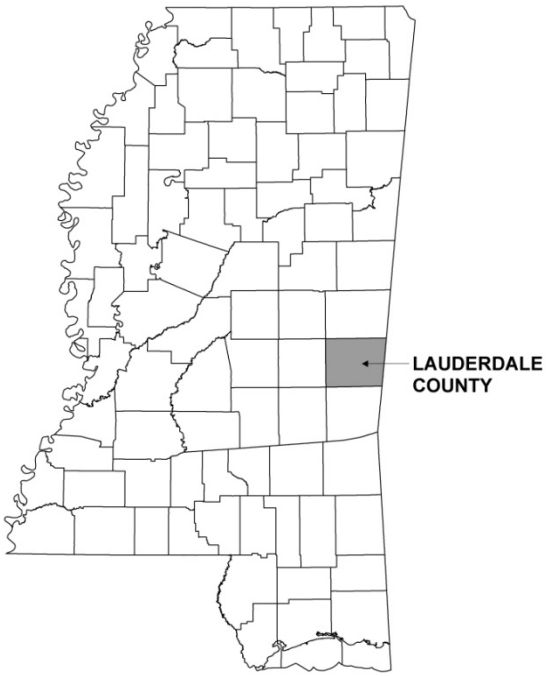
FLOOD INSURANCE STUDY

LAUDERDALE COUNTY, MISSISSIPPI
AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
LAUDERDALE COUNTY (UNICORPORATED AREAS)	280224
MARION, TOWN OF	280095
MERIDIAN, CITY OF	280096



REVISED:

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
28075CV000A

NOTICE TO

FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program (NFIP) have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

Part or all of this FIS may be revised and republished at any time. In addition, part of this FIS may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS report. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current FIS components.

Initial Countywide FIS Effective Date: September 29, 1989

Revised Countywide FIS Dates: August 16, 1995
March 21, 2000

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Flood Insurance Rate Map

FLOOD INSURANCE STUDY
LAUDERDALE COUNTY, MISSISSIPPI AND INCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study (FIS) revises and updates a previous FIS and/or Flood Insurance Rate Maps (FIRMs) in the geographic area of Lauderdale County, Mississippi, including the incorporated areas of the City of Meridian, the Town of Marion, and the Unincorporated Areas of Lauderdale County (hereinafter referred to collectively as Lauderdale County), and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates. This information will also be used by Lauderdale County to update existing floodplain regulations as part of the Regular Phase of the National Flood Insurance Program (NFIP). And by local and regional planners to further promote sound land use and floodplain development. Minimum floodplain management requirements for participation in the NFIP are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some States or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for the initial September 29, 1989 countywide FIS were performed by the U.S. Army Corps of Engineers (USACE), Mobile District, for the Federal Emergency Management Agency (FEMA), under Inter-Agency Agreement No. EMW-85-E-1822. That work was completed in March 1987.

The hydrologic and hydraulic analyses for the August 16, 1995 FIS revision of Sowashee Creek, Gallagher Creek, Magnolia Creek, Nanabe Creek, Robbins Branch, and Shear's Branch were prepared by the USACE, Mobile District. That work was completed in January 1993.

The hydrologic and hydraulic analyses for the March 21, 2000 revision of Gallagher Creek, Magnolia Creek, Robbins Branch, Harbour Creek, and Newell Branch were prepared by the USACE, Mobile District, for FEMA, under Inter-Agency Agreement No. EMW-94-E-4371. This work was completed in February 1998.

The hydrologic and hydraulic analyses for this countywide revision were performed by the State of Mississippi for FEMA. This study was completed in September 2008 under Contract No. EMA-2005-CA-5215.

Base map information shown on the FIRM was provided in digital format by the State of Mississippi. The digital orthoimagery was photogrammetrically compiled at a scale of 1:400 from aerial photography dated March 2006.

The digital FIRM was produced using the State Plane Coordinate System, Mississippi East, FIPS ZONE 2301. The horizontal datum was the North American Datum of 1983, GRS 80 spheroid. Distance units were measured in U.S. feet.

1.3 Coordination

An initial Consultation Coordination Officer's (CCO) meeting is held with representatives from FEMA, the community, and the study contractor to explain the nature and purpose of a FIS, and to identify the streams to be studied by detailed methods. A final CCO meeting is held with the same representatives to review the results of the study.

For the September 29, 1989 countywide FIS, the initial CCO meeting was held on June 13, 1985. The final CCO meeting was held on October 17 & 18, 1988.

For the August 16, 1995 revision, the City of Meridian, the Town of Marion, and the unincorporated areas of Lauderdale County were notified of the revision by FEMA in the letter dated July 21, 1993. A final CCO meeting was held on August 9, 1994.

For the March 21, 2000 revision, an initial CCO meeting was held on August 13, 1993.

For this countywide revision, an initial CCO meeting was held on September 9, 2005. This meeting was attended by the representatives of the City of Meridian, the Town of Marion, Lauderdale County, Mississippi Emergency Management Agency (MEMA), Mississippi Department of Environmental Quality (MDEQ) and Mississippi Geographic Inc. LLC (MGI). Coordination with county officials and Federal, State, and regional agencies produced a variety of information pertaining to floodplain regulations, available community maps, flood history, and other hydrologic data. All problems raised in the meetings have been addressed.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Lauderdale County, Mississippi, including the incorporated communities listed in Section 1.1.

September 29, 1989 Countywide FIS

All or portions of Bailey Branch, Nanabe Creek, Gallagher Creek, Okatibbee Creek, Gunn Branch, Okatibbee Creek Tributary, Harper Creek, Robbins Branch, Harper Creek Tributary, Shear’s Branch, Loper Creek, Sowashee Creek, Magnolia Creek, and Suqualena Creek were studied by Detailed methods.

August 16, 1995 Revision

Revised analyses were included for the flooding sources shown in Table 1, "Scope of Revision for August 16, 1995, FIS".

TABLE 1 – SCOPE OF REVISION FOR AUGUST 16, 1995, FIS

Stream	Limits of Revised or New Detailed Study
*Gallagher Creek	From its confluence with Sowashee Creek to a point approximately 500 feet upstream of the Norfolk Southern Railroad.
*Magnolia Creek	From its confluence with Sowashee Creek to the Illinois Central Railroad.
*Okatibbee Creek	From a point approximately 1.16 miles downstream of the confluence of Burwell Creek to a point approximately 0.24 mile downstream of the confluence.
*Nanabe Creek	From its confluence with Sowashee Creek to a point approximately 1.3 miles upstream.
Sowashee Creek	From a point approximately 2,600 feet above its confluence with Okatibbee Creek to the Second County Road bridge upstream of the U.S. Route 45 Bypass.
*Robbins Branch	From its confluence with Sowashee Creek to U.S. Route 45.
*Shear's Branch	From its confluence with Sowashee Creek to a point approximately 0.2 mile upstream.

*Backwater effects from Sowashee Creek have been adjusted based on the Detailed analyses of Sowashee Creek.

March 21, 2000 Revision

All or portions of the flooding sources listed in Table 2, "Streams Studied by Detailed Methods," were studied by Detailed methods. Limits of Detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2).

TABLE 2. STREAMS STUDIED BY DETAILED METHODS

Bailey Branch	Loper Creek	Robbins Branch
Gallagher Creek	Magnolia Creek	Shear's Branch
Gunn Branch	Nanabe Creek	Sowashee Creek
Harbour Creek	Newell Branch	Suqualena Creek
Harper Creek	Okatibbee Creek	
Harper Creek Tributary	Okatibbee Creek Tributary	

For the March 21, 2000 countywide revision, the streams shown in Table 3, "Scope of Revision for March 21, 2000, FIS," were restudied or newly studied by Detailed methods. This revision also incorporates a Letter of Map Revision (LOMR), dated September 30, 1999. This LOMR reflects more up-to-date hydrologic and hydraulic analyses along Sowashee Creek. The subject area is located from a point approximately 1,000 feet downstream of Hawkins Crossing Road (U.S. Route 45), to a point approximately 2,600 feet upstream of the confluence with Okatibbee Creek.

TABLE 3 - SCOPE OF REVISION FOR MARCH 21, 2000, FIS

Stream	Limits of Revised New Detailed Study
Gallagher Creek	From its mouth to a point approximately 50 feet upstream of State Route 493.
Harbour Creek	From its mouth to a point approximately 1,025 feet upstream of Windover Circle.
Magnolia Creek	From its mouth to a point approximately 100 feet upstream of 36th Street.
Newell Branch	From its mouth to just downstream of 63rd Street.
Robbins Branch	From its mouth to a point approximately 2,800 feet upstream of 52nd Court.

This Countywide Revision Analyses

In this FIS revision, some streams have names other than those used in previously printed FISs. Details of these name changes are listed in the following tabulation:

Community	Old Name	New Name
Lauderdale County	Harper Creek Tributary	Harper Creek Tributary 1
Lauderdale County	Okatibbee Creek Tributary	Okatibbee Creek Tributary 5

For this countywide FIS revision, limited detailed analyses were used to study those areas having a low development potential or minimal flood hazards. The scope and methods of study were proposed to, and agreed upon, by FEMA and the State of Mississippi. For this FIS revision, Table 4, "Streams Studied by Limited Detailed Methods," lists the streams which were newly studied by Limited Detailed methods.

TABLE 4 – STREAMS STUDIED BY LIMITED DETAILED METHODS

Stream	Limits of Revision/New Limited Detailed Study
Mclemore Branch	From approximately 500 feet upstream of the confluence with Newell Creek to Old Country Club Road.

TABLE 4 – STREAMS STUDIED BY LIMITED DETAILED METHODS - continued

Stream	Limits of Revision/New Limited Detailed Study
Sowashee Creek Tributary 8	From its confluence with Sowashee Creek Tributary 12 to 360 feet downstream of Hillview Drive.
Sowashee Creek Tributary 10	From approximately 50 feet downstream of Highway 45 to approximately 500 feet upstream of Cotton Gin Road.
Sowashee Creek Tributary 11	From approximately 500 feet upstream of the confluence with Sowashee Creek Tributary 10 to approximately 600 feet upstream of Ponta Hills Road.

Also, floodplain boundaries of streams that have been previously studied by detailed methods were redelineated based on up-to-date topographic information.

All remaining flooding sources in the county were studied by approximate methods, and are the basis of the revised Zone A mappings included on the FIRMs.

2.2 Community Description

Lauderdale County is located in east-central Mississippi, and is bordered by Kemper County on the north, Newton County on the west, Clarke County on the south, and Sumter and Choctaw Counties. Alabama on the east. The City of Meridian, the county seat, is approximately 90 miles east of the City of Jackson. Lauderdale County is served by Interstate Routes 20 and 59; U.S. Routes 11, 45, and 80; State Routes 19 and 39; the Illinois Central Railroad; the Norfolk Southern Railway; and the Meridian & Bigbee Railroad. The 2000 population of Lauderdale County was reported to be 78,161 (Reference 1).

Topography in the area consists of gently rolling hills with elevations ranging from 270 feet national Geodetic Vertical Datum of 1929 (NGVD) to approximately 550 feet NGVD. The hilly terrain to the north, east, and west of the study area has a pronounced effect on the temperature pattern at Meridian.

Lauderdale County's climate is mild, with an average summer temperature of 79.8 degrees Fahrenheit (^{o}F), and an average winter temperature of 48.4 ^{o}F. Extreme temperatures of -7 ^{o}F and 105 ^{o}F have been recorded at Meridian (Reference 2).

Precipitation is evenly distributed throughout the year. March is the wettest month, averaging 6.0 inches of rainfall, and October is the driest, averaging 2.4 inches. Annual precipitation averages 56.7 inches (Reference 3).

The Okatibbee Creek floodplain is relatively undeveloped, with only a few structures in the area. The floodplains of Sowashee Creek, Gallagher Creek, Magnolia Creek, Robbins Branch, Nanabe Branch, and Loper Creek have yielded to urban expansion, including commercial, industrial, and residential development and public utilities.

Numerous city streets, state highways, and railway lines cross the floodplains. Economic development within the study area continues to expand.

2.3 Principal Flood Problems

Significant flooding occurs in the low-lying areas along Okatibbee Creek and its tributaries and along Sowashee Creek and its tributaries. Major floods occurred on Okatibbee Creek and its tributaries in 1961, 1976, and 1979. Major floods occurred on Sowashee Creek and its tributaries in 1951, 1961, 1964, 1972, 1974, and 1979. Parts of Sowashee Creek floodplain have been filled in and developed in recent years, leading to increased flooding potential along some parts of the stream. Floods can occur in the City of Meridian any time during the year, but most frequent flooding occurs during late summer or early fall caused by brief intense storms.

2.4 Flood Protection Measures

The Okatibbee Dam, built in 1968 and operated by the USACE, is 37.65 miles upstream of the Okatibbee Creek mouth. In the City of Meridian, the dam provides reductions in the 10-, 2-, 1-percent-annual-chance floods of 2.1 feet, 1.4 feet, and 1.2 feet, respectively.

During World War II, the USACE constructed a levee in southern Meridian that joins high ground and encloses Key Field. The levee would be overtopped by the 0.02-percent-annual-chance flood on Okatibbee Creek and by the 2-percent-annual-chance flood on Sowashee Creek.

The USACE completed the Sowashee Creek Flood Control Project in December 1992. The project consisted of clearing and snagging the channel and overbanks; channel modifications; bridge modifications and relocations; and control structures. The project extends from the mouth of the stream to Hawkins Crossing Road. The Soil Conservation Service (SCS, now known as the Natural Resources Conservation Service, NRCS) has completed three flood control structures in the Sowashee Creek drainage basin that help to reduce the flood elevations along Sowashee Creek. These existing NRCS structures were considered for this FIS. The NRCS plans to construct additional flood retarding structures in the upper reaches of the Sowashee Creek drainage basin when funding becomes available; these structures were not considered for this FIS.

Portions of Gallagher Creek, Magnolia Creek, and Robbins Branch have been modified. Channel modifications range from grading to concrete lining. The lower portion of Gallagher Creek was modified by the construction of a project built by the NRCS.

3.0 ENGINEERING METHODS

For the flooding sources studied by detailed methods in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this FIS. Flood events of a magnitude that are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term, average period between floods of a specific

magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 1-percent-annual-chance flood in any 50-year period is approximately 40 percent (4 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish peak discharge-frequency and peak elevation-frequency relationships for each flooding source studied by Detailed methods affecting the community.

September 29, 1989 Countywide Analyses

Flow frequencies for uncontrolled drainage areas along the detailed studied streams were determined by one of two methods. For drainage areas larger than four square miles, flows were developed using regional relationships taken from a USACE environmental impact statement (Reference 4). Methodology presented in that report was developed from regional data on drainage areas of 15 square miles or more in the Pascagoula River basin. For drainage areas smaller than four square miles, flows were determined using the regional equations presented in the U.S. Geological Survey's (USGS) "Flood Frequency of Mississippi Streams" (Reference 5).

August 16, 1995 Revision Analyses

Discharges for locations from the mouth of Sowashee Creek to below the confluence with Nanabe Creek were determined by using the existing conditions discharges Table II-3, "Peak Discharges at Selected Locations, Project Conditions," in the USACE report entitled Sowashee Creek, Meridian, Mississippi, Design Memorandum No. 1, dated April 1986 (Reference 6). These discharges included adjustments for expected probability. The expected probability adjustments were removed from these estimates by reversing the procedure described in Bulletin 17B (Reference 7). Table II-1 Bulletin 17B was entered at P_N, the expected probability values from Table II-3, and the number of years of record at the gage, N=80. The values of P, the exceedance frequencies without the adjustments, were then interpolated from the table header. The discharges from the table were then plotted at these frequencies and the discharges for the 10-, 2-, 1-, and 0.2-percent-annual-chance flood events were interpolated from the graphs.

Discharges for locations on Sowashee Creek above the confluence with Nanabe Creek were determined by using regional frequency relationships developed by the Mobile District and described in the USACE report entitled Sowashee Creek, Meridian, Mississippi, Phase 1 General Design Memorandum and Environmental Impact Statement (Reference 4).

Discharge data were obtained from the NRCS for each of the reservoirs. An analysis was made to determine the effects of these reservoirs on the discharges on Sowashee Creek from the mouth to the county road crossing at Marion. Although these structures create relatively large reductions on the tributaries on which they are located, their location in

the drainage basin and the size of the areas they control, compared to the size of the Sowashee Creek drainage area, almost eliminates the effect they have on the discharges on Sowashee Creek. However, combined with the other 10 structures in the total basin plan, the effect could be a significant reduction in the discharges.

The USGS completed a regional study in Mississippi and published a report, Water-Resources Investigation Report 91-4037 (Reference 8). The regional equations from this study produced discharges that were considerably lower than those in the USACE report. The USACE conducted a search of the data compiled by the USGS, which revealed that the period of record at the Sowashee Creek gage ran from 1939 to 1988, with peaks from 1946 to 1948 missing. Two floods, February 1936 and April 1938, occurred prior to the systematic record and were higher than any flood in the systematic record. In addition, the 1936 flood was listed as the highest flood since 1900. These two floods only had peak stages listed in the database, and were not included in the USGS study. The USACE study included estimated discharges for these two flood events. By including these events the historic gage record could be extended to 1900. Omitting these two floods, especially the 1936 flood, may underestimate the frequency curve. Therefore, for purposes of this study, the USACE decided not to use the USGS regional study and to use its own study, which included these estimated peaks.

March 21, 2000 Revision Analyses

Discharges were determined using USGS regional equations from Flood Characteristics of Mississippi Streams (Reference 9). Drainage areas were determined from 1:24,000 quadrangle maps.

This Revision Analyses

Peak discharges for the streams studied by Limited Detailed methods were calculated based on USGS regional regression equations (Reference 9). For the discharges calculated based on regional regression equations, the rural regression values were updated to reflect urbanization as necessary.

A summary of the drainage area-peak discharge relationships for the streams studied by Detailed and Limited Detailed methods is shown in Table 5, "Summary of Discharges."

TABLE 5. SUMMARY OF DISCHARGES

Detailed Studied Streams

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-percent	2-percent	1-percent	0.2-percent
BAILEY BRANCH					
At mouth	6.24	1,410	3,040	4,010	7,170
GALLAGHER CREEK					
At Mouth	5.65	2,720	3,990	4,600	5,690
Just downstream of State Boulevard	4.23	2,230	3,300	3,790	4,700

TABLE 5. SUMMARY OF DISCHARGES

Detailed Studied Streams

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-percent	2-percent	1-percent	0.2-percent
GALLAGHER CREEK - continued					
Just downstream of Royal Road	3.22	1,880	2,790	3,190	3,970
Just downstream of 40th Street	2.2	1,250	1,900	2,160	2,700
At a point approximately 1,000 feet upstream of 52nd Street	0.61	570	1,100	1,320	2,100
GUNN BRANCH					
At mouth	9.88	2,640	5,610	7,390	13,080
HARBOUR CREEK					
At mouth	1.34	785	1,207	1,369	1,727
Just downstream of Newell Road	0.98	698	1,061	1,199	1,503
Just upstream of Newell Road	0.5	404	612	688	863
Just downstream of 9th Avenue	0.07	113	178	196	247
HARPER CREEK					
At mouth	10.86	2,780	5,790	7,570	13,200
Just downstream of confluence of Harper Creek Tributary 1	8.26	2,340	4,960	6,520	11,500
At County Road	5.65	1,700	3,680	4,880	8,750
Just upstream of County Road running south of State Route 494	3.99	1,240	2,710	3,600	6,500
HARPER CREEK TRIBUTARY 1					
At mouth	1.64	750	1,130	1,320	1,770
LOPER CREEK					
At mouth	21.96	3,950	8,050	10,430	17,870
At State Boulevard	20.06	4,330	8,820	11,430	19,580

TABLE 5. SUMMARY OF DISCHARGES -continued

Detailed Studied Streams

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-percent	2-percent	1-percent	0.2-percent
LOPER CREEK - continued					
At Kings Road	16.49	3,810	7,840	10,190	17,590
MAGNOLIA CREEK					
At mouth	1.44	1,070	1,560	1,770	2,170
Just downstream of 23rd Street	0.74	780	1,140	1,290	1,580
Just downstream of 36th Street	0.2	390	560	620	760
NANABE CREEK					
At mouth	13.70	3,360	6,980	9,120	15,900
Just downstream of the confluence of Brandon Branch	9.29	2,730	5,790	7,610	13,400
NEWELL BRANCH					
At mouth	3.54	1,334	2,065	2,366	2,961
Just downstream of unnamed tributary	3.43	1,356	2,099	2,404	3,005
Just upstream of upstream of unnamed tributary	1.26	698	1,082	1,227	1,548
Just downstream of 23rd Street	0.11	175	268	296	370
OKATIBBEE CREEK					
At Meridian gage	235.64	10,590	19,580	24,680	41,250
Just downstream of mouth of Leper Creek	230.60	10,700	19,800	24,680	41,700
Just upstream of mouth of Leper Creek	208.64	8,360	15,390	19,410	32,740
Just downstream of mouth of Harper Creek	201.84	8,800	16,510	20,890	35,380
Just downstream of mouth of Suqualena Creek	189.58	7,450	13,680	17,260	29,300
At Okatibbee Dam	153.29	1,200	1,200	1,200	2,200

TABLE 5. SUMMARY OF DISCHARGES -continued

Detailed Studied Streams

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-percent	2-percent	1-percent	0.2-percent
OKATIBBEE CREEK TRIBUTARY 5					
At mouth	0.74	380	560	650	900
ROBBINS BRANCH					
At mouth	2.02	1,060	1,570	1,790	2,210
Just downstream of 34th Street	1.27	1,010	1,500	1,700	2,110
Just downstream of North Hills Street	0.34	480	720	800	1,000
SHEAR'S BRANCH					
At mouth	1.8	2,600	3,300	3,700	4,400
At 21st Street	0.1	500	620	700	850
SOWASHEE CREEK					
At mouth	84.21	21,185	17,567	19,911	23,440
At Substation	77.20	14,776	19,423	21,551	24,917
At 49th Avenue	75.14	14,925	19,717	21,805	25,368
Just downstream of Gallagher Creek	74.00	14,900	19,775	21,799	25,202
Just upstream of Gallagher Creek	68.35	11,836	16,072	18,349	21,582
At Shears Avenue	67.94	11,813	16,131	18,555	21,765
At Grand Avenue	64.93	10,693	15,357	17,656	20,999
At 22nd Avenue	62.83	10,138	14,814	17,057	20,617
At Magnolia Creek	59.25	10,003	14,636	16,919	20,646
At gage	52.07	8,578	12,544	14,600	18,211
At Robbins Branch	52.07	8,355	12,227	14,272	17,862
At Hawkins Road Crossing	48.97	8,161	11,986	14,054	17,612

TABLE 5. SUMMARY OF DISCHARGES -continued

Detailed Studied Streams

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-percent	2-percent	1-percent	0.2-percent
SOWASHEE CREEK - continued					
At Clear Branch	46.23	7,677	15,200	18,767	30,200
Just downstream of Nanabe Creek	41.71	7,087	13,803	17,392	29,913
Just upstream of Nanabe Creek	28.01	5,048	7,755	8,813	11,653
At Alamutcha Street	20.28	4,478	6,356	6,968	8,698
At County Road	7.59	2,171	3,242	3,635	4,711
SUQUALENA CREEK					
At mouth	16.78	3,190	6,570	8,550	14,750
At County Road	15.39	3,380	6,950	9,030	15,590
At County Road	13.20	3,290	6,830	8,910	15,500
Just upstream of County Road	7.87	2,290	4,860	6,390	11,280

TABLE 5. SUMMARY OF DISCHARGES -continued

Limited Detailed Studied Streams

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. mi.)	PEAK DISCHARGES (cfs) 10-percent	2-percent	1-percent	0.2-percent
MCLEMORE BRANCH					
At mouth	2.14	*	*	1,829	*
SOWASHEE CREEK TRIBUTARY 8					
At Willow Lake Road	3.53	*	*	2,350	*
SOWASHEE CREEK TRIBUTARY 10					
Approximately 2,900 feet upstream of mouth	3.06	*	*	1,943	*
SOWASHEE CREEK TRIBUTARY 11					
At mouth	0.41	*	*	532	*

* Data not available

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 of the 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 encouraged to use the flood elevation data presented in this FIS report in conjunction with the data shown on the FIRM.

