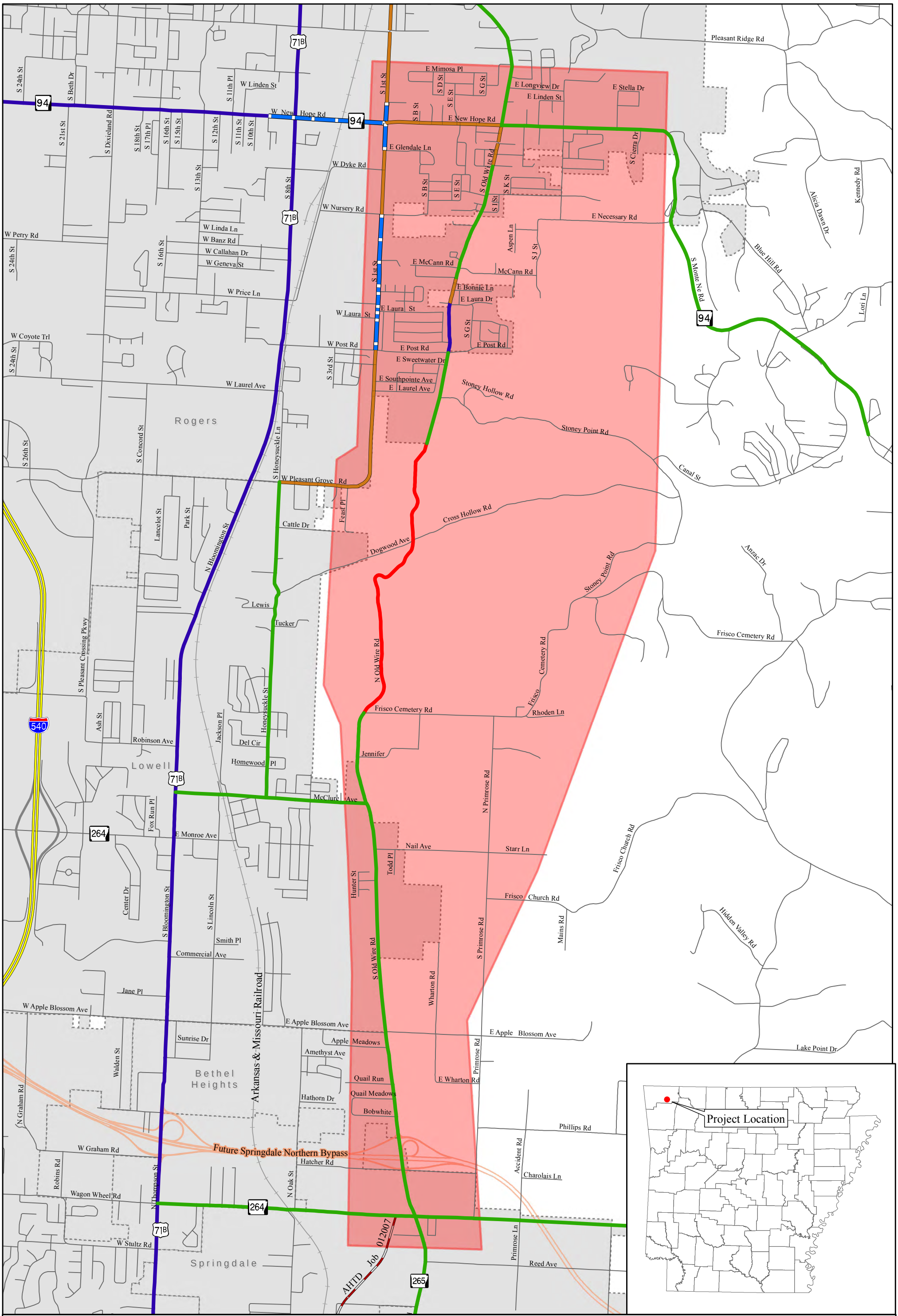

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Figure 1
Eastern North-South
Corridor Project Area

Project Area
2 Lane (Paved)
2 Lane (Gravel)
3 Lane (Paved)
4 Lane (Paved)
4 Lane (Divided)
5 Lane (Paved)

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Hwy. 62/94/12 Intersection Completed

City of Rogers Project

Monte Ne Rd & 1st St. Project Programmed

City of Rogers Project

71 BUS

Sec. 18B

Job 090338 Programmed

(Not Scheduled)
Widening
Providing Matching Funds: Local
Carrying Out. Project: State

264

Sec. 2

Job 090307 Completed

Resurfacing/Overlay
Completed March 2012

Monroe Extension Programmed

City of Lowell Project

264

Sec. 1

Job 090128 Completed

Resurfacing
Completed December 2002

264

Sec. 1

Job 090284 Scheduled

Late 2013
Widening
Providing Matching Funds: State
Carrying Out Project: State

Job 012007

Future Springdale Northern Bypass

Arkansas & Missouri Railroad

AHTD

NE 2nd
SW 2nd
SE 2nd
SW 8th
SE 8th
N 2nd
NE Hudson
W Hudson
N 8th
W Walnut
S 2nd
E Walnut
Pleasant Ridge
S 1st
S Monte Ne
W New Hope
E New Hope
S8th
S Old Wire
Monte Ne
W Post
E Post
W Pleasant Grove
N Old Wire
W Monroe
E Monroe
E Wagon Wheel

72 71 112 102 62 540 71B 12 94 265

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Figure 2
Highway 265 Corridor Improvements
Projects Status

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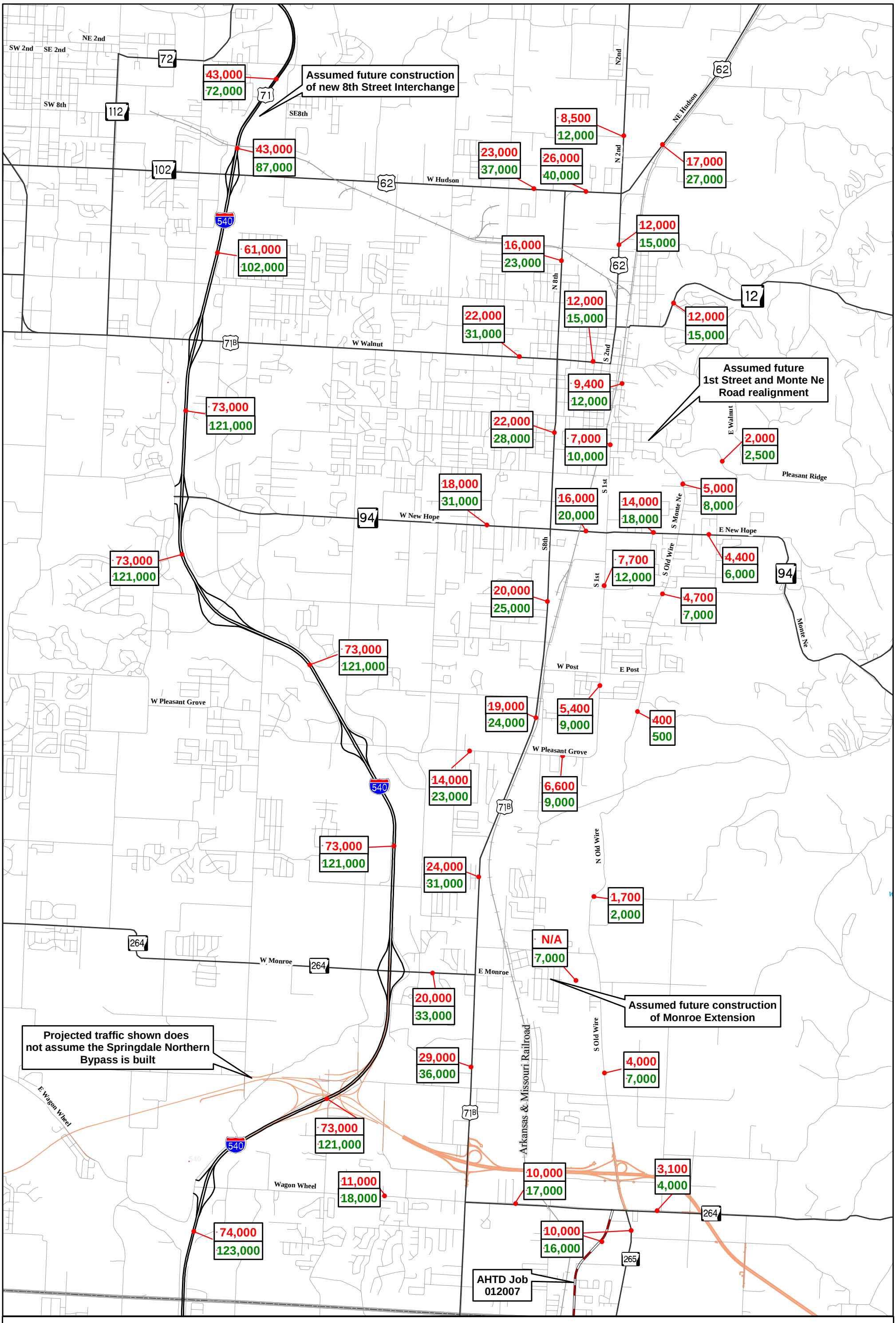

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Figure 3
Current and Projected
Average Daily Traffic

2012 ADT
2035 ADT

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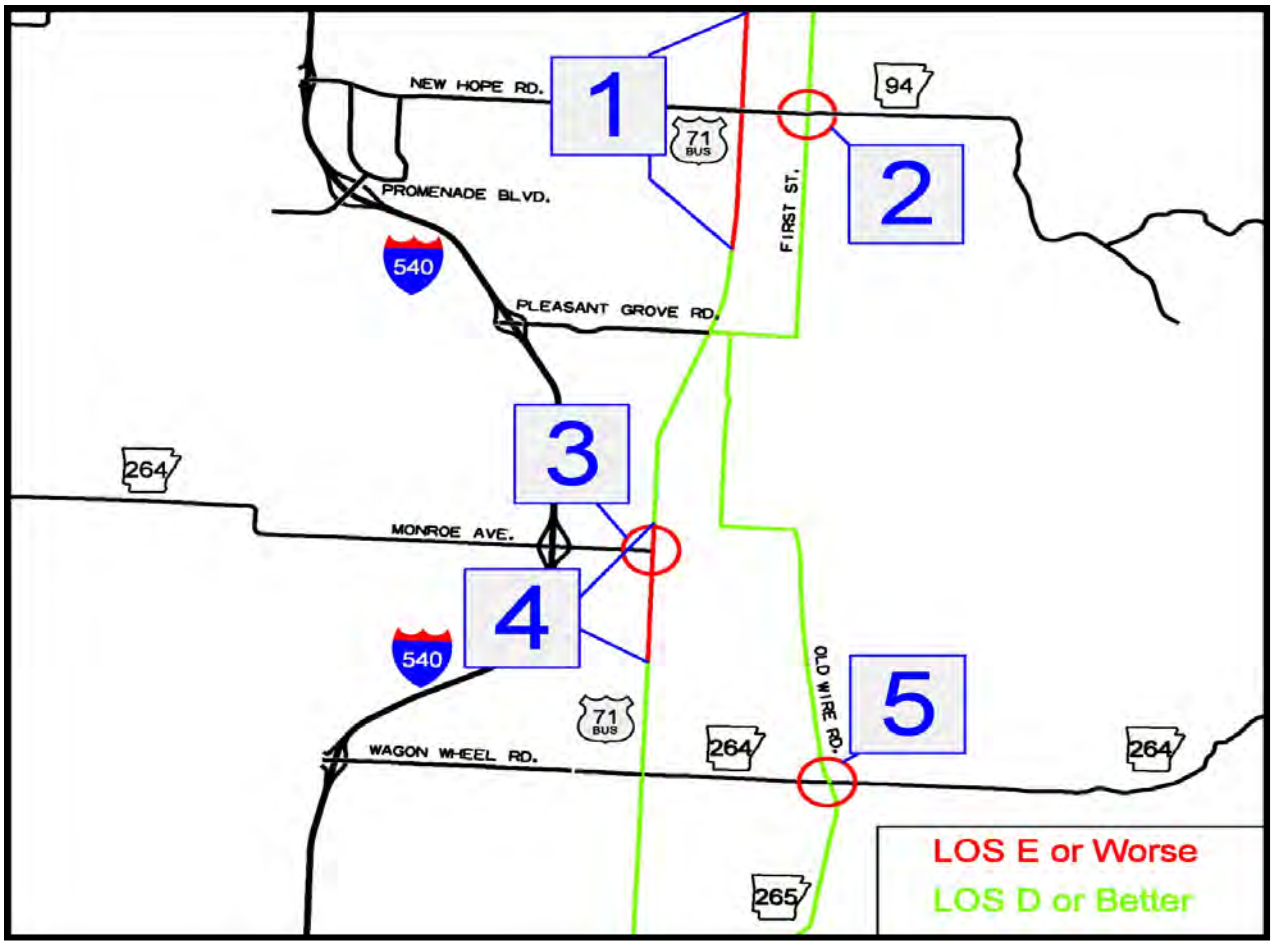

Figure 4. Existing Level of Service along Hwys. 71B and 265 Corridors.

Table 1

Traffic Notes for Locations Shown in Figure 4

1	Slow speeds and frequent stops at signalized intersections that are uncoordinated. Additional delays experienced due to trucks and narrow (10-foot) lanes.
2	Significant delays at various approaches during the morning and afternoon traffic peak due to lack of capacity at this intersection.
3	Significant delays at various approaches, particularly during the afternoon peak traffic times, due to lack of capacity at this intersection.
4	Slow speeds and unnecessary delay in the northbound and southbound directions during the afternoon peak traffic time, due to uncoordinated signals and/or poor signal timing.
5	Significant occasional delay due to lack of lanes and inadequate geometry for large trucks at this intersection.

county's population is younger, has achieved a much higher educational level, and has a higher Hispanic population. A contributing factor to the increased population is the vibrant job market that includes large employers such as Tyson, JB Hunt, and Wal-Mart, as well as the growing healthcare industry. Approximately 60% of the work force in the study area is in the manufacturing, warehousing, transportation and retail sectors. Each of these sectors relies very strongly on an efficient road network for their work force, the goods and services delivered and customer access to their products. The daytime populations of the study area increase by approximately 25% during the work week, as workers commute and people shop for necessary services. Benton County experienced tremendous growth in the previous decade, and growth is expected to continue at a rate much higher than the state average for the next ten years. The existing highway network enables the population of Benton County to experience an average travel to work time of 20.8 minutes as compared to a statewide average of 21.1 minutes as compiled from Census Transportation Planning Products data.

The proposed improvements under consideration would improve access to the area and would provide for economic growth opportunities in the region. The proposal would enable the highway network to meet expected population increases and proposed expansions of businesses, educational facilities and medical facilities.

Table 2

Demographic Data

	Cities of Lowell, Bethel Heights, Rogers and Springdale	Benton County	State of Arkansas
Population 2010	133,088	221,339	2,915,918
Population 2000	89,640	153,406	2,673,400
Population 1990	55,857	98,337	2,354,353
Percent Change 1990/2000	60.5%	56.0%	13.6%
Percent Change 2000/2010	48.5%	44.3%	9.1%
Median Resident Age	30.1	33.6	36.0
Median Household Income	$ 48,401	$ 50,434	$ 39,267
Median House Value	$150,500	$155,000	$102,300
White-Non Hispanic	61.1%	76.6%	74.5%
Hispanic	30.5%	15.5%	6.4%
Black	1.4%	1.3%	15.4%
Other Races	7.0%	6.6%	3.7%
Education Attained by Age 25+			
High School Graduates	76.6%	84.2%	81.9%
Bachelors Degree or higher	20.7%	25.9%	19.1%
Employment by Industry Type			
Educational, Health Care & Social Services	14.7%	16.1%	22.4%
Manufacturing, Construction, Warehousing & Transportation	33.3%	27.3%	28.0%
Retail, Food Services & Accommodations	27.4%	30.4%	20.7%
Other Services*	24.6%	26.2%	28.9%
Unemployment Rate	4.4%	5.3%	7.4%

*Other Services include Public Administration, Wholesale Trade, Information, Finance and Insurance, and Professional, Scientific and Management.

ALTERNATIVES

This section provides details of alternatives development for the proposed project, and descriptions of the No Action Alternative and the eight build alternatives under consideration. Nontraditional highway improvement alternatives (public transit, pedestrian facilities, bike lanes, etc.) were not evaluated as they would not meet the purpose and need for this project and do not adequately address the identified traffic congestion in this setting.

Alternatives Development

Development of alternative corridors and eventually alignments began during the planning study phase of the project and was guided by preliminary mapping of environmental constraints, public input and traffic projections. Environmental factors included possible relocatees, hazardous material locations, major utilities, historic/archeological sites, stream impacts, floodplain encroachments, and utilities. Figure 5 shows the various alternatives considered during the alternatives development stage. Ultimately, nine alternatives including the No Action Alternative were carried forward for consideration (Figure 6). Correspondence with federal and state agencies, organizations, tribes, and governmental officials was initiated to notify agencies of the proposed project and to assist the AHTD in obtaining helpful information in developing alternatives (Appendix I).

No Action Alternative

The No Action alternative would result in no new construction and only routine maintenance on existing routes. This alternative would retain the existing location of Highway 265 ending at Highway 264. Traffic continuing north to Highway 94 would travel on existing Old Wire Road and either turn west on McClure Avenue then north on Honeysuckle Lane or continue on Old Wire Road to Highway 94.

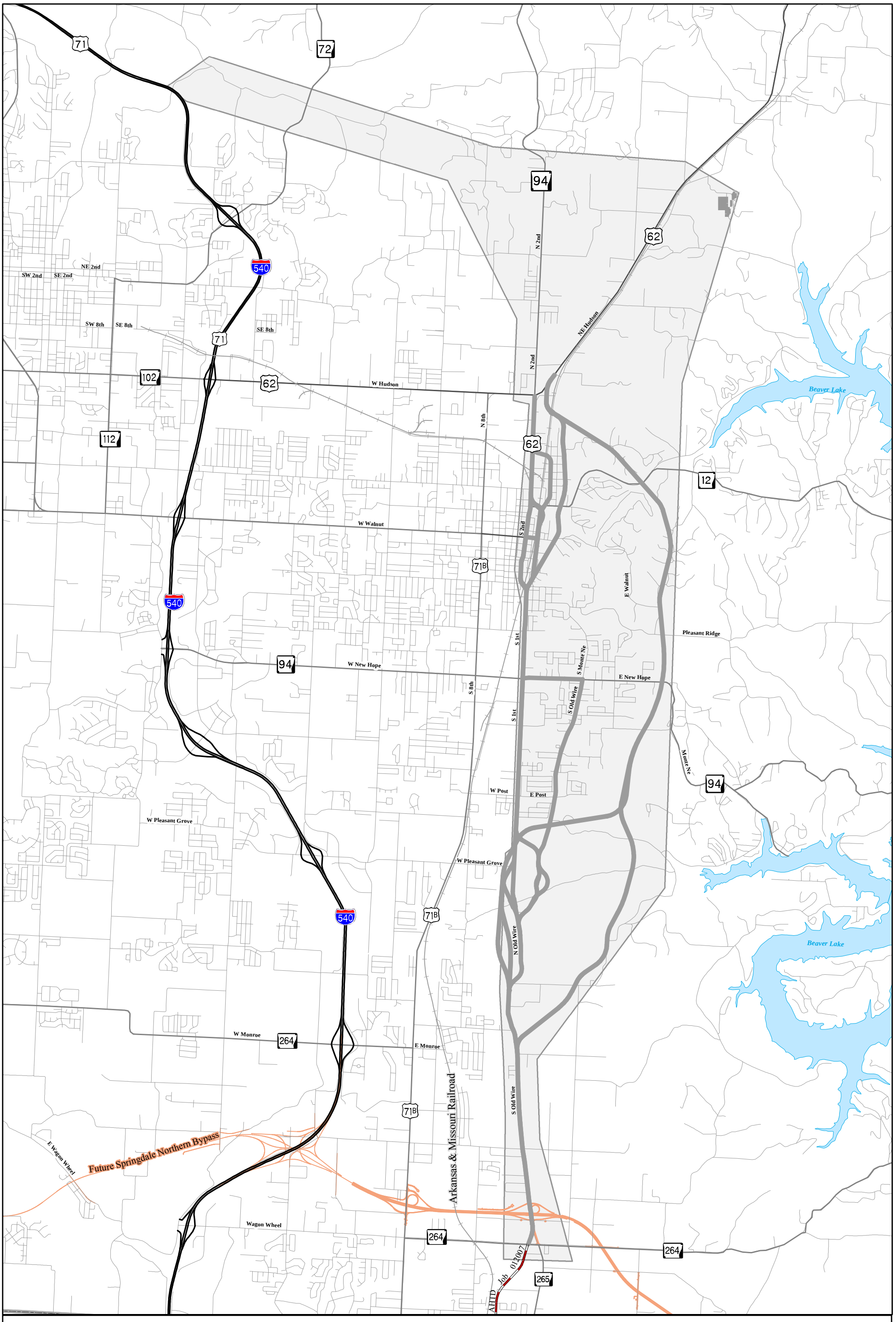

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Figure 5
Alternatives Considered

Alternatives Considered
Original Project Study Area

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Build Alternatives

The build alternatives all consist of Segment A with various combinations of Segments B through J. Figure 6 illustrates the different alternative designations and their related segments. The typical cross section for the alternatives would consist of four 11-foot lanes with a 12-foot continuous left turn lane, curb and gutter shoulders, and 3-foot grass berm and 5-foot sidewalks on both sides of the highway (Figure 7). The right of way is estimated to average 130 feet wide. Total cost estimates for all alternatives are in 2012 dollars and include preliminary engineering, construction, construction engineering, right of way and utility relocations (see Table 3). See Appendix B for more information on the projected 2035 traffic demand for each of the alternatives.

Operational Analysis

In order to improve connectivity in the eastern parts of Lowell and Rogers and help reduce traffic congestion on the existing north-south routes, Highway 265 needs to be extended to Highway 94 in Rogers.

The No Action Alternative would not improve connectivity in the area or reduce traffic congestion along the north-south portion of Highway 71B or along the northern end of Highway 265. North-south traffic would continue to use Highway 71B, city streets, and collector roads to reach their destinations

All build alternative traffic projections assume 4% percent trucks, an operating speed of 45 miles per hour, and a directional split of 60/40. All alternatives should at least consist of two through lanes and auxiliary lanes at select locations to meet the needs of the study area in the interim (LOS D or better). Sufficient right of way for the full cross section should be preserved as widening is likely to become necessary in the future.

Results from the Travel Demand Model (TDM), along with historical traffic trends, were used to assist in the development of the alternatives' traffic projections found in Appendix B. The TDM indicated that more traffic was removed from Highway 71B by

the alternatives as the alternatives moved closer to Highway 71B. The following assumptions were made for the TDM runs:

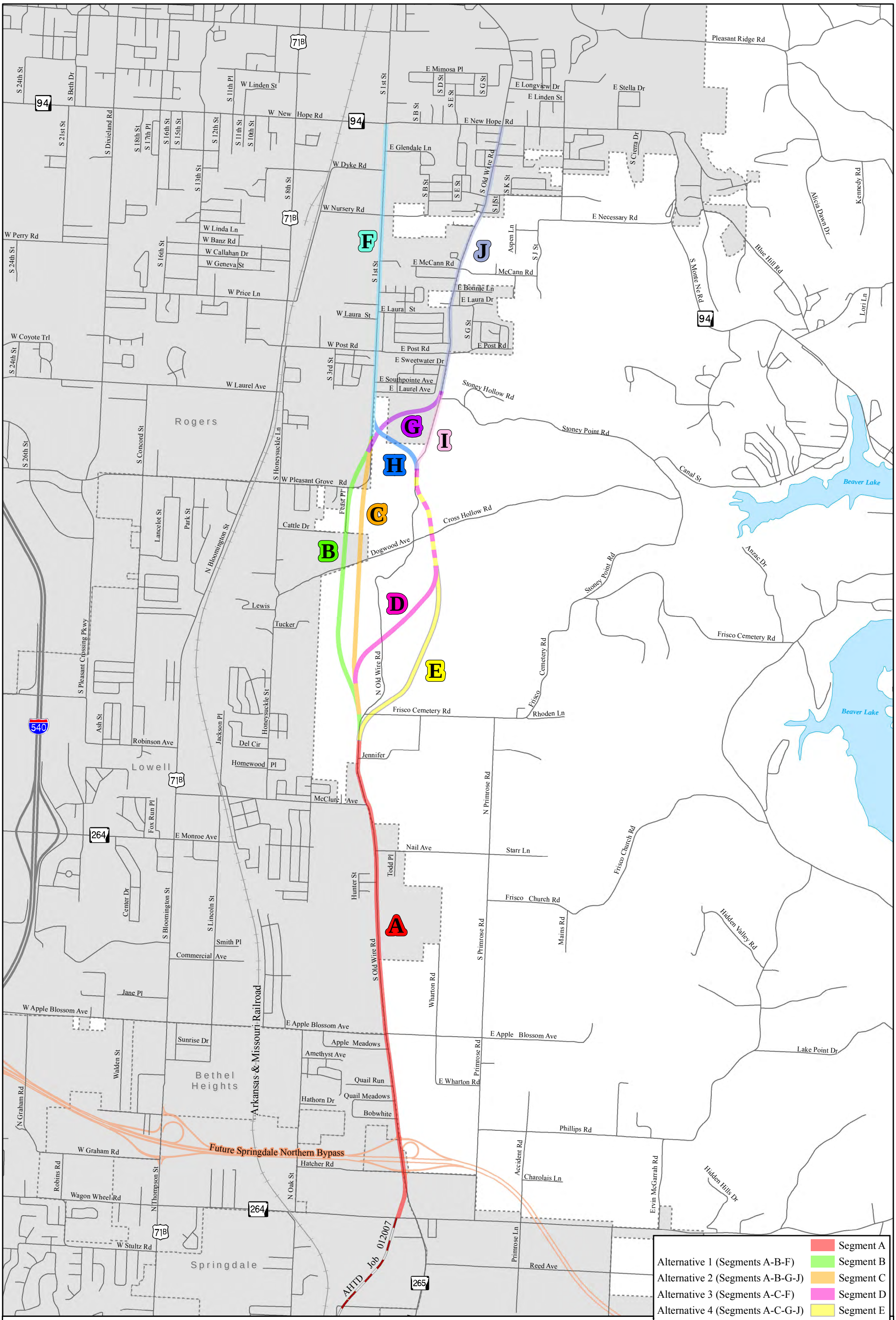
- Six-lane cross section on Interstate 540.
- Highway 412 Northern Bypass not built.
- Four travel lanes on all of Highway 71B and most of Highway 265.

The average vehicles per day (vpd) were calculated for each alternative and are shown in Table 3. Alternatives 1, 3, 5 and 7 use Segment A to the south and Segment F to the north, with the projected 2035 traffic volumes ranging between 14,000 vpd to 17,000 vpd. Alternatives 2 and 4 use Segment A to the south and Segments G and J to the north with the projected 2035 traffic volumes ranging between 11,000 vpd to 16,000 vpd. These alternatives attract slightly less traffic than Alternatives 1, 3, 5, and 7, due to less traffic being attracted from Highway 71B. Alternatives 6 and 8 use Segment A to the south and Segments I and J to the north, with projected 2035 traffic volumes ranging between 11,000 to 13,000 vpd. An average of 10,750 vpd is predicted for both Alternatives 6 and 8. These alternatives attract less traffic than the other build alternatives to their distance from Highway 71B.

