

EXECUTIVE SUMMARY

FINAL ENVIRONMENTAL IMPACT STATEMENT



SPRINGDALE NORTHERN BYPASS

HIGHWAY 412

Benton and Washington Counties

October 2005

Federal Highway Administration

**Arkansas State Highway
and Transportation Department**

Springdale Northern Bypass
AHTD Job Number 001966
F.A.P.NH-9399(5)

SUMMARY

INTRODUCTION

The Arkansas State Highway and Transportation Department (AHTD), in cooperation with the Federal Highway Administration (FHWA), is proposing to construct a bypass of existing Highway 412 through Springdale. The four-lane, fully controlled access facility (Interstate type) will be located in northern Washington and southern Benton Counties, Arkansas.

A Draft Environmental Impact Statement (DEIS) was prepared and approved for public dissemination on January 31, 2002 for this proposed project. As a result of comments received at the DEIS Location Public Hearing, a decision was made to prepare a Supplemental Draft Environmental Impact Statement (SDEIS). The SDEIS provided additional information to address these comments and to aid in the designation of a preferred alternative to be further examined in the Final Environmental Impact Statement (FEIS). This SDEIS was approved for public dissemination on May 7, 2004.

The proposed project is known as the Springdale Northern Bypass. All alternative alignments begin at an interchange with existing Highway 412 west of Tontitown where the highway presently changes from four to five lanes and will end with an interchange on existing Highway 412 at Beaver Lake. The range of length of the proposed project alternatives under consideration is between 19.8 and 20.6 miles (31.9 and 33.2 kilometers). Both Toll and Non-toll Funding Alternatives are under consideration for each alignment. The communities within the project study area include Springdale, Tontitown, Elm Springs, Bethel Heights, Lowell, and Sonora. The communities of Rogers, Bentonville, Fayetteville, and Cave Springs are near and influence the study area.

Highway 412 is part of a Congressionally-designated High Priority Corridor (HPC) running east and west across northern Arkansas. This project was initiated in 1996 with a Major Investment Study (MIS), followed by the beginning of the Environmental Impact Statement (EIS) in 1998.

Three phases of work are involved in the study process for the Springdale Northern Bypass.

- Phase I includes the Major Investment Study, the Scoping Process, and development of the project's purpose and need.

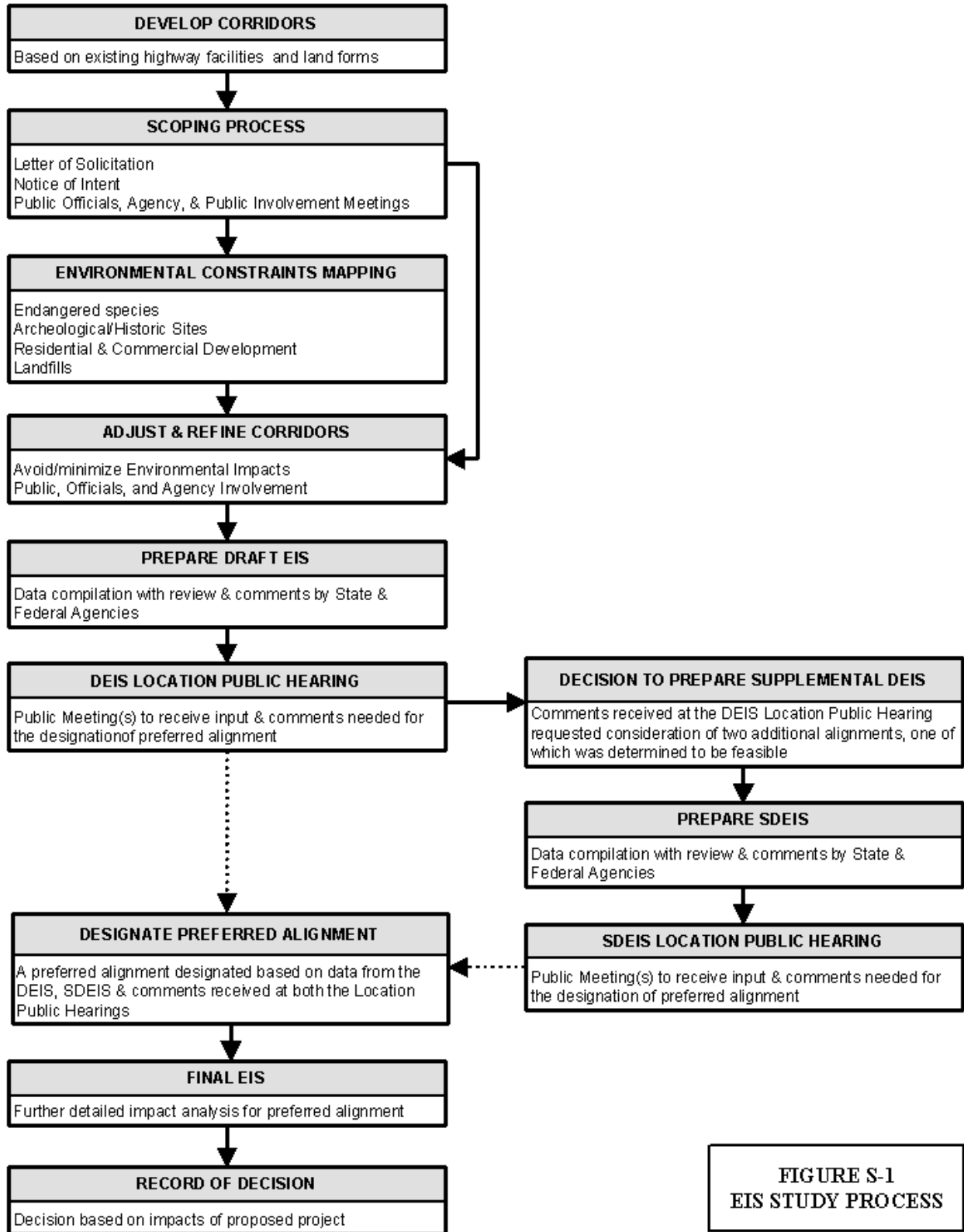
- Phase II includes the development of corridors within the study area, the refinement of alignments within the corridors, the detailed environmental study of those alignments, the preparation of a DEIS, and the designation of a preferred alignment alternative.
- Phase III includes the preparation of a FEIS and a Record of Decision (ROD) that documents the selected alignment decision.

