

SPRINGDALE NOR SPRINGDALE NOR BYPASS

HIGHWAY 412

Benton and Washington Counties

February 2006

Federal Highway Administration

Arkansas State Highway and Transportation Department

FHWA-AR-EIS-01-01-F Springdale Northern Bypass AHTD Job Number 001966 F.A.P.NH-9399(5)

RECORD OF DECISION

SPRINGDALE NORTHERN BYPASS ENVIRONMENTAL IMPACT STATEMENT

HIGHWAY 412 IN BENTON AND WASHINGTON COUNTIES, ARKANSAS

Federal Highway Administration-Arkansas Division

FHWA-AR-EIS-01-01-F

Federal Project: NH-9399(5)

State Project: 001966

FEBRUARY 2006

TABLE OF CONTENTS

<u>Ti</u>	<u>Citle</u>		
TA	ABLE OF CONTENTS	i	
	ST OF FIGURES		
1	PROJECT OVERVIEW AND HISTORY		
	1.1 PROPOSED PROJECT DESCRIPTION		
2	ALTERNATIVES CONSIDERED		
	2.1 PURPOSE AND NEED		
	2.2 NO-ACTION ALTERNATIVE		
	2.3 ALIGNMENT ALTERNATIVES		
	2.3.1. Modifications to Existing Highway 412		
	2.3.2. DEIS New Location Alignment Alternatives		
	2.3.3. SDEIS Split Interchange Alignment Alternative.	2-4	
	2.3.4. SDEIS New Location Alignment Alternatives	2-4	
	2.4 IDENTIFICATION OF SELECTED ALIGNMENT ALTERNATIVE		
	2.4.1. Basis for Selection of Line Segment A-B	2-9	
	2.4.2. Basis for Selection of Line Segments B-E	2-9	
	2.4.3. Basis for Selection of Line Segment E-F		
3	DECISION	3-1	
4	SUMMARY OF ACTIONS COMPLETED SINCE FEIS	4-1	
5	SUMMARY OF FUTURE ACTIONS	5-1	
6	MEASURES TO MINIMIZE HARM	6-1	
	6.1 MITIGATION COMMITMENTS	6-1	
	6.1.1. Air Quality	6-1	
	6.1.2. Noise	6-1	
	6.1.3. Relocations	6-2	
	6.1.4. Caves and Cave Resources	6-2	
	6.1.5. Floodways and Floodplains	6-3	
	6.1.6. Wetlands and Waters of the U.S.	6-4	
	6.1.7. Surface Water Quality	6-6	

RECORD OF DECISION	SPRINGDALE NORTHERN BYPASS

	6.1.9 Croundwyster Ovality	67
	6.1.8. Groundwater Quality	
	6.1.9. Drinking Water Supplies	
	6.1.10. Terrestrial Flora	
	6.1.11. Terrestrial Fauna	
	6.1.12. Threatened and Endangered Species	
	6.1.13. Cultural Resources	
	6.1.14. Hazardous Materials	
	6.1.15. Pollution Prevention Measures	
	6.1.16. Construction Impacts	
	6.1.17. Secondary and Cumulative Impacts	
	6.2 COMMENTS & RESPONSE FOR DESIGN PHASE	
	6.2.1. DEIS Public Comments	6-11
	6.2.2. SDEIS Agency Comments	6-14
	6.2.3. SDEIS Public Comments	6-14
	6.3 TOLL FUNDING ALTERNATIVE ADDITIONAL COMMITMENTS	6-16
	6.3.1. Noise	6-16
	6.3.2. Economics	6-16
7	SUMMARY OF COMMENTS ON FEIS	7-1
	7.1 PUBLIC COMMENTS	7-1
	7.2 AGENCY COMMENTS	7-2
8	SUMMARY	8-1
	LIST OF FIGURES	
<u>Fi</u>	<u>gure</u>	<u>Page</u>
2	2-1 DEIS Alignment Locations	2-5
2	2-2 Alignments Evaluated in the SDEIS	2-7

3-3

ii

FHWA-AR-EIS-01-01-F

Selected Alignment Alternative

3-1

1 PROJECT OVERVIEW AND HISTORY

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 finalized January 31, 2002 for this proposed project with an identified Preferred Alignment Alternative. 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 was prepared and finalized May 7, 2004. It did not identify a Preferred Alignment Alternative. After comments on the SDEIS were evaluated, the additional information provided in the SDEIS was used in combination with the DEIS to identify a Preferred Alignment Alternative to be examined in the Final Environmental Impact Statement (FEIS). An in-depth analysis of the Preferred Alignment Alternative was conducted and the results were documented in the FEIS, finalized October 6, 2005.

1.1 PROPOSED PROJECT DESCRIPTION

The proposed project will provide a bypass of heavily traveled routes through Springdale, Arkansas, utilizing a four-lane, divided, fully controlled access cross-section (Interstate type). Alignment alternatives are located in northern Washington and southern Benton Counties, Arkansas. The facility will have two twelve-foot (3.6-meter) travel lanes in each direction separated by a variable width median. Right-of-way requirements will vary depending on the depth of cut or height of fill, but are estimated to average about 300 feet (90 meters). Toll and Non-toll (free) Funding Alternatives are under consideration. The American Association of State Highway and Transportation Officials' design standards for Interstate type facilities specify divided lanes with a design speed of 70 mph (110 km/h), and these standards will be used for this project.

All alignment alternatives evaluated in the SDEIS begin with an interchange at existing Highway 412 west of Tontitown [approximately 6.5 miles (10.5 km) west of Interstate 540 (I-540)] where the existing highway presently transitions from four lanes with a divided median to five lanes. All alignment alternatives have an eastern terminus at an interchange

with existing Highway 412 between the eastern Springdale city limits and Beaver Lake. At these termini locations, the existing highway's five-lane cross-section transitions to four lanes with partial access control. Using these termini for the proposed project would provide a complete bypass of the uncontrolled access portion of Highway 412 through the study area.

In addition to the interchanges with existing Highway 412 at the eastern and western termini of the project, interchanges are proposed at Highway 112, I-540, Highway 71 Business (Highway 71B), and Highway 265 (Old Wire Road) where crossed by the Selected Alignment Alternative.

There is a Draft Environmental Impact Statement (DEIS) currently in progress to determine the location of an access road from the Northwest Arkansas Regional Airport (NWARA) to Highway 412 or I-540. The location of both the selected bypass' alignment and the airport access road alignment will determine the need for and the location of an additional interchange with the access road.

2 ALTERNATIVES CONSIDERED

The Selected Alignment Alternative was identified through an extensive evaluation process that examined a range of potential solutions to the Highway 412 transportation needs in the Springdale area. The process began with a Major Investment Study (MIS) conducted at the planning level with a multi-disciplined MIS Working Group. This group began by developing local transportation needs and objectives. Based on those identified needs and objectives, the Working Group then examined several potential solutions, including travel demand management, transit alternatives, and construction. The proposed solutions were assessed for their potential to meet the established objectives. Those solutions that did not meet a majority of the objectives were discarded.

The potential solution that remained was construction of an interstate-type facility as a Highway 412 northern bypass of the Springdale area. This solution was evaluated in an Environmental Impact Statement. An alternative involving modifications to the existing Highway 412 facility and the No-Action Alternative were also evaluated. That detailed evaluation was described in the DEIS, SDEIS, and FEIS prepared for the proposed project. The evaluation process and factors that led to FHWA's final decision discussed in Section 3 are summarized in the following sections and described in greater detail in Section 2 of the FEIS.

