TIER 3 CATEGORICAL EXCLUSION

AHTD JOB NUMBER CA0601
FAP NUMBER ACNHPP-030-2(267)111
Widening of I-30
Highway 70 - Sevier Street
Saline County, Arkansas

Submitted Pursuant to 42 U.S.C. 4332(2)
By the
U.S. Department of Transportation
Federal Highway Administration
and the
Arkansas State Highway and Transportation Department

Prepared by
Kimley-Horn and Associates, Inc.
Memphis, TN

June 15, 2016

6/30/2016
Date of Approval

Randal Looney
Environmental Specialist
Federal Highway Administration

The Arkansas Highway Department of Transportation (AHTD) Environmental Division has reviewed the referenced project and it falls within the definition of the Tier 3 Categorical Exclusion as defined by the AHTD and Federal Highway Administration (FHWA) Memorandum of Agreement on the processing of Categorical Exclusions.

The purpose of the project is to increase capacity and safety along the Interstate 30 corridor. The project begins at Highway 70 and extends to Sevier Street at Benton in Saline County. Total length of the project is 5.3 miles. A project location map is in Attachment A.

The existing roadway consists of four 12-foot wide paved travel lanes with 10-foot wide outside and 6-foot wide inside shoulders. The existing median width is 40 feet. Existing right of way width varies, ranging from 300'- 420'.

Proposed improvements consist of six 12-foot wide paved travel lanes with 12-foot wide inside and 10-foot wide outside shoulders. Interchange modifications will be constructed at Highway 70, Highway 67/229, and Sevier Street. Access at the Sevier Street interchange will be changed. The direct connection of Sevier Street with the eastbound I-30 entrance ramp has been removed to increase safety on the ramp. Access to eastbound I-30 is still available to local traffic via South Street. Frontage roads will be modified in multiple locations to accommodate the new interchange configurations. Seven bridges will be replaced. Information about the existing bridge structures to be replaced is provided in Attachment D (Table 1). Information regarding the proposed structures is provided in Attachment D (Table 2). Proposed right of way width varies, ranging from 300'- 420'. Approximately 19.5 acres of additional right of way will be required for this project. An Interchange Justification Report was approved by FHWA for these changes on 9/10/15.

Design data for this project is as follows:

Design Year	Average Daily Traffic	Percent Trucks	Design Speed
2016	79,000	17	70 mph
2036	127,000	17	70 mph

There are no prime farmland impacts associated with this project. There are no Executive Order 12898 Environmental Justice issues involved with this project. Field inspections confirmed that no impacts to any existing underground storage tanks are anticipated and no hazardous waste deposits were identified. Two existing businesses will require relocation. Public Law 91-646, Uniform Relocation Assistance Act of 1970, as amended, will apply.

A noise study was conducted for the project to identify potential noise impacts (Attachment F). The noise study indicated that noise abatement was not warranted in the project area

based upon AHTD noise policy. Should the final noise report identify that noise abatement is warranted, the AHTD will follow the current noise policy and provide the findings to the public for review and consideration.

A cultural resources technical report was prepared and reviewed by the State Historic Preservation Officer (SHPO) over the Phase I cultural resources survey conducted in 2014 and 2015. Crouch Cemetery was identified as an area requiring special protection and has been included as a restraining condition in the project plans and specifications. The restraining condition special provision can be found in Attachment G. Concurrence from the SHPO is enclosed. Coordination letters with SHPO are in Attachment C. Prior to the survey, the appropriate Native American tribes were consulted. The consultation letters and responses from the tribes are in Attachment E.

Saline County participates in the National Flood Insurance Program. All of the floodplain encroachments within this highway construction project will be designed to comply with the county's local flood damage prevention ordinance. The project lies within the Zone AE, Special Flood Hazard Area. 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.

During the field survey, 10 streams, two wetlands, and one pond were identified as crossing or adjacent to the project corridor. Stream impacts totaling 1,001 linear feet and permanent wetland impacts of 0.26 acre are anticipated. Compensatory mitigation for unavoidable stream and wetland impacts will be provided at the Department's Upper Saline River Mitigation Bank, once approved. The result of coordination with the U.S. Army Corps of Engineers is pending. It is anticipated that the project will be allowed under the terms of a Section 404 Nationwide 23 Permit as defined in Federal Register 77(34)10183-10290. The complete Jurisdictional Determination Report is available upon request.

The Saline River is an Ecologically Sensitive Waterbody and an Extraordinary Resource Water. Construction activities within the Saline River will require an Individual Section 401 Water Quality Certification and a Short Term Activity Authorization from the Arkansas Department of Environmental Quality.

The project lies within the range or proximity of numerous federally protected threatened or endangered species. Those species include the northern long-eared bat (*Myotis septentrionalis*), Arkansas fatmucket (*Lampsilis powellii*), rabbitsfoot (*Quadrula cylindrica*), pink mucket (*Lampsilis abrupta*), and winged mapleleaf (*Quadrula fragosa*).

AHTD and FHWA are currently in formal consultation, under Section 7(a)(2) of the Endangered Species Act (ESA), with the United States Fish and Wildlife Service (USFWS)

for potential impacts to the above listed species. It is anticipated that consultation will result in a determination that the 4 (d) Rule will apply for the northern long-eared bat, that the project will have no effect on the winged mapleleaf, that the project may affect but is not likely to adversely affect the rabbitsfoot and pink mucket and that the project is likely to adversely affect the Arkansas fatmucket. All reasonable and prudent measures included in the resulting Biological Opinion will be implemented, including the translocation of mussels within the project are to a site determined by the USFWS and Arkansas Game and Fish Commission.

Several resources meeting the eligibility requirements for Section 4(f) protection and are located in the project survey corridor, including: the Arkansas Game and Fish Commission Boat Ramp at the Saline River, property along the Saline River owned by the City of Benton Parks and Recreation Department that provides river access and unmarked trails, Sunset Lake Park, the City of Benton Dog Park, and the future Riverside Park which will be located at the old airport. As currently planned, there are no impacts to these resources.

A Public Involvement Meeting was held November 5, 2015 at the Holland Chapel Baptist Church in Benton, Arkansas. A synopsis of this meeting is in Attachment H.

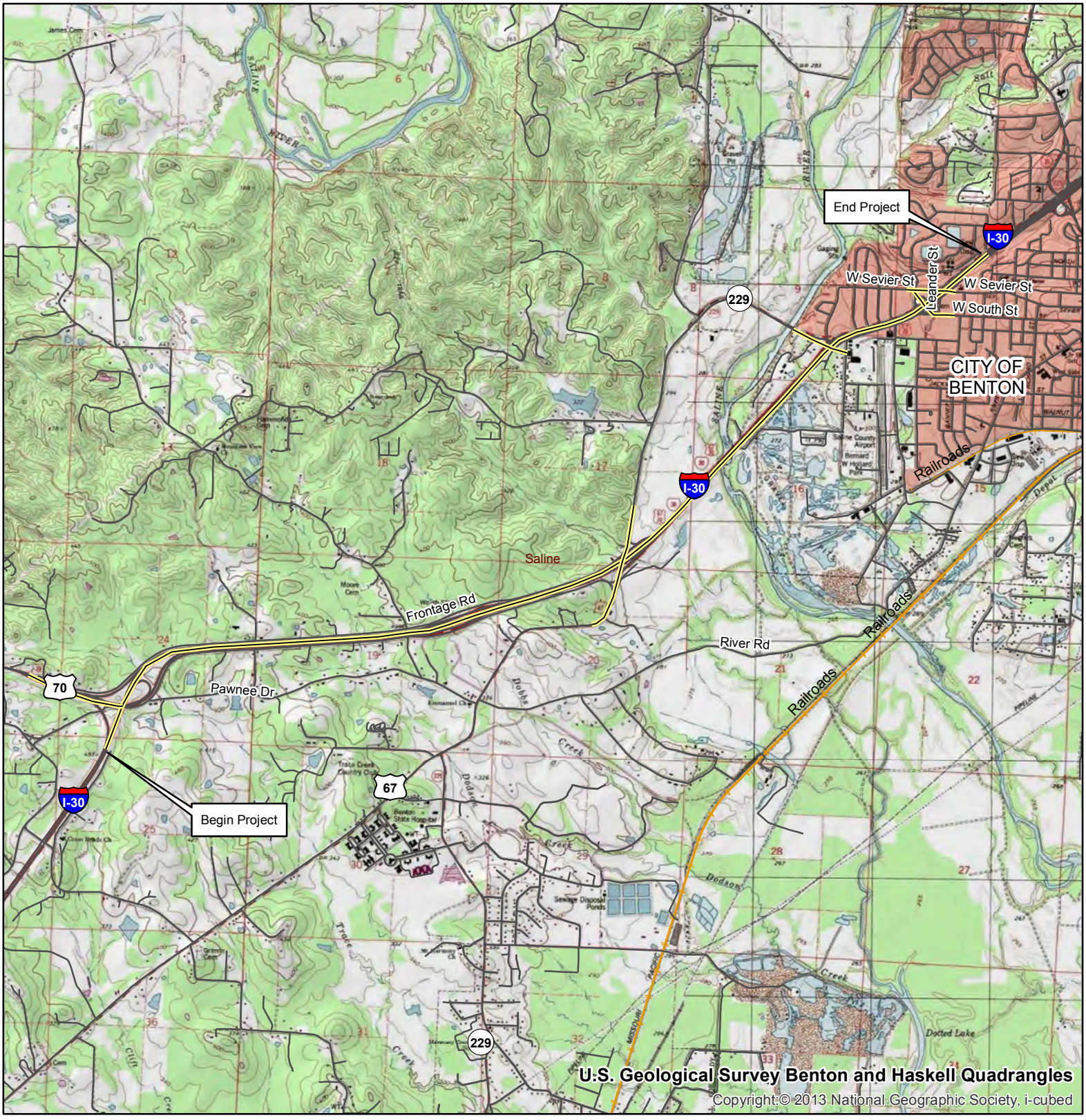
Listing of Commitments

- Special Provisions for Migratory Birds
- Special Provisions for Wellhead Protection
- Special Provisions for Water Quality Control
- USACOE 404 Nationwide 23 Permit
- Short Term Activity Authorization
- Individual Section 401 Water Quality Certification
- Wetland and Stream mitigation from the Upper Saline River Mitigation Bank
- Floodplain Development Permit
- Avoid any Impacts to Crouch Cemetery and provide parking spaces
-Complete formal Section 7 consultation with USFWS for potential impacts to listed species
-Implement all reasonable and prudent measures identified in the Biological Opinion issued by the USFWS
-AHTD will require Special Provisions for T&E species once the formal consultation with the USFWS is complete

CA0601 I-30 Widening, From Highway 70 to Sevier Street

Attachment A

Project Location Map

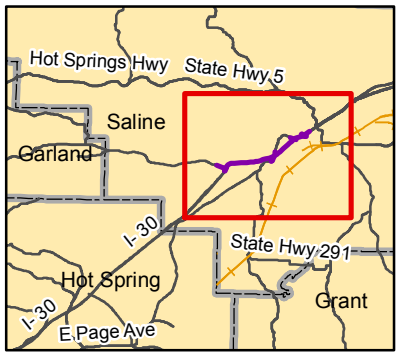


AHTD Job CA0601
I-30 Widening
From Highway 70 to Sevier Street
Project Location

Legend

Project Corridor

0 1 2 Miles



CA0601 I-30 Widening, From Highway 70 to Sevier Street

Attachment B

Environmental Impacts Assessment Form

AHTD Job Number CA0601 **FAP Number** ACNHPP-030-2(267)111

Job Title Widening of I-30, From Highway 70 to Sevier Street

Environmental Impacts	None	Minor	Significant	Comments
Air Quality	X			
Construction Impacts		X		
Cultural Resources	X			*Cemetery identified as constraint area.*
Economic	X			
Endangered Species		X		*Formal consultation for potential impacts to Arkansas fatmuckets, rabbitsfoot, and Northern Long Eared Bats underway with USFWS.*
Energy Resources	X			
Environmental Justice/Title VI	X			
Fish and Wildlife				
Floodplains	X			
Forest Service Property	X			
Hazardous Materials/Landfills	X			
Land Use Impacts	X			
Migratory Birds		X		*Special Provisions for Migratory Birds added.*
Navigation/Coast Guard	X			
Noise Levels	X			
Prime Farmland	X			
Protected Waters		X		*Temporary impacts during construction to Saline River (Ecologically Sensitive Waterbody and an Extraordinary Resource Water)*
Public Recreation Lands		X		*Loss of outbuilding at the State Fairground.*
Public Water Supply/WHPA	X			
Relocatees		X		*Two business relocations.*
Section 4(f)/6(f)	X			
Social	X			
Underground Storage Tanks	X			
Visual Impacts	X			

Stream Impacts		**X**		*1,001' of permanent impacts anticipated.*
Water Quality	**X**			
Wetlands		**X**		*0.26 acres of permanent impacts anticipated.*
Wildlife Refuges	**X**			

Section 401 Water Quality Certification Required? YES

Short-term Activity Authorization Required? YES

Section 404 Permit Required? YES Type Nationwide 23

Remarks:

Signature of Evaluator _____ Date April 4, 2016

CA0601 I-30 Widening, From Highway 70 to Sevier Street

Attachment C

SHPO Clearance and Agency Responses

ARKANSAS STATE HIGHWAY
AND
TRANSPORTATION DEPARTMENT

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

P.O. Box 2261
Little Rock, AR 72203-2261
Telefax: (501) 569-2400
www.ArkansasHighways.com

March 16, 2015

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

Re: Connecting Arkansas Program
Job CA0601 – I-30, US Highway 70 to Sevier Street
Saline County, Arkansas
AHPP Tracking Number 90864.1

Dear Mr. Gilliland:

The above referenced project proposes to widen Interstate 30 from US Highway 70 to Sevier Street for a distance of approximately 5.2 miles in Saline County. Interchange improvements are planned at Exit 111 (US 70), Exit 114 (US 67), and Exit 116 (South St). We submitted the cultural resource report for this project for your review last year. Your office had requested additional information to include in the report. The additional information has been compiled in the attached addendum report. If further information is required, please contact me at 601.825.3633. Thank you for your time and assistance in this matter.

Sincerely yours,

Ray Balentine, PE

CAP Environmental Manager

Attachment

cc: Shahriar Azad, PE -Bridgefarmer / Brenda Price - AHTD

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

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website:
www.arkansaspreservation.org

An Equal Opportunity Employer

April 7, 2015

Mr. John Fleming
Division Head, Environmental Division
Arkansas State Highway and Transportation Department
Post Office Box 2261
Little Rock, Arkansas 72203-2261

Re: Saline County – Washington
Section 106 Review – FHWA
AHTD Job No. CA0601; I-30, US Highway 70 to Sevier Street
AHPP Project Number 90864.2

Dear Mr. Fleming:

The staff of the Arkansas Historic Preservation Program has examined the above-referenced project and is pleased to offer the following comments regarding the Area of Potential Effect (APE).

My staff has reviewed an addendum to the report entitled *A Cultural Resources Survey of the Proposed New Right-of-Way Associated with AHTD Job No: CA0601 (FPA No:9991) Widening of I-30 & Interchange Improvements in Saline County, Arkansas* by Flat Earth Archeology. This addendum addresses our previous concerns regarding properties SA32 (De Soto Expedition Route Marker) and SA33 (Fort Bussy) as well as an unnamed cemetery (now known as the Crouch Cemetery) shown on the USGS quadrangle map.

We agree that neither SA32 nor SA33 will be affected by the proposed undertaking and that the cemetery should be avoided. With the provision that the Crouch Cemetery is avoided and that an AAS site form is completed for it, we find that this undertaking will have no effect on historic properties. A copy of the site form should be forwarded to this office.

Thank you for the opportunity to review this report. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Steve Imhoff of my staff at 501-324-9880.

Sincerely,

Frances McSwain

Frances McSwain
Deputy State Historic Preservation Officer

cc: Mr. Ray Balentine, Arkansas State Highway and Transportation Department
Mr. Everett Bandy, Quapaw Tribe of Oklahoma
Dr. Timothy Baugh, Chickasaw Nation
Mr. Chris Branam, Flat Earth Archeology
Mr. Kenneth H. Carleton, Mississippi Band of Choctaw Indians
Dr. Ann Early, Arkansas Archeological Survey
~~Ms. Tamara Francis-Fourkiller, Caddo Nation~~
Mr. Randal Looney, FHWA
Dr. Andrea Hunter, Osage Nation
Dr. Ian Thompson, Choctaw Nation of Oklahoma

The Department of
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Delta Cultural Center

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Arkansas Historic Preservation Program

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August 18, 2014

Mr. Ray Balentine, P.E.
Environmental Team Leader
Arkansas State Highway and Transportation Department
Connecting Arkansas Program
PO Box 2261
Little Rock, AR 72203-2261

RE: Saline County – Benton
Section 106 Review – FHWA
Request for Technical Assistance
AHTD Job Number ~~CA0901~~ CA0601
AHPP Tracking Number 90864

Dear Mr. Balentine:

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 July 21, 2014, letter and has determined that the ten (10) structures (A-J) possibly impacted by this undertaking are ineligible for inclusion in the National Register of Historic Places. Please note that your letter mentions eleven (11) structures but only includes ten (10).

In your documentation you write that other properties without Right-of-Way impact were not evaluated and therefore were not included. We have noted four (4) additional properties located within the Right-of Way (SA0126 Yates Cabin, SA0020 Saline River Bridge, SA0032 DeSoto's Expedition Route Site, and SA0033 Busey's Fort Site) that were not included in your submission material.

Once the undertaking is further along in the planning stages, we look forward to reviewing the cultural resources survey report of the proposed project. 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

Frances McSwain
Deputy State Historic Preservation Officer

cc: Mr. Randal Looney, Federal Highway Administration
Mr. John Fleming, AHTD
Ms. Rebecca Brave, Osage Nation
Mr. Everett Bandy, Quapaw Tribe of Oklahoma
Dr. Ann Early, Arkansas Archeological Survey

The Department of
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November 7, 2014

Mr. Chris Branam
Flat Earth Archeology, LLC
13 Valley Road
Cabot, Arkansas 72023

Re: Saline County – General
Section 106 Review – FHWA
Report Titled *Cultural Resources Survey of Proposed New Right-of-Way Associated with AHTD Job No. CA0601 – Widening I-30 in Saline County, Arkansas*
F.E.A. Project Report 2014-37
AHPP Tracking Number 90864.1

Dear Mr. Branam:

The staff of the Arkansas Historic Preservation Program has reviewed the above-referenced cultural resources survey report. The portions of the report dealing with areas of new right-of-way are acceptable, and we concur that no historic properties will be impacted by these small right-of-way expansions. We also concur that archeological site 3SA380 is ineligible for listing in the National Register of Historic Places, that no evidence of archeological site 3SA222 is present within the proposed right-of-way, and that no further work is necessary at these locations.

We do, however, have some concerns regarding possibly properties within the existing right-of-way. The DeSoto's Expedition Route Marker (SA32) and Fort Bussy (SA33) were discussed in the text, but details regarding efforts to relocate these properties were not given. It is not clear whether the small semi-circular area in the southwest corner of the intersection of Interstate 30 and Highway 67 was actually subjected to survey to ensure that these properties are not present in this area. We recommend that this area be subjected to cultural resources survey to determine if remnants of these resources, particularly Fort Buss y, are present in the area. If this area was already surveyed for the presence of cultural resources, please provide details regarding the activities taken in the area to attempt to find these properties.

Likewise, please provide more detailed information regarding the procedures implemented to attempt to find the historic cemetery depicted on the 1974 Benton quadrangle map near 3SA356.

Thank you for the opportunity to review this undertaking. Please refer to the AHPP Tracking Number listed above in all correspondence. If you have any questions, please call Eric Gilliland of my staff at 501-324-9270.

Sincerely,

Frances McSwain

Frances McSwain
Deputy State Historic Preservation Officer

cc: Mr. Everett Bandy, Quapaw Tribe of Oklahoma
Mr. Robert Cast, Caddo Nation
Mr. Drake Danley, Kimley-Horn and Associates
Dr. Ann Early, Arkansas Archeological Survey
Mr. John Fleming, AHTD
Ms. Amber Hood, Chickasaw Nation
Dr. Andrea Hunter, Osage Nation
Dr. Ian Thompson, Choctaw Nation of Oklahoma

ARKANSAS STATE HIGHWAY
AND
TRANSPORTATION DEPARTMENT

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Telefax: (501) 569-2400
www.ArkansasHighways.com

August 1, 2014

Mr. John Beneke
Outdoor Recreation Grants
Arkansas Department of Parks and Tourism
One Capitol Mall
Little Rock, AR 72201

Re: Connecting Arkansas Program
Job CA0601 – I30 Widening from US Highway 70 to Sevier Street
Saline County, Arkansas

Dear Mr. Beneke:

The Arkansas State Highway and Transportation Department (AHTD) would like to request information on Land and Water Conservation Fund (LWCF) grant assisted recreational sites protected by Section 6(f)(3) of the LWCF Act within the vicinity of the proposed project area. The project consists of the widening of Interstate 30 (I-30) from US Highway 70 (US 70) to West Sevier Street, and interchange improvements at Exit 111/ US 70, Exit 114/State Highway 229 (AR 229), and Exit 116/AR 229/West Sevier Street. The total project length is approximately five miles. The improvements will generally consist of widening the interstate and will also involve replacing one bridge on I-30 over the Saline River. The project is located in Saline County Arkansas (see attached location map).

Resources meeting the eligibility requirements for Section 4(f) protection and are located in the project survey corridor include: the Arkansas Game and Fish Commission Boat Ramp at the Saline River, property along the Saline River owned by the City of Benton Parks and Recreation Department that provides river access and unmarked trails, Sunset Lake Park, the City of Benton Dog Park, and the future Riverside Park which will be located at the old airport. As currently planned, impacts to these facilities would be limited to areas outside of park boundaries that would be considered to be in existing transportation use.

CA0601

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The CAP would like to ensure these properties are avoided if possible during project development, design and construction. Any information you could provide would be appreciated. If further information is required, please contact Ray Balentine (601) 825-3633.

Please call me if you have any questions.

Sincerely yours,

Ray Balentine, PE

CAP Environmental Manager

Attachment

cc: Shahriar Azad, PE -Bridgefarmer / Brenda Price -AHTD

CA0601 I-30 Widening, From Highway 70 to Sevier Street

Attachment D

Roadway and Bridge Design Sheets

DATE SUBMITTED _____

DESIGN INFORMATION

Job Number CA0601 FAP Number 9991 County Saline

Job Name I-30 Widening from Highway 70 to Sevier Street

Design Engineer Shahriar Azad, PE (Bridgefarmer and Associates, Inc.)

Brief Project Description Widening of existing I-30 and replacement of bridge structures, from Highway 70 interchange to Sevier Street

EXISTING CONDITIONS:

Roadway Width: 24'-0" each way Shoulder Width: 10'-0" outside, 6" inside

Number of Lanes and Width: 2 lanes each way, 12'-0" width

Average Existing ROW Width 300' (300'min., 420' max.)

PROPOSED CONDITIONS:

Roadway Width: 24'-0" to 48'-0", each way Shoulder Width: 12'-0"outside, 10'-0"inside

Number of Lanes and Width: Varies, 2-4 lanes each way, 12'-0" width

Average Existing ROW Width 300' (300'min., 420' max.)

CONSTRUCTION INFORMATION:

If detour: Where N/A Length _____

DESIGN DATA:

2016 ADT 79,000 2036 ADT 127,000 %Trucks 17% Design Speed 70 mph

Approximate total length of project: 5.358 mile(s)

Justification for improvements: Improve the overall level of service and address future growth in the heavily traveled corridor.

Table 1: Existing Structures		
Bridge Number	Roadway/Watercourse	Existing Structure
A3092	Highway 67	43’ x 258’ structure comprised of 3-span concrete deck with steel beams and HP Steel Bearing piles. The structure has a sufficiency rating of 84.2.
B3092	Highway 67	43’ x 258’ structure comprised of 3-span concrete deck with steel beams and HP Steel Bearing piles. The structure is structurally deficient and has a sufficiency rating of 66.0.
A3093	Saline River Relief	43’ x 503’ structure comprised of 10-span concrete deck with steel beams and HP Steel Bearing piles. The structure is structurally deficient and has a sufficiency rating of 71.0.
B3093	Saline River Relief	43’ x 503’ structure comprised of 10-span concrete deck with steel beams and HP Steel Bearing piles. The structure is structurally deficient and has a sufficiency rating of 71.0.
A3094	Saline River	43’ x 1063’ structure comprised of 14-span concrete deck with steel beams and HP Steel Bearing piles. The structure is structurally deficient and has a sufficiency rating of 67.1.
B3094	Saline River	63’ x 1063’ structure comprised of 14-span concrete deck with steel beams and HP Steel Bearing piles. The structure has a sufficiency rating of 83.9.
3141R	I-30	47’ x 283’ structure comprised of 6-span concrete deck with steel beams and HP Steel Bearing piles. The structure has a sufficiency rating of 97.0.
Sta. 258+57	Trace Creek	Double 4' x 6' x 265'-8" structure comprised of RCBC
Sta. 320+78	Dobbs Creek	Double 8' x 8' x 256' structure comprised of RCBC
Sta. 399+85	Tributary to Saline River	Double 10' x 6' x 462’ structure comprised of RCBC

Table 2: Proposed Structures		
Roadway/ Watercourse	**Proposed Structure**	**Type**
Highway 67	148'-0" Composite Plate Girder on Pile End Bents. Total length 150'-2 9/16"	Replacement Structure (I-30 EB)
Highway 67	148'-0" Composite Plate Girder on Pile End Bents. Total length 151'-5 11/16"	Replacement Structure (I-30 WB)
Saline River Relief	8-span Continuous Composite W-Beam Unit on Trestle Pile Bents. Total length 533'-0 7/16"	Replacement Structure (I-30 EB)
Saline River Relief	8-span Continuous Composite W-Beam Unit on Trestle Pile Bents. Total length 533'-0 7/16"	Replacement Structure (I-30 WB)
Saline River Relief	8-span Continuous Composite W-Beam Unit on Trestle Pile Bents. Total length 533'-0 7/16"	New Structure (I-30 WB Ramp)
Saline River	14-span Continuous Composite W-Beam Unit on Trestle Pile Bents and Columns on Drilled Shafts. Total length 1063'-0 3/4"	Replacement Structure (I-30 EB)
Saline River	14-span Continuous Composite W-Beam Unit on Trestle Pile Bents and Columns on Drilled Shafts. Total length 1063'-0 3/4"	Replacement Structure (I-30 WB)
I-30	4-span Continuous Composite W-Beam Unit on Trestle Pile Bents. Total length 150'-2 9/16"	Replacement Structure (South Street)
Trace Creek Sta 258+57	Extend existing Double 4' x 6' x 265'-8" RCBC to 284'-3"	Culvert Extension
Dobbs Creek Sta 320+78	Extend existing Double 8' x 8' x 256' RCBC to 272'-0"	Culvert Extension
Tributary to Saline River Sta 399+85	Extend existing Double 10' x 6' x 462' RCBC to 542'-4 ¼"	Culvert Extension
Tributary to Saline River Sta 76+28	Triple 10' x 6' x 102'-4 ½" RCBC	New Structure

DATE SUBMITTED _____

BRIDGE DESIGN INFORMATION

Job Number CA0601 FAP Number 9991 County Saline

Job Name I-30 Widening from Highway 70 to Sevier Street

Design Engineer Shahriar Azad, PE (Bridgefarmer and Associates, Inc.)