This process ensures that only those alignments that adequately meet the purpose and need of the project are fully evaluated and that those alignments are developed to minimize the potential environmental impacts. Figure S-1 illustrates a simplified flow chart that summarizes the EIS process utilized in the preparation of this document.

PURPOSE AND NEED

To determine the purpose and need of this project, several transportation related issues were examined. These include: the results of the Major Investment Study; the needs of the existing highway system; the condition of the Highway 412 corridor; the current and future capacity of the existing facility; forecast regional growth; transportation demand; intermodal demand; regional long-range planning; existing and future congestion along the existing facility; existing and future delay along the existing facility; and safety of traffic along the existing facility including crash history analysis. Meetings with the general public and local officials were an integral part of the development of the purpose and need. The following is a list of the major points of the purpose and need:

- Function as a link in the Highway 412 High Priority Corridor, as well as the state and regional transportation system
- Improve safety
- Improve circulation
- Improve connectivity
- Improve intermodal access
- Minimize traffic through the cities



**FIGURE S-1
EIS STUDY PROCESS**

In summary, the purpose of this project is to provide safe and efficient movement of traffic within the region while accommodating through and intermodal travelers and alleviating congestion along existing facilities, particularly Highway 412 in Springdale.

ALTERNATIVES DEVELOPMENT AND DRAFT ENVIRONMENTAL IMPACT STATEMENT

A planning level MIS was conducted within the urbanized area of northwest Arkansas. This effort considered several construction and non-construction strategies to implement an improved transportation system. A working group was developed including representatives from area cities and counties, the AHTD, the FHWA, the Metropolitan Planning Organization (MPO) for northwest Arkansas (Northwest Arkansas Regional Transportation Study Policy Committee), and other interested parties. This group ultimately concluded that a new location alignment north of Springdale best met the region's overall needs as developed by the working group, as well as numerous local objectives. This conclusion was adopted by the MPO Policy Committee.

The development of alignments for the Springdale Northern Bypass followed a multi-step approach in order to screen possible highway locations against increasingly more detailed environmental information. Corridor development began by identifying design constraints throughout the project area. Design issues that placed limitations on corridor location included avoidance of undesirable topography and consideration of potential interchange locations.

Environmental constraints such as endangered species habitat, dense residential or business development, and landfills were identified and utilized to refine the placement of the corridors for the bypass. During this process, the corridors were examined and reviewed by the public, local officials, and resource agencies.

This process provided sufficient information to further narrow the corridors into four new location alignments, each with a toll and a non-toll funding alternative, which were advanced to detailed study. Information for each line such as length, lists of interchange locations, grade separations, and estimates of impacts were presented in the DEIS. Improvements along existing Highway 412 were also considered, but would involve several hundred residential and business relocatees, and were eliminated on this basis.

An Environmental Impact Statement is also underway to determine the location for a connector facility between the Northwest Arkansas Regional Airport (NWARA) and either Highway 412 or I-540. From the beginning of the Springdale Northern Bypass and the NWARA Access Road projects, commitments were made to closely coordinate these projects and investigate the possibility of shared roadway sections for the two projects to minimize impacts to the area. This would reduce costs and lessen impacts to the region caused by road construction and operation. As the corridor and alignment studies progressed for the two projects, information used for the NWARA Access Road DEIS was also used in the development of the Springdale Northern Bypass corridors and vice versa.

The January 2002 DEIS for the Springdale Northern Bypass presented information on four alignments. These four alignments were a select group of full-length route combinations comprised of segments that were studied separately. Various segments could be "preferred" and joined together into alignments to utilize those segments that best meet the purpose and need of the project while minimizing overall impacts. The DEIS provided engineering and environmental documentation for all 56 miles (90 kilometers) of the 16 reasonable and feasible route segments utilized within the four alignments.

Location Public Hearings were held in April 2002 to display DEIS study information and maps of the alignments. After a review of comments received from citizens, public officials and public agencies, the next step in the environmental process would normally be to select an alignment based on the information in the DEIS and the public input. The Final Environmental Impact Statement would then complete the analysis of this selected alignment, document the impacts associated with the selected alignment, develop and present any proposed mitigation, and provide justification for the selection.

However, comments received at the public hearing suggested two additional alignments for consideration that were not documented in the DEIS. These additions were a "split interchange" alignment that uses a segment of I-540 as a part of the proposed bypass, and a "northern" alignment. Evaluation of these comments led to the determination that a Supplemental Draft Environmental Impact Statement (SDEIS) would be prepared to document the feasibility and reasonableness of these proposed alignments and compare any identified impacts to the previously evaluated alignment alternatives.

SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

A summary of additions and/or changes presented in the SDEIS follows:

- 1) I-540/Bypass Interchanges and Associated Modifications - New conceptual designs of the directional interchange for the I-540/bypass alignments require the relocation of Wagon Wheel Road and a new I-540/ Wagon Wheel Road local access interchange for Lines 2, 3 and 4. Line 5 would allow the existing I-540/Wagon Wheel Road Interchange to remain.
- 2) Highway 265 Interchange - The Northwest Arkansas Regional Planning Commission and the City of Springdale requested that an interchange be located at Highway 265 (Old Wire Road) instead of the Highway 264 location identified in the DEIS. The new interchange location was studied in the SDEIS along with the secondary impacts that will occur as a result of widening the existing portion of Highway 265 (Old Wire Road) between Lines 3, 4, or 5 and Highway 264. The analysis concluded that the conceptual interchange at Highway 265 would have one less residential relocatee than the interchange planned at Highway 264 and that the potential impacts were not increased by this proposed change. Since Highway 265 is projected to carry more traffic than Highway 264, a decision was made to locate the interchange at Highway 265.
- 3) "Split Interchange" Alignment - Comments received as a result of the DEIS Location Public Hearing requested consideration of an alignment that utilized a existing section of I-540. This alignment would follow the SDEIS Line 2/4 from Highway 112 to an interchange with I-540, merge with I-540 to proceed northward, then pass through another I-540 interchange and proceed eastward along the location of Line 5 in the SDEIS. This "split interchange" alignment was analyzed and determined not to be feasible based on current accepted engineering design principles related to future traffic volumes, overlapping routes, route continuity and weaving movements that would compromise existing safety standards.
- 4) Development of "Northern" Alignment, SDEIS Line 5 - The "northern" alignment crosses I-540 between the Wagon Wheel Road Interchange and the Highway 264 Interchange and is located north of Callahan Mountain. Evaluation by the AHTD and

the FHWA led to the determination that this new alignment, designated Line 5, was feasible and must be fully considered and documented in a SDEIS. This alignment diverges from Lines 2, 3 and 4 east of Highway 112, extends north of Callahan Mountain and rejoins Lines 3 and 4 at Highway 71B. This alignment avoids the Cave Springs recharge area and potential impacts to the associated endangered species.

The four alignments studied in the SDEIS within the center portion (Segments B-E) of the proposed project are shown in Figure S-2 as Line 2 (blue), Line 3 (dashed gold), Line 4 (dashed green) and Line 5 (pink). Two segments of "Preferred Alignment" studied in the DEIS, i.e., Segments A-B and E-F are also shown in Figure S-2, and were combined with the various alignments being studied within Segments B-E for the SDEIS analysis.

FEIS ALTERNATIVE SELECTION PROCESS

The comments received from the DEIS and SDEIS Location Public Hearings and the information in the DEIS and the SDEIS were used to choose an alignment to be carried forward into the FEIS.

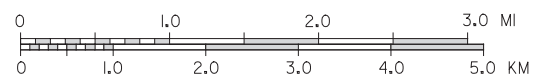
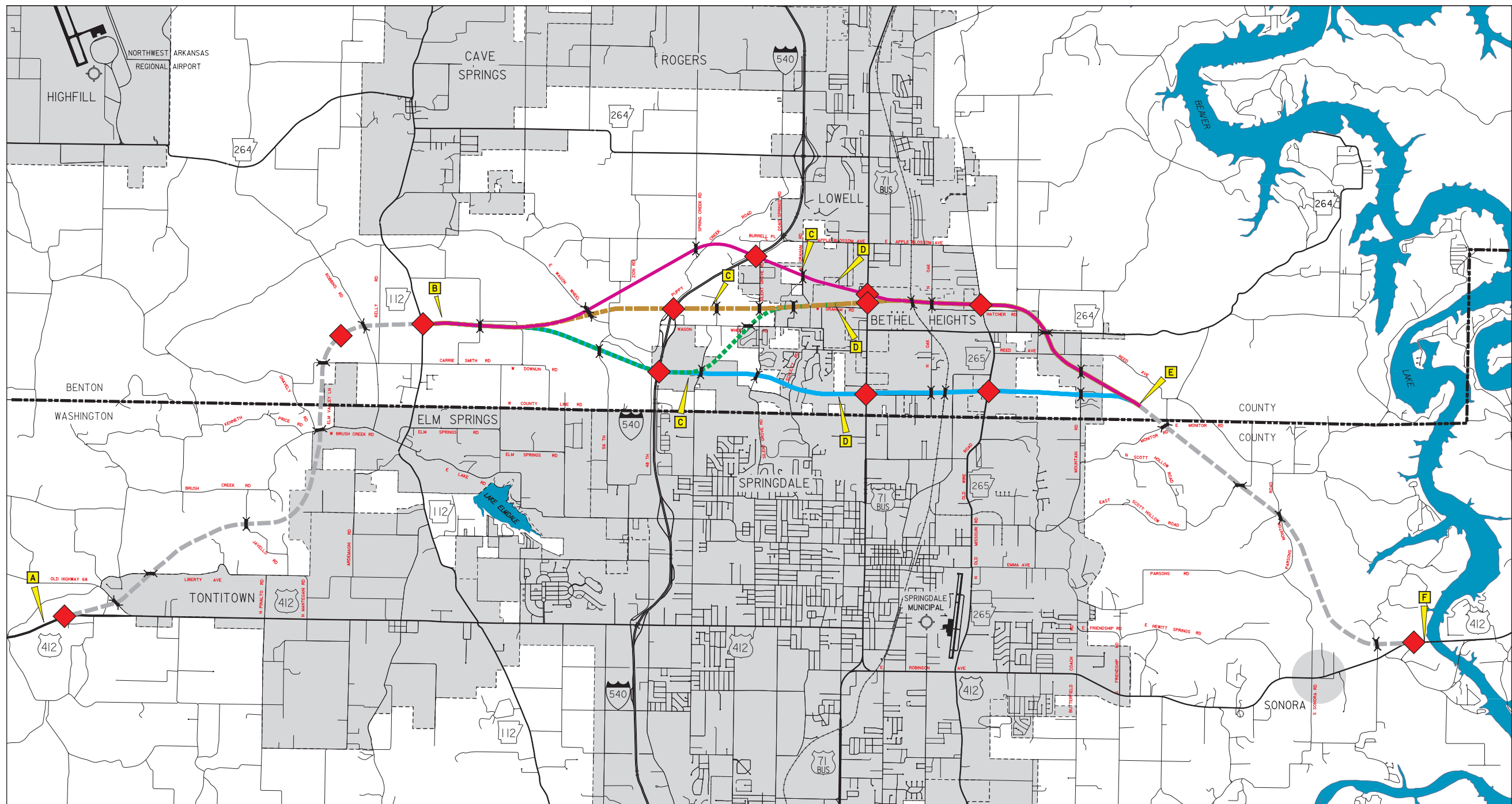
The Interdisciplinary Staff, composed of representatives from various project development divisions of AHTD and FHWA, met and considered the potential impacts, advantages, and disadvantages of the various segments before making a recommendation. Table S-1, the SDEIS Segment B-E Comparison, and Table S-2, the FEIS Alignment Impact Summary, are a portion of the information used as a part of the decision making process. Figure S-3 illustrates the alignments analyzed in the FEIS and briefly discussed in the following sections.