Findings

All build alternatives provide viable alignments for the Eastern North-South Corridor in Northwest Arkansas. These alternatives address the needs of improving connectivity in Lowell, Bethel Heights, Rogers and Springdale, extending Highway 265 to Highway 94, and diverting traffic from other north-south routes, such as Highway 71B. The capacity, connectivity, and intersection improvements associated with each of the build alternatives should provide relief for traffic problems currently found on the existing street network.

The NWARPC and local jurisdictions should encourage the planning of future intersecting collectors and arterials at appropriate intervals to encourage connectivity along the Eastern North-South Corridor.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E Mimosa Pl
E Longview Dr
E Linden St
E Stella Dr
E New Hope Rd
W New Hope Rd
W Linden St
S 24th St
S Beth Dr
S 21st St
S Dixieland Rd
S 18th St
S 17th Pl
S 16th St
S 15th St
S 12th St
S 11th Pl
S 11th St
S 10th St
S 13th St
S 8th St
S 1st St
S B St
S D St
S E St
S G St
S K St
S I St
S J St
S Old Wire Rd
S Cierra Dr
Kennedy Rd
Alicia Dawn Dr
Blue Hill Rd
S Monte Ne Rd
Lori Ln
E Glendale Ln
W Dyke Rd
W Nursery Rd
E Necessary Rd
Aspen Ln
W Perry Rd
W Linda Ln
W Banz Rd
W Callahan Dr
W Geneva St
W Price Ln
E McCann Rd
McCann Rd
E Bonnie Ln
E Laura Dr
E Laura St
W Laura St
E Post Rd
W Post Rd
E Sweetwater Dr
E Southpointe Ave
E Laurel Ave
W Laurel Ave
W Coyote Trl
S 3rd St
Stoney Hollow Rd
Stoney Point Rd
Canal St
Beaver Lake
Rogers
S Concord St
S Honeysuckle Ln
W Pleasant Grove Rd
Feast Pl
Cattle Dr
Dogwood Ave
Cross Hollow Rd
Anzac Dr
Lewis
Tucker
Frisco Cemetery Rd
Rhoden Ln
Frisco
Cemetery Rd
N Old Wire Rd
S Pleasant Crossing Pkwy
Ash St
Robinson Ave
Jackson Pl
Honeysuckle St
Del Cir
Homewood Pl
Jennifer
Lowell
McClure Ave
Fox Run Pl
E Monroe Ave
N Primrose Rd
Nail Ave
Starr Ln
Frisco Church Rd
Todd Pl
Hunter St
Center Dr
S Bloomington St
S Lincoln St
Smith Pl
Commercial Ave
Mains Rd
Hidden Valley Rd
S Primrose Rd
Wharton Rd
Jane Pl
W Apple Blossom Ave
E Apple Blossom Ave
Sunrise Dr
Apple Meadows
Amethyst Ave
Lake Point Dr
Walden St
Bethel Heights
Arkansas & Missouri Railroad
Quail Run
Quail Meadows
Bobwhite
Hathorn Dr
E Wharton Rd
Primrose Rd
Phillips Rd
N Graham Rd
W Graham Rd
Future Springdale Northern Bypass
Hatcher Rd
Accident Rd
Charolais Ln
Ervin McGarrah Rd
Hidden Hills Dr
Robins Rd
Wagon Wheel Rd
N Thompson St
N Oak St
W Stultz Rd
Springdale
AHTD Job 012007
Primrose Ln
Reed Ave
S Bloomington St
N Bloomington St
Park St
Lancelot St
S Old Wire Rd
94
71B
264
540
265
A
B
C
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F
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H
I
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0 1,000 2,000
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Figure 6
Alternatives Carried Forward
Alternative 1 (Segments A-B-F)
Alternative 2 (Segments A-B-G-J)
Alternative 3 (Segments A-C-F)
Alternative 4 (Segments A-C-G-J)
Alternative 5 (Segments A-D-H-F)
Alternative 6 (Segments A-D-I-J)
Alternative 7 (Segments A-E-H-F)
Alternative 8 (Segments A-E-I-J)
Segment A
Segment B
Segment C
Segment D
Segment E
Segment F
Segment G
Segment H
Segment I
Segment J

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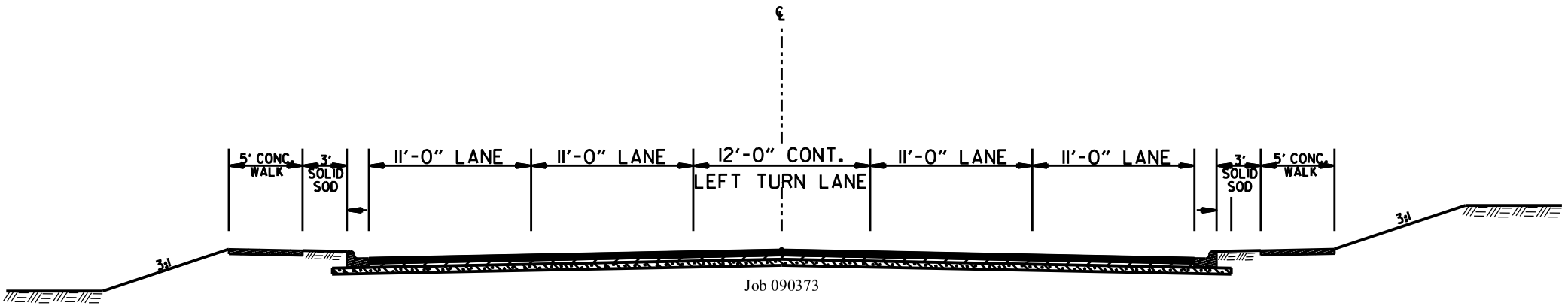


Figure 7
Typical Section of Improvement

Table 3

Operational and Cost Summary

Alternative (Segments)	Length (miles)	Construction Cost ROW Cost Total Cost (millions) (2012$)	Average Daily Traffic Volumes (ADT) 2035
No Action	0	0	0
1 (A-B-F)	6.1	32.7 15.7 48.4	16,500
2 (A-B-G-J)	6.3	34.3 19.4 53.7	12,750
3 (A-C-F)	6.0	32.4 15.4 47.8	16,500
4 (A-C-G-J)	6.3	34.0 19.1 53.1	12,750
5 (A-D-H-F)	6.6	45.1 14.8 59.9	15,750
6 (A-D-I-J)	6.3	43.4 17.3 60.7	10,750
7 (A-E-H-F)	6.3	42.1 15.3 57.4	15,350
8 (A-E-I-J)	6.3	41.4 17.8 59.2	10,750

IMPACT ASSESSMENT

This section presents information related to the potential environmental consequences and mitigation options within the project area for each alternative.

Relocations

Relocations occur when residential, business, or non-profit properties fall within the established right of way limits for a proposed project. Until a preferred alternative has been identified and the final design has been established, relocation quantities are estimates.

Estimated right of way widths were used in determining potential structures to be relocated. Cost estimates, a conceptual stage relocation study, and an available housing inventory are provided in Appendix C. Results of the conceptual stage relocation study are provided in Table 4.

All relocation activities would be governed by the *Federal Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970*, which ensures that decent, safe and sanitary housing is available and offered to displaced residents prior to the initiation of construction.

Environmental Justice Impacts and Title VI Compliance

Environmental Justice [Executive Order 12898] requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of its programs, polices, and activities on minority and low-income populations. In addition to Executive Order 12898, Title VI of the *Civil Rights Act of 1964* prohibits discrimination in programs and activities receiving federal funds on the basis of race, sex, color, age, national origin, religion, disability or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Table 4

Relocations

Alternative (Segments)	Residential Owners	Residential Tenants	Businesses	Farms	Landlord Businesses	Total
No Action	0	0	0	0	0	0
1 (A-B-F)	21	0	0	1	0	22
2 (A-B-G-J)	34	19	0	1	8	62
3 (A-C-F)	21	0	0	1	0	22
4 (A-C-G-J)	34	19	0	1	8	62
5 (A-D-H-F)	21	0	0	1	0	22
6 (A-D-I-J)	32	19	0	1	8	60
7 (A-E-H-F)	22	0	0	0	0	22
8 (A-E-I-J)	33	19	0	0	8	60

This proposed project is in compliance with Title VI and Executive Order 12898. The AHTD public involvement process did not exclude any individuals due to income, race, color, religion, national origin, sex, age, or disability. A summary of impacts to minority, elderly, low income and disabled households are complied in Table 5 and were identified using information from the U.S. Census data maps shown in Appendix D. By using the 2010 U.S. Census Data, the Health and Human Services Poverty Guidelines, (Federal Register, February 2011), making field observations, and conducting public involvement meetings, the determination was made that the proposed project will not have any disproportionate impacts on minorities, low-income, elderly, or disabled populations. The project could have an adverse impact to the general population in the project area due to the potentially high number or relocations.

Table 5
Environmental Justice/Title VI Impacts

Alternative (Segments)	Minority Households	Elderly Households	Low-Income Households	Disabled Households	Total
No Action	0	0	0	0	0
1 (A-B-F)	3	5	6	2	16
2 (A-B-G-J)	7	6	12	2	27
3 (A-C-F)	3	5	6	2	16
4 (A-C-G-J)	7	6	12	2	27
5 (A-D-H-F)	3	5	6	2	16
6 (A-D-I-J)	3	5	6	2	16
7 (A-E-H-F)	7	6	12	2	27
8 (A-E-I-J)	7	6	12	2	27

Social Environment

The geographic area considered for analysis of existing social conditions and environmental consequences consists of a one-county region (Benton County) with the Cities of Bethel Heights, Lowell, Springdale and Rogers. The project study area consists of commercial, agricultural, residential, and undeveloped land.

The No-Action Alternative consists of no improvements being made to the existing highways in the project area. Under this alternative, only routine maintenance would be provided. Congestion would continue along 1st Street, Old Wire Road and local roads and streets if no improvements are made to address the needs of the project.

All build alternatives will directly impact business and communities by creating benefits such as increased movement, convenience, and safety for motorists and pedestrians.

Temporary adverse impacts will include construction delays, relocation of residents, and property acquisition. Long term impacts include increased traffic, a wider roadway, and traffic noise.

Public Land

Section 4(f) of the *U.S. Department of Transportation Act of 1966* prohibits the use of publically owned parks, national wildlife and refuge areas, and significant historic sites unless it can be shown that: 1) There is no prudent and feasible alternative that meets the project's purpose and need that would avoid use of the land; 2) All possible planning to minimize harm to the property has been examined; and 3) A mitigation plan can be developed to compensate for the direct and indirect impacts. Two public parks in the project area are the P.L.P Practice Complex and the City of Rogers School District's park located north of The Annex.

It is expected that no park properties will be acquired; therefore, there will be no Federal Highway Administration Section 4(f) or *Land and Water Conservation Act* Section 6(f) impacts associated with this project. If park property is required for the project, a Section 4(f) evaluation will be completed to assess impacts and potential mitigation.

Wetland, Stream and Floodplain Impacts

Impacts to water resources such as wetlands, streams, and floodplains can affect the human and natural environment and require permits from federal and state agencies. Impacts to these resources as a result of the build alternatives are summarized in Table 6 and their locations are shown on Figure 8.

Wetlands

Wetlands are areas typically inundated or saturated by surface or groundwater to the extent that they can support vegetation adapted for life in wet soil conditions. There were no jurisdictional wetlands identified in the eight proposed alternatives.

Table 6
Stream Crossings and Floodway/Floodplain Impacts

Alternative (Segments)	Stream Crossings	Floodway/Floodplain Impacts (linear feet)
No Action	0	0/0
1 (A-B-F)	5	100/350
2 (A-B-G-J)	4	0/200
3 (A-C-F)	5	100/350
4 (A-C-G-J)	4	0/200
5 (A-D-H-F)	7	100/425
6 (A-D-I-J)	6	0/275
7 (A-E-H-F)	7	100/425
8 (A-E-I-J)	6	0/275

Streams

Streams are bodies of water that flow confined within a bed or a stream bank. They may be either perennial (flowing continuously all year), intermittent (ceases to flow periodically) or ephemeral (flowing only during and immediately after precipitation).

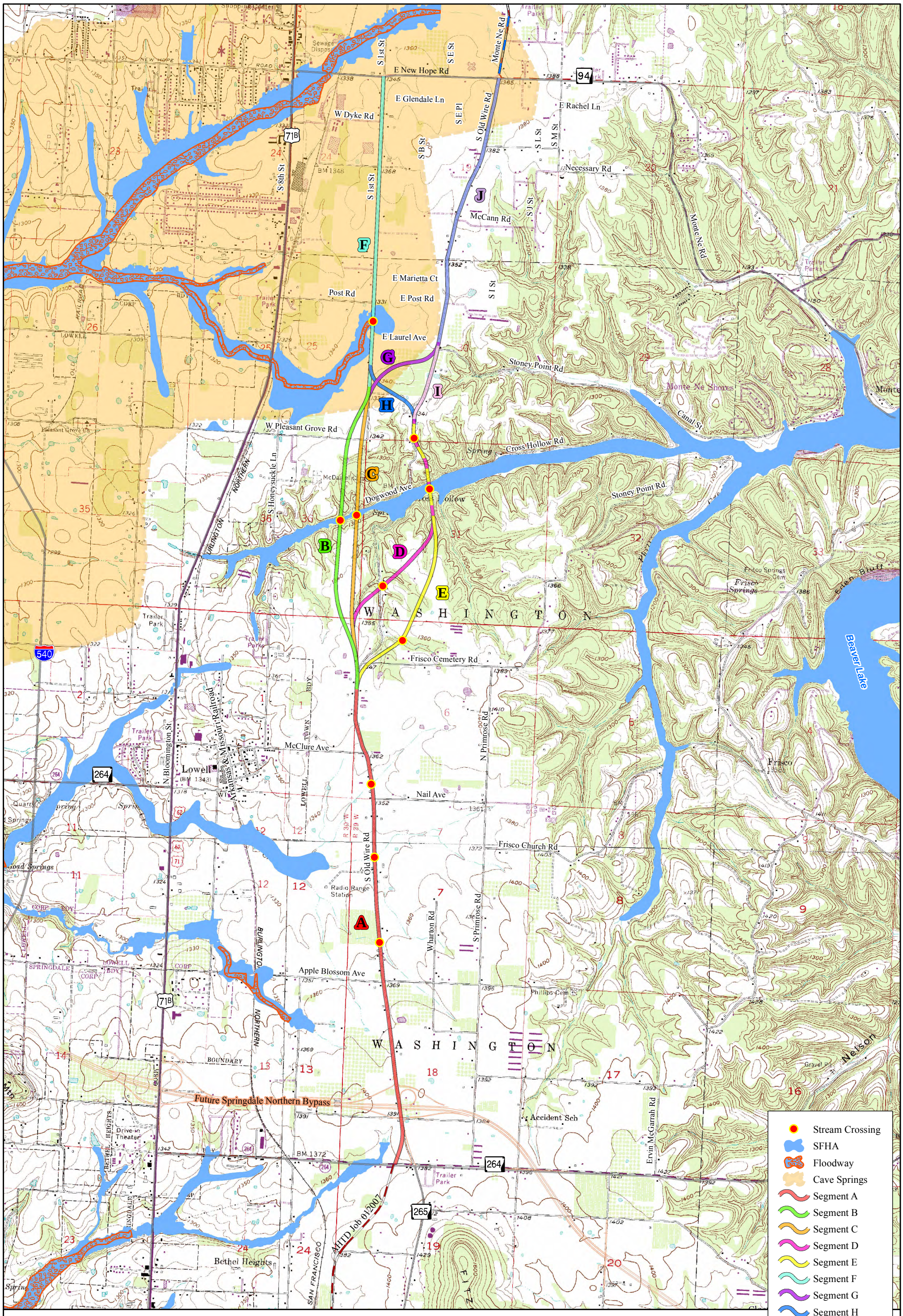
Preliminary surveys of the eight proposed alternatives associated with this project were conducted to assess stream impacts. Alternatives 1 and 3 would have five stream crossings, Alternatives 2 and 4 would have four stream crossings, Alternative 5 and 7

would have seven stream crossings and Alternatives 6 and 8 have six stream crossings. The proposed alignments appear to cross the streams at perpendicular angles; therefore impacts to the streams should be minimal. All of the streams are ephemeral or intermittent headwater streams, except the lower crossing of Monte Ne Branch along Alternatives 5, 6, 7 and 8 (Segments D and E). It is perennial because it is fed by a freshwater spring. Stream relocation will be avoided and/or minimized during the design phase of the project. Construction of any of the alternatives should be allowed under the terms of a Nationwide 14 Permit for Linear Transportation Projects as defined in the Federal Register 77(34):10184-10290.

Floodplains

A floodplain is flat or nearly flat land adjacent to a stream or river that experiences occasional or periodic flooding. It includes the floodway consisting of the stream channel and adjacent areas that carry flood flows. Special Flood Hazard Area (SFHA) crossings were identified within the study area and are shown on Figure 8. A SFHA is the area covered by a flood that has a 1% chance of occurring (or being exceeded) each year, also known as a 100-year flood. The SFHA crossings are derived from Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM), and may differ from the impacted streams identified in previous sections. The streams listed in these sections are waters of the United States, under the jurisdiction of the U.S. Army Corps of Engineers. Some SFHAs include streams or flood prone areas which may or may not fall under U.S. Army Corps of Engineers jurisdiction.

All alternatives will cross areas that have been designated as special flood hazard areas, as shown in Zone A SFHA as designated by the National Flood Insurance Program and shown on Panel 290 of the Benton County FIRM (Appendix I). Alternatives 1 and 3 will cross two floodplain areas. Alternatives 2 and 4 will cross one floodplain. Alternatives 5 and 7 will cross two floodplain areas and Alternatives 6 and 8 will only cross one floodplain area (Table 6).



N

0 1,000 2,000

Feet

Job 090373
September 17, 2012
AHTD Environmental GIS - Dudley

Figure 8
Stream Crossings, Floodways/Floodplain Impacts,
and Cave Springs Recharge Area

USGS Topographic Maps:
Bentonville South 1982; Springdale 1982;
Rogers 1980; Sonora 1980

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Alternatives 1, 3, 5 and 7 cross only one regulatory floodway along Tributary 2 to Blossom Way Creek as shown on Panel 290 of the Benton County FIRM. The regulatory floodway width at this crossing is approximately 100 ft. and its regulatory floodplain width is approximately 150 feet, which has been added to the calculations for floodplain impacts for each alternative.

Any crossing of this floodway must be designed to cause no increase in flood depths during the passage of the 100 year (1% annual chance) flood.

The project will serve as a principal arterial and, as such, will serve emergency vehicles in time of disaster. The project will be designed to avoid roadway overtopping by the 50 year flood and, therefore, will not have a significant potential for vehicular interruption, or termination, due to flooding.

Bridges and/or drainage structures will be sized sufficiently to minimize impacts on natural and beneficial floodplain values. These values include, but are not limited to fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquiculture, forestry, natural moderation of floods, water quality, maintenance, and groundwater recharge.

The design measures to minimize floodplain impacts include (1) avoiding longitudinal encroachments, (2) sufficient bridging and/or drainage structures to minimize adverse effects from backwater, (3) sufficient bridging and/or drainage structures to minimize increases in water velocity, (4) minimizing channel alterations, (5) adequate and timely erosion control to minimize erosion and sedimentation, and (6) utilizing standard specifications for controlling work in and around streams to minimize adverse water quality impacts.

The final project design will be reviewed to confirm that the design is adequate and that the potential risk to life and property are minimized. The project will not support

incompatible use or development of the floodplain. Adjacent properties should not be impacted nor have a greater flood risk than existed before construction of the project.

Additional cumulative impacts to floodplains may be expected for the build segments. Similar projects have shown that additional development may be expected along a new highway near an established community. All development projects will be subject to a floodplain permitting process and therefore further impacts will be minimized. Cumulative impacts should be similar for all alternative segments.

Threatened and Endangered Species

A threatened species is one that is likely to become endangered in the near future. An endangered species is one that is in danger of extinction throughout all or a significant portion of its range.

Threatened Species

No threatened species were identified within the project area.

Endangered Species

According to the U.S. Fish and Wildlife Service (USFWS), the gray bat (*Myotis grisescens*), Indiana bat (*Myotis sodalis*), Ozark big-ear bat (*Corynorhinus townsendii ingens*), Benton cave crayfish (*Cambarus aculabrum*), and Ozark cavefish (*Amblyopsis rosae*) have been recorded in Benton county. No known caves used by the gray bat, Indiana bat, Ozark big-ear bat, Benton cave crayfish or Ozark cavefish are within or adjacent to the proposed project alternatives.

Gray Bat

Gray bats (*Myotis grisescens*) are one of the few species of bats in North America that inhabit caves year-round. The species occupies cold hibernating caves or mines in winter and warmer caves during summer (Tuttle 1976a, Harvey *et al.* 1981, Harvey 1994, Martin 2007). Foraging of gray bats in summers is strongly correlated with open water of rivers, streams, lakes or reservoirs. Although the species may travel up to 21.7 miles

between prime feeding areas over lakes or rivers and occupied caves (LaVal *et al.* 1977, Tuttle and Kennedy 2005), most maternity colonies are usually located between 0.6 – 2.5 miles from foraging locations (Tuttle 1976b). Tuttle (1976b) noted that the home range of one colony of gray bats included five caves and covered an area approximately 31.1 miles long by 3.1 miles wide. At foraging sites, Tuttle (1976b) estimated that gray bats forage within roughly 10 feet of the water's surface. Gray bats are highly dependent on aquatic insects, especially mayflies, caddis flies, and stoneflies; however, they will also consume beetles and moths (Harvey 1994, Tuttle and Kennedy 2005, USFWS 2009). Cave Springs Cave, known to support the endangered gray bat, is located approximately 5.9 miles west of the project.

Indiana Bat

Indiana bats (*Myotis sodalis*) hibernate in caves or mines where the ambient temperature remains below 10°C (50.0°F) but infrequently drops below freezing, and the temperature is relatively stable (USFWS 2007). In summer, most reproductive females occupy roost sites under the exfoliating bark of dead trees that retain large, thick slabs of peeling bark. Primary roosts usually receive direct sunlight for more than half the day. Roost trees are typically within canopy gaps in a forest, in a fence line, or along a wooded edge (Kiser and Elliot 1996, Gumbert *et al.* 2002). Habitats in which maternity roosts occur include riparian zones, bottomland and floodplain habitats, wooded wetlands, and upland communities. Indiana bats typically forage in semi-open to closed (open understory) forested habitats, forest edges, and riparian areas (Humphrey *et al.* 1977, Gardner *et al.* 1991, Callahan 1993, Carter 2003, Palm 2003).

The nearest known locality of the Indiana bat is 11.4 miles east of the project area. Potentially suitable habitat for the Indiana bat is confined to the Cross Hollow area. Land use data described in this document was used to determine the amount of suitable habitat (woodland = upland oak/hickory and riverine woodland). Alternatives 1 and 2 (3.6 acres) will impact the least amount of woodland habitat, Alternatives 3 and 4 will impact 5.5 acres, Alternatives 5 and 6 will impact 12.0 acres and Alternatives 7 and 8 will impact 14.1 acres.

Ozark Big-Ear Bat

The Ozark big-ear bat **(***Corynorhinus townsendii ingens***)** is endemic to the Ozark Highlands and Boston Mountains Ecoregion where it occurs in oak-hickory hardwood forests (Clark 1991, USFWS 1995 and 2008). In Arkansas, the species is known to occur primarily in Crawford, Franklin, and Washington counties in northwestern Arkansas and in Marion County in north-central Arkansas. Based on proximity to known range, presence of suitable roosting and foraging habitat, and evidence of probable use discovered during cave searches for this species in Arkansas, the Ozark big-ear bat potentially may occur in Benton, Boone, Carroll, Searcy, Logan, Newton, Johnson, and Madison counties. Like the gray bat, the Ozark big-ear bat is an obligate cave user year-round and is known to utilize and roost in limestone and sandstone talus caves. The Ozark big-ear bat forages primarily on moths which comprise greater than 85% of their diets (Clark 1991). Preferred foraging habitat consists of hardwood forests and edge habitats. Foraging distances typically range between 0.6 – 2.6 miles from the cave with a maximum known foraging distance of 4.5 miles (Clark et al. 1993, USFWS 1995 and 2008). The nearest known locality of the Ozark big-ear bat is 20.9 miles southwest of the project area.

Benton Cave Crayfish

The Benton cave crayfish (*Cambarus aculabrum*) is known from only 4 localities globally. All four are located in Benton and Washington Counties in Arkansas; Logan Cave, Bear Hollow Cave, Old Pendergrass Cave, and Brush Creek (Graening et al. 2006). The most recent population count conducted in 2006 observed a total of 40 individuals (Graening et al. 2006). The maximum historical count was 56 individuals. Little is known about the species life history traits other than it is stygobitic, physiologically and morphologically adapted to groundwater environments (Hobbs and Brown 1987, USFWS 1993, Graening et al. 2006). The stygobitic nature of the species makes obtaining accurate population estimates and distributions difficult. The nearest known locality to the project area is Brush Creek, which is 6.7 miles to the west of the project area.

Ozark Cavefish

The Ozark cavefish (*Amblyopsis rosae*) is a stygobitic species endemic to the Springfield plateau of Arkansas, Missouri, and Oklahoma. There are 41 known active localities with a total countable population estimate of 213 individuals. As with all stygobitic species, obtaining accurate population estimates and distributional information is difficult. Early studies found a strong correlation between the presence of Ozark cavefish and the presence of a maternity colony of gray bats, and the presence of cave crayfish and/or the presence of planktonic or benthic invertebrate communities (Willis and Brown 1985, USFWS 2011). More recent studies did not find a correlation with bat colonies (Graening and Brown 2000). Cavefish feed on small crayfish, isopods, copepods, ostracods, larval salamanders, and their own young (Poulson 1963). The nearest known locality is 2.9 miles east of the project area; however this locality has been disturbed by the landowner and is no longer considered active. The largest known population occurs in Cave Springs Cave which lies approximately 5.9 miles west of the project area.

All of the proposed alternatives use either Segment F or J, which lie within the Cave Springs Cave secondary recharge area (Aley and Moss 2001). Because of the longer length inside the recharge area, Segment F could have the most potential for impact on the recharge area (Figure 8). However, this portion of the recharge area has already been heavily developed; therefore, additional secondary and cumulative impacts to the Cave Springs Recharge Area and the associated threatened and endangered species are expected to be minimal and should not vary substantially among alternatives.

Additional impacts to endangered species could occur during the conversion of woodland habitat to highway rights of way in the Cross Hollow area. This conversion could potentially impact foraging habitat for all species as well as roosting habitat for the Indiana bat. All alternatives can be lumped into two groups with similar amounts of woodland converted to highway right of way, with Alternatives 5, 6, 7 and 8 having more than twice the amount of woodland than Alternatives 1, 2, 3 and 4. Additional secondary and cumulative impacts to threatened and endangered species may result from the further

conversion of woodland habitat; however, these impacts are not expected to vary substantially among alternatives.

Water Quality

The project area lies within the Ozark Highlands Ecoregion where the primary turbidity standard set by Arkansas Department of Environmental Quality (ADEQ) for streams is 10 Nephelometric Turbidity Units (NTUs) and 25 NTUs for lakes and reservoirs (Regulation 2). Given the existing water quality within the region, additional sediments contributed during construction would likely result in localized, short-term adverse water quality impacts. Temporary exceedances of state water quality standards for turbidity may occur. Other potential sources of water quality impacts include petroleum products from construction equipment, highway pollutants from the operations of the facility, and toxic and hazardous material spills.

The AHTD will comply with all requirements of *The Clean Water Act*, as amended, for the construction of this project. This includes Section 401; Water Quality Certification, Section 402; National Pollutant Discharge Elimination Permit (NPDES), and Section 404; Permits for Dredged or Fill Material. The NPDES Permit requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would include all specifications and best management practices (BMPs) needed for control of erosion and sedimentation. This will be prepared when the roadway design work has been completed in order to best integrate the BMPs with the project design.

