

PLANNING AND ENVIRONMENTAL LINKAGES CONSTRAINTS REPORT



CA0602
Interstate 530 – Highway 67

September 2014



Arkansas State Highway &
Transportation Department



TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	METHODOLOGY	1
3.0	EXISTING CONDITIONS ANALYSIS.....	1
3.1	Infrastructure Constraints	2
3.1.1	Utilities	2
3.1.2	Rail	2
3.1.3	Seawall	2
3.2	Socio-economic Demographics.....	2
3.2.1	Demographic Characteristics	2
3.2.2	Environmental Justice Populations	3
3.2.3	Limited English Proficiency Populations	4
3.2.4	Additional Analyses	5
3.3	Land Use.....	5
3.3.1	Schools	5
3.3.2	Places of Worship	5
3.3.3	Cemeteries	5
3.3.4	Section 4(f) Properties	6
3.3.5	Section 6(f) Properties	6
3.4	Natural Resources	6
3.4.1	Vegetation.....	6
3.4.2	Wildlife Habitat and Migration Patterns	6
3.4.3	Threatened and Endangered Species	7
3.4.4	Waters of the U.S., including Wetlands.....	7
3.4.5	Floodplains	7
3.5	Other Items of Consideration	8
3.5.1	Cultural Resources	8
3.5.1.1	Archeological Resources	8
3.5.1.2	Historic Resources	9
3.5.2	Hazardous Materials	10

LIST OF TABLES

Table 1.	Percent Minority Populations in Study Area	3
Table 2	Median Household Income Below Poverty Level.	4

LIST OF ATTACHMENTS

Attachment A: Exhibits

- Exhibit A-1: Constraints Map – Overall View
- Exhibit A-2: Constraints Map – Sheets 1-6
- Exhibit A-3: Minority Population Map
- Exhibit A-4: Low Income Population Map
- Exhibit A-5: LEP Population Map

Attachment B: Supporting Data and Constraints Summary

- B-1: Environmental Justice Resources
- B-2: AHTD Cultural Resources Memorandum
- B-3: Request for Technical Assistance to the Arkansas Historic Preservation Program
- B-4: Department of Arkansas Heritage – Arkansas Historic Preservation Program Letter
- B-5: Constraints Summary Table

1.0 INTRODUCTION

This report is part of planning and data collection activities of the Interstate 30 (I-30) Planning and Environmental Linkages (PEL) Study. Increased congestion, safety, and declining roadway and bridge conditions, as well as a commitment made to Arkansas voters¹, have led to a need for transportation improvements along I-30 and Interstate 40 (I-40) through Little Rock and North Little Rock in central Arkansas. The PEL process will be used to identify, evaluate and document such problems and potential transportation solutions. The purpose of the PEL process is to conduct analysis and planning activities with resource agencies and the public in order to produce transportation planning products that effectively serve the community's transportation needs. By following the PEL process, fewer negative impacts and more effective environmental stewardship and decisions may result, which can be used to inform a subsequent project-specific NEPA process.

An environmental constraints review was performed to identify existing concerns that may constrain potential alternatives within the I-30 PEL study area. This constraints report is to be used as a planning tool during the PEL process. Understanding the features and concerns of the study area will allow for the informed development and screening of potential alternatives. This report is not a comprehensive environmental analysis that would satisfy requirements under NEPA nor is it intended for use in determining municipal, state and federal permitting or other requirements. A summary of the constraints identified within the study area is presented in **Attachment B-5**.

2.0 METHODOLOGY

For purposes of collecting initial social, economic and environmental data, a study area of up to 1,320 feet from the centerline of the existing facility, including ramps, was determined. The study area and constraints identified throughout this document are shown graphically in **Attachment A, Exhibits A-1 and A-2**.

In order to identify the environmental and infrastructure constraints associated with the study area, information was collected through on-line database searches, imagery analyses, Google Maps (<http://maps.google.com>), desktop geographic information system analyses, and limited field reconnaissance of the study area.

3.0 EXISTING CONDITIONS ANALYSIS

The study area is located within an urban area and is primarily comprised of commercial and residential properties. There are undeveloped areas in the southern and northern portions of the study area. The Union Pacific Railroad (UPRR) crosses the study area at several locations. The Verizon Arena, William J. Clinton Presidential Center and Park, William Jefferson Clinton Presidential Library, and Little Rock River Market are just a few attractions located within the study area. Adjacent to the study area is the Bill and Hillary Clinton National Airport/Adams Field, Dassault Falcon Jet, and Arkansas

¹ The major improvement project to widen I-30 between Interstate 530 (I-530) and I-40 was included as part of the Connecting Arkansas Program, voted on and passed by Arkansas voters in November 2012, which increased the state sales tax by a half-cent for 10 years as a means to fund identified transportation projects throughout the state.

National Guard. These and other features, as described in more detail below, are shown on the constraints maps in **Attachment A, Exhibits A-1 and A-2**, and a summary table of the constraints is presented in **Attachment B-5**.

3.1 Infrastructure Constraints

3.1.1 Utilities

Typical overhead and underground utilities exist within the study area. A preliminary investigation of utilities identified one feature to be avoided; a transfer building for fiber optic lines throughout the state. It is located on AHTD right-of-way (ROW), southwest of the I-30 North Terminal Interchange (**Attachment A, Exhibit A-2 - Sheet 5 of 6**). Another building is scheduled to be built to the southwest of the existing building and would also need to be avoided. The largest concentration of utilities is on the Arkansas River Bridge which contains hanging utilities. Any proposed improvements would need to accommodate these utilities.

3.1.2 Rail

There are four locations where the UPRR intersects the study area. The UPRR locomotive overhaul and maintenance facility (Jenks Shop) is located west of the study area south of I-40 and their rail yard is located along the boundary of the study area near the northeast limits of the project (**Attachment A, Exhibit A-1**).

3.1.3 Seawall

A seawall extends approximately 3,725 feet along the north bank of the Arkansas River within the study area (**Attachment A, Exhibit A-2 – Sheet 3 of 6**). Any modification to a federal levee system above and beyond ordinary operation and maintenance requires US Army Corps of Engineers (USACE) approval under 33 USC 408 (Section 408 Permit). Accordingly, impacts to the sea wall will be evaluated in accordance with USACE Section 408 regulations and policy.

3.2 Socio-economic Demographics

3.2.1 Demographic Characteristics

The study area encompasses portions of 13 census tracts (CT) as delineated by the U.S. Census Bureau (USCB). Within the 13 census tracts, 22 census block groups were identified to be partially contained by the study area as delineated by the USCB in 2010. Within the 22 census block groups, 715 census block areas were identified to be partially contained by the study area as delineated by the USCB in 2010. The census block groups and census block levels were used in the socioeconomic analyses for the study area. The census block group level was used in the analyses for low-income and Limited English Proficiency (LEP) populations. Information was obtained from the USCB, 2008-2012 American Community Survey (ACS) 5-year estimates. The 2010 Census summary file data at the census block level was used in the analysis of minority populations.

3.2.2 Environmental Justice Populations

Executive Order (EO) 12898 entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs on minority and low-income populations. The FHWA Order 6640.23A defines a minority as a person who is Black (having origins in any of the black racial groups of Africa); Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); or American Indian and Alaska Native (having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition). An Environmental Justice (EJ) population is defined as an area with a minority population exceeding 50 percent of the total population. Minority populations within the census block groups that are either wholly or partially contained by the study area account for approximately 62 percent of the total population. This number falls above the defined 50 percent and qualifies as a presence of EJ populations within the study area.

Table 1 lists the demographic percentages of the minority groups present within the study area. The dominant minority group within the study area is Black or African American (55.3 percent). **Attachment A, Exhibit A-3** presents the distribution of minority populations within the study area that are greater than 50 percent. As shown in **Attachment A, Exhibit A-3**, the areas of high minority populations are generally located in Little Rock around and south of the I-30/Interstate 630 (I-630) interchange; and along the majority of the I-30 corridor in North Little Rock.

Table 1. Percent Minority Populations in Study Area

Minority Populations	Percentage
Black or African American	55.3%
Hispanic or Latino	3.0%
Two or More Races	1.6%
Asian	1.2%
American Indian and Alaska Native	0.4%
Native Hawaiian and Other Pacific Islander	0.3%
Percent Minority for Study Area	61.8%

Source: Summary of data taken from U.S. Census Bureau, 2010 Census Summary File, Table P2.

A low-income population is defined as one with a median income for a family of four equal to or below the Department of Health and Human Services (DHHS) poverty guidelines of \$23,850 in 2014 (2014 DHHS Poverty Guidelines). The median income for the entire study area is \$27,000; however, nine of the 22 block groups within the study area have median incomes below the poverty level of \$23,850. The median household incomes for the 22 census block groups that are either wholly or partially contained by the study area range from \$9,051 to \$90,089. **Attachment A, Exhibit A-4** shows the distribution of low-income populations within the study area.

Table 2. Median Household Income Below Poverty Level

Census Tract	Block Group	Total Households	Median household income	2014 DHHS Poverty Guideline
5	1	306	\$22,188	\$23,850
20.02	1	551	\$21,188	
28	1	129	\$17,460	
28	2	456	\$9,051	
28	3	512	\$18,643	
29	2	385	\$16,897	
46	2	1,020	\$20,183	
46	3	338	\$15,086	
Total		3,697	\$17,587¹	

Source: U.S. Census Bureau 2008-2012 American Community Survey, Table B19013.

Note: ¹ Average Median Household Income for block groups in study area.

3.2.3 Limited English Proficiency Populations

EO 13166, “Improving Access to Services for Persons with Limited English Proficiency” requires federal agencies to examine the services they provide and identify any need for services to those with LEP. The EO requires federal agencies to work to ensure that recipients of federal financial assistance provide meaningful access to their LEP applicants and beneficiaries. Failure to ensure that LEP persons can effectively participate in or benefit from federally assisted programs and activities may violate the prohibition under Title VI of the Civil Rights Restoration Act of 1987 and Title VI regulations against national origin discrimination.

Census block group data for “Ability to Speak English” for the population five years and older indicate that seven out of the 22 total block groups extending within the study area contain populations (ranging from one to 17 percent) that speak English less than “very well”, with Spanish being the predominant language spoken for the LEP population. Of those seven block groups with LEP populations, three block groups were identified to have LEP populations above five percent². Fifteen out of the 22 block groups have a zero percent LEP population. In compliance with EO 13166, public involvement efforts would need to employ the use of bilingual material and/or simultaneous translation, as applicable, so that LEP populations would have meaningful access to the programs, services, and information provided. **Attachment A, Exhibit A-5** shows the location of LEP populations greater than five percent for the Census block groups within the study area.³

² Safe Harbor LEP Threshold – Identifies actions that will be considered strong evidence of compliance with Title VI of the Civil Rights Act obligations. Safe Harbor requires written translations of vital documents for each LEP group that meets the threshold.

³ Note that the Census block groups with LEP populations greater than five percent have been clipped to the study area boundary. Although the areas designated as LEP located immediately within the study area boundary appear to be areas of zero population, the LEP Census block groups for these areas actually extend both within and outside of the study area boundary. To ensure that all LEP populations have meaningful access to the programs, services and information provided, public involvement efforts will employ the use of bilingual material and/or simultaneous translation, as applicable.