2.1 PURPOSE AND NEED

The purpose of this project is to provide safe and efficient movement of traffic within the region while accommodating through and intermodal traffic, and alleviating congestion along existing facilities. Several factors demonstrate the need for action, including:

- Highway 412 was designated as a High Priority Corridor by ISTEA in 1991, and is the only east-west arterial that completely traverses the Northwest Arkansas Regional Transportation Study area.
- Development trends indicate increasing traffic throughout this corridor. The traffic increase is due to continuing development along Highway 412; high growth in the surrounding urban and suburban areas, especially to the north of Highway 412; and

the construction and operation of the nearby Northwest Arkansas Regional Airport (NWARA).

- The NWARA, the Arkansas and Missouri Railroad that serves the industrial areas, and several large trucking firms headquartered within or near the study area validate the need for improved intermodal connectivity and the accommodation of future intermodal transportation demand.
- Congestion is high along Highway 412, as traffic is currently operating at a Level of Service E through some sections of existing Highway 412 within the study area. Under the congested conditions existing on Highway 412 within the study area, an estimated 1,879,000 hours of time will be lost annually by 2024. Lost time is based on the difference in travel time based on the speed limit and actual travel time. Actual travel time was derived from both Level of Service calculations and a speed-flow study.
- A three-year analysis indicates a higher than statewide average for crash rates for most of the sections under study on Highway 412.

The proposed project's Purpose and Need are described in more detail in Section 1 of the FEIS.

2.2 NO-ACTION ALTERNATIVE

The No-Action Alternative would not satisfy the identified Purpose and Need for the project, and there was no strong public support expressed for it. It was included in the alternatives evaluated in the EIS as required by the National Environmental Policy Act (NEPA) and served as a baseline for the comparison of the potential impacts of the other alternatives.

2.3 ALIGNMENT ALTERNATIVES

The alignment alternatives evaluated in the EIS were developed using a two-step process. Corridors were developed based on the criteria that they: 1) met the purpose and need of the project, 2) met the required design criteria, 3) avoided or minimized impacts to known sensitive resources, and 4) addressed input from local officials, Federal agencies, state agencies, and the public. Some corridors and connectors between corridors were dropped from consideration or modified based on discovered constraints. Others were added or modified based on a reconsideration of the logical termini.

The second step of the study developed alignments within the remaining corridors that were then carried through the alignment comparison process.

Comments received at the DEIS Location Public Hearing suggested two additional alignments for consideration that were not presented in the DEIS. Evaluation of these comments led to the determination that a SDEIS would be necessary to document the feasibility and reasonableness of these proposed alignment alternatives and compare them against the four previously evaluated alignment alternatives presented in the DEIS.

All of the alignment alternatives considered during the process are briefly discussed in the following sections, and in more detail in the DEIS, SDEIS, and FEIS.

2.3.1. Modifications to Existing Highway 412

Various reconstruction concepts were considered during the MIS process, including widening along existing Highway 412. These concepts were determined not to meet many of the objectives and needs for the project.

In the DEIS, construction of a fully controlled access facility was studied along the existing highway. This alignment alternative would have improved safety, separated through and local traffic, and improved circulation and connectivity while utilizing a developed highway corridor. However, this alignment alternative was eliminated from further consideration because of the substantial right-of-way impacts, including numerous relocations, the resultant social disruption, and the substantially higher estimated costs.

Construction of an elevated freeway over existing Highway 412 was also discussed in the SDEIS. This alignment alternative was also eliminated from further consideration because of the substantial right-of-way impacts, including numerous relocations, the resultant social disruption, and the substantially higher estimated costs.

2.3.2. DEIS New Location Alignment Alternatives

Four new location alignment alternatives were presented in the DEIS. These alignments are shown in Figure 2-1. 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 an alignment alternative to utilize those segments that

best met the purpose and need of the project while minimizing the 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.

2.3.3. SDEIS Split Interchange Alignment Alternative

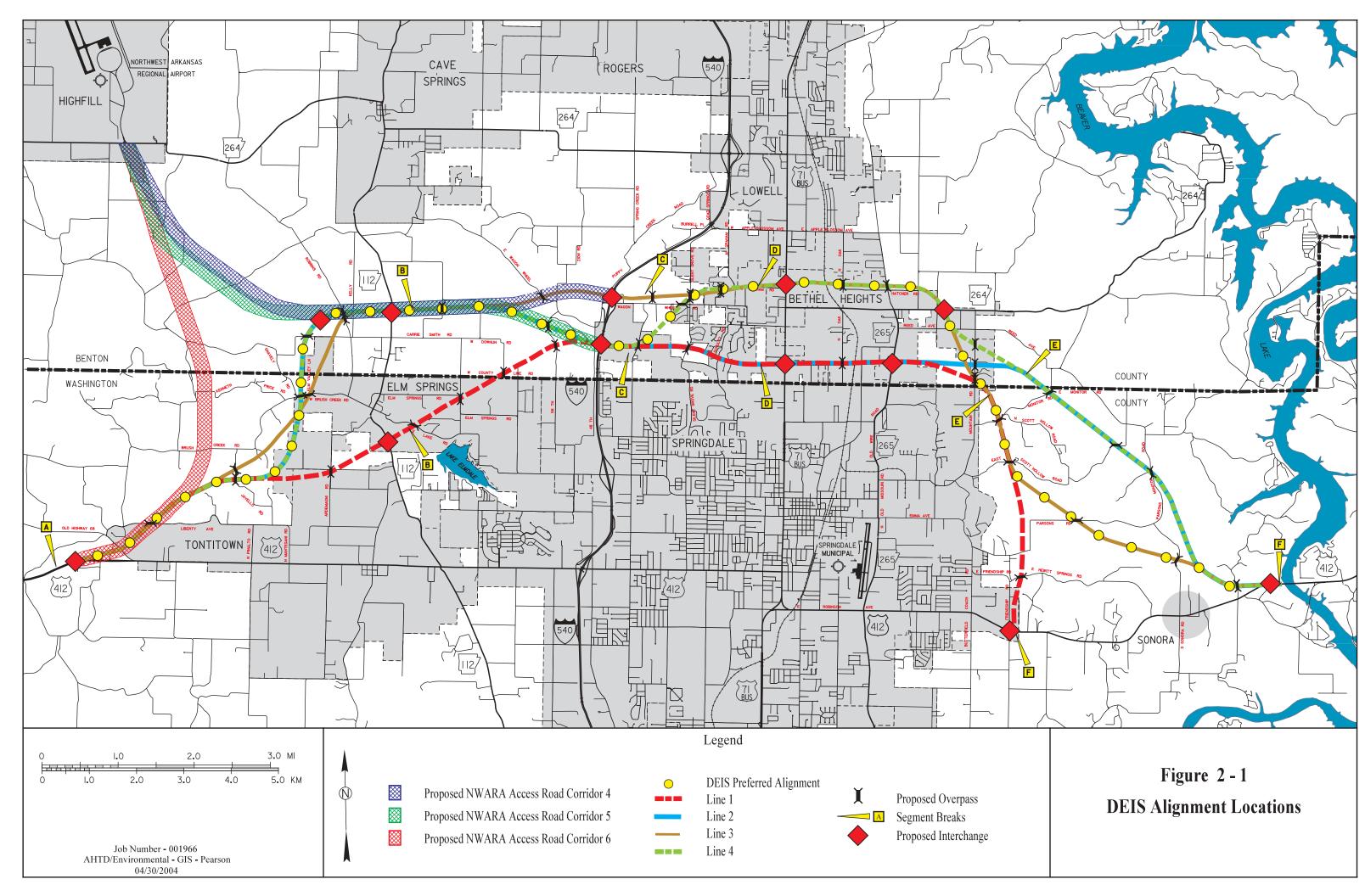
An alignment alternative was proposed by the public at the DEIS Location Public Hearing that utilized an approximately two mile (3.2 kilometer) segment of I-540. This alignment was studied and eliminated, with the resulting information presented in the SDEIS. The determination was made that this alignment alternative was not feasible based on current accepted engineering design principles related to future traffic volumes, overlapping routes, route continuity, and weaving movements. This alignment is discussed in more detail in Section 2.3.4.3 of the SDEIS.