ALIGNMENTS NOT ADVANCED IN THE FEIS

SDEIS Line 2

Line 2 has the highest number of relocatees and noise receptors and directly impacts four subdivisions and a Springdale public school. It also has the highest number of stream crossings and potential impacts to water quality since it requires relocation of the I-540/bypass directional interchange to the Spring Creek floodplain. It would require removal of the existing I-540/Wagon Wheel Road local access interchange and relocate it at

Table S-1 Segment B-E Comparison As Presented in the SDEIS		
Segment B-E	Advantages	Disadvantages
Line 2	<ul style="list-style-type: none"> • Best minimizes community impacts to Bethel Heights • Avoids costs & difficulties associated with crossing active quarry • Requires least estimated ROW • Lowest prime farmland impacts (58 acres) 	<ul style="list-style-type: none"> • 131 estimated total relocatees (highest) • Requires relocation of I-540/Wagon Wheel Road Interchange and Wagon Wheel Road. • Directly impacts four subdivisions and Springdale Public School • Interchange impacts to Spring Creek • Crosses Fitzgerald Mountain • Highest number of noise receptors • Highest number of stream crossings (24) & potential impacts to water quality
Line 3	<ul style="list-style-type: none"> • Avoids subdivision developments • 2nd lowest number of stream crossings (11) 	<ul style="list-style-type: none"> • 77 estimated total relocatees • Requires relocation of I-540/Wagon Wheel Road Interchange and Wagon Wheel Road. • Interchange impacts to Spring Creek • Bisepts Bethel Heights • Crosses active quarry • Highest estimated cost • Highest prime farmland impacts (97 acres)
Line 4	<ul style="list-style-type: none"> • Avoids costs & difficulties associated with crossing active quarry • Lowest number of business relocatees (16) 	<ul style="list-style-type: none"> • 75 estimated total relocatees • Requires relocation of I-540/Wagon Wheel Road Interchange and Wagon Wheel Road. • Interchange impacts to Spring Creek • Bisepts Bethel Heights • Directly impacts one new subdivision • Requires most estimated ROW • 2nd highest number of stream crossings (21)
Line 5	<ul style="list-style-type: none"> • Avoids impacts associated with relocation of I-540/Wagon Wheel Road Interchange and Wagon Wheel Road. • Avoids interchange impacts to Spring Creek • Lowest number of stream crossings (5) & potential impacts to water quality • Lowest number of noise receptors 	<ul style="list-style-type: none"> • 77 estimated total relocatees • Bisepts Bethel Heights • Crosses active quarry • Directly impacts one subdivision development



Legend









-  Preferred Segment
-  Line 2
-  Line 3
-  Line 4
-  Line 5
-  Proposed Overpass
-  Segment Breaks
-  Proposed Interchange

Figure S - 2
Alignments Evaluated
in the SDEIS

This page is intentionally blank.