3.2.4 Additional Analyses

In addition to the Census data analyses described in **Sections 3.2.1** through **3.2.3**, additional online research and field reconnaissance was also completed to identify environmental justice resources such as food banks and homeless shelters. A list of these resources is presented in **Attachment B-1**. Additional resources for environmental justice populations may be identified during the PEL process.

3.3 Land Use

3.3.1 Schools

Eight schools were identified within the study area as shown in **Attachment A, Exhibit A-2** on the referenced sheets: Booker Arts Elementary School, Booker T. Washington Elementary School, Horace Mann Middle School, and Rockefeller Magnet Elementary School (**Sheet 2 of 6**); Clinton School of Public Service and University of Arkansas at Little Rock (UALR) School of Law (**Sheet 3 of 6**); Shorter College (**Sheet 4 of 6**); and Calvary Academy (**Sheet 5 of 6**). The North Little Rock School District Office (**Sheet 4 of 6**) is located adjacent to the study area. In addition, a new school facility is planned to be constructed in North Little Rock, located near the existing North Little Rock High School Football Stadium, south of I-40 and west of I-30. Although they are not considered a constraint, schools traditionally play an important role in the local community. It is a goal that impacts to these locations be avoided and/or minimized whenever possible.

3.3.2 Places of Worship

Twelve places of worship were identified within the study area as shown in **Attachment A, Exhibit A-2** on the referenced sheets: Duncan United Methodist Church, Greater Macedonia Baptist Church, Metro Worship Center, St. Paul Baptist Church, and Waters Temple Church of God in Christ (**Sheet 2 of 6**); Friendly Chapel Flame and St. Edward Catholic Church (**Sheet 3 of 6**); King Solomon Baptist Church, Independent Baptist Church, Greater Miracle Temple, and McCabe Chapel United Methodist Church; (**Sheet 4 of 6**); and First Pentecostal Church (**Sheet 5 of 6**). Although they are not considered a constraint, places of worship traditionally play an important role in the local community. It is a goal that impacts to these locations be avoided and/or minimized whenever possible.

3.3.3 Cemeteries

Three cemeteries (Fraternal Cemetery, Little Rock National Cemetery, and Oakland Cemetery) are located within or immediately adjacent to the study area (**Attachment A, Exhibit A-2 – Sheet 2 of 6**). The Fraternal Cemetery is located entirely within the study area east of I-30 and in the southern half of the corridor. The Oakland Cemetery and Little Rock National Cemetery are located partially within or immediately adjacent to the study area.

3.3.4 Section 4(f) Properties

A Section 4(f) property is any significant publicly owned park, recreation area, wildlife and waterfowl refuge, or historic property (including archeological sites) protected by 23 Code of Federal Regulations (CFR) 774. Twelve parks and/or recreation areas potentially eligible for Section 4(f) protection were identified within the study area as follows (shown in **Attachment A, Exhibit A-2** on the referenced sheets): Gillam Park and Interstate Park (**Sheet 1 of 6**); Pettaway Park (**Sheet 2 of 6**); Hangar Hill Park, MacArthur Park, River Front Park, River Front West and East Park, Terry Manson Park, and William J. Clinton Presidential Center and Park (**Sheet 3 of 6**); 14th Street Park (**Sheet 4 of 6**); and Crest View Park (**Sheet 5 of 6**). In addition, two schools, Rockefeller Elementary School (**Sheet 2 of 6**) and Booker Arts Magnet School (**Sheet 2 of 6**) have public recreation areas that are potentially eligible for Section 4(f) protection. If proposed improvements result in a use of these types of properties, a Section 4(f) evaluation will be required.

3.3.5 Section 6(f) Properties

A Section 6(f) property is any public outdoor recreational land acquired or improved with funds authorized under the Land and Water Conservation Fund (LWCF) Act of 1965. Section 6(f) of the LWCF Act established restrictions on the use of these properties, such that any conversion to a use other than public recreation requires replacement of land of equal or greater value. Shown in **Attachment A, Exhibit A-2**, LWCF properties include Interstate Park (**Sheet 1 of 6**) and MacArthur Park (**Sheet 3 of 6**)⁵.

3.4 Natural Resources

3.4.1 Vegetation

The majority of the study area is within an urbanized area which contains various landscaping type vegetation. The southern limit of the study area does contain a natural wooded area adjacent to the existing roadway. Similar natural vegetation is also present in the northern portion of the study area. These areas may have been impacted previously due to road construction or other types of development; however, they have been allowed to re-vegetate in a natural state. There are no known rare or unique vegetative communities within the study area other than those described as jurisdictional wetlands. The proposed project will comply with EO 13112 on Invasive Species as to prevent the introduction or spread of invasive plant species as a result of the proposed action. Additionally, any seeding and replanting of disturbed areas will occur in compliance with EO 13112 and the Executive Memorandum on Environmentally and Economically Beneficial Landscaping.

3.4.2 Wildlife Habitat and Migration Patterns

In addition to the wooded areas, several bridges and structures within the study area are nesting sites for migratory birds. The AHTD has a special provision that details the requirements of the contractor when working on a bridge or other structure when

⁵ Source: LWCF properties identified by AHTD through the Arkansas Department of Parks and Tourism

nesting migratory birds are present. This special provision will be provided by the AHTD for inclusion in the construction contract. The proposed project will comply with EO 13112 on Invasive Species as to prevent the introduction or spread of invasive terrestrial or aquatic animal species as a result of the proposed project.

3.4.3 Threatened and Endangered Species

Federally listed species are protected under the Endangered Species Act (ESA) of 1973. In general, this act protects both the species and habitat. The Interior Least Tern (*Sterna antillarum athalassos*) is known to occur within the study area; however, there are no known nesting sites which would require specific avoidance measures. Consultation with the US Fish and Wildlife Service (USFWS) will be required to determine if specific conservation measures will be required to minimize the risk of potential impacts to foraging terns. No other federally listed species are known to occur within the study area.

3.4.4 Waters of the U.S., including Wetlands

Pursuant to EO 11990 (Protection of Wetlands) and Section 404 of the Clean Water Act, a preliminary investigation was conducted to identify potential waters of the US, including wetlands, within the study area. The preliminary investigation identified potential jurisdictional features through field reconnaissance, desktop review, and review of National Wetland Inventory maps. The study area intersects Fourche Creek, Arkansas River, Lake No. 1, and several other tributaries located in the northern limits of the study area. Wetlands are present at the southern and northern limits of the study area. A more detailed delineation to map and evaluate these features would need to be conducted to determine if these features meet the requirements and are under the jurisdiction of the USACE further along in the project development process. Section 404 impacts should be avoided or minimized to the extent possible and would require appropriate permitting.

3.4.5 Floodplains

According to FEMA data, the study area does intersect the 100-year floodplain at Fourche Creek, Arkansas River, and in the northern project limits. These areas are characterized as Zone A; special flood hazard areas inundated by the 100-year flood, with no base flood elevations determined.

A portion of the Dark Hollow basin, a ponding/flood detention area, is located along the I-40 corridor in the northern portion of the study area. Dark Hollow is a low-lying area of North Little Rock located east of I-30, generally bounded by I-40 to the north and the high ground adjacent to the Arkansas River to the south (**Attachment A, Exhibit A-2 - Sheet 5 of 6**). There are several residential areas located outside of but nearby the study area in Dark Hollow that are historically subject to frequent flooding. Dark Hollow is drained by Redwood Tunnel, a deteriorated, undersized arch-shaped culvert running underground of North Redwood Street from just north of Broadway Street for approximately 2,600 feet, where it discharges into the Arkansas River⁶ (**Attachment A,**

⁶ Source: USACE, Little Rock District. North Little Rock, Dark Hollow Limited Re-Evaluation Report, Appendix A, Hydrology and Hydraulics Report, Updated April 2006.

Exhibit A-1). Any increases to impervious surface within the Dark Hollow basin could result in an increase in flood waters affecting the Dark Hollow area.

The hydraulic design for this project would need to be in accordance with current FHWA design policies. The proposed project would need to be in compliance with 23 CFR 650 regarding location and hydraulic design of highway encroachments within the floodplains. The proposed project would also need to comply with EO 11988 which requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

3.5 Other Items of Consideration

3.5.1 Cultural Resources

Cultural Resource sites have shown up on records checks and likely still exist. AHTD Cultural Resource Staff performed a preliminary cultural resources investigation for the proposed I-30 PEL study, which is included in **Attachment B-2**. A summary of those findings is provided below for both archeological and historic resources. AHTD's preliminary investigation included a records check of the Arkansas Archeological Survey (AAS) for previously recorded archeological sites and of the Department of Arkansas Heritage - Arkansas Historic Preservation Program (AHPP) for National Register listed structures. Several maps and references were also checked as part of this preliminary assessment. Findings from the historic resources analysis were coordinated with the State Historic Preservation Officer (SHPO).

The cultural resources study area, also known as the Area of Potential Effect (APE), was defined as a 100-foot buffer on each side of I-30 and I-40 from the existing ROW. Information about cultural resources sites or their location is not for public disclosure.

3.5.1.1 Archeological Resources

Oakland Cemetery, Fraternal Cemetery, and the National Cemetery are located between the I-530 and I-630 interchanges east of I-30. These cemeteries are listed on the National Register of Historic Places (NRHP); and Oakland Cemetery is recorded as archeological site 3PU329. No other cemeteries were noted within the APE.

Three sites are directly within the 100-foot APE.

- (1) Site 3PU144 is a well uncovered during the construction of I-630. This site is under I-630 and therefore no longer present.
- (2) Site 3PU415 is a very low density lithic scatter located within the US Highway 67 (Hwy. 67)/I-40 interchange. The site was revisited during this evaluation in 2014 and a few lithics were found on the surface. Half of the site was destroyed during the construction of the ramp to I-40. The site will need to be shovel tested within the remaining portion and a site revisit form will need to be filled out.

- (3) Site 3PU762 consists of a section of buried 1906 railroad tracks on the north side of East 3rd Street. Only a section of this railroad track was removed. Additional rail sections extend a short distance to the northwest and southeast of this site. If these sections are impacted, then the site will need to be documented. A site revisit form will need to be filled out.

Several sites are recorded near the 100-foot APE. If the project's impacts extend beyond the 100-foot APE, the below sites will need to be evaluated further.

- (1) Site 3PU205 is situated near the I-530 interchange south of the railroad yard and is a lithic surface scatter. No shovel tests were excavated at this site when it was initially recorded. This site was revisited by referencing the US Geological Survey (USGS) quad map showing the site location. The area had standing water and only two shovel tests were conducted in areas without water. These shovel tests were negative for cultural material. Additional efforts will need to be done to relocate this site.
- (2) Site 3PU707 is located south of the Arkansas River on East 3rd Street near the Old Choctaw Station. This site consisted of a section of brick pavement that was documented during its demolition. This site is no longer present since the street was paved. Any evidence of brick roads will need to be documented during the survey of this project.
- (3) Site 3PU834 is a historic site consisting of a cement ramp feature. No artifacts were associated with this site.
- (4) Site 3PU457 is a low mound dating from the Early Archaic to Mississippi Period and is undetermined in its status to the NRHP. Significant work would be required to excavate this site if it is impacted. This site will probably be eligible to the NRHP and should be avoided.
- (5) Site 3PU414 is a prehistoric and historic artifact scatter and is undetermined in its status to the NRHP. The entire site was excavated by SPEARS, Inc. in 1994 and is no longer present. The site was written up and cleared in a management summary.
- (6) Site 3PU404 is a light lithic scatter within a disturbed context. This site was considered not eligible to the NRHP.