Two storm water detention basins are located in the project area. The first detention basin in located along Alternatives 1, 3, 5, and 7 (Segment F) along 1st Street between Southpointe Avenue and East Post Road. The second detention basin is located in the southwest quadrant of the intersection of Old Wire Road and Highway 94 along Alternatives 2, 4, 6 and 8 (Segment J). These storm water detention basins were constructed to address SWPPP requirements related to pollution runoff from residential areas. Impacts to these detention basins will be addressed during the design phase of the

project. If the detention basin is impacted by the project, the basin will be redesigned and/or modified to detain its intended storm water detention purposes as per SWPPP specifications.

Public/Private Water Supplies

The project area is within the Beaver Water District's Surface Water Source Protection Area, and is approximately 6.5 miles upstream of the surface water intakes on Beaver Lake. No direct, indirect, or cumulative impacts to public drinking water supplies are anticipated due to this project.

If any permanent impacts to private drinking water sources occur due to this project, the AHTD will take appropriate action to mitigate these impacts. Impacts to private water sources due to the contractor neglect or misconduct are the responsibility of the contractor.

Wild and Scenic Rivers

There are no federal or state designated wild and scenic rivers impacted by this project.

Hazardous Materials

A hazardous material is any item or chemical that can cause harm to people, plants, or animals when released into the environment. The presence of hazardous materials within the project area was assessed by visual reconnaissance and government records.

An illegal dump was found in Segment B of Alternatives 1 and 2. This abandoned illegal dump, shown in Figure 9, was identified along Feast Place Road. This landfill consists of glass bottles, cans, and plastic bottles indicative of household waste. No evidence of hazardous waste was identified in the known boundaries of this landfill. Approximately 30 cubic yards of material would need to be excavated and taken to an approved landfill facility prior to construction.

Figure 9. Illegal dump along Segment B of Alternatives 1 and 2.

During construction of this project, should hazardous materials be identified, observed or accidentally uncovered by any AHTD personnel, contracting company, or state regulatory agency, it will be the AHTD's responsibility to determine the type, size and extent of contamination. The AHTD will identify the type of contaminant, develop a remediation plan and coordinate disposal methods to be employed for the particular type of contamination. All remediation work will be conducted in conformance with ADEQ, the Environmental Protection Agency (EPA) and Occupational Safety and Health Administration (OSHA) regulations.

Important Farmland

Important Farmland is defined by the U.S. Department of Agriculture as land suited to food, feed, forage, fiber, and oilseed crops. Prime Farmland has the best combination of physical and chemical characteristics for the production of crops, while Farmland of Statewide Importance is land other than Prime Farmland which has a good combination

of these characteristics. The Important Farmlands affected by all eight construction alternatives include both Prime Farmland and Farmland of Statewide Importance.

Agriculture activity in the study area consists mainly of pastures utilized for grazing and hay production for beef cattle. Benton County is a major producer of poultry and beef. Beef production is greatly dependent upon the poultry industry. Due to shallow infertile soils, the land is not productive for pasture without the use of chicken litter for fertilizer.

Right of way acquisition for the proposed facility would reduce the amount of land available to the impacted farmers for production. Splitting these farms with a new highway would not only convert farmland to highway right of way, but would result in the disruption of some farm operations.

The construction of the new facility would result in positive impacts by providing easier farm to market access and more efficient transportation of farm supplies.

Form NRCS-CPA-106, The Farmland Conversion Impact Rating, can be found in Appendix E. The amount of prime farmland estimated to be converted to highway right of way is shown in Table 7.

Table 7
Prime Farmland and Farmland of Statewide Importance

Alternative (Segments)	Prime Farmland (acres)	Farmland of Statewide Importance (acres)
No Action	0	0
1 (A-B-F)	26.3	3.3
2 (A-B-G-J)	32.1	4.9
3 (A-C-F)	24.2	2.8
4 (A-C-G-J)	30.0	4.2
5 (A-D-H-F)	24.9	4.2
6 (A-D-I-J)	30.1	5.9
7 (A-E-H-F)	18.3	8.3
8 (A-E-I-J)	24.4	10.0

Cultural Resources

Cultural resources include elements of the built environment (buildings, structures, or objects) or evidence of past human activity (archeological sites). Those that are listed, or eligible for inclusion, in the National Register of Historic Places (NRHP) are defined as historic properties (36 CFR Part 800.16(l)). Impacts to historic properties are avoided, minimized, or mitigated through a variety of methods that vary depending on the nature of the property. Those that are not eligible for inclusion in the NRHP do not require protection. From records checks and field observations, it has been determined that all of the build alternatives would impact known historic properties, and the areas they cross are very likely to contain undiscovered resources. An extremely large Civil War archeological site lies across and through the Cross Hollow area. It is eligible for the

NRHP. This site also contains some Native American sites within its boundaries. Alternatives 1 and 2 (Segment B) bypasses the known area of this site whereas Alternatives 3 through 8 (Segments C, D, and E) go through it. Other archeological sites are in the area none have yet been evaluated for NRHP status.

Old Wire Road was established sometime in the early 1800's. It is shown on the 1839 and 1840 Government Land Office (GLO) maps. All build alternatives cross and/or follow this route. Due to errors in mapping technology in the early 1800's, it is quite possible that the current roads follow this route exactly. Three historical trails lie on Old Wire Road: the Butterfield Overland Trail, the Cherokee Trail of Tears, and the Civil War Military Route. The Butterfield Overland Trail is under study by the National Park Service for designation as a National Historic Trail. The possibility of undiscovered archeological sites along these trails is very high. Old Wire Road through Cross Hollow and north to Stony Hollow Road is on the NRHP for being the Cherokee Trail of Tears and Civil War Military Route. Old Wire Road is also part of the Heritage Trail System established by the Arkansas Legislature under *Act 728*.

Adverse effects to cultural resources are anticipated for this project. See Table 8 for summary information. Additional information about the cultural resources survey can be found in Appendix F.

Once a Preferred Alternative has been identified, an intensive cultural resources survey will be conducted. If no historic properties eligible for inclusion in the NRHP or Native American archeological sites would be impacted, the project will be documented on an AHTD Project Identification Form and submitted to the State Historic Preservation Officer (SHPO) with a recommendation of no further work. If one or more of these sites would be impacted, a full report documenting the results of the survey and stating the AHTD's recommendations will be prepared and submitted to the SHPO for review. If prehistoric sites are identified, additional consultation with the appropriate Native American Tribes would occur and sites will be evaluated to determine if Phase II evaluation is necessary. Should any of the sites be found eligible for inclusion on the

NRHP and avoidance is not possible, then site specific data recovery plans will be prepared and data recovery excavations will be carried out at the earliest practicable time.

Table 8
Cultural Resources Impacts

Alternative (Segments)	Butterfield Stagecoach Trail	Cherokee Trail of Tears	Civil War Trail	Civil War Skirmish Site	Eligible National Register Property*	Eligible Structures*	Archeological Site*
	Number of Crossings Miles of Concurrent Route						
No Action	-	-	-	-	-	-	-
1 (A-B-F)	4 3.0	4 3.0	4 3.0	Yes	No	3	1
2 (A-B-G-J)	5 6.0	5 6.0	5 6.0	Yes	No	3	2
3 (A-C-F)	4 0.5	4 0.5	4 0.5	Yes	No	2	2
4 (A-C-G-J)	5 3.5	5 3.5	5 3.5	Yes	No	2	3
5 (A-D-H-F)	5 0.75	5 0.75	5 0.75	Yes	Yes	2	3
6 (A-D-I-J)	5 4.0	5 4.0	5 4.0	Yes	Yes	3	3
7 (A-E-H-F)	5 0.75	5 0.75	5 0.75	Yes	Yes	2	3

*Sites will be avoided if possible.

Noise

"Noise" is defined as an unwanted sound that interferes with an activity or disturbs the person hearing it. Sound is measured in a logarithmic unit called a decibel (dB). The human ear is more sensitive to middle and high frequency sounds, so this study uses

sound levels weighted towards these frequencies measured in A-weighted decibels (dBAs).

Existing ambient noise levels throughout the project study area were measured and varied from 43-64 dBA (Figure 10). If the proposed project results in traffic noise increases exceeding 66 dBA, or results in an increase of over 10 dBA for a sensitive noise receptor, the FHWA considers that receptor to be impacted. Sensitive noise receptors are residences or businesses that have a special sensitivity to noise, such as schools, churches, libraries, and parks. A listing of the noise receptor categories can be found in the Noise Analysis in Appendix G.

All of the build alternatives are projected to have an increase in traffic noise levels over the 66 dBA impact criteria in the segments that contain existing roads or the +10 dBA impact criteria in the new location segments of roadway. The distance the noise impacts extended from the centerline for each alternative was calculated and mapped, and the number of sensitive noise receptors was estimated and are shown in Table 9.

Design year 2035 traffic volumes for the No Action Alternative predict 100 to 3,900 vpd increase for traffic along the existing route. This increase in traffic would increase sound levels at receptors along the existing route. Some of the receptors estimated to be impacted on the existing route may be currently impacted or will be as a result of this increased volume on the existing roadways.

Noise impacts are predicted to occur within 500 feet of the proposed build alternatives. Therefore, the feasibility and reasonableness of potential noise abatement measures must be evaluated. Based upon AHTD's "Policy on Highway Traffic Noise Abatement", many of the segments for each build alternative would not warrant a noise barrier wall or berm because breaks in the barrier walls or berms would be required for access to the highway. These necessary breaks for highway access would render any noise barrier ineffective. A noise barrier analysis may need to be performed on Segment F of Alternative 1, 3, 5 and 7 and Segment J of Alternatives 2, 4, 6 and 8, once an alternative

and final cross-section has been selected. Should the cross-section that is ultimately constructed and/or traffic change for the selected alternative, a new noise analysis and new barrier analysis will be performed.

Table 9
Estimated Noise Receptors Impacted
Year 2035

Alternative (Segments)	> 66 Leq dBA	> 10 Leq dBA Increase over Existing Noise Levels
No Action	-	-
1 (A-B-F)	72	68
2 (A-B-G-J)	99	38
3 (A-C-F)	77	70
4 (A-C-G-J)	100	35
5 (A-D-H-F)	71	75
6 (A-D-I-J)	93	19
7 (A-E-H-F)	70	82
8 (A-E-I-J)	99	26

Construction noise on the build alternatives would be temporary and relatively minor. The noise analysis detailing the methods used and the results of the noise study can be found in Appendix G.

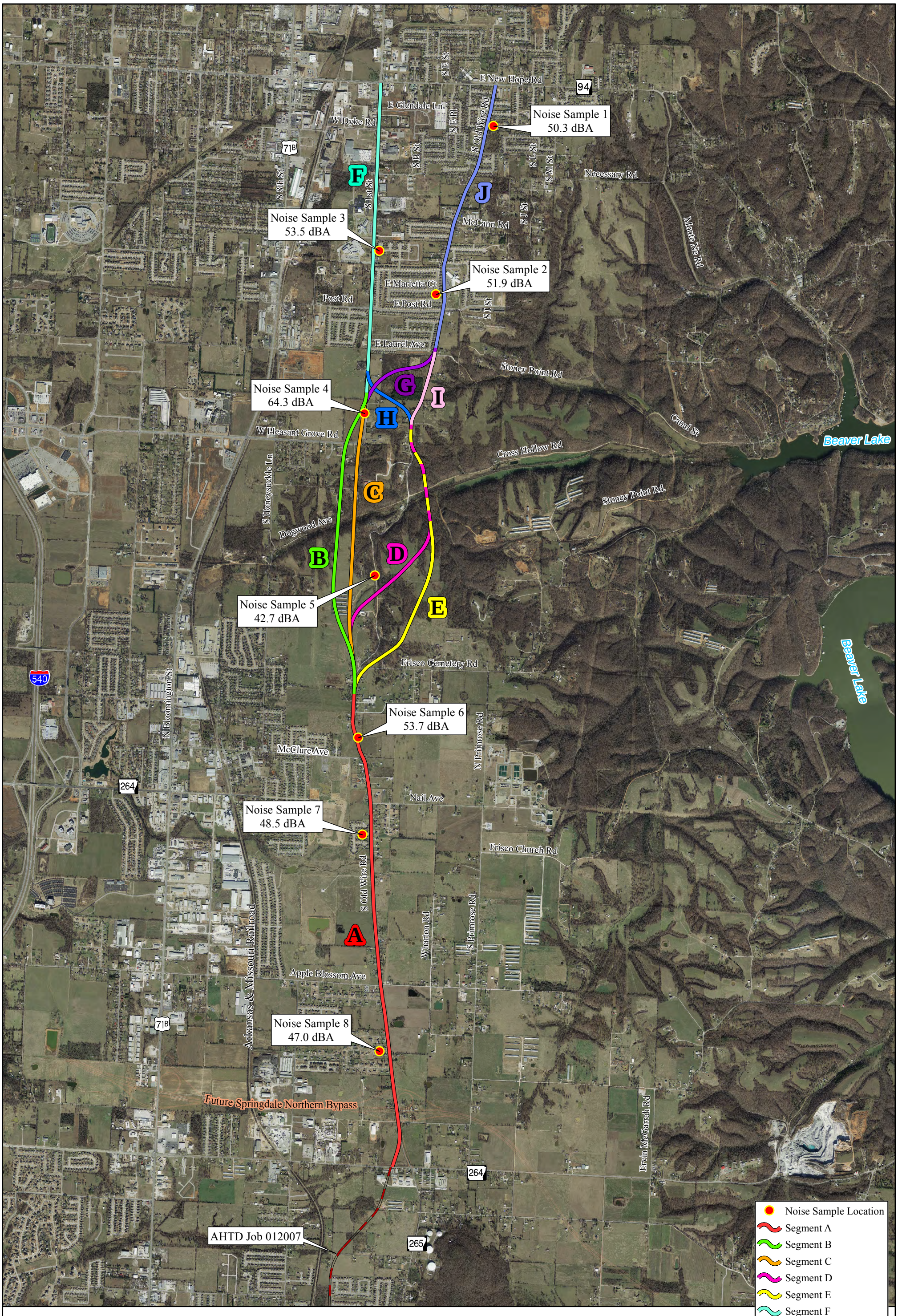

Figure 10
Noise Sampling Locations

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Air Quality

Utilizing the Mobile Source Emission Factor Model 5.0a and CALINE 3 dispersion model, air quality analysis was conducted on previous projects for carbon monoxide. These analyses incorporated information relating to traffic volumes, weather conditions, vehicle mix, and any vehicle operating speeds to estimate carbon monoxide levels for the design year.

These computer analyses indicate that carbon monoxide concentrations of less than one part per million (ppm) would be generated in the mixing cell for a project of this type. This computer estimate, when combined with an estimated ambient level of 1.0 ppm, would be less than 2.0 ppm and well below the national standards for carbon monoxide.

This project is located in an area that is designated as in attainment for all transportation pollutants. Therefore, the conformity procedures of the *Clean Air Act*, as amended, do not apply.

Natural and Visual Environment

The project area is located within the Springfield Plateau and the Dissected Springfield Plateau-Elk River Hills portions of the Ozark Highlands Ecoregion. The Springfield Plateau is nearly level to rolling. Elevations in the project area vary from approximately 1,300 feet above mean sea level (msl) to 1,390 feet msl. The middle section of the project is in the Dissected Springfield Plateau-Elk River Ecoregion. In this region, steep slopes drop down to approximately 1,200 feet msl in the valleys.

Surface geology in the project area consists of the Boone Formation of lower Mississippian age. Fitzgerald Mountain, which is just south of the project, rises above the surrounding Boone Formation to 1,664 feet msl. The mountain consists of Pitkin Limestone of upper Mississippian age. These formations are comprised of consolidated limestone and chert with karst characteristics.

Soils are mapped by the USDA into three soil associations. The Captina-Peridge association is moderately well drained and well drained, nearly level to gently sloping, deep, loamy soils on broad upland divides. The Tonti-Nixa-Captina association is moderately well drained, nearly level to moderately sloping, deep and moderately deep, loamy and cherty soils on ridges and broad uplands. The Clarksville-Nixa-Noark association is somewhat excessively drained to moderately well drained, gently sloping to steep, deep and moderately deep, cherty soils on hills and ridges.

Water resources in the project area include natural springs, numerous stock ponds, headwaters of Puppy Creek, Monte Ne Branch of Phillips Creek, and headwaters of Osage Creek. Puppy Creek is a tributary of Spring Creek, and both Spring Creek and Osage Creek are tributaries of the Illinois River. The Illinois River runs south and west, eventually joining the Arkansas River in Oklahoma. Phillips Creek runs east into Beaver Lake Reservoir, which was created by damming the White River. The White River runs northeast into Missouri, then southeast through Arkansas, eventually joining the Mississippi River.

Historically, natural vegetation communities in the project area included upland prairie, oak-hickory savanna, upland oak-hickory forest on slopes, and riverine woodland. The prairies and oak-hickory savannah no longer exist in the project area. All of the more level ground has been cleared and presently, vegetation cover consists primarily of modern pasture, mostly of tall fescue (*Festuca arundinaria*), but some pastures have been more recently converted to Bermuda grass (*Cynodon dactylon*).

Upland oak-hickory is still common on the steep slopes at Cross Hollow and on Fitzgerald Mountain. Upland oak in the project area is primarily southern red oak (*Quercus falcata*), black oak (*Q. velutina*), post oak (*Quercus stellata*), blackjack oak (*Q marilandica*), and white oak (*Q. alba*). Flowering dogwood (*Cornus florida*), sassafras (*Sassafras albidum*), and persimmon (*Diospyros virginiana*) are common in the understory.

Riverine woodland lines the perennial stream Monte Ne Branch of Phillips Creek, also at Cross Hollow. Riverine woodland there includes silver maple (*Acer sacharinum*), black walnut (*Juglans nigra*), hackberry (*Celtis occidentalis*), and black cherry (*Prunus serotina*). Elderberry (*Sambucus canadensis*), and redbud (*Cercis canadensis*) are common in the understory.

The invasive species Johnson grass (*Sorghum halepense*) is locally abundant. Two potentially invasive species, mimosa tree (*Albizia julibrissin*) and bush honeysuckle (*Lonicera maackii*), were noted roadside at Cross Hollow.

The principal impact of the proposed project to the natural environment will be the conversion of modern pasture, residential property, and woodland to highway right of way. Alternatives 5, 6, 7 and 8 will impact more oak-hickory woods than will Alternatives 1, 2, 3, and 4. No secondary or accumulative impacts to biodiversity are expected.

Old Wire Road has historical importance and is considered a visually sensitive resource. This historic road is noted for its use during the Trail of Tears, as a military road during the Civil War, and as a route used by the Butterfield Overland Stage.

Communities in the project area include (from south to north), Springdale, Bethel Heights, Lowell, and Rogers. The Cross Hollow area is unincorporated. Manmade features in the project area include numerous residences, commercial businesses (primarily on E. New Hope Road at the northern termini of the alternatives), Old Wire Road Elementary School, the Russell D. Jones Elementary School and Kirksey Middle School on South 1st Street, industrial businesses on 1st Street, Centro Christiano Assemblies Church on 1st Street, and confined poultry structures east and west of Old Wire Road.

The visual environment does not differ substantially for each alternative. They are primarily suburban in the northern portion and rural in the southern portion of the project (Figures 11-18). Viewers from the road would primarily be local and commuter traffic.

The quality of the viewshed varies from somewhat poor due to rapid urbanization and abandoned orchards and pastures, to good due to the somewhat pastoral setting and vegetated valley slopes at Cross Hollow. Fitzgerald Mountain is just south of the project area and contributes considerably to the view for south bound traffic in the southern portion of the project.

Land Use

Historically, land use in the project area following the initial settlement was hunting and subsistence farming. In the early 1900's, fruit orchards became prevalent. Through the latter half of the 1900's most of the level land was converted to modern pasture. Presently, rapid population growth is converting pastures and former orchards into residential uses.

Direct impacts to land use include the conversion of land from existing uses to highway right of way. Estimated land use impacts for each alternative are listed in Table 10. Existing land use categories were digitized into a Geographic Information System using aerial imagery interpretation and spatial analysis to estimate conversion by acre to roadway. Conversions are based upon an average corridor width of 130 feet for this alternatives analysis and do not accurately reflect final construction plans. There are no substantial differences among the alternatives.

All alternatives will primarily convert residential property and modern pasture to highway right of way. Alternatives 5, 6, 7, and 8 will impact more oak-hickory woodland than Alternatives 1, 2, 3, and 4. Alternatives using South 1st Street (1, 3, 5, and 7) will have minor impacts on parkland and church property. Secondary impacts may include new residential and commercial construction along the build portion of the roadway. No cumulative impacts are expected, since the area will likely continue rapid population growth regardless of the proposed project.

Figure 11. Fescue pasture common to all alternatives.

Figure 12. Pastures and confined poultry structures along Alternatives 1-6.

Figure 13. Old Wire Road with residential development along the northern edge.

Figure 14. Old Wire Road with former apple orchard grazed by sheep.

Figure 15. Old Wire Road Elementary School and residential development.

Figure 16. South 1st Street near Alternatives 1, 3, 5, and 7.

Figure 17. Residential development east of South 1st Street.

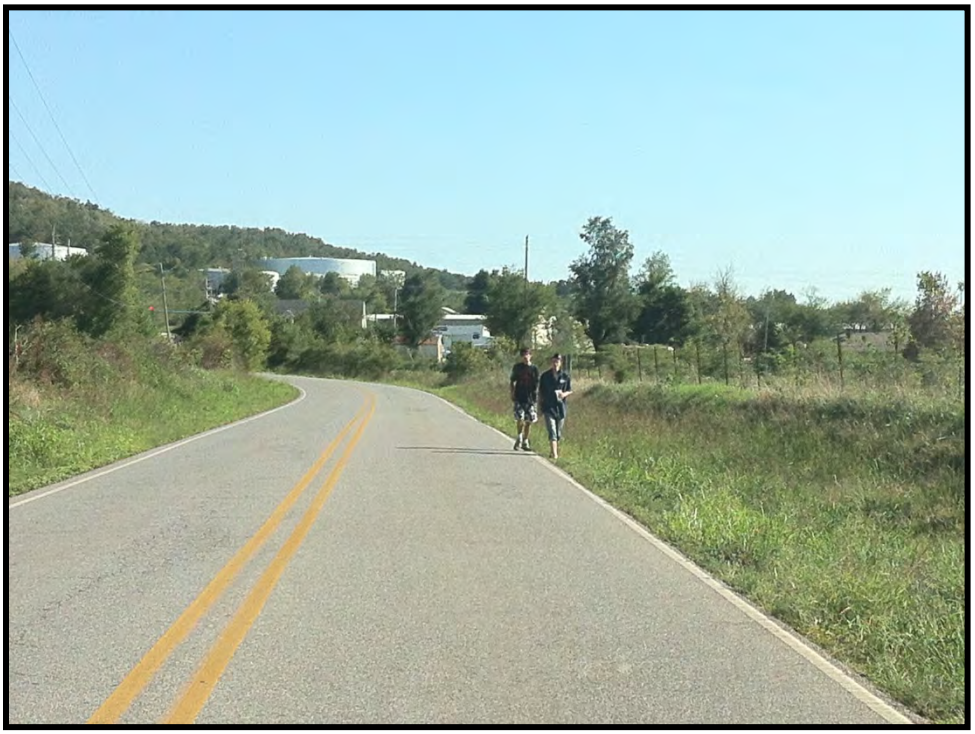

Figure 18. Pedestrians along Old Wire Road looking toward Fitzgerald Mountain.

Table 10

Estimated Land Use Impacts (acres)

Land Use	Alternative								
	No Action	1	2	3	4	5	6	7	8
Pasture/hayfield	0	25.7	28.4	23.7	26.4	25.9	24.4	24.0	22.5
Residential	0	23.7	26.8	23.1	26.1	20.5	23.8	21.0	24.3
Woodland/pine/abandoned orchard	0	3.6	6.2	5.5	9.5	13.1	12.3	15.1	14.4
Poultry structures/ agricultural yards	0	3.9	4.2	3.4	4.1	2.3	3.6	1.6	2.9
Commercial/industrial	0	3.0	0.5	3.0	0.5	3.1	0.7	3.0	0.5
School/school services	0	1.4	0.8	1.4	0.8	1.4	0.8	1.4	0.8
Park	0	0	0	0	0	0	0	0	0
Church	0	0.3	0	0.3	0	0.3	0	0.3	0
Miscellaneous (vacant/power station, etc.)	0	0.3	0.1	0.3	0.1	0.5	0.2	0.5	0.1
Total conversion to roadway	0	62.3	68.3	61.5	67.5	67.5	65.7	67.3	65.5

COMMENTS AND COORDINATION

The AHTD provided the opportunity for early public input into the development of the proposed project on October 18, 2011 at The Jones Center in Springdale, Arkansas and October 19, 2011 at Heritage High School in Rogers, Arkansas. An additional opportunity for public input was provided on Tuesday, July 17, 2012 at The Annex (Professional Development Center) in Rogers, Arkansas. Proposed corridors were available for review, and visitors were provided an opportunity to discuss the proposed project with AHTD staff. Copies of both Public Involvement Synopses are located in Appendix H.

COMMITMENTS

The AHTD's standard commitments associated with relocation procedures, hazardous waste abatement, and control of water quality impacts have been made in association with this project. They are as follows:

- See Relocation procedures located in Appendix C.
- The AHTD will meet with affected property owners and tenants after the Design Public Hearing to review the proposed plan with relocatees, if necessary. AHTD will seek further means to minimize impacts to low income, minority, elderly and disabled households during the final design process.
- If hazardous materials, unknown illegal dumps or underground storage tanks are identified or accidentally uncovered by AHTD personnel or its contractors, the AHTD will determine the type, size, and extent of the contamination according to the AHTD's response protocol. The AHTD, in cooperation with the ADEQ, will determine the remediation and disposal methods to be employed for that particular type of contamination. The proposed project will be in compliance with local, state, and federal laws and regulations.
- An asbestos survey will be conducted by a certified asbestos inspector on each building slated for acquisition and demolition. If the survey detects the

presence of any asbestos-containing materials, plans will be developed to accomplish the safe removal of these materials prior to demolition. All asbestos abatement work will be conducted in conformance with ADEQ, EPA and OSHA asbestos abatement regulations.

- Once a Preferred Alternative has been identified, an intensive cultural resources survey will be conducted. If sites are affected, a full report documenting the results of the survey and stating the AHTD's recommendations will be prepared and submitted to the SHPO for review. If prehistoric sites are impacted, consultation led by FHWA with the appropriate Native American Tribe will be conducted and the site(s) evaluated to determine if Phase II testing is necessary. Should any of the sites be found to be eligible or potentially eligible for nomination to the NHRP and avoidance is not possible, then site specific treatment plans will be prepared and data recovery will be conducted at the earliest practicable time. All borrow pits, waste areas and work roads will be surveyed for cultural resources when locations become available.
- Stream mitigation, if required, will be determined during the Section 404 permitting process, and will be coordinated with the USACE.
- The AHTD will comply with all requirements of the *Clean Water Act*, as amended, for the construction of this project. This includes Section 401, Water Quality Certification; Section 402, NPDES; and Section 404, Permit for Dredged or Fill Material.
- Temporary work ramps or haul roads, when needed, will provide sufficient waterway openings to allow the passage of expected high flows.
- A Water Pollution Control Special Provision will be incorporated into the contract to minimize potential water quality impacts.
- All construction activity will be performed in a manner that would minimize increased turbidity of the water in the work area and otherwise avoid adverse effects on water quality and aquatic life.

