Page 1 of 6 | Issue Date: August 10, 2022 | Effective Date: December 29, 2022 | Case No.: 22-06-0649P | LOMR-APP

Follows Conditional Case No.: 20-06-1436R



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

	COMMUNITY AND REVISION INFO	DRMATION	PROJECT DESCRIPTION	BASIS OF REQUEST		
COMMUNITY	Johnson County Arkansas		EXCAVATION FILL LEVEE	FLOODWAY 1D HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS LEVEE CERTIFICATION UPDATED TOPOGRAPHIC DATA		
	COMMUNITY NO.: 050112					
IDENTIFIER	Spadra Creek Levee and Floodwal	II LOMR	APPROXIMATE LATITUDE & LONGITUDE: 35.457, -93.471 SOURCE: Other DATUM: NAD 83			
	ANNOTATED MAPPING ENCLO	SURES	ANNOTATED STUDY ENCLOSURES			
TYPE: FIRM*	NO.: 05071C0355D DA	ATE: November 26, 2010	DATE OF EFFECTIVE FLOOD INSURAN SUMMARY OF DISCHARGES TABLE: 1 FLOODWAY DATA TABLE; 4 PROFILES: 02P AND 06P-09P	, ,		

Enclosures reflect changes to flooding sources affected by this revision.

* FIRM - Flood Insurance Rate Map

FLOODING SOURCES AND REVISED REACHES

See Page 2 for Additional Flooding Sources

Spadra Creek - from approximately 3,680 feet downstream of I-40 to approximately 1,940 feet upstream of the confluence of Spadra Branch

SUMMARY OF REVISIONS							
Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases			
Spadra Creek	BFEs* No BFEs Floodway Zone X (shaded)	BFEs BFEs Floodway Zone X (shaded)	YES YES YES YES	YES NONE YES YES			

* BFEs - Base Flood Elevations

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief Engineering Services Branch

Federal Insurance and Mitigation Administration

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Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

OTHER FLOODING SOURCES AFFECTED BY THIS REVISION

FLOODING SOURCES AND REVISED REACHES

Spadra Creek - from approximately 3,680 feet downstream of I-40 to approximately 1,940 feet upstream of the confluence of Spadra Branch Greenbrier Creek - from the confluence with Spadra Creek to approximately 540 feet upstream of the confluence with Spadra Creek Tributary 1 - from the confluence with Spadra Creek to approximately 1,670 feet upstream of the confluence with Spadra Creek

	SUMMARY OF REVISIONS				
Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases	
Spadra Creek	Zone A	Zone A	YES	YES	
	Zone A	Zone AE	YES	YES	
	Zone AE	Zone AE	YES	YES	
Greenbrier Creek	BFEs*	BFEs	NONE	YES	
	Zone X (shaded)	Zone X (shaded)	NONE	YES	
	Zone AE	Zone AE	NONE	YES	
Tributary 1	Zone A	Zone A	YES	YES	

^{*} BFEs - Base Flood Elevations

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief Engineering Services Branch Federal Insurance and Mitigation Administration Page 3 of 6 Issue Date: August 10, 2022 Effective Date: December 29, 2022 Case No.: 22-06-0649P LOMR-APP



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

OTHER COMMUNITIES AFFECTED BY THIS REVISION

CID Number: 050441 Name: Johnson County, Arkansas

	AFFECTED MAP	PANELS	AFFECTED PORTIONS OF THE FLOOD INSURANCE STUDY REPORT			
TYPE: FIRM*	NO.: 05071C0355D	DATE: November 26, 2010	DATE OF EFFECTIVE FLOOD INSURANCE STUDY: May 16, 2019 PROFILES: 05P, 07P, AND 09P FLOODWAY DATA TABLE: 4 SUMMARY OF DISCHARGES TABLE: 1			

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

Patrick "Rick" F. Sacbibit, P.E., Branch Chief Engineering Services Branch Federal Insurance and Mitigation Administration Page 4 of 6 Issue Date: August 10, 2022 | Effective Date: December 29, 2022 | Case No.: 22-06-0649P | LOMR-APP



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

COMMUNITY REMINDERS

We based this determination on the base (1-percent-annual-chance) discharges computed in the submitted hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This revision has met our criteria for removing an area from the base floodplain to reflect the placement of fill. However, we encourage you to require that the lowest adjacent grade and lowest floor (including basement) of any structure placed within the subject area be elevated to or above the Base (1-percent-annual-chance) Flood Elevation.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

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Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

This revision involves an accredited levee system. Your community is responsible for maintaining and disseminating information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, for the levee system(s) shown as providing protection. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and flood proofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at https://www.fema.gov/flood-insurance.