In order to protect the sites from looting and further destruction, all archeological site information and locations are not subject to the Freedom of Information Act and are not to be distributed to the public. Accordingly, none of the archeological sites discussed in this section are shown on the constraints mapping in **Attachment A, Exhibits A-1 and A-2**.

3.5.1.2 Historic Resources

One hundred and sixty-four (164) structures were evaluated for the current project within the proposed APE. The AHPP identified two structures already listed on the NRHP (Terminal Warehouse Building and Reichardt House) as well as four historic districts (Marshall Square, Hanger Hill, MacArthur Park, and Park Hill). Marshall Square Historic District has eight structures within the 100-foot APE. Hanger Hill

Historic District has five structures and MacArthur Park and Park Hill Historic Districts have four structures each within the APE, all of which were considered eligible to the NRHP. In addition, 114 new structures were evaluated, of which 18 were determined potentially eligible to the NRHP. Four structures with SHPO numbers⁷ were determined as potentially eligible to the NRHP.

A Review for Technical Assistance (RTA) for these 164 structures was submitted to the SHPO on May 13, 2014 (**Attachment B-3**). The SHPO returned a preliminary determination on June 12, 2014 (**Attachment B-4**), as follows:

- All potentially eligible structures presented were determined to be eligible, for a total of 45 eligible structures.
- Of these 45 eligible structures, two were already listed in the NRHP (Terminal Warehouse Building and Reichardt House); and
- 119 structures were determined not eligible.

All NRHP eligible structures are shown in the constraints mapping presented in **Attachment A, Exhibits A-1 and A-2**.

3.5.2 Hazardous Materials

These layers contain relevant data points from Environmental Protection Agency (EPA) and Arkansas Department of Environmental Quality (ADEQ) geodatabases. Most points are regulated storage tanks. Other items to note include an air quality monitoring station and the Central Arkansas Water company facility. Sites for the information discussed in this section are shown on the constraints maps presented in **Attachment A, Exhibits A-1 and A-2**.

Environmental Regulatory Database Review

A review of available on-line databases from the EPA and ADEQ was performed for the study area to determine if any known sites producing, storing, and/or disposing of toxic or hazardous materials might affect the proposed study alternatives. GIS data was downloaded from the EPA website and GeoStor which provides access to GIS data in the state of Arkansas. GeoStor data provides locations for facilities, incident sites and monitoring points, at the permit and facility level, regulated or tracked by environmental programs within the jurisdiction of the ADEQ.

At this time, no recommendations from the PEL study have been identified; therefore, level of risk is not determined for sites within the study area. An environmental regulatory records review assessment (radius report) in accordance with the American Society for Testing and Materials (ASTM) Practice E1527-05, with exceptions to accommodate the particular situations and needs of roadway projects, would be necessary during the schematic and NEPA phase of project development.

⁷ Structures with SHPO numbers have been previously inventoried by the SHPO.

Forty-nine (49) sites were identified within the limits of the study area. The majority of the sites (25 of the 49 total) are service stations, maintenance facilities, or vehicle centers that contain registered storage tanks. Approximately nine sites are associated with manufacturing or construction material facilities. The remaining sites are associated with the railroad, a recycling facility, and other miscellaneous businesses. A more detailed assessment of impacts to these sites would need to occur for the alternatives identified.

Several overhead and underground utilities are present throughout the study area. Proposed improvements may affect these areas and may result in the need for the relocation or modification of these facilities. There is no known contamination associated with existing utilities; however, the potential exists that contamination could be encountered during utility adjustments. Coordination with utility companies concerning potential contamination would be addressed during the ROW stage of project development.

If the preferred alternative identified through the NEPA process requires the demolition and removal of bridge and/or building structures, asbestos containing materials (ACM) and lead based paint (LBP) testing may be necessary. It is recommended that ACM and LBP testing be performed on the structures to be removed dependent upon the age of the individual structure.

Attachment A: Exhibits

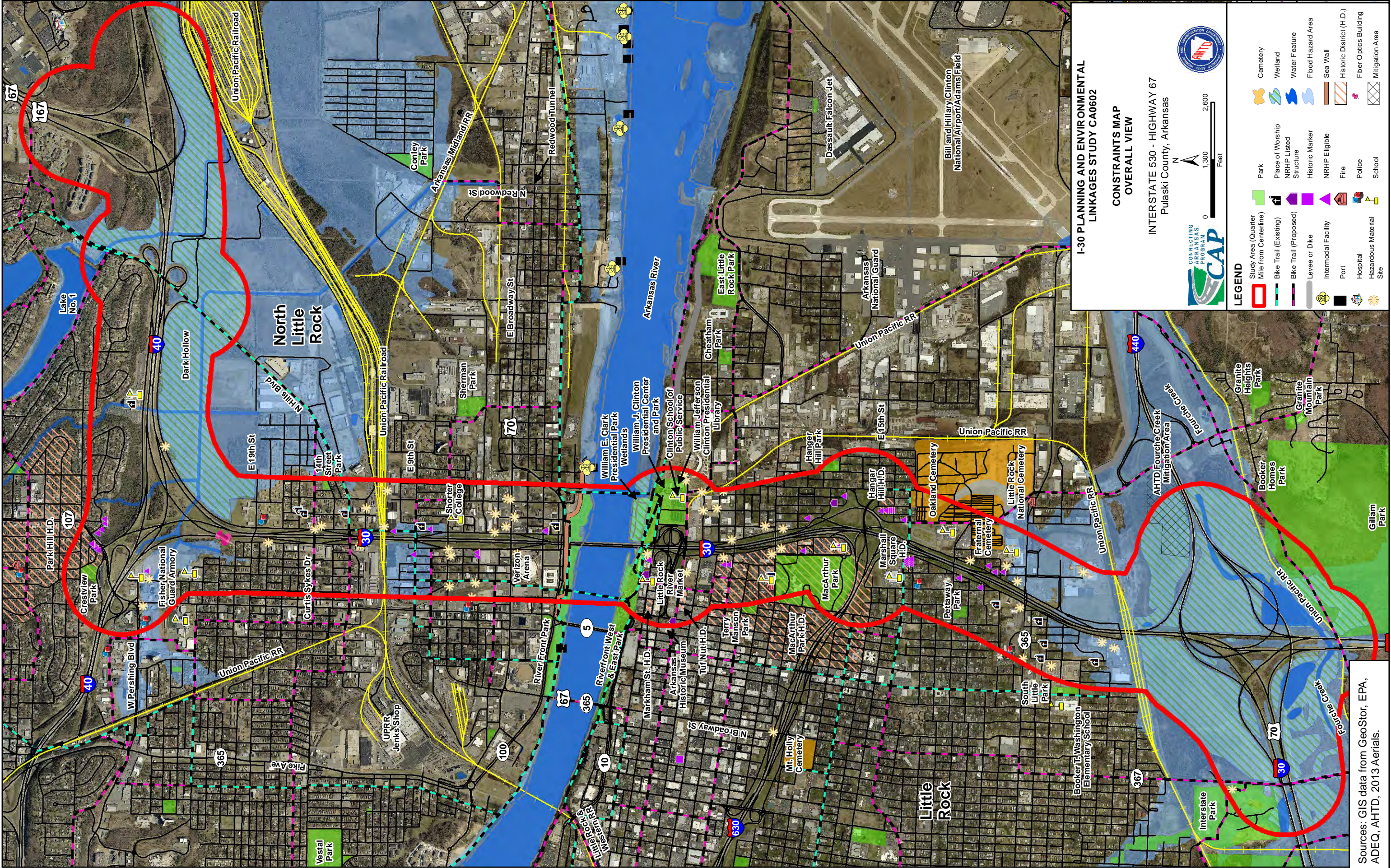
Exhibit A-1: Constraints Map – Overall View

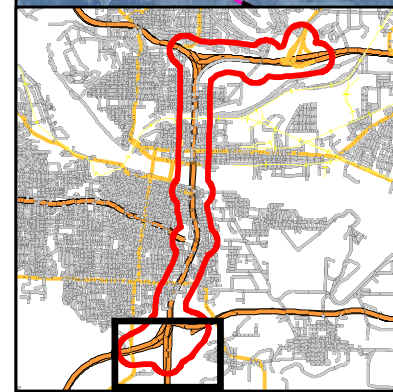
Exhibit A-2: Constraints Map – Sheets 1-6

Exhibit A-3: High Minority Population Map

Exhibit A-4: Low Income Population Map

Exhibit A-5: LEP Population Map





Sources: GIS data from GeoStor, EPA, ADEQ, AHTD, 2013Aerials.

LEGEND

- | | | |
|---------------------------------------|-----------------------|--------------------------|
| Study Area (1/4 Mile from Centerline) | Place of Worship | Cemetery |
| Levee or Dike | NRHP Listed Structure | Wetland |
| Intermodal Facility | Historic Marker | Water Feature |
| Port | NRHP Eligible | Flood Hazard Area |
| Hospital | Fire | Sea Wall |
| Hazardous Material Site | Police | Historic District (H.D.) |
| Park | School | Mitigation Area |