Description of Existing Bridge:

Bridge Number B3092 over Highway 67

Bridge Location: Rte: I-30 WB Section: 220 Log Mile: 113.65

Length: 258'-4 1/4" Br. Rdwy. width: 40'-0" Deck width (Out-to-Out) 43'-0"

Type Construction: Composite W-Beam Unit

Deficiencies Deck Condition

HBRRP Eligibility: _____ Qualifying Code: SD Sufficiency Rating: 66

Proposed Improvements:

Length: 151'-5 11/16" Br. Rdwy. Width: 70'-6 5/8" to 74'-8 1/2" Deck Width (Out-to-out) 73'-6 5/8" to 78'-8 1/2"

Travel Lanes: 3 Lanes @12'-0" Each & 1 Ramp @12'-6" to 15'-0" Shoulder Width: 10' outside, 12' inside

Sidewalks: No Location: _____ Width: _____

Construction Information

Location in relation to existing bridge: Same Location

Superstructure Type: Composite Plate Girder

Span Lengths: 148'-0"

Substructure Type: Pile end bents

Ordinary High Water Elev. N/A No. of Bents inside OHW Contours: N/A

Concrete Volume below OHW: N/A Vol. Bent Excavation: N/A Is backfill req'd? N/A

Is Channel excavation req'd? N/A Surface Area: N/A Volume: N/A

Is fill below OHW req'd? N/A Surface Area: N/A Volume: N/A

Is riprap req'd? No

Work Road Information:

Is work road(s) required? No Location: ____ Top width: ___ ft

Is fill below OHW req'd? ____ Surface Area: _____ ft^2 Volume: _____ yd^3

Are pipes required to meet backwater criteria? _____

Detour Information:

Is a detour bridge required? No Location in relation to existing bridge: ____

Length: ____ ft Br. Rdwy. Width: _____ ft Deck Elevation: _____

Volume of fill below OHW: _____ yd^3 Surface area: _____ ft^2

DATE SUBMITTED _____

BRIDGE DESIGN INFORMATION

Job Number CA0601 FAP Number 9991 County Saline

Job Name I-30 Widening from Highway 70 to Sevier Street

Design Engineer Shahriar Azad, PE (Bridgefarmer and Associates, Inc.)

Description of Existing Bridge:

Bridge Number A3092 over Highway 67

Bridge Location: Rte: I-30 EB Section: 220 Log Mile: 113.64

Length: 258'-4 1/4" Br. Rdwy. width: 40'-0" Deck width (Out-to-Out) 43'-0"

Type Construction: Composite W-Beam Unit

Deficiencies _____

HBRRP Eligibility: _____ Qualifying Code: _____ Sufficiency Rating: 84.2

Proposed Improvements:

Length: 150'-2 9/16" Br. Rdwy. Width: 58'-0" Deck Width (Out-to-out) 61'-0"

Travel Lanes: 3 Lanes @ 12'-0" Each Shoulder Width: 10' outside, 12' inside

Sidewalks: No Location: _____ Width: _____

Construction Information

Location in relation to existing bridge: Same Location

Superstructure Type: Composite Plate Girder

Span Lengths: 148'-0"

Substructure Type: Pile end bents

Ordinary High Water Elev. N/A No. of Bents inside OHW Contours: N/A

Concrete Volume below OHW: N/A Vol. Bent Excavation: N/A Is backfill req'd? N/A

Is Channel excavation req'd? N/A Surface Area: N/A Volume: N/A

Is fill below OHW req'd? N/A Surface Area: N/A Volume: N/A

Is riprap req'd? No

Work Road Information:

Is work road(s) required? No Location: ____ Top width: ___ ft

Is fill below OHW req'd? ____ Surface Area: _____ ft^2 Volume: _____ yd^3

Are pipes required to meet backwater criteria? _____

Detour Information:

Is a detour bridge required? No Location in relation to existing bridge: ____

Length: ____ ft Br. Rdwy. Width: _____ ft Deck Elevation: _____

Volume of fill below OHW: _____ yd^3 Surface area: _____ ft^2

DATE SUBMITTED _____

BRIDGE DESIGN INFORMATION

Job Number CA0601 FAP Number 9991 County Saline

Job Name I-30 Widening from Highway 70 to Sevier Street

Design Engineer Shahriar Azad, PE (Bridgefarmer and Associates, Inc.)

Description of Existing Bridge:

Bridge Number B3093 over Saline River Relief

Bridge Location: Rte: I-30 WB Section: 220 Log Mile: 113.95

Length: 503'-0 3/4" Br. Rdwy. width: 40'-0" Deck width (Out-to-Out) 43'-0"

Type Construction: Composite W-Beam Unit

Deficiencies Superstructure Condition

HBRRP Eligibility: _____ Qualifying Code: SD Sufficiency Rating: 71

Proposed Improvements:

Length: 533'-0 7/16" Br. Rdwy. Width: 58'-0" Deck Width (Out-to-out) 61'-0"

Travel Lanes: 3 Lanes @ 12'-0" Each Shoulder Width: 10' outside, 12' inside

Sidewalks: No Location: _____ Width: _____

Construction Information

Location in relation to existing bridge: Same Location

Superstructure Type: Continuous Composite W-Beam Unit

Span Lengths: 63'–73'–70'–59', 59'–70'–73'–63'

Substructure Type: Trestle Pile Bents

Ordinary High Water Elev. 273.5 ft No. of Bents inside OHW Contours: 1

Concrete Volume below OHW: 0.60 yd^3 Vol. Bent Excavation: 0 yd^3 Is backfill req'd? No

Is Channel excavation req'd? No Surface Area: ____ Volume: ____

Is fill below OHW req'd? No Surface Area: _____ Volume: _____

Is riprap req'd? Yes

Work Road Information:

Is work road(s) required? Yes Location: See Attached Plans Top width: 14 ft-25 ft

Is fill below OHW req'd? Yes Surface Area: 1654 ft^2 Volume: 39 yd^3

Are pipes required to meet backwater criteria? No

Detour Information:

Is a detour bridge required? No Location in relation to existing bridge: ____

Length: ____ft Br. Rdwy. Width: ____ft Deck Elevation: ____

Volume of fill below OHW: ____yd^3 Surface area: ____ft^2

DATE SUBMITTED _____

BRIDGE DESIGN INFORMATION

Job Number CA0601 FAP Number 9991 County Saline

Job Name I-30 Widening from Highway 70 to Sevier Street

Design Engineer Shahriar Azad, PE (Bridgefarmer and Associates, Inc.)

Description of Existing Bridge:

Bridge Number A3093 over Saline River Relief

Bridge Location: Rte: I-30 EB Section: 220 Log Mile: 113.96

Length: 503'-0 3/4" Br. Rdwy. width: 40'-0" Deck width (Out-to-Out) 43'-0"

Type Construction: Composite W-Beam Unit

Deficiencies Superstructure Condition

HBRRP Eligibility: _____ Qualifying Code: SD Sufficiency Rating: 71

Proposed Improvements:

Length: 533'-0 7/16" Br. Rdwy. Width: 70'-0" Deck Width (Out-to-out) 73'-0"

Travel Lanes: 4 Lanes @ 12'-0" Each Shoulder Width: 10' outside, 12' inside

Sidewalks: No Location: _____ Width: _____

Construction Information

Location in relation to existing bridge: Same Location

Superstructure Type: Continuous Composite W-Beam Unit

Span Lengths: 63'–73'–70'–59', 59'–70'–73'–63'

Substructure Type: Trestle Pile Bents

Ordinary High Water Elev. 273.5 ft No. of Bents inside OHW Contours: 1

Concrete Volume below OHW: 2.64 yd^3 Vol. Bent Excavation: 0 yd^3 Is backfill req'd? No

Is Channel excavation req'd? No Surface Area:____ Volume:_____

Is fill below OHW req'd? No Surface Area: _____ Volume: _____

Is riprap req'd? Yes

Work Road Information:

Is work road(s) required? Yes Location: See Attached Plans Top width: 14 ft-25 ft

Is fill below OHW req'd? Yes Surface Area: 1916 ft^2 Volume: 63 yd^3

Are pipes required to meet backwater criteria? No

Detour Information:

Is a detour bridge required? No Location in relation to existing bridge: ____

Length:____ft Br. Rdwy. Width:_____ft Deck Elevation: _____

Volume of fill below OHW:_____yd^3 Surface area:_____ft^2

04/01/2009

DATE SUBMITTED _____

BRIDGE DESIGN INFORMATION

Job Number CA0601 FAP Number 9991 County Saline

Job Name I-30 Widening from Highway 70 to Sevier Street

Design Engineer Shahriar Azad, PE (Bridgefarmer and Associates, Inc.)

Description of Existing Bridge:

Bridge Number B3094 over Saline River

Bridge Location: Rte: I-30 WB Section: 220 Log Mile: 114.38

Length: 1063'-0 3/4" Br. Rdwy. width: 40'-0" Deck width (Out-to-Out) 43'-0"

Type Construction: Composite W-Beam Unit

Deficiencies _____

HBRRP Eligibility: _____ Qualifying Code: _____ Sufficiency Rating: 83.9

Proposed Improvements:

Length: 1063'-0 3/4" Br. Rdwy. Width: 58'-0" Deck Width (Out-to-out) 61'-0"

Travel Lanes: 3 Lanes @ 12'-0" Each Shoulder Width: 10' outside, 12' inside

Sidewalks: No Location: _____ Width: _____

Construction Information

Location in relation to existing bridge: Same Location

Superstructure Type: Continuous Composite W-Beam Unit

Span Lengths: 58'–80'–80'–62', 77'–96'–77', 58'–80'–80'–62', 77'–96'–77'

Substructure Type: Trestle Pile Bents and Columns on Drilled Shafts

Ordinary High Water Elev. 273.5 ft No. of Bents inside OHW Contours: 11

Concrete Volume below OHW: 134.7 yd^3 Vol. Bent Excavation: 993.7 yd^3 Is backfill req'd? No

Is Channel excavation req'd? No Surface Area: ____ Volume: _____

Is fill below OHW req'd? No Surface Area: _____ Volume: _____

Is riprap req'd? Yes

Work Road Information:

Is work road(s) required? Yes Location: See Attached Top width: 14 ft-25 ft

Is fill below OHW req'd? Yes Surface Area: 40560 ft^2 Volume: 18664 yd^3

Are pipes required to meet backwater criteria? No

Detour Information:

Is a detour bridge required? No Location in relation to existing bridge: _____

Length: ____ ft Br. Rdwy. Width: ____ ft Deck Elevation: _____

Volume of fill below OHW: ____ yd^3 Surface area: ____ ft^2

04/01/2009

DATE SUBMITTED _____

BRIDGE DESIGN INFORMATION

Job Number CA0601 FAP Number 9991 County Saline

Job Name I-30 Widening from Highway 70 to Sevier Street

Design Engineer Shahriar Azad, PE (Bridgefarmer and Associates, Inc.)

Description of Existing Bridge:

Bridge Number A3094 over Saline River

Bridge Location: Rte: I-30 EB Section: 220 Log Mile: 114.38

Length: 1063'-0 3/4" Br. Rdwy. width: 40'-0" Deck width (Out-to-Out) 43'-0"

Type Construction: Composite W-Beam Unit

Deficiencies Superstructure Condition

HBRRP Eligibility: _____ Qualifying Code: SD Sufficiency Rating: 67.1

Proposed Improvements:

Length: 1063'-0 3/4" Br. Rdwy. Width: 58'-0" Deck Width (Out-to-out) 61'-0"

Travel Lanes: 3 Lanes @ 12'-0" Each Shoulder Width: 10' outside, 12' inside

Sidewalks: No Location: _____ Width: _____

Construction Information

Location in relation to existing bridge: Same Location

Superstructure Type: Continuous Composite W-Beam Unit

Span Lengths: 58'–80'–80'–62', 77'–96'–77', 58'–80'–80'–62', 77'–96'–77'

Substructure Type: Trestle Pile Bents and Columns on Drilled Shafts

Ordinary High Water Elev. 273.5 ft No. of Bents inside OHW Contours: 11

Concrete Volume below OHW: 138.3 yd^3 Vol. Bent Excavation: 993.7 yd^3 Is backfill req'd? No

Is Channel excavation req'd? No Surface Area: ____ Volume: _____

Is fill below OHW req'd? No Surface Area: _____ Volume: _____

Is riprap req'd? Yes

Work Road Information:

Is work road(s) required? Yes Location: See Attached Top width: 14 ft-25 ft

Is fill below OHW req'd? Yes Surface Area: 49265 ft^2 Volume: 22899 yd^3

Are pipes required to meet backwater criteria? No

Detour Information:

Is a detour bridge required? No Location in relation to existing bridge: _____

Length: ____ ft Br. Rdwy. Width: ____ ft Deck Elevation: _____

Volume of fill below OHW: ____ yd^3 Surface area: ____ ft^2

04/01/2009

DATE SUBMITTED _____

BRIDGE DESIGN INFORMATION

Job Number CA0601 FAP Number 9991 County Saline

Job Name I-30 Widening from Highway 70 to Sevier Street

Design Engineer Shahriar Azad, PE (Bridgefarmer and Associates, Inc.)

Description of Existing Bridge:

Bridge Number 3141R over I-30

Bridge Location: Rte: South Street Section: Log Mile: 1.08

Length: 282'-3 15/16" Br. Rdwy. width: 44'-0" Deck width (Out-to-Out) 47'-0"

Type Construction: Composite W-Beam Spans

Deficiencies _____

HBRRP Eligibility: _____ Qualifying Code: _____ Sufficiency Rating: 97

Proposed Improvements:

Length: 250'-2" Br. Rdwy. Width: 53'-0" Deck Width (Out-to-out) 62'-8"

Travel Lanes: 4 Lanes @ 12'-0" Each Shoulder Width: 4' (EB lanes)

Sidewalks: Yes Location: Outside of WB lanes Width: 6'-0"

Construction Information

Location in relation to existing bridge: Same Location

Superstructure Type: Continuous Composite W-Beam Unit

Span Lengths: 52'–62'–65'–69'

Substructure Type: Columns on Spread Footings

Ordinary High Water Elev. N/A No. of Bents inside OHW Contours: N/A

Concrete Volume below OHW: N/A Vol. Bent Excavation: N/A Is backfill req'd? N/A

Is Channel excavation req'd? N/A Surface Area: N/A Volume: N/A

Is fill below OHW req'd? N/A Surface Area: N/A Volume: N/A

Is riprap req'd? No

Work Road Information:

Is work road(s) required? No Location: ____ Top width: ___ ft

Is fill below OHW req'd? ____ Surface Area: _____ ft^2 Volume: _____ yd^3

Are pipes required to meet backwater criteria? _____

Detour Information:

Is a detour bridge required? No Location in relation to existing bridge: ____

Length: ____ ft Br. Rdwy. Width: _____ ft Deck Elevation: _____

Volume of fill below OHW: _____ yd^3 Surface area: _____ ft^2

DATE SUBMITTED _____

BRIDGE DESIGN INFORMATION

Job Number CA0601 FAP Number 9991 County Saline

Job Name I-30 Widening from Highway 70 to Sevier Street

Design Engineer Shahriar Azad, PE (Bridgefarmer and Associates, Inc.)

Description of Existing Bridge:

Bridge Number No Existing Bridge over _____

Bridge Location: Rte: _____ Section: ___ Log Mile: ___

Length: _____ Br. Rdwy. width: _____ Deck width (Out-to-Out) _____

Type Construction: _____

Deficiencies _____

HBRRP Eligibility: _____ Qualifying Code: _____ Sufficiency Rating: _____

Proposed Improvements:

Length: 533'-0 7/16" Br. Rdwy. Width: 36'-0" Deck Width (Out-to-out) 39'-2"

Travel Lanes: 2 Lanes @ 12'-0" Each Shoulder Width: 8' outside, 4' inside

Sidewalks: No Location: _____ Width: _____

Construction Information

Location in relation to existing bridge: New bridge NW of existing bridges over river relief

Superstructure Type: Continuous Composite W-Beam Unit

Span Lengths: 63'–73'–70'–59', 59'–70'–73'–63'

Substructure Type: Trestle Pile Bents

Ordinary High Water Elev. 273.5 No. of Bents inside OHW Contours: 0

Concrete Volume below OHW: ____ Vol. Bent Excavation: ____ Is backfill req'd? ____

Is Channel excavation req'd? No Surface Area: _____ Volume: _____

Is fill below OHW req'd? No Surface Area: _____ Volume: _____

Is riprap req'd? Yes

Work Road Information:

Is work road(s) required? Yes Location: See Attached Plans Top width: 14 ft-25 ft

Is fill below OHW req'd? Yes Surface Area: 584 ft^2 Volume: 6 yd^3

Are pipes required to meet backwater criteria? No

Detour Information:

Is a detour bridge required? No Location in relation to existing bridge: ____

Length: ____ft Br. Rdwy. Width: ____ft Deck Elevation: _____

Volume of fill below OHW: ____yd^3 Surface area: ____ft^2

CA0601 I-30 Widening, From Highway 70 to Sevier Street

Attachment E

Tribal Consultation Letters

The following coordination letter was sent to the tribes and contacts listed below on September 9, 2014:

1. Mr. Earl J. Barbry, Jr.
   Tribal Historic Preservation Officer
   Tunica-Biloxi Tribe of Louisiana, Inc.
   151 Melacon Drive
   Marksville, Louisiana 71351

2. Mr. Everett Bandy
   Tribal Historic Preservation Officer
   Quapaw Tribe of Oklahoma
   Post Office Box 765
   Quapaw, Oklahoma 74363-0765

3. Ms. Rebecca Brave
   Tribal Historic Preservation Officer
   The Osage Nation
   P.O. Box 779
   Pawhuska, Oklahoma 74056

4. Dr. Ian Thompson
   Tribal Historic Preservation Officer
   The Choctaw Nation of Oklahoma
   Post Office Box 1210
   Durant, Oklahoma 74702-1210

5. Mr. Robert Cast
   Tribal Historic Preservation Officer
   Caddo Nation
   Post Office Box 487
   Binger, Oklahoma 73009

U.S. Department of Transportation
Federal Highway Administration

Arkansas Division

700 West Capitol Ave
Suite 3130
Little Rock AR 72201
(501) 324-6430

September 9, 2014

In Reply Refer To:
AHTD Job CA0601
Widening of I-30 (US Highway 70 to Sevier Street)
Saline County
HDA-AR

Mr. Earl J. Barbry, Jr.
Tribal Historic Preservation Officer
Tunica-Biloxi Tribe of Lousiana
151 Melacon Drive
Marksville, LA 71351

Dear Mr. Earl J. Barbry, Jr.:

This letter is written in order to initiate consultation between the Federal Highway Administration, Arkansas Division Office and the Tunica-Biloxi Tribe of Lousiana regarding a federal-aid highway project that may potentially affect ancestral lands or properties that may be of religious or cultural significance to your Tribe.

The Arkansas State Highway and Transportation Department (AHTD) plans to widen approximately five miles of Interstate 30 (I-30), and to improve interchanges at Exit 111/ US 70, Exit 114/State Highway 229 (AR 229), and Exit 116/AR 229/West Sevier Street. The project is located in Saline County Arkansas (see attached location map). In an effort to identify any archeological sites within the proposed project area, the AHTD is planning to conduct a cultural resources survey of the project area. To date, a survey of existing records regarding previously recorded archeological sites has been conducted and three archeological sites are listed in the records. Copies of these records are attached.

Please review this information and notify us of any constraints or concerns that you may have regarding this undertaking. We would greatly appreciate your input regarding not only this project but also sites or properties in the immediate area that might be of cultural or religious significance to your Tribe. If you have any questions or need additional information, please contact me at (501) 324-6430.

Sincerely,

Randal Looney
Environmental Coordinator

Enclosure

CA0601

12017730/1

From: Randal.Looney@dot.gov
To: Wilks, Diana
Subject: FW: AHTD CA0601
Date: Tuesday, October 14, 2014 4:13:15 PM

Randal J. Looney
FHWA – Arkansas Division Office
700 West Capitol Ave., Rm 3130
Little Rock, AR 72201-3298
501-324-6430
fax: 501-324-6423

From: Everett Bandy [mailto:EBandy@quapawtribe.com]
Sent: Friday, October 10, 2014 9:47 AM
To: Looney, Randal (FHWA)
Subject: AHTD CA0601

The Quapaw Tribe Historic Preservation Office has received notification of the proposed project listed as ***AHTD CA0601.***

The Quapaw Tribe concurs with your findings that a cultural resources survey of the project area is necessary.

Please contact the Quapaw Tribe Historic Preservation Office with your response to this request. This office looks forward to receiving and reviewing the cultural resource survey report for the proposed project. The Quapaw Tribe requires that cultural resource survey personnel and reports follow the Secretary of Interior's standards and guidelines.

Should you have any questions or need any additional information, please feel free to contact me at the number listed below. Thank you for consulting with the Quapaw Tribe on this matter.

Sincerely,
-Everett Bandy, THPO
Tribal Historic Preservation Office
Quapaw Tribe of Oklahoma
P.O. Box 765
Quapaw, OK 74363
(w) 918-542-1853

From: Lindsey Bilyeu [mailto:lbilyeu@choctawnation.com]
Sent: Monday, October 27, 2014 1:10 PM
To: Wilks, Diana
Subject: RE: AHTD Job CA0601 Widening of I-30 (US Hwy 70 to Sevier Street), Saline Co., AR

Ms. Wilks,

Thank you for sending the shapfiles for the project. This project does lie in our Trail of Tears Removal Route that passes through Saline Co., AR. Please forward our office a copy of the cultural resources survey once it is completed. If you have any questions, please contact our office at 580-924-8280 ext. 2631.

Thank You,

Lindsey D. Bilyeu
NHPA Senior Section 106 Reviewer
Historic Preservation Department
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74701
580-924-8280 ext. 2631

From: Wilks, Diana [mailto:Diana.Wilks@ahtd.ar.gov]
Sent: Monday, October 27, 2014 10:58 AM
To: Lindsey Bilyeu
Cc: Looney, Randal
Subject: FW: AHTD Job CA0601 Widening of I-30 (US Hwy 70 to Sevier Street), Saline Co., AR

Lindsey,
I have attached the CA0601 shape files for your use. Please don't hesitate to contact me or Randall Looney if you need any additional information.

Diana Wilks
Section Head, Cultural Resources
Arkansas Highway and Transportation Department
P.O. Box 2261, Little Rock, AR 72209
www.arkansashighways.com
(501) 569-2283

From: Lindsey Bilyeu [mailto:lbilyeu@choctawnation.com]
Sent: Tuesday, October 21, 2014 4:06 PM
To: Looney, Randal (FHWA)
Subject: RE: AHTD Job CA0601 Widening of I-30 (US Hwy 70 to Sevier Street), Saline Co., AR

Dear Randal,

The Choctaw Nation of Oklahoma thanks the FHWA, Arkansas Division, for the correspondence regarding the above referenced project. A portion of Saline Co., AR lies in the Choctaw Nation of Oklahoma's area of historic interest. Please send our office the GPS coordinates for this project so that we may determine if the APE is within our area of interest. If you have any questions, please contact our office at 580-924-8280 ext. 2631.

Thank You,

Lindsey D. Bilyeu
NHPA Senior Section 106 Reviewer
Historic Preservation Department
Choctaw Nation of Oklahoma
P.O. Box 1210
Durant, OK 74701
580-924-8280 ext. 2631

TRIBAL HISTORIC PRESERVATION OFFICE

Date: **November 7, 2014** **File: 1415-726AR-10**

RE: **AHTD Job CA0601 widening of aproximatley 5 miles if interstate 30, and improve interchanges at exit 111/US 70, exit 114 state highway 229, and exit 116/AR 229/West Servier St.**

Arkansas State Highway and Transportation Department
Randal Looney
700 West Capitol Ave., Suite 3130
Little Rock, AR 72201

Dear Mr. Looney ,

The Osage Nation Historic Preservation Office has received notification and accompanying information for the proposed project listed as AHTD Job CA0601 widening of aproximatley 5 miles if interstate 30, and improve interchanges at exit 111/US 70, exit 114 state highway 229, and exit 116/AR 229/West Servier St. . The Osage Nation requests that a cultural resources survey be conducted for this project.

In accordance with the National Historic Preservation Act, (NHPA) [16 U.S.C. 470 §§ 470-470w-6] 1966, undertakings subject to the review process are referred to in S101 (d)(6)(A), which clarifies that historic properties may have religious and cultural significance to Indian tribes. Additionally, Section 106 of NHPA requires Federal agencies to consider the effects of their actions on historic properties (36 CFR Part 800) as does the National Environmental Policy Act (43 U.S.C. 4321 and 4331-35 and 40 CFR 1501.7(a) of 1969).

The Osage Nation has a vital interest in protecting its historic and ancestral cultural resources. The Osage Nation anticipates reviewing and commenting on the planned Phase I cultural resources survey report for the proposed AHTD Job CA0601 widening of aproximatley 5 miles if interstate 30, and improve interchanges at exit 111/US 70, exit 114 state highway 229, and exit 116/AR 229/West Servier St. .

Should you have any questions or need any additional information please feel free to contact me at the number listed below. Thank you for consulting with the Osage Nation on this matter.

Zuzana Chovanec, Ph.D.
Archaeologist

627 Grandview, Pawhuska, OK 74056, (918) 287-5328, Fax (918) 287-5376

CA0601 I-30 Widening, From Highway 70 to Sevier Street

Attachment F

Noise Assessment

Final Noise Study Report

Interstate 30 Widening Noise Analysis
From East of US 70 Interchange
To East of W Sevier St / W South St Interchange
FAP No. ACNHPP-030-2(267)111
Job No. CA0601
Saline County, Arkansas

Submitted to:

Prepared By:

Kimley»Horn

Executive Summary

This report documents the results of a noise analysis and abatement design as part of the project widening Interstate 30 (I-30) in Saline County. The purpose of this project is to enhance the transportation connection through central Arkansas, increase capacity, and improve traveler safety. Total length of the project is approximately 5 miles, extending generally from US Highway 70 (US 70) to the W Sevier Street/ W South Street Interchange.

Six noise study areas (NSA) were identified along the project, listed below roughly from west to east:

1. Residences along Frontage Road, north of I-30 between the US 70 Interchange and Mountain View Road, including those on N Beggs Road, Herzfeld Boulevard, Beaty Road, and Mountain View Road.
2. Residences and two churches along Frontage Road, south of I-30 between the US 70 Interchange and the Inspection Station, including those on S Beggs Road, Bragg Place, JK Drive, Mountain View Cutoff, and Pawnee Drive.
3. Residences along Frontage Road and Highway 67, south of I-30, between the Inspection Station and the AR 229 Interchange.
4. Residences, a motel, and school property between the AR 229/W South Street Intersection and the W Sevier Street/W South Street Interchange, north of I-30, including those on Randel Street, King Road, Troutt Block, Pike Block, Bass Lane, Crouch Block, W Sevier Street, and Woodland Drive.
5. Residences, churches, and a motel south of I-30 between the I-30 EB off ramp and the W Sevier Street/W South Street Interchange, including those along Fairfield Road, Frontage Road, and Airlane Drive.
6. Residences and a church south of I-30 and east of the W Sevier Street/W South Street Interchange, including those along W South Street, Jefferson Street, Rasburry Street, N Conrad Street, and W Sevier Street.

The FHWA Traffic Noise Model (TNM 2.5) computer program was used to calculate "with-project" peak hour equivalent sound levels in the design year (2038) for noise-sensitive receivers in each noise study area. Design Year 2038 PM peak hour traffic projections developed for the *CA0601 Interchange Justification Report* (IJR) were used in the noise modeling. The modeling identified future exterior noise impacts, as defined in the AHTD *Policy on Highway Traffic Noise Abatement* (October 15, 2015), for all of the study areas.

Based on the *CA0601 Interchange Justification Report* Design Year 2038 peak hour traffic projections, it was determined that the NSAs along the I-30 corridor experience the worst noise hour during the PM peak hour.

Abatement is generally evaluated when impacts are predicted to occur. Noise abatement measures may include alteration of horizontal and vertical alignment and traffic management measures (such as reducing speed limits or prohibition of heavy trucks). However, these forms of mitigation are not feasible for this project. Noise barriers were determined to be the only available abatement measure to reduce noise levels for impacted areas within this project.

Noise barriers were studied for "feasibility" and "reasonableness" at all areas where impacts were predicted. Barriers were considered for the impacted receptors in all NSAs.

"Feasibility" means that a noise barrier will provide at least a five decibel reduction in the one-hour equivalent sound level for at least one impacted residence. Additionally, the noise barrier should not pose any major problems related to design, construction, safety, drainage, maintenance or other factors.