Table S-2
FEIS ALIGNMENT IMPACT SUMMARY

	Length miles (km)	Acreage (hectares)	Total Cost * (in million \$)	Existing Land Use Converted to Highway Right-of-Way							Cultural Resources-Direct Impacts				
				Commercial acres (hec.)	Residential acres (hec.)	Industrial acres (hec.)	Woodland acres (hec.)	Agricultural acres (hec.)	Prime Farmland acres (hec.)	Farmland of S. I. acres (hec.)	Recorded Archeological Sites	Historic Structures	GLO Resources	Cemeteries	Old Roads
Line 2	19.8 (31.9)	1141 (463)	314	49 (20)	126 (51)	18 (7)	234 (95)	630 (255)	100 (41)	80 (32)	6	2#	1	0	1
Line 3	20.2 (32.5)	1201 (486)	341	55 (22)	104 (42)	79 (32)	175 (71)	615 (249)	139 (57)	88 (36)	2	0	0	0	1
Line 4	20.6 (33.2)	1232 (499)	310	34 (14)	118 (48)	28 (11)	225 (91)	741 (300)	128 (52)	82 (33)	4	1#	2	0	1
Preferred Line 5	20.6 (33.2)	1169 (473)	300	30 (12)	95 (38)	38 (15)	247 (100)	607 (245)	120 (49)	66 (27)	1	1#	0	0	1

#Determined ineligible to National Register of Historic Places

Continued	Relocations									Noise Impacts***		Hazardous Materials Impacts
	Residential Owners	Residential Tenants	Businesses	Farms	Non-Profit Organizations	Total	Minority Households	Elderly Households	Low Income Households	Estimated Receptors - 2004 Traffic	Estimated Receptors - 2024 Traffic	
Line 2	112	18	36	5	3	174	13	11	5	47	79	0
Line 3	61	18	33	3	0	115	3	8	1	19	60	0
Line 4	76	15	23	4	1	119	5	12	5	20	68	0
Preferred Line 5	60	10	43	6	0	114	4	9	2	16	47	0

Continued	Floodplain Impacts			USACE Section 404 Impacts					Surface Water Quality Impact Ratings		
	SFHA** Linear Ft (Lin. Meter)	Floodway Linear Ft (Lin. M)	Long. Encroachments Linear Ft (Lin. M)	Springs	Stream Crossings				Low	Medium	High
					Ephemeral	Intermittent	Perennial	Total			
Line 2	1400 (427)	4050 (1234)	300 (91)	1	9	20	11	40	10	5	1
Line 3	2600 (793)	2140 (652)	1220 (372)	1	8	13	6	27	3	4	1
Line 4	1400 (427)	3550 (1082)	300 (91)	1	9	17	11	37	6	5	1
Preferred Line 5	2600 (793)	600 (183)	0 (0)	1	8	11+	2	21	5	1	0

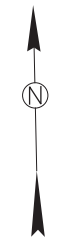
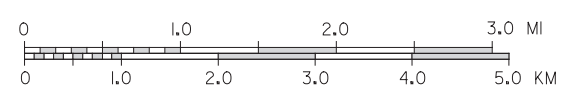
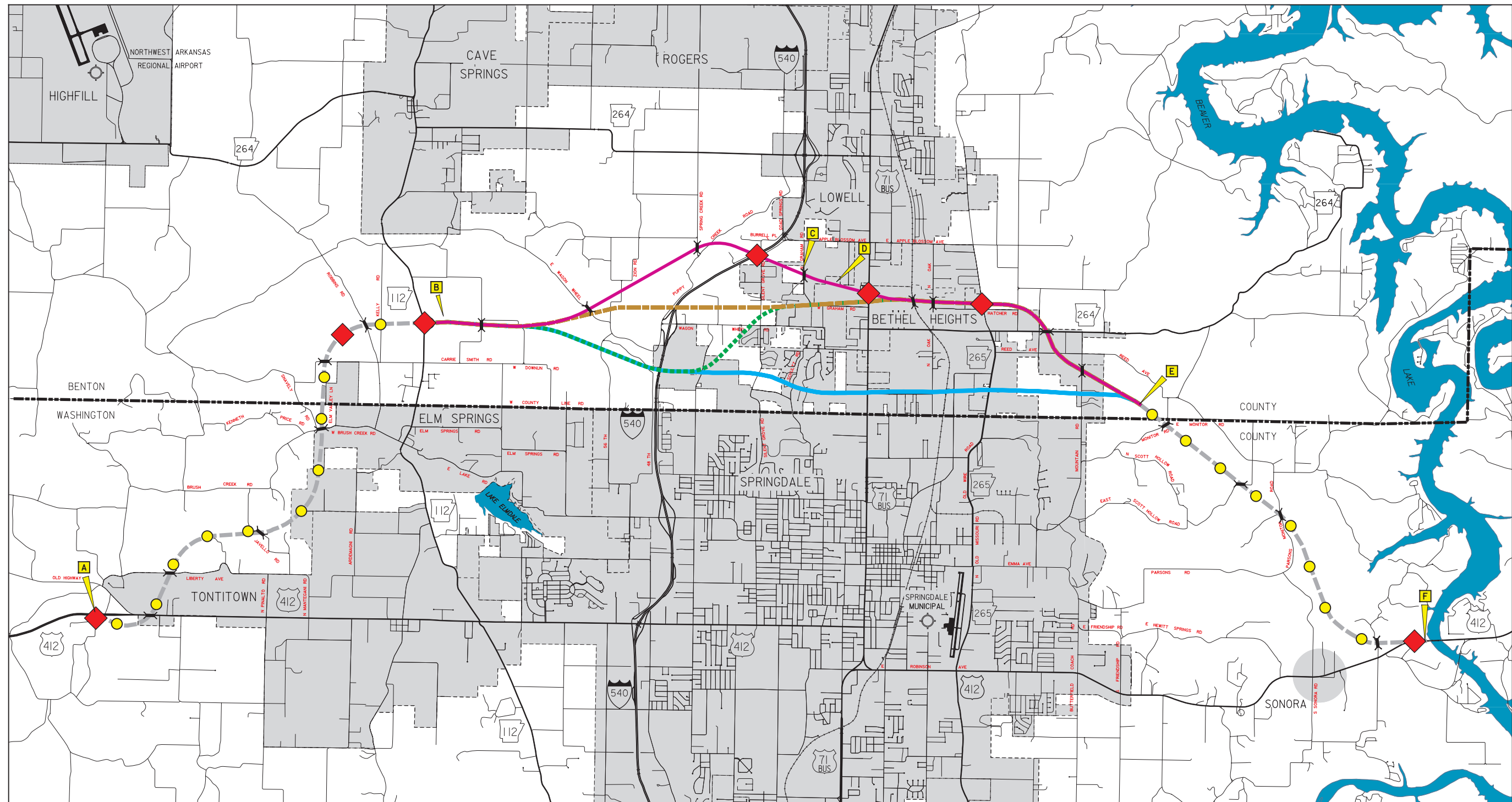
*Includes ROW and Construction costs for the Non-toll Alternative. Toll Alternatives will require an additional \$21 million for toll plazas.