2.3.4. SDEIS New Location Alignment Alternatives

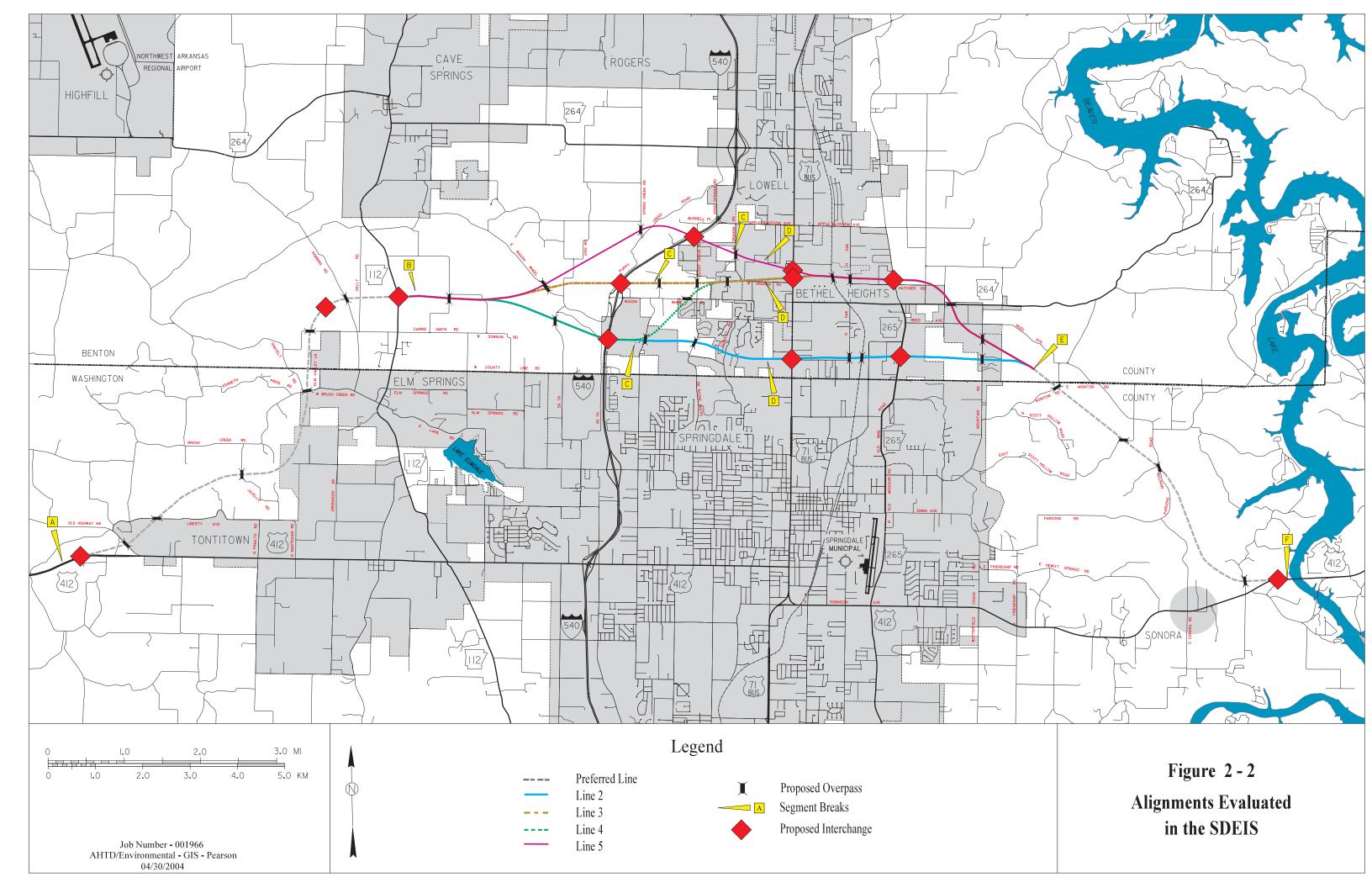
The scope of the SDEIS was limited to the portion of the project that contained the newly developed "northern" alignment and the center portion of the alignments previously studied in the DEIS. Two "Preferred Line Segments," one at the western end and one at the eastern end of the proposed project, were identified as a result of the DEIS process, and were utilized in combination with the center segments for the SDEIS analysis. These alignments and segments are shown in Figure 2-2.

2.4 IDENTIFICATION OF SELECTED ALIGNMENT ALTERNATIVE

The two Preferred Line Segments identified from the DEIS study process, combined with the identification of Preferred Line Segments from the SDEIS study process, led to the identification of a Preferred Alignment Alternative in the FEIS. This Preferred Alignment Alternative became the Selected Alignment Alternative designated in Section 3 and shown in Figure 3-1.



This page is intentionally blank.



This page is intentionally blank.

2.4.1. Basis for Selection of Line Segment A-B (from DEIS)

Segment A-B was designated from the western terminus at existing Highway 412 to Highway 112. The DEIS study alignment alternatives followed three routes through this segment. DEIS Line 2/4 Segment A-B was selected because it has a better alignment and design for an interchange with the proposed NWARA Access Road and will thus provide better intermodal connectivity; it encourages concurrent segments with the NWARA Access Road and thus minimizes cumulative impacts between the two projects; it avoids most of the City of Elm Springs, thereby minimizing community division and related impacts; and minimizes property severance impacts through this segment better than the other alignments. Additional information and analyses of these issues is presented in Section 4 of the DEIS and SDEIS.

2.4.2. Basis for Selection of Line Segments B-E (from SDEIS)

Line Segments B-E extend from Highway 112 to just north of the Benton/Washington County line. The SDEIS study alignment alternatives followed four routes through these segments of the study. SDEIS Line 5 was selected based upon its compatibility with existing I-540 and the local street network; minimal number of relocations; lower potential wetland, floodplain, and water quality impacts; the potential to limit secondary impacts to the Cave Springs recharge area and the associated endangered and threatened species; and public comment. Line 5 will not require removal and reconstruction of the I-540/Wagon Wheel Road interchange as would the other alignments studied; it is supported by the City of Springdale City Council as being compatible with Springdale's Master Street Plan; the number of potential relocatees is lower than or similar to the other alignments; the number of potential noise receptors was the lowest of the alignments studied; and as expressed through the SDEIS Location Public Hearing comments, has considerable public support. No direct impacts to known cultural resources are anticipated. Additional information and analyses of these issues are presented in Section 4 of the FEIS.