Noise barriers were found to be acoustically feasible for NSAs 1, 2, 3, 4, 5, and 6 because a minimum of 5 dB(A) reduction in design year highway traffic noise levels for at least one impacted receiver was achieved. However, feasibility alone does not dictate whether a noise barrier will be built. Each noise barrier must also pass a "reasonableness" test.

"Reasonableness" is based on a number of factors with regard to all of the individual, specific circumstances of a particular project, including the cost of the noise barrier averaged over the number of residences that are shown in the modeling to benefit from the barrier. To "benefit" means that the sound levels would be reduced five or more decibels by the barrier. The AHTD *Policy on Highway Traffic Noise Abatement* specifies a noise reduction goal of 8 dB(A) that must be achieved for at least one impacted receiver in order for a noise abatement measure to be considered reasonable.

The studied noise barriers for NSAs 1, 2, 3, 4, 5, and 6 were found to not be reasonable because the average cost per benefited residence exceeded the AHTD threshold criterion of $36,000 per benefited residence.

Separate from these abatement measures, AHTD encourages local communities and developers to practice noise compatible planning in order to avoid future noise impacts. Generalized noise predictions for the Design Year 2038 were made for areas along I-30 where vacant and possibly developable lands exist. The results estimate that exterior residential activities may be impacted approximately 700 feet from centerline of the nearest travel lane of I-30, depending on the amount of shielding provided by surrounding buildings. The modeled noise levels and associated impact distance at any particular site along I-30 will vary depending on the actual terrain and other conditions at that site. This information is being included to make local officials and planners aware of anticipated highway noise levels, with the goal that any future development along I-30 will be compatible with these levels.

Contents

Appendices

Tables

Figures

1.0 Introduction

This report documents the results of a noise analysis and abatement design as part of the project widening Interstate 30 (I-30) in Saline County. The purpose of this project is to enhance the transportation connection through central Arkansas, increase capacity, and improve traveler safety. Total length of the project is approximately 5 miles, extending generally from US Highway 70 (US 70) to the W Sevier Street/ W South Street Interchange. Figure 1 shows the project area.

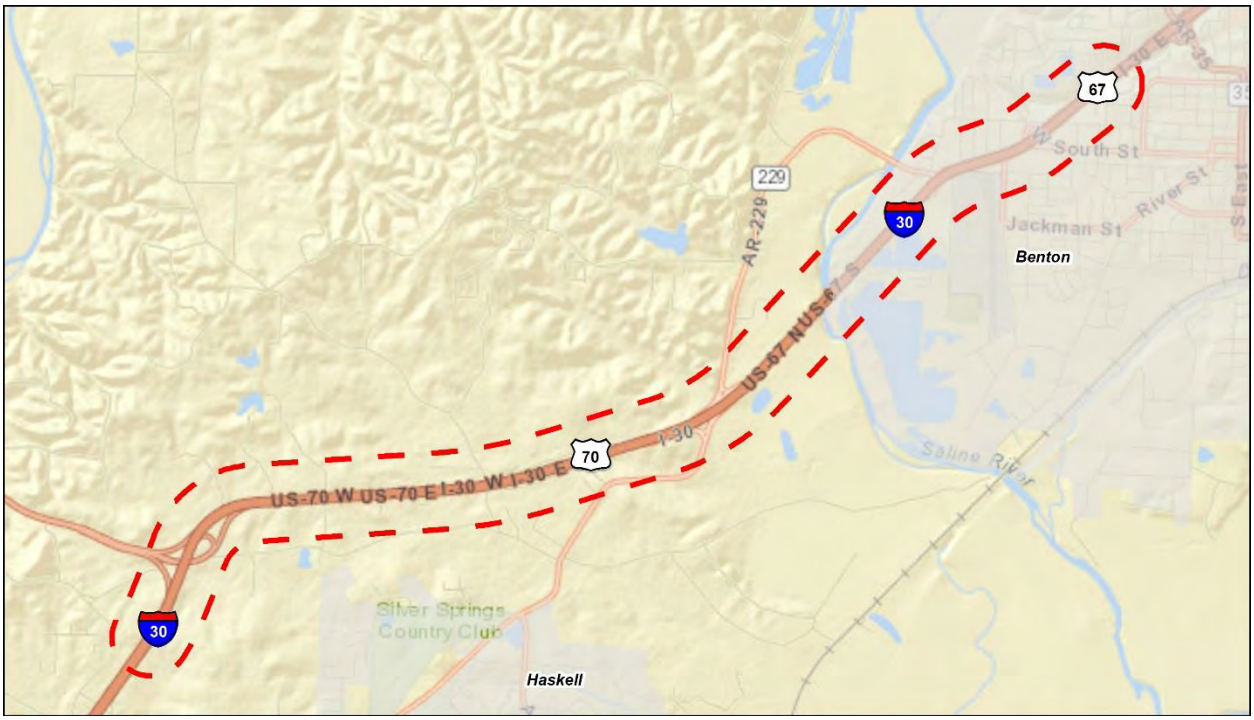


Figure 1: Project Area

This study has been prepared in accordance with the FHWA noise standards, *Procedures for Abatement of Highway Traffic and Construction Noise, 23 CFR 772* [1], and the AHTD *Policy on Highway Traffic Noise Abatement* [2]. The noise analysis included the following tasks:

1. Identification of noise sensitive areas and associated receptors (discrete or representative locations in a noise study area (NSA) for the land uses listed in 23 CFR 772) in the vicinity of the project corridor;
2. Determination of existing sound levels at selected receptors to characterize the existing noise environment in the project area;
3. Determination of future sound levels with and without the project at the receptors;
4. Determination of impacted receptors;
5. Evaluation of noise abatement for impacted areas;
6. Discussion of construction noise; and
7. Coordination with local officials.

Each of these analysis steps is discussed below, following a discussion of basic terminology and AHTD's criteria for determining noise impacts.

1.1 Traffic Noise Terminology

Traffic noise levels are expressed in terms of the hourly, A-weighted equivalent sound level in decibels [dB(A)]. A sound level represents the level of the rapid air pressure fluctuations caused by sources such as traffic that are heard as noise. A decibel is a unit that relates the sound pressure of a noise to the faintest sound the human ear can hear. The A-weighting refers to the amplification or attenuation of the different frequencies of the sound (subjectively, the pitch) to correspond to the way the human ear "hears" these frequencies.

Generally, when the sound level exceeds the mid-60 dB(A) range, outdoor conversation in normal tones at a distance of three feet becomes difficult. A 9-10 dB(A) increase in sound level is typically judged by the listener to be twice as loud as the original sound while a 9-10 dB(A) reduction is judged to be half as loud. Doubling the number of sources (i.e., vehicles) will increase the hourly equivalent sound level by approximately 3 dB(A), which is usually the smallest change in hourly equivalent A-weighted traffic noise levels that people can detect without specifically listening for the change.

Because most environmental noise fluctuates from moment to moment, it is standard practice to condense data into a single level called the equivalent sound level (L_{eq}). The L_{eq} is a steady sound level that would contain the same amount of sound energy as the actual time-varying sound evaluated over the same time period. The L_{eq} averages the louder and quieter moments, but gives much more weight to the louder moments in the averaging. For traffic noise assessment purposes, L_{eq} is typically evaluated over the worst one-hour period and is written as $L_{eq(h)}$.

The term insertion loss (IL) is generally used to describe the reduction in $L_{eq(h)}$ at a location after a noise barrier is constructed. For example, if the $L_{eq(h)}$ at a residence before a barrier is constructed is 75 dB(A) and the $L_{eq(h)}$ after a barrier constructed is 65 dB(A), then the insertion loss would be 10 dB(A).

1.2 Criteria for Determining Impacts

Noise impacts are determined by comparing future "design year" project worst-hour Leq(h) values at areas of frequent human use to: (1) a set of Noise Abatement Criteria (NAC) for different land use categories, and (2) existing Leq(h) values. The FHWA noise standards (23 CFR 772) and AHTD's noise policy state that when traffic noise impacts have been identified, then noise abatement should be considered.

Table 1 shows the land uses that are classified as Activity Categories A - G and the corresponding NAC.

A receptor is impacted in either of two ways:

1. The predicted, worst-hour, design year $L_{eq(h)}$ approaches or exceeds the NAC, even if there is not a substantial increase over the existing levels. "Approach" is defined by AHTD as one dB(A) less than the appropriate NAC. As an example, the NAC for Activity Category B and C land uses is 67 dB(A). An impact would occur if the design year Leq(h) is predicted to be 66 dB(A) or higher at a point of frequent exterior human use for a land use in either category.

2. The predicted, worst-hour, design year $L_{eq(h)}$ "substantially" exceeds the existing Leq(h), even if the NAC is not approached or exceeded. AHTD defines "substantially" as 10 or more dB(A).

Table 1. Noise Abatement Criteria in 23 CFR 772

Activity Category	Activity Criteria[1] $L_{eq(h)}$ [dB(A)]	Evaluation Location	Activity Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67	Exterior	Residential
C[2]	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section4(f) sites[4], schools, television studios, trails, and trail crossings
D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios
E[2]	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F
F	-	-	Agriculture, airports, bus yards, emergency services, industrial, logging maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing
G[3]	-	-	Undeveloped lands that are not permitted

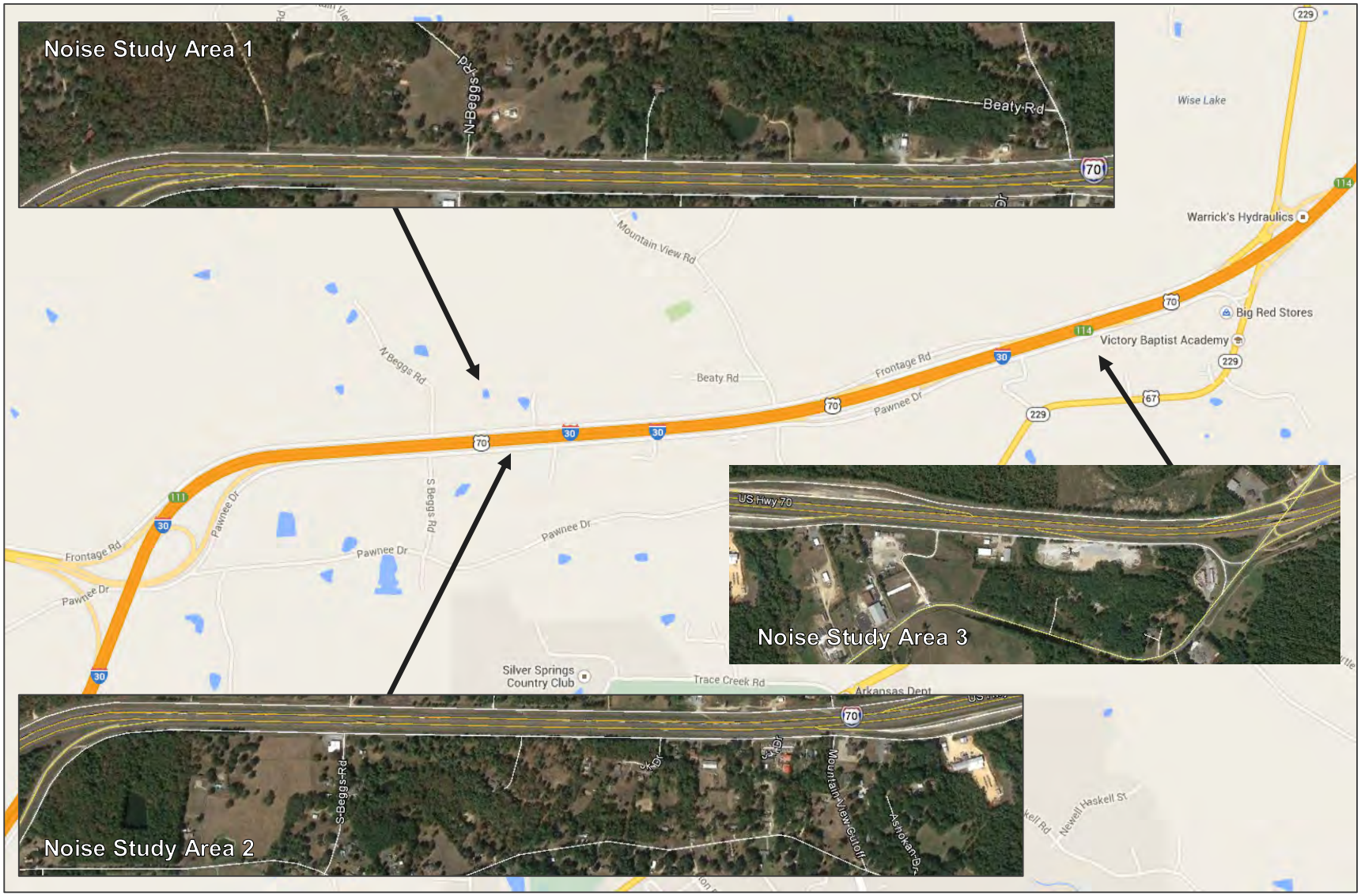
1. The Leq(h) Activity Criteria values are for impact determination only, and are not design standards for noise abatement.
2. Includes undeveloped lands that have been permitted for this Activity Category.
3. Indicates no building permits on or before the date of public knowledge.
4. Section 4(f) property means publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance, as initially defined in Section 4(f) of the Department of Transportation Act of 1966 and addressed in 23 CFR 774, Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (Section 4(f)).

2.0 Identification of Noise Sensitive Areas and Receptors

Review of available electronic mapping, as well as field reconnaissance, led to the selection of six study areas with potential for noise impacts, called Noise Study Areas (NSAs). These areas are shown in Figure 2 and Figure 3. Table 2 lists the relevant associated land uses in each NSA that are in the vicinity of the edge of the outside travel lane of I-30 by Activity Category. The applicable NAC for each Activity Category were shown in Table 1.

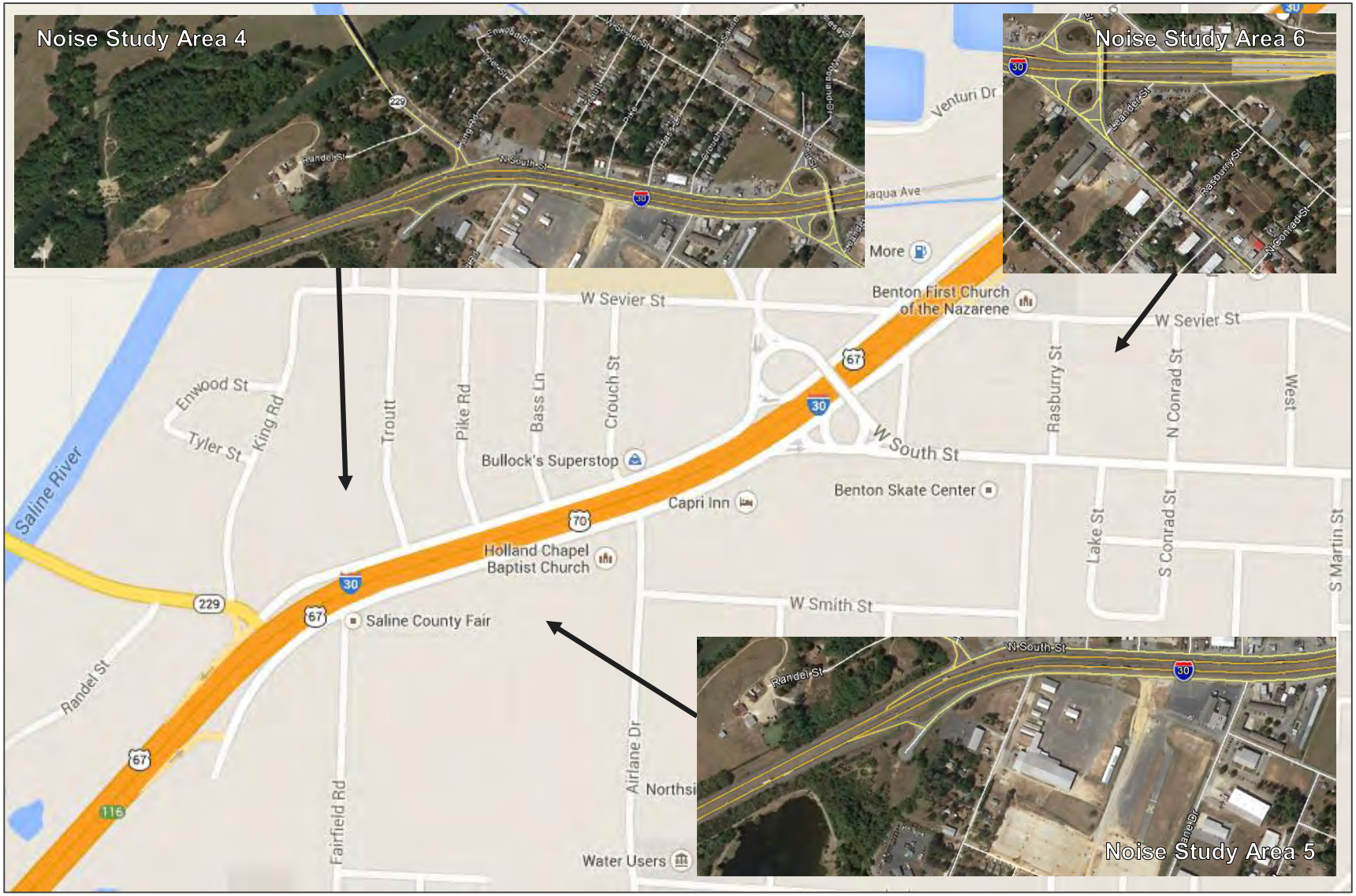
Table 2: Noise Study Area Descriptions

NSA	Description
1	***North of I-30 between US 70 Interchange and AR 229 Interchange:*** *Activity Category B (Exterior)* – Residences on Frontage Road, N Beggs Road, Herzfeld Boulevard, Beaty Road, and Mountain View Road
2	***South of I-30 between US 70 Interchange and Inspection Station:*** *Activity Category B (Exterior)* – Residences on Pawnee Drive, S Beggs Road, Bragg Place, JK Drive, Mountain View Cutoff, and Ashokan Drive *Activity Category C (Exterior)* –Jehovah's Witnesses Church and Bible Missionary Church
3	***South of I-30 between Inspection Station and AR 229 Interchange:*** *Activity Category B (Exterior)* – Residences on Pawnee Drive and US 67/AR 229
4	***North of I-30 between AR 229/W South Street Intersection and the W Sevier Street/ W South Street Interchange:*** *Activity Category B (Exterior)* – Residences on Randel Street, King Road, AR 229, Troutt Block, Pike Block, Bass Lane, Crouch Block, W Sevier Street, Brents Ford Road, and Woodland Drive *Activity Category C (Exterior)* – Saline River Boat Ramp and W.C. Caldwell Elementary School recreational areas *Activity Category E (Exterior)* – Troutt Motel
5	***South of the I-30 between off ramp and W Sevier Street/W South Street Interchange:*** *Activity Category B (Exterior)* – Residences on Fairfield Road, W South Street, Jefferson Street, and in the Castle Oaks Apartment Home complex *Activity Category C (Exterior)* – Sunset Lake Park Walking Trail, Holland Chapel Baptist Church, and Family Life Center *Activity Category E (Exterior)* – Capri Inn
6	***South of I-30 and East of W Sevier Street/W South Street Interchange:*** *Activity Category B (Exterior)* – Residences on W Sevier Street, Rasburry Street, Jefferson Street, N Conrad Street, and W South Street *Activity Category C (Exterior)* – First Church of the Nazarene



Base map: Google Maps (2014)

Figure 2: Noise Study Areas 1-3



Base map: Google Maps (2014)

Figure 3: Noise Study Areas 4-6

The land uses along the project corridor studied for noise impacts were either identified as Activity Category B, Activity Category C, or Activity Category E. Activity Category B receptors are located at exterior areas of frequent human use, such as a patio or yard. Multifamily dwellings, such as an apartment complex, have receptors located at each ground floor unit with a patio and each upper floor unit with a balcony. Activity Category C receptors are either located at individual sites or can involve properties with multiple areas of diverse activity and usage characteristics. The receptor identification metrics for Activity Category C land uses outlined in the AHTD *Policy on Highway Traffic Noise Abatement* was followed for this analysis. Activity Category F land uses, commercial and industrial facilities, are located throughout the project area.

A search of building permits at the time of the analysis revealed no active building permits for new noise sensitive land uses. Any subsequent building permits for noise sensitive land uses would be after the date of public knowledge for the project, and AHTD would not be responsible for noise abatement.

3.0 Measurement of Existing Sound Levels

Noise measurements were conducted at several noise sensitive land use locations in the project area on September 18, 2014. Table 3 summarizes the measured equivalent sound levels at each of the measurement locations. Figure 4 and Figure 5 show the measurement locations. The individual locations' noise measurement results are provided in Appendix A. Field data sheets and photographs are available upon request.

Short-term noise measurements at these locations were conducted by making a series of consecutive measurements in one-minute intervals, over a 15 minute period at each site, repeated twice. If these measurements differed by more than 3 dB(A), a third measurement was taken, unless the variation could be explained by other noise events occurring during the measurement period. Background noises (i.e., local traffic, dog barking, sirens, etc.) during these measurements were noted, and the corresponding one-minute measurement intervals were eliminated from the calculation of the measured sound level for the overall measurement period. An ambient noise measurement was taken at one location to obtain desirable statistical accuracy for the background noise levels.

Table 3: Measured Existing Equivalent Sound Levels at Measurement Locations

Location (Setup)	Noise Study Area	Date	Period	Measured L_{eq} [dB(A)]
S Beggs Rd (1.1)	2	9/18/2014	9:18 – 9:33 AM	66
			9:35 – 9:50 AM	65
S Beggs Rd (1.2)	2	9/18/2014	9:18 – 9:33 AM	63
			9:35 – 9:50 AM	62
S Beggs Rd (1.3)	2	9/18/2014	9:18 – 9:33 AM	58
			9:35 – 9:50 AM	57
Fairfield Rd and Jackmon St (2.1)	5	9/18/2014	10:38 – 11:08 AM	56

Location (Setup)	Noise Study Area	Date	Period	Measured L_{eq} [dB(A)]
Troutt (3.1)	4	9/18/2014	11:28 – 11:43 AM	67
			11:51 AM – 12:06 PM	68
Troutt (3.2)	4	9/18/2014	11:28 – 11:43 AM	59
			11:51 AM – 12:06 PM	60
Troutt (3.3)	4	9/18/2014	11:28 – 11:43 AM	50
			11:51 AM – 12:06 PM	53

As indicated in Table 3, the existing sound levels at the exterior measurement locations were between 50 dB(A) and 68 dB(A). The lower sound levels were recorded at distant measurement locations and the sound levels in the high 60 dB(A) range were recorded at the first row residences closest to I-30.

Base Image: Google Maps (2014)

Figure 4: Noise Measurement Locations 1.1-1.3

Base Image: Google Maps (2014)

Figure 5: Noise Measurement Locations 2.1 and 3.1-3.3

4.0 Model Validation

AHTD policy requires validation of the FHWA Traffic Noise Model (TNM 2.5) computer program that is used to calculate worst-hour equivalent sound levels for receptors in each NSA for the existing scenario, and for the Build Alternative in the future design year (2038). Validation involves taking noise measurements at selected points near the existing roadway while taking simultaneous vehicle classification counts of the traffic and estimating travel speed. Then, the traffic counts are factored up to be hourly volumes, and along with the speeds, are entered into a TNM 2.5 model that has been created for the existing highway situation. The modeled levels are compared to the measured levels, and if they are within 3 dB(A) of the measured levels, the model is said to be validated.

Model validation noise measurements were made on September 18, 2014, with simultaneous traffic data collection. Traffic was videotaped for classification counting in the office. The noise measurement locations are listed in Table 4 and labeled on Figure 4 and Figure 5. Appendix A contains the detailed measurement results.

Table 4 lists the validation locations and presents the validation results. As shown in the table, the difference in the predicted and measured levels for the validation locations are all equal to or less than 3 dB(A). A high volume of heavy trucks were observed during the measurements, and thus TNM over-predicted noise levels at each measurement location.

Table 4: Model Validation Results

Location	Setup	Measured L_{eq} [dB(A)]	Predicted L_{eq} [dB(A)]	Predicted-Measured Difference [dB(A)]
S Beggs Rd	1.1	66	68	2
	1.2	63	64	1
	1.3	58	61	3
Fairfield Rd and Jackmon St	2.1	56	56	0
Troutt	3.1	68	71	3
	3.2	60	62	2
	3.3	53	56	3

5.0 Determination of Existing and Future One-Hour Equivalent Sound Levels

The FHWA TNM 2.5 computer program was used to calculate loudest-hour equivalent sound levels for the receptors in each NSA for the existing scenario and the future alternative. These receptors included numerous locations representative of each land use and varying distances up to approximately 700 feet from the centerline of the nearest I-30 travel lane.

Existing AM and PM peak hour traffic volumes, including truck percentages, were developed by AHTD for use in the noise modeling for the Existing Scenario. Design Year 2038 AM and PM peak hour traffic projections were developed for the *CA0601 Interchange Justification Report* and were used in the noise modeling for the Build Scenario.

Based on the *CA0601 Interchange Justification Report* Design Year 2038 peak hour traffic projections, it was determined that the NSAs along the I-30 corridor experience the worst noise hour during the PM peak hour.

For multiple-lane roadways, multiple travel lanes were modeled as a single TNM "roadway". The posted speed limits of 70 mph for cars and 65 mph for trucks were used for I-30, and design speeds were used for interchange ramps.

Receptors were modeled by TNM "receiver" points at areas of frequent human use of a property. For single-family residences, that area could be the front or back yard. For apartments and condominiums, that area could be a patio or balcony or a common use area. For the hotels and recreational areas, receptors were modeled at the common use areas. A TNM receiver could represent more than one receptor, such as several adjacent single-family residences or condominium balconies, or the common use area for an apartment building.

Large buildings were modeled as noise barriers to properly account for the shielding of the traffic noise that they provide to receptors. Single-family houses were modeled as individual noise barriers to account for the shielding that they would provide. Significant terrain features were also modeled. The default ground surface of lawn grass was used, with any large areas of paved ground specifically modeled as pavement.

Appendix C provides plan view plots of the Traffic Noise Models for the project corridor.

The predicted sound levels and the resulting impacts are discussed in the following section for each NSA.

6.0 Impact Determination Analysis

6.1 Summary of Impacts

An impact assessment was completed for the build alternative for each NSA. As noted previously, a receptor is impacted in two ways:

1. The predicted, worst-hour, design year $L_{eq(h)}$ approaches or exceeds the NAC. AHTD defines "approach" as 1 dB(A) less than the NAC. These levels apply at areas of frequent human use.

2. The predicted, worst-hour, design year $L_{eq(h)}$ "substantially" exceeds the existing $L_{eq(h)}$. "Substantially" is defined by AHTD as an increase of 10 or more dB(A).

Due to the nature of the project – widening of an Interstate – experience shows that increases over existing levels will be small and below the AHTD criterion of a 10 or more dB increase. Therefore, no receptors will be impacted by a substantial noise increase.

Table 5 summarizes the predicted impacts in each NSA for the Build Scenario. The impacts are then described in detail in the sections that follow.

As shown in Table 5, there will be a total of 88 impacted residential properties (Activity Category B), 8 impacts to Category C properties, and 1 impact to Category E properties. All of the impacts will be in terms of approaching or exceeding the NAC. NSA 1 is predicted to have 10 impacts. NSA 2 is predicted to have 26 impacts. NSA 3 is predicted to have 4 impacts. NSA 4 is predicted to have 26 impacts. NSA 5 is predicted to have 16 impacts. NSA 6 is predicted to have 15 impacts.