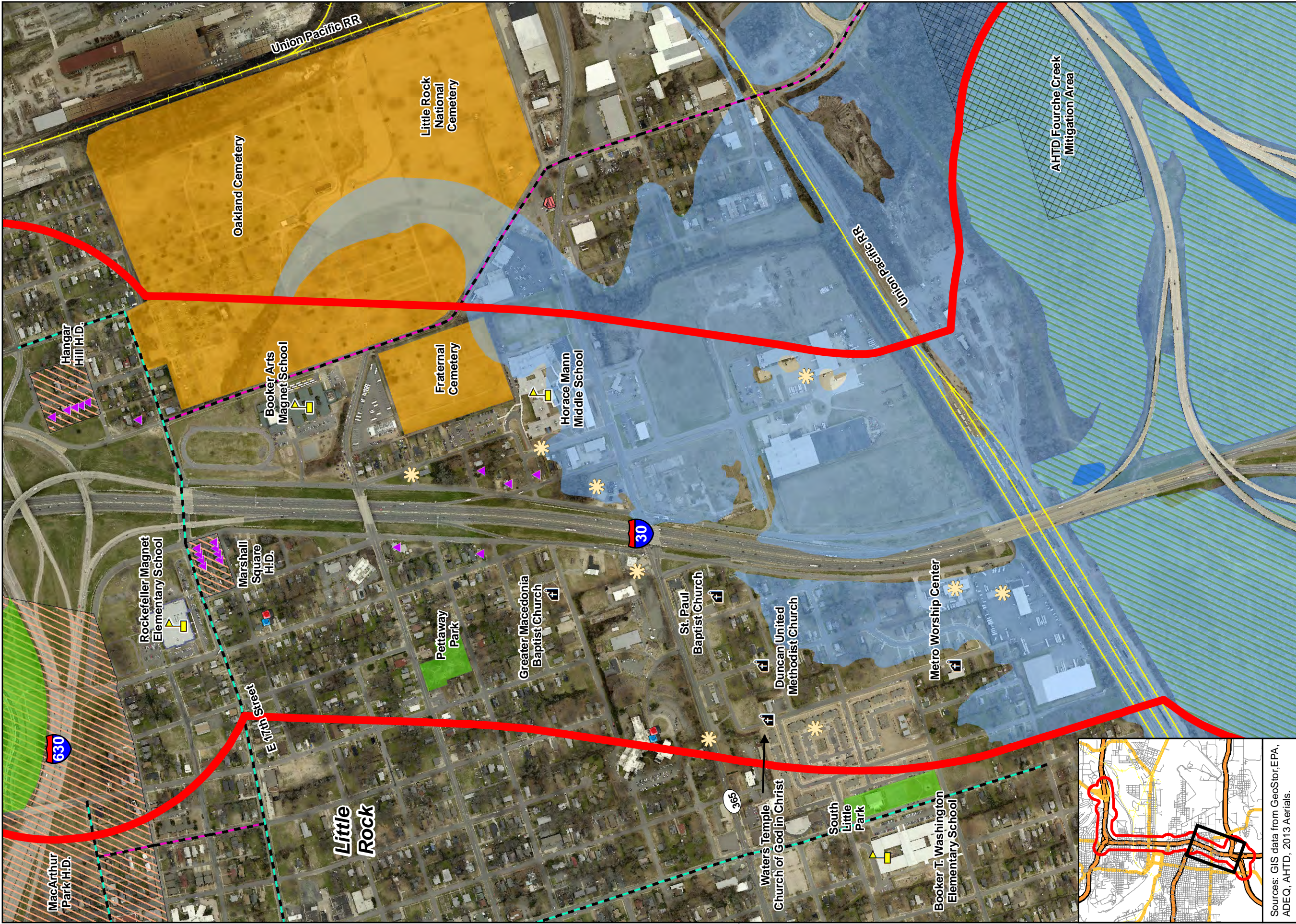
- | |
|-----------------------|
| Fiber Optics Building |
| Bike Trail (Existing) |
| Bike Trail (Proposed) |
- 0 250 500 750 1,000 Feet

I-30 PLANNING AND ENVIRONMENTAL LINKAGES STUDY CA0602

CONSTRAINTS MAP SHEET 1 of 6

INTERSTATE 530 - HIGHWAY 67
Pulaski County, Arkansas





LEGEND

	Study Area (1/4 Mile from Centerline)		Place of Worship
	Levee or Dike		NRHP Listed Structure
	Intermodal Facility		Historic Marker
	Port		NRHP Eligible
	Hospital		Fire
	Hazardous Material		Police
	Site		School
	Park		

	Cemetery
	Wetland
	Water Feature
	Flood Hazard Area
	Sea Wall
	Historic District (H.D.)
	Mitigation Area

	Fiber Optics Building
	Bike Trail (Existing)
	Bike Trail (Proposed)

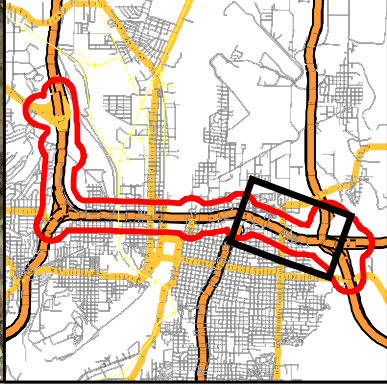
0 250 500 750 1,000 Feet

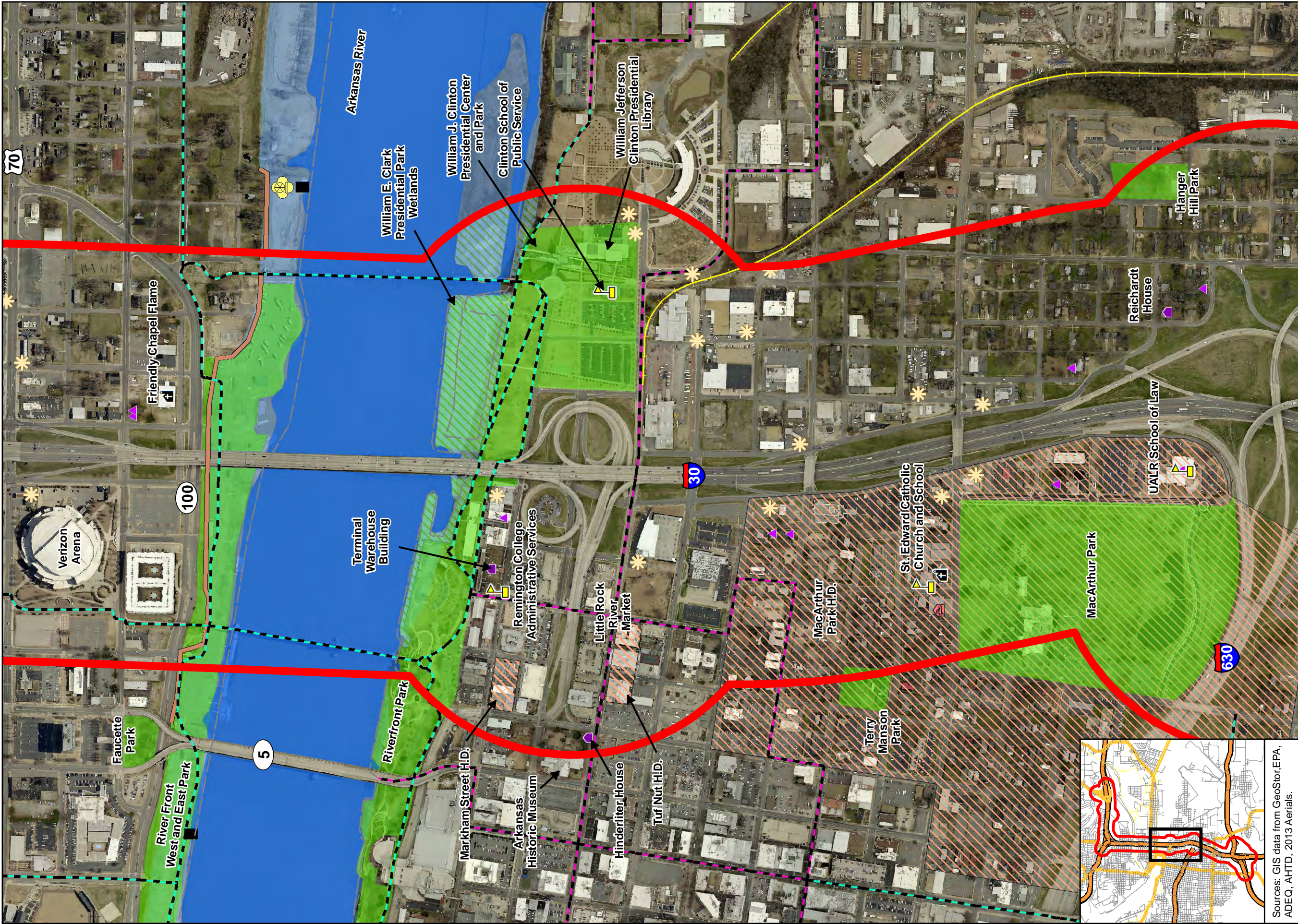
I-30 PLANNING AND ENVIRONMENTAL LINKAGES STUDY
CA0602

CONSTRAINTS MAP
SHEET 2 of 6

INTERSTATE 530 - HIGHWAY 67
Pulaski County, Arkansas

Sources: GIS data from GeoStor(EPA, ADEQ, AHTD, 2013 Aerials).





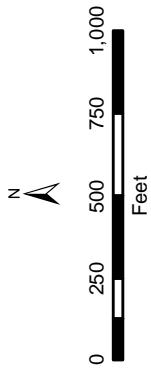
Sources: GIS data from GeoStore (EPA, ADEQ, AHTD, 2013 Aerials).

LEGEND

- | | | | |
|--|---------------------------------------|--|-----------------------|
| | Study Area (1/4 Mile from Centerline) | | Place of Worship |
| | Levee or Dike | | NRHP Listed Structure |
| | Intermodal Facility | | Historic Marker |
| | Port | | NRHP Eligible |
| | Hospital | | Fire |
| | Hazardous Material Site | | Police |
| | Park | | School |

- | | |
|--|--------------------------|
| | Cemetery |
| | Wetland |
| | Water Feature |
| | Flood Hazard Area |
| | Sea Wall |
| | Historic District (H.D.) |
| | Mitigation Area |

- | | |
|--|-----------------------|
| | Fiber Optics Building |
| | Bike Trail (Existing) |
| | Bike Trail (Proposed) |