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Sandy Keefe
Director, Mitigation Division
Federal Emergency Management Agency, Region VI
Federal Regional Center, Room 202
800 North Loop 288
Denton, TX 76209
(940) 898-5127

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance...

Patrick "Rick" F. Sacbibit, P.E., Branch Chief Engineering Services Branch Federal Insurance and Mitigation Administration

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Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

PUBLIC NOTIFICATION OF REVISION

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below, and through FEMA's Flood Hazard Mapping website at https://www.floodmaps.fema.gov/fhm/bfe_status/bfe_main.asp

LOCAL NEWSPAPER Name: The Johnson County Graphic

Dates: August 24, 2022 and August 31, 2022

Within 90 days of the second publication in the local newspaper, any interested party may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Mapping and Insurance eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at https://www.fema.gov/flood-insurance.

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Table 1 - Summary of Discharges (continued)

Spadra Creek					
At Interstate 40	62.5	11,0351	18,8251	22,4701	31,7921
At U.S Highway 64 (USGS Gage					
Station)	60.8	11,744	20,634	25,190	37,822
Upstream of confluence of					
Greenbrier Creek	54.3	10,141	17,918	22,115	33,052
Upstream of confluence of					
Spadra Branch	53.7	8,387	14,916	18,457	28,341
Tributary 1 Upstream of confluence with					
Spadra Creek	2.0	1,065	2,126	2,700	4,500
Approximately 100 feet upstream		,	•		
of Jamestown Road	1.6	890	1,791	2,280	3,750
¹ Discharges decrease because overbank	storage upst	ream of Interst	ate 40	— REVI	 SED DATA

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods for selected recurrence intervals. Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data tables in the FIS report. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS report in conjunction with the data shown on the FIRM.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 4.2), selected cross section locations are also shown on the FIRM (Exhibit 2).

The hydraulic analyses for this study and the previous studies were based on unobstructed flow. The flood elevations shown on the profiles (Exhibit 1) are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

3.2.1 Redelineated Detailed Study Streams

In a previous Flood Insurance Study for the City of Clarksville, dated March 30, 1982, water-surface profiles for floods of the 10-, 2-, 1-, and 0.2-percent-annual-chance recurrence intervals were developed through the use of the USACE HEC-2 computer program (Reference 12). Spadra Creek is influenced by the backwater of Dardanelle Reservoir, which is controlled by Dardanelle Lock and Dam downstream of the confluence (Reference 3). Since the flood discharges of the Arkansas River are significantly modified by storage, a modified discharge-frequency curve developed by the USACE-SWL for the Arkansas River at Dardanelle was made available for use in this study. The curve was developed after modifying the recorded discharges of the Arkansas River for the flood

FLOODING SOURCE		FLOODWAY			BASE FLOOD				
120021100	T T T T T T T T T T T T T T T T T T T	12002			WATER SURFACE ELEVATION				
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY FEET (NAVD 88)	WITH FLOODWAY	INCREASE	
Spadra Branch A B	2,583 ¹ 4,315 ¹	155 170	823 681	6.2 5.0	400.3 410.9	400.3 410.9	401.3 411.6	1.0 0.7	
Spadra Creek (with Levee)									
A	23,279 ²	700	4,294	5.7	353.8	348.8 4	349.8 ⁴	1.0	
В	27,000 ²	1,730	8,392	2.9	355.5	355.5	356.4	0.9	
C	30,108 ²	371	2,794	19.1	362.3	362.3	362.8	0.5	
D	32,011 2	292	2,934	8.7	370.7	370.7	370.8	0.1	
Е	32,955 ²	323	3,967	6.4	373.5	373.5	373.7	0.2	
F	33,325 ²	451	5,591	5.3	375.0	375.0	375.1	0.1	
G	33,716 ²	872	9,289	2.7	376.1	376.1	376.2	0.1	
Н	34,820 ²	1,950	3,285	7.3	376.9	376.9	377.1	0.2	
I	35,639 ²	1,466	3,289	6.7	380.1	380.1	380.2	0.1	
J	37,539 ²	2,207	4,612	5.3	387.2	387.2	387.2	0.0	
K	39,400 ²	1,319	4,039	5.1	392.3	392.3	392.5	0.2	
			↑						
		R	 EVISED DA 	 ATA 					

¹ Feet above confluence with Spadra Creek.

⁴ Water-surface elevations computed without considering backwater effects from Arkansas River.