**Special Flood Hazard Area

***Noise receptors with 10 dBA or greater increase using Non-toll Alternative traffic. 10 dBA level receptors also include the receptors that approach the noise abatement criteria (66 dBA).

+ Three adjacent crossings of Puppy Creek on the west side of the Bypass/I-540 Interchange

This page is intentionally blank.



Legend

- Preferred Segment
- Line 2
- Line 3
- Line 4
- Line 5
- Proposed Overpass
- Segment Breaks
- Proposed Interchange

Job Number - 001966
 AHTD/Environmental - GIS - Pearson
 06/03/2005

Figure S - 3
Alignments Evaluated
in the FEIS

This page is intentionally blank.

Spring Creek Road. Also, Wagon Wheel Road would be relocated northward and reconnected to Spring Creek Road, providing access to the new interchange.

The U.S. Fish and Wildlife Service (USFWS) in its comments on the SDEIS expressed concerns over the possibility that reconstructing the local access at this location and connecting Wagon Wheel Road to Spring Creek Road would likely lead to increased secondary development and cumulative impacts to the endangered species in the Cave Springs recharge area.

Generally, the public did not support this alignment, citing its proximity to neighborhoods and schools.

SDEIS Line 3

This line requires the removal of the existing I-540/Wagon Wheel Road local access interchange for construction of a new I-540/bypass interchange. A new I-540/Wagon Wheel Road local access interchange would be built to the south at Spring Creek, and Wagon Wheel Road would be relocated southward to connect to this interchange. This alignment was eliminated from further consideration because of potential impacts to the Spring Creek floodplain and prime farmland impacts. It also had the highest estimated cost of the four alignments studied in the SDEIS related to anticipated bridging over an existing rock quarry.

SDEIS Line 4

The public had concerns similar to those expressed for Line 2, including perceived negative impacts to existing residential areas and subdivisions such as Stone Crest and Eagle Crest Subdivisions. Line 4 would require the largest amount of estimated right-of-way and had the second highest number of stream crossings. As with Line 2, Line 4 would impact the Spring Creek floodplain due to the relocation of the I-540/bypass directional interchange. It would require the removal of the existing I-540/Wagon Wheel Road local access interchange and relocate it northward to Spring Creek Road. Wagon Wheel Road would also be relocated northward to reconnect to the new interchange.

The USFWS expressed the same concerns they had with Line 2 over the possibility that reconstructing the local access at this location and connecting Wagon Wheel Road to Spring Creek Road would likely lead to increased secondary development and cumulative impacts to the endangered species in the Cave Springs recharge area.

ALTERNATIVES BEING CONSIDERED IN FEIS

The following information provides a basic description of the two alternatives that have been chosen to be carried through the environmental study process.

The No-Action Alternative

A No-Action Alternative was retained throughout the study as a basis for comparing the relative benefits and impacts of the alternatives. The No-Action Alternative consists of no improvements to the present system and no expenditures other than regular maintenance of the existing route. The majority of the existing route would remain a five-lane facility. As a result, the LOS and safety issues identified in the Purpose and Need Section would remain and deteriorate to the point at which nearly the entire route would provide poor service to the traveling public. Undesirable LOS problems would exist on Highway 412 in downtown Springdale and service on other nearby facilities would also degrade. Through traffic will continue to increase as the Highway 412 corridor across northern Arkansas is upgraded as part of its designation as a High Priority Corridor. Delays along the highway would be more severe than exist currently and crashes would be expected to increase.

In all but no growth scenarios, No-Action is a deferral of difficult choices. Benton and Washington Counties are experiencing significant growth with the options or choices related to Highway 412 becoming more difficult to make as each year passes. Growth will eventually cause congestion so intolerable that action will not be avoidable or growth will slow. When that time comes, right-of-way acquisition will be more difficult and costly because of increased development in the corridor and the overall increase in property values as development and growth continues to occur in Benton and Washington Counties. The result will be an increase in cost to the community, state, and nation in both environmental and monetary values.

The Preferred Line

Figure S-4 shows the location of the Preferred Line. The selection rationale for the segments being combined for the Preferred Line is given in the following sections.

Segment A-B

This segment extends from the western terminus at existing Highway 412 to the eastern end of the Highway 112 interchange. Figure S-2 shows the SDEIS Preferred Line Segment through A-B, chosen because it has a better alignment and design for an interchange with the NWARA Access Road; encourages concurrent segments with the NWARA Access Road; and minimizes cumulative impacts between the two projects. It also avoids most of the City of Elm Springs, thereby minimizing community disruption and related impacts, and minimizes property severance impacts.