September 29, 1989 Countywide Analyses

Cross sections were obtained from field surveys supplemented by sections from previously published topographic maps of the City of Meridian (Reference 10).

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).

Water-surface elevations of floods of the selected recurrence intervals were computed using the USACE HEC-2 step-backwater computer program (Reference 11).

Roughness factors (Manning's "n") were chosen by engineering judgment and based on field observations of the stream and floodplain areas, and comparing water-surface profiles with rating curves at gages on Okatibbee Creek. The channel and "n" values for Sowashee Creek ranged from 0.020 to 0.045, and the overbank "n" values ranged from 0.060 to 20.0; the overbank "n" value of 20.0 was used to represent ineffective flow in the HEC-2 model for Sowashee Creek. The channel "n" values for all other flooding sources studied by detailed methods ranged from 0.038 to 0.060 and the overbank "n" values ranged from 0.070 to 0.150.

August 16, 1995 Revision Analyses

Cross sections for Sowashee Creek from the mouth to Hawkins Crossing Road were obtained from field surveys. Right and left overbank cross-section geometry was obtained from topographic maps at a scale of 1"=200' with a contour interval of 2 feet (Reference 12). Cross sections for Sowashee Creek from Hawkins Crossing Road to the second county road above Highway 45 By-Pass were taken from the previously published September 29, 1989, FIS for Lauderdale County (Reference 13). All bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry.

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).

Starting water-surface elevations for Sowashee Creek were obtained from a USACE design memorandum (Reference 6). Flood profiles were drawn showing computed water-surface elevations for floods of the selected recurrence intervals.

Roughness factors (Manning's "n") were chosen by engineering judgment and based on field observations of the stream and floodplain areas, and comparing water-surface profiles with rating curves at gages on Okatibbee Creek. The channel and "n" values for Sowashee Creek ranged from 0.020 to 0.045, and the overbank "n" values ranged from 0.060 to 20.0; the overbank "n" value of 20.0 was used to represent ineffective flow in the HEC-2 model for Sowashee Creek. The channel "n" values for all other flooding sources studied by detailed methods ranged from 0.038 to 0.060 and the overbank "n" values ranged from 0.070 to 0.150.

Areas of the community protected by levees were subject to potential risk due to possible failure or overtopping of the levee. Those areas were delineated by applying the 1-percent-annual-chance elevation determined from the "levee in place" analysis.

March 21, 2000 Revision Analyses

Cross section geometry utilized in the model was obtained from contour mapping field surveys, and construction drawings. Structural geometry and elevation data for bridges within the study reaches were obtained from field surveys and construction drawings.

The profiles of the selected recurrence interval floods were computed with standard step backwater math models using the USACE HEC-2 computer program (Reference 11). Starting water-surface elevations for streams studied were developed by the slope-area option of the HEC-2 model. Channel and overbank roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgment from aerial photos and field inspection of the channels and floodplain areas. The channel "n" values used for this study ranged from 0.015 to 0.07. The overbank "n" values ranged from 0.080 to 0.15 except in areas containing non-effective flow.

Maps of the study area, at a scale of 1 inch equals 200 feet with a contour interval of five feet, were used for the topographic data. The maps are based on City of Meridian topographic maps (Reference 10).

The hydraulic analyses for this FIS are based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

This Revision Analyses

Cross section geometries were obtained from a combination of terrain data and field surveys. Bridges and culverts located within the Limited Detailed study limits were field surveyed to obtain elevation data and structural geometry.

Downstream boundary conditions for the hydraulics models were set to normal depth using a starting slope calculated from values taken from topographic data, or where applicable, derived from the water-surface elevations of existing effective flood elevations or recalculated flood elevations. Water-surface profiles were computed through the use of USACE HEC-RAS version 3.1.2 computer program (Reference 14). The model was run for the 1-percent-annual-chance storm for the Limited Detailed and approximate studies.

Manning's "n" values used in the hydraulic computations for both channel and overbank areas were based on recent digital orthophotography and field investigations.

Table 6, "Summary of Roughness Coefficients," shows the ranges of the channel and overbank roughness factors used in the computations for the streams studied by Detailed methods and streams newly studied by Limited Detailed methods.

TABLE 6 - SUMMARY OF ROUGHNESS COEFFICIENTS

Stream	Channel "n"	Overbank "n"
Bailey Branch	0.015-0.07	0.080-0.15
Gallagher Creek	0.015-0.07	0.080-0.15
Gunn Creek	0.015-0.07	0.080-0.15
Harbour Creek	0.015-0.07	0.080-0.15
Harper Creek	0.015-0.07	0.080-0.15
Harper Creek Tributary 1	0.015-0.07	0.080-0.15
Loper Creek	0.015-0.07	0.080-0.15
Magnolia Creek	0.015-0.07	0.080-0.15
Mclemore Branch	0.048	0.08-0.15
Nanabe Creek	0.015-0.07	0.080-0.15
Newell Branch	0.015-0.07	0.080-0.15
Okatibbee Creek	0.015-0.07	0.080-0.15
Okatibbee Creek Tributary 5	0.015-0.07	0.080-0.15
Robbins Branch	0.015-0.07	0.080-0.15
Shear's Branch	0.015-0.07	0.080-0.15
Sowashee Creek	0.015-0.07	0.080-0.15
Sowashee Creek Tributary 8	0.046-0.051	0.05-0.15
Sowashee Creek Tributary 10	0.05-0.055	0.09-0.15
Sowashee Creek Tributary 11	0.035-0.05	0.07-0.15
Suqualena Creek	0.015-0.07	0.080-0.15

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

All elevations are referenced to NAVD88.

3.3 Vertical Datum

All FIS reports and FIRMS are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum in use for newly created or revised FIS reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD29). With the finalization of the North American Vertical Datum of 1988 (NAVD88), many FIS reports and FIRMs are being prepared using NAVD88 as the referenced vertical datum.

Qualifying bench marks within a given jurisdiction that are cataloged by the National Geodetic Survey (NGS) and entered into the National Spatial Reference System (NSRS)

as First or Second Order Vertical and have a vertical stability classification of A, B, or C are shown and labeled on the FIRM with their 6-character NSRS permanent identifier.

Bench marks cataloged by the NGS and entered into the NSRS vary widely in vertical stability classification. NSRS vertical stability classifications are as follows:

> Stability A: Monuments of the most reliable nature, expected to hold position/elevation well (e.g., mounted in bedrock)
>
> Stability B: Monuments which generally hold their position/elevation well (e.g., concrete bridge abutment)
>
> Stability C: Monuments which may be affected by surface ground movements (e.g., concrete monuments below frost line)
>
> Stability D: Mark of questionable or unknown vertical stability (e.g., concrete monument above frost line, or steel witness post)

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD88. Structure and ground elevations in the community must, therefore, be referenced to NAVD88. It is important to note that adjacent communities may be referenced to NGVD29. This may result in differences in Base Flood Elevations (BFEs) across the corporate limits between the communities.

The elevations shown in the FIS report and on the FIRM for Lauderdale County are referenced to NAVD88. Ground, structure, and flood elevations may be compared and/or referenced to NGVD29, add 0.04 feet to the NGVD29 elevation. The 0.04 feet value is an average for the entire county. The BFEs shown on the FIRM represent whole-foot rounded values. For example, a BFE of 12.4 feet will appear as 12 feet on the FIRM and 12.6 feet as 13 feet. Users who wish to convert the elevations in this FIS report to NGVD29 should apply the stated conversion factor to elevations shown on the Flood Profiles and supporting data tables in the FIS report, which are shown at a minimum to the nearest 0.1 foot.

To obtain current elevation, description, and/or location information for bench marks shown on the FIRM for this jurisdiction, or for information regarding conversion between the NGVD29 and NAVD88, see the FEMA publication entitled *Converting the National Flood Insurance Program to the North American Vertical Datum of 1998* (FEMA, June 1992), or contact the Vertical Network Branch, National Geodetic Survey, Coast and Geodetic Survey, National Oceanic and Atmospheric Administration, Rockville, Maryland 20910 (Internet address http://www.ngs.noaa.gov).

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the Technical Support Data Notebook associated with the FIS report and FIRM for this community. Interested individuals may contact FEMA to access these data.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. To assist in this endeavor, each FIS provides 1-percent-annual-chance floodplain data, which may include a combination of the following: 10-, 2-, 1-, and 0.2-percent-annual chance flood elevations; delineations of the 1-percent and 0.2-percent-annual-chance floodplains; and 1-percent-annual-chance floodway. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data Table, and Summary of Stillwater Elevations Table. Users should reference the data presented in the FIS report as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent-annual-chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the community. For each stream studied by detailed methods, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section.

For this countywide revision, 10 meter Digital Elevation Model (DEM) data from the USGS were used to delineate the floodplain boundaries. The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM (Exhibit 2). On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A and AE), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by Limited Detailed and Approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM (Exhibit 2).

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent-annual-chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 1-percent-annual-chance flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways

in this FIS are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways presented in this FIS report and on the FIRM were computed for certain stream segments on the basis of equal-conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations have been tabulated for selected cross sections of detailed study streams in Table 7. The computed floodways are shown on the FIRM (Exhibit 2). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

Encroachment into areas subject to inundation by floodwaters having hazardous velocities aggravates the risk of flood damage, and heightens potential flood hazards by further increasing velocities. A listing of stream velocities at selected cross sections is provided in Table 7. In order to reduce the risk of property damage in areas where the stream velocities are high, the county may wish to restrict development in areas outside the floodway.

Near the mouths of streams studied in detail, floodway computations are made without regard to flood elevations on the receiving water body. Therefore, "Without Floodway" elevations presented in Table 7, "Floodway Data" for certain downstream cross sections of Gallagher Creek, Magnolia Creek, Okatibbee Creek, Robbins Branch, Shear's Branch, Harbour Creek, and Newell Branch are lower than the regulatory flood elevations in that area, which must take into account the 1-percent-annual-chance flood due to backwater from other sources.

The area between the floodway and 1-percent-annual-chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 1-percent-annual-chance flood more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1.

No floodways were computed for Okatibbee Creek Tributary 5, Nanabe Creek, Suqualena Creek, Harper Creek, Harper Creek Tributary 1, Loper Creek, Gunn Branch, and Bailey Branch.

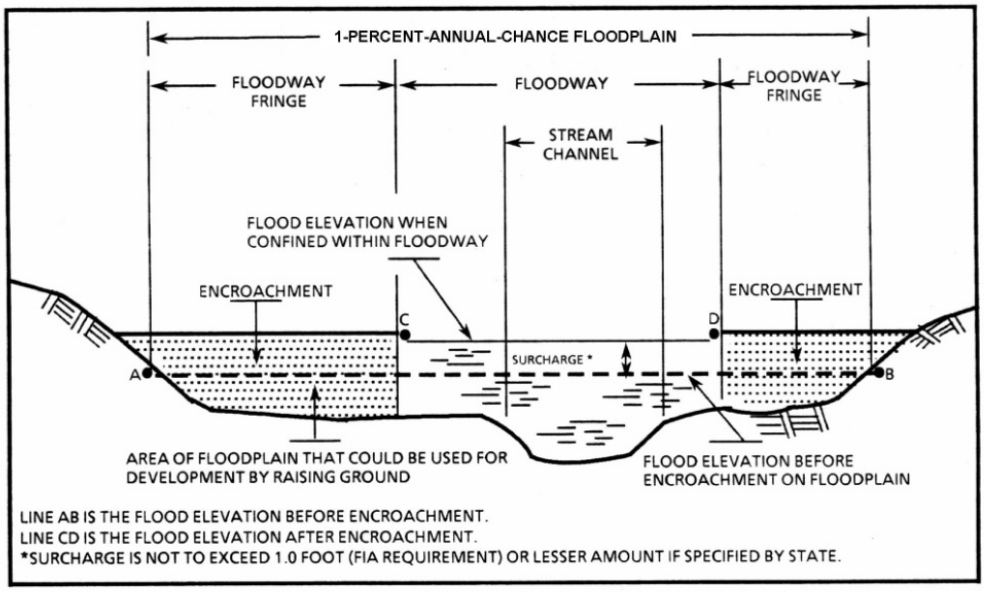

FIGURE 1. FLOODWAY SCHEMATIC

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Gallagher Creek								
A	1,460	88	813	5.7	306.0	304.2[2]	304.8	0.6
B	2,566	77	650	7.1	306.0	305.3[2]	305.7	0.4
C	3,456	86	725	6.3	306.6	306.6	307.5	0.9
D	4,082	83	696	6.6	307.8	307.8	308.0	0.2
E	5,590	82	601	7.7	312.9	312.9	312.9	0.0
F	6,198	79	541	8.5	313.1	313.1	313.1	0.0
G	7,280	68	355	12.9	316.4	316.4	316.4	0.0
H	8,430	68	350	10.8	319.2	319.2	319.2	0.0
I	8,960	94	678	5.6	328.2	328.2	329.2	1.0
J	10,425	89	831	4.6	333.4	333.4	333.9	0.5
K	11,503	260	955	3.3	334.6	334.6	335.3	0.7
L	12,980	125	899	3.5	337.2	337.2	338.1	0.9
M	14,480	83	732	4.4	344.3	344.3	344.8	0.5
N	15,850	78	631	5.1	347.7	347.7	348.2	0.5
O	17,011	58	436	7.3	351.7	351.7	352.6	0.9
P	18,574	108	512	6.2	358.1	358.1	358.7	0.6
Q	19,797	104	457	4.7	362.9	362.9	363.6	0.7
R	19,922	76	331	6.5	363.1	363.1	363.8	0.7

[1] Feet above confluence with Sowashee Creek.
[2] Elevation computed without consideration of backwater effects from Sowashee Creek.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOODWAY DATA

GALLAGHER CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Gallagher Creek (continued)								
S	20,980	29	219	9.8	364.6	364.6	365.0	0.4
T	22,010	49	277	7.8	371.2	371.2	371.2	0.0
U	23,227	69	397	5.4	376.9	376.9	377.9	1.0
V	24,180	125	708	3.1	380.7	380.7	381.4	0.7
W	25,530	64	247	8.8	386.2	386.2	386.4	0.2
X	26,165	184	806	2.7	391.4	391.4	391.6	0.2
Y	29,069	185	515	1.9	403.8	403.8	404.4	0.6
Z	31,784	29	134	7.3	422.9	422.9	423.0	0.1

[1] Feet above confluence with Sowashee Creek.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Harbour Creek								
A	732	1,220[2]	429	3.2	339.8	332.0[3]	332.0	0.0
B	2,200	155	421	3.1	341.0	336.9[3]	337.1	0.2
C	3,300	115	433	3.0	341.4	340.2[3]	341.2	1.0
D	5,000	103	585	2.1	350.5	350.5	351.2	0.7
E	6,100	219	1,029	1.2	353.0	353.0	353.8	0.8
F	7,100	19	146	4.4	362.5	362.5	362.5	0.0
G	8,650	22	63	9.1	370.4	370.4	370.4	0.0
H	9,700	20	85	5.9	382.8	382.8	383.6	0.8
I	10,704	14	82	6.1	388.9	388.9	389.0	0.1
J	11,850	30	205	1.8	394.9	394.9	395.9	1.0
K	13,025	10	40	9.2	406.4	406.4	406.5	0.1

[1] Miles above confluence with Sowashee Creek.
[2] Combined Harbour Creek/Sowashee Creek floodway.
[3] Elevation computed without consideration of backwater effects from Sowashee Creek.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOODWAY DATA

HARBOUR CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Loper Creek								
A	3,800	886	8,425	1.4	310.0	306.4[2]	307.2	0.8
B	5,000	823	6,375	1.8	310.0	306.9[2]	307.7	0.8
C-F*								

[1] Feet above confluence with Okatibbee Creek.
[2] Elevation computed without consideration of backwater effects from Okatibbee Creek.
*No floodway data computed.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOODWAY DATA

LOPER CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Magnolia Creek								
A	985	54	357	5.0	319.2	315.3[2]	315.5	0.2
B	2,005	28	265	6.7	322.9	322.9	323.5	0.6
C	3,005	109	299	5.9	328.3	328.3	328.7	0.4
D	4,000	41	258	6.9	332.3	332.3	333.0	0.7
E	5,025	68	432	4.1	336.7	336.7	337.4	0.7
F	6,000	59	547	3.2	339.7	339.7	340.5	0.8
G	7,030	50	334	5.3	345.9	345.9	346.1	0.2
H	8,345	55	319	5.5	348.8	348.8	349.7	0.9
I	9,330	39	187	6.9	351.5	351.5	352.1	0.6
J	10,345	50	228	5.7	355.3	355.3	355.4	0.1
K	11,585	71	415	3.1	360.5	360.5	361.0	0.5
L	12,510	40	289	4.5	369.0	369.0	369.3	0.3
M	13,350	81	529	2.4	372.5	372.5	373.3	0.8
N	14,330	125	647	1.0	379.8	379.8	380.8	1.0

[1] Feet above confluence with Sowashee Creek.
[2] Elevation computed without consideration of backwater effects from Sowashee Creek.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOODWAY DATA

MAGNOLIA CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Newell Branch								
A	1,290	221	636	3.7	342.8	341.1[2]	341.6	0.5
B	2,090	60	419	5.6	344.9	344.9	345.5	0.6
C	5,750	329	1,119	1.1	356.3	356.3	356.9	0.6
D	6,900	41	260	4.7	359.7	359.7	360.3	0.6
E	7,600	84	447	2.7	363.5	363.5	364.2	0.7
F	9,000	36	226	4.7	365.4	365.4	366.4	1.0
G	10,500	30	178	5.1	370.1	370.1	370.1	0.0
H	11,500	35	150	6.1	377.2	377.2	377.2	0.0
I	12,500	40	173	5.3	382.7	382.7	382.8	0.1
J	13,600	71	224	4.1	392.1	392.1	392.6	0.5
K	15,450	20	118	3.8	405.2	405.2	406.2	1.0
L	17,040	18	66	4.5	411.7	411.7	412.3	0.6

[1] Feet above confluence with Sowashee Creek.
[2] Elevation computed without consideration of backwater effects from Sowashee Creek.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOODWAY DATA

NEWELL BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Okatibbee Creek								
A	98,600	488	5,170	5.2	287.0	286.5[2]	287.1	0.6
B	101,400	767	8,691	3.1	290.9	290.9	291.8	0.9
C	105,300	1,092	11,214	2.4	293.8	293.8	294.7	0.9
D	107,600	4,100	26,300	1.0	294.7	294.7	295.6	0.9
E	108,250	3,782	24,545	1.1	295.5	295.5	296.2	0.7
F	110,600	2,152	13,228	2.0	296.0	296.0	296.6	0.6
G	119,150	1,573	11,997	2.3	299.7	299.7	300.5	0.8
H-N*								

[1] Feet above mouth.
[2] Elevation computed without consideration of backwater effects from Sowashee Creek.
* No floodway data computed.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOODWAY DATA

OKATIBBEE CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Robbins Branch								
A	1,441	57	351	5.1	327.8	326.9[2]	327.5	0.6
B	2,375	20	210	8.5	332.7	332.7	332.7	0.0
C	3,435	66	446	4.0	337.6	337.6	338.0	0.4
D	4,484	44	366	4.9	339.0	339.0	339.2	0.2
E	5,540	91	194	9.2	343.8	343.8	343.8	0.0
F	6,590	55	370	4.8	349.7	349.7	350.7	1.0
G	8,470	262	862	2.1	355.9	355.9	356.8	0.9
H	9,490	33	201	8.5	360.6	360.6	360.9	0.3
I	10,740	35	297	5.7	366.6	366.6	367.1	0.5
J	12,700	50	263	6.5	375.0	375.0	375.4	0.4
K	13,890	84	352	4.8	380.1	380.1	380.4	0.3
L	14,795	251	636	2.7	384.3	384.3	384.5	0.2
M	15,570	239	537	3.2	387.9	387.9	387.9	0.0
N	17,190	52	206	3.9	395.2	395.2	395.3	0.1
O	18,200	36	196	4.1	400.7	400.7	401.1	0.4
P	19,097	36	133	6.0	406.0	406.0	406.0	0.0
Q	21,100	22	89	9.0	427.9	427.9	428.1	0.2

[1] Feet above confluence with Sowashee Creek.
[2] Elevation computed without consideration of backwater effects from Sowashee Creek.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOODWAY DATA

ROBBINS BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Shear's Branch								
A	211	110	764	4.7	308.3	303.1[2]	304.0	0.9
B	2,270	519	4,836	0.7	321.2	321.2	321.6	0.4
C	2,587	378	2,361	1.5	321.3	321.3	321.7	0.4
D	3,168	373	2,735	1.3	322.7	322.7	323.1	0.4
E	3,749	310	1,839	1.6	323.1	323.1	323.6	0.5
F	4,646	139	655	4.1	326.4	326.4	327.2	0.8
G	5,333	239	1,304	2.0	329.6	329.6	330.4	0.8
H	5,597	359	1,442	1.8	330.2	330.2	330.9	0.7
I	5,966	267	772	3.0	331.3	331.3	331.9	0.6
J	6,389	420	2,249	1.0	334.9	334.9	335.6	0.7
K	6,758	179	745	2.8	335.4	335.4	336.0	0.6
L	7,181	75	423	4.9	337.5	337.5	338.0	0.5
M	7,867	140	609	2.9	343.4	343.4	344.0	0.6
N	8,026	130	787	2.2	344.4	344.4	344.8	0.4
O	8,976	50	398	4.4	348.3	348.3	349.1	0.8

[1] Feet above confluence with Sowashee Creek.
[2] Elevation computed without consideration of backwater effects from Sowashee Creek.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOODWAY DATA

SHEAR'S BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sowashee Creek								
A	2,600	4,017	27,641	0.7	284.1	284.1	285.1	1.0
B	4,450	3,604	22,195	0.9	284.6	284.6	285.6	1.0
C	6,160	3,039	19,996	1.0	285.2	285.2	286.2	1.0
D	6,995	3,004	17,015	1.2	285.6	285.6	286.6	1.0
E	7,920	2,275	13,976	1.4	286.3	286.3	287.2	0.9
F	9,130	2,662	16,770	1.2	287.0	287.0	287.9	0.9
G	10,590	3,116	15,897	1.3	287.9	287.9	288.8	0.9
H	11,970	2,951	19,169	1.0	288.7	288.7	289.6	0.9
I	13,650	1,598	10,895	1.8	289.6	289.6	290.5	0.9
J	14,895	248	3,739	5.3	290.2	290.2	291.1	0.9
K	16,325	575	5,089	3.9	291.1	291.1	292.0	0.9
L	17,240	850	5,533	3.6	291.6	291.6	292.4	0.8
M	18,670	900	7,273	2.7	292.5	292.5	293.2	0.7
N	20,080	1,000	4,180	5.2	293.4	293.4	294.0	0.6
O	20,970	1,006	4,311	5.0	295.4	295.4	296.1	0.7
P	22,300	1,151	7,397	2.9	297.7	297.7	298.6	0.9
Q	23,400	1,059	7,469	2.9	298.4	298.4	299.3	0.9
R	24,425	847	4,935	4.4	298.9	298.9	299.7	0.8
S	25,344	252	3.255	6.7	302.0	302.0	302.4	0.4

[1] Feet above confluence with Okatibbee Creek.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOODWAY DATA

SOWASHEE CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sowashee Creek (continued)								
T	25,487	373	4,524	4.8	302.6	302.6	303.0	0.6
U	26,700	832	7,893	2.8	303.3	303.3	304.0	0.7
V	28,680	385	4,229	4.3	305.8	305.8	306.0	0.2
W	29,447	805[2]	5,471	3.4	306.3	306.3	306.9	0.6
X	31,090	490	4,632	4.0	307.0	307.0	307.6	0.6
Y	32,620	474	4,252	4.3	308.1	308.1	308.8	0.7
Z	34,032	465	4,725	3.9	310.4	310.4	311.1	0.7
AA	34,875	178	2,858	6.5	312.0	312.0	312.4	0.4
AB	36,130	817	7,536	2.5	313.0	313.0	313.6	0.6
AC	37,651	240	3,505	5.0	313.9	313.9	314.3	0.4
AD	38,500	970	3,496	5.0	314.4	314.4	314.8	0.4
AE	39,780	176	2,820	6.3	315.1	315.1	315.6	0.5
AF	41,413	255	2,870	5.9	316.8	316.8	317.3	0.5
AG	41,860	680	3,792	4.5	317.4	317.4	317.8	0.4
AH	42,688	181	2,928	5.8	318.0	318.0	318.4	0.4
AI	43,191	266	3,168	5.4	318.6	318.6	319.0	0.4
AJ	43,720	735[3]	4,192	4.1	319.2	319.2	319.5	0.3
AK	44,550	200	3,096	5.5	319.5	319.5	319.9	0.4

[1] Feet above confluence with Okatibbee Creek.
[2] Combined Gallagher Creek/Sowashee Creek floodway.
[3] Combined Magnolia Creek/Sowashee Creek floodway.