- If any permanent impacts to private drinking water sources occur due to this project, the AHTD will take appropriate action to mitigate these impacts either by drilling a new well or connecting the residents to a community or rural water system.
- A wildflower seed mix will be included in the permanent seeding for the project.
- Efforts will be made during the design, construction, and operations stage to minimize the impacts to and to protect cave habitat discovered on the right of way. In the event construction operations encounter any indications that a previously unidentified cave has been discovered, work will immediately be discontinued in the area, access shall be denied, and the opening secured to prevent unauthorized entry. In the event of cave discovery, the USFWS will be contacted for the proper procedures to be followed and to examine the cave to determine usage by any listed species.
- Work with the NWARPC and local communities to encourage comprehensive land use and watershed planning to minimize impacts to the karst environment located within the study area will be implemented.

RECOMMENDATIONS

A Preferred Alternative has not been designated for this project. After the Environmental Assessment (EA) is signed and approved for public dissemination, a Location Public Hearing will be held.

After a review of comments received from citizen, public officials, and public agencies, the next step in the environmental process will be to identify a preferred alternative based on the information contained in the EA and the comments received.

The environmental analysis of the proposed project did not identify any significant impact to the natural and social environment. Table 11 shows a comparison of the alternative information, their impacts, and related costs

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Table 11
Alternative Comparisons

Alternative (Segments)	Length (miles)	Construction Cost (million) (2012$)	ROW Cost (million) (2012$)	Total Cost (million) (2012$)	Total Land Use Impacts (acres)	Waters of the U.S. crossings	Floodways/ Floodplains (linear feet)	Important Farmland (acres)	Residential Relocatees	Business Relocatees
No Action	0	0	0	0	0	0	0	0	0	0
1 (A-B-F)	6.1	32.7	15.7	48.4	62.3	5	100/ 350	29.6	21 Owners	1 Farm
2 (A-B-G-J)	6.3	34.3	19.4	53.7	68.3	4	0/ 200	37.0	34 Owners 19 Tenants	1 Farm 8 Landlord Businesses
3 (A-C-F)	6.0	32.4	15.4	47.8	61.5	5	100/ 350	27.0	21 Owners	1 Farm0
4 (A-C-G-J)	6.3	34.0	19.1	53.1	67.5	4	0/ 200	34.2	34 Owners 19 Tenants	1 Farm 8 Landlord Businesses
5 (A-D-H-F)	6.6	45.1	14.8	59.9	67.5	7	100/ 425	29.1	21 Owners	1 Farm0
6 (A-D-I-J)	6.3	43.4	17.3	60.7	65.7	6	0/ 275	36.0	32 Owners 19 Tenants	1 Farm 8 Landlord Businesses
7 (A-E-H-F)	6.3	42.1	15.3	57.4	67.3	7	100/ 425	26.6	22 Owners	0
8 (A-E-I-J)	6.3	41.4	17.8	59.2	65.5	6	0/ 275	34.4	33 Owners 19 Tenants	8 Landlord Businesses

Table 11(continued)
Alternative Comparisons

Alternative (segments)	Projected Traffic Volume 2035 (vpd)	Noise Receptors > 66 Leg dBA	Noise Receptors >10 Leq dBA increase	Hazardous Materials: Illegal Dump	Butterfield Stagecoach Trail	Cherokee Trail of Tears	Civil War Trail	Civil War Skirmish Site	Eligible National Register Property	Eligible Structures/ Archeological Sites
					Number of Crossings Miles of Concurrent Route					
No Action	0	0	0	0	0	0	0	-	-	-
1 (A-B-F)	16,500	72	68	1	4 3.0	4 3.0	4 3.0	Yes	No	3/1
2 (A-B-G-J)	12,750	99	38	1	5 6.0	5 6.0	5 6.0	Yes	No	3/2
3 (A-C-F)	16,500	77	70	0	4 0.5	4 0.5	4 0.5	Yes	No	2/2
4 (A-C-G-J)	12,750	100	35	0	5 3.5	5 3.5	5 3.5	Yes	No	2/3
5 (A-D-H-F)	15,750	71	75	0	5 0.75	5 0.75	5 0.75	Yes	Yes	2/3
6 (A-D-I-J)	10,750	93	19	0	5 4.0	5 4.0	5 4.0	Yes	Yes	3/3
7 (A-E-H-F)	15,350	70	82	0	5 0.75	5 0.75	5 0.75	Yes	Yes	2/3
8 (A-E-I-J)	10,750	99	26	0	5 4.0	5 4.0	5 4.0	Yes	Yes	3/3

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APPENDIX A

Level of Service Descriptions

The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels of service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to F, with level of service F the worst. In general, the various levels of service are defined as follows for uninterrupted flow facilities.

Signalized Intersection

LOS A - LOS A describes operations with low control delay, where progression is extremely favorable and most vehicles arrive during the green phase.

LOS B – Where there is good progression, short cycle lengths, or both, LOS B typically occurs.

LOS C – LOS C may be the result of only fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level.

LOS D – At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and high volume/capacity ratios.

LOS E – LOS E describes high delays that generally indicate poor progression, long cycle lengths, and high volume/capacity ratios. Individual cycle failures are frequent.

LOS F – LOS F describes control delay in excess of 80 seconds/vehicle. This level, considered unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of lane groups.

Multi-Lane Highway

LOS A - LOS A describes free-flow operations where free-flow speed (FFS) prevails and vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The effects of incidents or point breakdowns are easily absorbed.

LOS B - LOS B represents reasonably free-flow operations where FFS is maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.

LOS C - LOS C provides for flow with speeds near the FFS. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. Minor incidents may still be absorbed, but the local deterioration in service quality will be significant. Queues may be expected to form behind any significant blockages.

LOS D - LOS D is the level at which speeds begin to decline with increasing flows, with density increasing more quickly. Freedom to maneuver within the traffic stream is seriously limited and drivers experience reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions.

LOS E - LOS E describes operation at capacity. Operations at this level are highly volatile because there are virtually no usable gaps within the traffic stream, leaving little room to maneuver within the traffic stream. Any disruption to the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruption, and any incident can be expected to produce a serious breakdown and substantial queuing. The physical and psychological comfort afforded to drivers is poor.

LOS F - LOS F is determined when the demand flow rate exceeds capacity. At this level, traffic flow has broken down. Whenever queues due to a breakdown exist, they have the potential to extend upstream for considerable distances.

Two-Lane Highway

LOS A - At LOS A, motorists experience high operating speeds and little difficulty in passing. A small amount of platooning would be expected. Drivers should be able to maintain operating speeds close or equal to the free-flow speed (FFS) of the facility.

LOS B - At LOS B, passing demand and passing capacity are balanced. Platooning becomes noticeable. It becomes difficult to maintain FFS operation, but the speed reduction is still relatively small.

LOS C - At LOS C, most vehicles are traveling in platoons. Speeds are noticeably reduced on all three classes of highway.

LOS D - At LOS D, platooning increases significantly. Passing demand is high but passing capacity approaches zero. A high percentage of vehicles are now traveling in platoons, and percent time-spent-following (PTSF) is quite noticeable. The fall-off from FFS is now significant.

LOS E - At LOS E, demand is approaching capacity. Passing is virtually impossible, and PTSF is more than 80%. Speeds are seriously reduced. Speed is less than two-thirds the FFS. The lower limit of this LOS represents capacity.

LOS F - LOS F exists whenever demand flow in one or both directions exceeds the capacity of the segment. Operating conditions are unstable, and heavy congestion exists on all two-lane highways.

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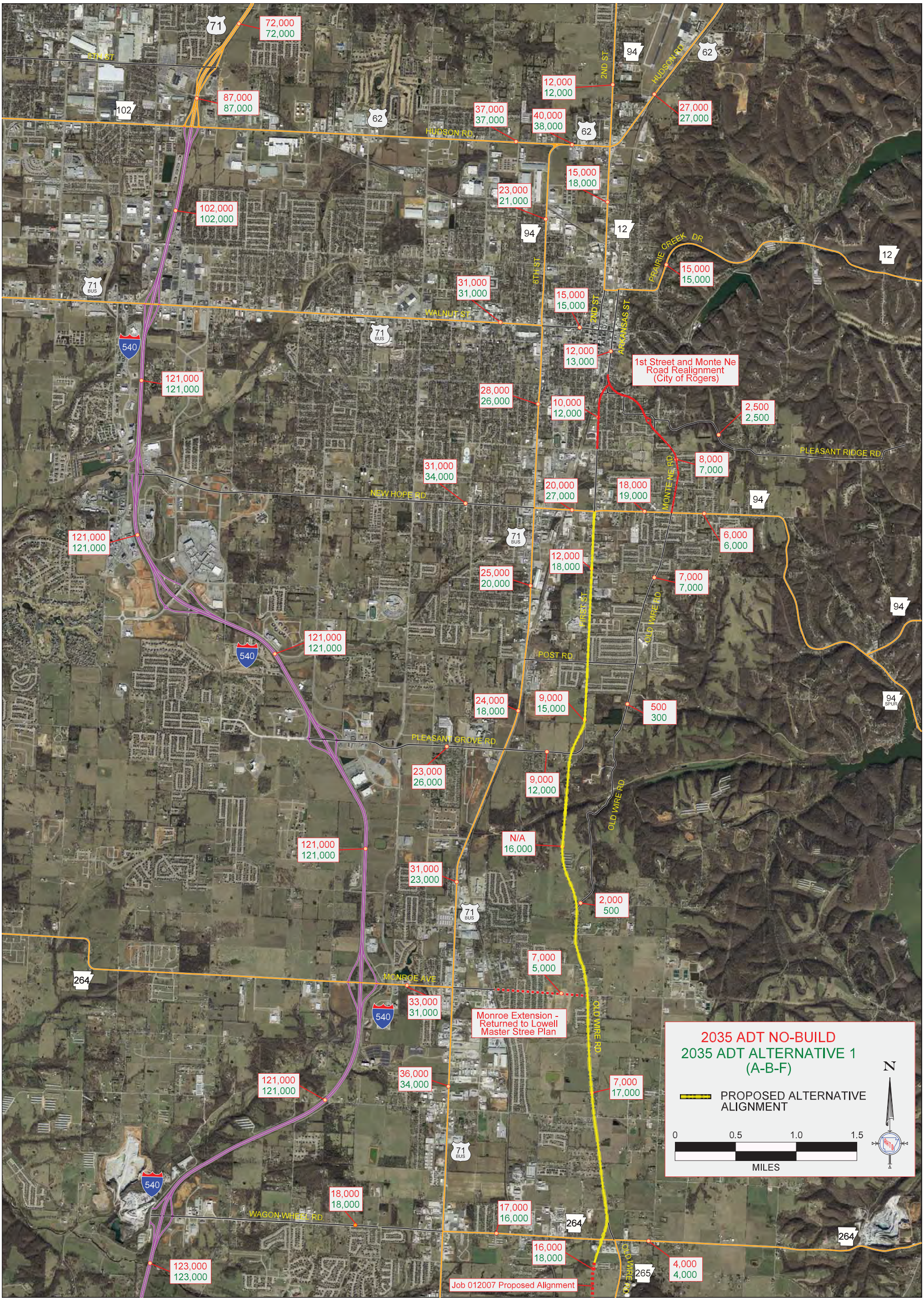
APPENDIX B

Current and Projected Traffic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HUDSON RD.
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2ND ST.
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12,000
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HUDSON RD.
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27,000
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18,000
23,000
21,000
102,000
102,000
94
12
PRAIRIE CREEK DR.
12
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15,000
71
BUS
31,000
31,000
8TH ST.
15,000
15,000
2ND ST.
ARKANSAS ST.
WALNUT ST.
71
BUS
540
12,000
13,000
1st Street and Monte Ne
Road Realignment
(City of Rogers)
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PLEASANT RIDGE RD
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MONTE NE RD
NEW HOPE RD
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BUS
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20,000
7,000
7,000
FIRST ST.
OLD WIRE RD
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POST RD
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15,000
500
300
94
SPUR
PLEASANT GROVE RD
23,000
26,000
9,000
12,000
OLD WIRE RD
121,000
121,000
N/A
16,000
31,000
23,000
71
BUS
2,000
500
7,000
5,000
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MONROE AVE
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31,000
540
Monroe Extension -
Returned to Lowell
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OLD WIRE RD.
2035 ADT NO-BUILD
2035 ADT ALTERNATIVE 1
(A-B-F)
PROPOSED ALTERNATIVE
ALIGNMENT
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36,000
34,000
7,000
17,000
71
BUS
540
18,000
18,000
WAGON WHEEL RD.
17,000
16,000
264
264
16,000
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OLD WIRE RD.
265
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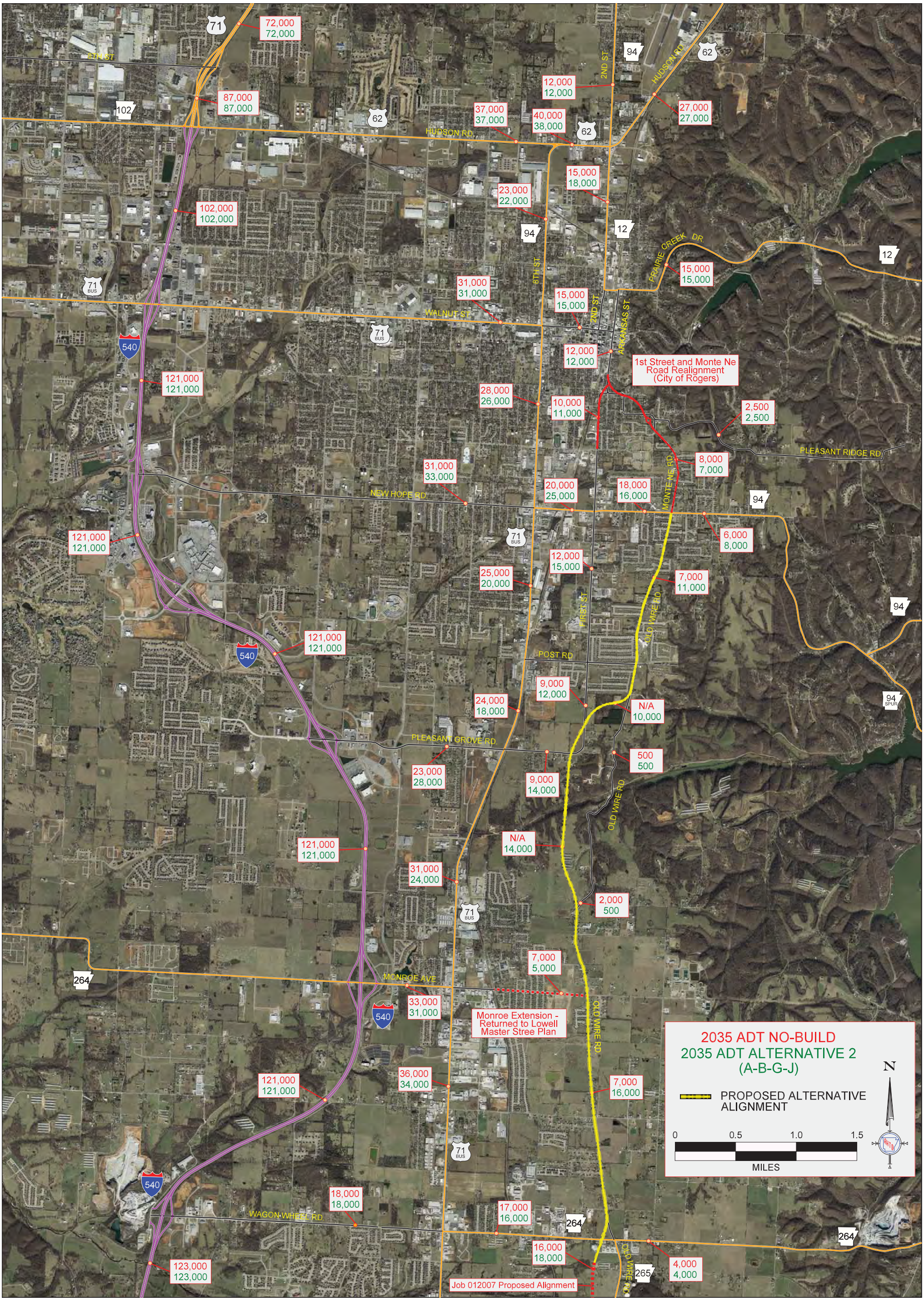
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1st Street and Monte Ne
Road Realignment
(City of Rogers)
Monroe Extension -
Returned to Lowell
Master Stree Plan
Job 012007 Proposed Alignment
2035 ADT NO-BUILD
2035 ADT ALTERNATIVE 2
(A-B-G-J)
PROPOSED ALTERNATIVE
ALIGNMENT
0
0.5
1.0
1.5
MILES
N
8TH ST
HUDSON RD
2ND ST
6TH ST
PRAIRIE CREEK DR
WALNUT ST
ARKANSAS ST
PLEASANT RIDGE RD
NEW HOPE RD
MONTENE RD
FIRST ST
OLD WIRE RD
POST RD
PLEASANT GROVE RD
MONROE AVE
WAGON WHEEL RD
71
102
62
94
12
540
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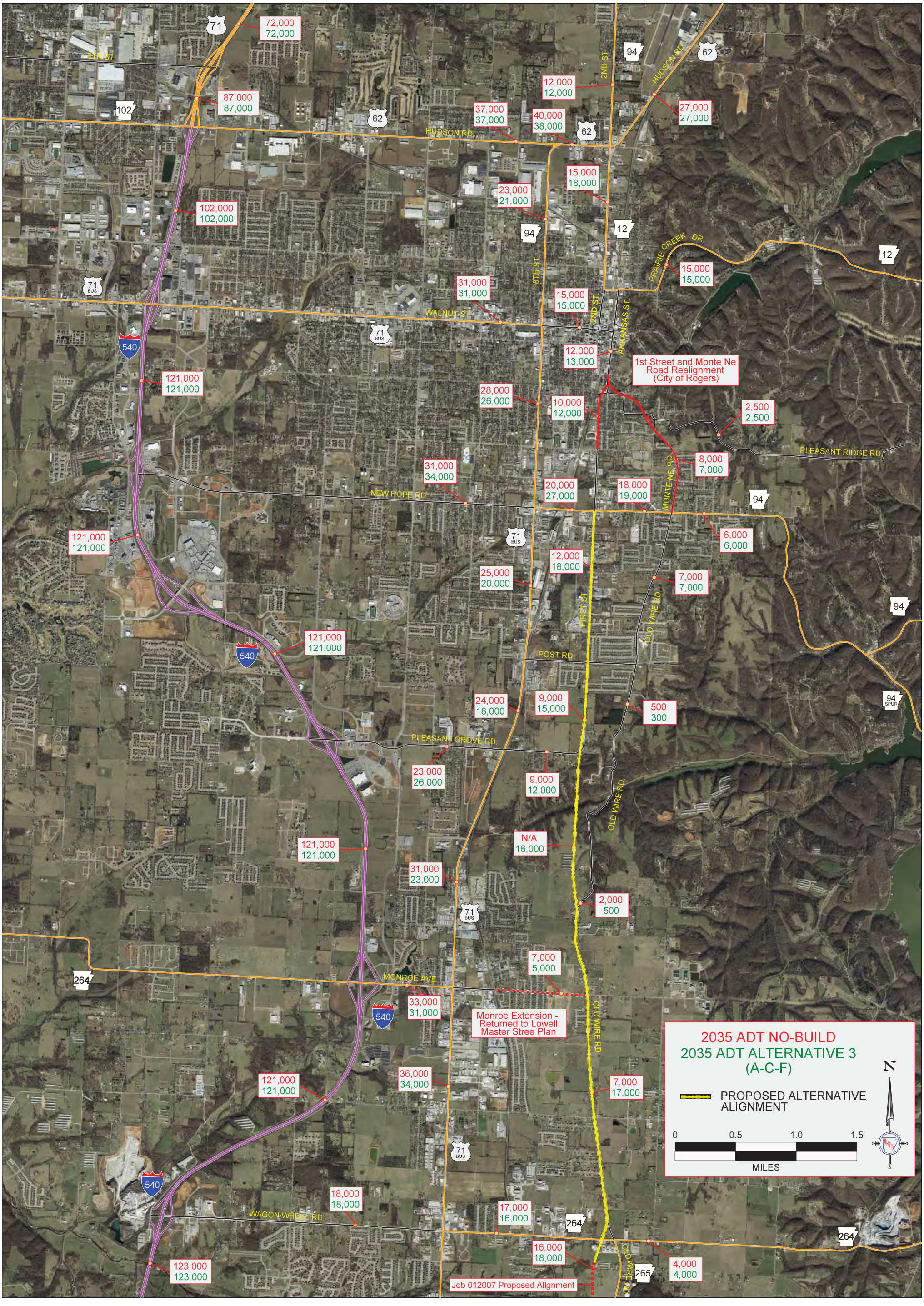
94 SPUR
264
265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Monroe Extension - Returned to Lowell Master Stree Plan
Job 012007 Proposed Alignment
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6TH ST.
PRAIRIE CREEK DR.
WALNUT ST.
ARKANSAS ST.
PLEASANT RIDGE RD
NEW HOPE RD
MONTE NE RD
FIRST ST
OLD WIRE RD
POST RD
PLEASANT GROVE RD.
MONROE AVE
WAGON WHEEL RD.
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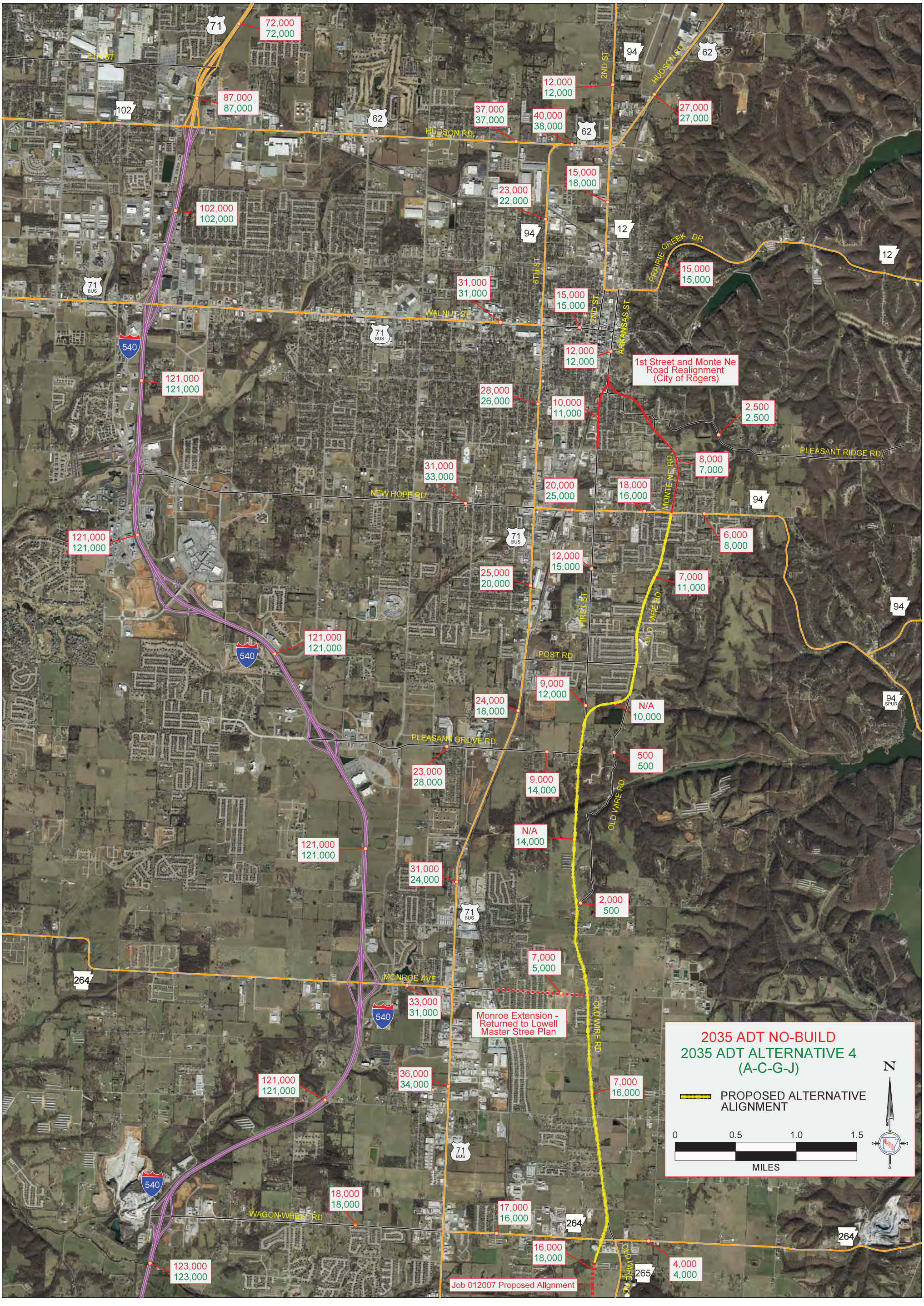
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1st Street and Monte Ne
Road Realignment
(City of Rogers)
Monroe Extension -
Returned to Lowell
Master Stree Plan
Job 012007 Proposed Alignment
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2035 ADT ALTERNATIVE 4
(A-C-G-J)
PROPOSED ALTERNATIVE
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WALNUT ST
ARKANSAS ST
PLEASANT RIDGE RD
NEW HOPE RD
MONTENE RD
FIRST ST
OLD WIRE RD
POST RD
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MONROE AVE
WAGON WHEEL RD
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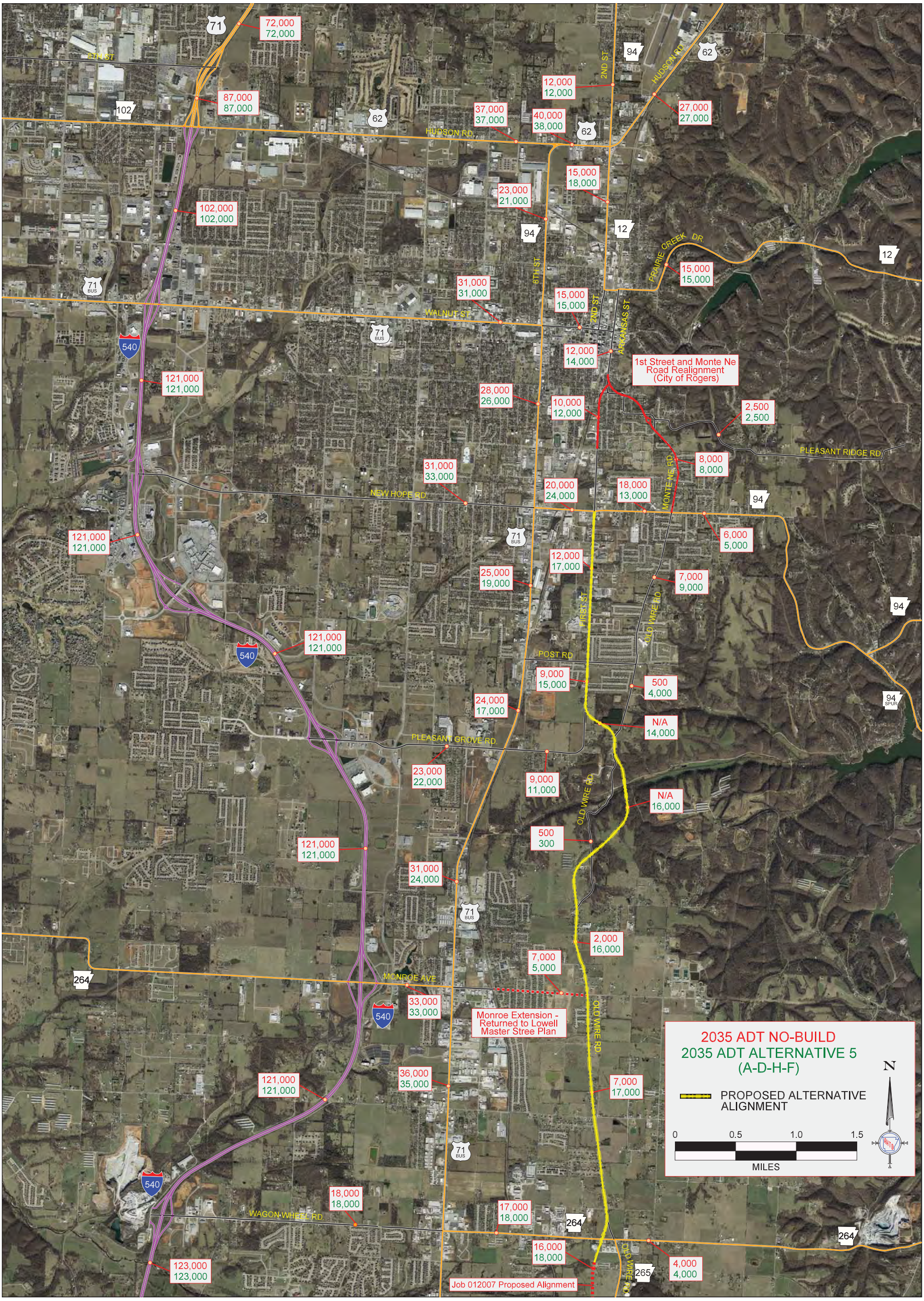
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Monroe Extension -
Returned to Lowell
Master Stree Plan
OLD WIRE RD.
2035 ADT NO-BUILD
2035 ADT ALTERNATIVE 5
(A-D-H-F)
PROPOSED ALTERNATIVE
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Job 012007 Proposed Alignment
OLD WIRE RD.
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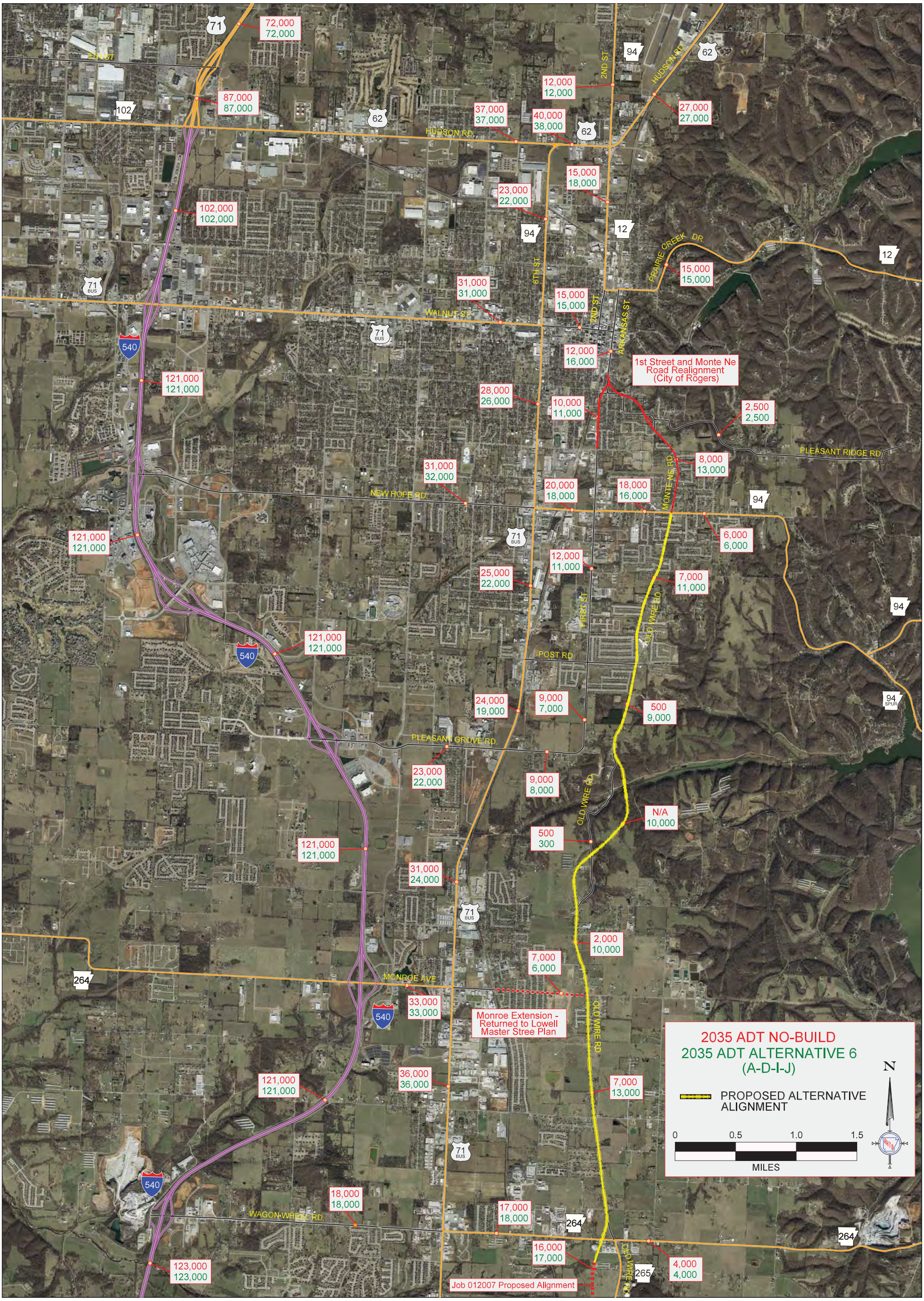
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Road Realignment
(City of Rogers)
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Monroe Extension -
Returned to Lowell
Master Stree Plan
OLD WIRE RD.
2035 ADT NO-BUILD
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(A-D-I-J)
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PROPOSED ALTERNATIVE
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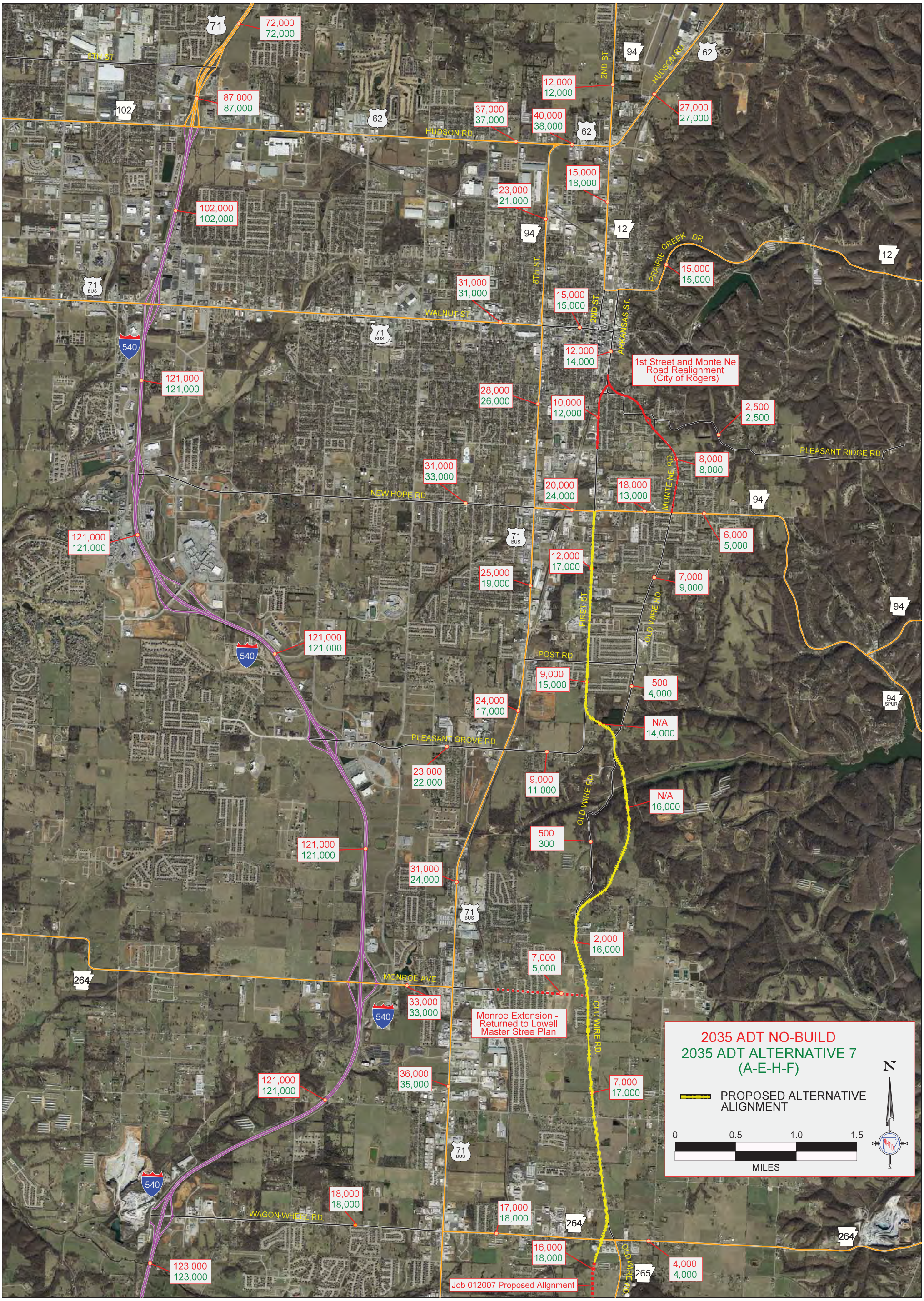
Job 012007 Proposed Alignment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2ND ST.
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1st Street and Monte Ne Road Realignment (City of Rogers)
PLEASANT RIDGE RD
NEW HOPE RD
MONTE NE RD
FIRST ST
OLD WIRE RD
POST RD
PLEASANT GROVE RD.
MONROE AVE
Monroe Extension - Returned to Lowell Master Stree Plan
WAGON WHEEL RD.
Job 012007 Proposed Alignment
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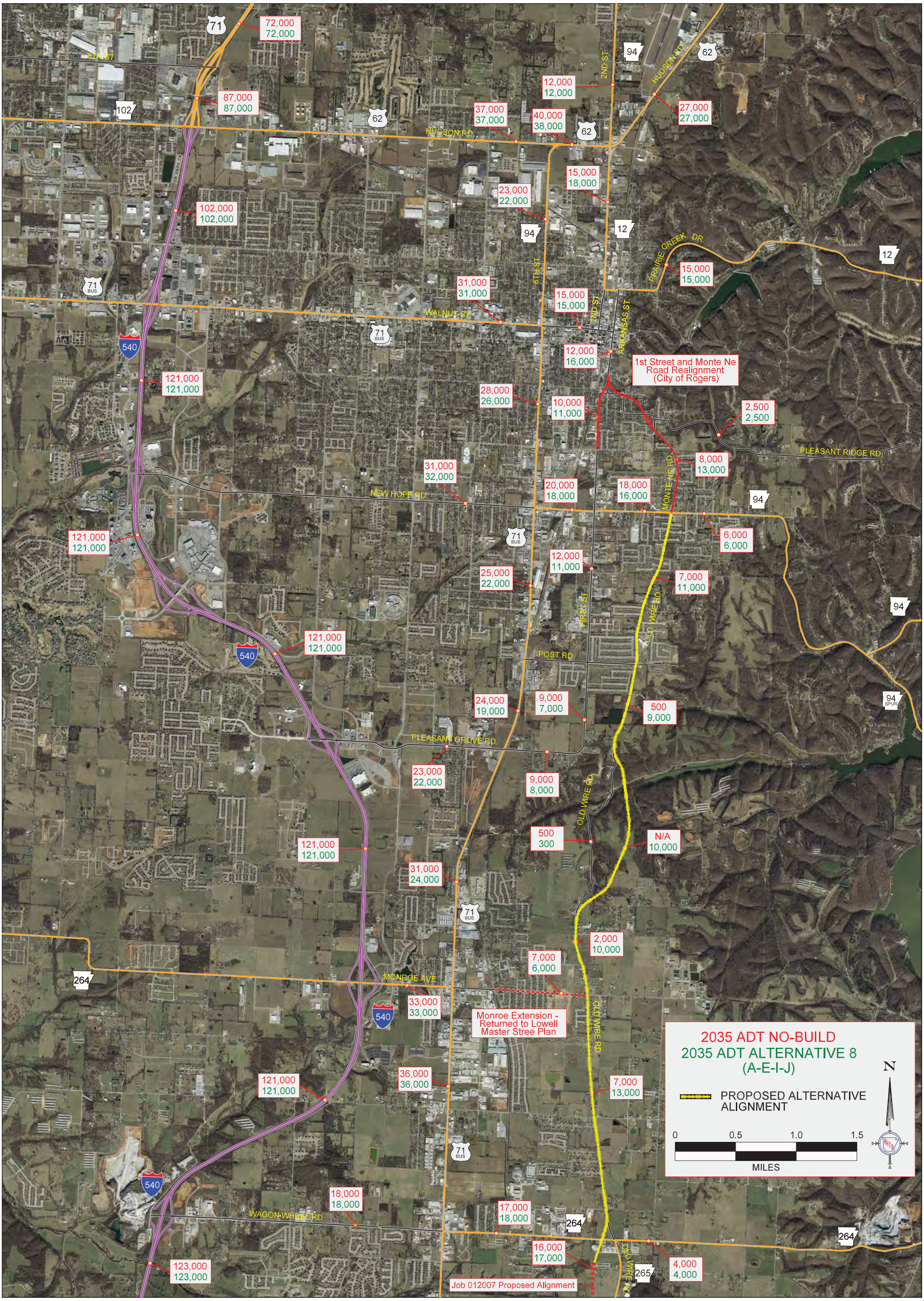
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Road Realignment
(City of Rogers)
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Monroe Extension -
Returned to Lowell
Master Stree Plan
OLD WIRE RD
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2035 ADT ALTERNATIVE 8
(A-E-I-J)
PROPOSED ALTERNATIVE
ALIGNMENT
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WAGON WHEEL RD
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Job 012007 Proposed Alignment