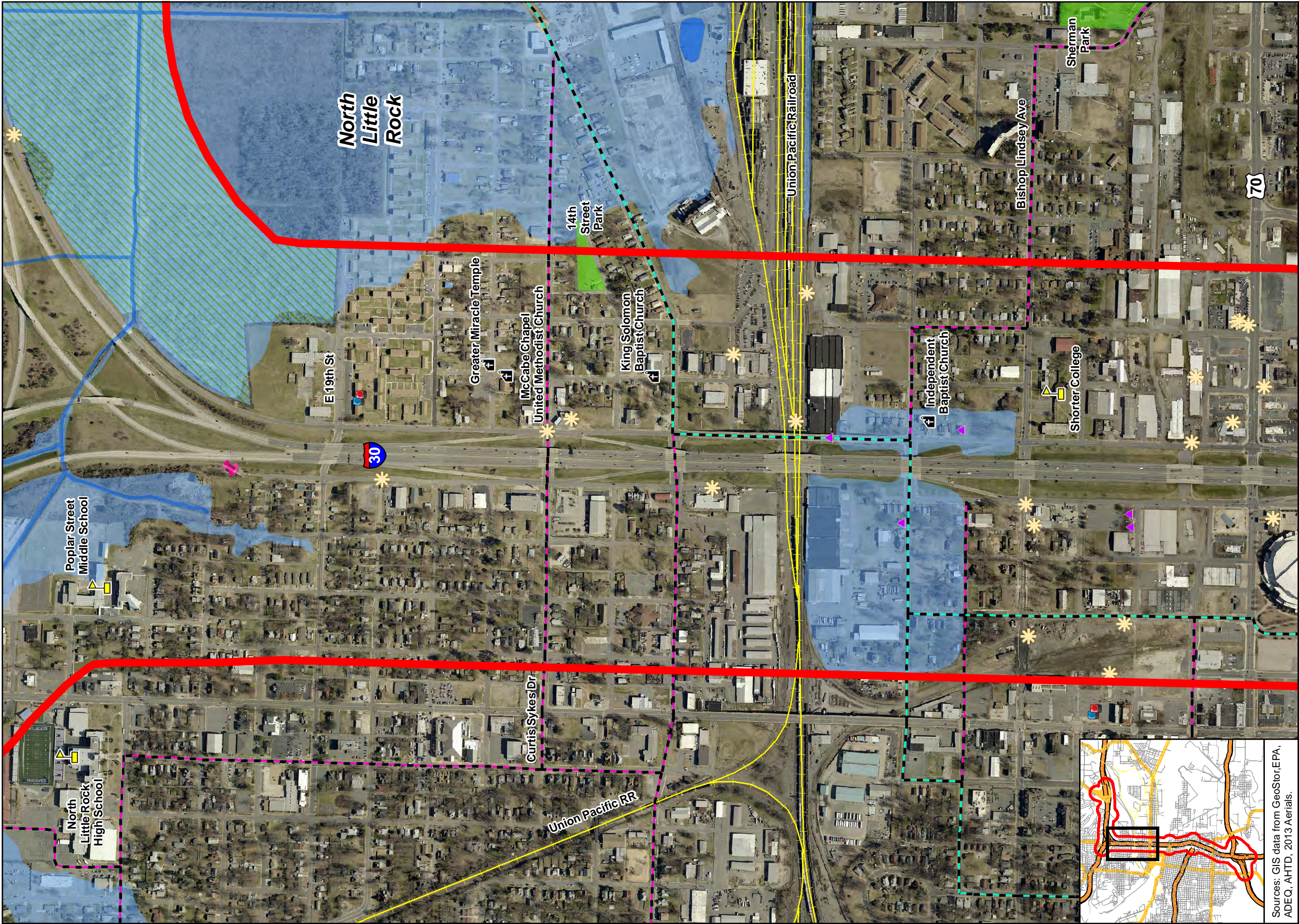


I-30 PLANNING AND ENVIRONMENTAL LINKAGES STUDY
CA0602

CONSTRAINTS MAP
SHEET 3 of 6

INTERSTATE 530 - HIGHWAY 67
Pulaski County, Arkansas





Sources: GIS data from GeoStore(EPA, ADEQ, AHTD, 2013 Aerials.

LEGEND

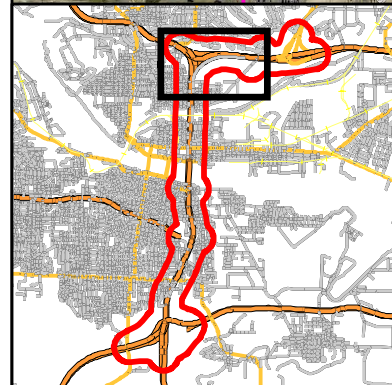
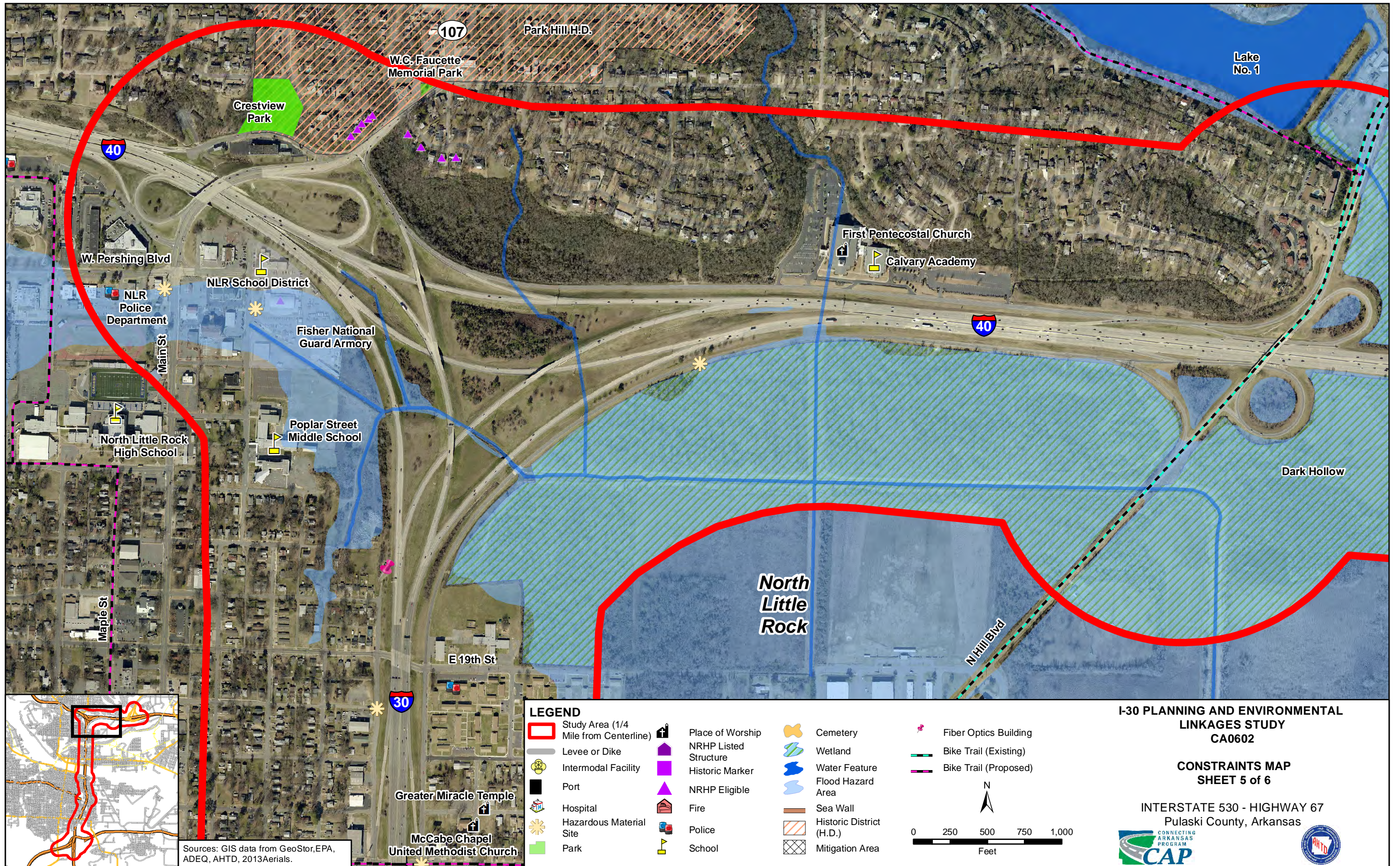
- | | | | |
|--|---------------------------------------|--|--------------------------|
| | Study Area (1/4 Mile from Centerline) | | Place of Worship |
| | Levee or Dike | | NRHP Listed Structure |
| | Intermodal Facility | | Historic Marker |
| | Port | | NRHP Eligible |
| | Hospital | | Fire |
| | Hazardous Material Site | | Police |
| | Park | | School |
| | Fiber Optics Building | | Cemetery |
| | Bike Trail (Existing) | | Wetland |
| | Bike Trail (Proposed) | | Water Feature |
| | | | Flood Hazard Area |
| | | | Sea Wall |
| | | | Historic District (H.D.) |
| | | | Mitigation Area |

I-30 PLANNING AND ENVIRONMENTAL LINKAGES STUDY
CA0602

CONSTRAINTS MAP
SHEET 4 of 6

INTERSTATE 530 - HIGHWAY 67
Pulaski County, Arkansas

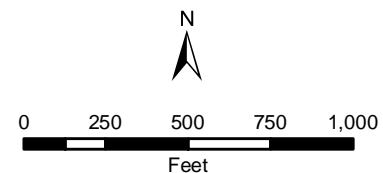




Sources: GIS data from GeoStor, EPA, ADEQ, AHTD, 2013Aerials.

LEGEND

- | | | | |
|---------------------------------------|-----------------------|--------------------------|-----------------------|
| Study Area (1/4 Mile from Centerline) | Place of Worship | Cemetery | Fiber Optics Building |
| Levee or Dike | NRHP Listed Structure | Wetland | Bike Trail (Existing) |
| Intermodal Facility | Historic Marker | Water Feature | Bike Trail (Proposed) |
| Port | NRHP Eligible | Flood Hazard Area | |
| Hospital | Fire | Sea Wall | |
| Hazardous Material Site | Police | Historic District (H.D.) | |
| Park | School | Mitigation Area | |