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOODWAY DATA

SOWASHEE CREEK

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sowashee Creek (continued)								
AL	45,530	194	3,043	5.6	320.1	320.1	320.5	0.4
AM	46,350	187	2,928	5.8	320.6	320.6	320.9	0.3
AN	47,930	254	3,091	5.5	321.7	321.7	321.9	0.2
AO	49,281	170	2,468	6.9	323.5	323.5	323.8	0.3
AP	49,705	304	4,119	3.5	324.6	324.6	324.9	0.3
AQ	51,378	300	2,677	5.3	327.1	327.1	327.2	0.1
AR	52,338	260	2,950	4.8	329.9	329.9	330.2	0.3
AS	54,000	725	4,677	4.0	334.7	334.7	335.4	0.7
AT	55,429	654	6,743	2.6	337.8	337.8	338.5	0.7
AU	56,450	684	8,021	2.2	338.1	338.1	339.1	1.0
AV	64,600	1,555	6,949	2.7	340.3	340.3	341.2	0.9
AW	71,580	2,159	10,870	0.8	342.9	342.9	343.8	0.9
AX	78,230	1,695	6,659	1.3	348.6	348.6	349.5	0.9
AY	80,780	300	1,403	6.3	352.6	352.6	353.6	1.0
AZ	82,561	1,049	7,047	1.0	356.9	356.9	357.4	0.5
BA	85,178	1,676	5,668	1.2	357.7	357.7	358.5	0.8
BB	88,143	1,227	10,034	0.7	365.8	365.8	366.2	0.4
BC	91,243	848	4,956	1.4	367.7	367.7	368.5	0.8

[1] Feet above confluence with Okatibbee Creek.

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER-SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Sowashee Creek (continued)								
BD	92,743	431	2,540	1.4	369.5	369.5	370.5	1.0
BE	95,571	848	3,769	1.0	374.7	374.7	375.6	0.9
BF	100,171	500	1,904	1.9	382.8	382.8	383.3	0.5

[1] Feet above confluence with Okatibbee Creek.

5.0 INSURANCE APPLICATIONS

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no BFEs, or flood depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS by detailed methods. In most instances, whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AH

Zone AH is the flood insurance rate zone that corresponds to the areas of 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AO

Zone AO is the flood insurance risk zone that corresponds to the areas of the 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Average whole-foot base flood depths derived from the detailed hydraulic analyses are shown within this zone.

Zone V

Zone V is the flood insurance risk zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no BFEs are shown within this zone.

Zone VE

Zone VE is the flood insurance risk zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of

1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the base flood by levees. No BFEs or depths are shown within this zone.

Zone D

Zone D is the flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole foot BFEs or average depths. Insurance agents use the zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The countywide FIRM presents flooding information for the entire geographic area of Lauderdale County. Historical data relating to the maps prepared for each community are presented in Table 8, “Community Map History”.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISIONS DATE	FIRM EFFECTIVE DATE	FIRM REVISIONS DATE
Marion, Town of	January 4, 1974	January 16, 1976 September 5, 1980	September 29, 1989	August 16, 1995 March 21, 2000
Meridian, City of	June 28, 1974	January 30, 1976	December 15, 1977	September 10, 1982 September 29, 1989 August 16, 1995 March 21, 2000
Lauderdale County (Unincorporated Areas)	January 13, 1978	NONE	September 29, 1989	August 16, 1995 March 21, 2000

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

7.0 OTHER STUDIES

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Lauderdale County has been compiled into this FIS. Therefore, this FIS supersedes all previously printed FIS reports, FIRMs, and/or FBFMs for all of the incorporated and unincorporated jurisdictions within Lauderdale County.

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting Federal Insurance and Mitigation Division, FEMA Region IV, Koger-Center — Rutgers Building, 3003 Chamblee Tucker Road, Atlanta, GA 30341.

9.0 BIBLIOGRAPHY AND REFERENCES

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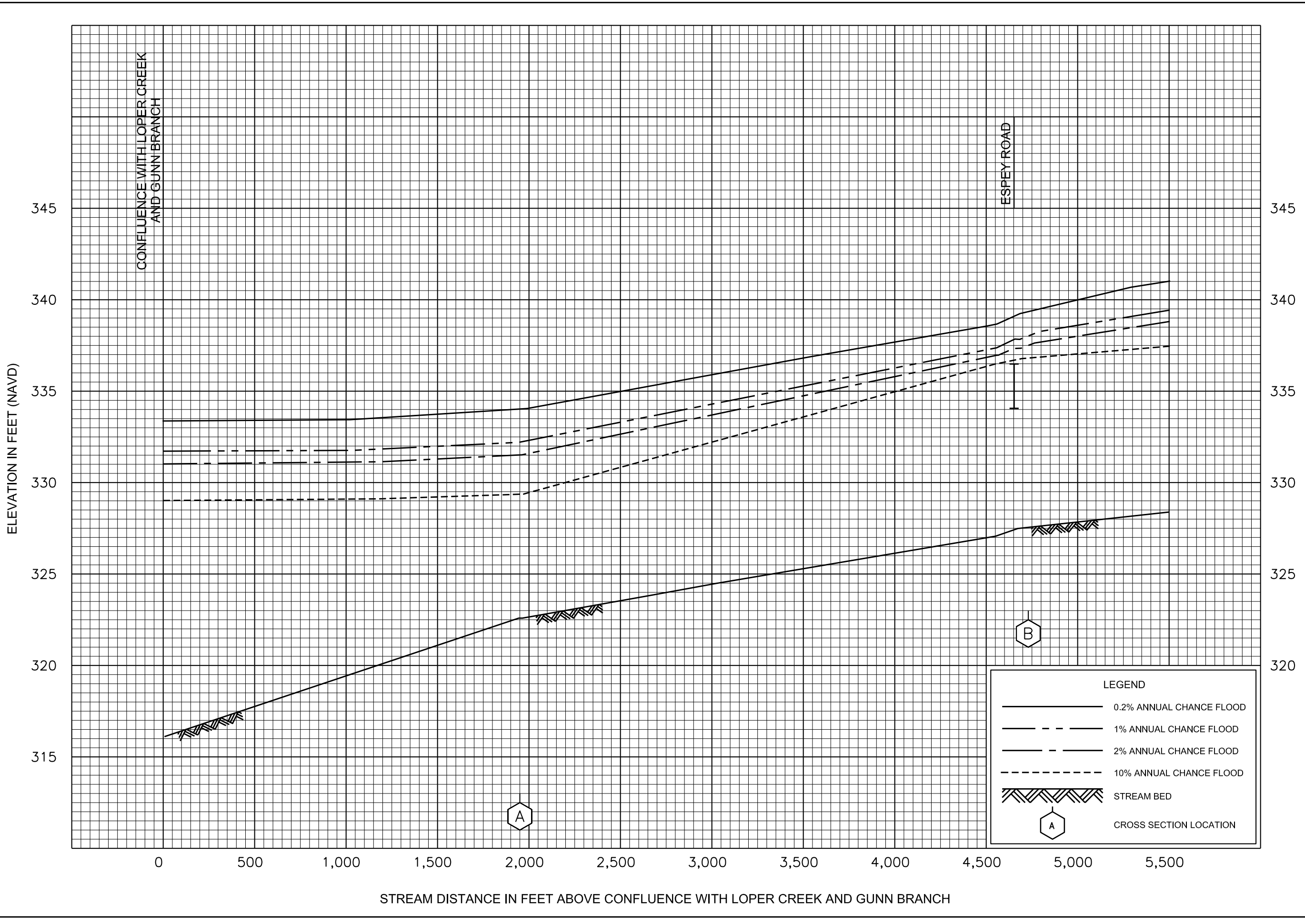


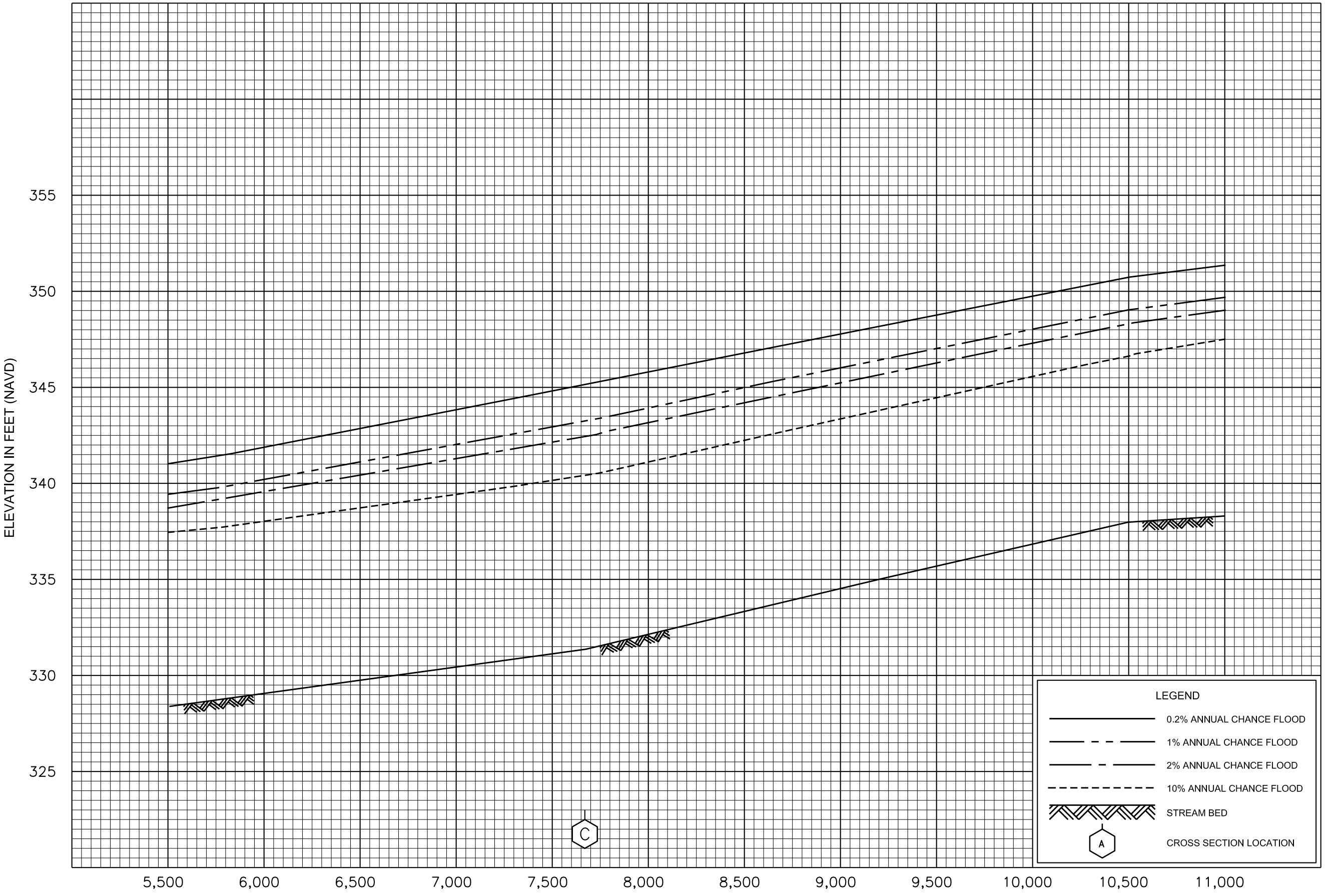
FLOOD PROFILES

BAILEY BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

01P



FLOOD PROFILES

BAILEY BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

02P

FEDERAL EMERGENCY MANAGEMENT AGENCY

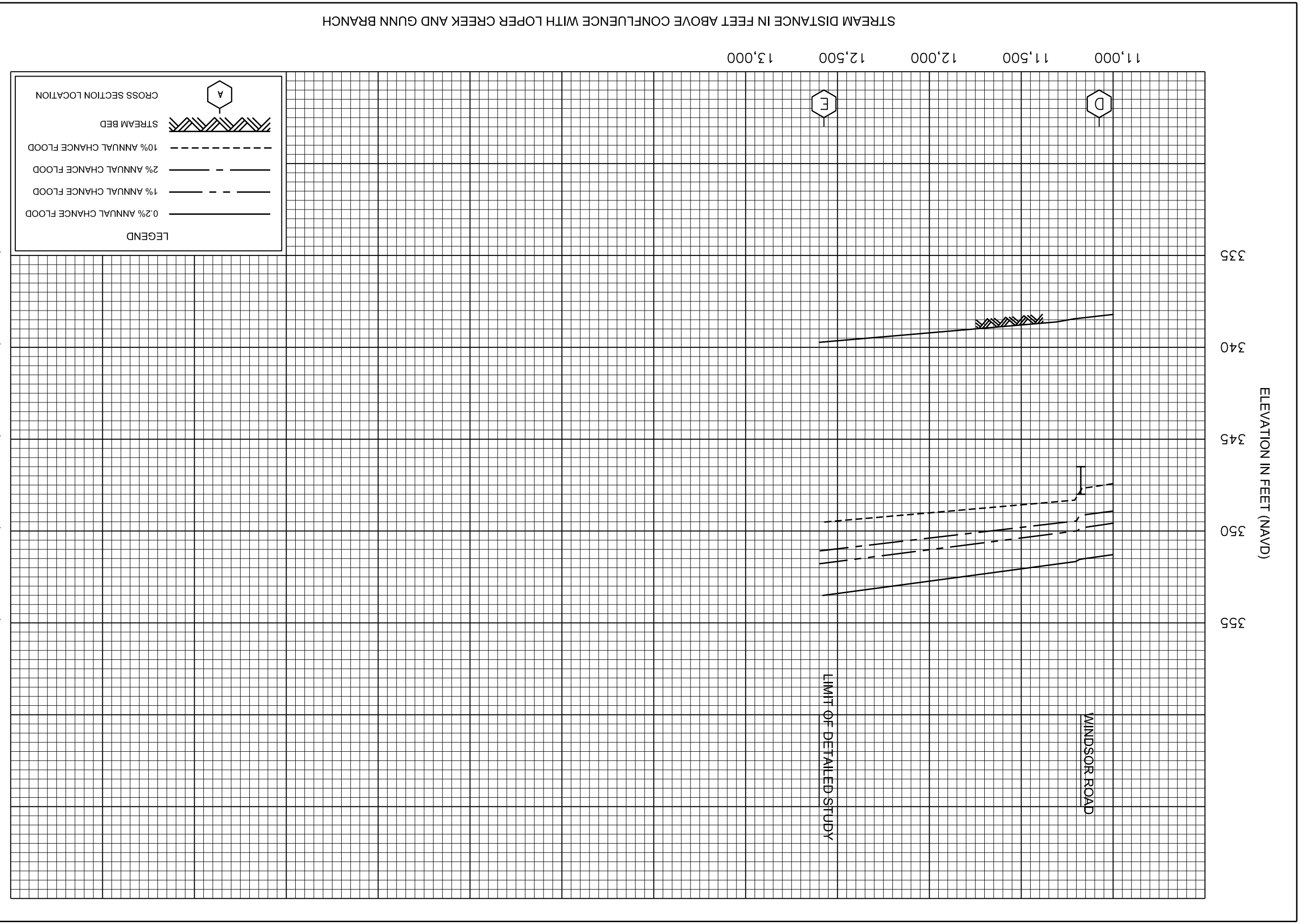
LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

BAILEY BRANCH

03P



ELEVATION IN FEET (NAVD)

280 290 300 310 320 330 340

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000 11,000 12,000 13,000

CONFLUENCE WITH SOWASHEE CREEK

INTERCHANGE ROAD

RAILROAD

RAILROAD

HOOPER STREET

5TH STREET

PAULDING STREET

8TH STREET

PEDESTRIAN BRIDGE

HIGHLAND PARK DRIVE

JIMMIE RODGERS DRIVE

19TH STREET

20TH STREET

ROYAL ROAD

CULVERT

CULVERT

CULVERT

1% ANNUAL CHANCE BACKWATER FROM SOWASHEE CREEK

A B C D E F G H I J K L

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

A CROSS SECTION LOCATION

280 290 300 310 320 330 340

04P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

GALLAGHER CREEK

ELEVATION IN FEET (NAVD)

320 330 340 350 360 370 380 390 400

13,000 14,000 15,000 16,000 17,000 18,000 19,000 20,000 21,000 22,000 23,000 24,000 25,000 26,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

26TH STREET

CULVERT

M

N

34TH STREET

36TH STREET

38TH STREET

CULVERT

CULVERT

O

P

Q

R

40TH STREET

S

35TH AVENUE

PEDESTRIAN BRIDGE

45TH STREET

T

CULVERT

U

NORTH HILLS STREET

CULVERT

V

49TH COURT

50TH STREET

W

52ND STREET

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

A

CROSS SECTION LOCATION

330 340 350 360 370 380 390 400

05P

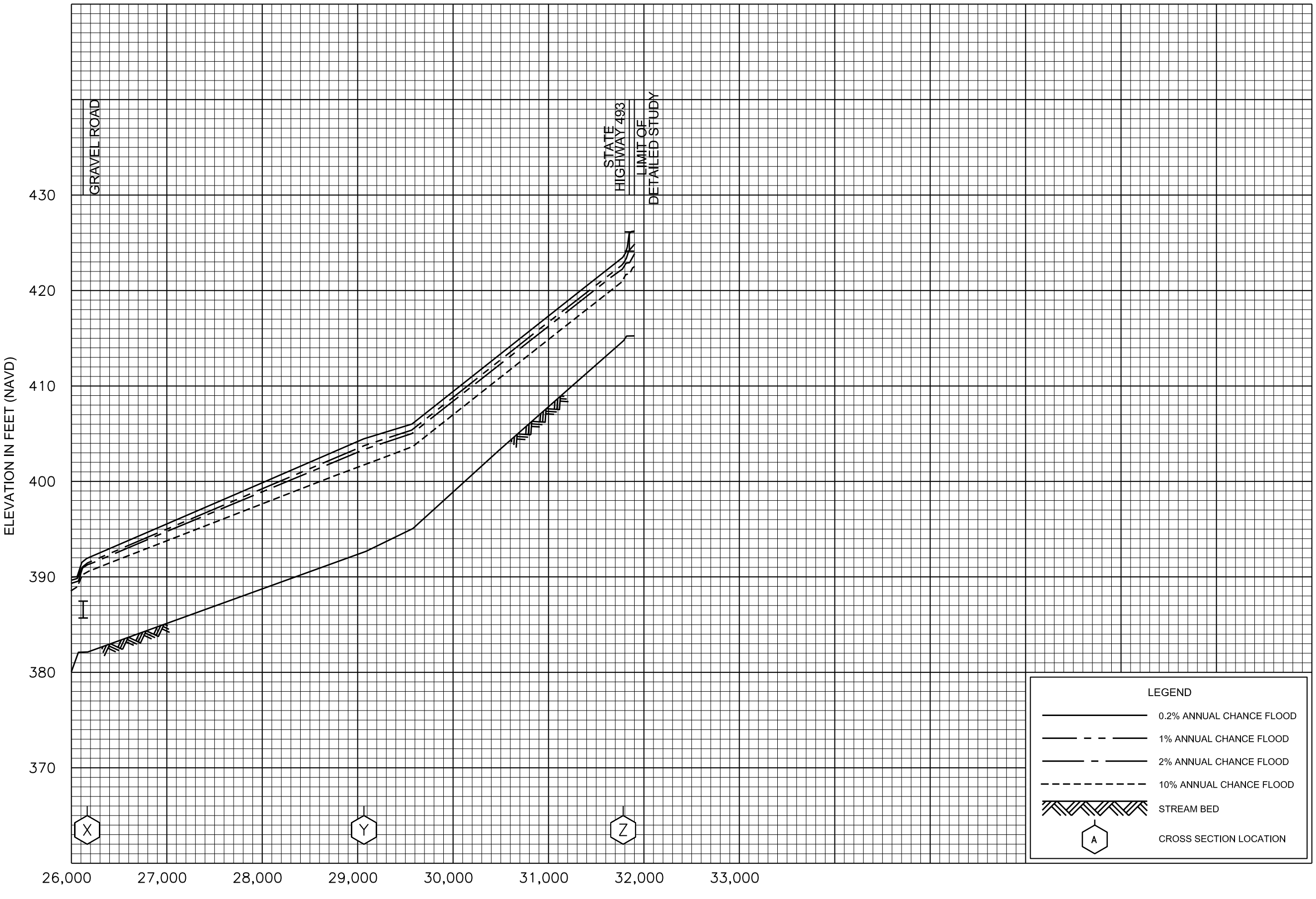
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