2.4.3. Basis for Selection of Line Segment E-F (from DEIS)

Line Segment E-F was designated from just north of the Benton/Washington County line to the eastern terminus at existing Highway 412. The DEIS study alignment alternatives

followed three routes through Segment E-F. Two alignments had fewer estimated impacts than the third, but there were minimal differences in social, economic, and environmental impacts between those two. Of these two alignments, DEIS Line 2/4 Segment E-F was selected because the City of Springdale commented that it would be more consistent with the City's long-range plans. Additional information and analyses of these issues are presented in Section 4 of the DEIS and SDEIS.

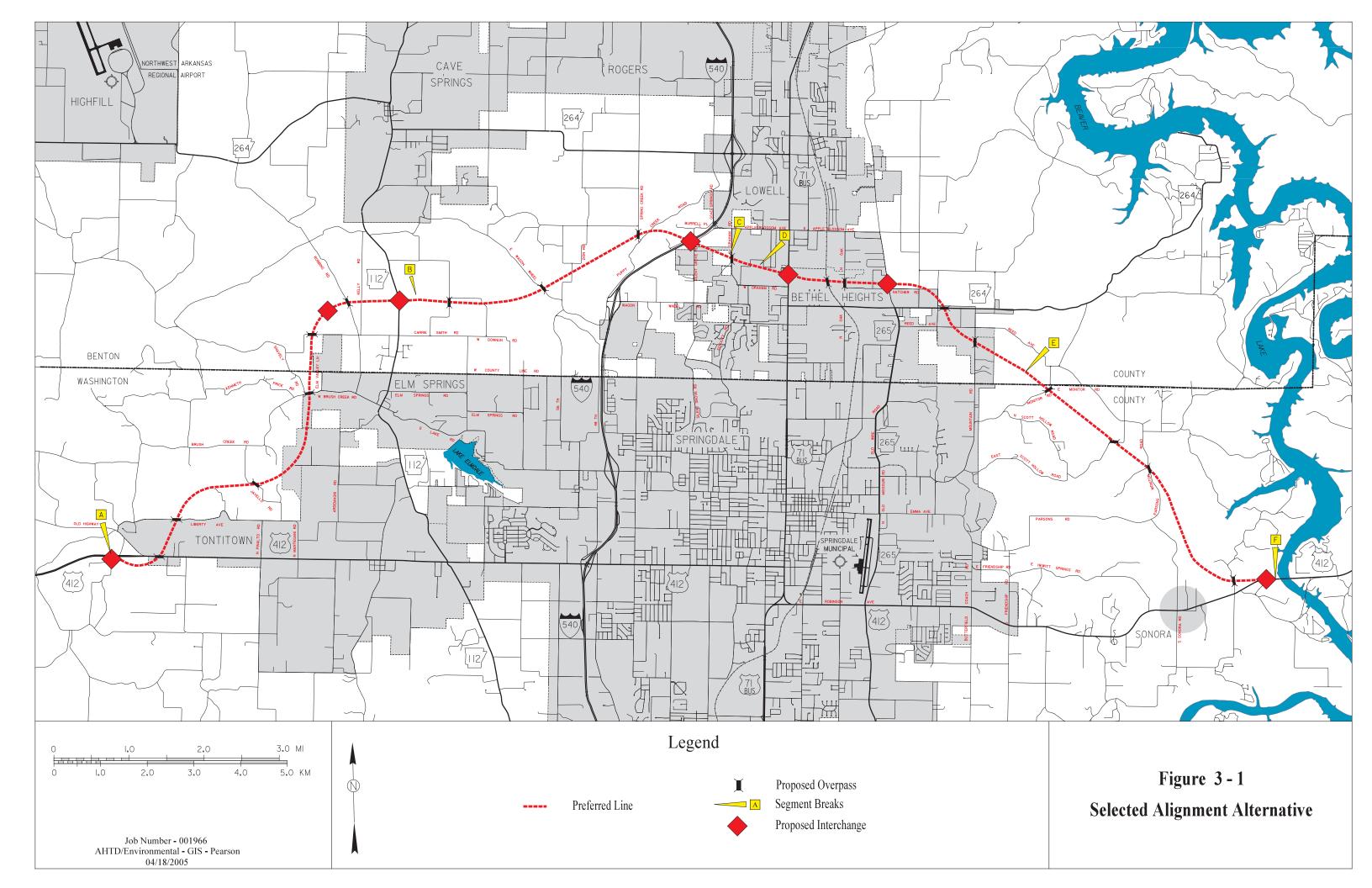
3 DECISION

Based on environmental studies, agency coordination, the public input process, and in accordance with the National Environmental Policy Act, FEIS Alternative Alignment (Line) 5 was identified as the Selected Alignment Alternative (Figure 3-1).

As summarized in the preceeding sections and in greater detail in the FEIS, the Selected Alignment Alternative is the environmentally preferred alternative that will sufficiently address the Purpose and Need for action while balancing important environmental, community, and economic values. This alignment provides the best transportation solution that also minimizes harm to the environment to the extent practicable. While some of the other alternatives, such as travel demand management and transit alternatives, may have lesser impacts on certain environmental resources, those alternatives do not provide a sufficient solution to the region's long-term transportation needs and their selection would not be reasonable or prudent. The Selected Alignment Alternative also incorporates extensive measures to avoid, minimize, and mitigate potential harm to the region's natural and human environment. The United States Environmental Protection Agency (USEPA) has given a Lack of Objection rating to the proposed project as described in the SDEIS. The USEPA letter, dated July 23, 2004, can be found in the FEIS Section 7.2.1.

The study for the proposed project also evaluated impacts for Toll and Non-toll Funding Alternatives. Each alignment analyzed represented two funding alternatives with identical location, corresponding to a Toll and Non-toll (free) Funding Alternative. The Selected Alignment Alternative is also the Non-toll Funding Alternative. In the future, if a decision is made that a toll facility will be needed, environmental documentation will be prepared to address those additional impacts that could result from the construction and operation of a toll facility.

This page is intentionally blank.



This page is intentionally blank.

4 SUMMARY OF ACTIONS COMPLETED SINCE FEIS

Since completion of the FEIS, FHWA participated in funding a study to delineate the recharge area for the spring complex along Brush Creek that is believed to support *Cambarus aculabrum* (Cave Crayfish). The preliminary report of this study has led the U.S. Department of Interior to concur that the proposed project will not impact the recharge area, and that further Section 7 consultation is not warranted in relation to this occurrence of the listed species.

This page is intentionally blank.

5 SUMMARY OF FUTURE ACTIONS

As a result of the environmental evaluation of the Preferred Alignment Alternative, a number of identified future actions are necessary in conjunction with the design development and construction phases of the project. The following is a list of these actions:

- Mitigation Plan Coordination AHTD will coordinate the development of a stream mitigation plan with the U.S. Army Corps of Engineers, if required, during the Section 404 permitting process.
- US Fish and Wildlife Service Coordination (USFWS) AHTD will informally coordinate design and construction activities with the USFWS.
- Cultural Resources Investigation AHTD will fulfill the cultural resources commitments in conjunction with the design and construction phases as described in Section 6.1.14 of the FEIS. Consultation between FHWA and the appropriate Native American Tribe(s) will be maintained in accordance with 36 CFR Part 800.4(a) of the National Historic Preservation Act.
- Water Pollution Control AHTD will coordinate the development and implementation of water pollution control measures as a part of the design development and construction process.
- Design Evaluation Commitments A number of commitments were made in Section 5 of the FEIS concerning issues that would be evaluated during the design phase. These design commitments are detailed in Sections 6 and 7.1.
- Contract Special Provisions Included in the project contract will be a number of project specific Special Provisions. These will include Section 404 Permit Requirements, a Storm Water Pollution Prevention Plan, Migratory Bird Protection and Cave Discovery.