FEDERAL EMERGENCY MANAGEMENT AGENCY **JOHNSON COUNTY, AR** AND INCORPORATED AREAS

FLOODWAY DATA

REVISED TO REFLECT LOMR EFFECTIVE: December 29, 2022

SPADRA BRANCH - SPADRA CREEK (WITH LEVEE)

² Feet above confluence with Arkansas River.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY FEET (NAVD 88)	WITH FLOODWAY	INCREASE
Spadra Creek (without Levee)								
A	23,279 1	*	*	*	353.8	349.1 ³	*	*
В	27,000 1	*	*	*	355.4	355.4	*	*
C	30,108 1	*	*	*	360.4	360.4	*	*
D	32,011 1	*	*	*	366.5	366.5	*	*
E	32,955 1	*	*	*	369.6	369.6	*	*
F	33,325 1	*	*	*	372.2	372.2	*	*
G	33,716 1	*	*	*	373.0	373.0	*	*
Н	34,820 1	*	*	*	375.0	375.0	*	*
I	35,639 ¹	*	*	*	380.2	380.2	*	*
J	37,539 ¹	*	*	*	387.2	387.2	*	*
K	39,400	*	*	*	392.3	392.3	*	*
 Γributary 1								†
A	3,120 ²	120	1,376	2.0			357.2	0.0
В	3,480 ²	120	1,258	2.1			357.6	0.0
C	3,850 ²	120	1,198	2.3			357.7	0.0
D	4,120 ²	122	1,262	2.1			357.9	0.0
E	4,300 ²	120	921	2.9			358.5	0.0
F	6,700 ²	130	491	4.1			367.6	0.8
								REVISED I

¹ Feet above confluence with Arkansas River.

FEDERAL EMERGENCY MANAGEMENT AGENCY **JOHNSON COUNTY, AR** AND INCORPORATED AREAS

REVISED TO FLOODWAY DATA REFLECT LOWR EFFECTIVE: December 29, 2022

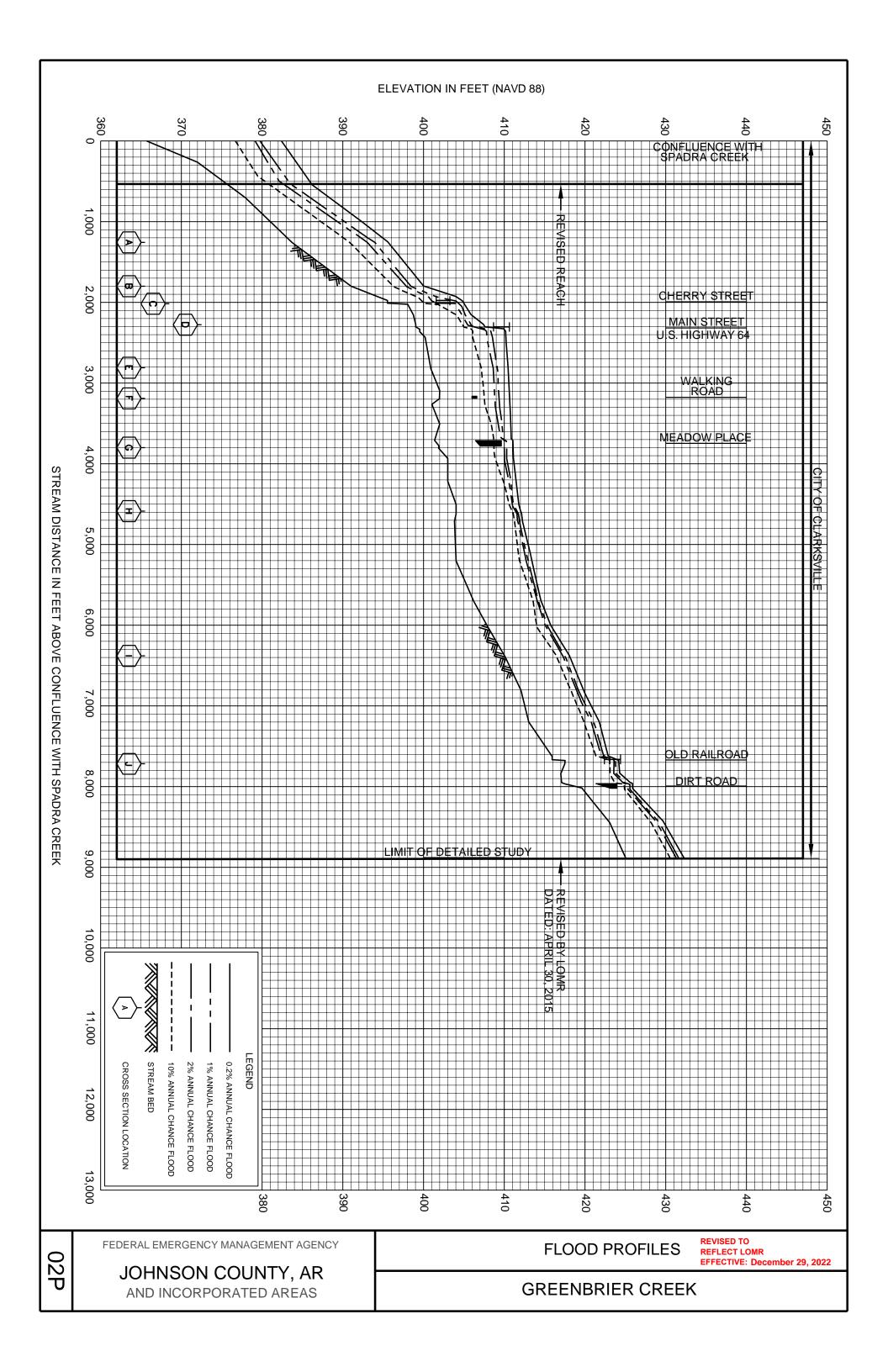
SPADRA CREEK (WITHOUT LEVEE)