APPENDIX C

Conceptual Stage Relocation Study

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
RIGHT OF WAY DIVISION RELOCATION SECTION

INTEROFFICE MEMORANDUM

TO: Lynn P. Malbrough, Environmental Division Head
FROM: Perry M. Johnston, Right of Way Division Head
DATE: September 20, 2012
SUBJECT: Job 090373
Hwy. 264 – Hwy. 94
Benton County
CONCEPTUAL STAGE RELOCATION STATEMENT

GENERAL STATEMENT OF RELOCATION PROCEDURE

Persons displaced as a direct result of acquisition for the subject project will be eligible for relocation assistance in accordance with Public Law 91-646, Uniform Relocation Assistance Act of 1970, as amended. The Relocation Program provides advisory assistance and payments to minimize the adverse impact and hardship of displacement upon such persons. No lawful occupant shall be required to move without receiving a minimum of 90 days advance written notice. All displaced persons: residential, business, farm, nonprofit organization and personal property occupants are eligible for reimbursement for actual reasonable moving costs.

Construction of the project will not begin until decent, safe, and sanitary replacement housing is in place and offered to all residential occupants. It is the Department's Policy that adequate replacement housing will be made available, built if necessary, before any person is required to move from their dwelling. All replacement housing must be fair housing and offered to all affected persons regardless of race, color, religion, sex, or national origin.

There are two basic types of residential relocation payments: (1) Replacement Housing Payments and (2) Moving Expense Payments. Replacement housing payments are made to qualified owners and tenants. An owner may receive a price differential payment of up to $22,500.00 for the increased cost of a replacement dwelling. A tenant may receive a rental assistance payment of up to $5,250.00 for the increased cost of a replacement dwelling. The eligible amount for a replacement housing payment is determined by a study of comparable replacement dwellings currently available on the market. Owners may also be eligible for payments to compensate them for the increased interest cost for a new mortgage and the incidental expenses incurred in connection with the purchase of a replacement dwelling. Tenants may elect to purchase a replacement dwelling and receive a downpayment assistance payment up to the amount of their rental assistance eligibility. Replacement Housing Payments are made in addition to Moving Expense Payments.

Businesses, farms, and nonprofit organizations are eligible for Reestablishment Payments, not to exceed $10,000.00. Reestablishment Expense Payments are made in addition to Moving Expense Payments. A business, farm, or nonprofit organization may be eligible for a fixed payment in lieu of the moving costs and reestablishment costs if relocation cannot be accomplished without a substantial loss of existing patronage. The fixed payment will be computed in accordance with the Code of Federal Regulations and cannot exceed $20,000.00.

If the displaced person is not satisfied with the amounts offered as relocation payments, they will be provided a form to assist in filing a formal appeal. A hearing will be arranged at a time and place convenient for the displaced person, and the facts of the case will be promptly and carefully reviewed.

Relocation services will be provided until all persons are relocated or their relocation eligibility expires. The Relocation Office will have listings of available replacement housing and commercial properties. Information is also maintained concerning other Federal and State Programs offering assistance to displaced persons.

Based on an aerial photograph including the preliminary right of way corridor and estimated right of way width for the eight alternatives and an on-site project review, it is estimated that the alternatives for the subject project could cause the following displacements and costs:

Alternative Segments A, B, F

21 Residential Owners	$735,000
0 Residential Tenants	0
0 Businesses	0
1 Farm	20,000
0 Landlord Businesses	0
8 Personal Properties	26,000
Services	140,000
TOTAL	**$921,000**

Alternative Segments A, B, G, J

34 Residential Owners	$1,190,000
19 Residential Tenants	228,000
0 Businesses	0
1 Farm	20,000
8 Landlord Businesses	80,000
8 Personal Properties	26,000
Services	278,000
TOTAL	**$1,822,000**

Alternative Segments A, C, F

21 Residential Owners	$735,000
0 Residential Tenants	0
0 Businesses	0
1 Farm	20,000
0 Landlord Businesses	0
8 Personal Properties	26,000
Services	140,000
TOTAL	**$921,000**

Alternative Segments A, C, G, J

34 Residential Owners	$1,190,000
19 Residential Tenants	228,000
0 Businesses	0
1 Farm	20,000
8 Landlord Businesses	80,000
8 Personal Properties	26,000
Services	278,000
TOTAL	**$1,822,000**

Alternative Segments A, D, H, F

21 Residential Owners	$735,000
0 Residential Tenants	0
0 Businesses	0
1 Farm	20,000
0 Landlord Businesses	0
9 Personal Properties	31,000
Services	141,000
TOTAL	**$927,000**

Alternative Segments A, D, I, J

32 Residential Owners	$1,120,000
19 Residential Tenants	228,000
0 Businesses	0
1 Farm	20,000
8 Landlord Businesses	80,000
9 Personal Properties	31,000
Services	266,000
TOTAL	**$1,745,000**

Alternative Segments A, E, H, F

22 Residential Owners	$770,000
0 Residential Tenants	0
0 Businesses	0
0 Farm	0
0 Landlord Businesses	0
9 Personal Properties	31,000
Services	144,000
TOTAL	**$945,000**

Alternative Segments A, E, I, J

33 Residential Owners	$1,155,000
19 Residential Tenants	228,000
0 Businesses	0
0 Farm	0
8 Landlord Businesses	80,000
8 Personal Properties	26,000
Services	268,000
TOTAL	**$1,757,000**

The general characteristics of the displaced persons are listed on the Conceptual Stage Inventory Record forms in the back of this report. The general characteristics have been determined by a visual inspection of the potential displacements by a Relocation Coordinator. The Relocation Coordinator utilized area demographic data, visual inspections, experience, and knowledge in making this determination.

An available housing inventory has been compiled and indicates there are at least eighty-one comparable replacement dwellings available for sale, and sixty-one comparable replacement dwellings available for rent or lease within reasonable proximity of the project area.

A breakdown of the available properties is as follows:

Residential for Sale Listing Price	Number of Properties Single Family Residential
$ 50,000 - $ 99,999	8
$100,000 - $149,999	11
$150,000 - $199,999	14
$200,000 - $249,999	12
$250,000 - $299,999	13
$300,000 - $349,999	9
$350,000 - $399,999	8
$400,000 and over	6
Total	**81**

Residential for Rent / Lease Listing Price	Number of Properties Residential Rental Units
$400 - $599	8
$600 - $799	21
$800 - $999	11
$1,000 - $1,199	12
$1,200 - $1,399	5
$1,400 and Over	4
Total	**61**

Residential for Sale Listing Price	Number of Properties Duplexes
$100,000 - $149,999	5
$150,000 - $199,999	5
Total	**10**

Farm Property for Sale Listing Price	Number of Properties
$450,000 - $935,000	4

This is a corridor project connecting Highways 264 and 94 in Benton County, AR. The number of dwellings and properties currently available on the market are adequate and comparable to provide replacement housing for the families displaced from the subject project for each alternative. The real estate housing markets should not be detrimentally affected and there should be no problems with insufficient housing at this time. In the event replacement housing is not available at the time of displacement or Replacement Housing Payments exceed the monetary limits, Section 206 of Public Law 91-646 (Housing of Last Resort) will be utilized to its fullest and practical extent.

The replacement property inventory was compiled from data obtained from real estate companies, web sites, and local publications for the subject area. The dwellings contained in the inventory have been determined to be comparable and decent, safe, and sanitary. The locations of the comparable dwellings are not less desirable in regard to public utilities and public and commercial facilities, are reasonably accessible to the displaced persons' places of employment, adequate to accommodate the displaced persons, and in neighborhoods which are not subject to unreasonable adverse environmental factors. It has also been determined that the available housing is within the financial means of the displaced persons and is fair housing open to all persons regardless of race, color, sex, religion, or national origin consistent with the requirements of 49 CFR, Subpart A, Section 24.2 and Title VIII of the Civil Rights Act of 1968. Appropriate measures will be taken to ensure that each displaced person is fully aware of their benefits, entitlements, and available courses of action.

All displaced persons will be offered relocation assistance under provisions in the applicable FHWA regulations. At the time of displacement another inventory of available housing in the subject area will be obtained and an analysis of the market made to ensure that there are dwellings adequate to meet the needs of all displaced residential occupants. Also, special relocation advisory services and assistance will be administered commensurate with displaced persons' needs, when necessary. Examples of these include, but are not limited to, Housing of Last Resort as previously mentioned and consultation with local officials, social and federal agencies and community groups.

There are no other identified unusual conditions involved with this project.

Alternative Segments A, B, F

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONCEPTUAL STAGE RELOCATION INVENTORY
Job No. 090373 Job Name Hwy. 264 - Hwy. 94 Date of Inventory 09-20-2012

Type Relocation	Number	Residential Property Values or Rental Rates	Large Family Households	Disabled Person Households	Minority Households	Elderly Households	Low Income Households	Employees Affected (Range)
Residential Owners	21	$20,000.00 - $225,000.00	0	2	3	5	6	
Residential Tenants	0							
Business	0							
Farm	1	$750,000.00 - $900,000.00						6
Landlord Businesses	0							
Nonprofit Organizations	0							
Personal Properties	8							
Totals	30	N/A	0	2	3	5	6	6

Alternative Segments A, B, G, J

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONCEPTUAL STAGE RELOCATION INVENTORY
Job No. 090373 Job Name Hwy. 264 - Hwy. 94 Date of Inventory 09-20-2012

Type Relocation	Number	Residential Property Values or Rental Rates	Large Family Households	Disabled Person Households	Minority Households	Elderly Households	Low Income Households	Employees Affected (Range)
Residential Owners	34	$20,000.00 - $250,000.00	0	2	3	5	6	
Residential Tenants	19	$400.00 - $1;200.00	0	0	4	1	6	
Businesses	0							
Farm	1	$750,000.00 - $900,000.00						6
Landlord Businesses	8							
Nonprofit Organizations	0							
Personal Properties	8							
Totals	70	N/A	0	2	7	6	12	6

Alternative Segments A, C, F

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONCEPTUAL STAGE RELOCATION INVENTORY
Job No. 090373 Job Name Hwy. 264 - Hwy. 94 Date of Inventory 09-20-2012

Type Relocation	Number	Residential Property Values or Rental Rates	Large Family Households	Disabled Person Households	Minority Households	Elderly Households	Low Income Households	Employees Affected (Range)
Residential Owners	21	$20,000.00 - $225,000.00	0	2	3	5	6	
Residential Tenants	0							
Businesses	0							
Farm	1	$750,000.00 - $900,000.00						6
Landlord Businesses	0							
Nonprofit Organizations	0							
Personal Properties	8							
Totals	30	N/A	0	2	3	5	6	6

Alternative Segments A, C, G, J ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONCEPTUAL STAGE RELOCATION INVENTORY

Job No. 090373 Job Name Hwy. 264 - Hwy. 94 Date of Inventory 09-20-2012

Type Relocation	Number	Residential Property Values or Rental Rates	Large Family Households	Disabled Person Households	Minority Households	Elderly Households	Low Income Households	Employees Affected (Range)
Residential Owners	34	$20,000.00 - $250,000.00	0	2	3	5	6	
Residential Tenants	19	$400.00 - $1,200.00	0	0	4	1	6	
Businesses	0							
Farm	1	$750,000.00 - $900,000.00						6
Landlord Businesses	8							
Nonprofit Organizations	0							
Personal Properties	8							
Totals	70	N/A	0	2	7	6	12	6

Alternative Segments A, D, H, F ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONCEPTUAL STAGE RELOCATION INVENTORY
Job No. 090373 Job Name Hwy. 264 - Hwy. 94 Date of Inventory 09-20-2012

Type Relocation	Number	Residential Property Values or Rental Rates	Large Family Households	Disabled Person Households	Minority Households	Elderly Households	Low Income Households	Employees Affected (Range)
Residential Owners	21	$20,000.00 - $225,000.00	0	2	3	5	6	
Residential Tenants	0							
Businesses	0							
Farm	1	$750,000.00 - $900,000.00						6
Landlord Businesses	0							
Nonprofit Organizations	0							
Personal Properties	9							
Totals	31	N/A	0	2	3	5	6	6

Alternative Segments A, D, I, J ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONCEPTUAL STAGE RELOCATION INVENTORY

Job No. 090373 Job Name Hwy. 264 - Hwy. 94 Date of Inventory 09-20-2012

Type Relocation	Number	Residential Property Values or Rental Rates	Large Family Households	Disabled Person Households	Minority Households	Elderly Households	Low Income Households	Employees Affected (Range)
Residential Owners	32	$20,000.00 - $250,000.00	0	2	3	5	6	
Residential Tenants	19	$400.00 - $1,200.00	0	0	4	1	6	
Businesses	0							
Farm	1	$750,000.00 - $900,000.00						6
Landlord Businesses	8							
Nonprofit Organizations	0							
Personal Properties	9							
Totals	69	N/A	0	2	7	6	12	6

Alternative Segments A,E, I, J ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONCEPTUAL STAGE RELOCATION INVENTORY

Job No. 090373 Job Name Hwy. 264 - Hwy. 94 Date of Inventory 09-20-2012

Type Relocation	Number	Residential Property Values or Rental Rates	Large Family Households	Disabled Person Households	Minority Households	Elderly Households	Low Income Households	Employees Affected (Range)
Residential Owners	33	$20,000.00 - $250,000.00	0	2	3	5	6	
Residential Tenants	19	$400.00 - $1,200.00	0	0	4	1	6	
Businesses	0							
Farm	0							
Landlord Businesses	8							
Nonprofit Organizations	0							
Personal Properties	8							
Totals	68	N/A	0	2	7	6	12	

Alternative Segments A,E, H, F ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
CONCEPTUAL STAGE RELOCATION INVENTORY
Job No. 090373 Job Name Hwy. 264 - Hwy. 94 Date of Inventory 09-20-2012

Type Relocation	Number	Residential Property Values or Rental Rates	Large Family Households	Disabled Person Households	Minority Households	Elderly Households	Low Income Households	Employees Affected (Range)
Residential Owners	22	$20,000.00 - $225,000.00	0	2	3	5	6	
Residential Tenants	0							
Businesses	0							
Farm	0							
Landlord Businesses	0							
Nonprofit Organizations	0							
Personal Properties	9							
Totals	31	N/A	0	2	3	5	6	

INTER OFFICE MEMORANDUM

DATE: September 20, 2012

TO: Perry M. Johnston, Division Head, Right of Way Division

FROM: Gene Kuettel, Section Head Utilities, Right of Way Division

SUBJECT: Job 090373
Hwy. 264 – Hwy. 94
Benton County
Preliminary Utility Cost Estimate

Per the Environmental Division's request, a preliminary utility cost estimate for the eight alternatives under consideration.