This page is intentionally blank.

6 MEASURES TO MINIMIZE HARM

Throughout the project development process, alternatives were developed and will be designed to avoid and minimize, to the extent practicable, impacts to environmental resources. Mitigation commitments for unavoidable impacts were established in Section 5 of the FEIS, including conceptual measures that will be further developed during the design and/or construction phases.

6.1 MITIGATION COMMITMENTS

The mitigation measures contained in this section will be implemented during the design and construction phases of the project. Approval of the project as per this Record of Decision (ROD) is dependent upon mitigation commitments being honored.

6.1.1. Air Quality

During construction, the selected contractor will minimize air quality impacts through a combination of fugitive dust control, equipment maintenance, and compliance with state and local regulations.

6.1.2. Noise

For all areas where noise impacts would be most notable, noise abatement (i.e., barriers) would have to be constructed between the road and the receiver in order to effectively abate the noise being produced by the traffic. These areas are located in the more dense residential developments in the study corridor and will be reviewed in future studies to determine the reasonableness and feasibility of noise mitigation.

The AHTD's policy of "reasonableness" and "feasibility" will be applied to the residential areas near the selected alignment that are identified as having the potential to be impacted by noise. Based upon the preliminary data related to noise contour information, the following residential areas warrant additional and detailed studies for noise barrier analysis:

- 1) Residential development near Kimberly Place,
- 2) Residential development in Old Highway 68 area and Brush Creek Subdivision,

- 3) Churchill Subdivision adjacent to Brush Creek Road,
- 4) Belmont Estates Subdivision adjacent to Silent Grove Road, and
- 5) Residential development on Walden Street.

This detailed noise mitigation analysis will be conducted as part of the design phase of the selected alignment. The focus of this analysis will be in the segments that currently have existing and/or expanding residential development. The current residential development within the study area is increasing the number of sensitive receptors on a continuing basis. These changes will be evaluated and considered during the noise barrier feasibility evaluation.

6.1.3. Relocations

Further steps to minimize relocations will be considered during final project design. Where avoidance is not possible, the acquisition and relocation process will be conducted in accordance with the Uniform Relocation Assistance and Real Property Policies Act of 1970 (Public Law 91-46) and the AHTD relocation policies and procedures as described in Appendix J of the FEIS. Relocation resources are made available to all residents and businesses without discrimination and comparable to the need of the relocatees.

6.1.4. Caves and Cave Resources

Efforts will be made during the design, construction, and operations stage to minimize the impacts to and to protect the cave habitat of the Split Cave system near Beaver Lake and any other caves discovered on the right-of-way.

After access is obtained, the proposed right-of-way will again be surveyed for karst features, such as cave openings and sinkholes. 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.

6.1.5. Floodways and Floodplains

Benton and Washington Counties both participate in the National Flood Insurance Program. All of the floodplain and floodway encroachments previously identified will be designed to comply with the respective county's local flood damage prevention ordinance. The local ordinances prohibit any new construction within the boundaries of any identified regulatory floodway(s) that would cause any increase in flooding depths on upstream, or adjacent, Similarly, the local ordinances require that the cumulative effects of all construction within any identified 100-year floodplain or Special Flood Hazard Area may not cause more than one foot (0.3 meter) of increase in flooding depths anywhere within the community. The AHTD's internal policy is to design projects within these areas so that any permanent construction within an identified 100-year floodplain, or Special Flood Hazard Area, may not cause an increase in flooding depths during passage of the 100-year flood if there are any existing insurable buildings within the boundaries of the floodplain with floor elevations below the current 100-year flood elevation. Additionally, increases in flooding depth caused by any new construction may not cause other insurable buildings to be flooded during passage of the 100-year flood. During the project design, hydraulic data and construction plans will be submitted to the counties for review, approval and/or permitting as specified by their ordinance.

In the design phase of the project, surveys of the alignment and stream crossing areas will be made, and the current effective flood insurance study models will be obtained (or constructed if not available). The surveys will provide the information required to develop a preliminary project design including roadway embankment and bridge locations, heights, lengths, and widths that will be used to perform hydraulic model modifications to determine the effects of the project's construction on potentially impacted floodplains. The hydraulic model modifications will be made prior to the completion of the final project design, and the information will be available to the communities when a floodplain development permit/approval is requested from them.

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. Adjacent properties should not be impacted nor have a greater flood risk than existed before construction of the project. None of the

encroachments will constitute a significant floodplain encroachment or a significant risk to property or life.

For all of the streams previously identified, bridging and/or other large drainage structures will be used to span most of the streams' natural floodplains in order to comply with the local floodplain development ordinance restrictions on increasing upstream flood depths. The construction will not cause a significant reduction of floodwater storage or retention functions. 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, aquaculture, forestry, natural moderation of floods, water quality, maintenance, and groundwater recharge. The project will be designed so as to minimize adverse impacts to streams, and to correct any project-related impacts that may destroy, diminish, or impair the character and function of those streams.

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 interruption or termination due to flooding. The project will be on new location, so detours for bridge construction will not be required.

Cumulative impacts to floodplains related to other past and reasonably foreseeable future actions would be related to interchange locations with other proposed transportation projects. Currently, the NWARA Access Road, the Eastern Fayetteville Bypass Corridor, and the Eastern Bypass to Rogers are the only major highway projects in the foreseeable future. As with the current bypass project, floodplain impacts will be minimized on these projects through location and design considerations.

6.1.6. Wetlands and Waters of the U.S.

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 System (NPDES); and Section 404, Permits for Dredged or Fill Material.

Commitments to minimize harm to streams and springs are as follows:

- Springheads will be avoided to the maximum extent practicable.
- Context sensitive design will be utilized in areas where springs are present.
- Dredged or fill material used for construction will be nonpollutional material in accordance with EPA Guidelines for the Discharge of Dredged or Fill Material found in 40 CFR 230.
- All construction activity will be performed in a manner that will minimize increased turbidity of the water in the work area and otherwise avoid adverse effects on water quality and aquatic life.
- All dredged material not used as backfill will be placed on land and no runoff water from the disposal site will be allowed to enter the waterway.
- The discharge will not be located in the proximity of a public water supply intake.
- Erosion, both during and after construction, will be controlled as outlined in the latest edition of the AHTD's Standard Specifications for Highway Construction.
- The project will not significantly disrupt the movement of those species of aquatic life indigenous to the water body.
- Temporary work ramps or haul roads, when needed, will provide sufficient waterway openings to allow the passage of expected high flows.
- Precautions in the handling and storage of hazardous materials, including lubricants and fuels, will be taken to prevent discharges or spills that would result in degradation of water quality.
- Stream Mitigation (if required) will be determined by the USACE during the Section 404 permit application process. At that time, preliminary plans will be available for each stream crossing. Further information relating to stream mitigation will be contained in the Section 404 permit application documents.
- Commitments to protect wetlands will include:
- Wetland areas will be avoided to the maximum extent practicable.

- Wetlands outside the construction limits will not be used for construction support activities (borrow sites, waste sites, storage, parking access, etc.).
- Heavy equipment working in wetlands will be placed on mats.