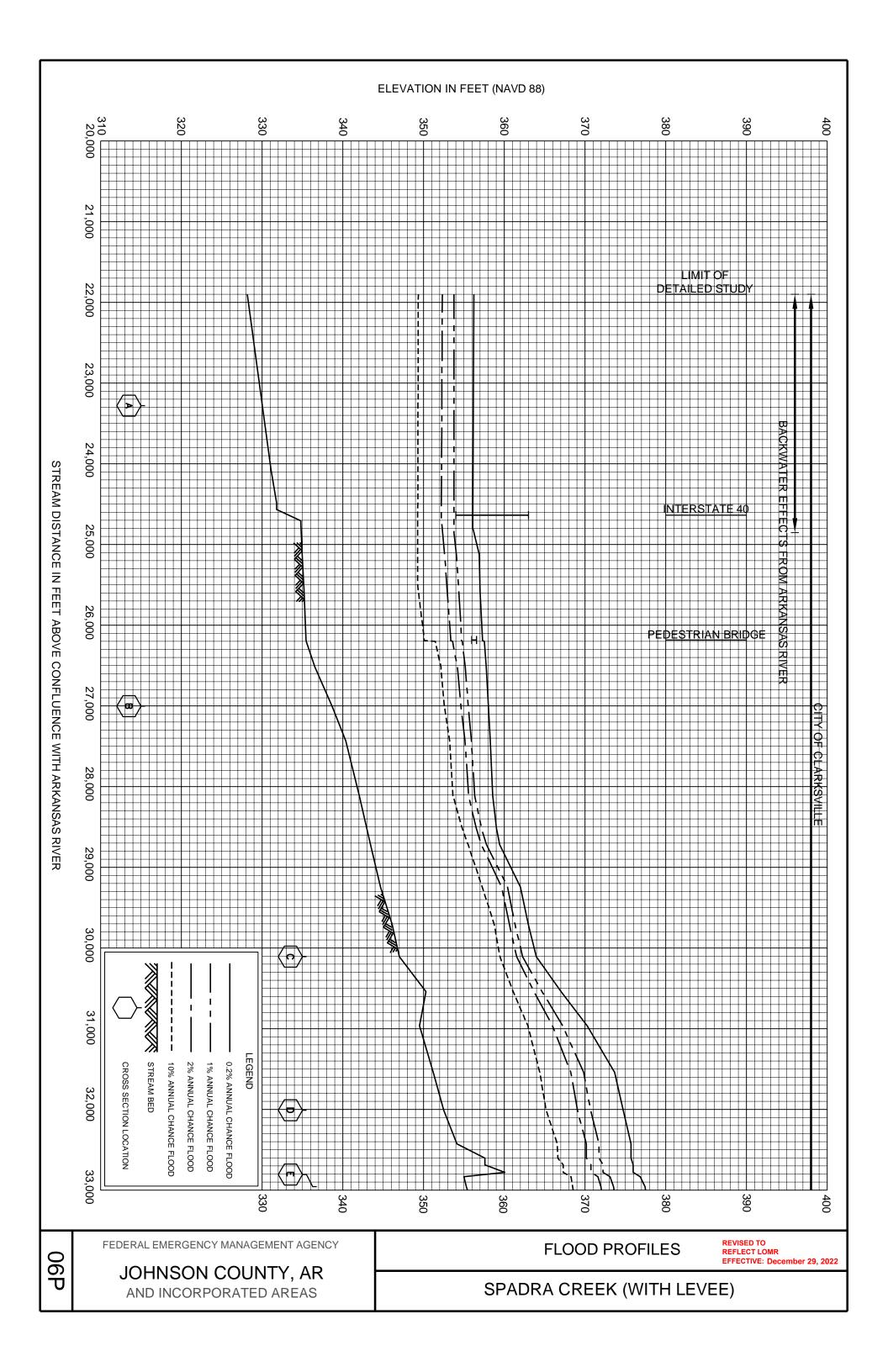
TRIBUTARY 1

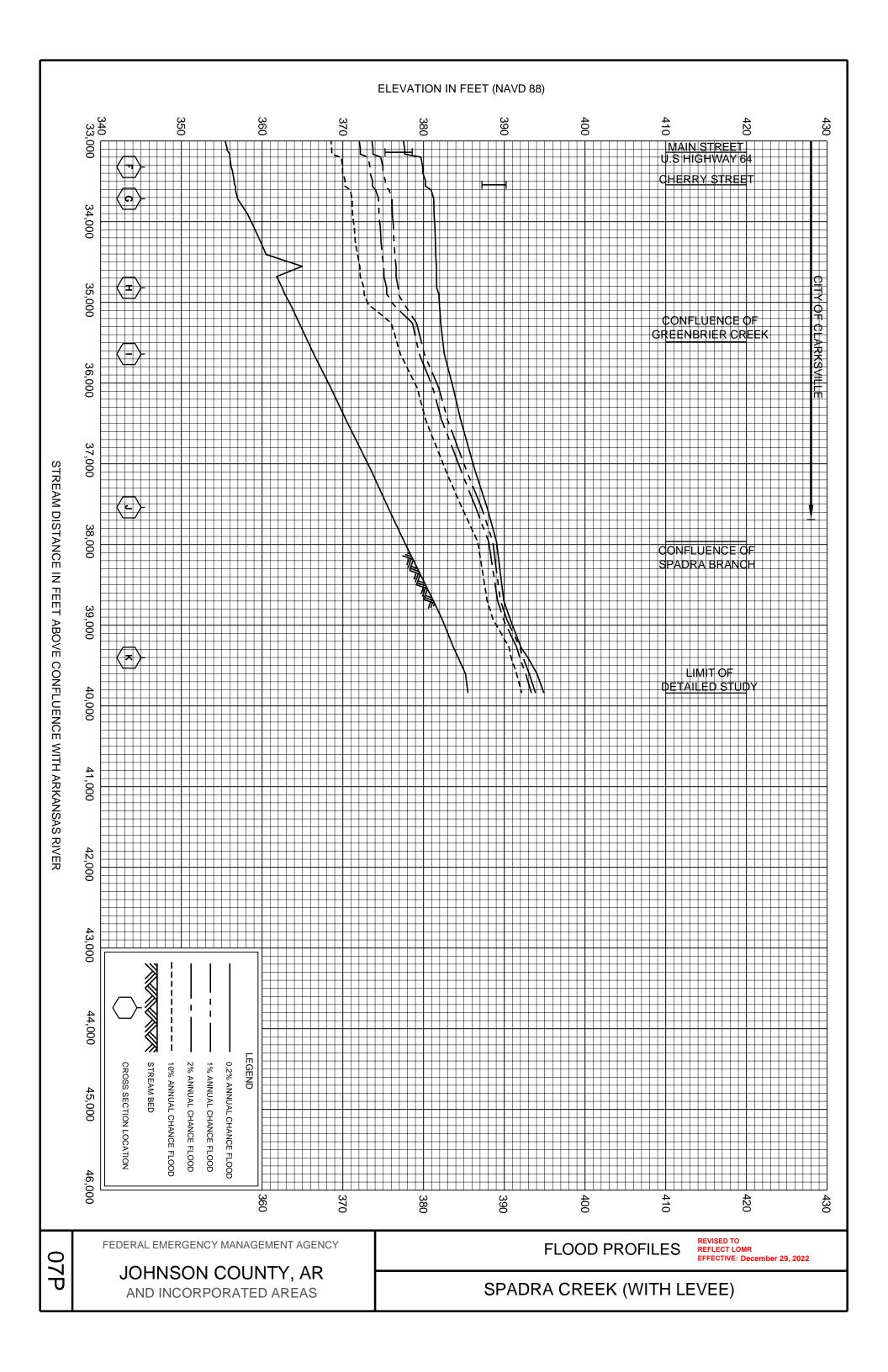
³ Water-surface elevations computed without considering backwater effects from Arkansas River.