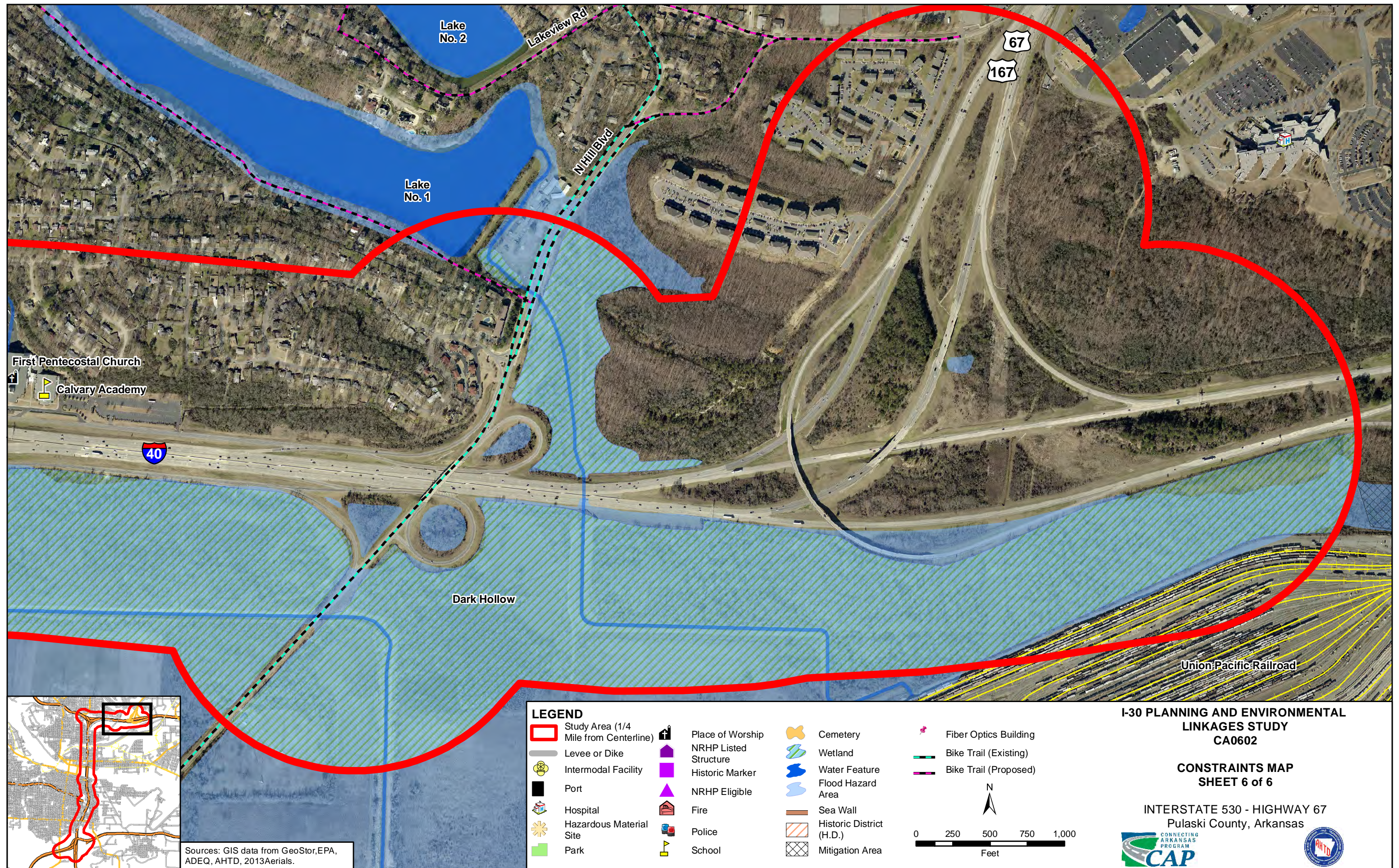


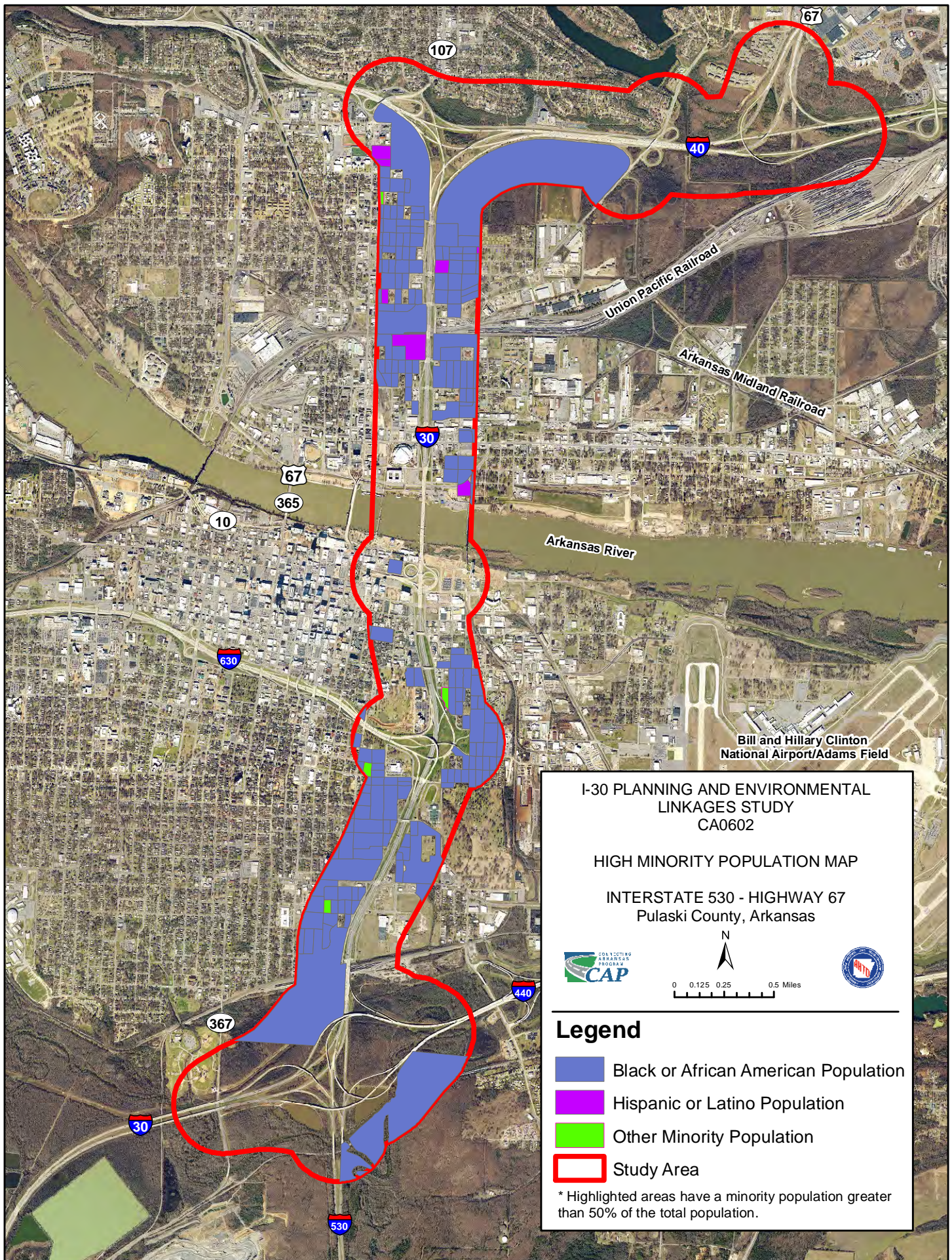
I-30 PLANNING AND ENVIRONMENTAL LINKAGES STUDY CA0602

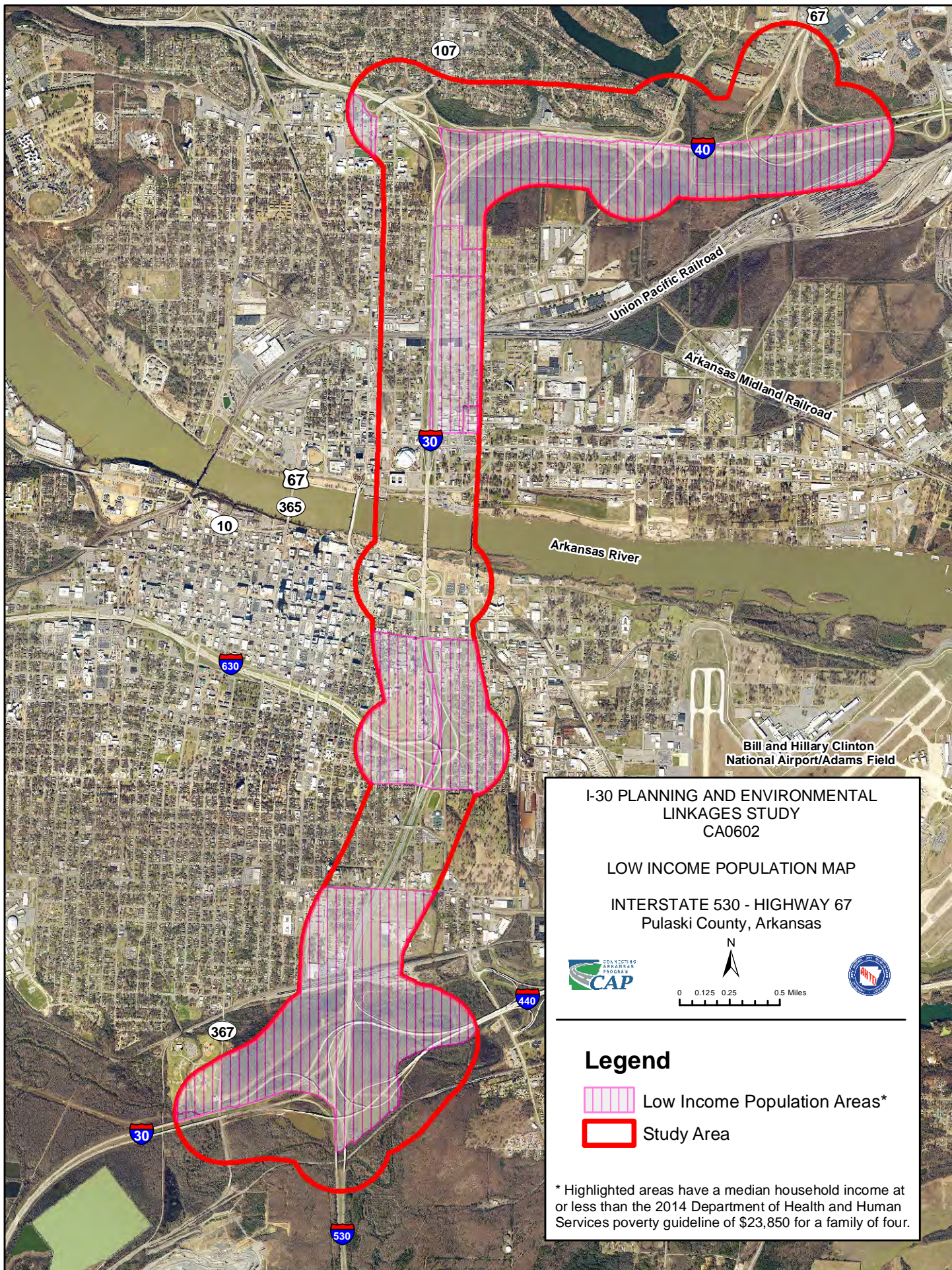
CONSTRAINTS MAP SHEET 5 of 6

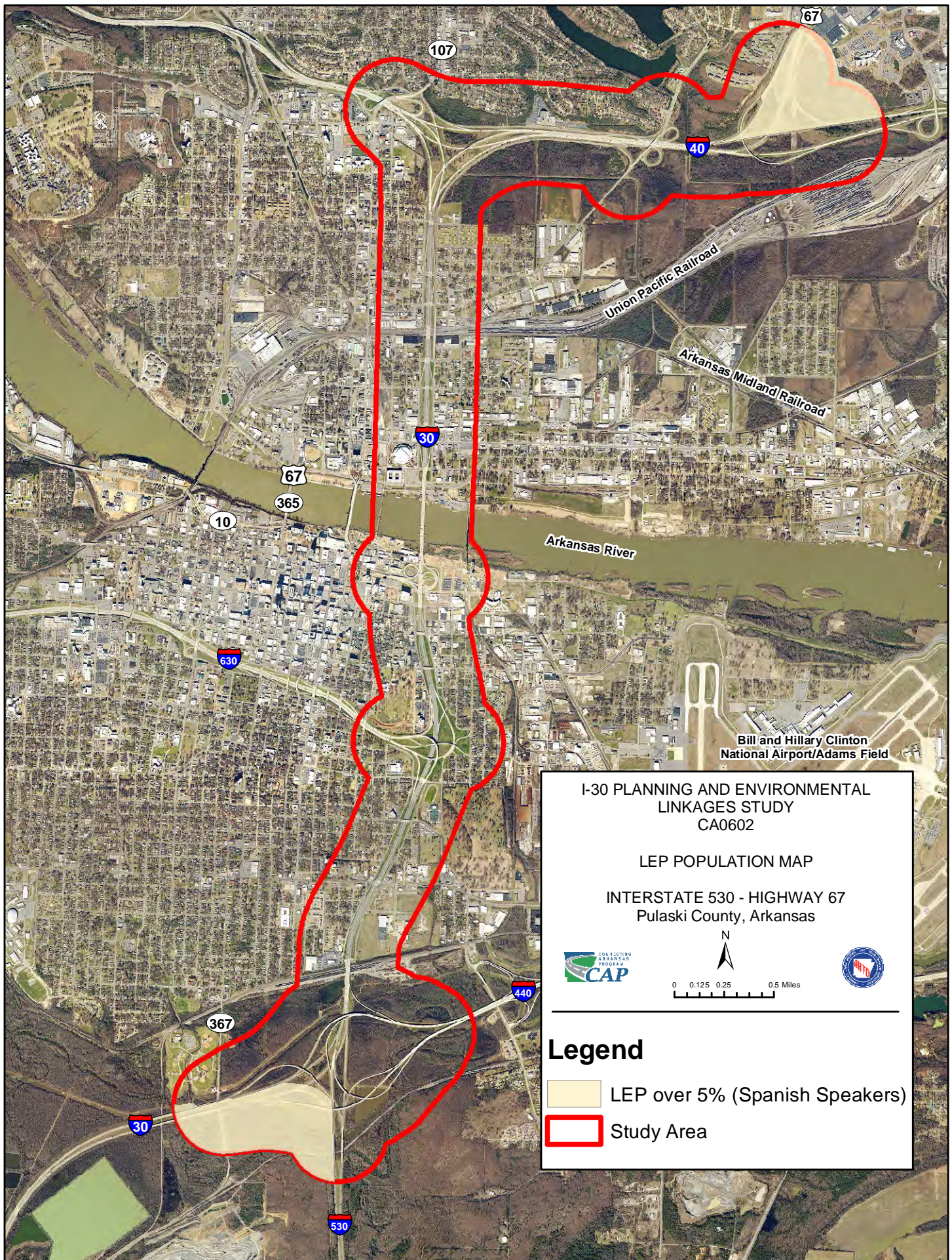
INTERSTATE 530 - HIGHWAY 67
Pulaski County, Arkansas