Table 5: Summary of Noise Impacts for the Build Scenario (Year 2038)

Noise Study Area	Design Year Sound Levels, $L_{eq(h)}$, [dB(A)]	Increase over Existing Sound Levels, [dB(A)]	Impacts based on NAC?	Impacts based on Substantial Increase	Number and Type of Impacted Receptors
1	Activity Category B: 61-76	2 to 9	Yes	No	10 single-family homes
2	Activity Category B: 62-73 Activity Category C: 76-77	3 to 7	Yes	No	24 single-family homes 2 church exterior areas
3	Activity Category B: 59-75	4 to 5	Yes	No	4 single-family homes
4	Activity Category B: 52-76 Activity Category C: 56-68 Activity Category E: 80	1 to 5	Yes	No	23 single-family homes 2 recreational areas 1 motel exterior area
5	Activity Category B: 51-75 Activity Category C: 63-76 Activity Category E: 66	2 to 6	Yes	No	8 single-family homes 6 apartment units 1 recreation area 1 church exterior area
6	Activity Category B: 55-75 Activity Category C: 73-76	3 to 5	Yes	No	13 single-family homes 2 church exterior areas

6.2 Noise Study Area 1

Table 6 lists the TNM receivers in NSA 1 and the one-hour equivalent sound levels for the Existing and Design Year 2038 Build scenarios. The Design Year 2038 PM peak hour was determined to be the worst noise hour for this NSA. Levels in bold italics represent impacts. Figure 6 shows the impacts for the area.

Table 6: Year 2038 One-Hour Equivalent Sound Levels and Impacts, NSA 1

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
11174 I-30 N (R 1)	1	***72***	***74***	2	1
11350 I-30 N (R 2)	1	52	61	9	-
11500 I-30 N (R 3)	1	61	***69***	8	1
2417 N BEGGS RD (R 4)	1	57	61	4	-
12000 I-30 N (R 5)	1	***72***	***76***	4	1
12050 I-30 N (R 6)	1	60	***67***	7	1
12180 I-30 N (R 7)	1	***66***	***70***	4	1
4652 BEATY RD (R 8)	1	59	65	6	-
4638 BEATY RD (R 9)	1	63	***67***	4	1
4583 BEATY RD (R 10)	1	***66***	***70***	4	1
12464 I-30 N (R 11)	1	***67***	***71***	4	1
123 MOUNTAIN VIEW RD (R 12)	1	***72***	***76***	4	1
145 MOUNTAIN VIEW RD (R 13)	1	***66***	***71***	5	1
196 MOUNTAIN VIEW RD (R 14)	1	59	65	6	-
228/232 MOUNTAIN VIEW RD (R 15)	2	57	63	6	-
231 MOUNTAIN VIEW RD (R 16)	1	60	64	4	-
Predicted "Build" Alternative Design Year 2038 Traffic Noise Impacts					**10**

[1]***Bold, italics = Impact***

The predicted sound levels in NSA 1 are between 61 and 76 dB(A). The impacted receptors are predicted to experience sound levels approaching or exceeding the NAC. Future sound level increases over the existing levels range between 2-9 dB(A). None of the receptors will experience future sound level increases exceeding the 10 dB(A) AHTD criterion.

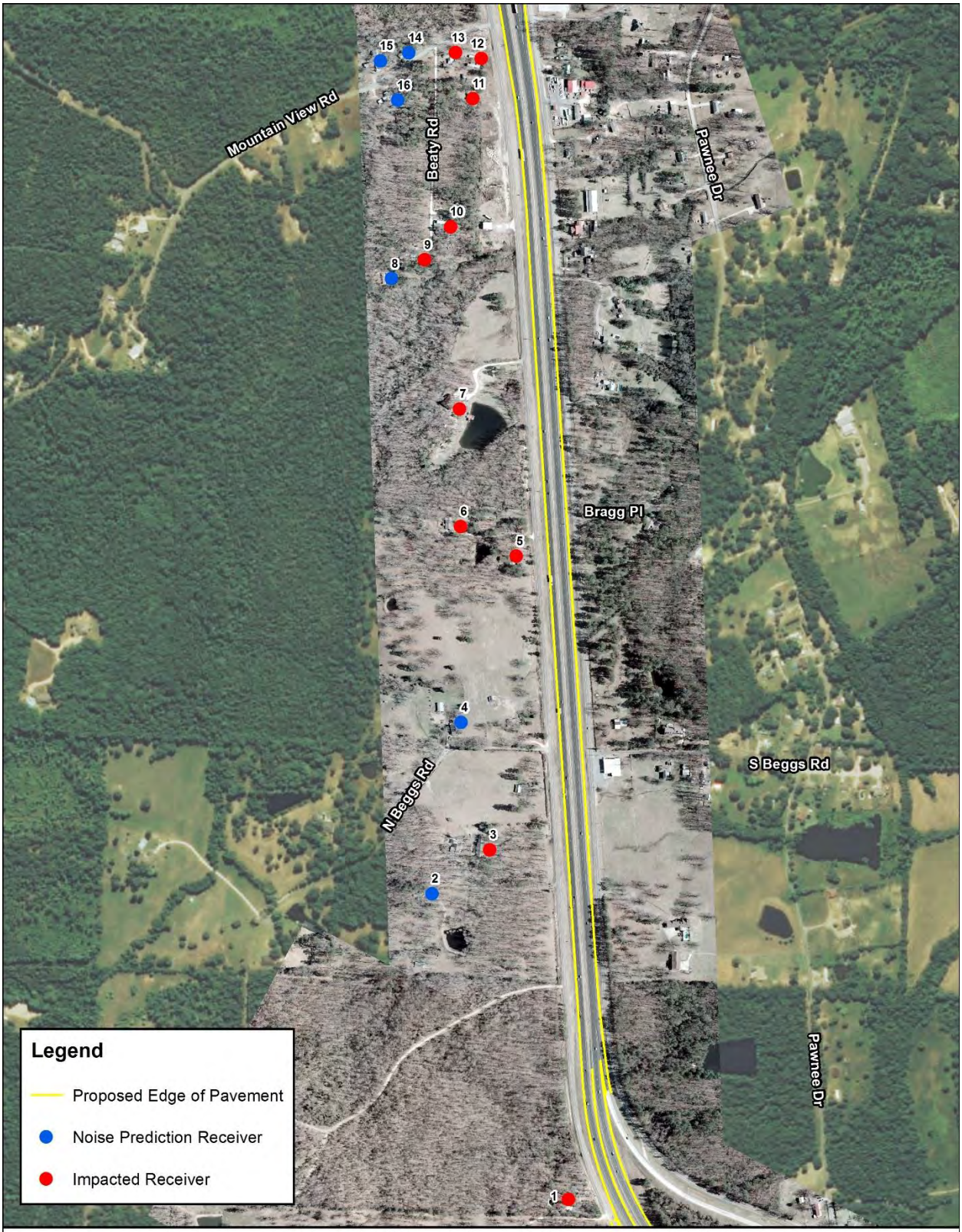


Figure 6. Year 2038 Build Noise Impacts, NSA 1

6.3 Noise Study Area 2

Table 7 lists the TNM receivers in NSA 2 and the one-hour equivalent sound levels for the Existing and Design Year 2038 Build scenarios. The Design Year 2038 PM peak hour was determined to be the worst noise hour for this NSA. Levels in bold italics represent impacts. Figure 7 shows the impacts for the area.

Table 7: Year 2038 One-Hour Equivalent Sound Levels and Impacts, NSA 2

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
7827 PAWNEE DR (R 17)	1	65	***69***	4	1
7823 PAWNEE DR (R 18)	1	63	***66***	3	1
7810 PAWNEE DR (R 19)	1	61	64	3	-
7412 PAWNEE DR (R 20)	1	56	63	7	-
11523 I-30 S (R 21)	1	64	69	5	1
3107 S BEGGS RD (R 22)	1	61	65	4	-
3108 S BEGGS RD (R 23)	1	65	***70***	5	1
3203 S BEGGS RD (R 24)	1	61	64	3	-
12057 I-30 S (R 25)	1	***67***	***71***	4	1
6422 PAWNEE DR (R 26)	1	57	62	5	-
6364 PAWNEE DR (R 27)	1	59	63	4	-
12183 I-30 S (R 28)	1	64	***69***	5	1
3115 J K DR (R 29)	1	***68***	***72***	4	1
3105 J K DR (R 30)	1	***66***	***69***	3	1
12295 I-30 S (R 31)	1	***68***	***72***	4	1
12299 I-30 S (R 32)	1	***70***	***73***	3	1
12329 I-30 S (R 33)	1	***69***	***73***	4	1
6204 PAWNEE DR (R 34)	1	60	64	4	-
6108 PAWNEE DR (R 35)	1	58	62	4	-
6016 PAWNEE DR (R 36)	1	59	63	4	-
6006 PAWNEE DR (R 37)	1	59	62	3	-
5922 PAWNEE DR (R 38)	1	58	62	4	-
5912 PAWNEE DR (R 39)	1	59	63	4	-
12427 I-30 S (R 40)	1	65	***68***	3	1
12429-B I-30 S (R 41)	1	***66***	***70***	4	1
12407 I-30 S (R 42)	1	***69***	***73***	4	1
12429 I-30 S (R 43)	1	***68***	***72***	4	1
5916 PAWNEE DR (R 44)	1	62	***66***	4	1
12471 I-30 S (R 45)	1	***68***	***72***	4	1
12497 I-30 S (R 46)	1	***67***	***70***	3	1
5866 PAWNEE DR (R 47)	1	62	***66***	4	1
2901 MOUNTAIN VIEW CUT-OFF (R 48)	1	62	***67***	5	1
2900 MOUNTAIN VIEW CUT-OFF (R 49)	1	***66***	***71***	5	1
12601 I-30 S (R 50)	1	***73***	***77***	4	1
12619 I-30 S (R 51)	1	***66***	***70***	4	1
12613 I-30 S (R 52)	1	***72***	***76***	4	1
12623 I-30 S (R 53)	1	***68***	***73***	5	1

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
2900 ASHOKAN DR (R 54)	1	61	***66***	5	1
3006 ASHOKAN DR (R 55)	1	60	64	4	-
Predicted "Build" Alternative Design Year 2038 Traffic Noise Impacts					**26**

[1]***Bold, italics = Impact***

The predicted sound levels at the receptors in NSA 2 are between 62 and 77 dB(A). The impacted receptors are predicted to experience sound levels approaching or exceeding the NAC. Future sound level increases over the existing levels range between 3-7 dB(A). None of the receptors will experience future sound level increases exceeding the 10 dB(A) AHTD criterion.

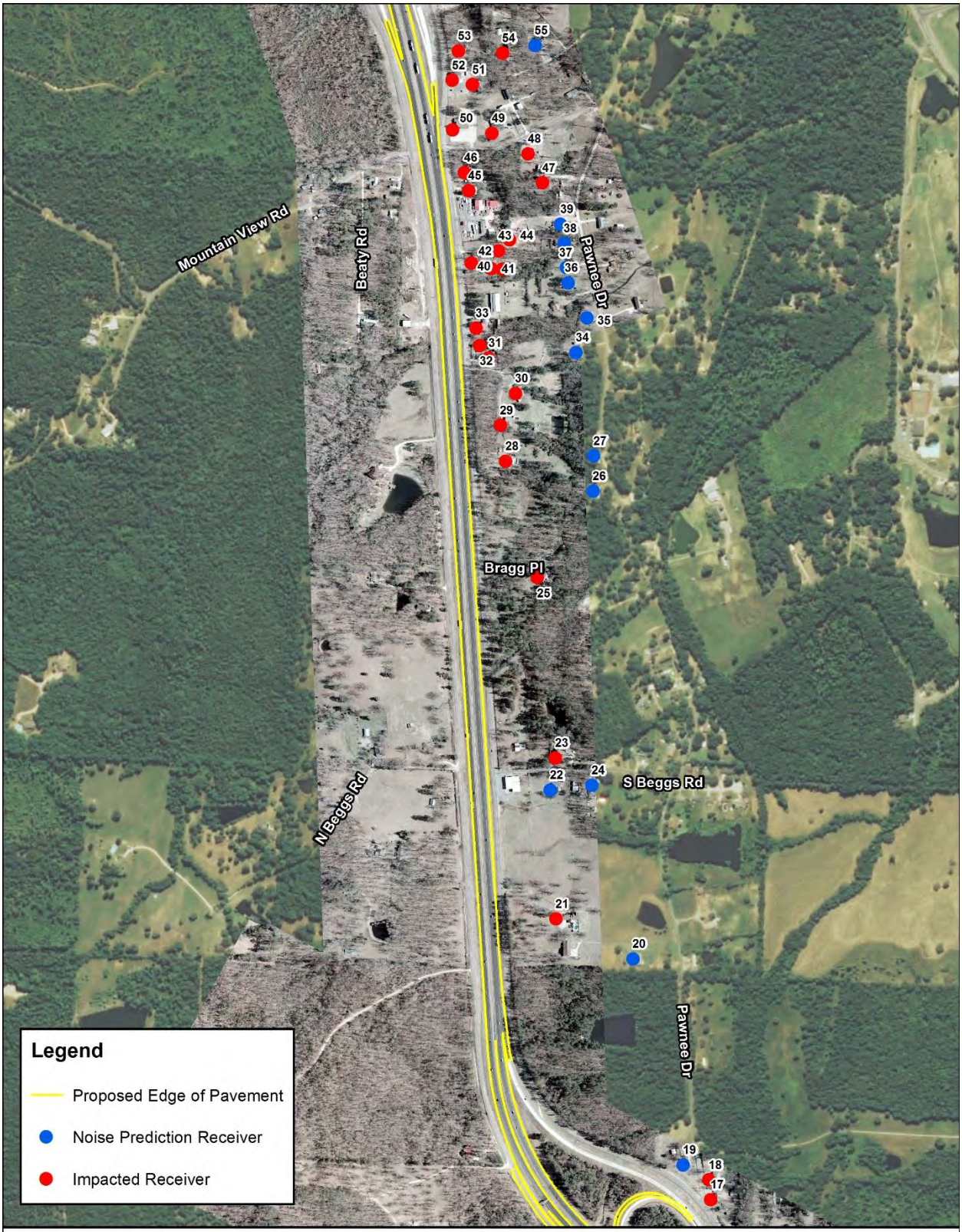


Figure 7. Year 2038 Build Noise Impacts, NSA 2

6.4 Noise Study Area 3

Table 8 lists the TNM receivers in NSA 3 and the one-hour equivalent sound levels for the Existing and Design Year 2038 Build scenarios. The Design Year 2038 PM peak hour was determined to be the worst noise hour for this NSA. Levels in bold italics represent impacts. Figure 8 shows the impacts for the area.

Table 8: Year 2038 One-Hour Equivalent Sound Levels and Impacts, NSA 3

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
12913 I-30 S (R 56)	1	***69***	***74***	5	1
12967 I-30 S (R 57)	1	***70***	***75***	5	1
5178 HWY 67 (R 58)	1	64	***68***	4	1
5134 HWY 67 (R 59)	1	61	65	4	-
5110 HWY 67 (R 60)	1	58	62	4	-
4994 HWY 67 (R 61)	1	60	64	4	-
13425 I-30 S (R 62)	1	59	64	5	-
4956 HWY 67 (R 63)	1	54	59	5	-
4876 HWY 67 (R 64)	1	55	59	4	-
4866 HWY 67 (R 65)	1	58	62	4	-
4754 HWY 67 (R 66)	1	62	***66***	4	1
Predicted "Build" Alternative Design Year 2038 Traffic Noise Impacts					**4**

[1]***Bold, italics = Impact***

The predicted sound levels at the receptors in NSA 3 are between 59 and 75 dB(A). The impacted receptors are predicted to experience sound levels approaching or exceeding the NAC. Future sound level increases over the existing levels range between 4-5 dB(A). None of the receptors will experience future sound level increases exceeding the 10 dB(A) AHTD criterion.

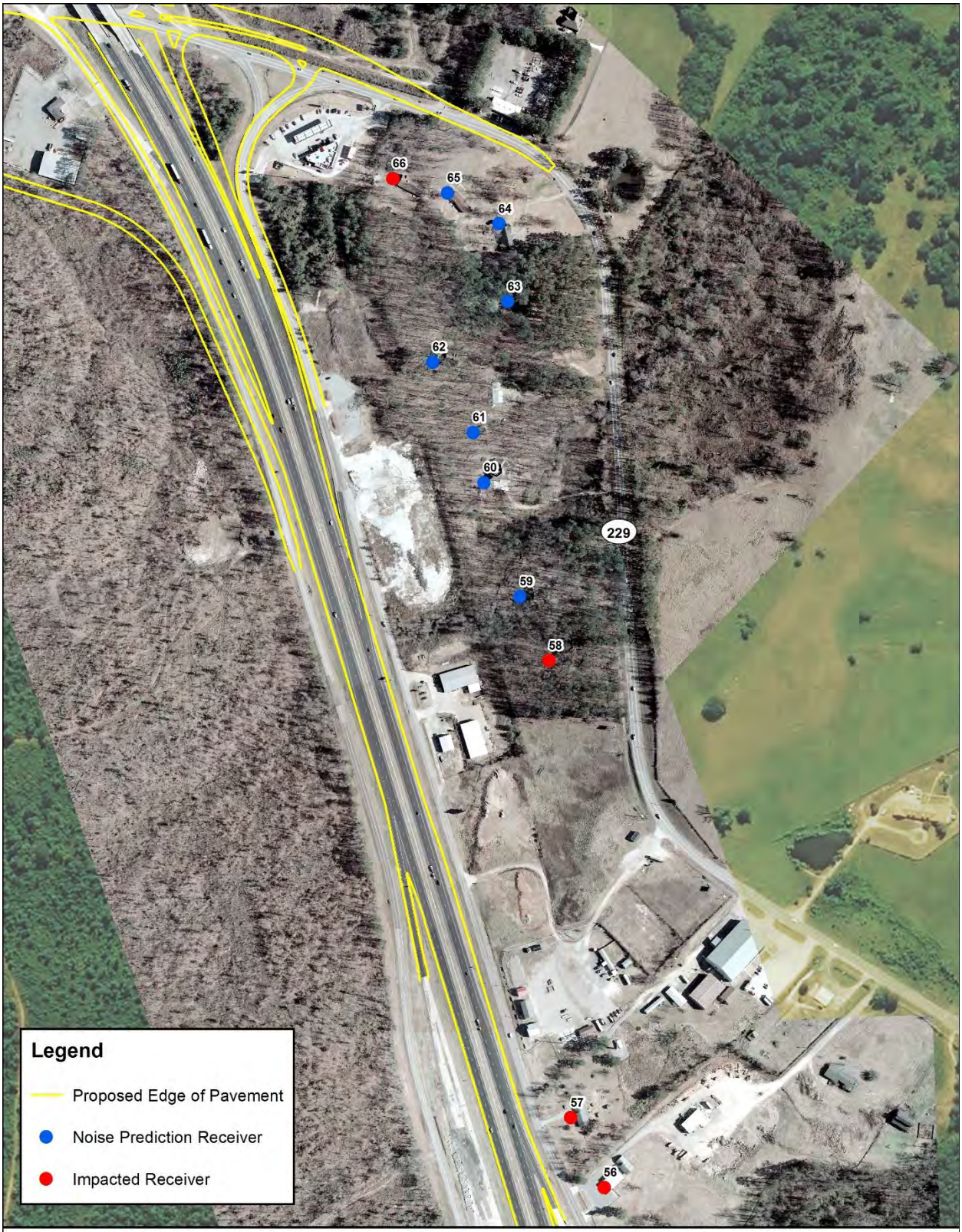


Figure 8. Year 2038 Build Noise Impacts, NSA 3

6.5 Noise Study Area 4

Table 9 lists the TNM receivers in NSA 4 and the one-hour equivalent sound levels for the Existing and Design Year 2038 Build scenarios. The Design Year 2038 PM peak hour was determined to be the worst noise hour for this NSA. Levels in bold italics represent impacts. Figure 9 shows the impacts for the area.

Table 9: Year 2038 One-Hour Equivalent Sound Levels and Impacts, NSA 4

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
SALINE RIVER BOAT RAMP (R 67)	1	63	***66***	3	1
500 RANDEL ST (R 68)	1	***67***	***69***	2	1
415 RANDEL ST (R 69)	1	65	***70***	5	1
2500 W SOUTH ST (R 70)	1	59	63	4	-
2508 W SOUTH ST (R 71)	1	58	61	3	-
2402 W SOUTH ST (R 72)	1	64	***67***	3	1
401 RANDEL ST (R 73)	1	***75***	***76***	1	1
2421 W SOUTH ST (R 74)	1	57	60	3	-
2409 W SOUTH ST (R 75)	1	62	64	2	-
2315 W SOUTH ST (R 76)	1	63	65	2	-
2315-B W SOUTH ST (R 77)	1	62	64	2	-
104 KING RD (R 78)	1	64	***66***	2	1
110 KING RD (R 79)	1	60	62	2	-
118 KING RD (R 80)	1	59	61	2	-
122 KING RD (R 81)	1	58	60	2	-
122-B KING RD (R 82)	1	55	57	2	-
208 KING RD (R 83)	1	55	57	2	-
206 KING RD (R 84)	1	57	60	3	-
214 KING RD (R 85)	1	56	58	2	-
222 KING RD (R 86)	1	56	58	2	-
217/219 KING RD (R 87)	2	59	63	4	-
125 KING RD (R 88)	1	61	64	3	-
121 KING RD (R 89)	1	62	65	3	-
117 KING RD (R 90)	1	62	64	2	-
15218 I-30 N (R 91)	1	***67***	***70***	3	1
114 TROUTT (R 92)	1	65	***68***	3	1
120 TROUTT (R 93)	1	64	***66***	2	1
124 TROUTT (R 94)	1	62	65	3	-
204 TROUTT (R 95)	1	61	65	4	-
208 TROUTT (R 96)	1	60	64	4	-
212 TROUTT (R 97)	1	59	62	3	-
217 TROUTT (R 98)	1	60	63	3	-
213 TROUTT (R 99)	1	61	64	3	-
209 TROUTT (R 100)	1	61	65	4	-
203 TROUTT (R 101)	1	62	***66***	4	1
121 TROUTT (R 102)	1	65	***68***	3	1
115 TROUTT (R 103)	1	***71***	***74***	3	1
114 PIKE (R 104)	1	***69***	***71***	2	1

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
118 PIKE (R 105)	1	65	***69***	4	1
124 PIKE (R 106)	1	63	***67***	4	1
204 PIKE (R 107)	1	61	64	3	-
208 PIKE (R 108)	1	55	57	2	-
115 PIKE (R 109)	1	59	62	3	-
119 PIKE (R 110)	1	59	61	2	-
201 PIKE (R 111)	1	59	62	3	-
205 PIKE (R 112)	1	59	62	3	-
209 PIKE (R 113)	1	58	61	3	-
213 PIKE (R 114)	1	57	60	3	-
214 BASS LN (R 115)	1	55	58	3	-
210 BASS LN (R 116)	1	56	59	3	-
206 BASS LN (R 117)	1	57	60	3	-
202 BASS LN (R 118)	1	58	61	3	-
120 BASS LN (R 119)	1	58	61	3	-
118 BASS LN (R 120)	1	61	64	3	-
15438 I-30 N (R 121)	1	***78***	***80***	2	1
113 BASS LN (R 122)	3	58	61	3	-
117 BASS LN (R 123)	1	65	***68***	3	1
116-B CROUCH (R 124)	1	60	63	3	-
121 BASS LN (R 125)	1	61	64	3	-
203 BASS LN (R 126)	1	61	65	4	-
207 BASS LN (R 127)	1	61	64	3	-
211 BASS LN (R 128)	1	59	63	4	-
215 BASS LN (R 129)	1	58	62	4	-
219 BASS LN (R 130)	1	58	61	3	-
212 CROUCH (R 131)	1	55	58	3	-
210 CROUCH (R 132)	1	56	60	4	-
206 CROUCH (R 133)	1	57	61	4	-
202 CROUCH (R 134)	1	58	61	3	-
120 CROUCH (R 135)	1	59	62	3	-
116 CROUCH (R 136)	1	63	***66***	3	1
115 CROUCH (R 137)	1	***70***	***72***	2	1
121 CROUCH (R 138)	1	65	***68***	3	1
201 CROUCH (R 139)	1	65	***68***	3	1
205 CROUCH (R 140)	1	64	***67***	3	1
209 CROUCH (R 141)	1	63	***67***	4	1
213 CROUCH (R 142)	1	63	***66***	3	1
217 CROUCH (R 143)	1	62	65	3	-
221 CROUCH (R 144)	1	61	64	3	-
303 CROUCH (R 145)	1	61	64	3	-
311 CROUCH (R 146)	1	60	63	3	-
315 CROUCH (R 147)	1	59	63	4	-
1501 W SEVIER ST (SOCCER FIELD) (R 148)	1	64	***68***	4	1
1614 W SEVIER ST (R 149)	1	62	65	3	-

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
1606 W SEVIER ST (R 150)	1	63	***66***	3	1
1501 W SEVIER ST (PLAYGROUND) (R 151)	1	53	57	4	-
1501 W SEVIER ST (BASKETBALL COURT 1) (R 152)	1	53	56	3	-
1501 W SEVIER ST (BASKETBALL COURT 2) (R 153)	1	54	57	3	-
1501 W SEVIER ST (BASEBALL FIELD) (R 154)	1	54	58	4	-
1501 W SEVIER ST (SOCCER FIELD) (R 155)	1	57	61	4	-
607 BRENTS FORD RD (R 156)	1	54	58	4	-
609 BRENTS FORD RD (R 157)	1	52	55	3	-
611 BRENTS FORD RD (R 158)	1	51	54	3	-
207 WOODLAND DR, UNIT 1 (R 159)	1	52	56	4	-
207 WOODLAND DR, UNIT 2 (R 160)	1	52	56	4	-
207 WOODLAND DR, UNIT 3 (R 161)	1	52	56	4	-
207 WOODLAND DR, UNIT 4 (R 162)	1	53	57	4	-
207 WOODLAND DR, UNIT 5 (R 163)	1	53	57	4	-
207 WOODLAND DR, UNIT 6 (R 164)	1	53	57	4	-
207 WOODLAND DR, UNIT 7 (R 165)	1	48	53	5	-
207 WOODLAND DR, UNIT 8 (R 166)	1	47	52	5	-
207 WOODLAND DR, UNIT 9 (R 167)	1	47	52	5	-
207 WOODLAND DR, UNIT 10 (R 168)	1	51	55	4	-
Predicted "Build" Alternative Design Year 2038 Traffic Noise Impacts					**26**

[1]***Bold, italics = Impact***

The predicted sound levels at the receptors in NSA 4 are between 52 and 80 dB(A). The impacted receptors are predicted to experience sound levels approaching or exceeding the NAC. Future sound level increases over the existing levels range between 1-5 dB(A). None of the receptors will experience future sound level increases exceeding the 10 dB(A) AHTD criterion.