6.1.7. Surface Water Quality

In the design phase of the project, field investigations will be conducted in order to minimize water quality impacts through planning and design. Stream crossings will be located to maximize protection of wetlands, wildlife, and water quality. Erosion control will be an important component for water quality protection in this area due to the steep slopes and fine textured soils. Site-specific erosion control plans will be developed for the project and reviewed by the Arkansas Department of Environmental Quality (ADEQ). Some in-stream work will be required to complete this project regardless of the alignment chosen. Even with extensive controls in place, this construction in and around streams could result in localized, short-term, adverse water quality impacts, including exceedances of state water quality standards. A short-term activity authorization (ADEQ Regulation 2) will be obtained from the ADEQ for these activities.

Special provisions during the design and construction phase will be utilized to minimize surface water impacts from this project.

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 System Permit (NPDES); and Section 404, Permits for Dredged or Fill Material.

Any construction disturbing an area of one acre (0.4 hectare) or more in Arkansas is required to comply with NPDES regulations for storm water discharge from construction sites as issued by the ADEQ. The AHTD will prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the permit. Before construction begins, the AHTD will file the requisite Notice of Intent with the ADEQ. The SWPPP will 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.

General measures to be used to manage highway storm water runoff include curb elimination, litter control, good management usage of deicing chemicals and herbicides, establishment and maintenance of vegetation, and reducing direct discharges to receiving waters wherever practicable.

Specific measures to be considered and used for management of a potential pollution problem include grassed channels, overland flow through vegetation, wet detention basins, infiltration basins, and wetlands.

During construction or after the facility is operating, runoff impacts may be caused by spills of materials. If a material spill should occur during construction, clean-up procedures are followed as outlined in the AHTD's Standard Specifications for Highway Construction. Measures taken to ensure accidental spill and runoff control while the facility is operating are coordinated by the Arkansas State Police, the Arkansas Highway Police, the AHTD, and a contracted hazardous spill containment team. The State Emergency Operations Center's HAZMAT Hot Line is notified for official notification and response.

6.1.8. Groundwater Quality

The Selected Alignment Alternative may impact some existing springs, either by disruption of their recharge areas or contamination during construction. If the impacted springs are used for domestic or agricultural purposes, damages will be paid or provisions made to replace the water.

Special provisions and actions will be required during the design and construction phase to protect the Springfield Plateau aquifer, especially if any spring locations will be impacted by the proposed project. These commitments will include ditch paving through highly vulnerable areas including areas where conduits directly leading to the groundwater are discovered during construction. Coordination with State and Federal Agencies involved with groundwater quality protection will be conducted as needed when concerns are identified.

6.1.9. Drinking Water Supplies

If any permanent impacts to private drinking water sources occur as a result of this project, the AHTD will mitigate these impacts by providing an alternative water source, either by drilling a new well or connecting the residents to a community or rural water system.

6.1.10. Terrestrial Flora

Direct application of appropriate herbicides will be a part of the AHTD's right-of-way management program in order to combat the invasive species Johnson grass.

6.1.11. Terrestrial Fauna

Bird species that are protected by the Migratory Bird Act Treaty could be impacted by this project. Nesting habitat for migratory bird species will be cleared and grubbed during the construction phase. Existing bridges, culverts and other structures provide nesting sites for migratory birds. Netting of the structures may occur before nesting and brood raising activities begin to prevent nest disturbance and/or destruction of nestlings during construction activities. If the structure is being utilized by migratory birds as nesting habitat, demolition will not be permitted from March 1 through September 30. Every attempt will be made, where practicable, to schedule construction clearing and grubbing activities so that they do not occur during the primary nesting season for migratory birds.

6.1.12. Threatened And Endangered Species

The Selected Alignment Alternative lies outside the delineated Cave Springs recharge area, and therefore should not directly impact the listed species utilizing the cave habitat. However, the USFWS expressed concerns that the construction of the bypass could promote secondary development in the area, especially around local access interchanges and/or along frontage roads.

To minimize potential impacts that could result from the construction of the Selected Alignment Alternative, the USFWS requested the FHWA and AHTD not to build additional interchanges between I-540 and Highway 112 and to limit frontage roads. The following commitments were established.

- The directional interchange of the Selected Alignment Alternative and I-540 will provide no local access.
- No additional interchanges will be constructed between Highway 112 and I-540.
- No frontage roads will be built along the proposed project between the Highway 112
 and I-540 interchanges, including local road construction under Federal or state

control, except for two short lengths of road that would provide connectivity for local roads severed by the proposed facility. The severed roads that could be reconnected are: A) Puppy Creek Road/Spring Creek Road, and B) Wagon Wheel/South Zion Road. A grade separation should be placed on both Wagon Wheel Road and South Zion Road if design and budget criteria allow.

• Drainage from the proposed project will not be allowed to enter the Cave Springs recharge area as delineated and shown in the DEIS and SDEIS.

6.1.13. Cultural Resources

All potential site leads pertaining to the Selected Alignment Alternative that were received from the public will be investigated during the final survey.

During the final survey, particular attention will be given to any sites or landscape features that might be associated with the Trail of Tears. Should the intensive survey reveal well-preserved segments of the trail or archeological sites that might be associated with it, additional consultation will be implemented to ensure that any management recommendations area consistent with the National Park Service Comprehensive Management and Use Plan.

As soon as preliminary design has been developed and a stable right-of-way footprint of the final alignment is available, an intensive cultural resources survey will be conducted of the proposed project right-of-way. Prior to and during fieldwork, consultation between FHWA and any appropriate Native American Tribe or Tribes will be maintained according to 36 CFR part 800.4(a) of the National Historic Preservation Act. All phases of fieldwork, evaluation and reporting will conform to the Secretary of the Interior's "Standards and Guidelines for Archeology and Historic Preservation" (48 CFR 44716); the standards for field work and report writing in A State Plan for the Conservation of Archeological Resources in Arkansas; and all other pertinent state and Federal laws and regulations. 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. All sites identified will be evaluated to determine if Phase II testing is necessary.

Eligibility determinations will be made by the FHWA in consultation with the SHPO and any appropriate Native American Tribe or Tribes. Should any of the sites be found to be eligible or potentially eligible for nomination to the National Register of Historic Places and

avoidance is not possible, site specific treatment plans will then be developed and submitted to the SHPO and the appropriate Tribes for review and comment. A corresponding Memorandum of Agreement between SHPO, the FHWA and the appropriate Tribes will then be implemented and the appropriate treatment plan will be carried out at the earliest practicable time.

Should any of the sites be found to qualify as a Section 4(f) property, there should be enough flexibility within the study corridor (a quarter mile on either side of the center line) to modify actual roadway designs to consider avoidance of all but the very largest of sites.

6.1.14. Hazardous Materials

The project will require the acquisition and demolition of standing structures. An asbestos survey will be conducted on each building prior to the development of demolition plans. 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, USEPA, and Occupational Safety and Health Administration asbestos abatement regulations.

If a hazardous waste site is identified, observed, or accidentally uncovered within the right-of-way area, it will be the AHTD's responsibility to determine the type and extent of the contamination. The AHTD will determine the remediation and disposal methods to be employed for that particular type of contamination. All remediation work will be conducted in conformance with ADEQ, USEPA and Occupational Safety and Health Administration regulations.