I-30 PLANNING AND ENVIRONMENTAL
LINKAGES STUDY
CA0602

LEP POPULATION MAP

INTERSTATE 530 - HIGHWAY 67
Pulaski County, Arkansas



0 0.125 0.25 0.5 Miles

Legend

- LEP over 5% (Spanish Speakers)
- Study Area

Attachment B: Supporting Data and Constraints Summary

B-1: Environmental Justice Resources

B-2: AHTD Cultural Resources Memorandum

B-3: Request for Technical Assistance – Arkansas Historic Preservation Program

**B-4: Department of Arkansas Heritage –
Arkansas Historic Preservation Program Letter**

B-5: Constraints Summary Table

Environmental Justice Resources

The following are resources for Environmental Justice populations known to date within the I-30 PEL Study Area. Other areas/locations will come up during the PEL study.

Housing Developments:

Cumberland Manor Housing Development
2721 Scott St
Little Rock, AR 72206

Eastgate Terrace Housing Development
622 E 19th St
North Little Rock, AR 72114

Schools and Institutions:

Booker T. Washington Elementary School
2700 Main St
Little Rock, AR 72206

Shorter College
604 N Locust St
North Little Rock, AR 72114

Clinton School of Public Service
1200 President Clinton Ave
Little Rock, AR 72201

Homeless Shelter & Job Training:

Our House
302 E Roosevelt Rd
Little Rock, AR 72206

Places of Worship with Food Pantries/Food Banks/Homeless Shelters:

Duncan United Methodist Church
2624 Rock St
Little Rock, AR 72206

Greater Miracle Temple
701 East 16th St
North Little Rock, AR 72114

Independent Baptist Church
822 North Locust St
North Little Rock, AR 72114

King Solomon Baptist Church
1304 Pine St
North Little Rock, AR 72114

McCabe Chapel United Methodist Church
1523 Pine St
North Little Rock, AR 72114

Metro Worship Center
2914 S Cumberland St
Little Rock, AR 72206

St. Paul Baptist Church
2603 Commerce St
Little Rock, AR 72206

Walters Temple Church of God in Christ
2615 Cumberland St
Little Rock, AR 72206

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

INTEROFFICE MEMORANDUM

April 25, 2014

TO: Assessments

FROM: Kristina Boykin, Cultural Resources

SUBJECT: Constraints
AHTD Job Number CA0602
I-530-Hwy. 67 (Widening & Reconst.) (I-30 & I-40) (S)
Pulaski County

AHTD Job CA0602 consists of widening and improving interchanges along Interstate 30 and Interstate 40 from Interstate 530 to Highway 67 interchange. A 100 foot buffer on each side of I-30 and I-40 from the existing right-of-way (ROW) was the corridor considered for the initial analysis of all cultural resources for the proposed project. A preliminary investigation for job CA0602 included a records check at the Arkansas Archeological Survey (AAS) for previously recorded archeological sites and the Department of Arkansas Heritage (AHPP) for National Register listed structures. Several maps and references were checked as part of this preliminary assessment.

The 1986 Little Rock, North Little Rock, and McAlmont 7.5" topographic quad maps were examined for cemeteries, likely historic structures and landforms conducive to holding archeological sites. Several topographic quad maps are available for various years (1891, 1935, 1944, 1954, and 1961). The Sanborn Fire Insurance maps (1886, 1889, 1892, 1897, 1913, and 1939) are a great reference for structures still present within the project area.

Several General Land Office maps for Township 1 North, Range 12 West, Township 2 North, Range 12 West and Township 2 North, Range 11 West were examined for this project. The 1855 GLO map had several cultural features within or near the immediate project area. South of the Arkansas River, several fields, houses, a ferry crossing, Rapley's store, St. John's College Grounds, Arsenal Grounds, and roads are noted. North of the Arkansas River, a few fields and roads are within or near the project area. Also the Little Rock & Fort Smith R.R. and Cairo & Fulton R.R. were added on the 1819 GLO for Township 2 North, Range 12 West. The Little Rock & Fort Smith R.R. is still partially intact and in use. This railroad is outside of the project area. The Cairo & Fulton R.R. is no longer present within the project area unless buried under asphalt and houses. This railroad route crossed the Interstate 30 corridor. The only GLO feature that is still present is the Arsenal

Grounds incorporated into the MacArthur Park Historic District. The other GLO features are no longer present within the Area of Potential Effect (APE).

The 1936 Pulaski County Highway map does not reveal any information because the area is blacked out. A preliminary “windshield” survey has been performed by AHTD archeological staff with the following results.

In 2006, Panamerican Consultants, Inc. did a remote-sensing survey of the Arkansas River in the Little Rock area for submerged cultural resources. The only vessel discovered in the Little Rock area was near the Broadway Bridge. No known shipwrecks are present near the I-30 bridge for the current project (reference from *Cultural Resources Survey for the Arkansas River Navigation System from the Arkansas Post Canal to the Oklahoma State Line*).

Several historic routes are present within the corridor. The Military Road was the main transportation outlet from Little Rock especially going east to Memphis or west to Fort Smith in the 1820s and 1830s. The Military Road was utilized as the route for the removal of the Native Americans to Oklahoma as the Trail of Tears. This historic trail could be underwater since the Arkansas River has changed a great deal since the 1830s. No traces of this road are remaining in this project area. Another historic route is Steele’s Approach to Little Rock. The Union General Frederick Steele led a Union army from Helena to Little Rock. This route is east of Interstate 30. Fagan’s Approach to Helena is another historic route within the project area. Confederate troops led by James Fagan started in Little Rock and traveled to Helena in late June 1863. They traveled by train and by foot. This route is shown east and west of Interstate 30. The Butterfield Overland Mail Route went from Memphis to Fort Smith from 1858 to 1861. This route follows present-day Highway 70/Broadway Street and is the same route as Fagan’s Approach within the APE. The Southwest Trail was a major immigration route in the 1820s that connected Missouri to Texas. This route crossed the APE across Highway 70 mentioned above with Fagan’s Approach and the Butterfield Overland Route (reference from <http://www.arkansasheritagetrails.com/>). These routes are no longer apparent within the project area due to urban growth.

The Oakland Cemetery, Fraternal Cemetery, and the National Cemetery are located between the I-530 and I-630 interchanges east of Interstate 30. These cemeteries are also listed on the National Register of Historic Places (NRHP). In addition, Oakland Cemetery is recorded as archeological site 3PU329. No other cemeteries were noted within the APE.

Only three sites are directly within the 100 foot buffer. Site 3PU144 is a well uncovered during the construction of I-630. This site is under I-630 and therefore no longer present. Site 3PU415 is a very low density lithic scatter located within the 67/I-40 interchange. The site was revisited during this evaluation in 2014 and a few lithics were found on the surface. Half of the site was destroyed during the construction of the ramp to I-40. The site will need to be shovel tested within the remaining portion and a site revisit form will need to be filled out. Site 3PU762 consists of a section of buried 1906 railroad tracks on the north side of East 3rd Street. Only a section of this railroad track was removed. Additional rail sections extend a short distance to the northwest and southeast of this site. If these sections are impacted, then the site will need to be documented. A site revisit form will need to be filled out.

Several sites are recorded near the project area. Site 3PU205 is situated near the I-530 interchange south of the railroad yard and is a lithic surface scatter. No shovel tests were excavated at this site when it was initially recorded. This site was revisited by referencing the

USGS quad map showing the site location. The area had standing water and only two shovel tests were conducted in areas without water. These shovel tests were negative for cultural material. Additional efforts will need to be done to relocate this site. Site 3PU707 is located south of the Arkansas River on East 3rd Street near the Old Choctaw Station. This site consisted of a section of brick pavement that was documented during its demolition. This site is no longer present since the street was paved. Any evidence of brick roads will need to be documented during the survey of this project. Site 3PU834 is a historic site consisting of a cement ramp feature. No artifacts were associated with this site. Site 3PU457 is a low mound dating from the Early Archaic to Mississippi Period and is undetermined in its status to the NRHP. Significant work would be required to excavate this site if it is impacted. In our opinion, this site will probably be eligible to the NRHP and should be avoided. Site 3PU414 is a prehistoric and historic artifact scatter and is undetermined in its status to the NRHP. The entire site was excavated by SPEARS, Inc. in 1994 and is no longer present. The site was written up and cleared in a management summary. Site 3PU404 is a light lithic scatter within a disturbed context. This site was considered not eligible to the NRHP. If the project's limits are extended beyond the current buffer, these sites will need to be addressed. In order to protect the sites from looting and further destruction, all site information and location are not subject to the Freedom of Information Act and is not to be distributed to the public.

A total of 164 structures were evaluated for the current project within the proposed APE (Table 1). The AHPP had two structures already listed on the NRHP (Terminal Warehouse Building and Reichardt House) as well as four historic districts (Marshall Square, Hanger Hill, MacArthur Park, and Park Hill). Marshall Square Historic District has eight structures within the 100 foot buffer. Hanger Hill Historic District has five structures and MacArthur Park and Park Hill Historic Districts have four structures each within the buffer. These structures are considered eligible as part of a historic district. Of the 114 new structures evaluated, eighteen structures were determined potentially eligible to the NRHP. Four structures with SHPO numbers were determined as potentially eligible to the NRHP.

Table 1. Structures Evaluated for I-30 corridor.				
	SHPO #	Historic District	New Structures	TOTAL
Eligible	2	21	0	23
Potentially Eligible	4	0	18	22
Not Eligible	23	0	96	119
TOTAL	29	21	114	164

An RTA for one hundred and sixty-four structures will be submitted to SHPO. All eligible and potentially eligible structures (n=45) are listed as a constraint on the attached maps and should be avoided.