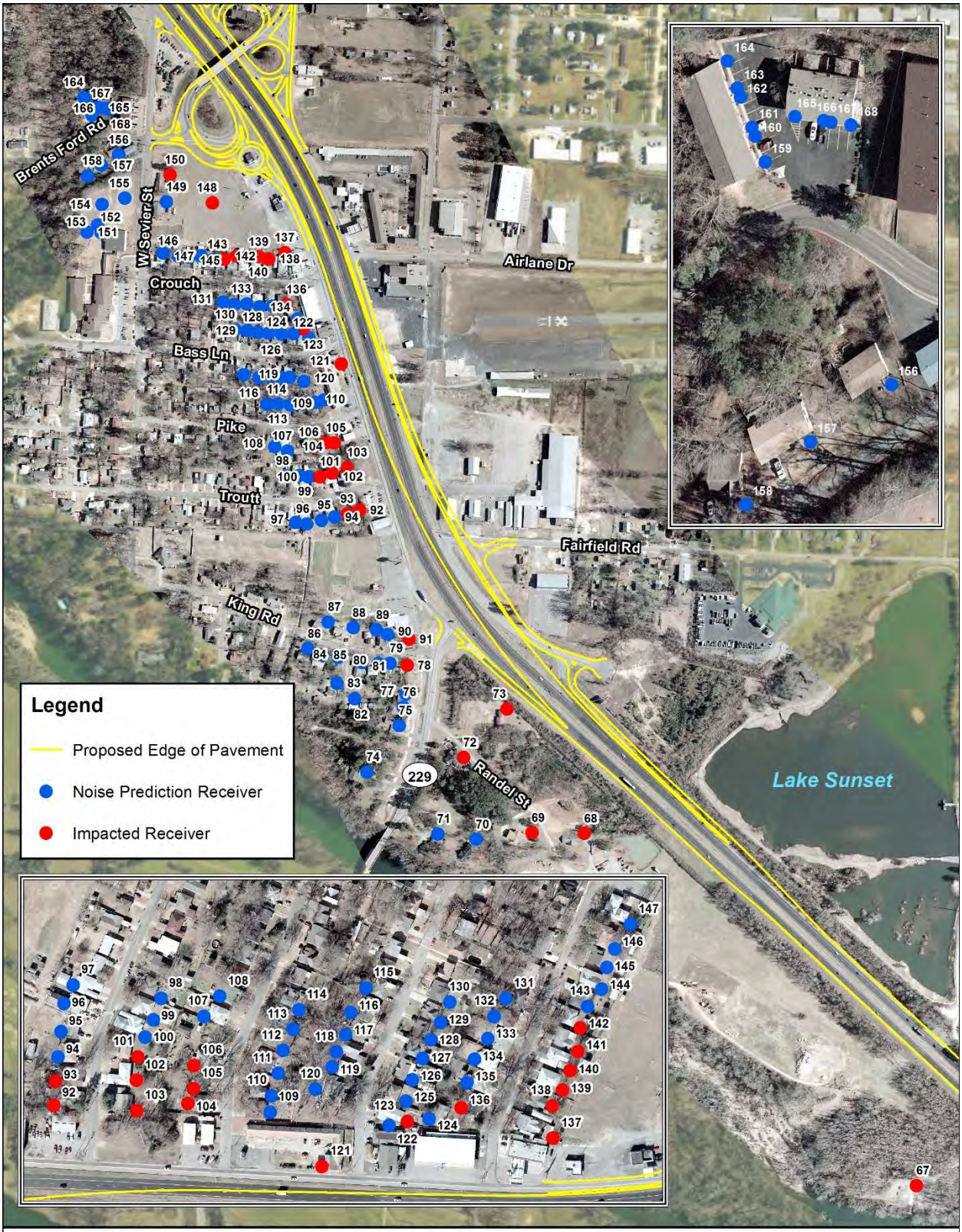


Figure 9. Year 2038 Build Noise Impacts, NSA 4

6.6 Noise Study Area 5

Table 10 lists the TNM receivers in NSA 5 and the one-hour equivalent sound levels for the Existing and Design Year 2038 Build scenarios. The Design Year 2038 PM peak hour was determined to be the worst noise hour for this NSA. Levels in bold italics represent impacts. Figure 10 shows the impacts for the area.

Table 10: Year 2038 One-Hour Equivalent Sound Levels and Impacts, NSA 5

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
LAKE SUNSET WALKING TRAIL (R 169)	1	***71***	***73***	2	1
521 FAIRFIELD RD (R 170)	1	***67***	***70***	3	1
417 FAIRFIELD RD (R 171)	1	***69***	***75***	6	1
519 FAIRFIELD RD (R 172)	1	64	***68***	4	1
515 FAIRFIELD RD (R 173)	1	62	***68***	6	1
517 FAIRFIELD RD (R 174)	1	62	***67***	5	1
601 FAIRFIELD RD (R 175)	1	61	***66***	5	1
617 FAIRFIELD RD (R 176)	1	59	64	5	-
619 FAIRFIELD RD (R 177)	1	57	62	5	-
713 FAIRFIELD RD (R 178)	1	56	61	5	-
706 FAIRFIELD RD (R 179)	1	56	61	5	-
620 FAIRFIELD RD (R 180)	1	55	60	5	-
616 FAIRFIELD RD (R 181)	1	58	63	5	-
15523 I-30 S (R 182)	1	***71***	***76***	5	1
206 AIRLANE DR (R 183)	1	57	63	6	-
15617 I-30 S (APTS 1-5, FRONT BUILDING) (R 184)	5	***72***	***75***	3	5
15617 I-30 S (APT 1, MIDDLE BUILDING) (R 185a)	1	48	52	4	-
15617 I-30 S (APT 11, MIDDLE BUILDING) (R 185b)	1	54	57	3	-
15617 I-30 S (APT 2, MIDDLE BUILDING) (R 186a)	1	48	51	3	-
15617 I-30 S (APT 12, MIDDLE BUILDING) (R 186b)	1	53	57	4	-
15617 I-30 S (APT 3, MIDDLE BUILDING) (R 187a)	1	48	51	3	-
15617 I-30 S (APT 13, MIDDLE BUILDING) (R 187b)	1	53	56	3	-
15617 I-30 S (APT 4, MIDDLE BUILDING) (R 188a)	1	48	51	3	-

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
15617 I-30 S (APT 14, MIDDLE BUILDING) (R 188b)	1	52	56	4	-
15617 I-30 S (APT 5, MIDDLE BUILDING) (R 189a)	1	48	51	3	-
15617 I-30 S (APT 15, MIDDLE BUILDING) (R 189b)	1	52	55	3	-
15617 I-30 S (APT 6, MIDDLE BUILDING) (R 190a)	1	47	51	4	-
15617 I-30 S (APT 16, MIDDLE BUILDING) (R 190b)	1	52	55	3	-
15617 I-30 S (APT 7, MIDDLE BUILDING) (R 191a)	1	48	51	3	-
15617 I-30 S (APT 17, MIDDLE BUILDING) (R 191b)	1	51	55	4	-
15617 I-30 S (APT 8, MIDDLE BUILDING) (R 192a)	1	48	51	3	-
15617 I-30 S (APT 18, MIDDLE BUILDING) (R 192b)	1	51	55	4	-
15617 I-30 S (APT 9, MIDDLE BUILDING) (R 193a)	1	48	51	3	-
15617 I-30 S (APT 19, MIDDLE BUILDING) (R 193b)	1	52	55	3	-
15617 I-30 S (APT 10, MIDDLE BUILDING) (R 194a)	1	56	61	5	-
15617 I-30 S (APT 20, MIDDLE BUILDING) (R 194b)	1	60	63	3	-
15617 I-30 S (APT 1, BACK BUILDING) (R 195a)	1	58	63	5	-
15617 I-30 S (APT 11, BACK BUILDING) (R 195b)	1	63	***66***	3	1
15617 I-30 S (APT 2, BACK BUILDING) (R 196a)	1	58	62	4	-
15617 I-30 S (APT 12, BACK BUILDING) (R 196b)	1	62	65	3	-

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
15617 I-30 S (APT 3, BACK BUILDING) (R 197a)	1	57	62	5	-
15617 I-30 S (APT 13, BACK BUILDING) (R 197b)	1	62	65	3	-
15617 I-30 S (APT 4, BACK BUILDING) (R 198a)	1	57	61	4	-
15617 I-30 S (APT 14, BACK BUILDING) (R 198b)	1	61	64	3	-
15617 I-30 S (APT 5, BACK BUILDING) (R 199a)	1	57	61	4	-
15617 I-30 S (APT 15, BACK BUILDING) (R 199b)	1	60	63	3	-
15617 I-30 S (APT 6, BACK BUILDING) (R 200a)	1	53	56	3	-
15617 I-30 S (APT 16, BACK BUILDING) (R 200b)	1	55	58	3	-
15617 I-30 S (APT 7, BACK BUILDING) (R 201a)	1	51	54	3	-
15617 I-30 S (APT 17 BACK BUILDING) (R 201b)	1	53	56	3	-
15617 I-30 S (APT 8, BACK BUILDING) (R 202a)	1	50	53	3	-
15617 I-30 S (APT 18, BACK BUILDING) (R 202b)	1	53	56	3	-
15617 I-30 S (APT 9, BACK BUILDING) (R 203a)	1	50	53	3	-
15617 I-30 S (APT 19, BACK BUILDING) (R 203b)	1	52	55	3	-
15617 I-30 S (APT 10, BACK BUILDING) (R 204a)	1	51	54	3	-
15617 I-30 S (APT 20, BACK BUILDING) (R 204b)	1	53	56	3	-
15617 I-30 S (PLAYGROUND) (R 205)	1	56	61	5	-

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
15631 I-30 S POOL (R 206)	1	63	66	3	-
1504 W SOUTH ST (R 207)	1	***71***	***74***	3	1
1410 W SOUTH ST (R 208)	1	63	***66***	3	1
1410 W SOUTH ST* (R 209)	1	59	63	4	-
1410 W SOUTH ST* (R 210)	1	58	61	3	-
1410 W SOUTH ST* (R 211)	1	60	63	3	-
1410 W SOUTH ST* (R 212)	1	60	63	3	-
1410 W SOUTH ST* (R 213)	1	58	62	4	-
Predicted "Build" Alternative Design Year 2038 Traffic Noise Impacts					**16**

[1]***Bold, italics = Impact***

The predicted sound levels at the receptors in NSA 5 are between 51 and 76 dB(A). The impacted receptors are predicted to experience sound levels approaching or exceeding the NAC. Future sound level increases over the existing levels range between 2-6 dB(A). None of the receptors will experience future sound level increases exceeding the 10 dB(A) AHTD criterion.

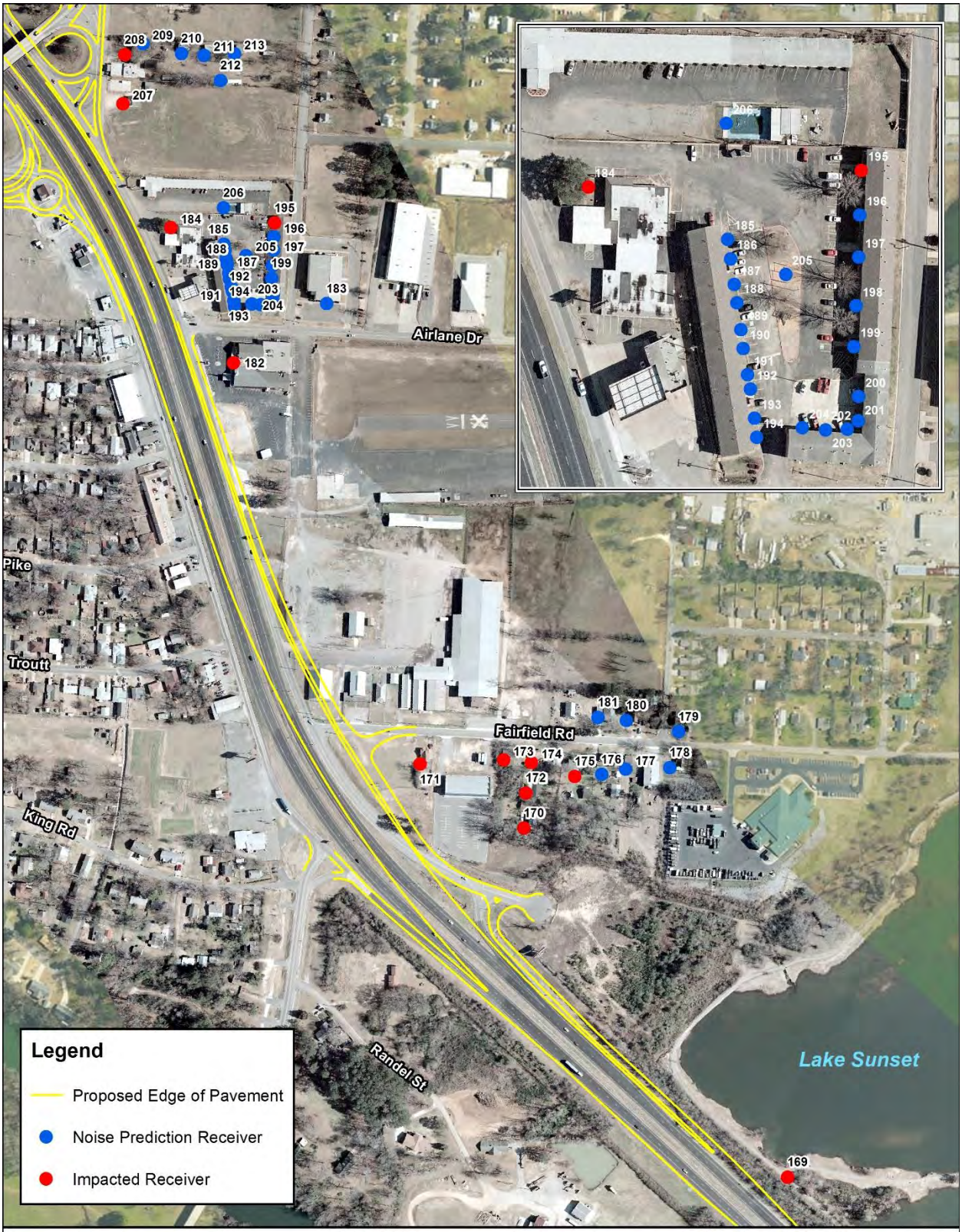


Figure 10. Year 2038 Build Noise Impacts, NSA 5

6.7 Noise Study Area 6

Table 11 lists the TNM receivers in NSA 6 and the one-hour equivalent sound levels for the Existing and Design Year 2038 Build scenarios. The Design Year 2038 PM peak hour was determined to be the worst noise hour for this NSA. Levels in bold italics represent impacts. Figure 11 shows the impacts for the area.

Table 11: Year 2038 One-Hour Equivalent Sound Levels and Impacts, NSA 6

Receiver	Dwelling Units	Existing Sound Level [dB(A)][1]	Design Sound Level [dB(A)][1]	Increase over Existing [dB(A)]	Number of Impacts
201 JEFFERSON ST (R 214)	1	51	55	4	-
123 JEFFERSON ST (R 215)	1	52	55	3	-
117 JEFFERSON ST (R 216)	1	51	55	4	-
111 JEFFERSON ST (R 217)	1	52	57	5	-
1200-C W SOUTH ST (R 218)	1	55	60	5	-
1200 W SOUTH ST (R 219)	1	62	***66***	4	1
1117-A W SOUTH ST (R 220)	1	58	63	5	-
1117-B W SOUTH ST (R 221)	1	56	60	4	-
114 RASBURRY ST (R 222)	1	53	57	4	-
115 RASBURRY ST (R 223)	1	53	56	3	-
1211 W SOUTH ST (R 224)	1	58	62	4	-
1219-A W SOUTH ST (R 225)	1	59	64	5	-
1219-B W SOUTH ST (R 226)	1	57	62	5	-
1223 W SOUTH ST (R 227)	1	62	***66***	4	1
1219-C W SOUTH ST (R 228)	1	61	***66***	5	1
124 RASBURRY ST (R 229)	1	59	63	4	-
202 RASBURRY ST (R 230)	1	58	63	5	-
1228 W SEVIER ST (R 231)	1	***71***	***74***	3	1
1214 1/2 W SEVIER ST (R 232)	1	64	***69***	5	1
1216 W SEVIER ST (R 233)	1	***72***	***75***	3	1
1214 W SEVIER ST (R 234)	1	***70***	***74***	4	1
1206 W SEVIER ST (R 235)	1	***67***	***72***	5	1
1204 W SEVIER ST (R 236)	1	63	***68***	5	1
1116 W SEVIER ST (R 237)	1	62	***66***	4	1
1106 W SEVIER ST (R 238)	1	60	64	4	-
1024 W SEVIER ST (R 239)	1	59	63	4	-
1018 W SEVEIR ST (R 240)	1	58	62	4	-
214 N CONRAD ST (R 241)	1	56	59	3	-
1203 W SEVIER ST (R 242)	1	***72***	***76***	4	1
1203 W SEVIER ST (Basketball Court) (R 243)	1	***68***	***73***	5	1
1019 W SEVIER ST (R 244)	1	65	***70***	5	1
1017 W SEVIER ST (R 245)	1	65	***70***	5	1
1015 W SEVIER ST (R 246)	1	64	***69***	5	1
929 W SEVEIR ST (R 247)	1	59	63	4	-
927 W SEVEIR ST (R 248)	1	59	64	5	-
Predicted "Build" Alternative Design Year 2038 Traffic Noise Impacts					**15**

[1]***Bold, italics = Impact***

The predicted sound levels at the receptors in NSA 6 are between 55 and 76 dB(A). The impacted receptors are predicted to experience sound levels approaching or exceeding the NAC. Future sound level increases over the existing levels range between 3-5 dB(A). None of the receptors will experience future sound level increases exceeding the 10 dB(A) AHTD criterion.

Figure 11. Year 2038 Build Noise Impacts, NSA 6

7.0 Noise Abatement Evaluation

In accordance with criteria in the AHTD noise policy, noise abatement needs to be studied first for "feasibility" and, if feasible, for "reasonableness." Noise barriers must be both feasible and reasonable to be deemed likely for construction.

Feasibility includes acoustical and engineering considerations. Acoustical feasibility means that a noise barrier will provide at least a 5 dB(A) reduction in the L_{eq} for at least one of the impacted receivers. If a barrier cannot meet this criterion, abatement is considered to not be acoustically feasible. Additionally, the noise barrier should be feasible from an engineering perspective. Engineering feasibility takes into account topography, drainage, safety, barrier height, utilities, and access and maintenance needs (which may include right-of-way considerations). If a barrier poses engineering problems, it may not be feasible even if it meets the acoustical feasibility criterion, and it will not be recommended for construction.

If feasible, then the barriers are assessed for reasonableness in accordance with the criteria in AHTD's noise policy. All proposed noise abatement must meet the following three criteria to be considered reasonable by AHTD. If any of the criteria is not met, noise abatement measures will not be constructed.

1. ***Consideration and Obtaining Views of Residents and Property Owners****:* The viewpoints of the affected property owners and residents are important. For those barriers found to be reasonable by the Cost-Effectiveness and Design Goal criteria below, viewpoints of the benefited receptors and affected property owners will be sought.

2. ***Cost-Effectiveness****:* If the estimated cost of constructing a noise barrier (including installation and additional necessary construction such as foundations or guardrails) divided by the number of benefited receptors [those who would receive a reduction of at least five dB(A)] is $36,000 or less per benefited receptor, a barrier is considered to be cost-effective. For initial considerations, an estimated unit cost of $35 per square foot for reflective barriers, $40 for absorptive barriers, and $50 for barriers on structures is used in this cost-effectiveness calculation.

3. ***Noise Reduction Design Goal****:* Traffic noise abatement must achieve at least an 8 dB(A) reduction for at least one impacted receptor.

According to the FHWA noise standards and AHTD policy, abatement needs to be evaluated when impacts are predicted to occur. Noise barriers must be shown to be both feasible and reasonable, as described earlier, to be deemed likely for construction. Based on the predicted impacts, the potential for noise barriers was studied for NSAs 1, 2, 3, 4, 5, and 6.

In general, noise abatement measures may include noise barriers, alteration of horizontal and vertical alignment, and traffic management measures (such as reducing speed limits or prohibition of heavy trucks). Neither of the latter two forms of abatement are feasible for this project because the widening of I-30 is in the median, I-30 is a major truck route and reduced speeds that are still safe for Interstate highway travel do not result in substantial noise reductions.

Noise barriers were determined to be the only potential abatement measure to reduce noise levels for impacted areas. As stated earlier, barriers must pass acoustical feasibility and reasonableness tests.

The FHWA TNM 2.5 program was used to predict one-hour equivalent sound levels with barriers present and to evaluate alternative noise barrier designs for each area.

7.1 Noise Barrier for Noise Study Area 1

Two noise barrier scenarios were studied for NSA 1. However, each was not reasonable in terms of the AHTD cost-effectiveness criteria.

The first noise barrier scenario was a 2,550-ft long barrier (NB1) at the edge of shoulder between I-30 WB and the Frontage Road, extending from west of N Beggs Road to the I-30 WB inspection station.

The second noise barrier scenario was a 2,350-ft long barrier (NB1-1) at the edge of shoulder between I-30 WB and the Frontage Road, extending from east of N Beggs Road to the I-30 WB inspection station.

7.2 Noise Barrier for Noise Study Area 2

Three noise barrier scenarios were studied for NSA 2. However, each was not reasonable in terms of the AHTD cost-effectiveness criteria.

The first noise barrier scenario was a 3,550-ft long barrier (NB2) at the edge of shoulder between I-30 EB and the Frontage Road, extending from west of S Beggs Road to the I-30 EB inspection station.

The second noise barrier scenario was a 3,100-ft long barrier (NB2-1) at the edge of shoulder between I-30 EB On Ramp and the Frontage Road, extending from east of the I-30 bridges over the US 70 Ramps to west of S Beggs Road.

The third noise barrier scenario was a 2,600-ft long barrier (NB2-2) at the edge of shoulder between the end of the I-30 EB On Ramp and the Frontage Road, extending from west of S Beggs Road to east of S Beggs Road.

7.3 Noise Barrier for Noise Study Area 3

The following noise barrier was studied for NSA 3. However, the barrier was not reasonable in terms of the AHTD cost-effectiveness criteria.

A 1,700-ft long barrier (NB3) at the edge of shoulder between I-30 EB and the Frontage Road, extending from east of I-30 EB inspection station to the AR 229 Interchange was studied.

7.4 Noise Barrier for Noise Study Area 4

Three noise barrier scenarios were studied for NSA 4. However, each was not reasonable in terms of the AHTD cost-effectiveness criteria.

The first noise barrier scenario was a 3,300-ft long barrier (NB4) at the edge of shoulder between I-30 WB and the Frontage Road, extending from east of I-30 WB on ramp to the W Sevier Street/W South Street Interchange.

The second noise barrier scenario was a 1,550-ft long barrier (NB4-1) at the edge of shoulder between I-30 WB and the Frontage Road, extending from east of I-30 WB on ramp to west of Pike Block.

The third noise barrier scenario was a 3,050-ft long barrier (NB4-2) at the edge of shoulder between I-30 WB and the Frontage Road, extending from west of AR229 to the W Sevier Street/W South Street Interchange.

7.5 Noise Barrier for Noise Study Area 5

Three noise barrier scenarios were studied for NSA 5. However, each was not reasonable in terms of the AHTD cost-effectiveness criteria.

The first noise barrier scenario was a 4,000-ft long barrier (NB5) at the edge of shoulder between I-30 EB and the Frontage Road, extending from the I-30 EB off ramp to the W Sevier Street/W South Street Interchange.

The second noise barrier scenario was a 1,600-ft long barrier (NB5-1) at the edge of shoulder between I-30 EB and the Frontage Road, extending from the I-30 EB off ramp to east of Fairfield Road.

The third noise barrier scenario was a 2,000-ft long barrier (NB5-2) at the edge of shoulder between I-30 EB and the Frontage Road, extending from east of Fairfield Road to the W Sevier Street/W South Street Interchange.

7.6 Noise Barrier for Noise Study Area 6

The following noise barrier was studied for NSA 6. However, the barrier was not reasonable in terms of the AHTD cost-effectiveness criteria.

A 1,700-ft long barrier (NB5) at the edge of shoulder along Leander Street and I-30 EB, extending from W South Street to east of the I-30 EB On Ramp towards the end of the project corridor was studied.

7.7 Statement of Likelihood of Abatement

Based on the studies completed to date, the Arkansas State Highway and Transportation Department has identified the following impacts:

- 88 residential
- 5 church
- 3 recreational
- 1 motel

The AHTD has determined that all studied noise abatement measures are feasible and acoustically reasonable; however, the costs for all of the studied noise abatement measures have been estimated to have a preliminary cost that would exceed the AHTD cost-effectiveness criteria. Therefore, each of the studied noise abatement measures are considered to not be reasonable and are not recommended for further analysis.

7.8 Views of Benefitted Property Owners and Residents

The final step in determining reasonableness of any abatement system is the solicitation of the viewpoints of the benefitted property owners and residents. If the cost-effectiveness and noise reduction reasonableness criteria are still met after additional design investigations, then the viewpoints of the benefitted residents and property owners will be sought and considered before final decisions are made.

8.0 Mitigation of Construction Noise

The major construction elements of this project are expected to consist of land clearing, earth moving, hauling, grading, paving and bridge construction. General construction noise impacts for passing traffic and those individuals living or working near the project can be expected particularly from clearing, earth moving and paving operations. Motorized equipment shall be maintained with appropriate mufflers to minimize construction noise levels. During certain phases of construction (example, land clearing) and during certain seasons of the year, there will be areas along the project where no construction activity is taking place. Also, considering the relatively short-term nature of construction noise, impacts are not expected to be substantial. Yet, for brief periods of time, some construction noise impacts could be substantial (an increase in existing noise levels by 10 dB(A) or greater), even though existing I-30 traffic noise levels will remain high. These episodes usually occur during daytime work hours. As a result, these impacts will be minimized to adjacent residents. Additionally, nearby structures usually contribute to transmission loss and a resulting moderation of intrusive construction noise.

9.0 Coordination with Local Officials

AHTD encourages local communities and developers to practice noise compatible planning in order to avoid future noise impacts. Two guidance documents on noise compatible land use planning are available from FHWA: “The Audible Landscape: A Manual for Highway Noise and Land Use” and “Entering the Quiet Zone: Noise Compatible Land Use Planning.”

Table 12 presents future predicted equivalent sound levels based on an assumed at-grade situation for areas along I-30 where vacant and possibly developable lands exist. Noise predictions were made at distances of 100, 200, 300, 400, 500, 600, and 700 feet from I-30 for the Design Year 2038 PM peak hour. The results showed exterior residential activities may be considered to be impacted in terms of a level of 66 or more dB(A) out to a distance of approximately 700 feet from centerline of the nearest travel lane of I-30, depending on the amount of shielding provided by surrounding buildings. These values do not represent predicted levels at every location at a particular distance back from the roadway. Sound levels will vary with changes in terrain and other site conditions. This information is being included to make local officials and planners aware of anticipated highway noise levels so that future development will be compatible with these levels.

Table 12: Design Year (2038) Predicted One-Hour Equivalent Sound Levels for Undeveloped Areas

Distance*	$L_{eq(h)}$ [dB(A)]
100	79
200	75
300	73
400	71
500	70
600	68
700	66

*Perpendicular distance to the centerline of the nearest travel lane of I-30

10.0 References

[1] *Procedures for Abatement of Highway Traffic and Construction Noise*, 23 CFR 772, Federal Highway Administration.

[2] *Policy on Highway Traffic Noise Abatement*, Arkansas Highway and Transportation Department, revised October 2015.