Alternative Segments A, B, F

	Reimbursable
Water	$ 6,275,500.00
Sewer	$ 358,000.00
Power	$ 1,490,000.00
Telephone	$ 938,000.00
CATV	$ 134,000.00
Gas	$ 615,500.00
Total	$ 9,811,000.00

Alternative Segments A, B, G, J

	Reimbursable
Water	$ 6,785,500.00
Sewer	$ 561,000.00
Power	$ 1,448,000.00
Telephone	$ 1,400,500.00
CATV	$ 145,000.00
Gas	$ 598,000.00
Total	$10,938,000.00

Alternative Segments A, C, F

	Reimbursable
Water	$ 6,047,500.00
Sewer	$ 358,000.00
Power	$ 1,462,000.00
Telephone	$ 935,000.00
CATV	$ 128,000.00
Gas	$ 597,000.00
Total	$ 9,527,500.00

Alternative Segments A, C, G, J

	Reimbursable
Water	$ 6,557,500.00
Sewer	$ 561,000.00
Power	$ 1,420,000.00
Telephone	$ 1,397,000.00
CATV	$ 139,000.00
Gas	$ 579,000.00
Total	$10,653,500.00

Alternative Segments A, D, H, F

	Reimbursable
Water	$ 5,887,000.00
Sewer	$ 358,000.00
Power	$ 1,511,000.00
Telephone	$ 930,000.00
CATV	$ 131,000.00
Gas	$ 595,000.00
Total	$ 9,412,000.00

Alternative Segments A, D, I, J

	Reimbursable
Water	$ 6,087,500.00
Sewer	$ 550,500.00
Power	$ 1,553,000.00
Telephone	$ 1,169,000.00
CATV	$ 150,000.00
Gas	$ 577,000.00
Total	$10,087,000.00

Alternative Segments A, E, H, F

	Reimbursable
Water	$ 5,809,000.00
Sewer	$ 358,000.00
Power	$ 1,312,000.00
Telephone	$ 924,500.00
CATV	$ 126,000.00
Gas	$ 617,000.00
Total	$ 9,146,500.00

Alternative Segments A, E, I, J

	Reimbursable
Water	$ 6,009,500.00
Sewer	$ 550,500.00
Power	$ 1,354,000.00
Telephone	$ 1,164,000.00
CATV	$ 145,000.00
Gas	$ 600,000.00
Total	$ 9,823,000.00

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

INTEROFFICE MEMORANDUM

September 21, 2012

TO: Lynn Malbrough, Division Head, Environmental Division

FROM: Perry M. Johnston, Division Head, Right of Way Division

SUBJECT: Cost Estimate
Job 090373
Hwy. 264 – Hwy. 94
Benton County

Cost estimates for acquiring right of way and adjusting utilities for Eight Alternatives are summarized below:

Alternative	Property Acquisition	Relocation	Reimbursable Utility Adjustments	Total
A, B, F	$4,925,000	$921,000	$9,811,000	$15,657,000
A, B, G, J	6,600,000	1,822,000	10,938,000	19,360,000
A, C, F	4,925,000	921,000	9,527,500	15,373,500
A, C, G, J	6,600,000	1,822,000	10,653,500	19,075,500
A, D, H, F	4,425,000	927,000	9,412,000	14,764,000
A, D, I, J	5,420,000	1,745,000	10,087,000	17,252,000
A, E, H, F	5,250,000	945,000	9,146,500	15,341,500
A, E, I, J	6,245,000	1,757,000	9,823,000	17,825,000

Copies of the cost estimates and a Conceptual Stage Relocation Analysis are attached. Please note the premises under which the estimates were provided.

If you need additional information, please contact James F. Braden at 2311.

INTEROFFICE MEMORANDUM

TO: James F. Braden, Assistant Division Head,
Right of Way Division

FROM: Neil Palmer, Section Head,
Right of Way Division NP

DATE: September 19, 2012

SUBJECT: Job Cost Estimate
Job:090373
Benton County

A cursory inspection was made of the alternatives under consideration for the above mentioned job. This estimate includes the land and improvement cost broken down below for each segment's estimated total cost. No improvements were physically inspected and values were based on the improvements exterior appearance. Additionally on section J there is a newly constructed elementary school and the road in front of the school is already a 5 lane curb and gutter facility. It was assumed that no right of way acquisition would be needed in this area. S.1st Street is already a three-lane road and the cost was based on 65±ft. for both sides of centerline.

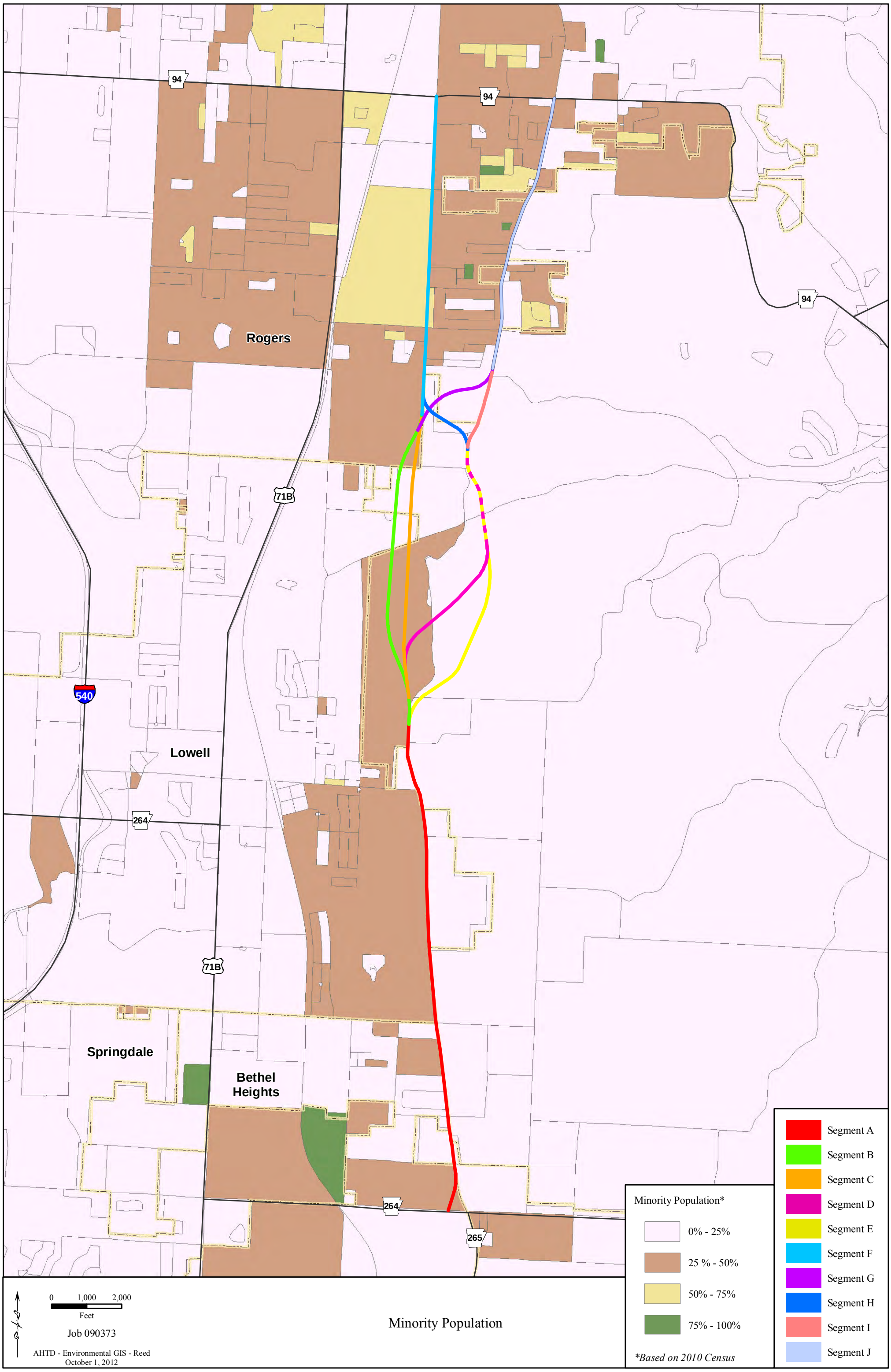
Segment	***Est. Cost Land & Imp***
A	$2,700,000.00
B	$1,600,000.00
C	$1,600,000.00
D	$ 700,000.00
E	$1,525,000.00
F	$ 625,000.00
G	$ 400,000.00
H	$ 400,000.00
I	$ 120,000.00
J	$1,900,000.00

Alternatives	***Est. Cost Land & Imp.***
A, B, F	$4,925,000.00
A, B, G, J	$6,600,000.00
A, C, F	$4,925,000.00
A, C, G, J	$6,600,000.00
A, D, H, F	$4,425,000.00
A, D, I, J	$5,420,000.00
A, E, H, F	$5,250,000.00
A, E, I, J	$6,245,000.00

JB:NP/ald

APPENDIX D

U.S. Census Data Maps


94
94
94
Rogers
71B
540
Lowell
264
71B
Springdale
Bethel
Heights
264
265
0
1,000
2,000
Feet
Job 090373
AHTD - Environmental GIS - Reed
October 1, 2012
Minority Population
Minority Population*
0% - 25%
25 % - 50%
50% - 75%
75% - 100%
*Based on 2010 Census
Segment A
Segment B
Segment C
Segment D
Segment E
Segment F
Segment G
Segment H
Segment I
Segment J

94
94
94
Rogers
71B
540
Lowell
264
71B
Springdale
Bethel
Heights
264
265

0 1,000 2,000
Feet

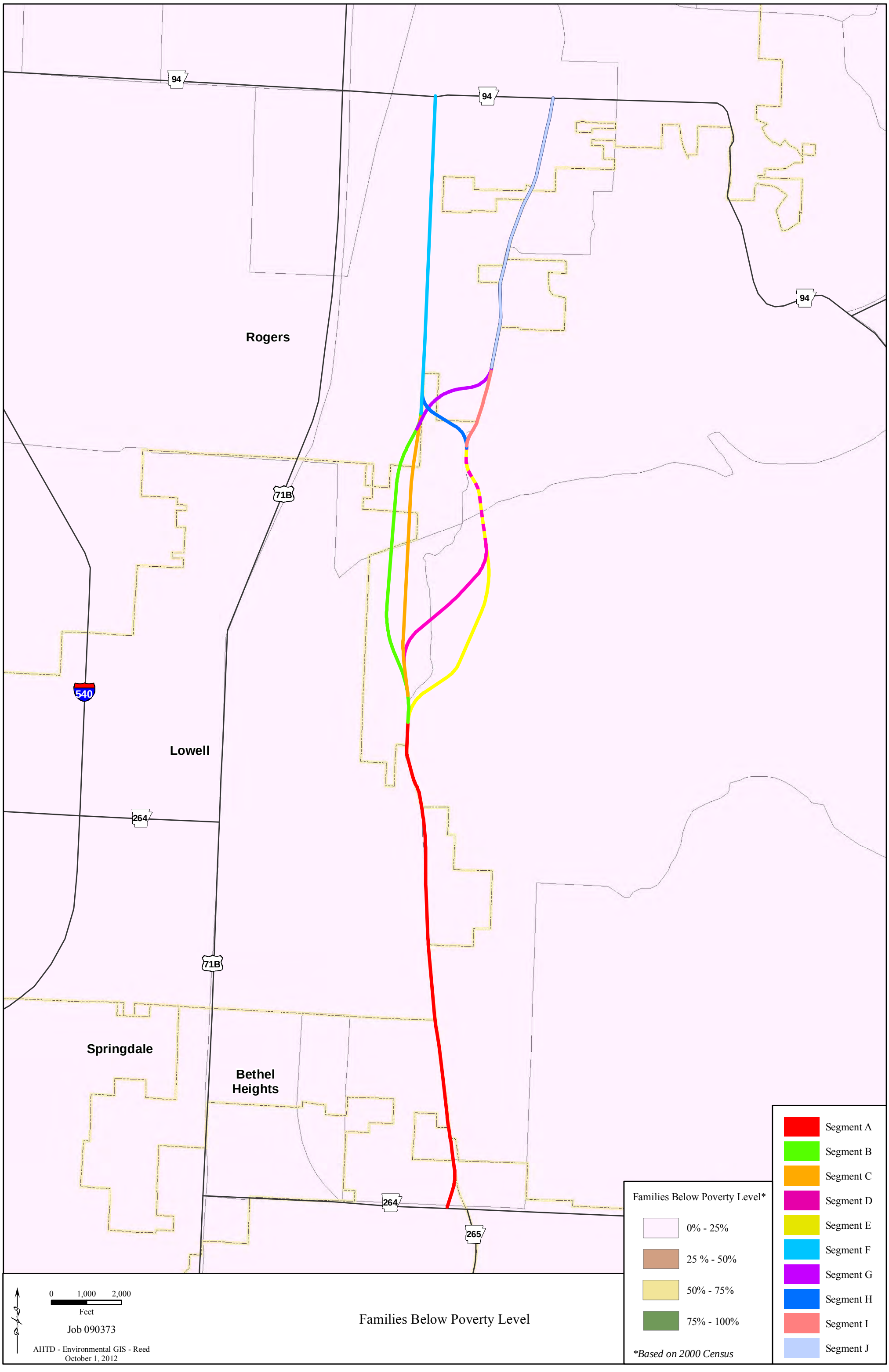
Job 090373

AHTD - Environmental GIS - Reed
October 1, 2012

Age 65 and Older Population

Age 65 and Older Population*
0% - 25%
25 % - 50%
50% - 75%
75% - 100%
*Based on 2010 Census

Segment A
Segment B
Segment C
Segment D
Segment E
Segment F
Segment G
Segment H
Segment I
Segment J


94
94
94
Rogers
71B
540
Lowell
264
71B
Springdale
Bethel
Heights
264
265
0 1,000 2,000
Feet
Job 090373
AHTD - Environmental GIS - Reed
October 1, 2012
Families Below Poverty Level
Families Below Poverty Level*
0% - 25%
25 % - 50%
50% - 75%
75% - 100%
*Based on 2000 Census
Segment A
Segment B
Segment C
Segment D
Segment E
Segment F
Segment G
Segment H
Segment I
Segment J

94
94
94
Rogers
71B
540
Lowell
264
71B
Springdale
Bethel
Heights
264
265

0 1,000 2,000
Feet

Job 090373

AHTD - Environmental GIS - Reed
October 1, 2012

Hispanic or Latino Population

Hispanic or Latino Population*

- 0% - 25%
- 25 % - 50%
- 50% - 75%
- 75% - 100%

*Based on 2010 Census

- Segment A
- Segment B
- Segment C
- Segment D
- Segment E
- Segment F
- Segment G
- Segment H
- Segment I
- Segment J

APPENDIX E

Farmland Conversion Impact Rating

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency) Job Number 090373	3. Date of Land Evaluation Request **9/14/2012**	4. Sheet 1 of 2
1. Name of Project **Hwy. 264 – Hwy. 94**	5. Federal Agency Involved **Federal Highway Administration**	
2. Type of Project **New Road Construction**	6. County and State **Benton County, Arkansas**	
PART II (To be completed by NRCS)	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES NO		4. Acres Irrigated / Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III (To be completed by Federal Agency)		**Alternative Corridor For Segment**			
		Alternative 1	Alternative 2	Alternative 3	Alternative 4
A. Total Acres To Be Converted Directly		29.6	37.0	27.0	34.2
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres In Corridor		96.1	100.2	95.5	99.6
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		26.3	32.1	24.2	30.0
B. Total Acres Statewide And Local Important Farmland		3.3	4.9	2.8	4.2
C. Percentage of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)					
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))	Maximum Points				
1. Area in Nonurban Use	15	5	5	5	5
2. Perimeter In Nonurban Use	10	5	5	5	5
3. Percent Of Corridor Being Farmed	20	5	5	5	5
4. Protection Provided By State And Local Government	20	0	0	0	0
5. Size of Present Farm Unit Compared To Average	10	0	0	0	0
6. Creation Of Nonfarmable Farmland	25	0	0	0	0
7. Availability Of Farm Support Services	5	5	5	5	5
8. On-Farm Investments	20	0	0	0	0
9. Effects Of Conversion On Farm Support Services	25	0	0	0	0
10. Compatibility With Existing Agricultural Use	10	0	0	0	0
TOTAL CORRIDOR ASSESSMENT POINTS	160	20	20	20	20
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	100	100	100	100
Total Corridor Assessment (From Part VI above or a local site assessment)	160	20	20	20	20
TOTAL POINTS (Total of above 2 lines)	260	120	120	120	120

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
	See Part IV	**9/14/2012**	YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: DATE **9/14/2012**

NOTE: Complete a form for each segment with more than one Alternate Corridor

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I (To be completed by Federal Agency) Job Number 090373	3. Date of Land Evaluation Request **9/14/2012**	4. Sheet 2 of 2
1. Name of Project **Hwy. 264 – Hwy. 94**	5. Federal Agency Involved **Federal Highway Administration**	
2. Type of Project **New Road Construction**	6. County and State **Benton County, Arkansas**	
PART II (To be completed by NRCS)	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES NO	4. Acres Irrigated	Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III (To be completed by Federal Agency)	Alternative Corridor For Segment			
	Alternative 5	Alternative 6	Alternative 7	Alternative 8
A. Total Acres To Be Converted Directly	29.1	36.0	26.6	34.4
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	100.1	99.4	99.8	99.0
PART IV (To be completed by NRCS) Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	24.9	30.1	18.3	24.4
B. Total Acres Statewide And Local Important Farmland	4.2	5.9	8.3	10.0
C. Percentage of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)				
PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c)) — Maximum Points				
1. Area in Nonurban Use — 15	5	5	5	5
2. Perimeter in Nonurban Use — 10	5	5	5	5
3. Percent Of Corridor Being Farmed — 20	5	5	5	5
4. Protection Provided By State And Local Government — 20	0	0	0	0
5. Size of Present Farm Unit Compared To Average — 10	0	0	0	0
6. Creation Of Nonfarmable Farmland — 25	0	0	0	0
7. Availability Of Farm Support Services — 5	5	5	5	5
8. On-Farm Investments — 20	0	0	0	0
9. Effects Of Conversion On Farm Support Services — 25	0	0	0	0
10. Compatibility With Existing Agricultural Use — 10	0	0	0	0
TOTAL CORRIDOR ASSESSMENT POINTS — 160	20	20	20	20
PART VII (To be completed by Federal Agency)				
Relative Value Of Farmland (From Part V) — 100	100	100	100	100
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	20	20	20	20
TOTAL POINTS (Total of above 2 lines) — 260	120	120	120	120

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
	See Part IV	**9/14/2012**	YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: DATE **9/14/2012**

NOTE: Complete a form for each segment with more than one Alternate Corridor

APPENDIX F

Cultural Resources Survey Information

Cultural Resources Survey Information

A reconnaissance level cultural resources survey of the project area was conducted by an AHTD staff archeologist over numerous days in 2010. The survey consisted of a review of all appropriate site records and a "windshield" survey of proposed alignments. The survey was conducted in order to identify any obvious archeological sites or historic properties that might be affected by the project and to see if any of the alternatives were located within areas having a high probability for the occurrence of undiscovered cultural resources.

A variety of records were checked to determine if previously documented cultural resources were known in the project area. These include the State's archeological site files which are maintained by the Arkansas Archeological Survey (AAS) in Fayetteville and the State's historic structures files at the Arkansas Historic Preservation Program (AHPP) in Little Rock. Several early maps were also reviewed to gather information regarding early historic settlement in the project area. The "windshield" survey consisted of the identification of 25 historic structures, three trails, and determining the survival of known archeological sites.

A review of the AAS site files revealed ten previously recorded archeological sites. These sites are both historic and prehistoric and cover a wide range of activities from a Civil War Encampment to a Native American lithic reduction sites. Some have been disturbed by urban development. Some remain intact. One of the archeological sites is currently considered eligible for the NRHP; however the eligibility of the other sites has not yet been reviewed by the State Historic Preservation Officer (SHPO).

A review of the AHPP historic structure file shows ten recorded historic structures within or near the project area. Six of these have been destroyed, three are no longer eligible, and one is included in the twenty-five identified structures in the field survey. The AHTD believes that five structures are eligible to the NRHP. Photographs of all

twenty-five structures have been submitted to the AHPP for determination of eligibility to the NRHP. Any of these structures that are determined eligible should be avoided and any impacts to them will require FHWA's Section 4(f) process and evaluation to be followed, and mitigation that would be determined by SHPO.

The review of the relevant historic maps showed two historic roads in the area. Both of these roads date from the early 1800s. They were the Butterfield Overland Trail, the Cherokee Trail of Tears, and Civil War military routes. The Butterfield Overland Trail is under study by the National Park Service (NPS) for designation as a National Historic Trail. The Cherokee Trail of Tears was a removal route of the Cherokee Indian Tribe to Oklahoma. The Cross Hollow area was the Confederate winter camp prior to the Battle of Pea Ridge in March 1862. All Alternative segments (except Segment F) either follow these trails or intersect with them several times along their routes. The possibility of undiscovered archeological sites along these trails is very high. Old Wire Road is part of the Heritage Trail System established by the Arkansas Legislature under Act 728.

In all build alternatives (Segment A) impacts one archeological site that has undetermined NRHP eligibility and could impact two eligible historic structures. In Alternatives 3, 4, 5, 6, 7 and 8 (Segments C, D, and E) impact a major archeological site that is eligible for the NRHP. In Alternatives 5, 6, 7 and 8 (Segments D, E, and I) impact a NRHP property that is also an archeological site. In Alternatives 1 and 2 (Segment B) would impact one eligible historic structure. In Alternatives 6 and 8 (Segment I) could impact one eligible historic structure.

Once a Preferred Alternative has been identified, an intensive cultural resources survey will be conducted. If no cultural resources would be impacted, the project will be documented on an AHTD Project Identification Form and submitted to the SHPO with a recommendation of no further work. If cultural resources would be impacted, a full report documenting the results of the survey and stating the AHTD's recommendations will be prepared and submitted to the SHPO for review. If prehistoric sites would be

impacted, continuing consultation with the appropriate Native American Tribe would occur and the site or sites would be evaluated to determine if Phase II testing is necessary. Should any of the sites be found to be eligible or potentially eligible for nomination to the NRHP and avoidance is not possible, site-specific data recovery plans will be prepared and data recovery will be carried out at the earliest practicable time.

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APPENDIX G

Noise Analysis

Noise Analysis

Job Number 090373

A noise assessment has been conducted for this project utilizing the following: FHWA's Traffic Noise Model 2.5 (TNM), existing and proposed roadway cross sections, existing traffic data, and projected traffic data for the design year of 2035.

Fundamentals of Noise

"Noise" is defined as an unwanted sound. Sounds are described as noise if they interfere with an activity or disturb the person hearing them. Sound is measured in a logarithmic unit called a decibel (dB). The human ear is more sensitive to middle and high frequency sounds than it is to low frequency sounds, so sound levels are weighted to more closely reflect human perceptions. These "A-weighted" sounds are measured using the decibel unit dBA. Because the dBA is based on a logarithmic scale, a 10 dBA increase in sound level is generally perceived as twice as loud while a 3 dBA increase is just barely perceptible to the human ear.

Sound levels fluctuate with time depending on the sources of the sound audible at a specific location. In addition, the degree of annoyance associated with certain sounds varies by time of day, depending on other ambient sounds affecting the listener and the activities of the listener. The time-varying fluctuations in sound levels at a fixed location can be quite complex, so they are typically reported using statistical or mathematical descriptors that are a function of sound intensity and time. Noise levels for this study are reported in hourly equivalent sound levels or Leq. Leq is defined as the equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as a time-varying sound level during the same time period. Leq is expressed in units of dBA, which are decibels on the A-weighted scale.

Noise Impact Criteria

Noise levels were compared to FHWA's Noise Abatement Criteria (NAC), which include seven different Activity Categories based on land use (Table G-1). According to AHTD's "Policy on Highway Traffic Noise Abatement", a noise receptor is considered impacted under the following scenarios: (1) if predicted noise levels approach, equal, or exceed the NAC Activity Criteria Leq dBA (Table G-1) if future predicted noise levels exceed existing noise levels greater than 10 dBA. The term "approach" is considered to be 1 Leq dBA less than the NAC Leq dBA (i.e., 66 Leq dBA for residential structures).

Existing Conditions

All of the alternatives pass through both urban and rural areas. Existing noise levels were measured at eight representative locations as shown in Figure 10 in the Noise Section of the Environmental Assessment. The sites were generally representative of noise-sensitive, ground-level, outdoor human use or activity areas in proximity to the build alternatives. The existing noise measurements occurred between 9:30 a.m. and 2:30 p.m. on August 29, 2012. The temperature varied between 75 and 91°F and winds were light and variable, having little effect on sound propagation over moderate distances. Field staff collected noise measurements with a Larson-Davis Model 812 noise meter. In all of the alternatives, segments F and J experienced higher noise levels than other segments because of the urban environment of the area.

Traffic Noise Model 2.5 Setup

FHWA's Traffic Noise Model 2.5 (TNM) was used to predict traffic noise levels for the future No Action and eight build alternatives. Traffic noise analyses were performed for each of the build alternatives utilizing a roadway cross section of four 11-foot wide paved travel lanes with a 12 foot turn lane and curb and gutter. Traffic noise analysis for the No Action alternative was modeled using the current roadways cross sections for each existing roadway. Noise modeling is unavailable for gravel roads, so the future noise levels for a portion of Old Wire Road were not modeled for the No Action Alternative.

Table G-1
Noise Abatement Criteria

Activity Category	Activity Critieria[1] Leq dBA	Evaluation Location	Activity Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67	Exterior	Residential
C[2]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio stations, recording studios, recreation areas, Section 4(f) sites[4], schools, television studios, trails, and trail crossings.
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E[2]	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D, or F.
F	–––	–––	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities, (water resources, water treatment, electrical), and warehousing.
G[3]	–––	–––	Undeveloped lands that are not "permitted".

1 The Leq dBA Activity Criteria values are for impact determination only, and are not design standards for noise Abatement.

2 Includes undeveloped lands that have been permitted for this Activity Category.

3 Indicates no building permits on or before the date of public knowledge.

4 Section 4(f) property means publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of a historic site of national, state, or local significance, as initially defined in Section 4(f) of the Department of Transportation Act of 1966 and addressed in 23 CFR 774, Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites.

Current and future traffic data used in the TNM 2.5 model are listed in Table G-2.

Traffic Noise Analysis

The noise measurement data collected at the sample points four and five was used to create the Leq dBA for segments B, C, D, E, G and H of the build alternatives. These Leq dBA values were then used to determine the distance from the centerline noise levels increased by 10 Leq dBA for these new location segments of the build alternatives. The segments A, F, I and J were evaluated using 66 Leq dBA (Table G-3). This is the level that "approaches" the NAC Activity Criteria level for residential properties (Table G-1).