6.1.15. Pollution Prevention Measures

It is the intention of the AHTD to lessen environmental impacts through pollution prevention measures that have been incorporated into the AHTD's Standard Specifications for Highway Construction, Edition of 2003. Appendix E of the FEIS contains Standard Construction Specifications addressing responsibilities of the AHTD's contractors as they relate to pollution prevention; issues such as how to lessen impacts to temporary rights-of-way; applicable environmental permits, licenses and taxes; Section 404 permits; and ways to reduce or eliminate point and non-point sources of pollution.

A responsibility of the AHTD is to ensure that the contractor reduces the use of potentially hazardous materials during construction of this project.

The AHTD will allow the usage of recyclable materials in road construction where they yield economic, engineering and environmental benefits.

6.1.16. Construction Impacts

Sensitive noise areas such as residential neighborhoods will be identified and work restricted to daylight hours in these areas.

6.1.17. Secondary And Cumulative Impacts

Planning for the Selected Alignment Alternative of the Springdale Northern Bypass has included consideration of interchange sites for future connections to three potential roadway projects, the NWARA Access Road, an Eastern Fayetteville Bypass, and an Eastern Bypass of Rogers. If they are built, these projects will be designed and planned to minimize cumulative impacts for the four projects.

6.2 COMMENTS AND RESPONSE TO BE ADDRESSED DURING THE DESIGN $\overline{\text{PHASE}}$

The comment numbers shown in the following sections reflect the numbers used to identify the comments in the FEIS

6.2.1. DEIS Public Comments

Comment Number 1: The preferred alignment needs to have interchanges added at Parsons Road, Monitor Road, and Brush Creek Road.

Response: No interchanges are planned for the proposed bypass at Monitor Road, Parson-Monitor Road, or Brush Creek Road at this time, since traffic levels are very low. During the design process, interchanges at Parsons Road and Monitor Road will be considered if traffic increases substantially.

Comment Number 2: There needs to be an interchange on Silent Grove Road. This is a well-traveled road and an interchange would be beneficial to the public.

Response: No local access will be feasible at Silent Grove Road since the directional interchange for the Selected Alignment Alternative and I-540 is located in the immediate

vicinity. The interchange of the Selected Alignment Alternative and I-540 will sever the connection between Silent Grove Road, West Apple Blossom Avenue, and Goad Springs Road. A grade separation is proposed for North Graham Road to provide access between Wagon Wheel Road and West Apple Blossom Avenue. During the design phase of the process, retaining the connection between Silent Grove Road and West Apple Blossom Avenue will be further evaluated.

Comment Number 7: Are you going to provide a means for cattle, tractors, etc. to get from one side of the highway to the other side when the highway cuts a farm in half?

Response: Issues dealing with property severance will be dealt with during the design and right-of-way acquisition phase of the process. Financial compensation will be considered if property severance affecting existing operations occurs.

Comment Number 8: The (DEIS) preferred line (Line 3/4) would cut off some residences north of Graham Road to quicker access of emergency response.

Response: Line 3/4 is not the Selected Alignment Alternative. However, safety issues such as emergency response time and improved access to neighborhoods are mitigated by including grade separations to reconnect streets and neighborhoods. North Graham Road and Highway 71B will both provided through connections in the area for use by local traffic and emergency response vehicles. Access to the facility will be controlled and can only occur at local access interchanges. Other possible options, such as fencing, will be considered in the design phase of the process.

Comment Number 14: Suggested moving the Highway 71B interchange approximately 300 feet to the north and/or moving the on-off ramps to the north side of the road to reduce business relocations.

Response: During the design phase of the projects, further efforts will be made to minimize impacts and costs relating to the Highway 71B interchange.

Comment Number 46: If the (DEIS) Preferred Line is chosen, I recommend a service road be built so there will be access to the balance of the Blevins property on the northwest corner of the Highway 71B interchange.

Response: If it is less expensive to build access to the property than purchase it, this request will be taken into consideration during the design phase and right-of-way acquisition phases of the project.

Comment Number 48: My property is located at the southwest corner of Reed and Mountain Roads. I don't want Reed blocked off going to Old Wire Road. Please consider an overpass at this location.

Response: Currently, a grade separation is planned for Highway 264, approximately 0.2 miles to the north of Reed Road. During the design phase, this request will be further evaluated.

Comment Number 50: Please consider moving the alignment in the area of Reed Road a little southwest onto pastureland to avoid my house and property.

Response: During the design phase, this request will be taken into consideration.

Comment Number 51: Move NWARA Access Road interchange to west to avoid impacting the Northwest Arkansas Pallet, Inc. buildings and truck parking.

Response: Although moving the interchange to the west isn't feasible, the alignment of the bypass was shifted slightly to the north in this area. This shift should lessen the impacts to this business and property.

Comment Number 54: Opposition to closing Graham Road because of access problems during winter weather. Request (DEIS) Preferred Alignment be moved just south of Graham Road.

Response: Graham Road will not be severed by the Selected Alignment Alternative, since grade separation is proposed to reconnect the street.

Comment Number 55: The Selected Alignment Alternative severs my 155-acre farm, located at 20697 Perry Road, removing my largest hay field and the only spring fed pond. It will also cut off the water line and the primary access to my son's house. Consider straightening the alignment to lessen the impacts to my property.

Response: This request will be evaluated during the design and right-of-way acquisition process.

6.2.2. SDEIS Agency Comments

Source: USDOI, Fish and Wildlife Service, August 5, 2004

Comment No. 1: If the following conditions are made an integral part of the Selected Alignment Alternative, the Fish and Wildlife Service has no objection to construction of this alignment. To minimize potential impacts that could result from the construction of the Selected Alignment Alternative, the FHWA and AHTD are requested not to build additional interchanges between Interstate 540 and Highway 112 and to limit frontage roads.

- The directional interchange of the Selected Alignment Alternative and I-540 will provide no local access.
- No additional interchanges will be constructed between Highway 112 and I-540.
- No frontage roads will be built along the proposed project between the Highway 112 and I-540 interchanges, including local road construction under federal or state control, except for two short lengths of road that would provide connectivity for local roads severed by the proposed facility. The severed roads that could be reconnected are: A) Puppy Creek Road/Spring Creek Road, and B) Wagon Wheel/South Zion Road. A grade separation should be placed on both Wagon Wheel Road and South Zion Road if design and budget criteria allow.
- Drainage from the proposed project will not be allowed to enter the Cave Springs recharge area as delineated and shown in the DEIS.

Response: These commitments have been agreed to by the FHWA and the AHTD.

6.2.3. SDEIS Public Comments

Comment Number 37: Move Selected Alignment Alternative north off Belmont Subdivision.

Response: Preliminary design evaluations indicate that the Selected Alignment Alternative/I-540 interchange cannot be moved much farther south or north, because of its location between and proximity to the Wagon Wheel Road/I-540 and Highway 264/I-540 interchanges. Further consideration of changes to avoid and/or minimize impacts to the Belmont Subdivision will be given during the survey and design process.

Comment Number 38: The Preferred Segment A-B is too close to Churchill Subdivision. It is impacting the value of the homes there.

Response: The conceptual alignment was adjusted in the area of Churchill to move it slightly east of the subdivision. Further consideration of changes to avoid impacts to the Churchill Subdivision will be given during the survey and design process.

Comment Number 39: Silent Grove Road is an important connector to residential areas and enables the elderly to avoid using Highway 71B. West Appleblossom is needed for access. Do not sever Silent Grove Road and West Appleblossom.