Appendix A – Noise Measurement Results

Date: **09/18/14**
Area: **NSA 2**
Site: **Along S Beggs Rd (ML 1.1)**
Description: **Residential, 1st Row**

Set 1

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	10:18:14	65.3	81.2	3388441	Yes	
2	10:19:14	64.5	69.0	2818382	Yes	
3	10:20:14	67.6	71.1	5754399	Yes	
4	10:21:14	67.7	73.6	5888436	Yes	
5	10:22:14	66.0	71.1	3981071	Yes	
6	10:23:14	67.1	73.6	5128613	Yes	
7	10:24:14	65.9	70.2	3890451	Yes	
8	10:25:14	66.6	71.5	4570881	Yes	
9	10:26:14	67.3	72.3	5370317	Yes	
10	10:27:14	65.5	70.4	3548133	Yes	
11	10:28:14	65.5	70.8	3548133	Yes	
12	10:29:14	63.8	69.5	2398832	Yes	
13	10:30:14	64.3	70.0	2691534	Yes	
14	10:31:14	65.2	70.4	3311311	Yes	
15	10:32:14	63.9	70.2	2454708	Yes	
			Leq of Good Periods		**65.9**	

Set 2

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	10:34:36	65.6	70.0	3630780	Yes	
2	10:35:36	64.7	71.7	2951209	Yes	
3	10:36:36	64.2	71.0	2630267	Yes	
4	10:37:36	65.0	69.8	3162277	Yes	
5	10:38:36	64.6	73.7	2884031	Yes	
6	10:39:36	66.3	71.3	4265795	Yes	
7	10:40:36	63.8	69.9	2398832	Yes	
8	10:41:36	66.4	73.4	4365158	Yes	
9	10:42:36	66.3	71.7	4265795	Yes	
10	10:43:36	62.8	70.9	1905460	Yes	
11	10:44:36	65.8	71.0	3801893	Yes	
12	10:45:36	65.0	71.4	3162277	Yes	
13	10:46:36	66.0	72.6	3981071	Yes	
14	10:47:36	66.1	71.1	4073802	Yes	
15	10:48:36	64.6	77.6	2884031	Yes	
			Leq of Good Periods		**65.3**	

Date: **09/18/14**
Area: **NSA 2**
Site: **Along S Beggs Rd (ML 1.2)**
Description: **Residential, 2nd Row**

Set 1

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	10:18:14	62.2	72.6	1659586	Yes	
2	10:19:14	62.6	68.8	1819700	Yes	
3	10:20:14	64.6	69.9	2884031	Yes	
4	10:21:14	64.1	70.2	2570395	Yes	
5	10:22:14	62.6	68.5	1819700	Yes	
6	10:23:14	63.2	69.4	2089296	Yes	
7	10:24:14	62.6	68.3	1819700	Yes	
8	10:25:14	63.3	67.3	2137962	Yes	
9	10:26:14	63.4	68.1	2187761	Yes	
10	10:27:14	61.9	69.2	1548816	Yes	
11	10:28:14	62.2	67.6	1659586	Yes	
12	10:29:14	61.2	68.6	1318256	Yes	
13	10:30:14	61.5	67.0	1412537	Yes	
14	10:31:14	63.2	71.2	2089296	Yes	
15	10:32:14	60.9	65.3	1230268	Yes	
			Leq of Good Periods		**62.7**	

Set 2

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	10:34:36	62.5	68.3	1778279	Yes	
2	10:35:36	61.9	66.6	1548816	Yes	
3	10:36:36	61.0	70.9	1258925	Yes	
4	10:37:36	63.4	66.8	2187761	Yes	
5	10:38:36	62.2	68.2	1659586	Yes	
6	10:39:36	62.8	67.1	1905460	Yes	
7	10:40:36	60.5	66.2	1122018	Yes	
8	10:41:36	64.4	80.1	2754228	Yes	
9	10:42:36	62.1	67.2	1621810	Yes	
10	10:43:36	61.4	67.0	1380384	Yes	
11	10:44:36	61.8	68.6	1513561	Yes	
12	10:45:36	61.0	66.7	1258925	Yes	
13	10:46:36	62.3	68.0	1698243	Yes	
14	10:47:36	62.2	66.5	1659586	Yes	
15	10:48:36	61.2	68.5	1318256	Yes	
			Leq of Good Periods		**62.2**	

Date: **09/18/14**
Area: **NSA 2**
Site: **Along S Beggs Rd (ML 1.3)**
Description: **Residential, 3rd Row**

Set 1

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	10:18:14	57.3	60.6	537031	Yes	
2	10:19:14	58.0	62.4	630957	Yes	
3	10:20:14	58.8	63.7	758577	Yes	
4	10:21:14	59.6	62.2	912010	Yes	
5	10:22:14	59.9	62.9	977237	Yes	
6	10:23:14	57.8	60.0	602559	Yes	
7	10:24:14	57.5	61.8	562341	Yes	
8	10:25:14	58.0	61.0	630957	Yes	
9	10:26:14	57.6	60.0	575439	Yes	
10	10:27:14	59.1	61.7	812830	Yes	
11	10:28:14	57.0	61.4	501187	Yes	
12	10:29:14	56.8	60.5	478630	Yes	
13	10:30:14	56.6	62.5	457088	Yes	
14	10:31:14	57.6	60.4	575439	Yes	
15	10:32:14	58.0	67.5	630957	Yes	
			Leq of Good Periods		**58.1**	

Set 2

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	10:34:36	56.1	58.7	407380	Yes	
2	10:35:36	56.3	60.7	426579	Yes	
3	10:36:36	56.7	59.1	467735	Yes	
4	10:37:36	56.0	58.5	398107	Yes	
5	10:38:36	58.3	62.9	676082	Yes	
6	10:39:36	55.5	61.5	354813	Yes	
7	10:40:36	56.9	60.0	489778	Yes	
8	10:41:36	57.2	59.9	524807	Yes	
9	10:42:36	55.5	58.8	354813	Yes	
10	10:43:36	58.1	61.2	645654	Yes	
11	10:44:36	57.2	61.5	524807	Yes	
12	10:45:36	57.4	61.1	549540	Yes	
13	10:46:36	57.0	59.8	501187	Yes	
14	10:47:36	56.2	61.4	416869	Yes	
15	10:48:36	58.8	61.4	758577	Yes	
			Leq of Good Periods		**57.0**	

Date: **09/18/14**
Area: **NSA 4**
Site: **Intersection of Fairfield Rd and Jackmon St (ML 2.1)**
Description: **Residential**

Set 1

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	11:38:24	54.5	65.1	281838	Yes	
2	11:39:24	50.9	56.5	123026	Yes	
3	11:40:24	53.1	61.0	204173	Yes	
4	11:41:24	64.3	80.2	-	No	Loud exhaust
5	11:42:24	55.6	68.7	363078	Yes	
6	11:43:24	55.3	67.7	338844	Yes	
7	11:44:24	51.1	54.6	128824	Yes	
8	11:45:24	55.6	65.3	363078	Yes	
9	11:46:24	50.4	55.7	109647	Yes	
10	11:47:24	53.4	63.3	218776	Yes	
11	11:48:24	50.5	52.5	112201	Yes	
12	11:49:24	52.6	66.6	181970	Yes	
13	11:50:24	57.0	68.4	501187	Yes	
14	11:51:24	54.6	64.1	288403	Yes	
15	11:52:24	51.2	56.0	131825	Yes	
16	11:53:24	57.9	69.9	616595	Yes	
17	11:54:24	53.1	57.3	204173	Yes	
18	11:55:24	56.5	68.4	446683	Yes	
19	11:56:24	51.8	57.1	151356	Yes	
20	11:57:24	56.3	68.8	426579	Yes	
21	11:58:24	53.0	56.3	199526	Yes	
22	11:59:24	58.1	71.4	645654	Yes	
23	12:00:24	58.4	71.2	691830	Yes	
24	12:01:24	58.3	70.4	676082	Yes	
25	12:02:24	59.7	72.4	933254	Yes	
26	12:03:24	53.8	58.4	239883	Yes	
27	12:04:24	58.2	68.7	660693	Yes	
28	12:05:24	55.9	67.4	389045	Yes	
29	12:06:24	56.5	70.5	446683	Yes	
30	12:07:24	57.0	70.0	501187	Yes	
			Leq of Good Periods		**55.6**	

Date: **09/18/14**
Area: **NSA 5**
Site: **Along Troutt Ave (ML 3.1)**
Description: **Residential, 1st Row**

Set 1

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	12:27:58	69.3	82.9	8511380	Yes	
2	12:28:58	66.7	73.8	4677351	Yes	
3	12:29:58	65.4	73.5	3467368	Yes	
4	12:30:58	68.9	79.1	7762471	Yes	
5	12:31:58	65.0	72.7	3162277	Yes	
6	12:32:58	64.5	75.6	2818382	Yes	
7	12:33:58	66.6	73.9	4570881	Yes	
8	12:34:58	66.0	75.5	3981071	Yes	
9	12:35:58	65.3	71.1	3388441	Yes	
10	12:36:58	67.3	78.6	5370317	Yes	
11	12:37:58	68.6	76.1	7244359	Yes	
12	12:38:58	68.6	80.2	7244359	Yes	
13	12:39:58	65.9	77.9	3890451	Yes	
14	12:40:58	65.1	77.2	3235936	Yes	
15	12:41:58	68.4	78.8	6918309	Yes	
			Leq of Good Periods		**67.1**	

Set 2

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	12:51:28	69.0	77.1	7943282	Yes	
2	12:52:28	69.5	75.8	8912509	Yes	
3	12:53:28	68.9	75.8	7762471	Yes	
4	12:54:28	67.8	77.3	6025595	Yes	
5	12:55:28	67.2	74.9	5248074	Yes	
6	12:56:28	68.0	74.4	6309573	Yes	
7	12:57:28	67.8	75.1	6025595	Yes	
8	12:58:28	67.5	73.5	5623413	Yes	
9	12:59:28	68.6	78.8	7244359	Yes	
10	13:00:28	66.1	71.3	4073802	Yes	
11	13:01:28	68.0	76.5	6309573	Yes	
12	13:02:28	63.8	70.5	2398832	Yes	
13	13:03:28	67.6	75.3	5754399	Yes	
14	13:04:28	66.6	73.7	4570881	Yes	
15	13:05:28	66.5	76.0	4466835	Yes	
			Leq of Good Periods		**67.7**	

Date: **09/18/14**
Area: **NSA 5**
Site: **Along Troutt Ave (ML 3.2)**
Description: **Residential, 2nd Row**

Set 1

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	12:27:58	60.0	70.9	1000000	Yes	
2	12:28:58	57.6	68.1	575439	Yes	
3	12:29:58	58.2	67.0	660693	Yes	
4	12:30:58	59.8	70.7	954992	Yes	
5	12:31:58	55.7	64.3	371535	Yes	
6	12:32:58	55.9	68.8	389045	Yes	
7	12:33:58	57.4	64.5	549540	Yes	
8	12:34:58	56.7	66.3	467735	Yes	
9	12:35:58	57.3	68.5	537031	Yes	
10	12:36:58	59.2	73.0	831763	Yes	
11	12:37:58	59.3	68.5	851138	Yes	
12	12:38:58	59.9	72.1	977237	Yes	
13	12:39:58	57.5	70.1	562341	Yes	
14	12:40:58	56.7	67.0	467735	Yes	
15	12:41:58	63.5	75.5	2238721	Yes	
			Leq of Good Periods		**58.8**	

Set 2

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	12:51:28	59.7	69.1	933254	Yes	
2	12:52:28	59.9	68.5	977237	Yes	
3	12:53:28	60.8	71.9	1202264	Yes	
4	12:54:28	59.7	68.4	933254	Yes	
5	12:55:28	59.5	68.6	891250	Yes	
6	12:56:28	59.7	67.9	933254	Yes	
7	12:57:28	59.8	72.2	954992	Yes	
8	12:58:28	58.9	65.7	776247	Yes	
9	12:59:28	60.1	70.0	1023292	Yes	
10	13:00:28	58.3	65.1	676082	Yes	
11	13:01:28	59.6	69.0	912010	Yes	
12	13:02:28	60.0	83.3	1000000	Yes	
13	13:03:28	59.6	68.5	912010	Yes	
14	13:04:28	61.7	74.7	1479108	Yes	
15	13:05:28	58.4	64.7	691830	Yes	
			Leq of Good Periods		**59.8**	

Date: **09/18/14**
Area: **NSA 5**
Site: **Along Troutt Ave (ML 3.3)**
Description: **Residential, 3rd Row**

Set 1

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	12:27:58	48.0	53.4	63095	Yes	
2	12:28:58	49.3	53.5	85113	Yes	
3	12:29:58	50.2	58.7	104712	Yes	
4	12:30:58	49.4	53.7	87096	Yes	
5	12:31:58	51.0	60.3	125892	Yes	
6	12:32:58	51.1	56.4	128824	Yes	
7	12:33:58	49.1	54.7	81283	Yes	
8	12:34:58	47.1	53.2	51286	Yes	
9	12:35:58	51.8	56.1	151356	Yes	
10	12:36:58	50.3	55.8	107151	Yes	
11	12:37:58	49.0	52.7	79432	Yes	
12	12:38:58	52.6	58.4	181970	Yes	
13	12:39:58	49.6	53.3	91201	Yes	
14	12:40:58	50.4	57.7	109647	Yes	
15	12:41:58	49.8	54.6	95499	Yes	
			Leq of Good Periods		**50.1**	

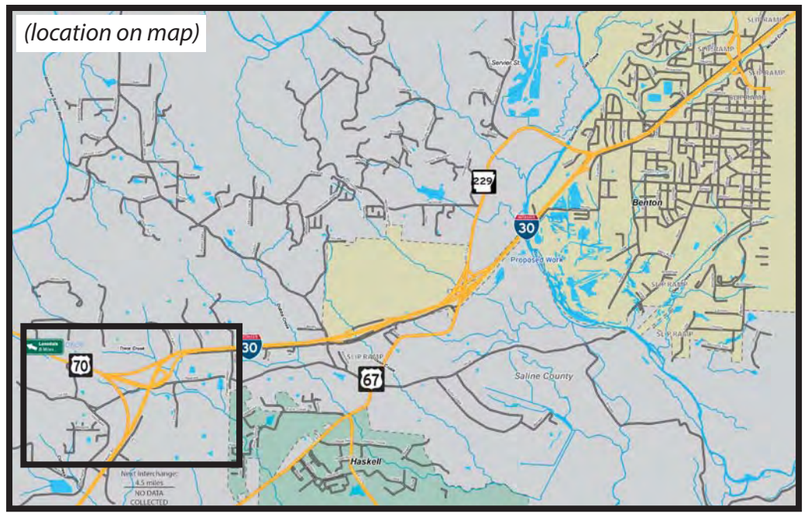
Set 2

Period	Time Start	Leq	Lmax	SPL	Keep?	Note
1	12:51:28	52.3	54.3	169824	Yes	
2	12:52:28	51.7	56.6	147910	Yes	
3	12:53:28	51.0	53.8	125892	Yes	
4	12:54:28	52.5	56.3	177827	Yes	
5	12:55:28	51.9	55.1	154881	Yes	
6	12:56:28	52.4	55.1	173780	Yes	
7	12:57:28	53.0	55.6	199526	Yes	
8	12:58:28	53.0	55.6	199526	Yes	
9	12:59:28	53.5	55.6	223872	Yes	
10	13:00:28	53.3	57.6	213796	Yes	
11	13:01:28	51.6	55.5	144543	Yes	
12	13:02:28	51.8	56.2	151356	Yes	
13	13:03:28	54.9	65.7	309029	Yes	
14	13:04:28	51.7	53.3	147910	Yes	
15	13:05:28	60.6	73.8	-	No	Lawnmower
			Leq of Good Periods		**52.6**	

Appendix B –Traffic Data for Noise Modeling

EXHIBIT 4.1

CA0601 - I-30 Widening
Highway 70 to Sevier Street
Existing 2013 Traffic Counts



(Not to Scale)

Legend

- 48-hour counts
- 24-hour counts
- (A) Mainline Count
- (B) Turning movement count
- (C) Ramp count

(AM/PM) Traffic Counts [Volumes shown are raw counts taken September 2013]

(AM/PM) Truck Percent

Peak hour Times: 7:00AM–8:00 AM and 4:30 PM–5:30 PM

CONNECTING ARKANSAS PROGRAM CAP

January 2014

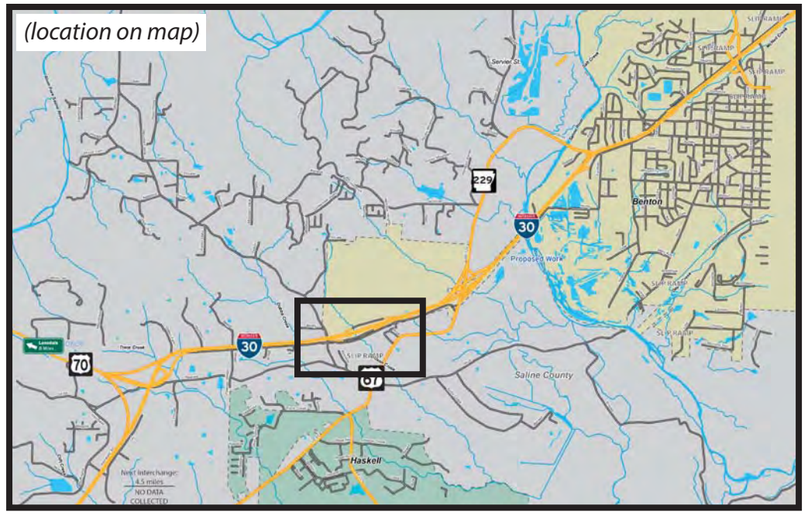
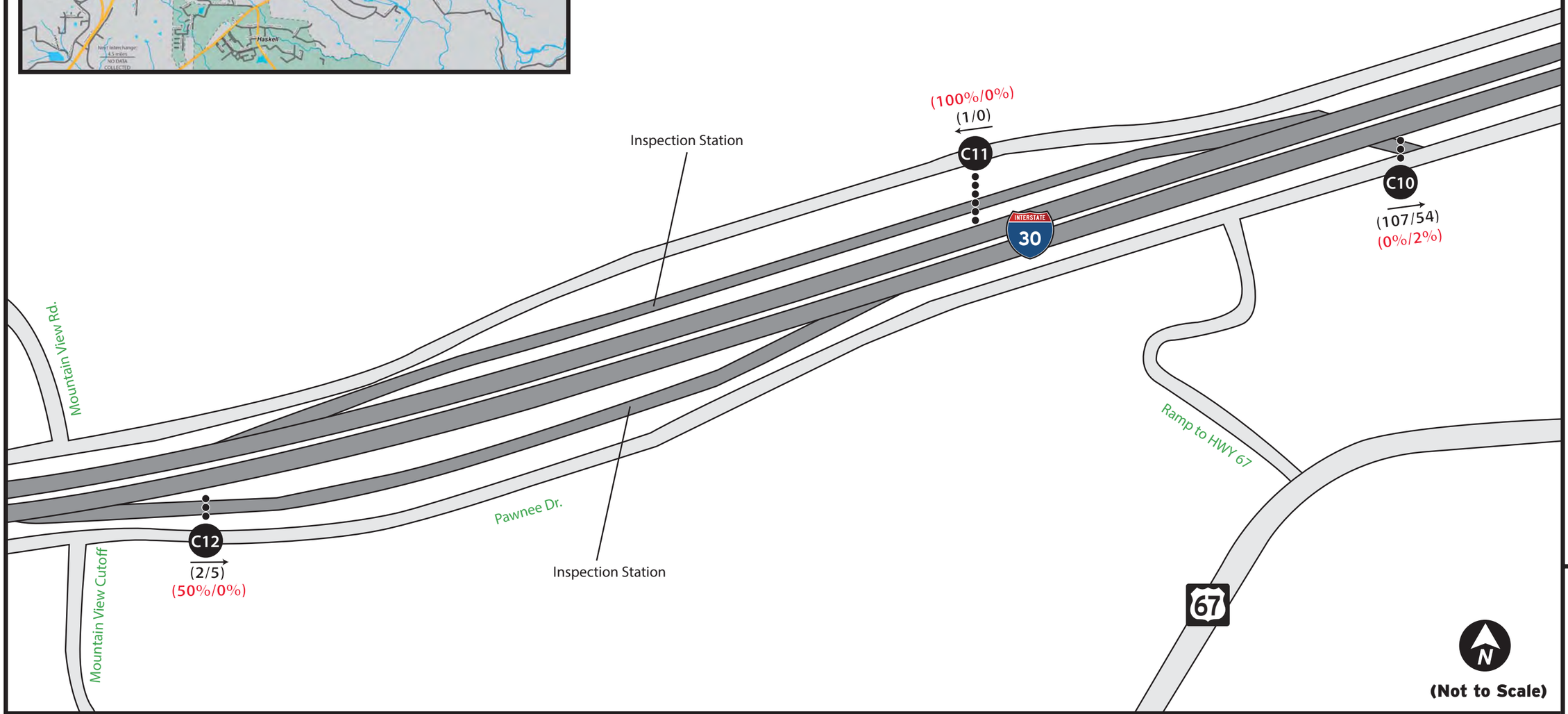


EXHIBIT 4.2

CA0601 - I-30 Widening
Highway 70 to Sevier Street
Existing 2013 Traffic Counts



Legend

— 48-hour counts

••••• 24-hour counts

Ⓐ Mainline Count

Ⓑ Turning movement count

Ⓒ Ramp count

(AM/PM) Traffic Counts [Volumes shown are raw counts taken September 2013]

(AM/PM) Truck Percent

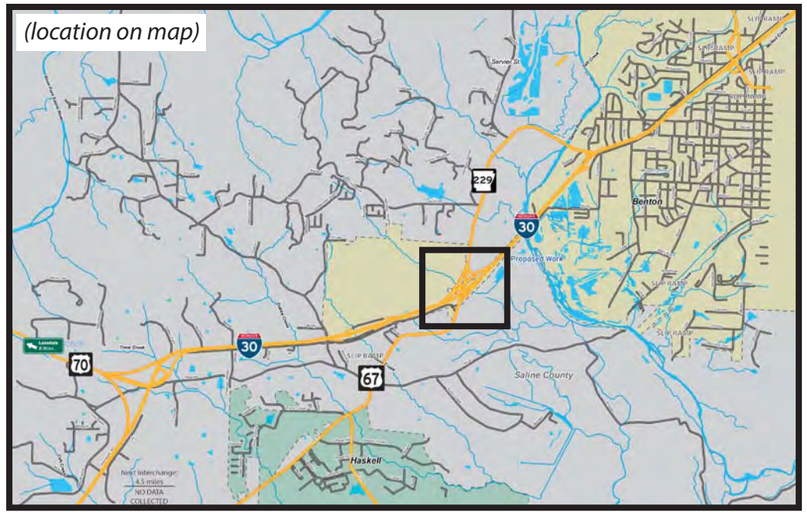
Peak hour Times: 7:00AM–8:00 AM and 4:30 PM–5:30 PM

CONNECTING ARKANSAS PROGRAM CAP

January 2014

EXHIBIT 4.3

CA0601 - I-30 Widening
Highway 70 to Sevier Street
Existing 2013 Traffic Counts



(Not to Scale)

Legend

— 48-hour counts

●●●●● 24-hour counts

A Mainline Count
B Turning movement count
C Ramp count

(AM/PM) Traffic Counts [Volumes shown are raw counts taken September 2013]
(AM/PM) Truck Percent
Peak hour Times: 7:00AM–8:00 AM and 4:30 PM–5:30 PM

CONNECTING ARKANSAS PROGRAM CAP

January 2014

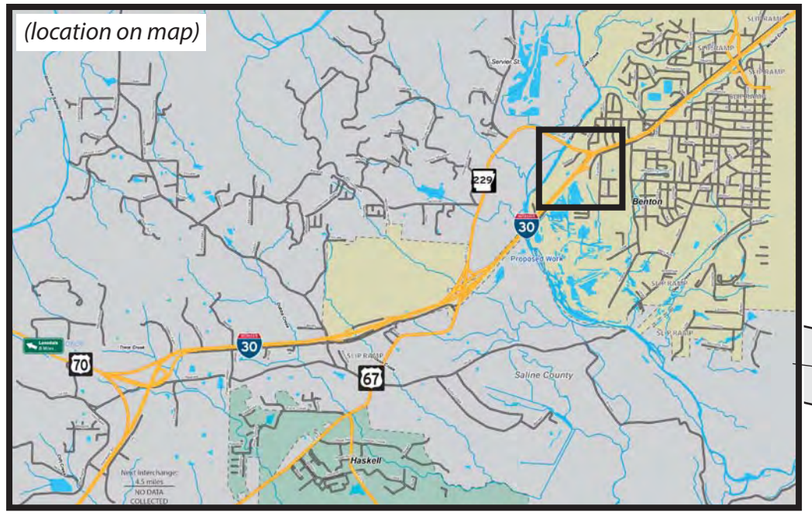


EXHIBIT 4.4

CA0601 - I-30 Widening
Highway 70 to Sevier Street
Existing 2013 Traffic Counts

King Rd

I-30 Frontage Rd

(79/203)
(173/312)

Randel

W South St

(195/60)

(2/2)

B2

INTERSTATE
30

67

70

I-30 Frontage Rd

Fairfield Rd

C6

(229/158)
(38%/36%)

N

(Not to Scale)

Legend

—— 48-hour counts

••••• 24-hour counts

A Mainline Count
B Turning movement count
C Ramp count

(AM/PM) Traffic Counts [Volumes shown are raw counts taken September 2013]
(AM/PM) Truck Percent
Peak hour Times: 7:00AM–8:00 AM and 4:30 PM–5:30 PM

CONNECTING ARKANSAS PROGRAM CAP

January 2014

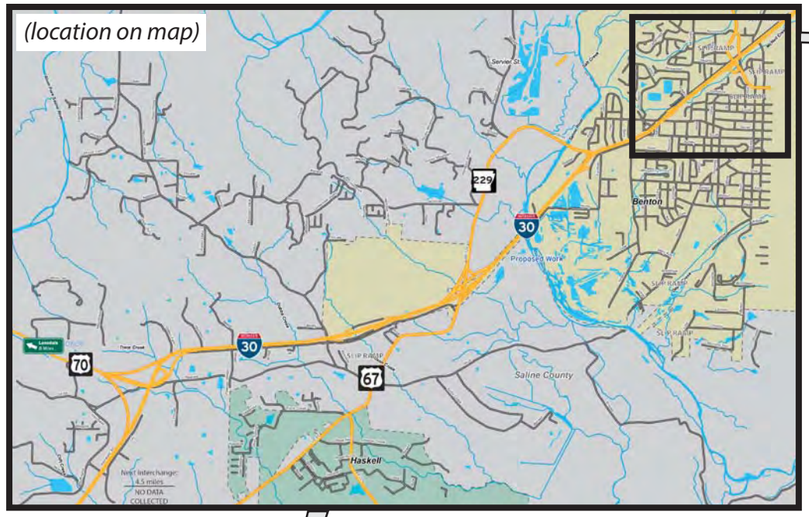


EXHIBIT 4.5

CA0601 - I-30 Widening
Highway 70 to Sevier Street
Existing 2013 Traffic Counts

Kenwood Rd.

Hot Springs Hwy.

5

35

Woodland Ave

Muaqua Ave

W Sevier St

I-30 Frontage Rd

I-30 Frontage Rd

W South St

W South St

Leander St.