A comparison was made between the 2012 No Action Alternative and the eight build alternatives for the year 2035 to determine the number of residents that will incur a 10 Leq dBA increase in noise levels on the existing roadways as a result of the project.

Effects of Project Alternatives

The traffic noise estimates result in noise abatement distances measured from the centerline for each Alternative, as shown in Table G-4. The estimated impacted noise receptor counts for the No Action and the eight build alternatives are listed in Table G-5. The number of noise receptors predicted to be impacted by >66 Leq dBA ranged from a high of 100 for Alternative 4 to a low of 70 for Alternative 7. The highest density of structures can be found in segments F and J. Given the density of the structures and volume of traffic, it can be assumed that these segments would contain the highest numbers of impacted residents.

The number of noise receptors predicted to be impacted by the >10 Leq dBA increase ranged from 82 along Alternative 7 to 19 along Alternative 6. The noise levels were predicted to increase by 10 Leq dBA at approximately 150 feet from the centerline on segment A of Alternatives 1, 3, 5, and 7 and even further from the centerline for segments B, C, D, E, G and H. Approximately four receptors along Alternative 5 and 12

TABLE G- 2
TRAFFIC DATA USED IN TNM 2.5 MODEL

			No-Build				1 & 3			2 & 4				5 & 7				6 & 8			
			A & F & I-J				A-B-F & A-C-F			A-B-G-J & A-C-G-J				A-D-H-F & A-E-H-F				A-D-I-J & A-E-I-J			
			A	F	I	J	A	B or C	F	A	B or C	G	J	A	D or E	H	F	A	D or E	I	J
Projected Current	Daily	ADT (vpd)	4,000	6,600	400	4,700	*9,500*	*9,800*	*10,600*	*9,000*	*8,300*	*6,000*	*7,100*	*9,500*	*9,800*	*8,600*	*10,200*	*7,500*	*6,000*	*5,800*	*6,800*
		Posted Speed (mph)	40	40: 3-lane 25: 4-lane	40	*35*	45	45	45, 35 by schools	45	45	45	45	45	45	45	45, 35 by schools	45	45	45	45
		Truck Percent	1%	2%	2%	*2%*	*2%*	*2%*	*3%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*3%*	*2%*	*2%*	*2%*	*2%*
		Directional Split	55/45	50/40	50/50	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*
		Cross Section	2-lane	3-lane w/ 4-lane by schools	2-lane	2-lane & 3-lane w/ 5-lane by schools	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane

			No-Build				1 & 3			2 & 4				5 & 7				6 & 8			
			A & F & I-J				A-B-F & A-C-F			A-B-G-J & A-C-G-J				A-D-H-F & A-E-H-F				A-D-I-J & A-E-I-J			
			A	F	I	J	A	B or C	F	A	B or C	G	J	A	D or E	H	F	A	D or E	I	J
Projected Future	Daily	ADT (vpd)	7,000	10,500	500	7,000	17,000	16,000	16,500	16,000	14,000	10,000	11,000	17,000	16,000	14,000	16,000	13,000	10,000	9,000	11,000
		Posted Speed (mph)	40	40: 3-lane 25: 4-lane	40	*35*	45	45	45, 35 by schools	45	45	45	45	45	45	45	45, 35 by schools	45	45	45	45
		Truck Percent	1%	2%	2%	*2%*	*4%*	*4%*	*5%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*4%*	*5%*	*4%*	*4%*	*4%*	*4%*
		Directional Split	55/45	50/50	50/50	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*	*50/50*
		Cross Section	2-lane	3-lane w/ 4-lane by schools	2-lane	2-lane & 3-lane w/ 5-lane by schools	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane	5-lane

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existing noise levels, even though they will not experience noise levels greater than Leq 66 dBA.

Table G-3
Leq dBA used in Analysis

Segment	Leq dBA Applied
A	66
B	52
C	52
D	52
E	52
F	66
G	64
H	66
I	66
J	66

Traffic Noise Abatement

Noise impacts are predicted to occur within 500 feet of the proposed build alternatives. Therefore, the feasibility and reasonableness of potential noise abatement measures must be evaluated. Based upon AHTD's "Policy on Highway Traffic Noise Abatement", any noise abatement effort using barrier walls or berms is not warranted in the following segments for each of the alternatives: Segments A, B, C, D, E, G, H, and I. In order to provide direct access to the highway from adjacent properties, breaks in the barrier walls or berms would be required. These necessary breaks for highway access would render any noise barrier ineffective. A noise barrier analysis will need to be performed on selected portions of segments F and J for any of the build alternatives selected.

Table G-4
Noise Abatement Standard Distance For 2035

Alternative	Segment	> 66 Leq dBA[1] (feet from CL)	> 10 Leq dBA Increase over Existing Noise Levels (feet from CL)
No Action	A	-	-
No Action	F-School	-	-
No Action	F	-	-
No Action	I	-	-
No Action	J 2-Lane	-	-
No Action	J 3-Lane	-	-
No Action	J-School	-	-
1&3	A	109	150
1&3	B	105	401
1&3	C	105	401
1&3	F-School	105	n/a
1&3	F	112	n/a
2&4	A	83	n/a
2&4	B	102	463
2&4	C	102	463
2&4	G	83	380
2&4	J	88	n/a
5&7	A	94	150
5&7	D	83	486
5&7	E	83	486
5&7	H	102	463
5&7	F-School	103	n/a
5&7	F	111	n/a
6&8	A	94	n/a
6&8	D	83	408
6&8	E	83	408
6&8	I	61	n/a
6&8	J	88	n/a

[1] Value that "approaches" the NAC level of 67 Leq dBA.

Table G-5
Estimated Noise Receptors Impacted
Year 2035

Alternative	Segment	> 66 Leq dBA	> 10 Leq dBA Increase over Existing Noise Levels
No Action	A	*	*
No Action	F	*	*
No Action	I	*	*
No Action	J	*	*
1	A, B, F	72	68
2	A, B, G, J	99	38
3	A, C, F	77	70
4	A, C, G, J	100	35
5	A, D, H, F	71	75
6	A, D, I, J	93	19
7	A, E, H, F	70	82
8	A, E, I, J	99	26

* Noise levels do not exceed 66 dBA beyond ROW

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APPENDIX H

Public Involvement Synopsis

PUBLIC INVOLVEMENT MEETING SYNOPSIS

Job Number 012126
Eastern North-South Corridor (Fayetteville – Rogers)
Washington & Benton Counties
Tuesday and Wednesday, October 18 - 19, 2011

Two open forum Public Involvement Meetings for the proposed Eastern North-South Corridor were held at The Jones Center for Families in Springdale, Arkansas from 4:00 p.m. to 7:00 p.m. on Tuesday, October 18, 2011 and at the Rogers Heritage High School (Cafeteria) in Rogers, Arkansas from 4:00 p.m. to 7:00 p.m. on Wednesday, October 19, 2011. A synopsis of the planning study findings for this project were presented and public input was solicited on the preliminary corridors under consideration in the environmental study. Special efforts to involve minorities and the public in the meetings included the following:

- Display advertisement placed in *The Morning News* on Thursday, October 6, 2011 and Thursday, October 13, 2011.
- Public Service Announcement to La Zeta 95.7 FM which aired on Sunday, October 16, 2011 through Wednesday, October 19, 2011.
- Distribution of English and Spanish flyers in the project area.
- Outreach to minority ministers letters.

Handouts for the public included the planning study finding, a comment sheet, and a small-scale map illustrating the preliminary corridors. Copies of these are attached.

Table 1 describes the results of the public participation at both meetings.

TABLE 1

Public Participation	Totals
Attendance at both meetings (including AHTD staff)	181
Total comments received	54

AHTD staff reviewed all comments received and evaluated their contents. The summary of comments listed below reflects the personal perception or opinion of the person or organization making the statement. The sequencing of the comments is random and is not intended to reflect importance or numerical values. Some of the comments were combined and/or paraphrased to simplify the synopsis process.

An analysis of the responses received as a result of the public survey is summarized in Table 2 and further discussed in the following paragraphs.

TABLE 2

Survey Results	Totals
Believes there is a need for an improved north-south route	41
Does not believe there is a need for an improved north-south route	10
Selected both (yes and no) on the need for an improved north-south route question	1
No response on the need for an improved north-south route question	2
Respondents who preferred No Action option	5
Respondents who preferred Corridor Segments A, C & E	32
Respondents who preferred Corridor Segments A, C, D & F	4
Respondents who preferred Corridor Segments A, B, & F	12

The general opinions of those individuals choosing the No Action option or one of the corridor segment combinations are described below.

No Action

The five individuals who preferred the No Action option thought that the money could be used on other projects; that there was no need for an improved north-south corridor, property values would decrease; it would increase traffic congestion and would negatively impact the residents. Individuals in this group were concerned about noise issues, traffic volumes, expanding I-540 and higher costs.

Corridor Segments A, C & E

The 32 individuals who chose this corridor noted that the proposed route is the shortest and most direct route, it would miss the civil war encampment area, it would disturb less of the Beaver Lake watershed and closely parallels the City of Rogers Master Street Plan. A majority of the individuals agree that Segment C is needed now, and it could be connected to the existing network to relieve congestion in the short term.

Corridor Segments A, C, D & F
Four individuals thought this corridor would be less disruptive, would not disturb the schools and made sense for the long range traffic needs of the area.

Corridor Segments A, B & F
Twelve individuals chose this corridor because it would be away from the populated area creating fewer disturbances to the community and property owners. Some thought the route was too close to existing Highway 71B and I-540 and wanted to look at the long-term impacts of the project and plan for those accordingly. A landfill located on the south end of Feast Place was identified out of this group (this site will be checked out later).

Public comments concerning the proposed project:

- "The Stingy man pays the most eventually." (Corridor Segments A,B, & F)
- "…control access with future development and improve level of service of roadway." (Corridor Segments A, B, & F)
- "I think that I-540 should be widened." (No Action)
- "Most Direct Route." (Corridor Segments A,C, & E)
- "Segment F is not feasible. The terrain is … so severe…the cost... would be astronomical…we need this eastern corridor built sooner rather than later." (Corridor Segments A,C, & E)
- "Existing routes, less $, less negative impact to county area." (Corridor Segments A,C, & E)
- "…it will miss the encampment area and help the people from Rogers and Fayetteville get to jobs." (Corridor Segments A,C, & E)
- "The A, C & E route is approximately 20 million dollars cheaper than the other alternatives." (Corridor Segments A,C, & E)

Attachments: Blank comment form
Small-scale preliminary corridor map
Planning study handout

RJ RJ
DN DN

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ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT (AHTD)

CITIZEN COMMENT FORM

AHTD JOB NUMBER 012126
Eastern North – South Corridor (Fayetteville – Rogers)
WASHINGTON & BENTON COUNTIES

LOCATION:
ROGERS HERITAGE HIGH SCHOOL
(CAFETERIA)
1114 SOUTH 5TH STREET
ROGERS, AR
4:00 – 7:00 P.M.
WEDNESDAY, OCTOBER 19, 2011

Make your comments on this form and leave it with AHTD personnel at the meeting or mail it within 15 days to: Arkansas State Highway and Transportation Department, Environmental Division, Post Office Box 2261, Little Rock, Arkansas 72203-2261.

Yes ☐ No ☐ Do you feel there is a need for an improved north-south route to the east of Highway 71B between Benton and Washington Counties? If no, please explain (optional). _____

_____

_____

Which Corridor Segment would you consider to be your preferred route for the proposed Eastern North – South Corridor? Please select only one.

- ☐ No Action
- ☐ Corridor Segments A, C & E
- ☐ Corridor Segments A, C, D & F
- ☐ Corridor Segments A,B & F

Why is that your preference?

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(Continued on Back)

Do you know of any environmental constraints, such as UST's, asbestos, endangered species, hazardous waste sites, existing or former landfills, or parks and public lands in the vicinity of the corridor study area? Please note and discuss with AHTD staff. _____

_____

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_____

It is often necessary for the AHTD to contact property owners along potential routes. If you are a property owner along or adjacent to the route under consideration, please provide information below. Thank you.

Name :_____(*Please Print*)

Address: _____ Phone: (_____) _____--_____

_____

_____

E-mail:_____

Please make additional comments here._____

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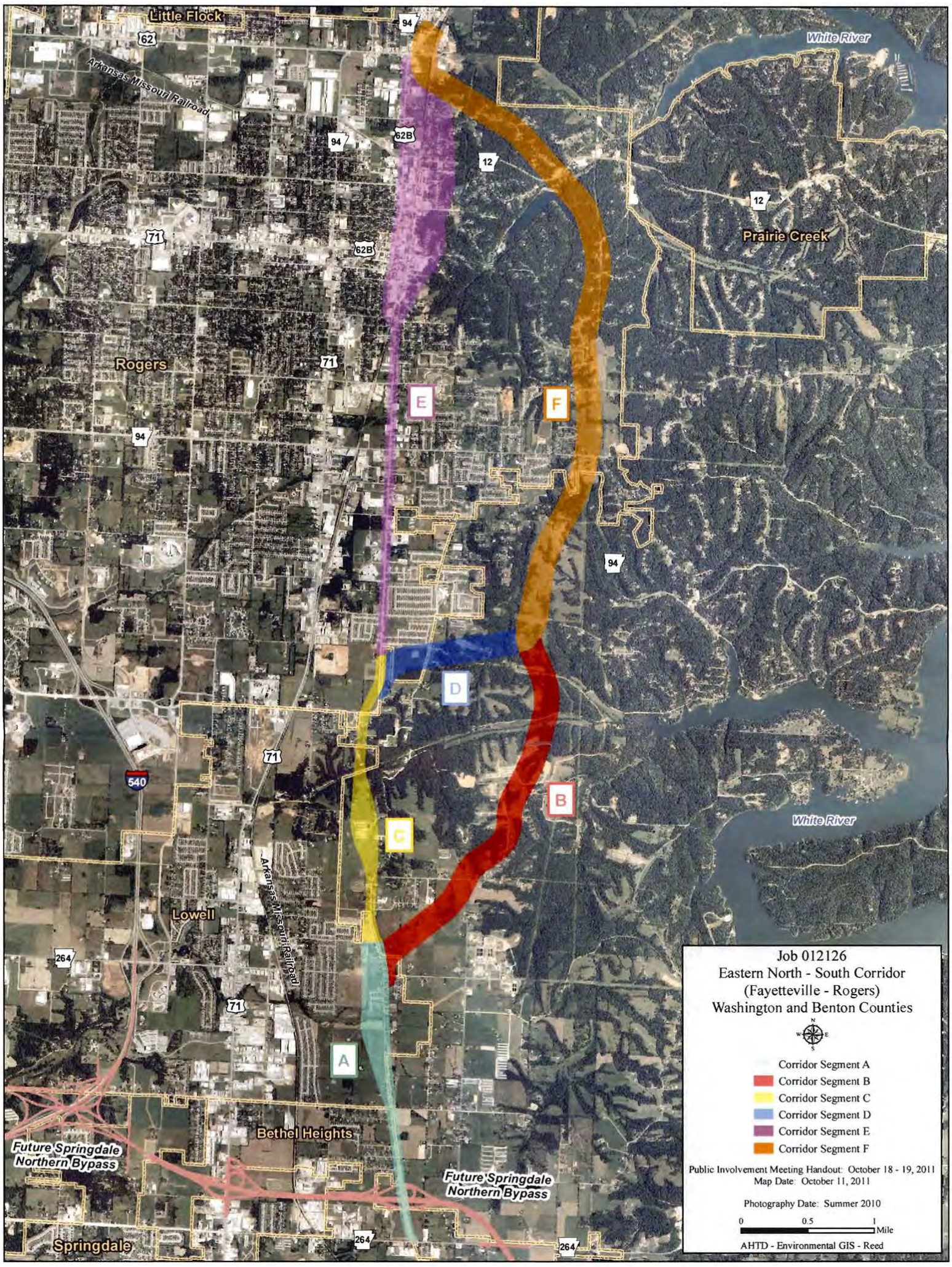
Little Flock
62
94
Arkansas Missouri Railroad
62B
12
White River
Prairie Creek
71
Rogers
E
F
D
B
C
A
540
Lowell
264
Bethel Heights
Future Springdale Northern Bypass
Springdale
Job 012126
Eastern North - South Corridor
(Fayetteville - Rogers)
Washington and Benton Counties
Corridor Segment A
Corridor Segment B
Corridor Segment C
Corridor Segment D
Corridor Segment E
Corridor Segment F
Public Involvement Meeting Handout: October 18 - 19, 2011
Map Date: October 11, 2011
Photography Date: Summer 2010
0 0.5 1 Mile
AHTD - Environmental GIS - Reed

Notes: _____

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EASTERN NORTH-SOUTH CORRIDOR (FAYETTEVILLE - ROGERS)
JOB 012126
BENTON AND WASHINGTON COUNTIES
OCTOBER 2011 PUBLIC INVOLVEMENT

Why are we here?

At the request of the Northwest Arkansas Regional Planning Commission (NWARPC), the Arkansas State Highway Commission authorized a study of a north-south corridor from Highway 16 in Fayetteville to Highway 62 in Rogers. Public input was gathered at two public meetings in August 2010, and the study was completed and adopted in July 2011. We are presenting the findings of this study, while gathering input for the environmental study.

What was the purpose of the study?

The purpose of this study was to determine the need for improvements to an eastern north-south corridor from Highway 16 in Fayetteville to Highway 62 in Rogers, with a possible extension to Bentonville. The main purpose of this proposed eastern corridor is to alleviate the traffic congestion on the existing north-south routes, especially Highway 71B.

What did the study conclude?

The study determined that there is a need for an improved eastern north-south route between Highway 16 in Fayetteville and Highway 62 in Rogers. More specifically, the study concluded the following.

- *Highway 265 in Fayetteville* – Minor intersection improvements, such as turn lanes, may be appropriate to consider in the future along Highway 265.

- *Highway 265 in Springdale* – Highway 265 should be improved from Highway 412 to near Mountain Road in Springdale. This includes construction of a continuous center turn lane, bicycle lanes, and sidewalks.

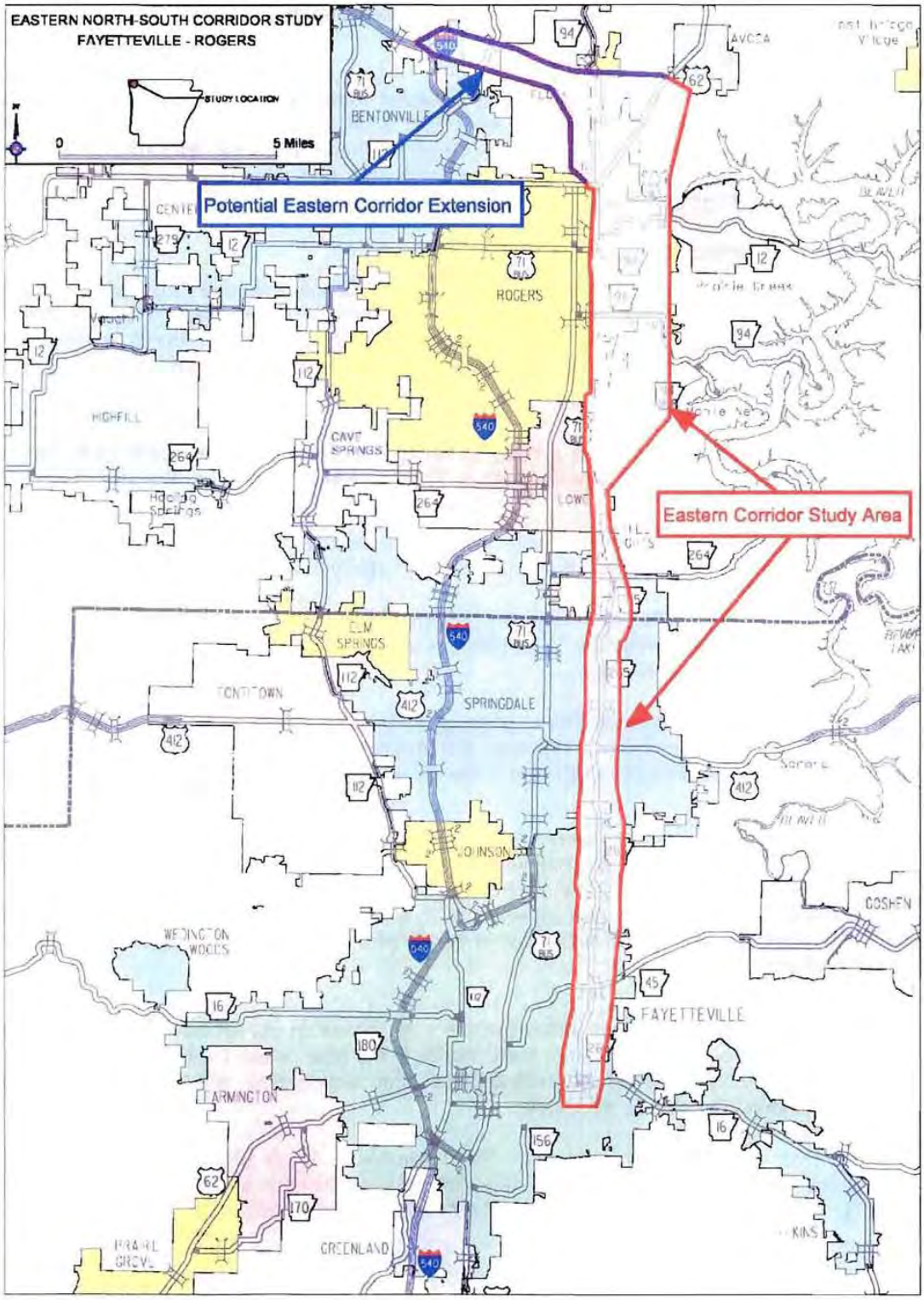
- *Highway 265 from Highway 264 to Highway 62 in Rogers* – Highway 265 currently ends at Highway 264 in Springdale. Highway 265 should be extended to Highway 62 in Rogers along one of the corridors examined in the study, shown as Alternatives B2 and B3.

- *Highway 265 north of Highway 62* – The NWARPC 2035 Regional Transportation Plan shows the Eastern Corridor continuing north of Highway 62 as a "bypass" around Rogers to connect to Highway 71 in Bentonville. This study determined that, although an extension would draw some east-west traffic away from Highway 62, it would require the extension of Highway 265 to be east of the Rogers Airport and would attract less traffic at higher cost.

- *Cross sections for Highway 265 extension* – An extension of Highway 265 with four lanes would likely best meet the future traffic needs in the area. Also, the Eastern Corridor is on the NWARPC 2035 Regional Transportation Plan bicycle plan, which means cyclists and pedestrians will be accommodated.

- *Construction phasing of Highway 265 extension* – If an extension of Highway 265 proceeds to project development, any new location portions should be constructed as a two-lane facility while acquiring right-of-way for a four-lane facility.

EASTERN NORTH-SOUTH CORRIDOR (FAYETTEVILLE - ROGERS)
JOB 012126
BENTON AND WASHINGTON COUNTIES



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Public Involvement Meeting Synopsis

Job Number 090373
Hwy. 264 – Hwy. 94
Benton County
Tuesday, July 17, 2012

A Public Involvement Meeting for the proposed project was held at The Annex (Professional Development Center) in Rogers, Arkansas from 4:00 p.m. - 7:00 p.m. on Tuesday, July 17, 2012. Efforts to involve minorities and the public in the meeting included:

- Display advertisement placed in *The Morning News* on Thursday, July 5, 2012 and Thursday, July 12, 2012.
- Public Service Announcement to *La Zeta 95.7 FM*, aired on Saturday, July 14, 2012 through Tuesday, July 17, 2012.
- Distribution of English and Spanish flyers in the project area.
- Outreach to minority ministers letters.

The following information was available for inspection and comment.

- Displays included three copies with an aerial photograph background that illustrated the proposed project alternatives at a scale of 1 inch = 801 feet. A copy of the display is attached.

Handouts for the public included a comment sheet and a small-scale map illustrating the alternatives, which was identical to the aerial map display. Copies of these are attached. Table 1 describes the results of the public participation at the meeting.

TABLE 1

Public Participation	Totals
Attendance at meeting (Including AHTD Staff)	182
Total Comment Forms received	93
Letter received	1
e-mail comments received	2
Petition received	1*

*There were 83 signatures on the petition from *The Citizens United to Oppose Alternative C*.

AHTD staff reviewed all comments received and evaluated their contents. The summary of comments listed below reflects the personal perception or opinion of the person or organization making the statement. The sequencing of the comments is random and is not intended to reflect importance or numerical values. Some of the comments were combined and/or paraphrased to simplify the synopsis process.

An analysis of the responses received as a result of the public survey is shown in Table 2.

TABLE 2

Corridor Segments Preferred	Totals
No Action	14
Corridor Segments A, B & C	38
Corridor Segments A, B & E	6
Corridor Segments A, D & C	1
Corridor Segments A, D & E	11
Corridor Segments A & F	14
Corridor Segments A, D & C plus Corridor Segments A, D & E	2
Corridor Segments A, D & E plus Corridor Segments A & F	1
Corridor Segments A, D & C plus Corridor Segments A, D & E plus Corridor Segments A & F	1
No Response	7

Individuals were asked what their preference was of six options. These options were: No Action; Corridor Segments A, B & C; Corridor Segments A, B & E; Corridor Segments A, D & C; Corridor Segments A, D & E and Corridor Segments A & F. The general opinions of those individuals choosing a particular option are documented below.

<u>No Action</u>
The 14 individuals, who preferred the No Action option thought that the project would promote increased traffic congestion, disrupt too many properties/houses, diminish livability and thought property values would decrease. Individuals in this group were

also concerned about higher costs, wasteful spending, noise issues, heavy truck volumes and impacts to pedestrians.

Corridor Segments A, B & C
The 38 individuals who preferred these corridor segments noted that the proposed route is the most direct and cost effective, would alleviate traffic on 71B, would miss Cross Hollow Civil War Encampment and would lessen impacts to Old Wire Road and other scenic rural areas.

Corridor Segments A, B & E
Six individuals thought these segments would be far less disruptive, would lessen impacts to the Civil War Encampment and would lessen impacts to natural areas further to the east.

Corridor Segments A, D & C
One respondent thought these segments were more rural, and that First Street could accommodate more traffic.

Corridor Segments A, D & E
Eleven respondents thought these segments provided a viable alternative to lessen impacts to schools, made the most sense and would impact less subdivisions and houses.

Corridor Segments A & F
Eight of the 14 individuals who preferred this route were more concerned about impacts to their houses along Segment B, especially in the Feast Place Neighborhood. These individuals preferred to have the route go the east as far as possible. A petition signed by 83 individuals opposed to Segment F wished to have it dropped from further consideration.

Corridor Segments A, B & C plus Corridor Segments A, B & E
Two individuals thought both these corridor segments would keep the route closer to the businesses and would affect fewer homes, lower acquisition costs and lessen impacts to the schools.

Corridor Segments A, D & E plus Corridor Segments A & F
One respondent thought less homes and neighborhoods would be impacted if Corridor Segments A & F were used. This respondent mentioned an illegal landfill in Corridor Segment B.

Corridor Segments A, D & C plus Corridor Segments A & F plus Corridor Segments A & F

One individual thought any of these alternatives would lessen social impacts, and provide more room for growth.