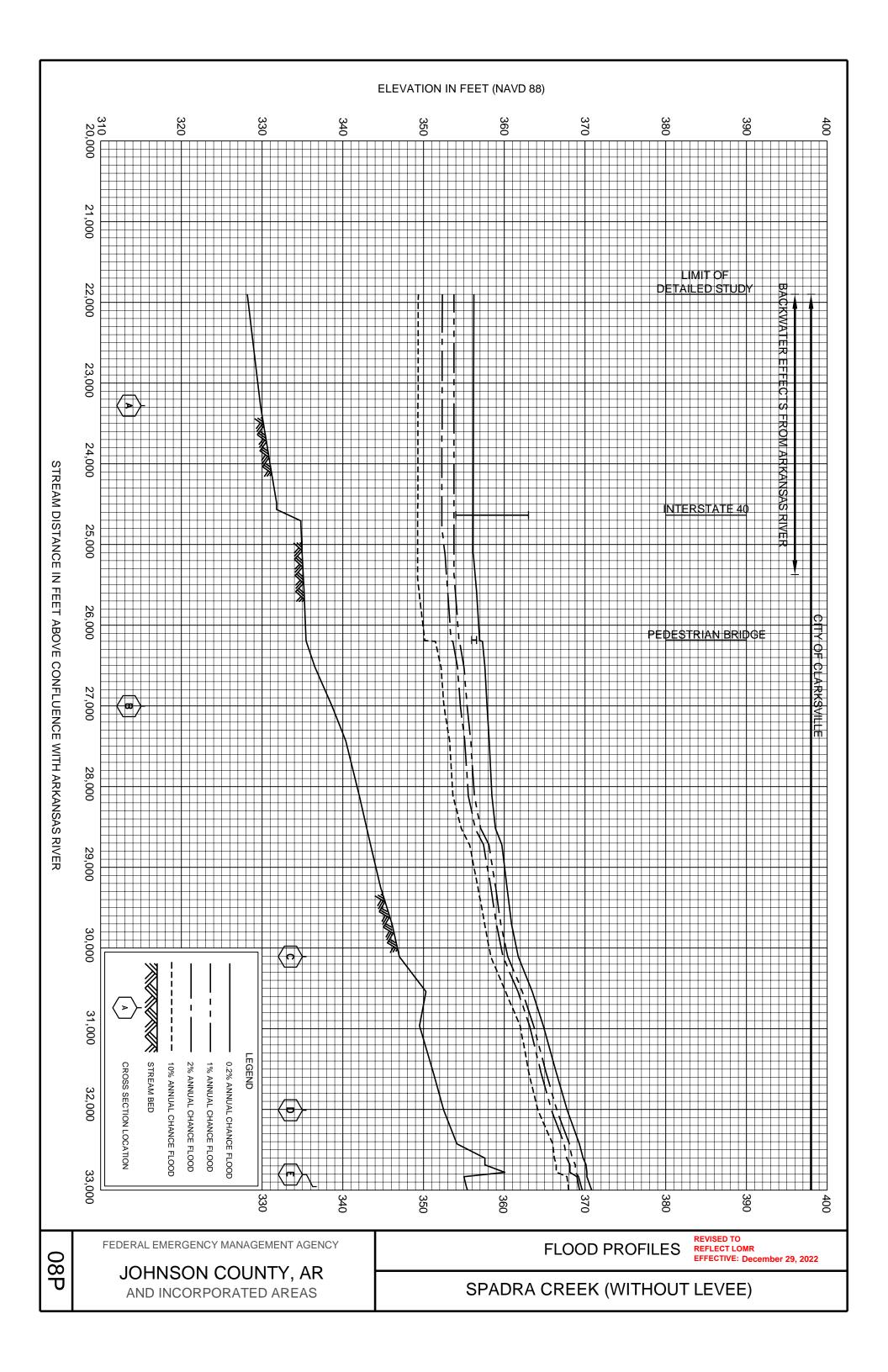
² Feet above confluence with Spadra Creek.