As a result of comments received at the DEIS Location Public Hearings from residents in the area, the conceptual design of the interchange of Highway 412 and the bypass was adjusted to avoid the Brush Creek Subdivision. This change was analyzed after completion of the SDEIS and the revised impacts documented in the impact summary of the FEIS. This proposed change reduced the number of residential relocations in Segment A-B by 13 residences. An additional change was made south of Brush Creek Road, where approximately one mile (1.6 km) of the alignment was shifted slightly south to avoid major electrical transmission lines. Figure S-3 shows the location of Segment A-B as studied in the FEIS.

Segment E-F

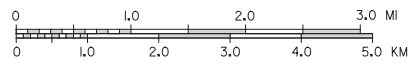
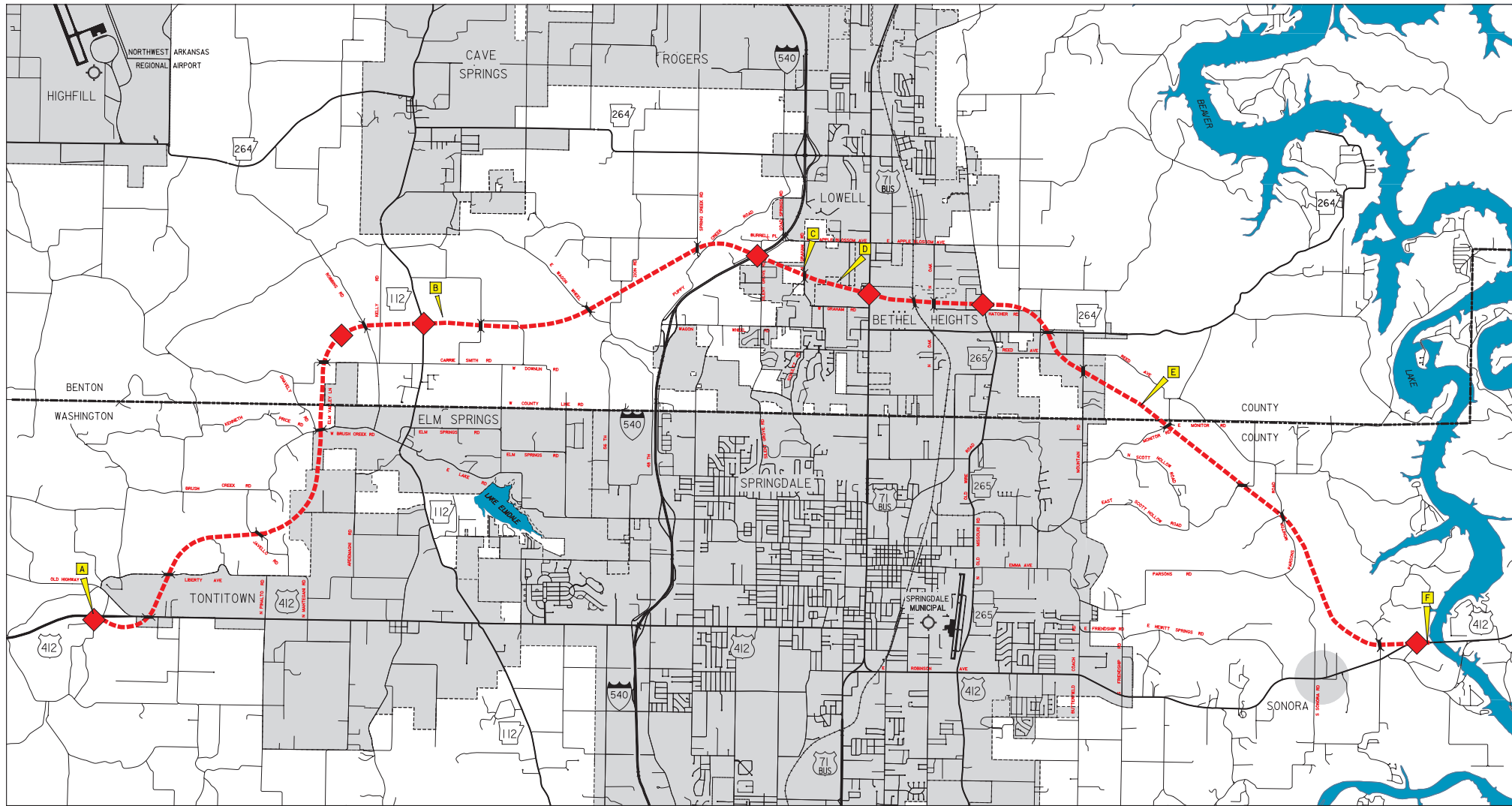
Segment E-F extends from just north of the Benton/Washington County line to the eastern terminus at existing Highway 412. As indicated in the DEIS, there are minimal differences in the social, economic and environmental impacts between DEIS Line 3 and DEIS Line 2/4 through this segment. The City of Springdale commented that DEIS Line 2/4, the more northeastern alignment, would be more consistent with the City's long-range land use plans. Segment E-F, as shown in Figure S-2, was established as the Preferred Alignment through this segment for analysis in the FEIS.

Segments B-C, C-D, and D-E

The AHTD and FHWA evaluated the alignments for social, economic and environmental impacts and traffic analysis. Comments received from resource agencies, public officials, and the public were also evaluated in the decision making process. These evaluations led to the identification of Line 5 from the SDEIS as the preferred alignment for Segments B-C, C-D, and D-E to be carried forward in the FEIS, along with the previously identified Preferred Segments A-B and E-F.