Comments concerning particular corridor segments, as indicated, included the following:

- "Most direct-less cost" (Segments A, B & C)
- "It should be significantly to the east of 71B" (Segments A & F)
- "Shortest and best route" (Segments A, B & C)
- "Segment B would destroy the Feast Place Neighborhood" (A & F)
- "Avoids a majority of the Cross Hollow Civil War Area" (A, B & E)
- "Widen Hwy. 71B" (No Action)
- "Opposed to starting from scratch" (A, B & C)
- "More work on Hwy. 71B and 540 needed" (No Action)
- Segments C and B are too close to 71B" (A, D & E)

Attachments: Blank comment forms
Small-scale project location map
Small scale copy of PI display

RJ RJ
DN

TT:ym

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT (AHTD)

CITIZEN COMMENT FORM

AHTD JOB NUMBER 090373
Highway 264 – Highway 94
BENTON COUNTY

LOCATION:
THE ANNEX
(PROFFESSIONAL DEVELOPMENT CENTER)
2922 SOUTH 1ST STREET
ROGERS, AR
4:00 – 7:00 P.M.
TUESDAY, JULY 17, 2012

Make your comments on this form and leave it with AHTD personnel at the meeting or mail it within 15 days to: Arkansas State Highway and Transportation Department, Environmental Division, Post Office Box 2261, Little Rock, Arkansas 72203-2261. Email: environmentalpimeetings@ahtd.ar.gov.

Yes ☐ No ☐ Do you feel there is a need for an improved north-south route to the east of Highway 71B between Hwy. 264 and Hwy. 94? If no, please explain (optional). _____

_____

_____

Which Corridor Segment would you consider to be your preferred route for the proposed Eastern North – South Corridor? Please select only one.

- ☐ No Action
- ☐ Corridor Segments A, B & C
- ☐ Corridor Segments A, B & E
- ☐ Corridor Segments A, D & C
- ☐ Corridor Segments A, D & E
- ☐ Corridor Segments A & F

Why is that your preference?

_____

_____

_____

_____

_____

_____

(Continued on Back)

Do you know of any environmental constraints, such as UST's, asbestos, endangered species, hazardous waste sites, existing or former landfills, or parks and public lands in the vicinity of the corridor study area? Please note and discuss with AHTD staff. _____

_____

_____

_____

It is often necessary for the AHTD to contact property owners along potential routes. If you are a property owner along or adjacent to the route under consideration, please provide information below. Thank you.

Name :_____(*Please Print*)

Address: _____ Phone: (_____) _____--_____

_____

_____

E-mail:_____

Please make additional comments here._____

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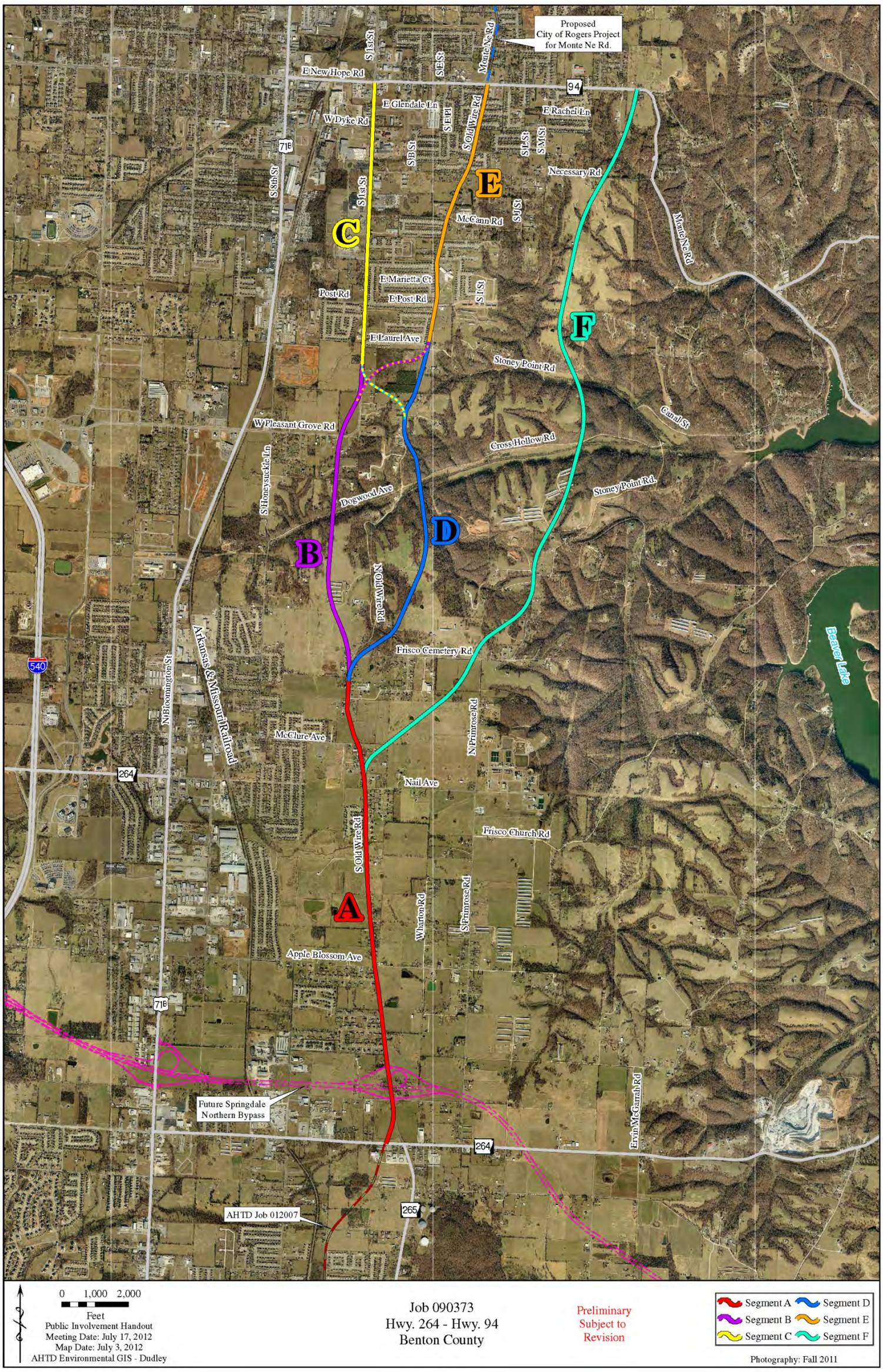
Proposed
City of Rogers Project
for Monte Ne Rd.
E New Hope Rd
94
E Glendale Ln
W Dyke Rd
E Rachel Ln
71B
S 8th St
S 1st St
S B St
S E Pl
S Old Wire Rd
S L St
S M St
Necessary Rd
Monte Ne Rd
McCann Rd
S J St
E Marietta Ct
Post Rd
E Post Rd
S I St
E Laurel Ave
Stoney Point Rd
Canal St
Cross Hollow Rd
W Pleasant Grove Rd
S Honeysuckle Ln
Dogwood Ave
N Old Wire Rd
Beaver Lake
Frisco Cemetery Rd
N Bloomington St
Arkansas & Missouri Railroad
McClure Ave
N Primrose Rd
264
Nail Ave
Frisco Church Rd
S Old Wire Rd
Wharton Rd
S Primrose Rd
Apple Blossom Ave
540
Future Springdale
Northern Bypass
Erwin McGarrah Rd
265
AHTD Job 012007
A
B
C
D
E
F
0 1,000 2,000
Feet
Public Involvement Handout
Meeting Date: July 17, 2012
Map Date: July 3, 2012
AHTD Environmental GIS - Dudley
Job 090373
Hwy. 264 - Hwy. 94
Benton County
Preliminary
Subject to
Revision
Segment A
Segment B
Segment C
Segment D
Segment E
Segment F
Photography: Fall 2011

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APPENDIX I

Hydraulic Analysis

RECEIVED
AHTD

AUG 2 9 2012

ENVIRONMENTAL
DIVISION

INTER OFFICE MEMORANDUM

DATE: August 28, 2012

TO: Lynn P. Malbrough, Division Head, Environmental Division

FROM: Trinity D. Smith, Engineer of Roadway Design Division TDS

SUBJECT: AHTD Job Number 090373
Hwy. 264 – Hwy. 94
Benton County

The Hydraulics Section has reviewed the ten segments under consideration for the project referenced above to identify any encroachments into areas of special flood hazard as shown on the communities Flood Insurance Rate Maps issued by the Federal Emergency Management Agency (FEMA). A description of the encroachments along each alternate alignment follows.

Segments A, G, H, I, J

No identified areas of special flood hazard would be crossed by these proposed segments.

Segments B, C

This segment contains one Zone A Special Flood Hazard Area as designated by the National Flood Insurance Program and shown on Panel 290 of the Benton County FIRM. This floodplain crossing is approximately 200 ft. in width, over an unnamed creek. This crossing is located at Dogwood Avenue.

Segments D, E

This segment contains one Zone A Special Flood Hazard Area as designated by the National Flood Insurance Program and shown on Panel 290 of the Benton County FIRM. This floodplain crossing is approximately 275 ft. in width, over an unnamed creek. This crossing is located at County Road 1189.

Segment F

This segment crosses a regulatory floodway along Tributary 2 to Blossom Way Creek that has been designated by the National Flood Insurance Program and shown on Panel 290 of the Benton County FIRM. This crossing is approximately 600 ft. south of Post Road. The regulatory floodway width at this crossing site is approximately 100 ft. and the regulatory floodplain width is approximately 150 ft. Any crossing at this site must be designed so as to

cause no increase in flood depths during passage of the 100-year (1% annual chance) flood.

This project will serve as a principal arterial and, as such, will serve emergency vehicles in time of disaster. This project will be designed to avoid roadway overtopping by the 50-year flood and, therefore, will not have a significant potential for vehicular traffic interruption, or termination, due to flooding.

Bridges and/or drainage structures will be sized sufficiently to minimize impacts on natural and beneficial floodplain values. These values include, but are not limited to fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquiculture, forestry, natural moderation of floods, water quality, maintenance, and groundwater recharge.

The design measures to minimize floodplain impacts include (1) avoiding longitudinal encroachments, (2) sufficient bridging and/or drainage structures to minimize adverse effects from backwater, (3) sufficient bridging and/or drainage structures to minimize increases in water velocity, (4) minimizing channel alterations, (5) adequate and timely erosion control to minimize erosion and sedimentation, and (6) utilizing standard specifications for controlling work in and around streams to minimize adverse water quality impacts.

The final project design will be reviewed to confirm that the design is adequate and that the potential risk to life and property are minimized. The project will not support incompatible use or development of the floodplain. Adjacent properties should not be impacted nor have a greater flood risk than existed before construction of the project. None of the floodplain crossings will constitute a significant floodplain encroachment or a significant risk to property or life.

If there are any questions concerning this information, please contact Bryan Signorelli in the Hydraulics Section.

SF
TS/SF/BS

Cc: file: Job 090373
Primary Design

NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0290K
FIRM
FLOOD INSURANCE RATE MAP
BENTON COUNTY, ARKANSAS
AND INCORPORATED AREAS
PANEL 290 OF 560
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS
COMMUNITY NUMBER PANEL SUFFIX
BENTON COUNTY 0419 0290 K
LOWELL, CITY OF 050042 0290 K
ROGERS, CITY OF 050013 0290 K
MAP NUMBER
05007C0290K
MAP REVISED
JUNE 5, 2012
Federal Emergency Management Agency
MAP SCALE 1" = 1000'
0 1000 2000 FEET
ZONE A
ZONE AE
Tributary 2 To Blossom Way Creek
Culvert
E LAUREL AVENUE
SOUTHPOINTE AVENUE
THISTLEWOOD AVENUE
ASHER COURT
MARIETTA COURT
SOUTHERN TRACE DRIVE
E POST ROAD
S B ST
S ARKANSAS STREET
S 1ST STREET
S F STREET
W POST ROAD
S 3RD ROAD
S 2ND PL
E PLEASANT GROVE ROAD
DAISY CIRCLE
OLD WIRE ROAD
JOINS PANEL 0270
720000 FT
1326
1327
1328
1329
1330
1331
1332
1333
25
30

MAP SCALE 1" = 1000'
0
1000
2000
FEET
METE
PANEL 0290K
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
FIRM
FLOOD INSURANCE RATE MAP
BENTON COUNTY, ARKANSAS
AND INCORPORATED AREAS
PANEL 290 OF 560
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
BENTON COUNTY 050419 0290 K
LOWELL, CITY OF 050242 0290 K
ROGERS, CITY OF 050013 0290 K
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER
05007C0290K
MAP REVISED
JUNE 5, 2012
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov
Tributary 2 To Blossom Way Creek
S OLD WIRE ROAD
N OLD WIRE ROAD
S 1ST STREET
ZONE AE
E PLEASANT GROVE ROAD
FEAST PLACE
DAISY CIRCLE
CATTLE DRIVE
DOGWOOD AVENUE
36
31
1326
715000 FT
JOINS PANEL (
T. 19 N.
T. 18 N.
County
rated Areas
0419

APPENDIX J

Correspondence

ARKANSAS STATE HIGHWAY
AND
TRANSPORTATION DEPARTMENT

Dan Flowers
Director
Telephone (501) 569-2000

P.O. Box 2261
Little Rock, Arkansas 72203-2261
Telefax (501) 569-2400

September 24, 2010

«FirstName» «LastName»
«Title»
«OrganizationName»
«Address»
«Address_2»
«City», «State» «PostalCode»

RE: Job Number 012126
Eastern North – South Corridor
Washington and Benton Counties

Dear «Prefix» «LastName»:

The Arkansas State Highway and Transportation Department (AHTD) is studying a north-south corridor for improvement needs from Highway 16 in Fayetteville to Highway 62 in Rogers, with a possible extension west to connect to Highway 71 (see enclosed study area map). Information from the corridor study will be instrumental in formulating the Purpose and Need that will be used in the future environmental study.

We are requesting information relating to any constraints or significant concerns that should be considered during the Planning Study Phase and the eventual environmental study. Your comments and any supporting documentation would be helpful to our project planners to avoid or minimize any adverse impacts that could be caused by the project.

If additional information is needed, please contact Don Nichols of this office at (501) 569-2281. Information and comments may be returned to the Environmental Division at the address above.

Sincerely,

Lynn P. Malbrough
Division Head

LPM:DN:trb
Enclosure

R60140

Ms.	Teresa	Marks	Director	Arkansas Department of Environmental Quality	5301 Northshore Drive		North Little Rock	AR	72118
Mr.	Robert	Hart	Engineer	Arkansas Department of Health	4815 W. Markham	Slot #37	Little Rock	AR	72205
Mr.	Loren	Hitchcock	Interim Director	Arkansas Game & Fish Commission	#2 Natural Resources Drive		Little Rock	AR	72205
Ms.	Bekki	White	State Geologist	Arkansas Geological Commission	3815 West Roosevelt Road		Little Rock	AR	72204
Mr.	Chris	Colclasure	Acting Director	Arkansas Natural Heritage Commission	323 Center Street	1500 Tower Bldg	Little Rock	AR	72201
Mr.	Randy	Young, P.E.	Director	Arkansas Natural Resources Commission	101 E Capitol, Suite 350		Little Rock	AR	72201
Dr.	Ralph	Davis	Director	Arkansas Water Resources Center	University of Arkansas	112 Ozark Hall	Fayetteville	AR	72701
Mr.	Richard	Davies	Director	Department of Parks & Tourism	One Capitol Mall 4A-900		Little Rock	AR	72201
Mr.	Kalven	Trice	State Conservation	Natural Resource Conservation Service	Room 3416 Federal Buildin	700 West Capitol	Little Rock	AR	72201
Ms.	Cathy	Matthews	Director	State Historic Preservation Program	323 Center St.	1500 Tower Bldg	Little Rock	AR	72201
Mr.	Gregg	Cooke	Chief	U. S. Environmental Protection Agency	1445 Ross Ave.	Suite 1200	Dallas	TX	75202
Mr.	R. Mark	Sattelberg	Field Supervisor	U. S. Fish & Wildlife Service	1500 Museum Road	Suite 105	Conway	AR	72032

The Department of
Arkansas
Heritage

Mike Beebe
Governor

Cathie Matthews
Director

Arkansas Arts Council

Arkansas Natural Heritage Commission

Delta Cultural Center

Historic Arkansas Museum

Mosaic Templars Cultural Center

Old State House Museum

Arkansas Historic Preservation Program

1500 Tower Building
323 Center Street
Little Rock, AR 72201
(501) 324-9880
fax: (501) 324-9184
tdd: (501) 324-9811
e-mail:
info@arkansaspreservation.org
website:
www.arkansaspreservation.com

An Equal Opportunity Employer

October 7, 2010

Mr. Don Nichols
Environmental Division
Arkansas State Highway And Transportation Department
P.O. Box 2261
Little Rock, Arkansas 72203

RE: Multi-County - General
Section 106 Review - FHwA; AHPP Tracking#74026
Proposed Hwy. 71/ Eastern North - South Corridor Project In Washington And Benton Counties, Arkansas
(AHTD Job Number #012126)

Dear Mr. Nichols:

This letter is written in response to your inquiry, regarding properties of architectural, historical, or archeological significance in the area of the proposed referenced project.

In order for the Arkansas Historic Preservation Program (AHPP) to complete its review of the proposed project, we will need the additional information checked below:

✓ **7.5 minute 1:24,000 scale U.S.G.S.** topographic maps clearly delineating the project route;

✓ a project description detailing all aspects of the proposed project;

✓ the location, age, and photographs of structures (if any) to be renovated, removed, demolished, or abandoned as a result of this project;

✓ photographs of any structures 50 years old or older on property directly adjacent to the project area.

Once we have received the above information, we will complete our review as expeditiously as possible. If you have any questions, please contact me at (501) 324-9880.

Sincerely,

George McCluskey
Section 106 Review Coordinator

P.O. Box 400 Lowell, AR 72745 Ph 479.756.3651 Fx 479.751.4356

Beaver WaterDistrict

October 26, 2010

Ms. Lynn P. Malbrough
Arkansas State Highway and Transportation Department
P.O. Box 2261
Little Rock, AR 72203-2261

RE: Job Number 012126
Eastern North-South Corridor
Washington and Benton Counties

Dear Ms. Malbrough:

Thank you for the opportunity to provide input on the Northwest Arkansas Eastern Corridor study. This study is important to the region from a transportation viewpoint, but it also is important in that a major corridor will alter the current land use in the region. It is at the corridor study phase that we can be most effective in communicating our concerns to AHTD.

Beaver Water District is the principal provider of municipal and industrial water for Benton and Washington counties. The District provides water to over 250,000 individuals and businesses in the area. Our sole source of water is Beaver Lake, a Corps of Engineers Multi-purpose Reservoir in eastern Benton and Washington County. We are very concerned about any development that may impact this source of water. With that in mind, and general security concerns that all water treatment plants now have, we offer the following comments regarding the eastern corridor study area:

- The entire study area is along the divide between the Beaver Lake watershed and the Illinois River watershed. Both river systems are subject to considerable effort directed at water quality improvement through actions of the local governments, Arkansas Department of Environmental Quality, Arkansas Natural Resources Commission and non-profit organizations. There is huge potential for erosion and sedimentation issues resulting from major highway construction. AHTD should be very strict in applying stormwater pollution prevention practices in this project.
- Beaver Water District's treatment plant is approximately two miles east of the city of Lowell, AR. The presence of a major highway in the vicinity of the plant creates additional security concerns for the District. We request that AHTD maintain maximum possible separation between the water treatment plant and the highway.
- The southern terminus of the study area is at the intersection of AR Highway 16 and AR Highway 265 in south Fayetteville. The West Fork of the White River is

P.O. Box 400 Lowell, AR 72745 Ph 479.756.3651 Fx 479.751.4356

roughly 0.2 miles south of this intersection. The West Fork is a major tributary of Beaver Lake. In addition, a tributary of the West Fork runs directly under this intersection. During major storm events, travel time of water from this location to our water intake can be on the order of hours. That makes this proposed interchange a major potential source of contamination for our water source. Provision should be made to contain accidental spills at this intersection.

- The area around the southern terminus and much of the area from roughly township road in Fayetteville through Springdale are classified as highly sensitive Karst terrain (Karst area sensitivity map, The Nature Conservancy, 2006). These areas may be hydrologically connected to Beaver Lake.
- North of Lowell, the corridor widens and crosses back into the Beaver Lake watershed. Several crossings of tributary streams will be required.
- The Fayetteville Natural Heritage Association recently completed a Green Infrastructure Planning project for Fayetteville and its surrounding communities. Areas of native prairie and wetlands were noted in this plan around Lake Fayetteville. These areas are valuable to the local natural environment and should be protected.

Thank you again for the opportunity to comment at this early phase of the study. If you have any questions, please contact me at 479 756 3651.

Sincerely:

Robert Morgan, PhD, PE
Beaver Water District

cc: Alan Fortenberry, PE, CEO, Beaver Water District
Larry Lloyd, PE, COO, Beaver Water District
Robert Hart, PE, Arkansas Department of Health
David Jurgens, PE, City of Fayetteville
Rene Langston, PE, City of Springdale Water Utilities
Tom McAlister, PE, Rogers Water Utilities
Mike Bender, PE, City of Bentonville
Bob Caulk, Fayetteville Natural Heritage Association

Keeping the Natural State natural.

Loren Hitchcock
Interim Director

Arkansas Game and Fish Commission

Mike Armstrong
Assistant Director

November 9, 2010

Mr. Lynn P. Malbrough
Arkansas State Highway and Transportation Dept.
P.O. Box 2261
Little Rock, AR 72203-2261

Subject: AR Job #012126 Eastern North –South Corridor Washington and Benton Counties

Dear Mr. Malbrough:

Your letter referencing the above mentioned subject has been referred to me for reply. Biologists from our agency have reviewed the above mentioned project and we have the following comments:

- All stream and wetlands in the project area should be avoided or impacts should be minimized where possible. Unavoidable impacts should be mitigated.
- All stream crossings should use best management practices for erosion control.
- We recommend no introduction of exotic invasive plant species and extirpating any such species that currently exist at the project site (i.e. spotted knapweed, thistle, serecia lespedeza, etc.)
- Applicant should be advised that this area has some karst topography and could potentially have impacts to cave recharge zones. For information about these zones we suggest contacting David Kampwerth who is a karst biologist that works for the U.S. Fish and Wildlife Service. His number is (501) 513-4477.

We also recommend that you contact the U.S. Fish and Wildlife Service for an endangered species review, since our agency adheres to the federal listing and you will need to get clearance from them. Their address is 110 South Amity Rd., Suite 300, Conway, Arkansas 72032.

Our agency appreciates the opportunity to comment on this proposed project.

Sincerely,

Robert K Leonard

Robert K. Leonard, Biologist
Ecological and Engineering Services

RKL
Cc: Mike Oliver
David Goad
USFWS- Conway

2 Natural Resources Drive • Little Rock, AR 72205 • www.agfc.com
Phone (800) 364-4263 • (501) 223-6300 • Fax (501) 223-6448

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Director

Arkansas Arts Council

Arkansas Historic
Preservation Program

Delta Cultural Center

Mosaic Templars
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fax: (501) 324-9618
tdd: (501) 324-9811
e-mail:
arkansas@naturalheritage.com
website:
www.naturalheritage.com
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Date: November 9, 2010
Subject: Job Number 012126
Eastern North-South Corridor
Washington and Benton Counties
ANHC No.: S-AHTD-10-027

Mr. Lynn Malbrough
Arkansas State Highway and Transportation Department
P.O. Box 2261
Little Rock, AR 72203-2261

Dear Mr. Malbrough:

Staff members of the Arkansas Natural Heritage Commission (ANHC) have reviewed your letter of 24 September 2010 regarding the study the Arkansas State Highway and Transportation Department (AHTD) is conducting for a north-south corridor for improvement needs from Highway 16 in Fayetteville to Highway 62 in Rogers, with a possible extension west to connect to Highway 71. ANHC's data has been made available to the AHTD and should provide specific information on known locations of elements of special concern within the study area. Efforts should be made to avoid and limit impacts to known locations supporting sensitive elements. We would like to note that our inventory in the area is not comprehensive, and other locations supporting rare species may occur within the study corridor. To reduce the potential adverse impacts to rare species, avoidance of undisturbed natural habitats and forest fragmentation should be an important consideration in highway planning. The Eastern Corridor Extension area is of particular concern to this agency. This is the least developed area within the study corridor. Construction of a major roadway could have significant direct and indirect impacts. Little Sugar Creek runs through most of the extension area. This stream is known to support redspot chub (*Nocomis asper*), a species of state conservation concern. Stream and water quality impacts should be an important consideration in this area.

The opportunity to comment is appreciated.

Sincerely,

Cindy Osborne

Cindy Osborne
Data Manager/Environmental Review Coordinator

From: Nichols, Don
To: Tucker, Terry
Subject: FW: 090373 Information Request
Date: Tuesday, August 28, 2012 3:45:56 PM

From: Ellis, Rick
Sent: Tuesday, August 28, 2012 3:09 PM
To: Nichols, Don
Cc: Fuselier, Carl; Martin, Chuck L.
Subject: RE: 090373 Information Request

Don,
Per your request, we have reviewed the alternative segments and provided our bridge cost estimate for each below. The estimates are based on a bridge width of 74'-2" out to out (4-11' lanes and a 12' painted median or 58' curb to curb with 2-6.5' sidewalks).

Alternative Segments A, B, F	Total Br. Length = 440', Cost Est. = $4.4 million
Alternative Segments A, B, G, J	Total Br. Length = 440', Cost Est. = $4.4 million
Alternative Segments A, C, F	Total Br. Length = 425', Cost Est. = $4.3 million
Alternative Segments A, C, G, J	Total Br. Length = 425', Cost Est. = $4.3 million
Alternative Segments A, D, H. F	Total Br. Length = 1410', Cost Est. = $15.2 million
Alternative Segments A, D, I, J	Total Br. Length = 1410', Cost Est. = $15.2 million
Alternative Segments A, E, H, F	Total Br. Length = 1180', Cost Est. = $13.1 million
Alternative Segments A, E, I, J	Total Br. Length = 1180', Cost Est. = $13.1 million

Rick
Go Green, Go White, Go State!

From: Nichols, Don
Sent: Thursday, August 23, 2012 3:16 PM
To: Fuselier, Carl; Ellis, Rick
Subject: 090373 Information Request

A memo is attached for the referenced project. Please let me know if you have any questions.

Don Nichols

THE DEPARTMENT OF ARKANSAS
HERITAGE

Mike Beebe
Governor

Cathie Matthews
Director

Arkansas
Arts Council

Arkansas Historic
Preservation Program

Arkansas
Natural Heritage
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Old State House Museum

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tdd: (501) 324-9811

e-mail:
info@arkansasheritage.com

website:
www.arkansasheritage.com

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September 25, 2012

RECEIVED
AHTD
OCT - 1 2012
ENVIRONMENTAL
DIVISION

Mr. Lynn P. Malbrough
Division Head
Environmental Division
Arkansas State Highway and Transportation Department
PO Box 2261
Little Rock, AR 72203-2261

RE: Benton – General
Section 106 Review – FHWA
Request for Technical Assistance
AHTD Job Number ~~070364~~ 090373
Hwy. 264-Hwy. 94 (S)
AHPP Tracking Number: 83649

Dear Mr. Malbrough:

This letter is written in response to your inquiry regarding properties of architectural or historical significance in the area of the proposed referenced project. The staff of the Arkansas Historic Preservation Program has reviewed the documents that pertain to this undertaking and has determined that of the 25 structures impacted, twenty (20) structures (A-I, L, BE0956, O-U, BE0924, BE0933) pictured in the documentation provided with your September 4, 2012, letter are not eligible for inclusion in the National Register of Historic Places while five (5) (BE0877, J-K, M-N) structures are eligible.

Once the undertaking is further along in the planning stages, we look forward to reviewing the cultural resources survey report of the proposed project. If you should have any questions or comments, please do not hesitate to contact Theresa Russell of my staff at (501)-324-9880.

Sincerely,

Frances McSwain

Frances McSwain
Deputy State Historic Preservation Officer

cc: Federal Highway Administration