ARKANSAS STATE HIGHWAY
AND
TRANSPORTATION DEPARTMENT

Scott E. Bennett
Director
Telephone (501) 569-2000
Voice/TTY 711



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

May 13, 2014

Mr. Eric Gilliland
Arkansas Historic Preservation Program
1500 Tower Building
323 Center Street
Little Rock, Arkansas 72201


RE: AHTD Job Number CA0602
I-530-Hwy. 67 (Widening & Reconst.)
(I-30 & I-40) (F)
Pulaski County

Dear Mr. Gilliland:

The department is conducting a planning study that will recommend improvements to Interstate 30 from the I-30 and I-530 interchange north to the I-30 and I-40 interchange in Little Rock and North Little Rock then east on Interstate 40 through the Hwy. 67/167 interchange in North Little Rock in Pulaski County. As part of our initial efforts to determine potential impacts, we are submitting one hundred sixty-four properties found adjacent to the existing interstates.

Photographs, descriptions and location maps for these properties are included so your staff may evaluate their eligibility for inclusion in the National Register of Historic Places. If you have any questions about the project, please contact Robert Scoggin of my staff at (501) 569-2077.

Sincerely,


for Lynn P. Malbrough
Division Head
Environmental Division

LPM:DW:RS:jh

Enclosure
Request for Technical Assistance



The Department of
**Arkansas
Heritage**

Mike Beebe
Governor

Martha Miller
Director

Arkansas Arts Council

*

Arkansas Natural Heritage
Commission

*

Delta Cultural Center

*

Historic Arkansas Museum

*

Mosaic Templars
Cultural Center

*

Old State House Museum



Arkansas Historic
Preservation Program

323 Center Street, Suite 1500

Little Rock, AR 72201

(501) 324-9880

fax: (501) 324-9184

tdd: (501) 324-9811

e-mail:

info@arkansaspreservation.org

website:

www.arkansaspreservation.org

An Equal Opportunity Employer



June 12, 2014

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

RECEIVED
AHTD

JUN 16 2014

ENVIRONMENTAL
DIVISION

RE: Pulaski County – General
Section 106 Review – FHWA
Request for Technical Assistance
AHTD Job Number CA0602
AHPP Tracking Number 90015.1

Dear Mr. Malbrough:

This letter is written in response to your inquiry regarding properties of architectural or historical significance in the area of the proposed referenced project. The staff of the Arkansas Historic Preservation Program has reviewed the documents contained in your April 10 and May 13, 2014, letters. We have made a preliminary determination of the 164 properties possibly impacted. Of these two structures (PU3118 and PU3164) are listed in the National Register of Historic Places (NRHP) while 130 structures are ineligible and 32 structures are eligible for listing in the NRHP as listed below.

119 ineligible structures:

1-9, 11-12, 14, 16, 18-23, 25-39, 41, 43-44, 47, 48, 49-52, 55-56, 59-62, 64-80, 82-105, 107, 110, 112-113

PU4801S	PU5619	PU3288/5620	PU2955	PU2956	PU2944
PU2943	PU2942	PU2941	PU2940	PU2811	PU2939
PU2776	PU8195S	PU3463	PU3464	PU8200S	PU5348
PU0110	PU0111	PU0102	PU0103	PU0104	PU0165
PU5349					

45 eligible structures:

10, 13, 15, 17, 24, 40, 42, 46, 53, 57, 58, 63, 81, 106, 108-109, 111, 114

PU9072	PU9073	PU9074	PU9075	PU9080	PU9081
PU9082	PU9083	PU5613	PU5609	PU5606	PU5604
PU5603	PU2947	PU2957	PU2787	PU2953	PU3465
PU5347	PU5346	PU5345	PU0071	PU0078	PU0079
PU3118	PU3164	PU0109			

As we discussed in our meeting, we look forward to working with the Arkansas Highway and Transportation Department on determining the area of potential effect.

Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Theresa Russell of my staff at (501)-324-9357.

Sincerely,



Frances McSwain
Deputy State Historic Preservation Officer

cc: Mr. Randal Looney, Federal Highway Administration
Dr. Richard Allen, Cherokee Nation of Oklahoma
Ms. Lisa LaRue-Baker, United Keetoowah Band of Cherokee Indians
Ms. Ladonna Brown, Chickasaw Nation
Dr. Ian Thompson, Choctaw Nation of Oklahoma
Ms. Dana Masters, Jena Band of the Choctaw Indians
Mr. Kenneth H. Carleton, Mississippi Band of Choctaw Indians
Mr. Emman Spain, Muscogee (Creek) Nation of Oklahoma
Mr. Robert Yargee, Alabama-Quassarte Tribal Town (Creek)
Mr. Jeremiah Hobia, Kialegee Tribal Town (Creek)
Ms. Barbara Welborn, Thlopthlocco Tribal Town (Creek)
Ms. Rebecca Brave, Osage Nation
Mr. Everett Bandy, Quapaw Tribe of Oklahoma
Ms. Natalie Harjo, Seminole Nation of Oklahoma
Dr. Ann Early, Arkansas Archeological Survey

NOTES ADDED TO LETTER FOR CLARIFICATION:

Note 1: This letter referneces two RTA submittals: April 10 and May 13, 2014. The original RTA was submitted April 10, 2014, but was subsequently revised by AHTD (cover page revised only to note that the RTA was for a planning study and not a NEPA analysis) and re-submitted on May 13, 2014 (see Appendix B-2).

Note 2: This letter references 130 structures as ineligible and 32 structures eligible (see paragraph 1). Per SHPO and AHTD, these numbers are incorrect and the correct numbers are 119 structures ineligible and 45 structures eligible, as presented in paragraphs 2 and 3 of this letter.

Constraints Summary Table
Constraints Identified within the Study Area¹

Constraints, Environmental Regulations and Agreements	Results
Infrastructure Constraints	<ul style="list-style-type: none"> • Typical overhead and underground utilities exist. • One utility (Fiber Optic Building) located south of I-40 needs to be avoided. Another building is scheduled to be built to the southwest of the existing building and would also need to be avoided. • Four locations where the Union Pacific Railroad (UPRR) intersects the project study area and a maintenance facility adjacent to the corridor. • Impacts to the Seawall to be evaluated in accordance with USACE regulations and policy, Section 408.
Socio-economic <ul style="list-style-type: none"> • Title VI of the Civil Rights Act of 1964 • EO 12898 – Environmental Justice • EO 13166 – Limited English Proficiency 	<ul style="list-style-type: none"> • Minority population consists of approximately 62 percent of the total population within the study area. • The dominant minority group is Black or African American. • Nine (out of 22) Census block groups extending within the study area report median household incomes below the poverty level. • Three (out of 22) Census block groups extending within the study area have LEP populations greater than five percent – predominantly Spanish speakers.
Park, Recreation Area, Wildlife or Waterfowl Refuge, or Publicly or Privately owned Historic Properties <ul style="list-style-type: none"> • FHWA Section 4(f) Regulations (23 CFR 774) • Land and Water Conservation Fund Act (LWCFA) of 1965 	<ul style="list-style-type: none"> • Twelve parks and two school recreation areas were identified as potentially eligible 4(f) properties. • 6(f) properties include Interstate Park and Macarthur Park, which if impacted, would require replacement of land of equal or greater value.
Lakes, Rivers, and Streams <ul style="list-style-type: none"> • Section 303(d) • Section 9 and 10 of the Rivers and Harbors Act (RHA) of 1899 • Wild and Scenic Rivers Act of 1986 	<ul style="list-style-type: none"> • Three named water features intersect the project study area. <ul style="list-style-type: none"> ○ Arkansas River ○ Fourche Creek ○ Lake No. 1
100-year Floodplains <ul style="list-style-type: none"> • Executive Order (EO) 11988 – Floodplain Management 	<ul style="list-style-type: none"> • Three crossings of the 100-year floodplain occur. At the southern limits, Arkansas River, and northern project limits.
Waters of the U.S., including Wetlands <ul style="list-style-type: none"> • Clean Water Act (CWA) of 1972 • EO 11990 – Protection of Wetlands 	<ul style="list-style-type: none"> • Wetlands occur in southern and northern portion of study area. • Arkansas River, Fourche Creek, and associated stream ways intersect the project study area.
Soils <ul style="list-style-type: none"> • Farmland Protection Policy Act (FPPA) 1981 	<ul style="list-style-type: none"> • Study area zoned for urban use - exempt from the FPPA.
Threatened & Endangered Species List <ul style="list-style-type: none"> • Endangered Species Act (ESA) of 1973 	<ul style="list-style-type: none"> • The Interior Least Tern (<i>Sterna antillarum athalassos</i>) is known to occur within the project study area.

Constraints, Environmental Regulations and Agreements	Results
Fish and Wildlife <ul style="list-style-type: none"> • Fish and Wildlife Coordination Act (FWCA) of 1958 • Migratory Bird Treaty Act (MBTA) of 1918 • EO 13112 - Invasive Species 	<ul style="list-style-type: none"> • Bridges and structures within the project area are nesting sites for migratory birds. • Compliance with EO 13112 regarding the potential introduction of invasive terrestrial or aquatic animal species as a result of a proposed project.
Vegetation <ul style="list-style-type: none"> • EO 13112 - Invasive Species • Executive Memorandum on Environmentally and Economically Beneficial Landscaping 	<ul style="list-style-type: none"> • No known rare or unique vegetative communities within the project study area other than those described as jurisdictional wetlands. • Compliance with EO 13112 regarding the potential introduction of invasive plant species. Seeding and replanting of disturbed areas would need to be in compliance with EO 13112 and the Executive Memorandum on Environmentally and Economically Beneficial Landscaping.
Cultural Resources <ul style="list-style-type: none"> • National Historic Preservation Act (NHPA) of 1966 • Archeological Resources Protection Act (ARPA) of 1979 • Native American Grave Protection and Repatriation Act (NAGPRA) of 1990 • FHWA Section 4(f) Regulations (23 CFR 774) • Arkansas Antiquity Act 	<ul style="list-style-type: none"> • Three archeological sites within the APE ² • Four historic districts within the APE. • SHPO preliminary determination: 45 eligible structures within the APE (includes two already listed in the NRHP).
Hazardous Materials <ul style="list-style-type: none"> • Resource Conservation and Recovery Act (RCRA) of 1976 • Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 	<ul style="list-style-type: none"> • Forty-nine sites located within the project study area (including service stations, maintenance facilities, vehicle centers containing registered storage tanks, and miscellaneous businesses). • None of the sites identified would be considered high risk.
Other ³	<ul style="list-style-type: none"> • Eight schools identified. • North Little Rock School District Office is located adjacent to the project area • North Little Rock is planning a new school facility south of I-40 and west of I-30, near the existing North Little Rock High School Football Stadium • Twelve places of worship identified.

Notes:

1. The study area is an approximately one-quarter mile buffer from the existing centerline of the roadway. It includes the various ramps associated with the interchanges.
2. The APE for the Cultural Resources assessment is a 100-foot buffer on either side of I-30 and I-40 from the existing ROW.
3. Schools and places of worship have been identified for informational purposes and are not considered constraints. However, they are included in this table given the importance that both play within the local community. Accordingly, it is a goal that impacts to these locations be avoided and/or minimized whenever possible.