W Sevier St

70

67

INTERSTATE 30

C1 (709/382) (1%/2%)

C2 (5%/1%) (310/618)

C3 (536/503) (1%/1%)

C4 (1%/0%) (232/366)

C5 (6%/3%) (269/335)

A1 (16%/15%) (1,580/2,790)

(2,947/2,134) (10%/18%)

B1 (76/60) (11/22)

(689/407) (89/42)

N

(Not to Scale)

Legend

48-hour counts

24-hour counts

A Mainline Count

B Turning movement count

C Ramp count

(AM/PM) Traffic Counts [Volumes shown are raw counts taken September 2013]

(AM/PM) Truck Percent

Peak hour Times: 7:00AM–8:00 AM and 4:30 PM–5:30 PM

CONNECTING ARKANSAS PROGRAM CAP

January 2014

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		CA0601		
				1-30 - Traffic Counts				

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8/24/2015
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N BEGGS RD

FRONTAGE ROAD

B/D (3) 2250 4350

I-30

C/C (3) 3500 3520

C/C (3) 3500 3520

MATCH SHEET 2 OF 8

(3) B/D 2250 4350

(2) B/C 2000 2270

1500 1250

FRONTAGE ROAD

FRONTAGE ROAD

S BEGGS RD

750 1800

70 200

1500 2550 B/C (2)

C/D (2) 2070 2470

PAWNEE DR

820 2000

70 200

US 70

1600 1300

1500 1250

PAWNEE VILLAGE DR

PAWNEE DR

100 50

I-30

B/C (2)

B/C (2)

1600 2600

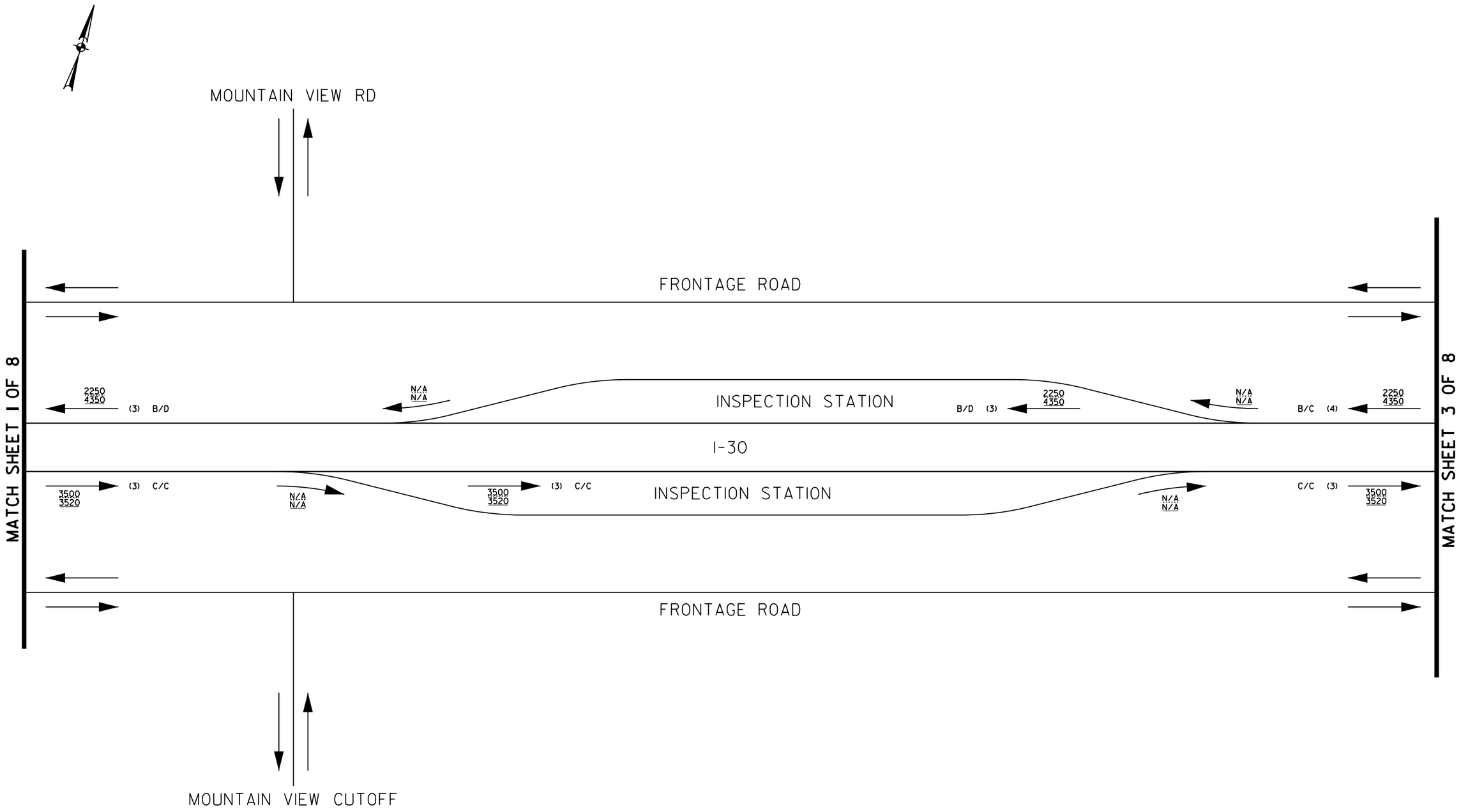
2070 2470

LEGEND

1000 = AM 2038
1000 = PM 2038
(1) = NO. LANES
A/B = AM/PM LOS

I-30
BUILD
TRAFFIC COUNTS
YEAR: 2038
SHEET 1 OF 8

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		CA0601		
				(2)	I-30 - Traffic Counts			



LEGEND

1000 = AM 2038
1000 = PM 2038
(1) = NO. LANES
A/B = AM/PM LOS

I-30
BUILD
TRAFFIC COUNTS
YEAR: 2038
SHEET 2 OF 8

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		CA0601		
				②	I-30 - Traffic Counts			

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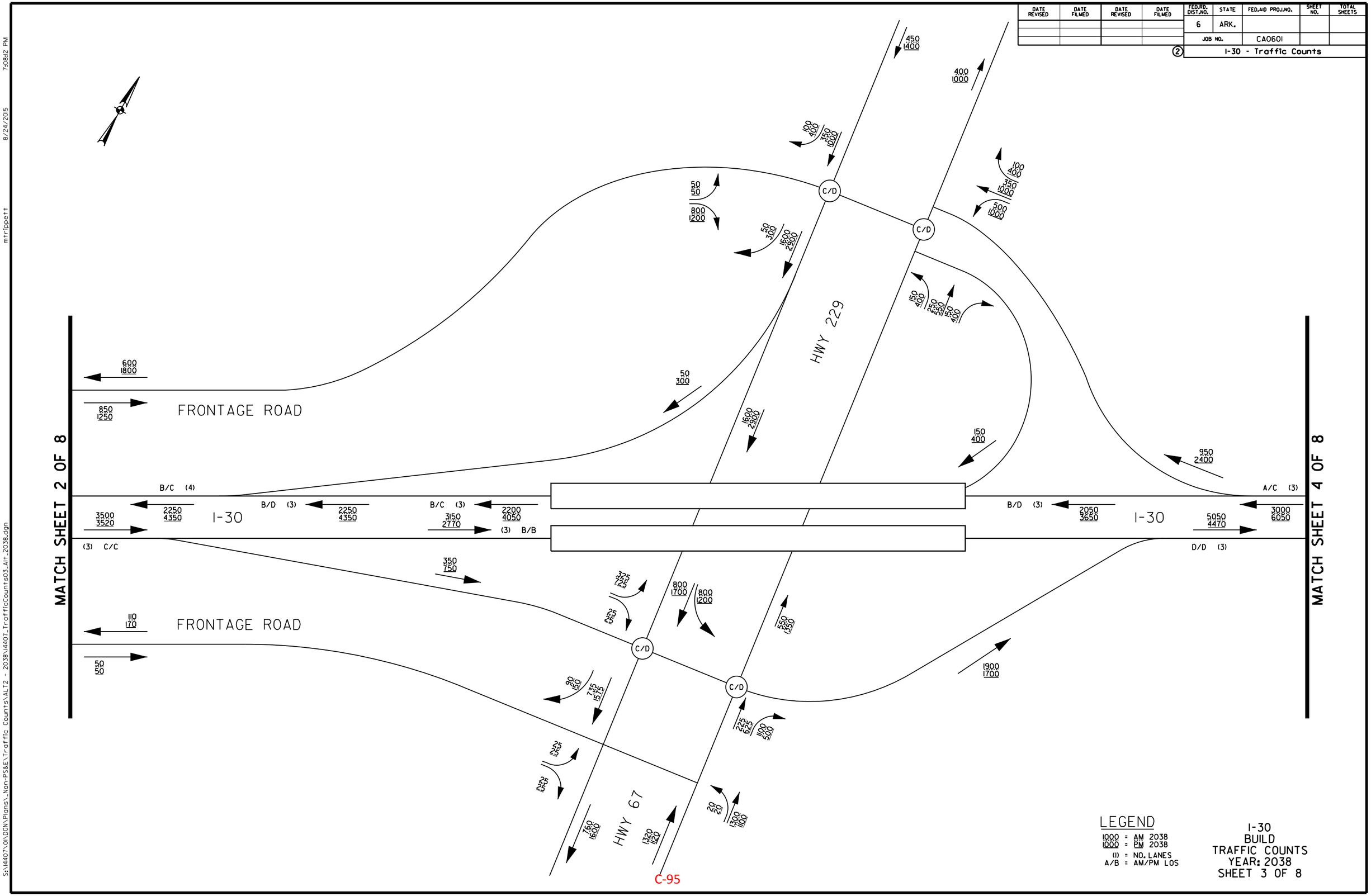

LEGEND

1000 = AM 2038
1000 = PM 2038
(1) = NO. LANES
A/B = AM/PM LOS

I-30
BUILD
TRAFFIC COUNTS
YEAR: 2038
SHEET 3 OF 8

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
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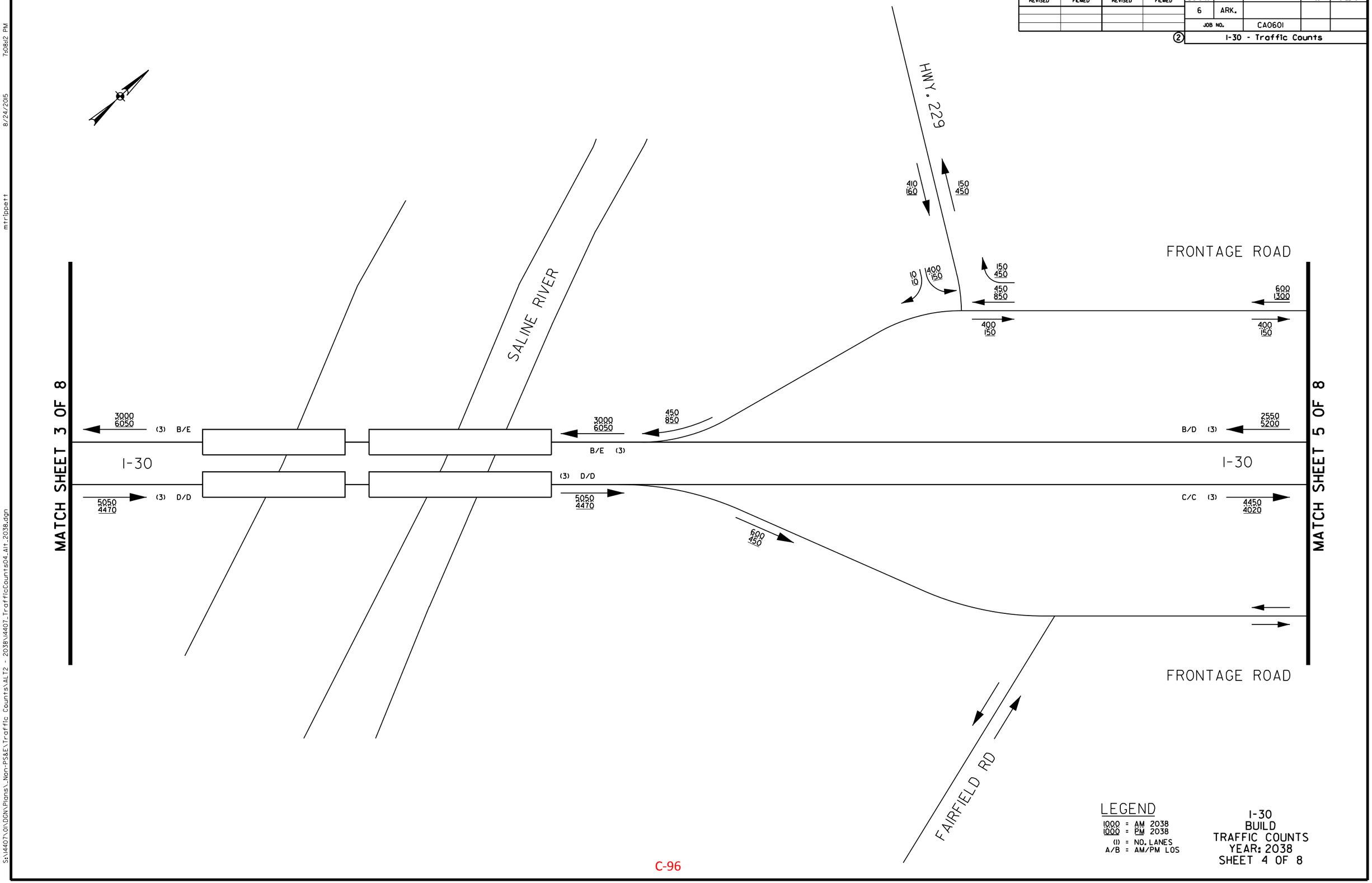
				②	I-30 - Traffic Counts			



LEGEND

1000 = AM 2038
1000 = PM 2038
(1) = NO. LANES
A/B = AM/PM LOS

I-30
BUILD
TRAFFIC COUNTS
YEAR: 2038
SHEET 4 OF 8

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		CA0601		
				(2)	I-30 - Traffic Counts			

TROUTT

PIKE RD

BASS LN

CROUCH ST

FRONTAGE ROAD

FRONTAGE ROAD

MATCH SHEET 4 OF 8

2550
5200 (3) B/D

B/D (3) 2550
5200

MATCH SHEET 6 OF 8

I-30

4450
4020 (3) C/C

C/C (3) 4450
4020

FRONTAGE ROAD

FRONTAGE ROAD

AIRLANE DR

LEGEND

1000 = AM 2038
1000 = PM 2038
(1) = NO. LANES
A/B = AM/PM LOS

I-30
BUILD
TRAFFIC COUNTS
YEAR: 2038
SHEET 5 OF 8

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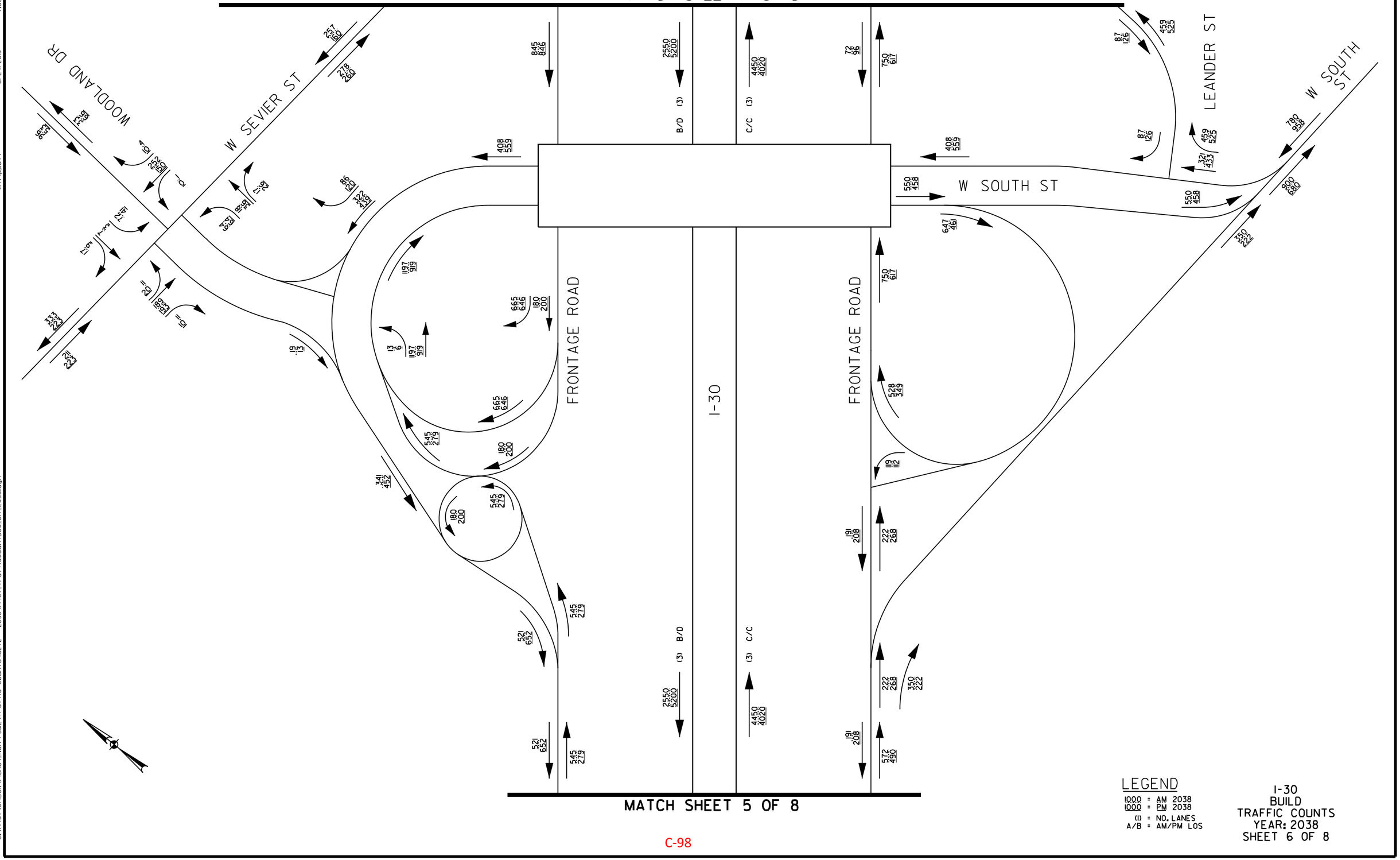
				JOB NO.		CA0601		
				②	I-30 - Traffic Counts			

MATCH SHEET 7 OF 8



MATCH SHEET 5 OF 8

LEGEND

1000 = AM 2038
1000 = PM 2038
(1) = NO. LANES
A/B = AM/PM LOS

I-30
BUILD
TRAFFIC COUNTS
YEAR: 2038
SHEET 6 OF 8

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		CA0601		
				②	I-30 - Traffic Counts			

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8/24/2015
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MCNEIL CREEK

EDGEMOOR TERRACE

PINEWOOD DR

W SEVIER ST

22.8 D

845
846

257
160

824
746

374
246

FRONTAGE ROAD

567
586

FRONTAGE ROAD

MATCH SHEET 6 OF 8

MATCH SHEET 8 OF 8

2550
5200
(3) B/D

B/D (3) 2550
5200

450
500

C/E (3) 3000
5700

I-30

4450
4020
(3) C/C

4450
4020
(3) C/C

1050
920

E/D (3) 5500
4940

MCNEIL CREEK

72
96

FRONTAGE ROAD

750
617

663
491

87
126

72
96

387
429

1050
920

87
126

459
525

LEANDER ST

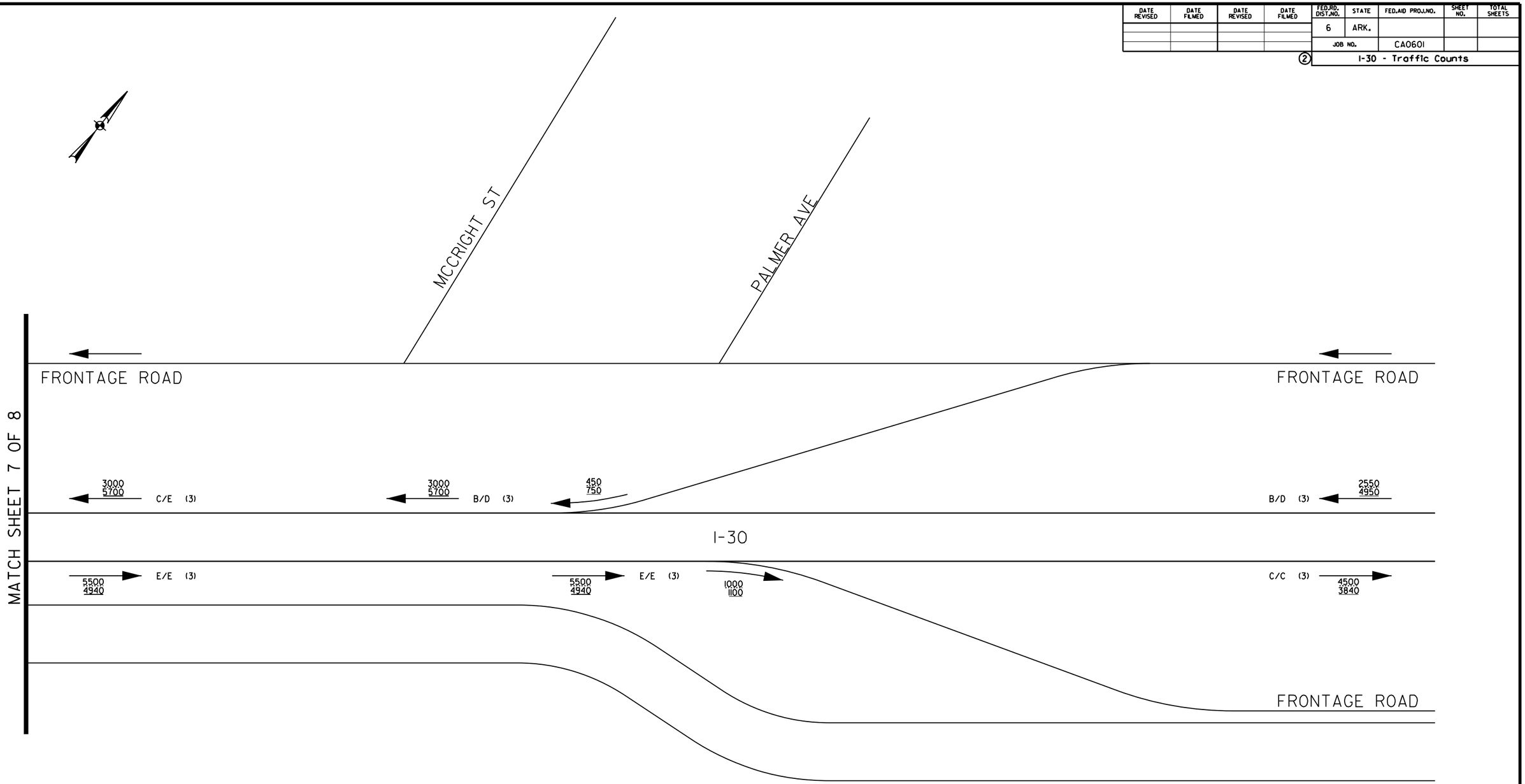
W SEVIER ST

LEGEND

1000 = AM 2038
1000 = PM 2038
(1) = NO. LANES
A/B = AM/PM LOS

I-30
BUILD
TRAFFIC COUNTS
YEAR: 2038
SHEET 7 OF 8

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED.RD. DIST.NO.	STATE	FED.AID PROJ.NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		CA0601		
				(2)	I-30 - Traffic Counts			



LEGEND

1000 = AM 2038
1000 = PM 2038
(1) = NO. LANES
A/B = AM/PM LOS

I-30
BUILD
TRAFFIC COUNTS
YEAR: 2038
SHEET 8 OF 8

Future (2038) Traffic Volumes

US 70 EB to I-30 Interchange				
Traffic Information		EB Traffic Volumes and Speed		
Peak Hr Vol	1300	Autos	1222	55
Direction	EB	MT	26	55
d	2	HT	52	55
t	4		1300	

US 70 WB from I-30 Interchange				
Traffic Information		WB Traffic Volumes and Speed		
Peak Hr Vol	2000	Autos	1960	55
Direction	WB	MT	20	55
d	1	HT	20	55
t	1		2000	

US 70 EB Ramp to I-30 WB				
Traffic Information		EB Traffic Volumes and Speed		
Peak Hr Vol	50	Autos	44	40
Direction	EB	MT	2	40
d	3	HT	4	40
t	7		50	

US 70 EB Ramp to I-30 EB				
Traffic Information		EB Traffic Volumes and Speed		
Peak Hr Vol	1250	Autos	1187	55
Direction	EB	MT	25	55
d	2	HT	38	55
t	3		1250	

I-30 WB Ramp to US 70 WB				
Traffic Information		WB Traffic Volumes and Speed		
Peak Hr Vol	1800	Autos	1782	55
Direction	WB	MT	4	55
d	0.2	HT	14	55
t	0.8		1800	

I-30 EB Ramp to US 70 WB				
Traffic Information		EB Traffic Volumes and Speed		
Peak Hr Vol	200	Autos	156	25
Direction	EB	MT	12	25
d	6	HT	32	25
t	16		200	

I-30 WB South of US 70 Interchange				
Traffic Information		WB Traffic Volumes and Speed		
Peak Hr Vol	2600	Autos	1742	70
Direction	WB	MT	286	65
d	11	HT	572	65
t	22		2600	

I-30 EB South of US 70 Interchange				
Traffic Information		EB Traffic Volumes and Speed		
Peak Hr Vol	2470	Autos	1507	70
Direction	EB	MT	321	65
d	13	HT	642	65
t	26		2470	

I-30 WB Between US 70 Interchange Ramps				
Traffic Information		EB Traffic Volumes and Speed		
Peak Hr Vol	2550	Autos	1937	70
Direction	EB	MT	179	65
d	7	HT	434	65
t	17		2550	

I-30 EB Between US 70 Interchange Ramps				
Traffic Information		EB Traffic Volumes and Speed		
Peak Hr Vol	2270	Autos	1884	70
Direction	EB	MT	114	65
d	5	HT	272	65
t	12		2270	

I-30 WB from AR 229 On Ramp						
Traffic Information		WB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	4350	Autos	3305	70	2203	1102
Direction	WB	MT	305	65	203	102
d	7	HT	740	65	493	247
t	17		4350			

I-30 EB to AR 229 Off Ramp						
Traffic Information		EB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	3520	Autos	2746	70	1831	915
Direction	EB	MT	246	65	164	82
d	7	HT	528	65	352	176
t	15		3520			

I-30 WB Between AR 229 Ramps						
Traffic Information		WB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	3650	Autos	2773	70	1849	924
Direction	WB	MT	256	65	171	85
d	7	HT	621	65	414	207
t	17		3650			

I-30 EB Between AR 229 Ramps						
Traffic Information		EB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	2770	Autos	2160	70	1440	720
Direction	EB	MT	194	65	129	65
d	7	HT	416	65	277	139
t	15		2770			

I-30 WB from Frontage Rd On Ramp						
Traffic Information		WB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	6050	Autos	4597	70	3065	1532
Direction	WB	MT	424	65	283	141
d	7	HT	1029	65	686	343
t	17		6050			

I-30 EB to Frontage Rd Off Ramp						
Traffic Information		EB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	4470	Autos	3486	70	2324	1162
Direction	EB	MT	313	65	209	104
d	7	HT	671	65	447	224
t	15		4470			

I-30 WB Between Frontage Rd Ramps						
Traffic Information		WB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	5200	Autos	4420	70	2947	1473
Direction	WB	MT	260	65	173	87
d	5	HT	520	65	347	173
t	10		5200			

I-30 EB Between Frontage Rd Ramps						
Traffic Information		EB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	4020	Autos	3296	70	2197	1099
Direction	EB	MT	201	65	134	67
d	5	HT	523	65	349	174
t	13		4020			

I-30 WB East of Frontage Rd Off Ramp						
Traffic Information		WB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	5700	Autos	4845	70	3230	1615
Direction	WB	MT	285	65	190	95
d	5	HT	570	65	380	190
t	10		5700			

I-30 EB East of Frontage Rd On Ramp						
Traffic Information		EB Traffic Volumes and Speed			Inside	Outside
Peak Hr Vol	4940	Autos	4051	70	2701	1350
Direction	EB	MT	247	65	165	82
d	5	HT	642	65	428	214
t	13		4940			

Northern Frontage Rd West of AR 229				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	3050	Autos	3050	45
Direction		MT	0	
d		HT	0	
t			3050	

Southern Frontage Rd West of AR 229				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	220	Autos	220	45
Direction		MT	0	
d		HT	0	
t			220	

Future (2038) Traffic Volumes

I-30 EB Off Ramp to AR 229				
Traffic Information		EB Traffic Volumes and Speed		
Peak Hr Vol	750	Autos	750	55
Direction	EB	MT	0	55
d		HT	0	55
t			750	

I-30 EB On Ramp from AR 229				
Traffic Information		WB Traffic Volumes and Speed		
Peak Hr Vol	1700	Autos	1700	45
Direction	WB	MT	0	45
d		HT	0	45
t			1700	

I-30 WB On Ramp from AR 229 SB				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	300	Autos	300	45
Direction		MT	0	
d		HT	0	
t			300	

I-30 WB On Ramp from AR 229 NB				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	400	Autos	400	45
Direction		MT	0	
d		HT	0	
t			400	

AR 229 SB from I-30 EB Ramps				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	1600	Autos	1600	35
Direction		MT	0	
d		HT	0	
t			1600	

AR 229 NB to I-30 EB Ramps				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	1120	Autos	1120	35
Direction		MT	0	
d		HT	0	
t			1120	

AR 229 SB Between I-30 Ramps				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	2900	Autos	2900	35
Direction		MT	0	
d		HT	0	
t			2900	

AR 229 NB Between I-30 Ramps				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	1350	Autos	1350	35
Direction		MT	0	
d		HT	0	
t			1350	

AR 229 SB to I-30 WB Ramps				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	1400	Autos	1400	35
Direction		MT	0	
d		HT	0	
t			1400	

AR 229 NB from I-30 WB Ramps				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	1000	Autos	1000	35
Direction		MT	0	
d		HT	0	
t			1000	

I-30 WB Off Ramp to AR 229				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	2400	Autos	2400	35
Direction		MT	0	
d		HT	0	
t			2400	

AR 229 North of Frontage Rd, East of Saline River				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	610	Autos	610	35
Direction		MT	0	
d		HT	0	
t			610	

I-30 EB Off Ramp to Farifield Rd				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	450	Autos	450	45
Direction		MT	0	40
d		HT	0	40
t			450	