GALLAGHER CREEK



FLOOD PROFILES

GALLAGHER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

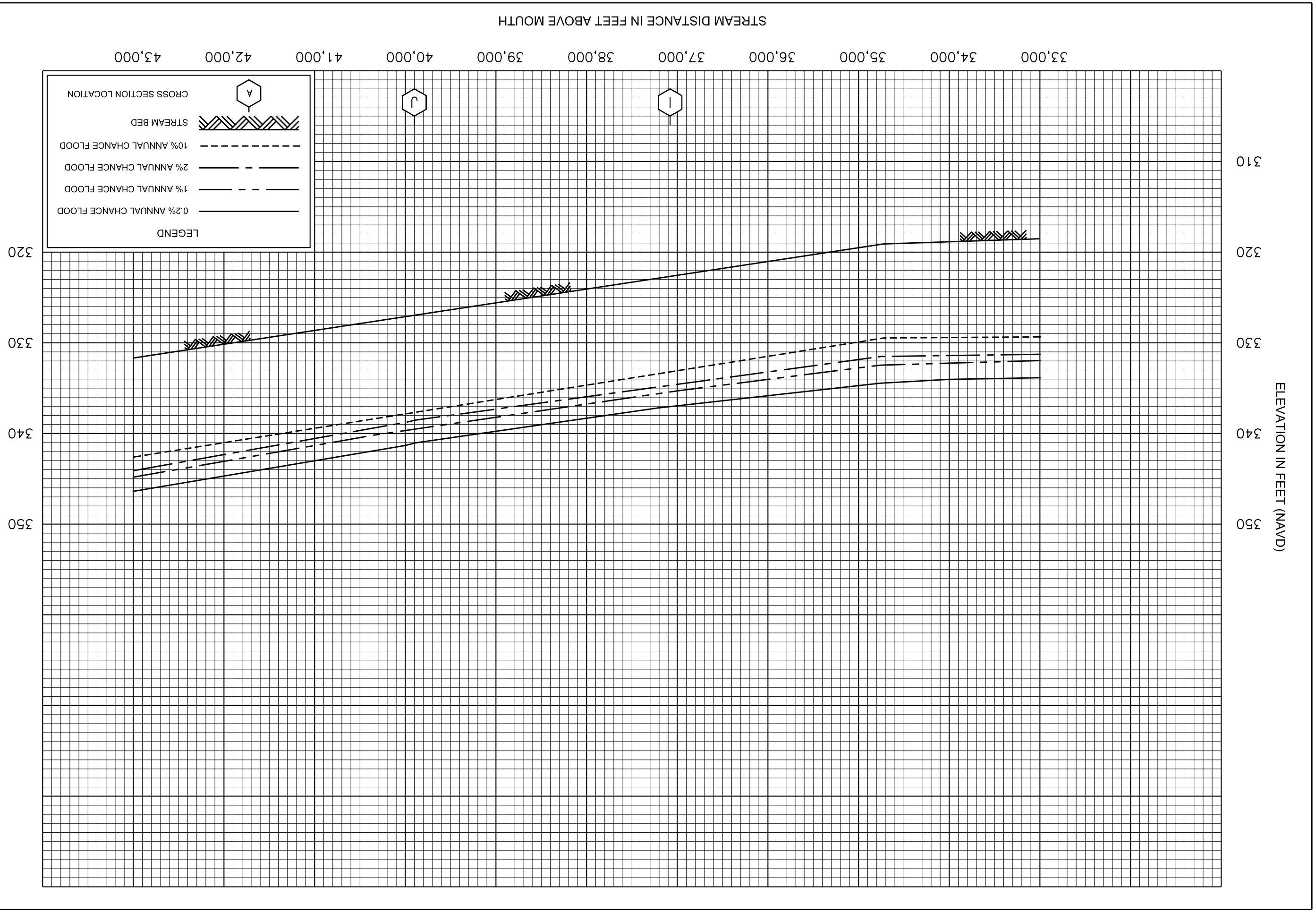
06P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

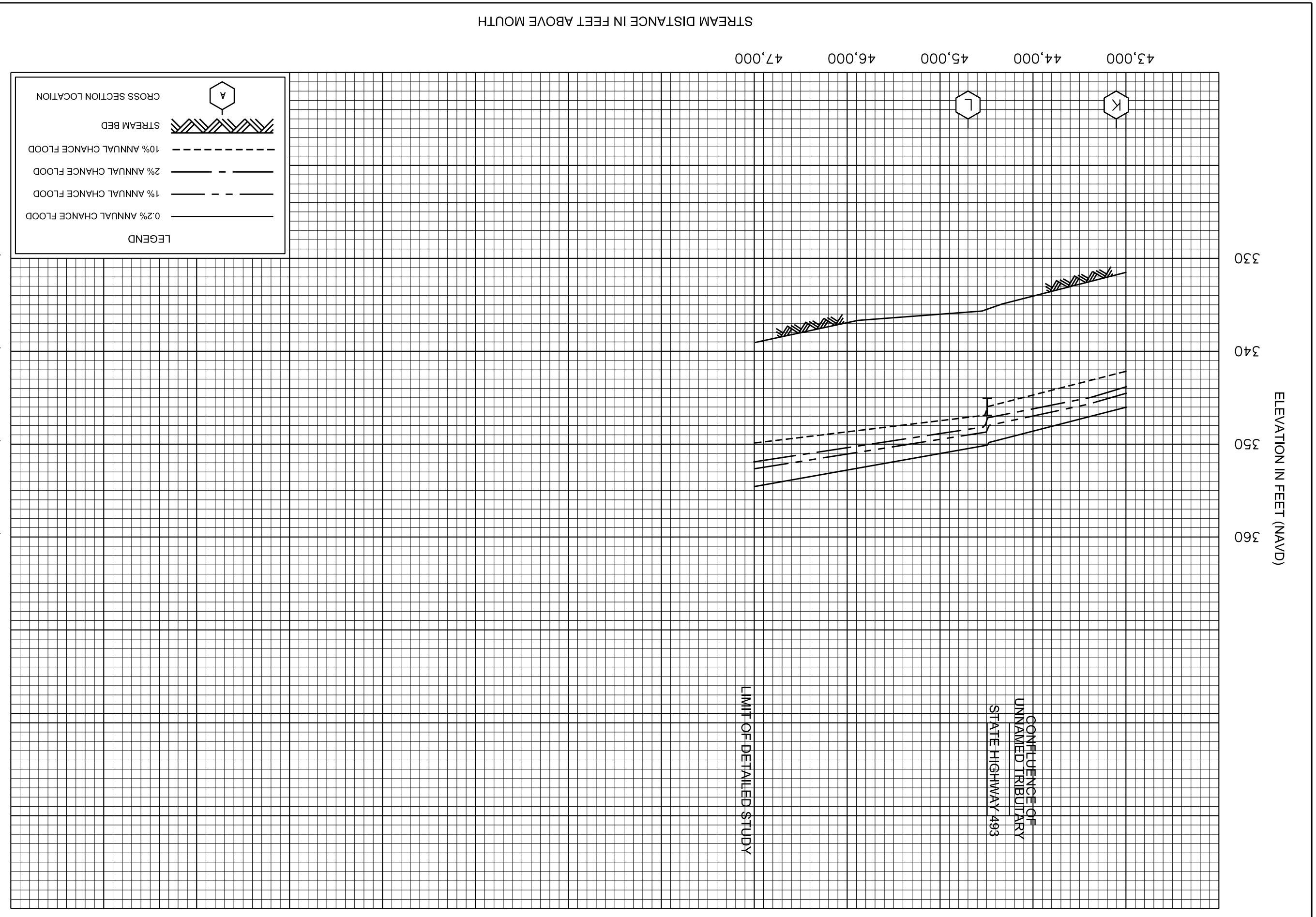
FLOOD PROFILES

GUNN BRANCH



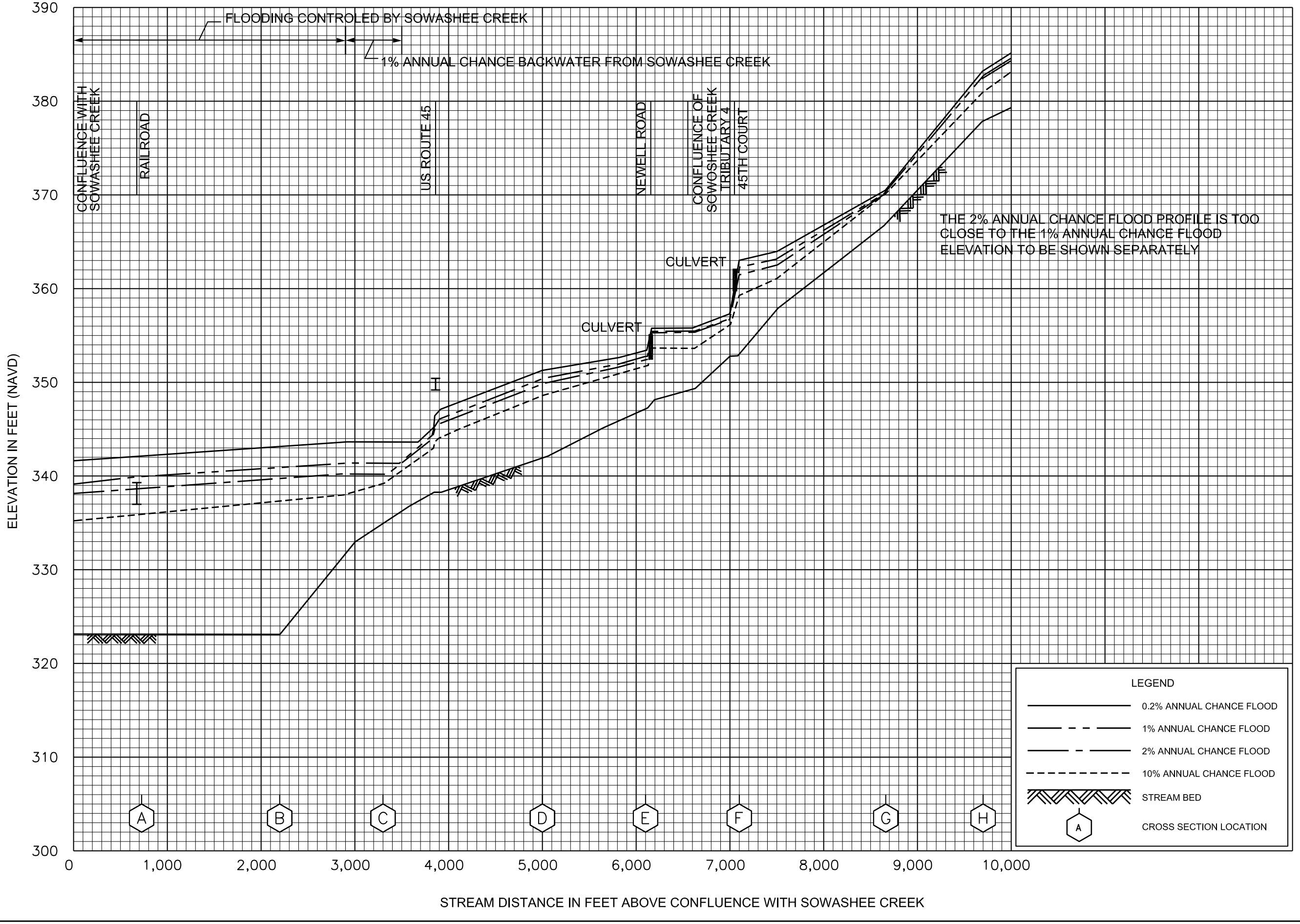
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS



FLOOD PROFILES

GUNN BRANCH



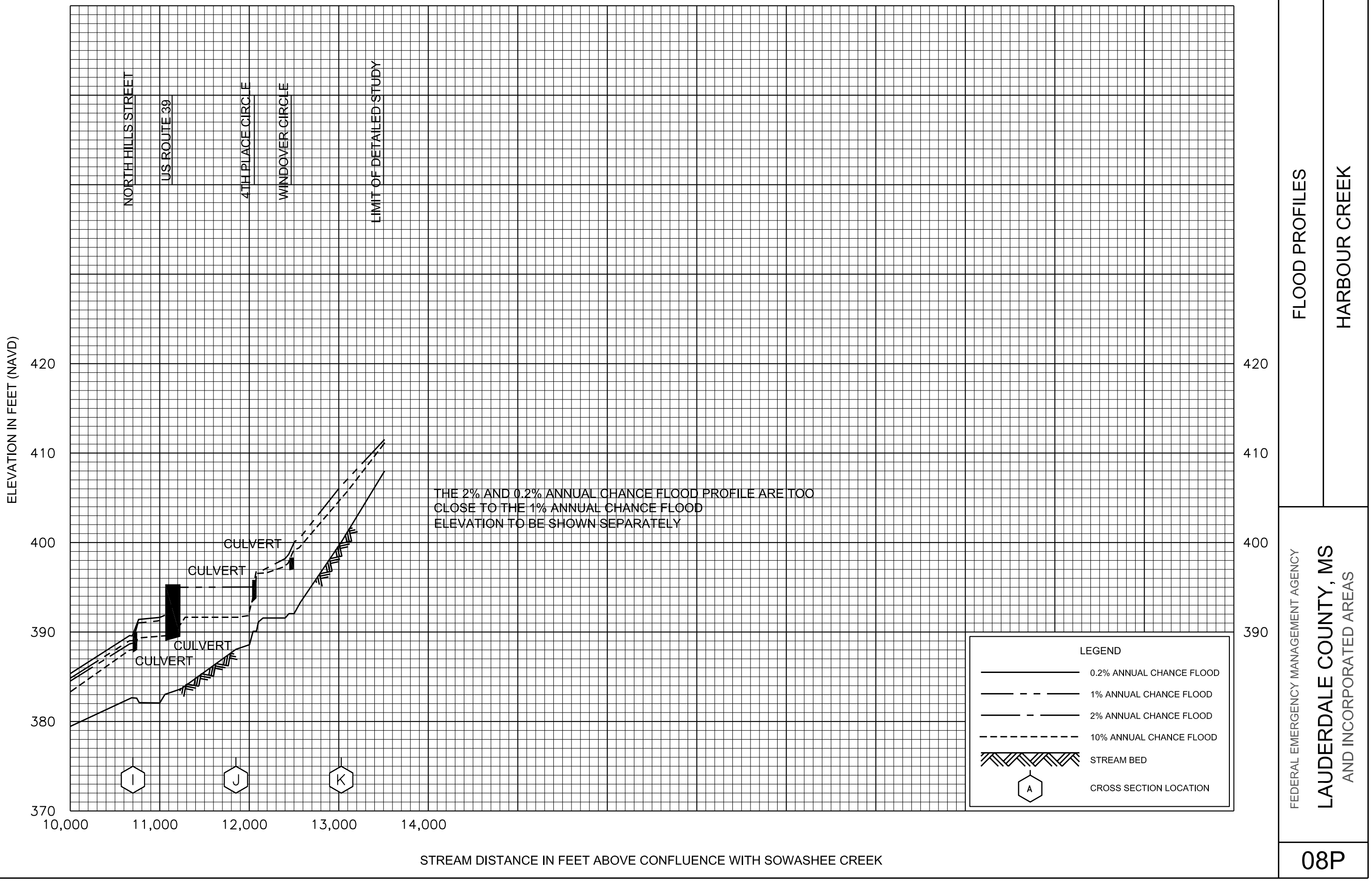
FLOOD PROFILES

HARBOUR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

07P



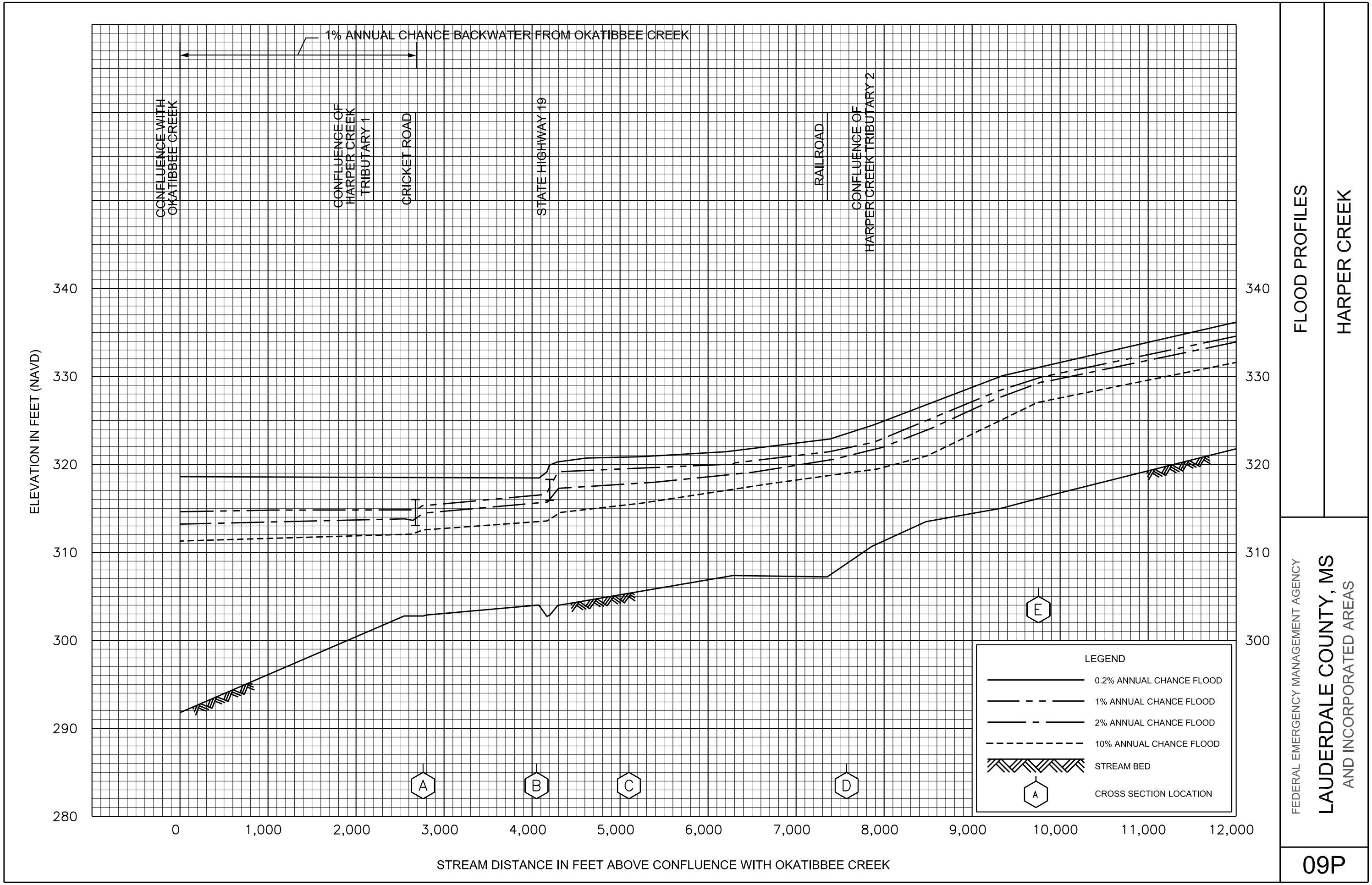
FLOOD PROFILES

HARBOUR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

08P



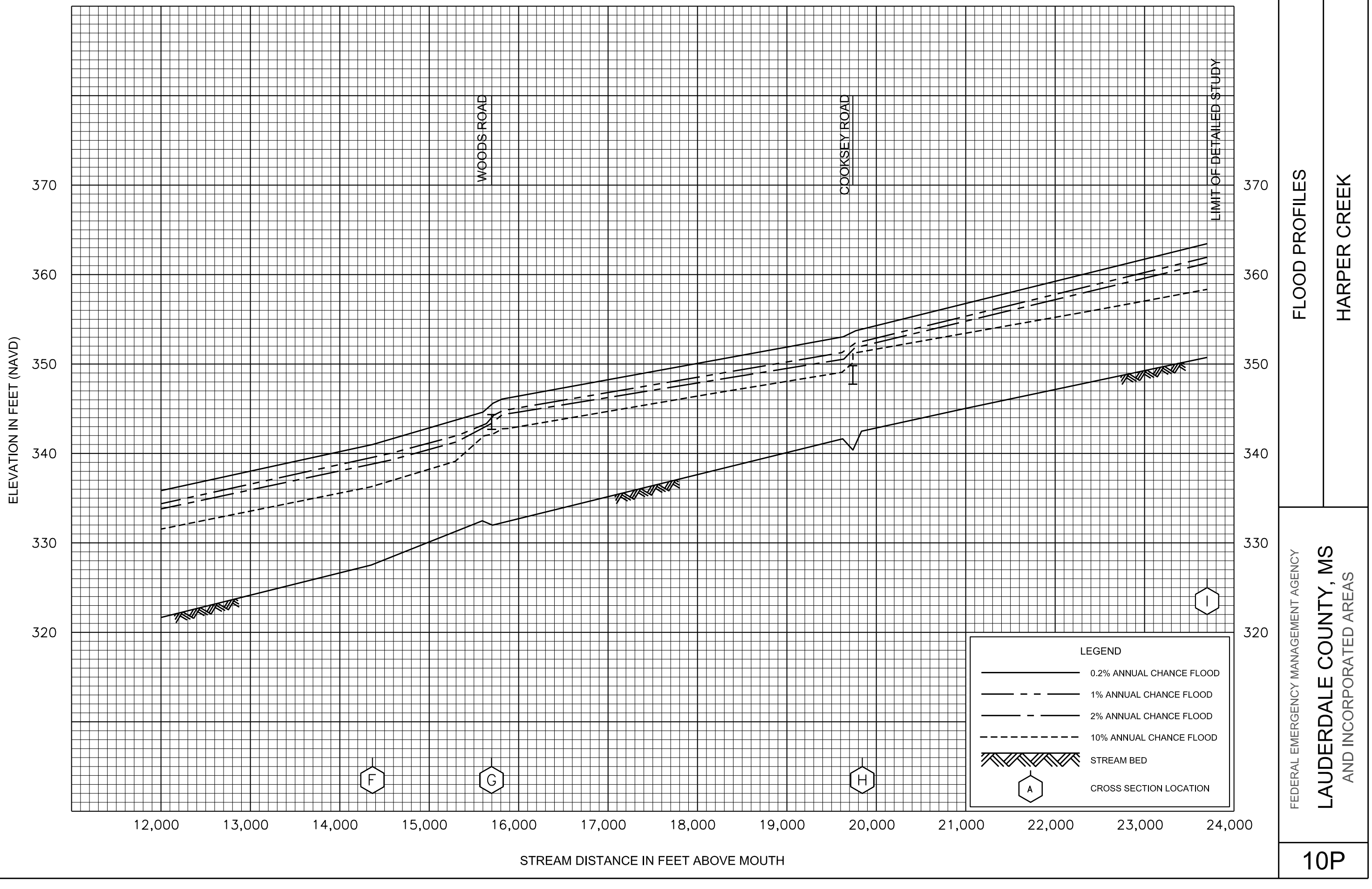
FLOOD PROFILES

HARPER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

09P



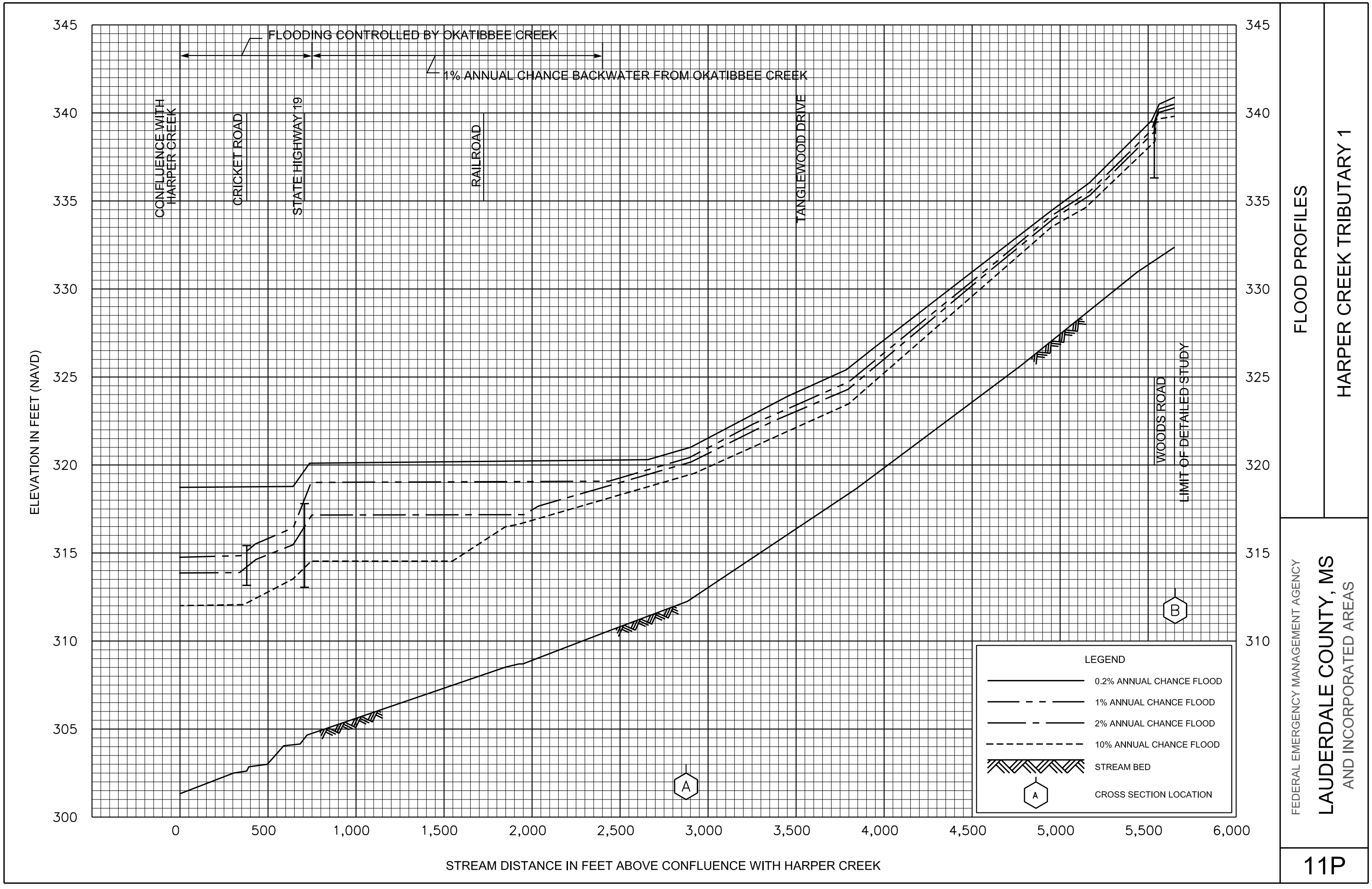
FLOOD PROFILES

HARPER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

10P



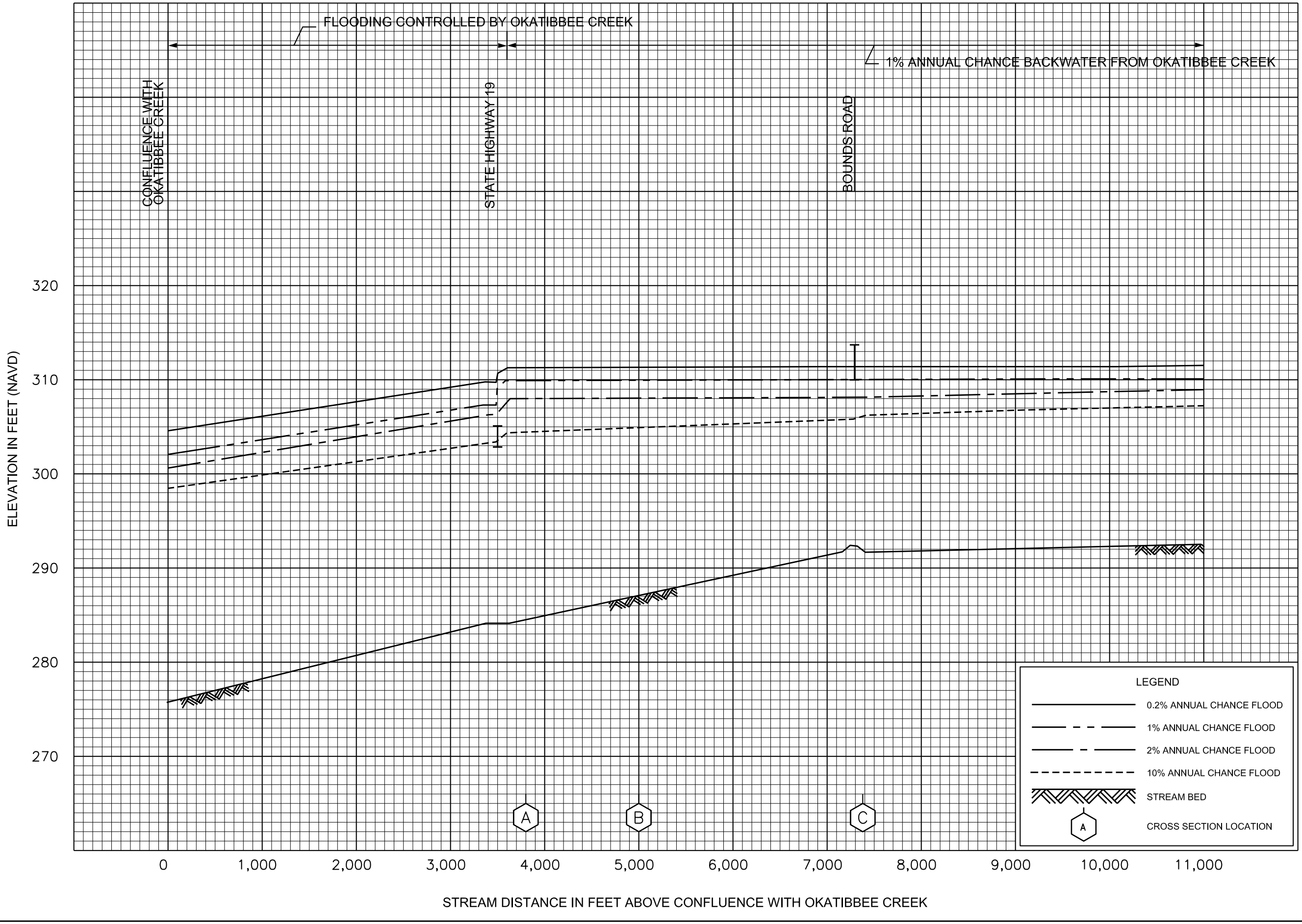
FLOOD PROFILES

HARPER CREEK TRIBUTARY 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

11P

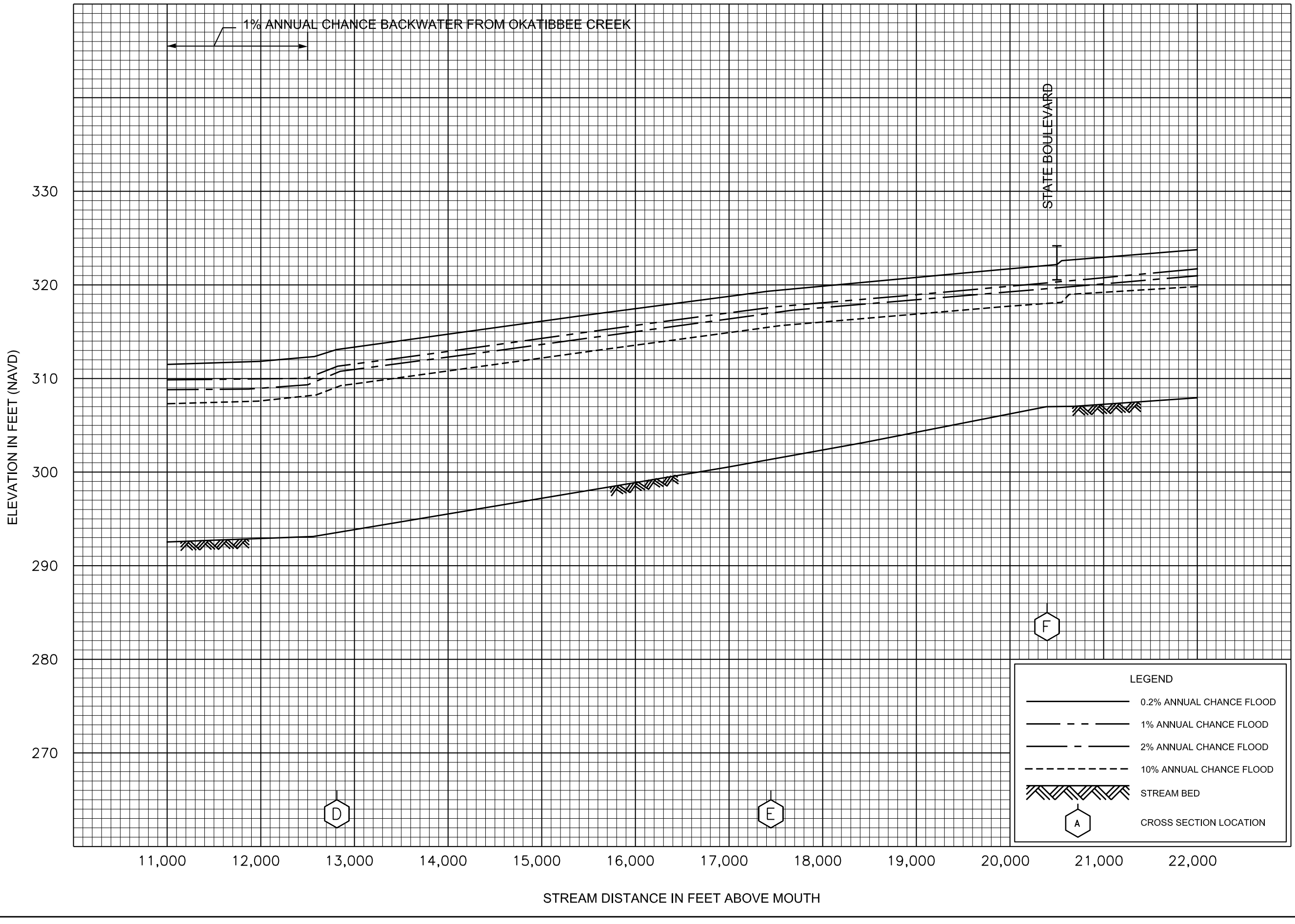


FLOOD PROFILES

LOPER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS



FLOOD PROFILES

LOPER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

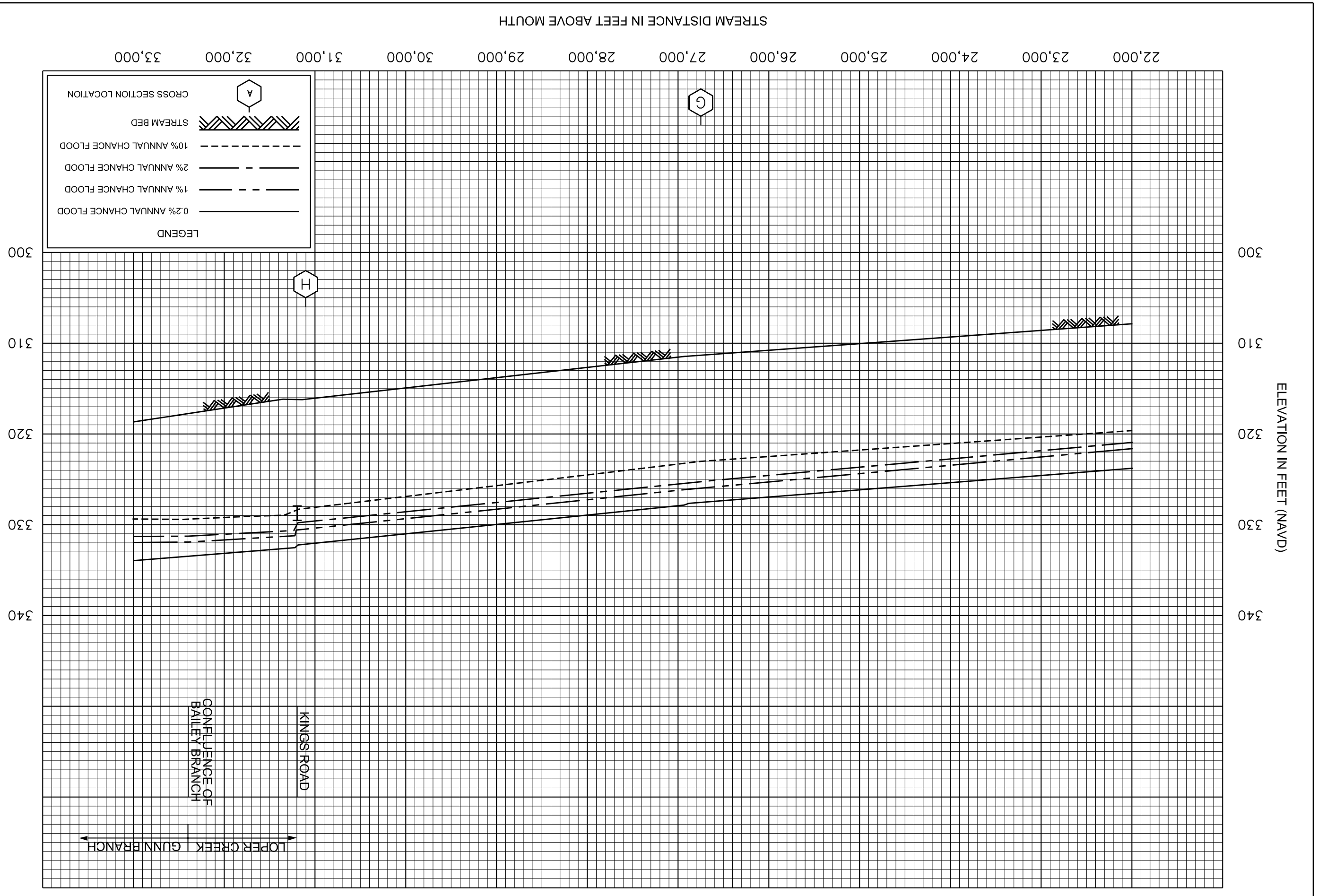
13P

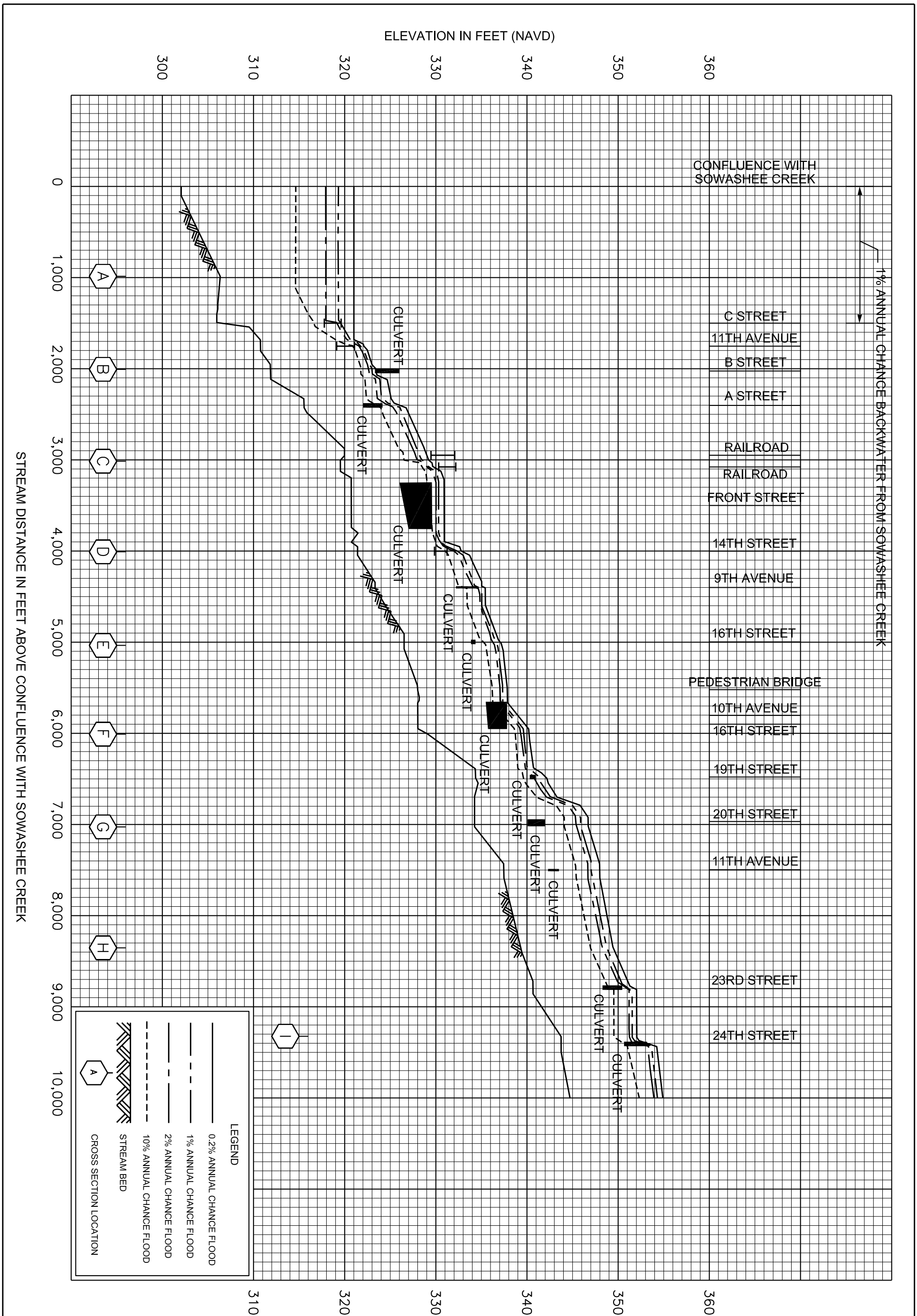
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

LOPER CREEK / GUNN BRANCH





17P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

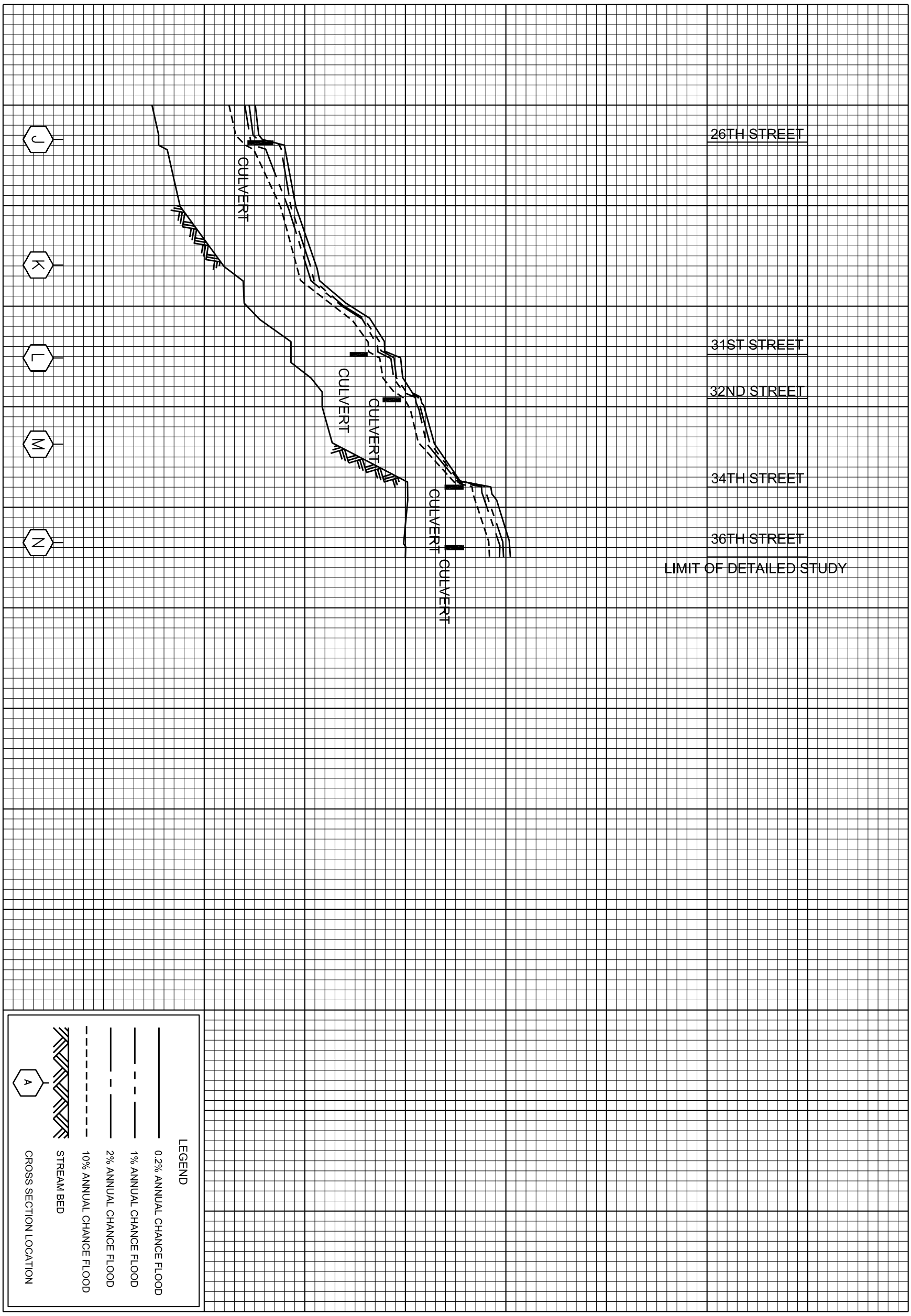
MAGNOLIA CREEK

ELEVATION IN FEET (NAVD)

340 350 360 370 380 390

10,000 11,000 12,000 13,000 14,000 15,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK



350 360 370 380 390

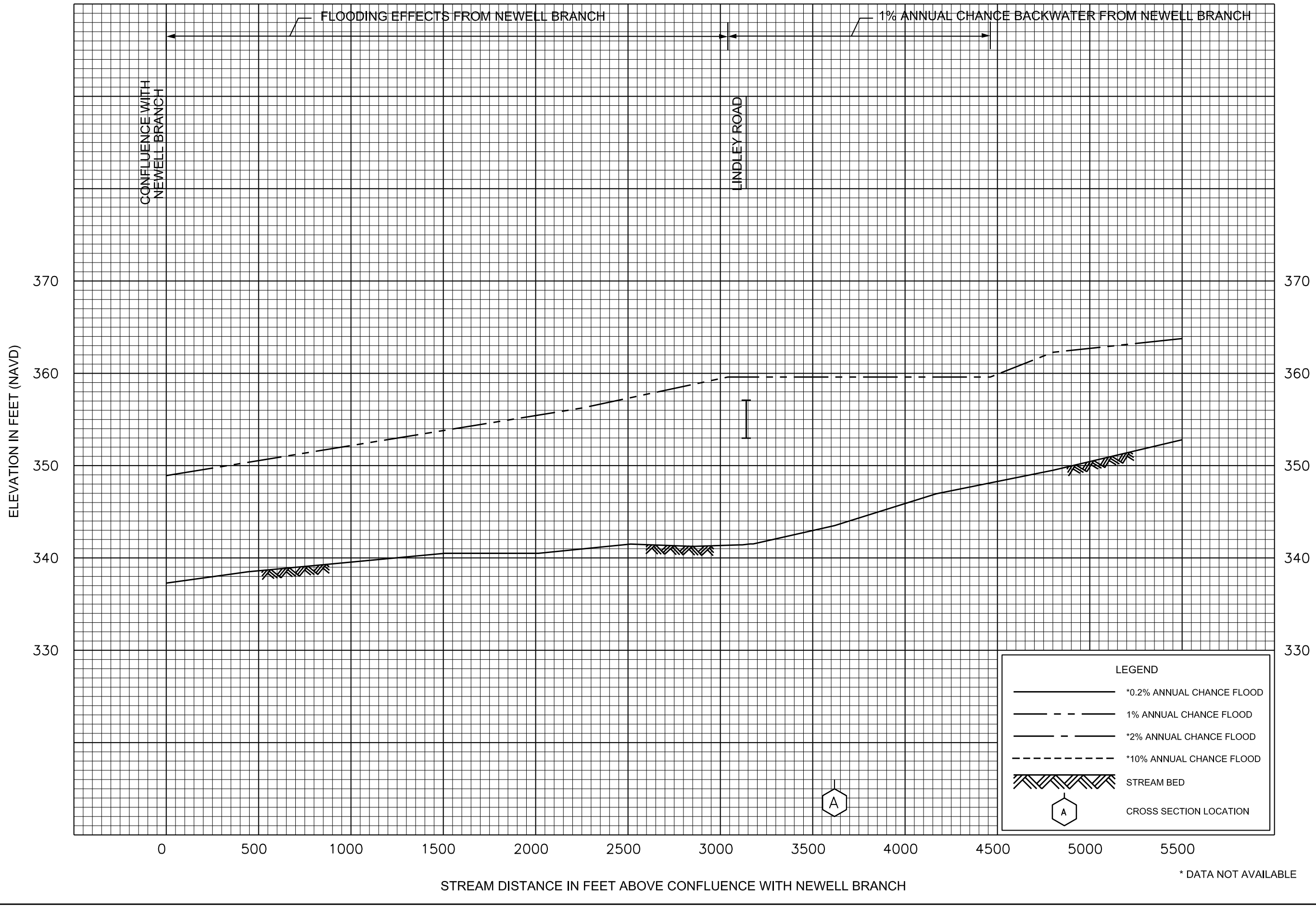
18P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

MAGNOLIA CREEK



* DATA NOT AVAILABLE

FLOOD PROFILES

MCLEMORE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

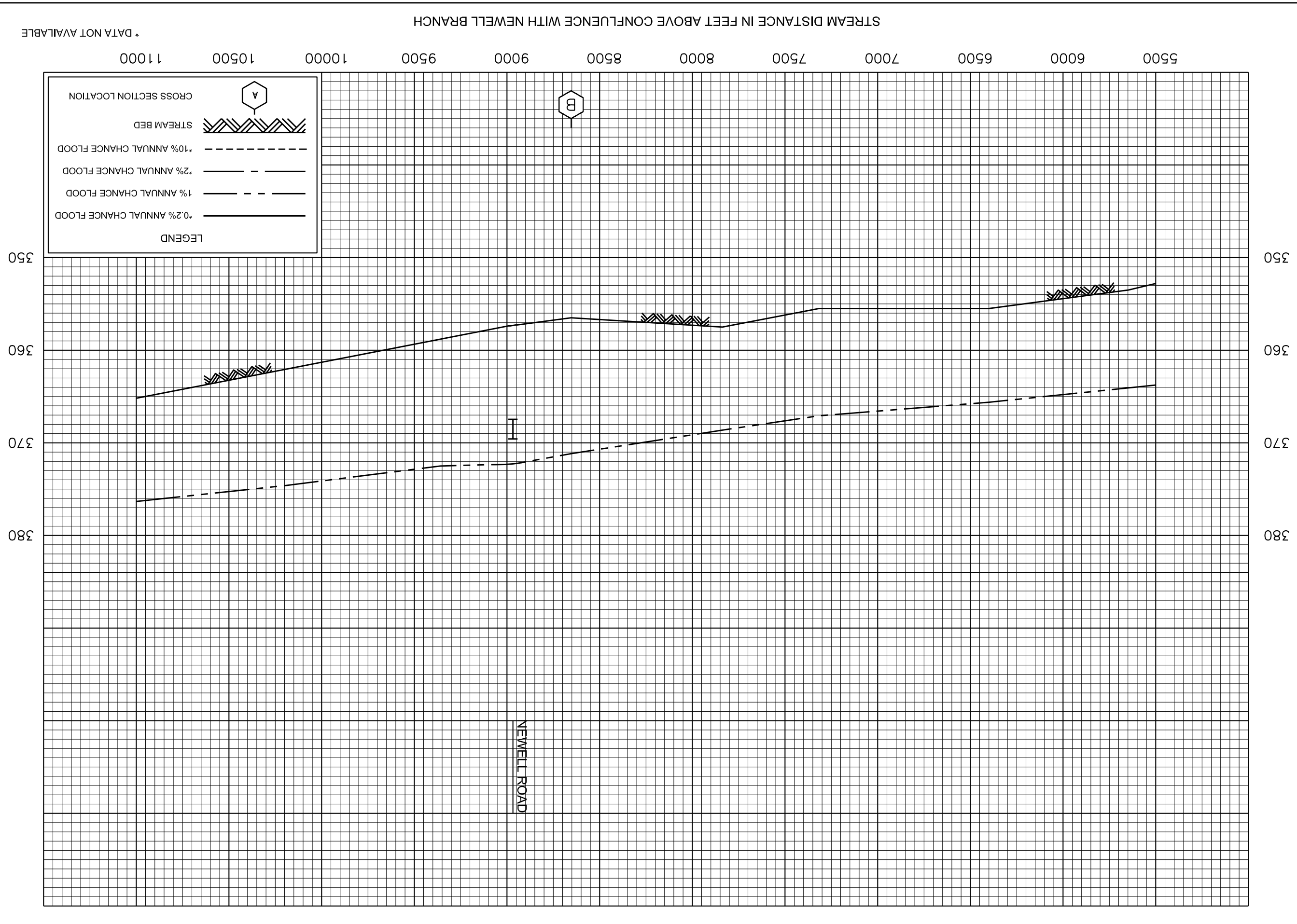
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

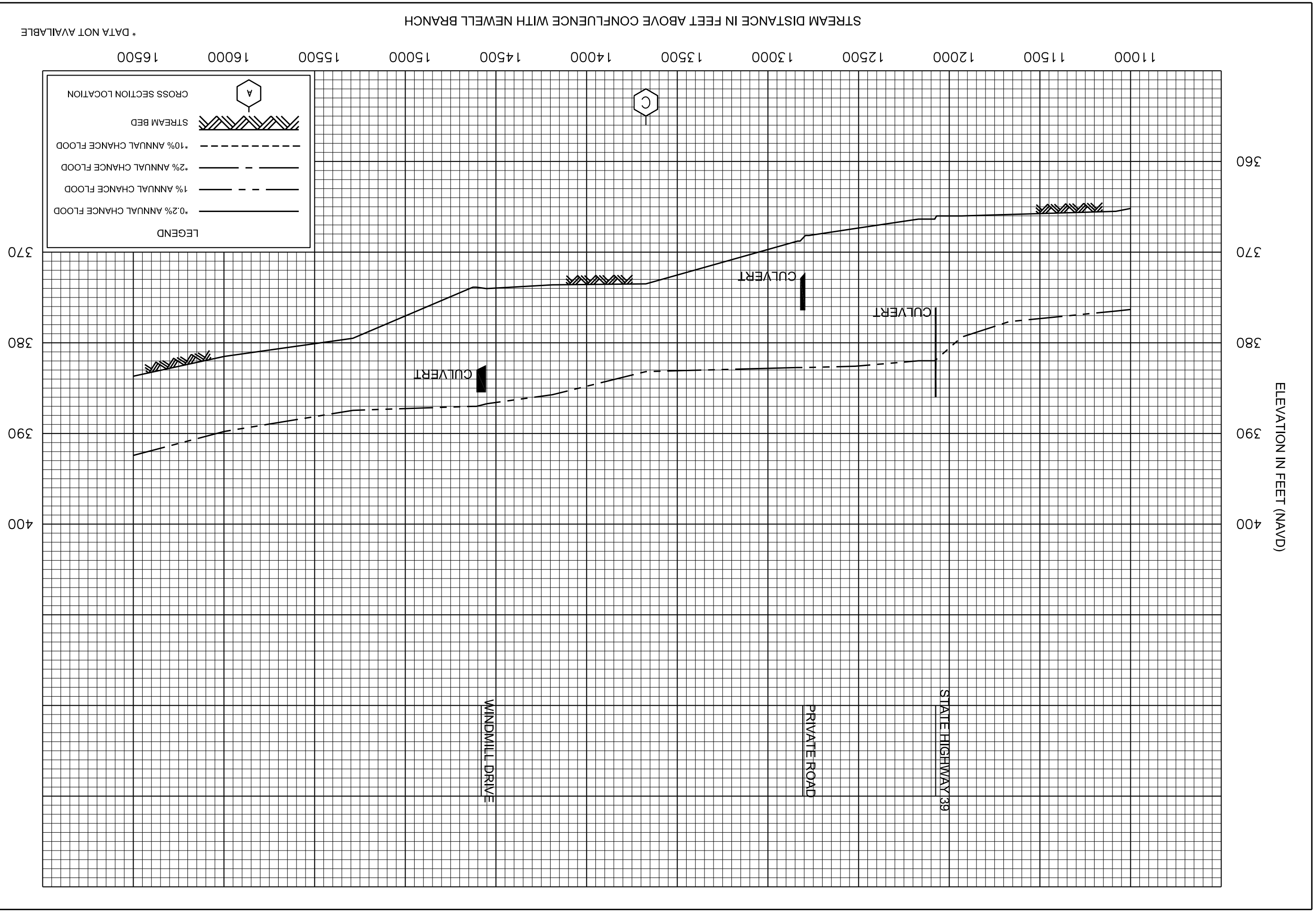
MCLEMORE BRANCH

20P



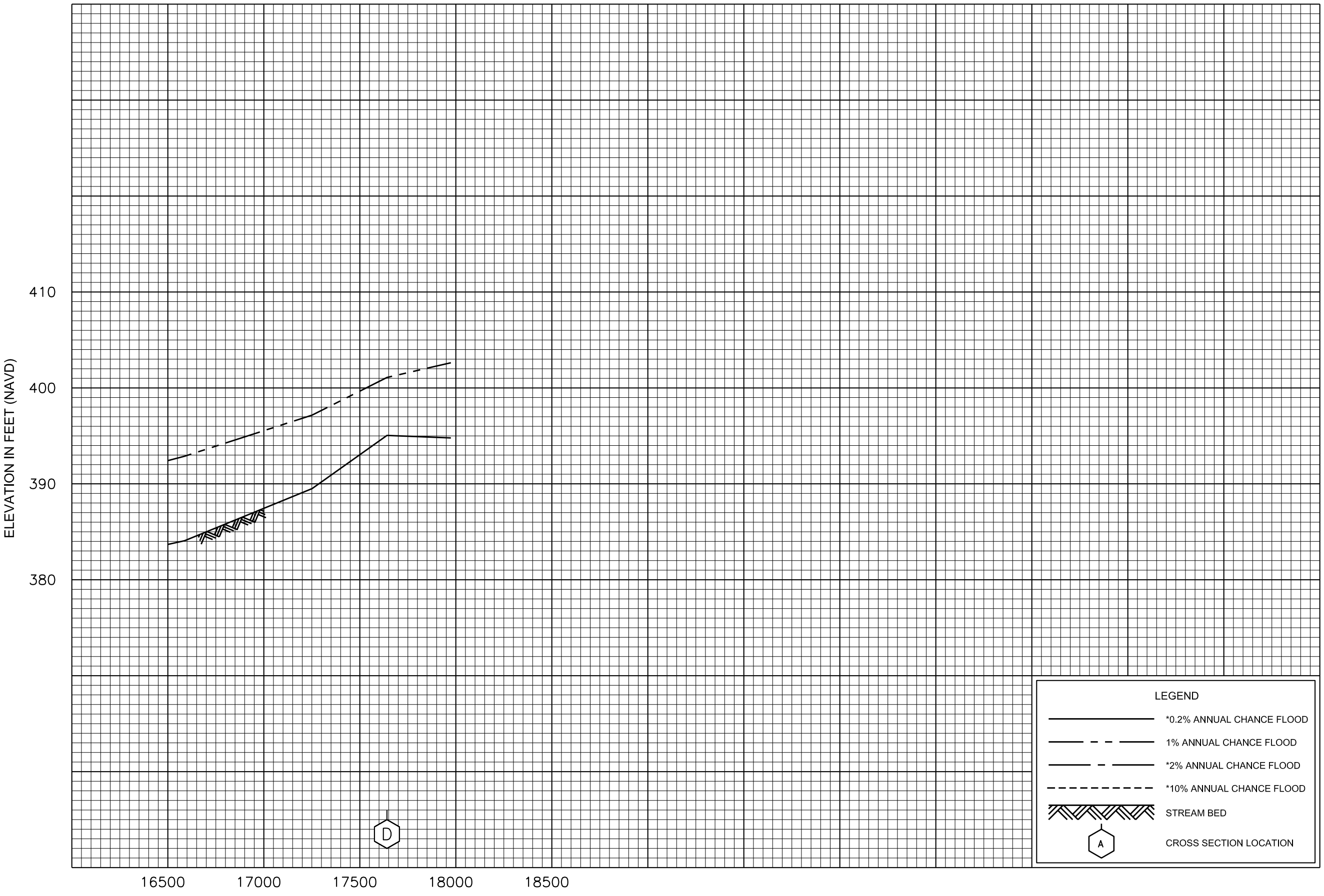
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS



FLOOD PROFILES

MCLEMORE BRANCH



* DATA NOT AVAILABLE

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH NEWELL BRANCH

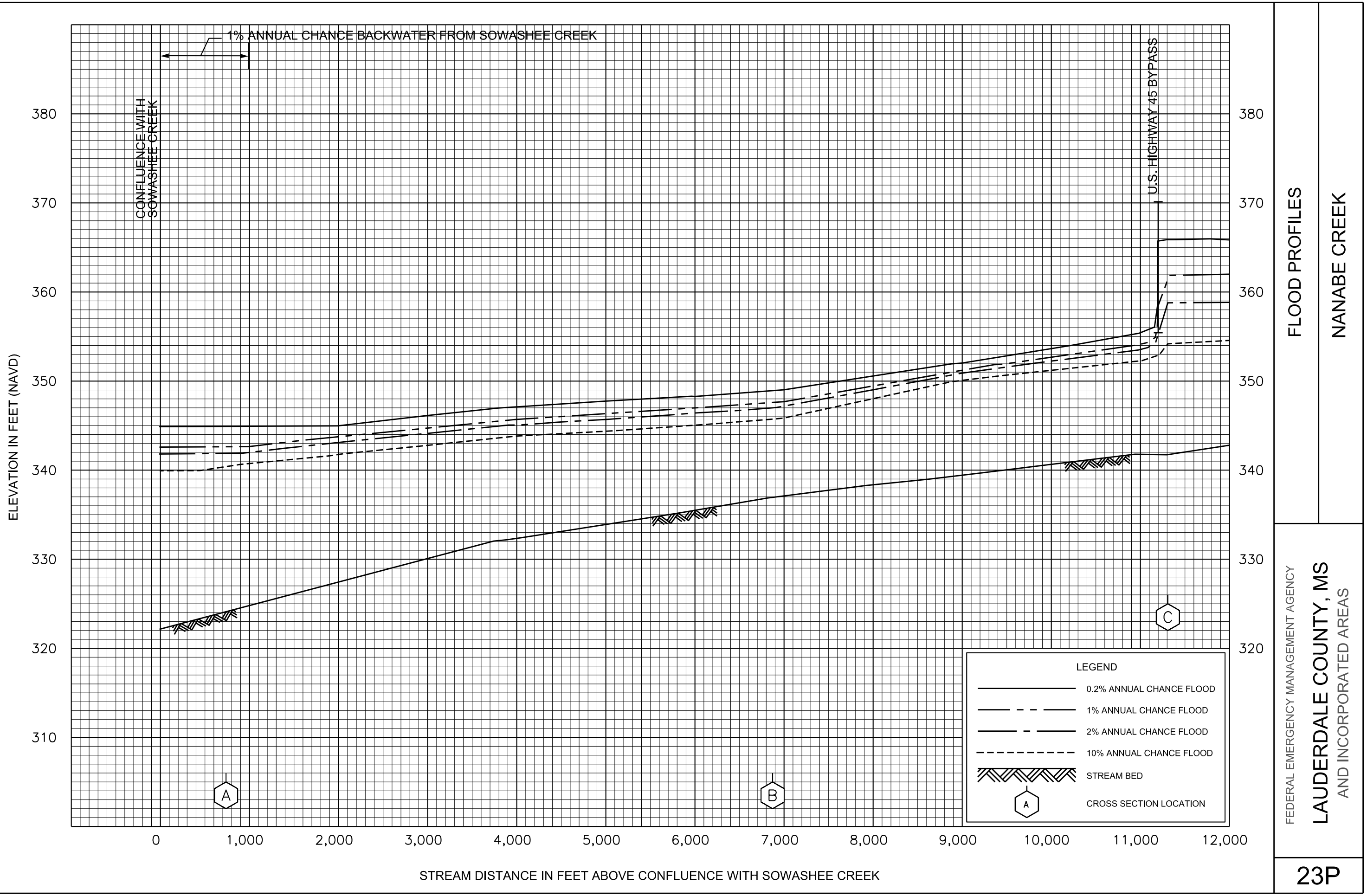
FLOOD PROFILES

MCLEMORE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

22P



FLOOD PROFILES

NANABE CREEK

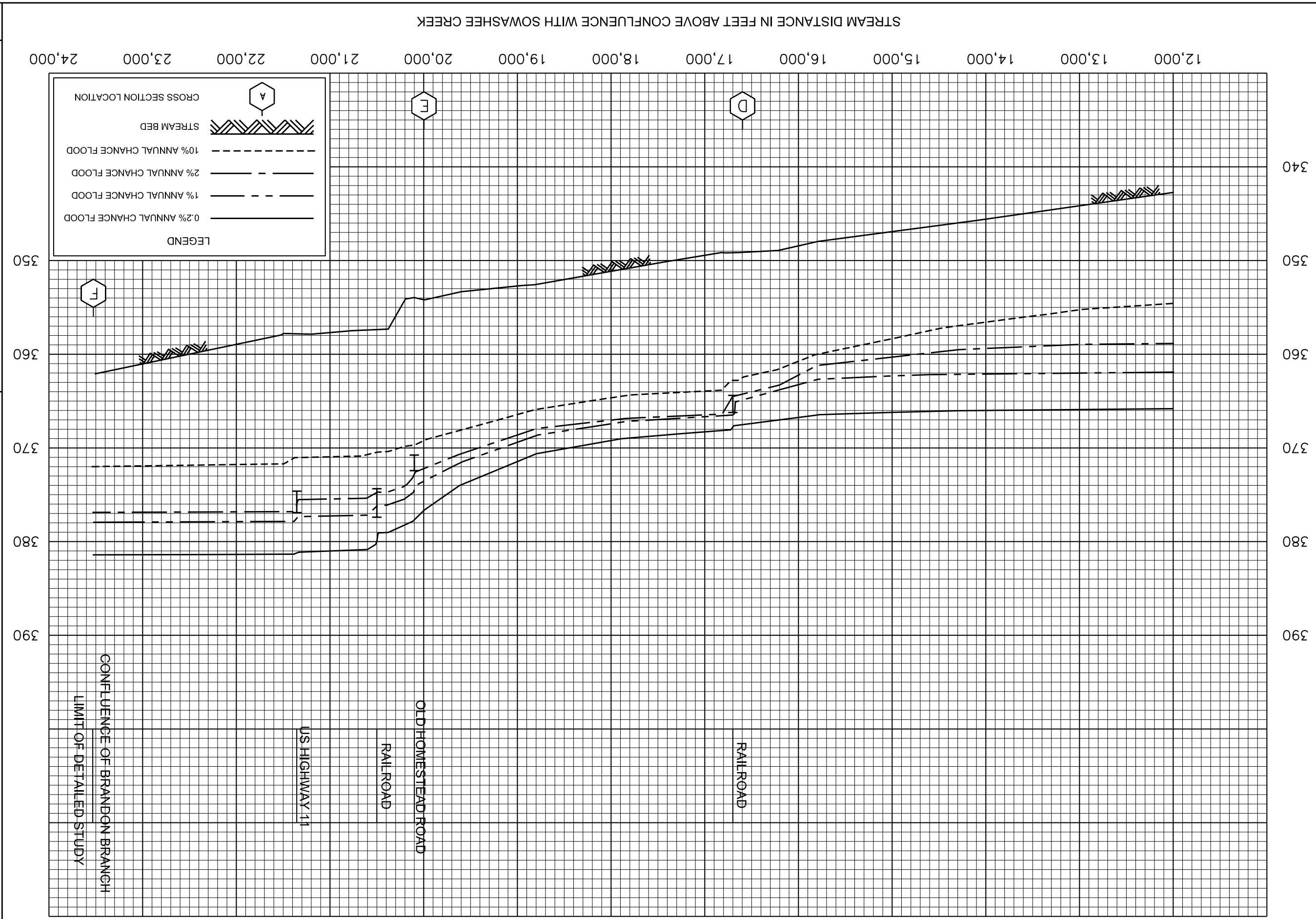
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FEDERAL EMERGENCY MANAGEMENT AGENCY