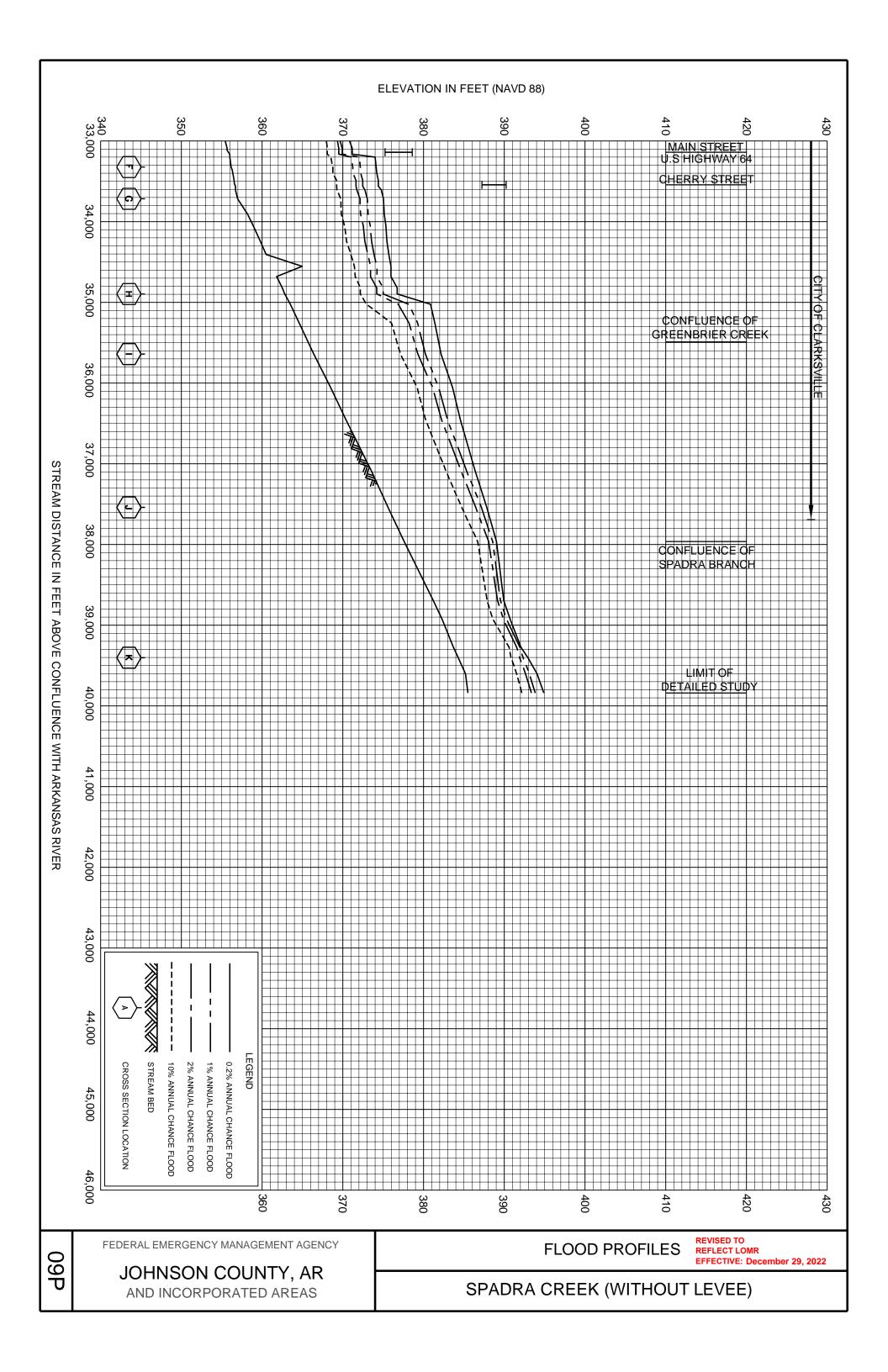
^{*} Data Not Available

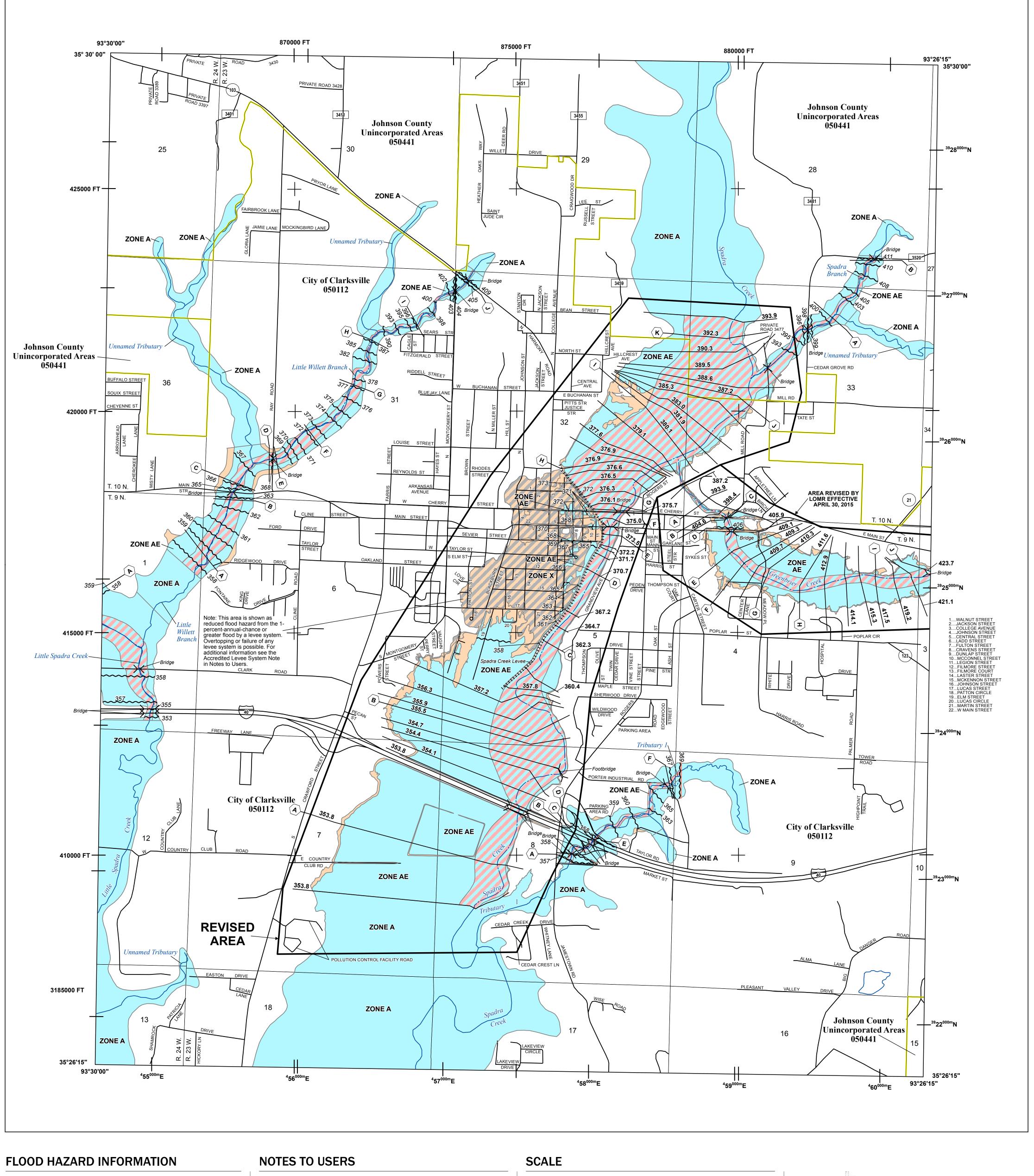




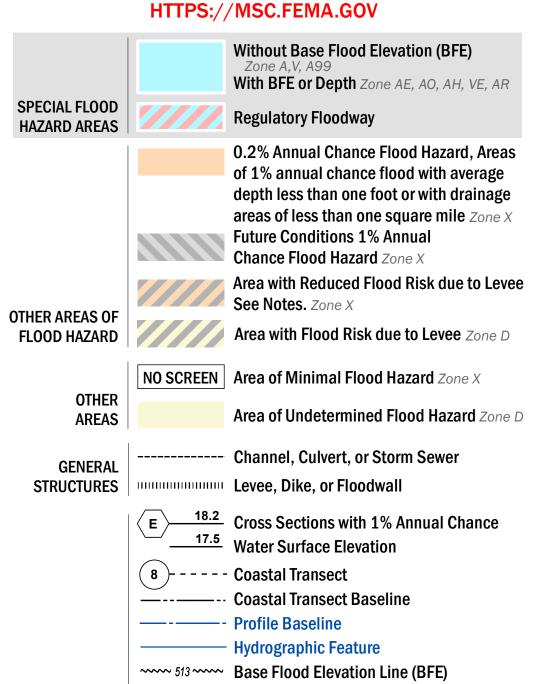








SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING **DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT**



Limit of Study

Jurisdiction Boundary

OTHER

FEATURES

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

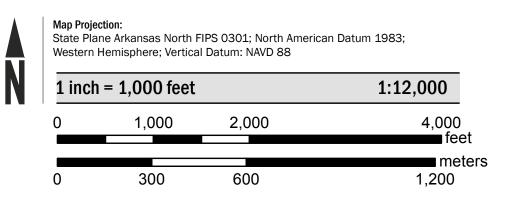
Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction. To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided in digital format by the Arkansas Geographic Local vertical monuments were used to create this map. To obtain current monument information,

please contact the Information Servcies Branch of the National Geodetic Survey at (301)-713-3242, or visit its website at http://www.ngs.noaa.gov/. ACCREDITED LEVEE SYSTEM: Check with your local community to obtain more information on the levee system(s) shown as providing flood hazard reduction on this panel. To mitigate flood hazards in

residual risk areas, property owners and residents are encouraged to review the community's emergency preparedness plan and to consider flood insurance and floodproofing, or other risk reduction measures. For more information on flood insurance, interested parties should visit www.fema.gov/flood-insurance.



PANEL LOCATOR



FEMA Flood Insurance Program NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP **JOHNSON COUNTY, ARKANSAS** and Incorporated Areas PANEL 355 OF 475

National

Panel Contains: COMMUNITY NUMBER PANEL SUFFIX JOHNSON COUNTY 0355 050441 CLARKSVILLE, CITY OF 050112 0355

REVISED TO REFLECT LOMR EFFECTIVE: December 29, 2022

> **VERSION NUMBER** 2.1.3.0 MAP NUMBER

05071C0355D **EFFECTIVE DATE NOVEMBER 26, 2010**