The identification of Line 5 as the Preferred Alignment is based upon its compatibility with existing I-540 and the local street network; minimal number of relocations; lower wetland, floodplain, and water quality impacts; the potential to limit secondary impacts to the Cave Springs recharge area; and public comment. The basis for the choice of Preferred Segments, from information contained in the DEIS, SDEIS, and FEIS is summarized in Table S-3.

Table S-3	
Identification of the Preferred Alignment	
Segment	Basis for Selection of Preferred Alignment
A-B (from DEIS)	<ul style="list-style-type: none"> • Avoids most of the City of Elm Springs • Better alignment and design for interchange with NWARA Access road; encourages concurrent segments with NWARA Access road; and minimizes cumulative impacts • Minimized severance impact to local land owners
B-E (from SDEIS)	<ul style="list-style-type: none"> • Avoids impacts associated with relocation of I-540/Wagon Wheel Interchange and Wagon Wheel Road • Avoids interchange impacts to Spring Creek • Lowest number of stream crossings (5) & potential impacts to water quality • Lowest number of noise receptors • Preferred overall by public and local officials
E-F (from DEIS)	<ul style="list-style-type: none"> • Connects with existing Highway 412 divided four-lane instead of five-lane section • Provides for complete bypass of existing Highway 412 five-lane section through Springdale • More consistent with the City of Springdale's Long Range Land Use Plan



Legend

- Preferred Line
- Proposed Interchange
- Segment Breaks
- Proposed Overpass

Figure S - 4
Preferred Line

This page is intentionally blank.

Line 5 would not require the removal and reconstruction of the I-540/Wagon Wheel Road interchange as would Lines 2, 3 and 4. Line 5 also has considerable support from the public, including the perception that Line 5 would have the least impact on older, established neighborhoods. Line 5 is supported by the Springdale City Council as being compatible with Springdale's Master Street Plan. The number of relocatees for Line 5 (60) is similar to the number relocated by Lines 3 and 4 and the number of noise receptors was the lowest of the alignments. No direct impacts to known cultural resources are anticipated. Additional information and analysis of these social, economic, and environmental issues are presented in Section 4, Environmental Consequences, of the FEIS

The Cave Springs recharge area is inhabited by an endangered cave fish. The USFWS has conveyed concerns that increasing development could impact this species. Selection of Lines 2 or 4 as the Preferred Alignment in Segment B-E could promote secondary development in or near the Cave Springs recharge area by providing local traffic new connectivity from Wagon Wheel Road to Spring Creek Road and a local interchange access point. Line 5 does not allow local access at the I-540/bypass directional interchange near the recharge area. This should therefore limit induced development. Drainage and storm water runoff into the Cave Springs recharge area is a concern, but due to topography of the surrounding lands, runoff from Line 5 would not discharge into the Cave Springs recharge area. Additional commitments for Line 5 have been established that limit access, additional interchanges, and the construction of frontage roads between Highway 112 and I-540. See FEIS Section 7.2.1 in the Comments and Response Section for further information on this issue and the commitments.

SUMMARY OF BENEFICIAL AND ADVERSE IMPACTS

Impacts to the social, economic, natural, and cultural environment would result from construction of any of the alignments evaluated in this document. Many of the perceived benefits that are related to the purpose and need of the project cannot be measured, and are therefore listed as follows.

- 1) Provide a vital link in the Highway 412 High Priority Corridor and the National Highway System, as well as the state and regional transportation system

- 2) Improve connectivity between Highway 412 and I-540
- 3) Improve the connectivity of existing air, rail, truck and bus transportation modes
- 4) Improve efficiency of transportation for the trucking industry and businesses dependent on trucking
- 5) Improve traffic safety
- 6) Provide safe and efficient movement of traffic within the region while accommodating through travelers
- 7) Promote the retention of a higher level of service on the new facility by the construction of a fully access-controlled highway
- 8) In the year 2024, the estimated annual delay is expected to be reduced from 1,870,000 hours to 650,000 hours with the construction of any of the bypass alternatives
- 9) Minimize traffic through cities
- 10) Alleviate congestion along existing facilities

Summaries of the eight most important adverse impact areas for each alignment are included in Table S-2.

OTHER MAJOR FEDERAL ACTIONS IN THE AREA

One other federal action is currently under study in the area. The FHWA and the NWARA Authority is preparing an Environmental Impact Study for the construction of the Northwest Arkansas Regional Airport (NWARA) Access Road to connect the southern entrance of the airport to either I-540 or Highway 412. The NWARA Access Road project is being coordinated with the Springdale Northern Bypass.

OTHER FEDERAL ACTIONS AND PERMITS REQUIRED

The following actions must occur in order to implement this project:

- 1) The issuance of a Section 404 permit by the U.S. Army Corps of Engineers for the placement of dredged and fill material in waters of the United States as required by Section 404 of the Clean Water Act.

- 2) The issuance of a Section 401 Water Quality Certification by the Arkansas Department of Environmental Quality as required by the Clean Water Act.
- 3) The issuance of a National Pollutant Discharge Elimination System (NPDES) Permit by the Arkansas Department of Environmental Quality as required by Section 402 of the Clean Water Act.
- 4) Completion of the Section 106 process for consideration of historic properties in conjunction with the Arkansas Historic Preservation Program and the Advisory Council on Historic Preservation.
- 5) Ongoing coordination with the Cherokee and Osage tribes during the planning and construction stages of the project.

This page is intentionally blank.