Northern Frontage Rd On Ramp to I-30 WB				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	850	Autos	850	45
Direction		MT	0	40
d		HT	0	40
t			850	

Northern Frontage Rd West of South St Interchange				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	1450	Autos	1450	45
Direction		MT	0	40
d		HT	0	40
t			1450	

Roundabout				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	279	Autos	279	15
Direction		MT	0	
d		HT	0	
t			279	

Northern Frontage Rd WB from Roundabout				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	652	Autos	652	45
Direction		MT	0	
d		HT	0	
t			652	

Northern Frontage Rd EB to Roundabout				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	279	Autos	279	30
Direction		MT	0	
d		HT	0	
t			279	

I-30 Frontage Rd WB to South St Interchange				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	646	Autos	646	35
Direction		MT	0	
d		HT	0	
t			646	

I-30 Frontage Rd WB to Roundabout				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	200	Autos	200	35
Direction		MT	0	
d		HT	0	
t			200	

South St to I-30 Overpass				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	646	Autos	646	45
Direction		MT	0	
d		HT	0	
t			646	

South St to I-30 Overpass from Roundabout				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	279	Autos	279	35
Direction		MT	0	
d		HT	0	
t			279	

Future (2038) Traffic Volumes

South St from I-30 Overpass				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	458	Autos	458	35
Direction		MT	0	
d		HT	0	
t			458	

South St from I-30 Overpass to Southern Frontage Rd				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	461	Autos	461	25
Direction		MT	0	
d		HT	0	
t			461	

Southern Frontage Rd from Fairfield Rd				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	698	Autos	698	45
Direction		MT	0	
d		HT	0	
t			698	

Southern Frontage Rd to South St				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	222	Autos	222	35
Direction		MT	0	
d		HT	0	
t			222	

Southern Frontage Rd bw South St Ramps				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	476	Autos	476	35
Direction		MT	0	
d		HT	0	
t			476	

Southern Frontage Rd under I-30 Overpass				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	713	Autos	713	35
Direction		MT	0	
d		HT	0	
t			713	

Southern Frontage Rd to I-30 Overpass				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	126	Autos	126	25
Direction		MT	0	
d		HT	0	
t			126	

Southern Frontage Rd to I-30 EB				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	920	Autos	920	45
Direction		MT	0	
d		HT	0	
t			920	

Leander St to Southern Frontage Rd WB				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	96	Autos	96	35
Direction		MT	0	
d		HT	0	
t			96	

Leander St to Southern Frontage Rd EB				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	429	Autos	429	35
Direction		MT	0	
d		HT	0	
t			429	

North Frontage Rd from I-30 WB Off Ramp to W Sevier St				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	746	Autos	746	45
Direction		MT	0	
d		HT	0	
t			746	

North Frontage Rd from W Sevier St				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	846	Autos	846	35
Direction		MT	0	
d		HT	0	
t			846	

W Sevier St, East of Woodland Dr				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	420	Autos	420	35
Direction		MT	0	
d		HT	0	
t			420	

W Sevier St, West of Woodland Dr				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	446	Autos	446	35
Direction		MT	0	
d		HT	0	
t			446	

Woodland Dr				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	119	Autos	119	25
Direction		MT	0	
d		HT	0	
t			119	

W South St, South of I-30				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	1638	Autos	1638	45
Direction		MT	0	
d		HT	0	
t			1638	

W South St to I-30 Overpass				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	433	Autos	433	35
Direction		MT	0	
d		HT	0	
t			433	

W South St, from I-30 Overpass to Bell St				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	559	Autos	559	45
Direction		MT	0	
d		HT	0	
t			559	

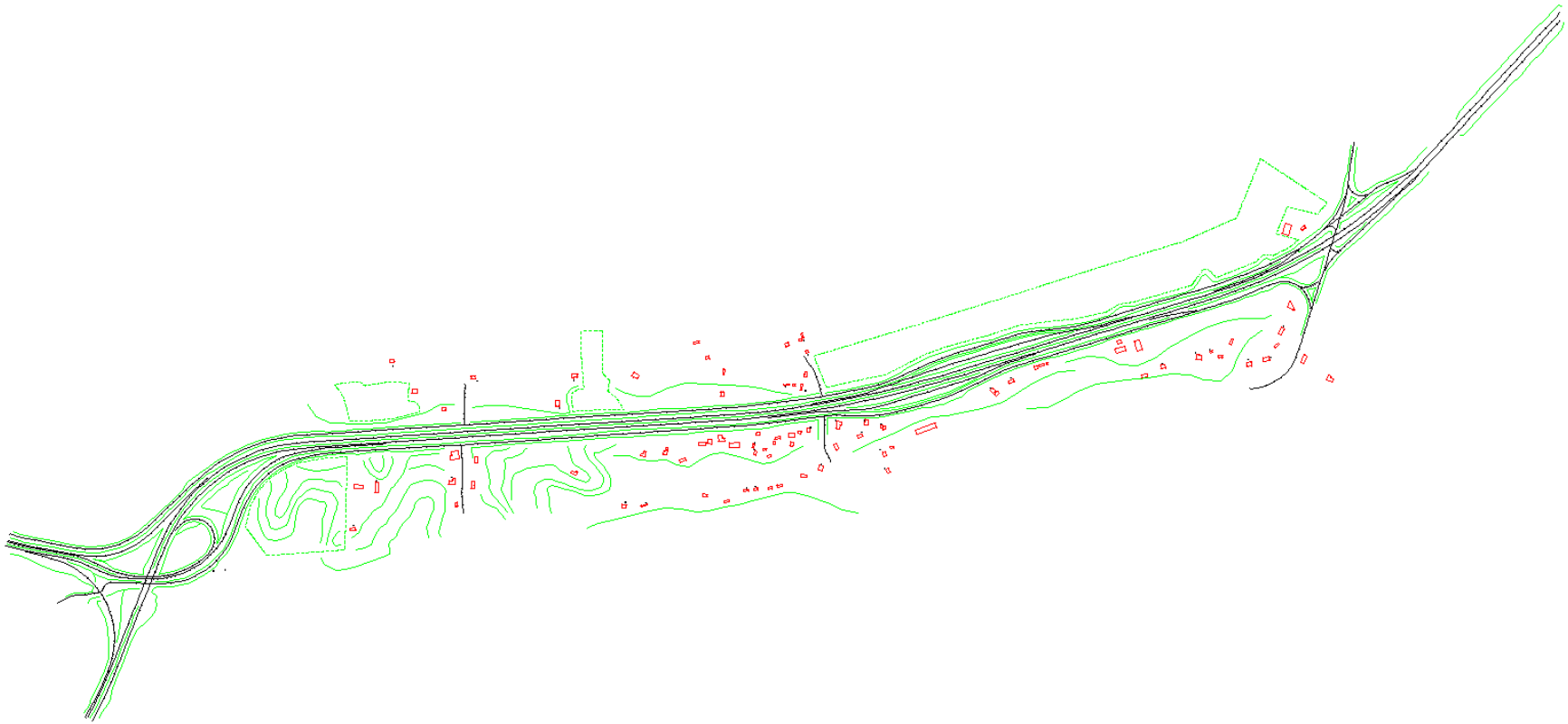
Bell St NB				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	126	Autos	126	25
Direction		MT	0	
d		HT	0	
t			126	

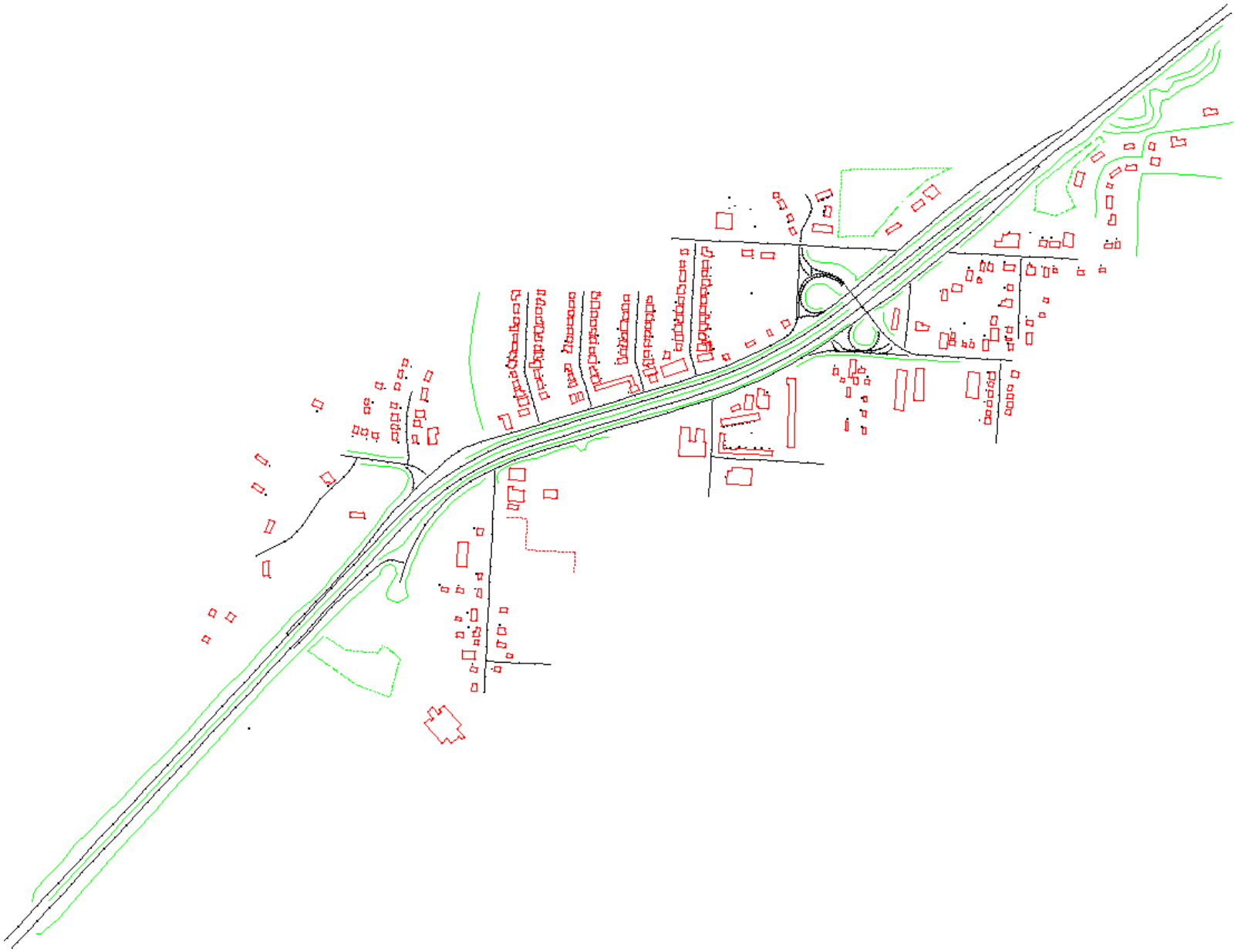
Bell St SB				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	13	Autos	13	25
Direction		MT	0	
d		HT	0	
t			13	

W South St, from Bell St to Roundabout				
Traffic Information		NB Traffic Volumes and Speed		
Peak Hr Vol	452	Autos	452	35
Direction		MT	0	
d		HT	0	
t			452	

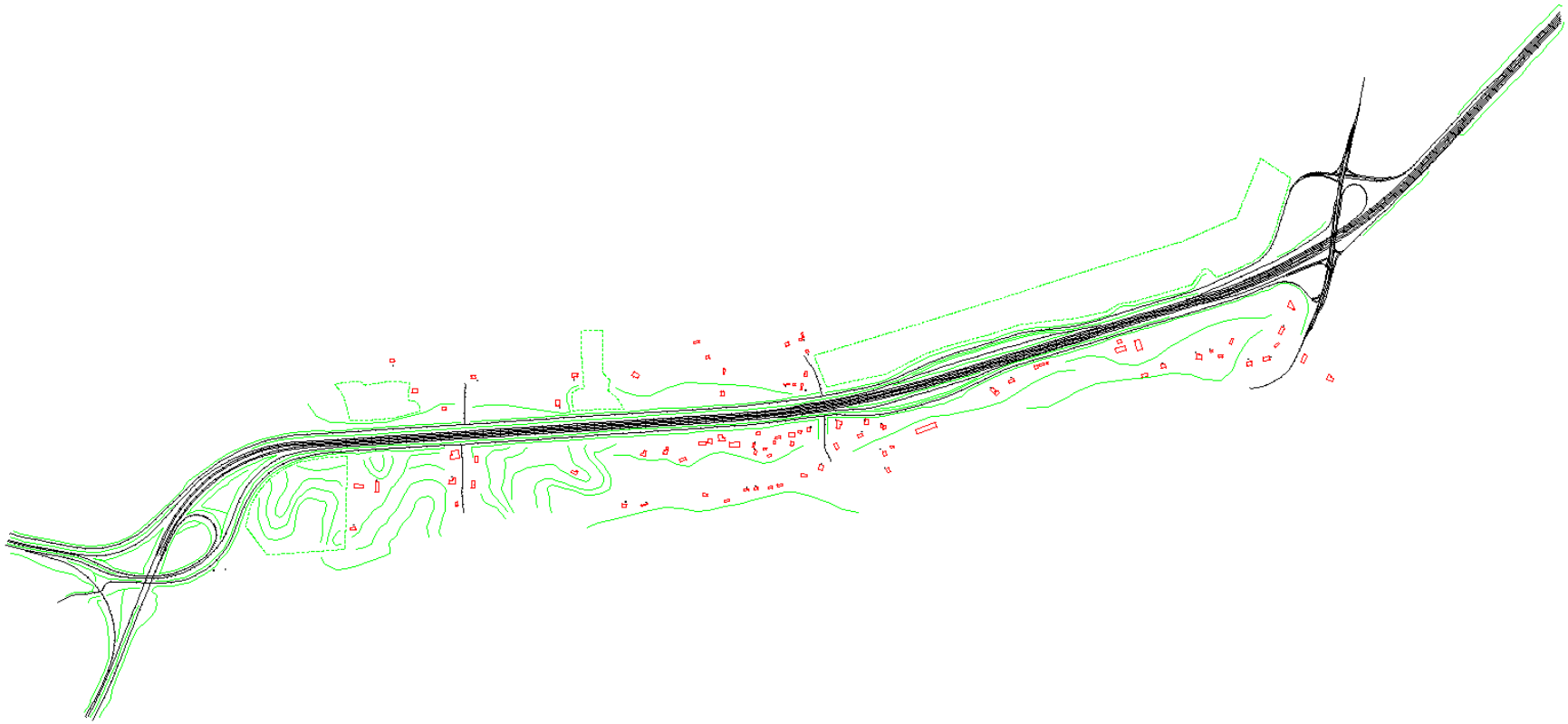
Appendix C – TNM 2.5 Plan Views

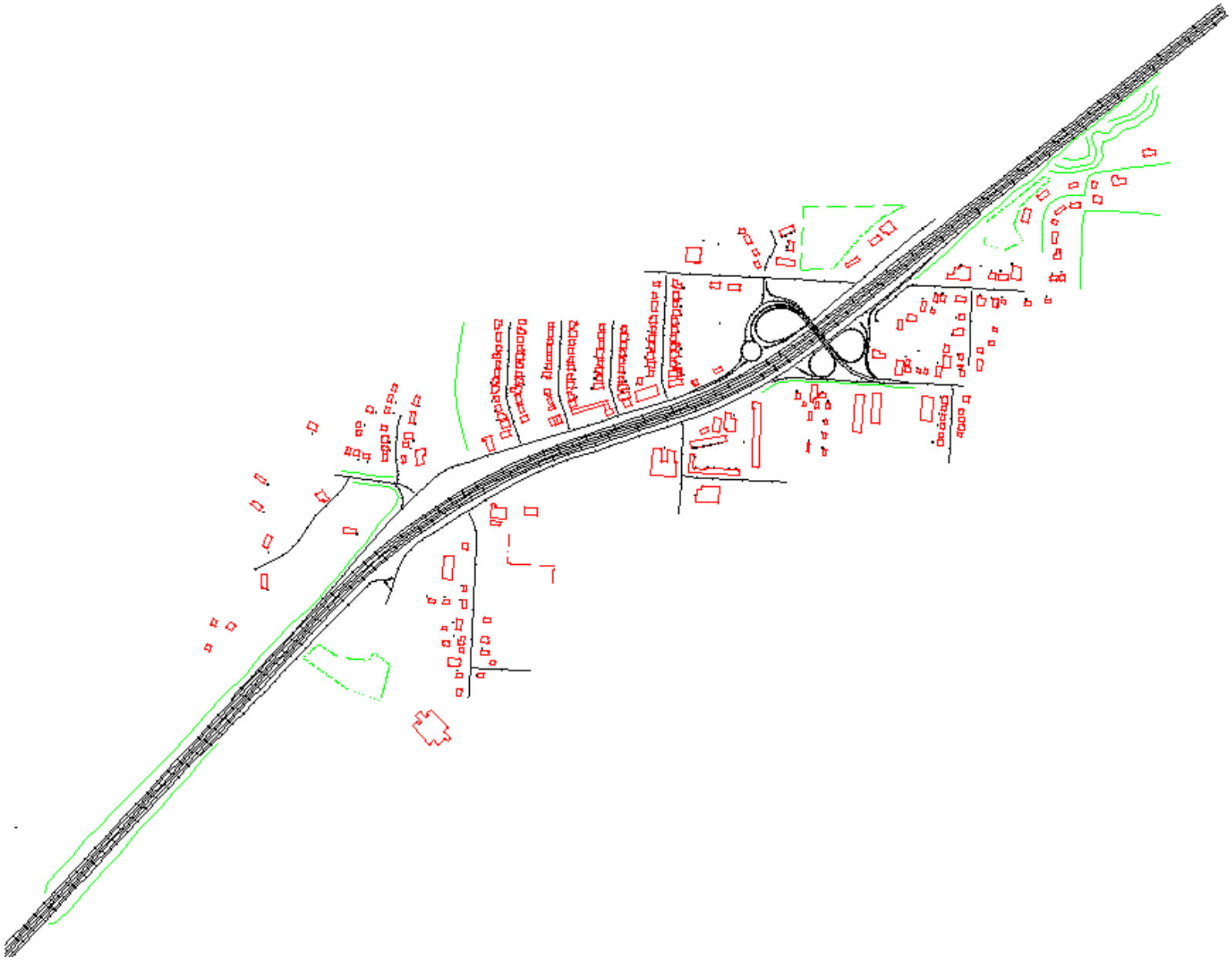
Existing Models





Build Models





CA0601 I-30 Widening, From Highway 70 to Sevier Street

Attachment G

Restraining Condition

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

INTEROFFICE MEMORANDUM

October 15, 2015

TO: Trinity D. Smith, Engineer of Roadway Design

FROM: John Fleming, Division Head, Environmental Division

SUBJECT: AHTD Job Number CA0601
Hwy. 70-Sevier St. (Widening) (S)
Saline County
Restraining Condition

Attached is the Restraining Condition Special Provision for the referenced project. Please ensure this document is incorporated into the project plans. Any questions should be directed to Kristina Boykin at 2079.

JF:DW:KB:jh

Attachment
Restraining Conditions Special Provision

C: Construction
Program Management
Right of Way
District 6 Engineer
Master File

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIAL PROVISION

JOB NO. CA0601

RESTRAINING CONDITIONS

Section 107.10 of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

The following is added to **Section 107.10(c)**:

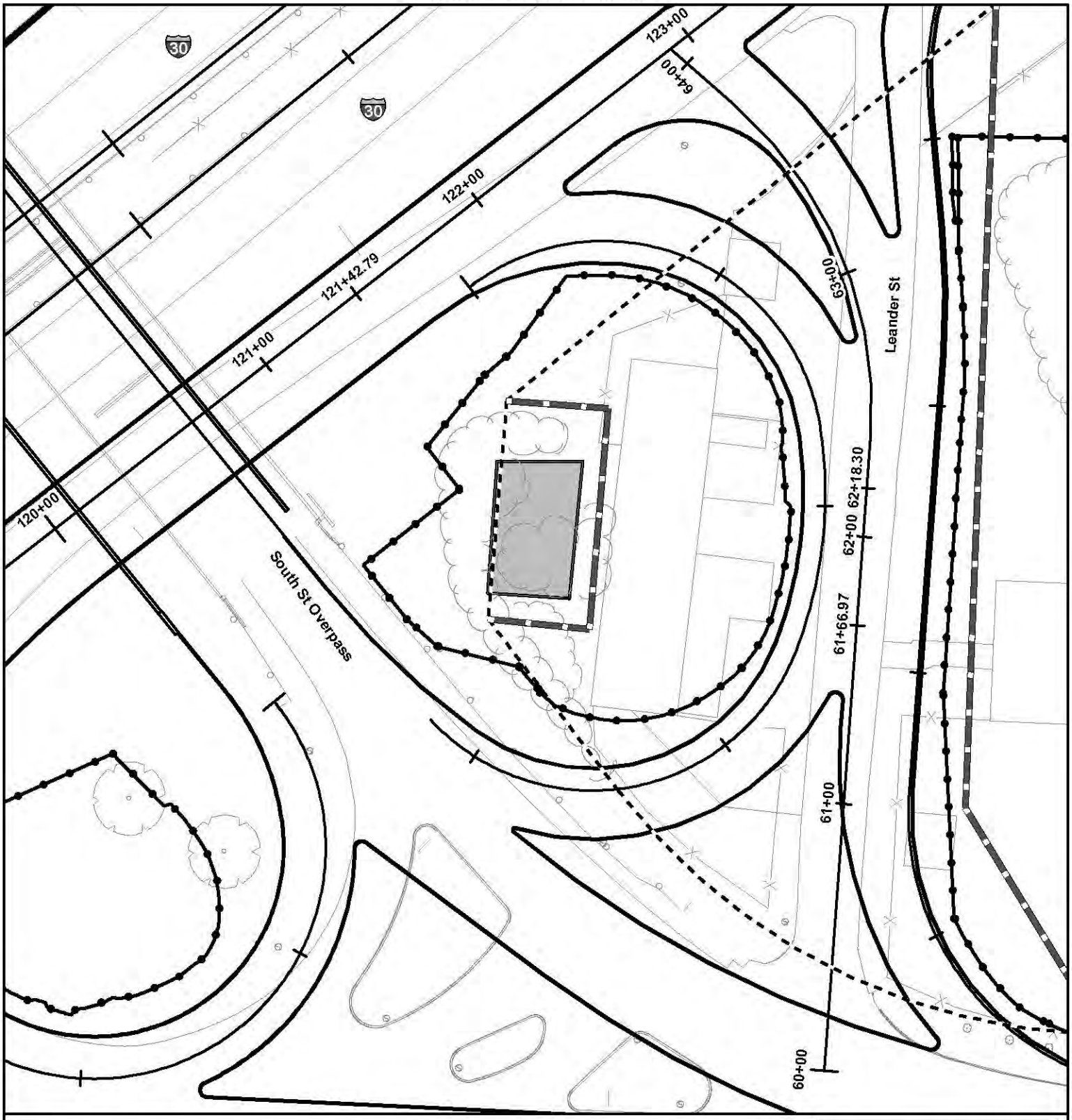
A restraining condition area (cemetery) is located adjacent to the ROW from Stations 61+66.97 Left and 62+18.30 Left (see the figure on page 2 of this special provision) and is considered a Restraining Condition in accordance with Section 107.10(b) of the Standard Specifications for Highway Construction, 2014. All construction activity within this specified location including the staging of equipment, storage or offsite use areas, and utility relocation must be avoided.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIAL PROVISION

JOB NO. CA0601

RESTRAINING CONDITION



AHTD - Environmental GIS - Reed
October 1, 2015

CA0601 I-30 Widening, From Highway 70 to Sevier Street

Attachment H

Public Involvement

Job CA0601

Hwy. 70–Sevier St. (Widening) (I-30)

Saline County

Thursday, November 5, 2015

An open-forum public involvement meeting for the proposed Hwy. 70–Sevier St. (Widening) (I-30) project was held at Holland Chapel Baptist Church (Family Life Center), 15523 Interstate 30 in Benton, Arkansas from 4:00 – 7:00 p.m. on November 5, 2015. A public officials meeting was held at 3:00 p.m. on the same day. Efforts to involve minorities and local property owners in the meeting included:

- Display ad placed in the Saline Courier on October 22, 2015 and October 29, 2015.
- Radio Public Service Announcement (PSA) was run twice a day from November 2 through November 5, 2015 on Cumulus Media-Power 92.3FM.
- Letters to public officials were mailed on October 16, 2015, and fliers were emailed on October 21, 2015.
- Letters to ministers were mailed and emailed October 21, 2015.
- Fliers to adjacent property owners were mailed October 19, 2015.
- Fliers to stakeholders and people interested in the project were mailed and emailed October 21, 2015.
- Meeting notice fliers were delivered door-to-door along the project route October 28, 2015.
- A news release was distributed to the media on October 30, 2015.
- A meeting announcement was listed on ConnectingArkansasProgram.com on October 16, 2015 and ArkansasHighways.com on October 16, 2015.

The following information was available for inspection and comment.

- Two aerial photograph roll plots at a scale of 1" = 100', illustrating the entire length of the proposed project
- Two aerial photograph interchange plots at a scale of 1"=75' detailing the interchange at Hwy. 67
- Two aerial photograph interchange plots at a scale of 1"=50' detailing the interchange at South St.
- Two 24" x 36" aerial photographs on mounted boards at a scale of 1" = 1000', illustrating the entire length of the proposed project
- Three CAP informational boards

Handouts for the public included a comment sheet and a small-scale map illustrating the project location, which was identical to the aerial photography display. Copies of these are attached to this synopsis.

Table 1 describes the results of public officials participation at the 3 p.m. meeting.

Table 1	
Public Official Participation	**Total**
Attendance at meeting (including AHTD and CAP staff)	**10**
Comments received	**1**

Jeff Arey, Saline County Judge, submitted a comment. He stated that the exhibit barn at the county fairgrounds will be eliminated due to this improvement and that the barn does have historical significance.

Table 2 describes the results of public participation at the 4-7 p.m. meeting.

Table 2	
Public Participation	**Total**
Attendance at meeting (including AHTD and CAP staff)	**83**
Comments received	**29**

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

An analysis of the responses received from the public survey is shown in Table 3.

Table 3

Survey Results	**Totals**
Supports improvements to I-30	**20**
Does not support improvements to I-30	**9**
Believes the project would have beneficial impacts	**10**
Believes the project would have adverse impacts	**10**
Knowledge of historical, archeological or cemetery sites	**4**
Knowledge of area environmental constraints	**2**
Home or property offers limitations to the project that need to be considered during the design	**1**
Suggestion to better serve the needs of the community	**12**
Additional Comments	**11**
Total Comments Received	**29**

The following is a listing of comments concerning issues associated with this project.

- Two individuals wanted the Hwy 67 widening to extend around the curve toward Haskell.

- Two individuals wanted access to Pawnee Dr. from the I-30/Hwy. 70 interchange.
- One individual wanted a bridge at AR 229.
- One individual wanted more lighting along I-30 toward Little Rock.
- One individual was concerned about traffic during construction.
- Two individuals wanted the construction schedule expedited.
- Ten individuals were concerned about making Sevier St. a dead end and restricting access to the Benton First Church of the Nazarene and adjacent businesses.
- Two individuals requested a meeting to discuss the Sevier St. issue above.
- Two individuals mentioned the Crouch Cemetery near South St.
- One individual wanted lighting for the proposed traffic circle at South St.
- One individual wanted to make sure that the Crouch property on the north side of the highway was provided with adequate drainage.
- One individual wanted trees along the side of the project removed and the land made available to adjacent businesses.
- One individual wanted the Hot Springs MLK Bypass extended from Hwy 70 to AR 5 and AR 7.
- Three individuals were concerned about the project having a negative effect on their property.
- One individual wanted the slip ramp from I-30 Eastbound to the Frontage Road near Hwy 67 to remain as-is.
- One individual mentioned an old landfill 200ft up Brent Ford Rd.

Attachments:

- Blank comment form
- Public officials sign-in sheet
- 11x17 map handout
- Small-scale copy of the display board