Response: During the design phase of the process, retaining the connection between Silent Grove Road and West Apple Blossom Avenue will be evaluated.

Comment Number 41: Build the bypass as close to Miller Road as possible to avoid land severance impacts to local landowners to the south.

Response: The alignment was shifted north closer to Miller Road to lessen these impacts. Further consideration to avoidance of impacts will be given during the survey and design process.

Comment Number 42: Leave Graham Road open. The street is too icy in winter to go north to Appleblossom Road.

Response: The current conceptual design for Selected Alignment Alternative does not sever Graham Road. Further consideration to avoid closing Graham Road will be given during the survey and design process.

Comment Number 58: Belmont Estates should be totally left as a subdivision or totally removed!

Response: Preliminary design evaluations indicate that the Selected Alignment Alternative/I-540 interchange cannot be moved much farther south or north because of its location between and proximity to the Wagon Wheel Road/I-540 and Highway 264/I-540 interchanges. Moving the alignment and interchange to the north would impact additional relocatees along Appleblossom Road and the Burrell Place neighborhoods. If the alignment and interchange were to be moved south, the western side of Belmont could potentially be affected instead of the northern side. Further consideration of changes to avoid and/or

minimize impacts to the Belmont Subdivision will be given during the survey and design process. Federal regulations do not allow the purchase of ROW tracts that will not be needed for the construction of the highway facility.

Comment Number 71: We are requesting the AHTD consider moving Selected Alignment Alternative where it intersects with Wagon Wheel Road, west from 200-300 yards.

Response: This requested alignment change to the Selected Alignment Alternative will be evaluated during the survey and design process.

6.3 TOLL FUNDING ALTERNATIVE ADDITIONAL COMMITMENTS

6.3.1. Noise

If the Toll Funding Alternative is selected, detailed evaluation on toll plaza locations and identified impacts will be performed. These toll plazas will have unique noise characteristics including braking, gearing and engine noises that are difficult to mitigate. An evaluation to determine if noise barrier systems are warranted will be conducted as part of the project's detailed design and presented at the design public hearing.

6.3.2. Economics

Any economic impacts associated with the implementation of a toll facility will be examined during the process of completing an investment-grade study on tolling of the proposed facility. These impacts will be included in the social, economic, and environmental evaluation performed during the Design Reassessment associated with the selection of the Toll Funding Alternative.

7 SUMMARY OF COMMENTS ON FINAL ENVIRONMENTAL IMPACT STATEMENT

The Notice of Availability of the FEIS was published in the Federal Register on October 21, 2005, with the period of availability ending on November 23, 2005. Copies of the FEIS were sent to public viewing locations throughout the study area and to various parties of interest, as listed in Section 9 of the FEIS. The FEIS was also available for viewing on the project website.

The comment letters are included as part of the project files. In accordance with NEPA, comments offered by public agencies, the general public, or other interested parties need to be addressed in the ROD. The FHWA has considered these comments along with other pertinent information in making the decision on this proposed project. The following section presents the responses to all public and agency review comments received for the FEIS.

7.1 PUBLIC COMMENTS

Two public comments were received during the 30-day public comment period for the Springdale Northern Bypass FEIS. The issues identified within these comment letters are summarized below.

Comment No. 1: If the proposed bypass were to overpass Highway 71B approximately 340 feet north of Graham Road, and the interchange ramps squeezed into approximately 660 feet, six residential owners, three residential tenants, and 29 business relocatees could be avoided.

Response: During the design phase of the project, the final position of the bypass main lanes and interchange design will be evaluated in order to minimize relocation impacts at the Highway 71B Interchange

Comment No. 2: If the proposed bypass were to cross over I-540 and have an elevated interchange, Silent Grove Road could be lowered and its connection to West Appleblossom Road could be maintained.

Response: The FEIS, Section 5.20.1, contains a commitment to evaluate retaining the connection between Silent Grove Road and West Appleblossom Road during the design phase of the process.

Comment No. 3: As originally submitted, Line 5 crossed Puppy Creek Road about 320 feet southwest of the Puppy Creek Road/Spring Creek Road intersection, crossing over Puppy Creek and Puppy Creek Road with one structure so that neither Puppy Creek Road or Spring Creek Road would need an additional grade separation.

Response: The interchange at I-540 will be a directional type interchange, and the ramps will be designed for high-speed traffic. The bypass alignment west of I-540 was positioned to provide for suitable ramp alignments, particularly for the eastbound to southbound ramp. Bridging requirements at Puppy Creek and Spring Creek Road will be determined during the design stage and minor adjustments in the alignment will be made as needed.

Comment No. 4: The citizen submitting the comment is considering building a toll road from the NWARA to the proposed bypass and wishes to know if he can legally operate a toll road.

Response: This comment is not about the Springdale Northern Bypass and thus is outside the scope of this document.

7.2 AGENCY COMMENTS

Comments on the FEIS were received from one Federal agency and two state agencies. The issues identified within these comment letters are summarized below.

Source: U. S. Department of the Interior

Comment: In a letter dated March 3, 2005, the U.S. Fish and Wildlife Service (USFWS) informed the FHWA of the discovery of a single specimen of an endangered cave crayfish (*Cambarus aculabrum*) near Elm Springs, Arkansas (in the project vicinity). A subsequent recharge delineation for the springs that support the crayfish is near completion and preliminary results suggest that the recharge zone for the site lies to the south and east of the project area and will not be affected by the construction of the Springdale Northern Bypass. Therefore, further Section 7 consultation under the Endangered Species Act is not warranted unless new information is presented regarding threatened or endangered species located in the project area.

Response: Comment noted. Section 7 consultation will be performed with the USFWS if new information becomes available concerning the possibility of impacts to threatened or endangered species resulting from this proposed project.

SPRINGDALE NORTHERN BYPASS

RECORD OF DECISION

Source: Arkansas Department of Health and Human Services

Comment No. 1: The eastern portions of the proposed project will drain toward Beaver Lake, which is the principal drinking water supply for Northwest Arkansas; the nearest drinking water intake (Beaver Water District) is approximately 3.5 miles from the proposed route. Increased turbidity and Total Organic Carbon concentrations associated with soil erosion could adversely affect the ability of water suppliers to comply with recent revisions to the federal Safe Drinking Water Act that deal with surface water treatment and could increase the cost of treatment. Therefore the proposed project should be conducted with maximum attention to limiting or eliminating runoff to the lake.

Response: Comment noted.

Comment No. 2: Additionally, the proposed route will cross numerous water transmission lines up to 42" in diameter, and coordination with the utility departments of Fayetteville and Springdale will be required.

Response: Comment noted.

Source: Arkansas Geological Commission

Comment: The geological, hydrologic, and mineral resources descriptions within this report appear in good order and complete. No further comments.

Response: Comment noted.

This page is intentionally blank.

Date: Leb 15, 2006

8 SUMMARY

For the foregoing reasons, and based upon consideration of all the social, economic and environmental evaluations contained in the MIS, DEIS, SDEIS, and FEIS with the input received from other resource agencies, organizations and the public, FHWA has determined that the Selected Alternative (i.e., Alignment 5 Non-toll Funding Alternative) is the environmentally preferred alternative. Therefore, the Alignment 5 Non-toll Funding Alternative is adopted as the proposed action for the Highway 412 Springdale Northern Bypass Project.

APPROVAL OF RECORD OF DECISION

Approving Official:

Federal Highway Administration

This page is intentionally blank.