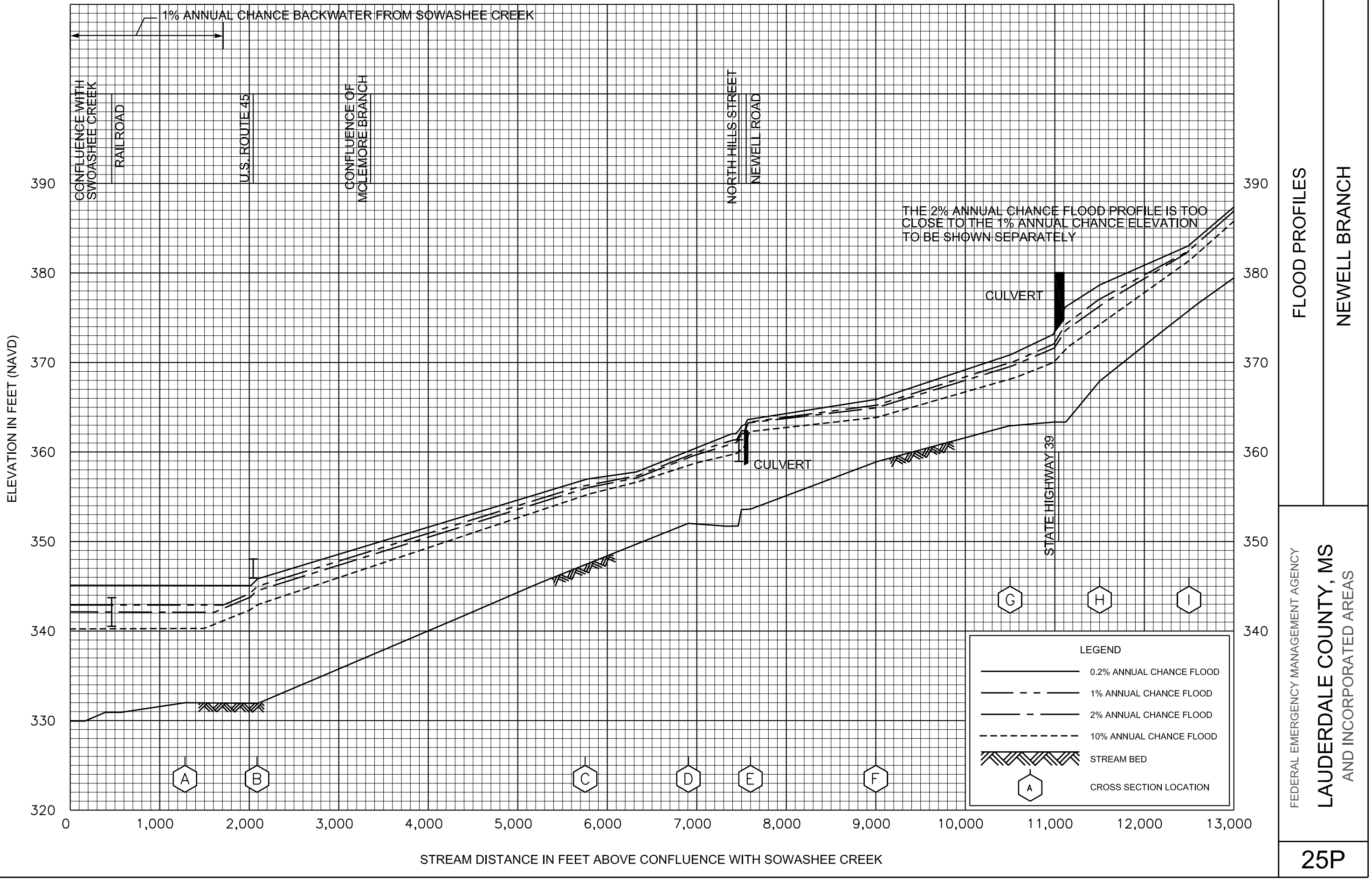
LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS



FLOOD PROFILES

NANABE CREEK



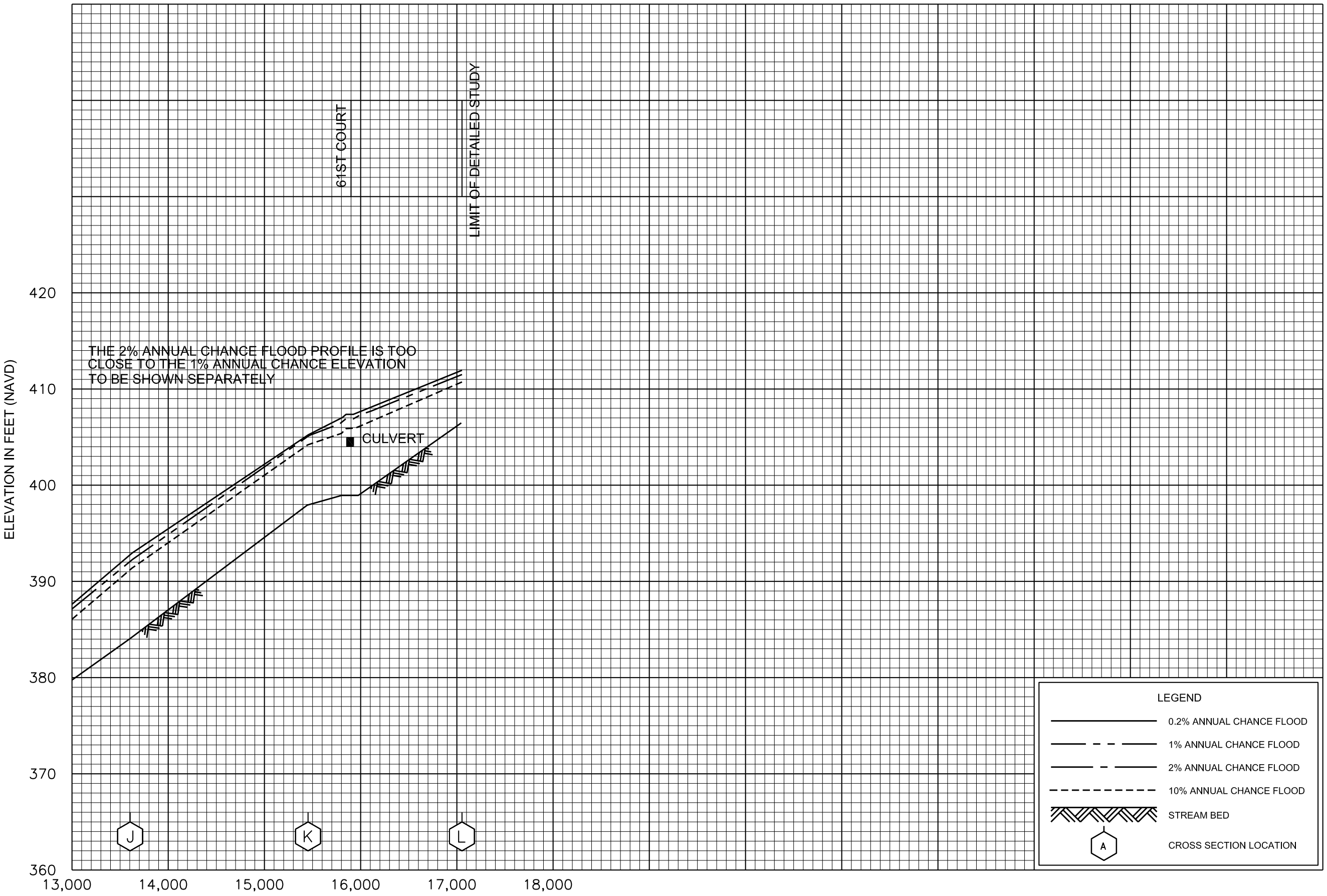
FLOOD PROFILES

NEWELL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

25P

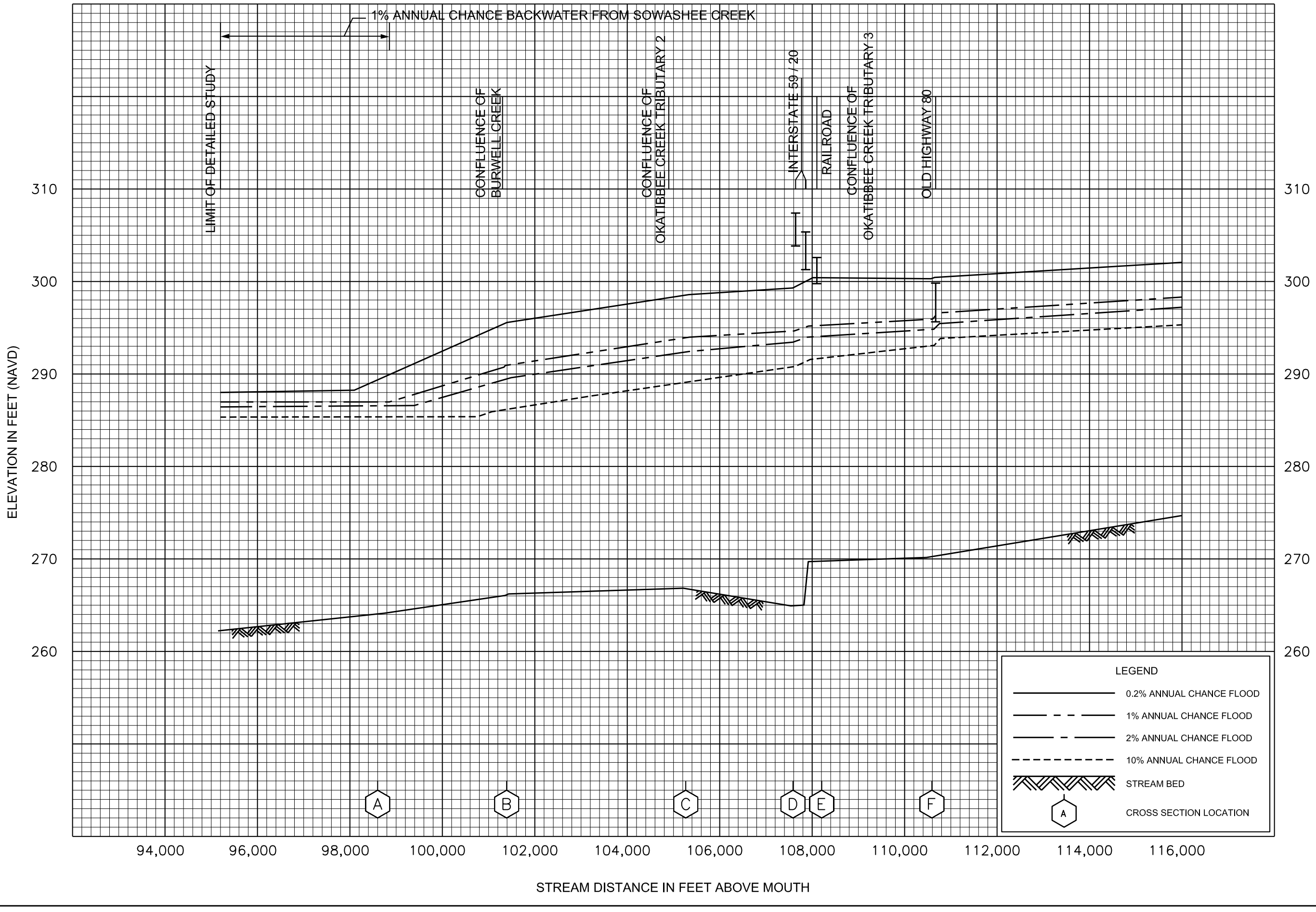


FLOOD PROFILES

NEWELL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS



FLOOD PROFILES

OKATIBBEE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

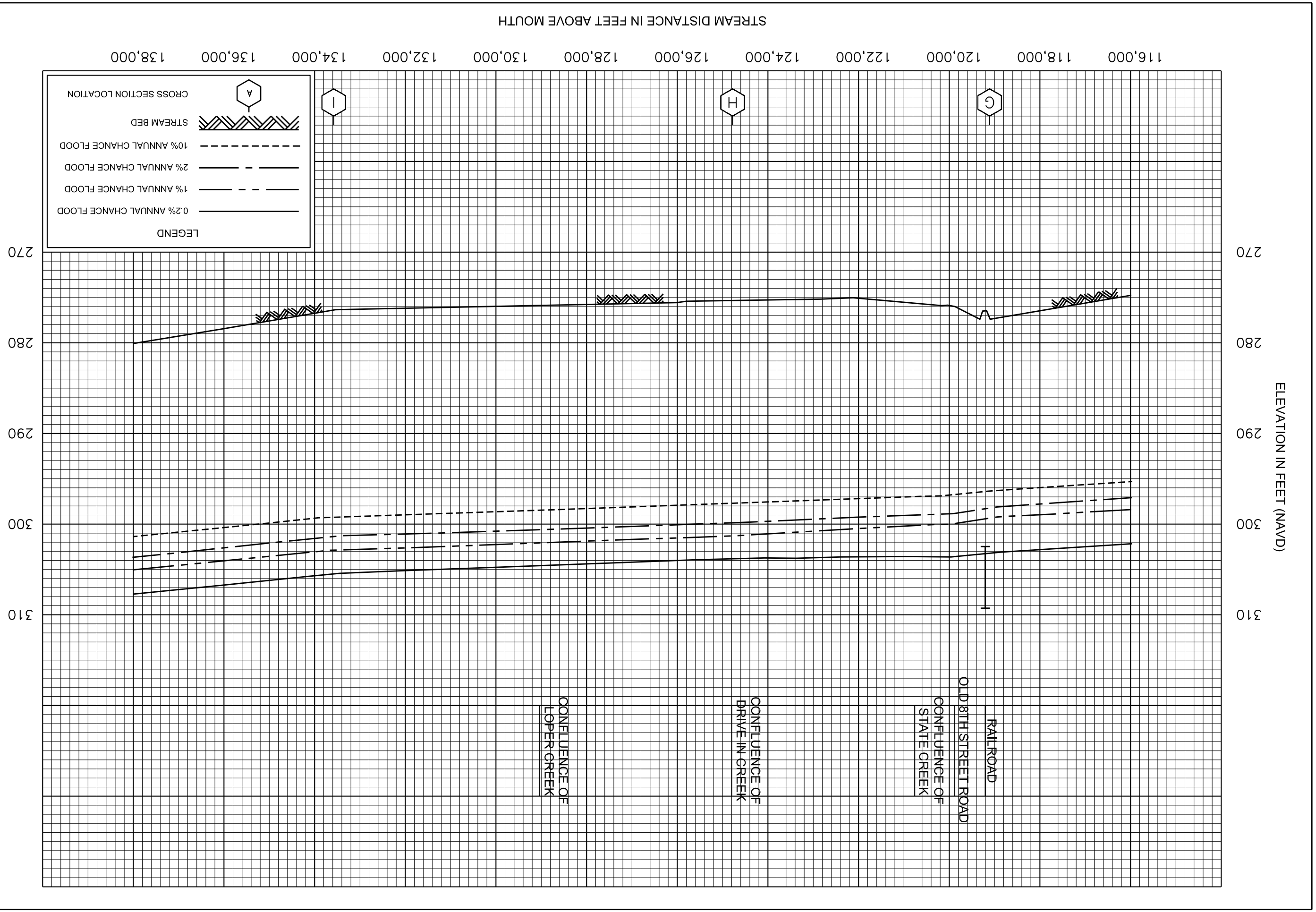
27P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

OKATIBBEE CREEK



ELEVATION IN FEET (NAVD)

280 290 300 310 320

138,000 140,000 142,000 144,000 146,000 148,000 150,000 152,000 154,000 156,000 158,000 160,000

STREAM DISTANCE IN FEET ABOVE MOUTH

STATE HIGHWAY 19

CONFLUENCE OF
OKATIBBEE CREEK TRIBUTARY 5

J

K

LEGEND

- 0.2% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD
- 10% ANNUAL CHANCE FLOOD
- STREAM BED
- A CROSS SECTION LOCATION

FEDERAL EMERGENCY MANAGEMENT AGENCY

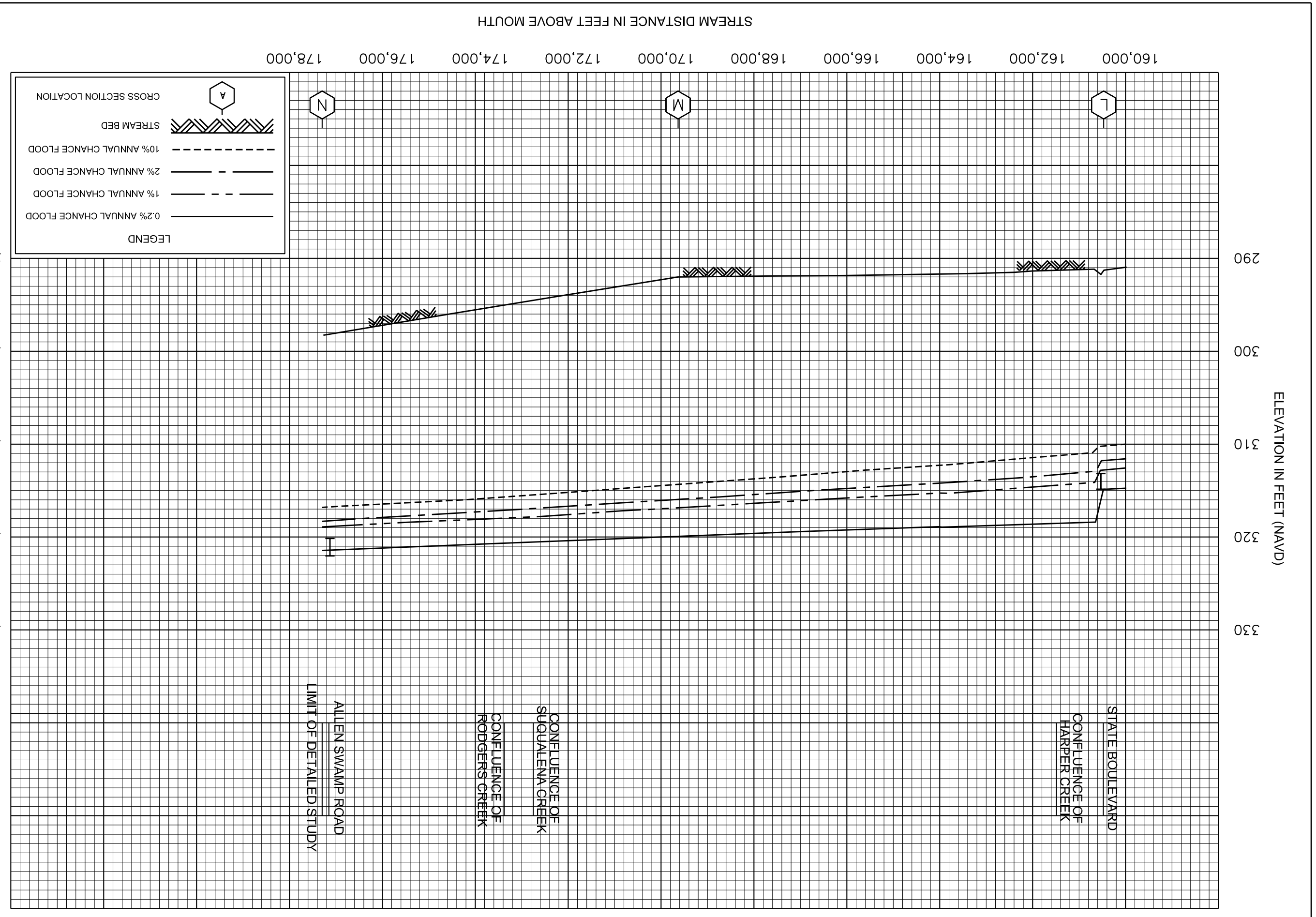
LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

OKATIBBEE CREEK

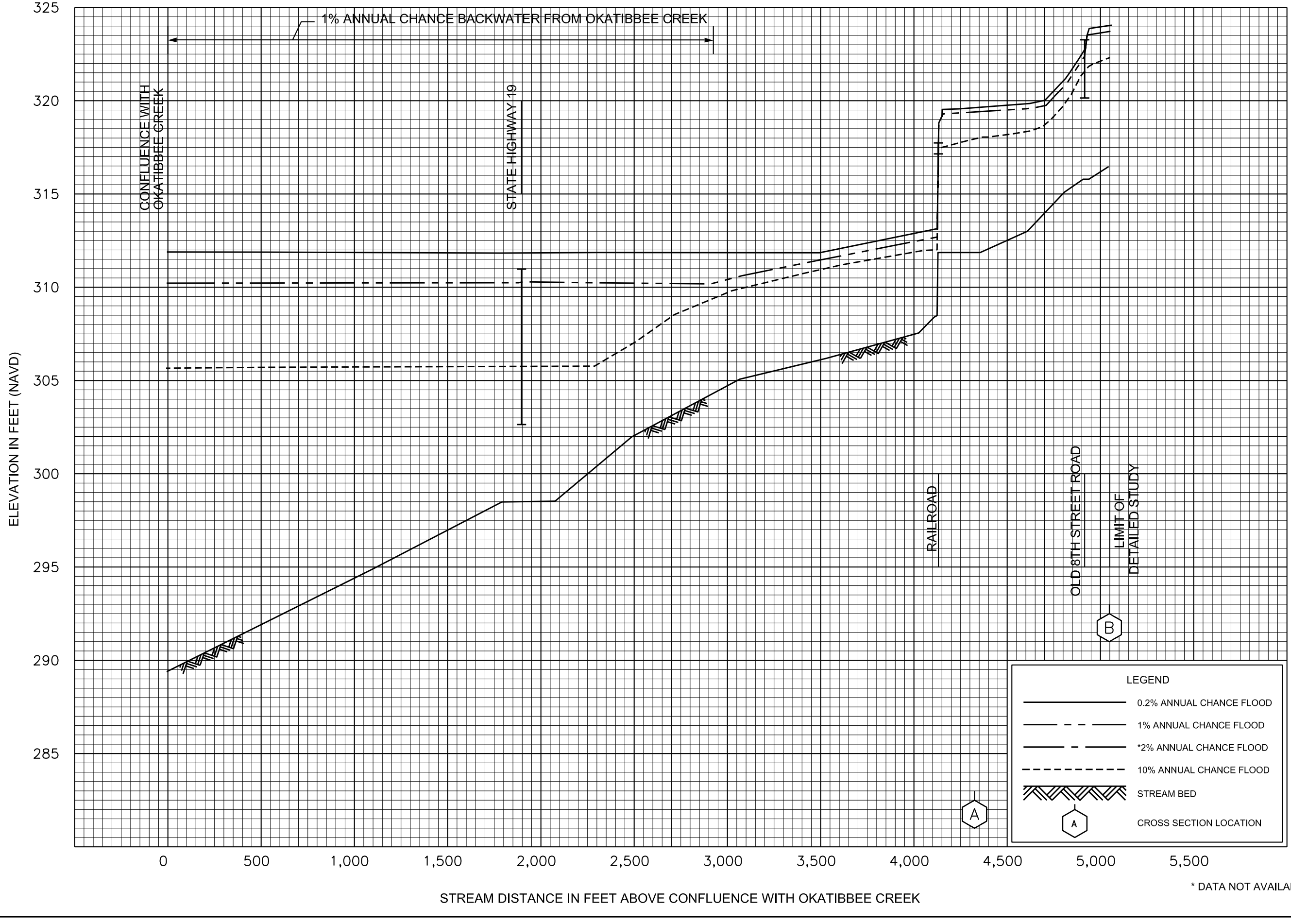
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS



FLOOD PROFILES

OKATIBBEE CREEK



FLOOD PROFILES

OKATIBBEE CREEK TRIBUTARY 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOODING CONTROLLED BY SOWASHEE CREEK

1% ANNUAL CHANCE BACKWATER FROM SOWASHEE CREEK

CONFLUENCE WITH SOWASHEE CREEK

RAILROAD

RAILROAD

US HWY 45

OLD MARION HIGHWAY

PRIVATE DRIVE

CROSS CREEK PARK DRIVEWAY

10TH AVENUE

34TH STREET

CULVERT

CULVERT

CULVERT

CULVERT

ELEVATION IN FEET (NAVD)

370

360

350

340

330

320

310

A

B

C

D

E

F

G

H

I

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

A CROSS SECTION LOCATION

0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000 11,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

FLOOD PROFILES

ROBBINS BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD)

430
420
410
400
390
380
370
360
350

COUNTRY CLUB DRVIEWAY
43RD STREET
NORTH HILLS STREET
PEDESTRIAN BRIDGE
52ND COURT

CULVERT
CULVERT
CULVERT

THE 2% ANNUAL CHANCE FLOOD PROFILE IS TOO CLOSE TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY

LIMIT OF DETAILED STUDY

J K L M N O P Q

LEGEND
0.2% ANNUAL CHANCE FLOOD
1% ANNUAL CHANCE FLOOD
2% ANNUAL CHANCE FLOOD
10% ANNUAL CHANCE FLOOD
STREAM BED
A CROSS SECTION LOCATION

11,000 12,000 13,000 14,000 15,000 16,000 17,000 18,000 19,000 20,000 21,000 22,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

FLOOD PROFILES

ROBBINS BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY
LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

33P

ELEVATION IN FEET (NAVD)

280 290 300 310 320 330 340 350 360

STREAM DISTANCE IN MILES ABOVE CONFLUENCE WITH SOWASHEE CREEK

0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

CONFLUENCE WITH SOWASHEE CREEK

RAILROAD

INTERCHANGE ROAD

CONFLUENCE OF SHEAR'S BRANCH TRIBUTARY 1

1% ANNUAL CHANCE BACKWATER FROM SOWASHEE CREEK

RAILROAD

5TH STREET

DAVIS STREET

7TH STREET

8TH STREET

10TH STREET

11TH STREET

12TH STREET

33RD AVENUE

13TH STREET

15TH STREET

16TH STREET

33RD AVENUE

17TH STREET

18TH STREET

19TH STREET

20TH STREET

LIMIT OF DETAILED STUDY

A B C D E F G H I J K L M N O

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

*2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

A CROSS SECTION LOCATION

* DATA NOT AVAILABLE

300 310 320 330 340 350 360

34P

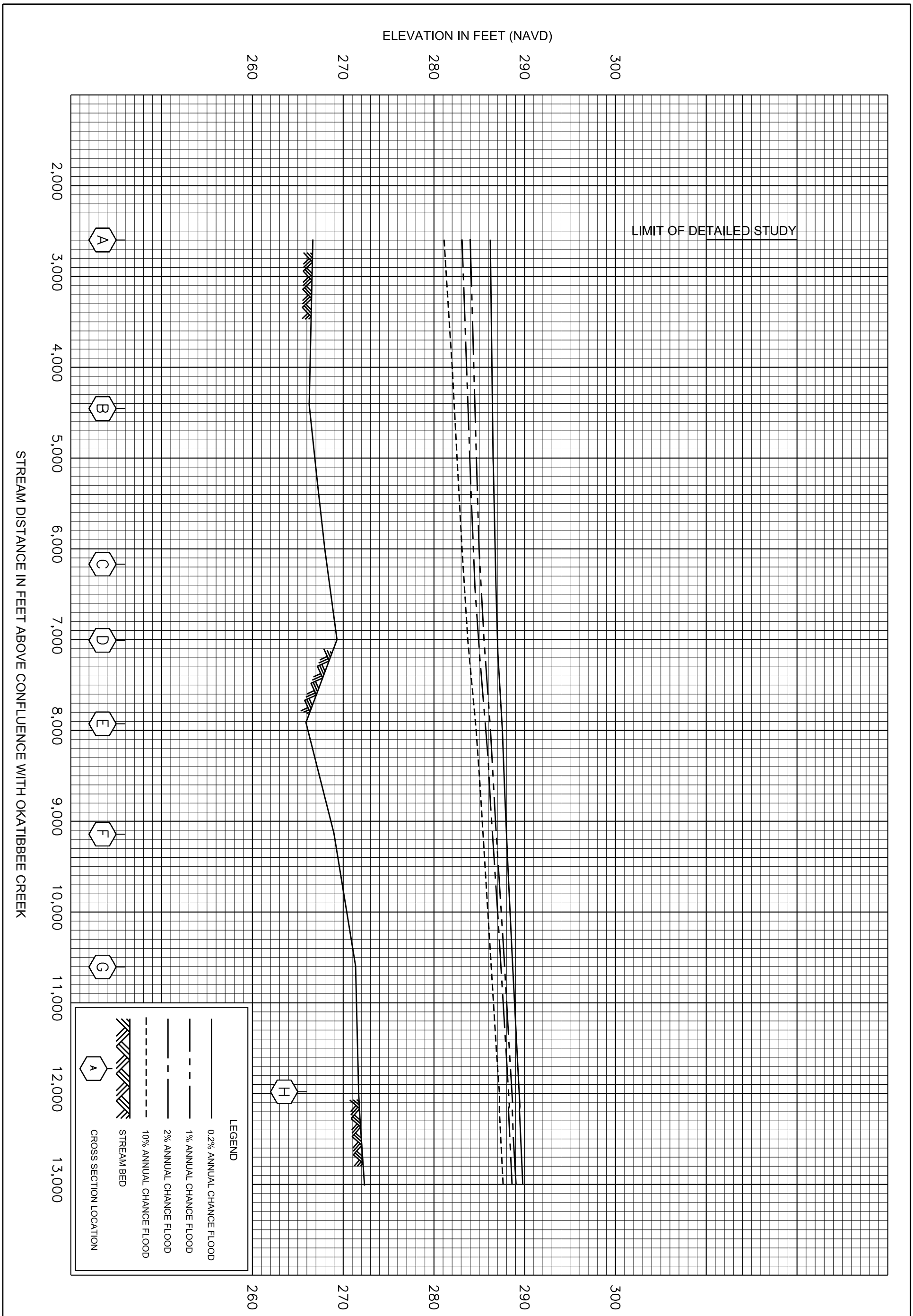
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SHEAR'S BRANCH



35P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LUADERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK

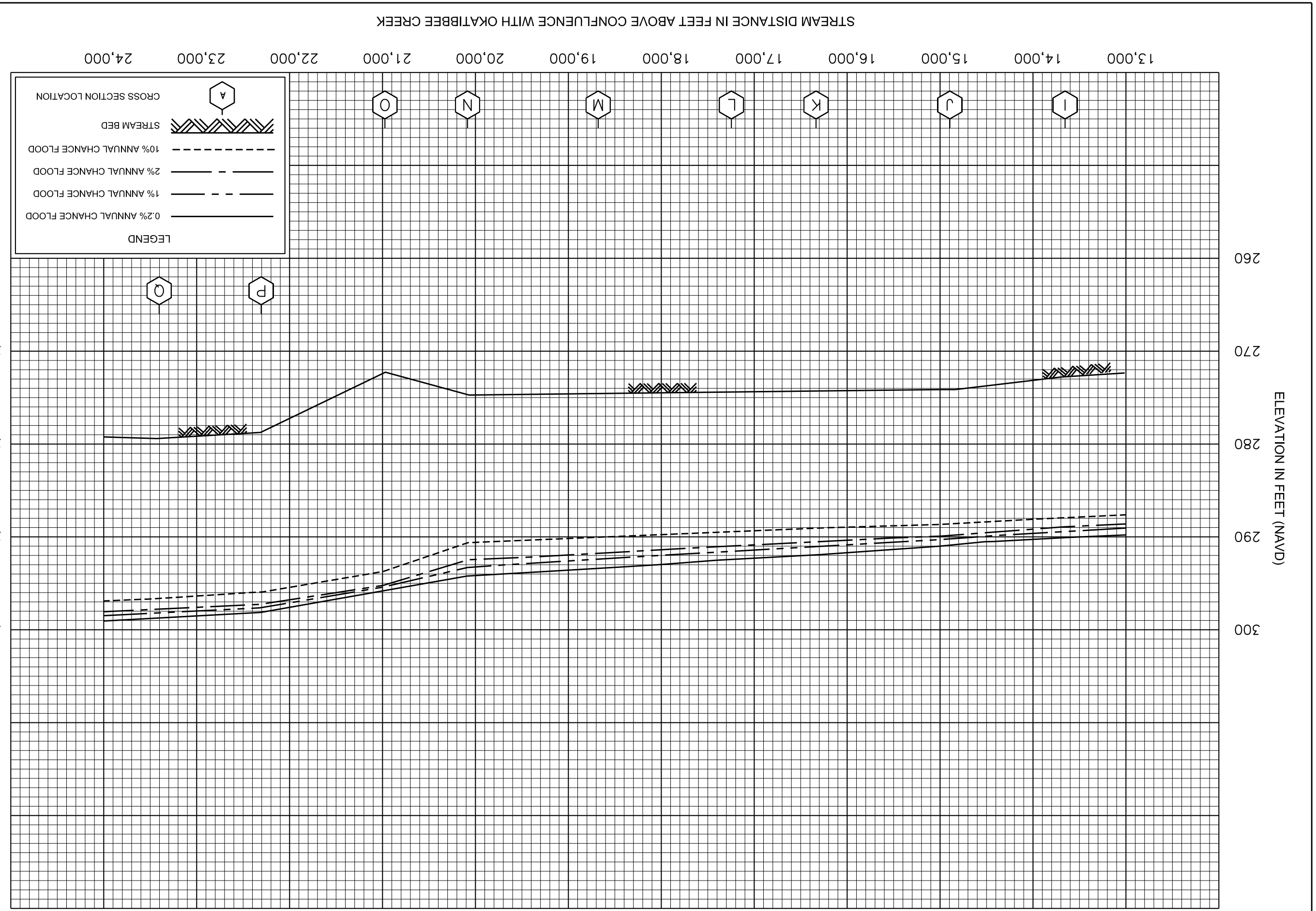
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK



ELEVATION IN FEET (NAVD)

270 280 290 300 310 320

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OKATIBBEE CREEK

24,000 25,000 26,000 27,000 28,000 29,000 30,000 31,000 32,000 33,000 34,000 35,000

R S T U V W X Y Z AA

49TH AVENUE (VALLEY ROAD)

RAILROAD

US ROUTE 80
INTERSTATE ROUTES 20 & 59
(EAST ON RAMP FROM HIGHWAY 49)

INTERSTATE ROUTE 59

INTERSTATE ROUTE 59
(WEST OFF -RAMP TO HIGHWAY 49)

FRONTAGE ROAD

CONFLUENCE OF
GALLAGHER CREEK

RAILROAD

CONFLUENCE OF
SHEAR'S BRANCH

RAILROAD

31ST AVENUE

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

A CROSS SECTION LOCATION

280 290 300 310 320

37P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK

ELEVATION IN FEET (NAVD)

280 290 300 310 320 330

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OKATIBBEE CREEK

35,000 36,000 37,000 38,000 39,000 40,000 41,000 42,000 43,000 44,000 45,000 46,000

AB AC AD AE AF AG AH AI AJ AK AL

GRAND AVENUE

CONFLUENCE OF
LAKEMONT LAKE CREEK

NORTH FRONTAGE ROAD
WEST OF 22ND AVENUE

22ND AVENUE

NORTH FRONTAGE ROAD
EAST OF 22ND AVENUE

18TH AVENUE SOUTH

RAILROAD

CONFLUENCE OF
MAGNOLIA CREEK

LEGEND

- 0.2% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD
- 10% ANNUAL CHANCE FLOOD
- STREAM BED
- A CROSS SECTION LOCATION

280 290 300 310 320 330

38P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

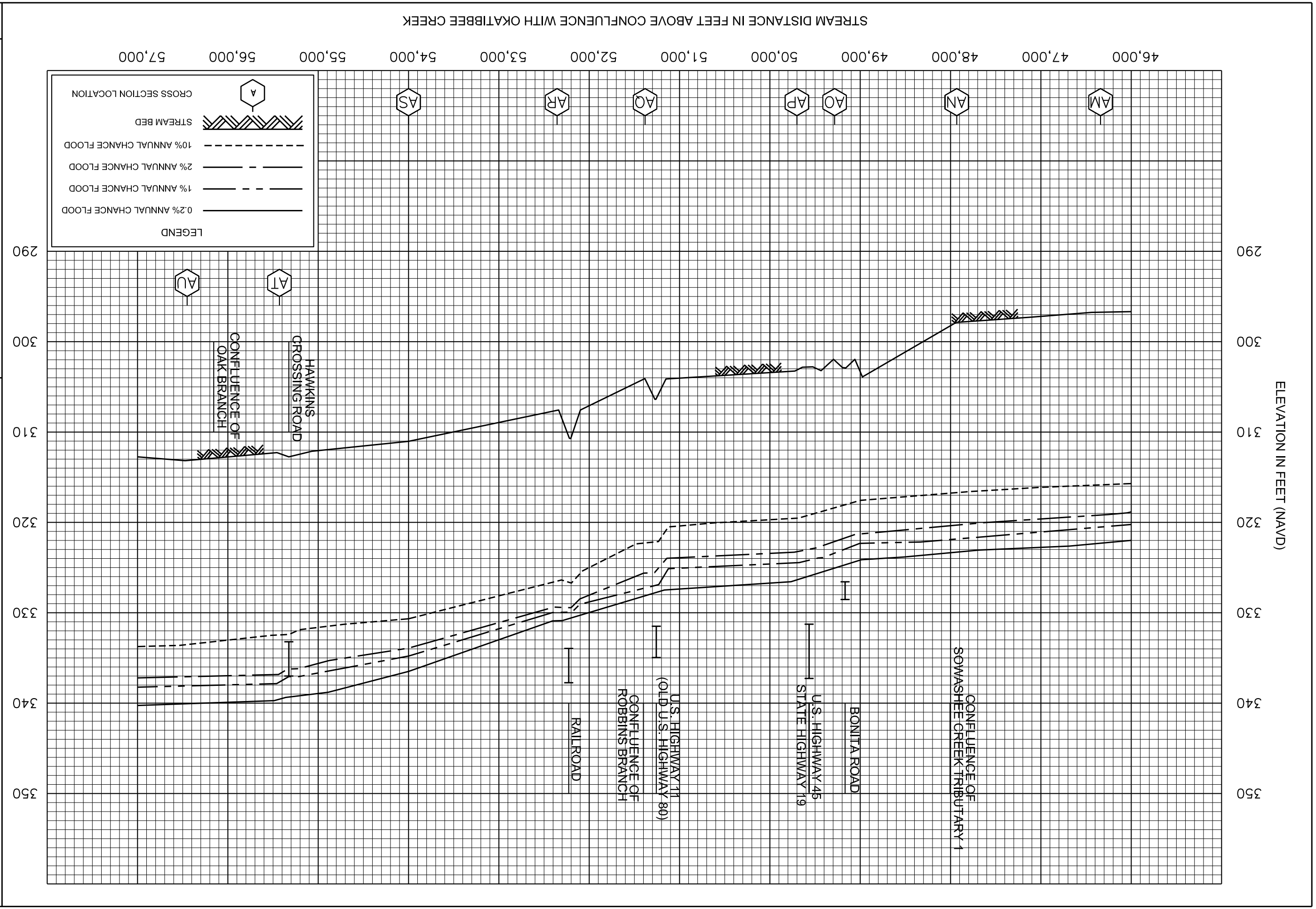
SOWASHEE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK



39P

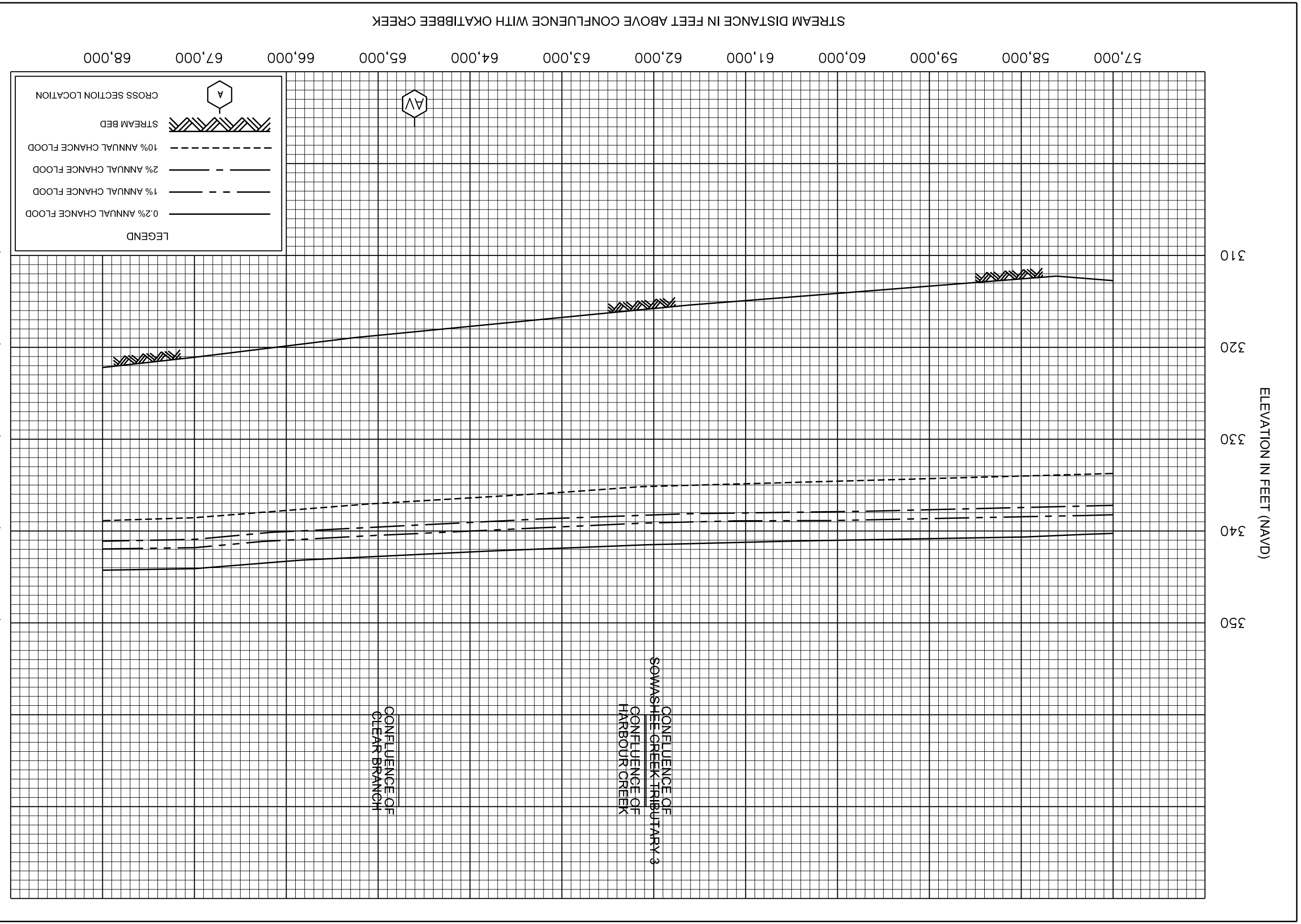
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK

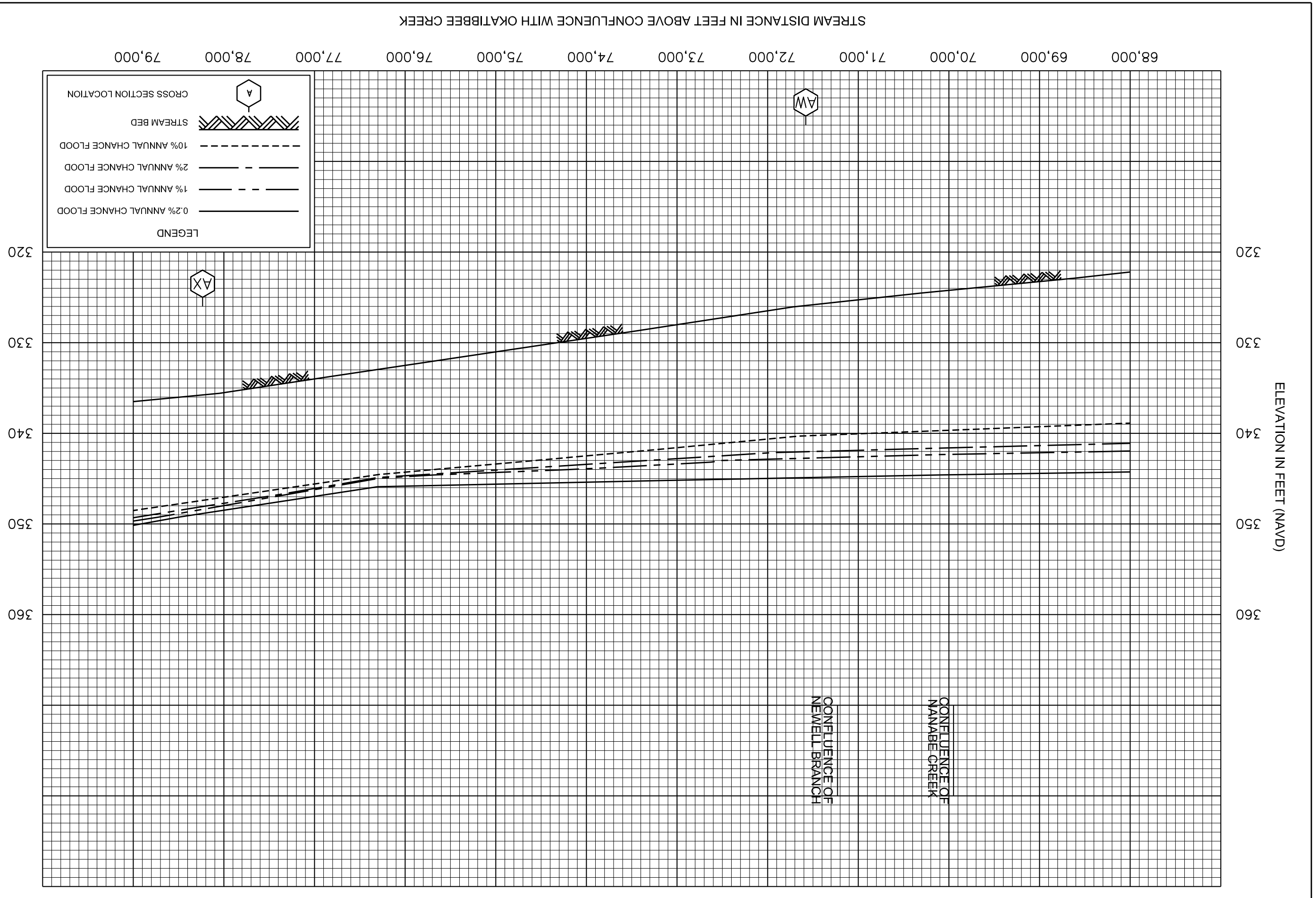


FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK

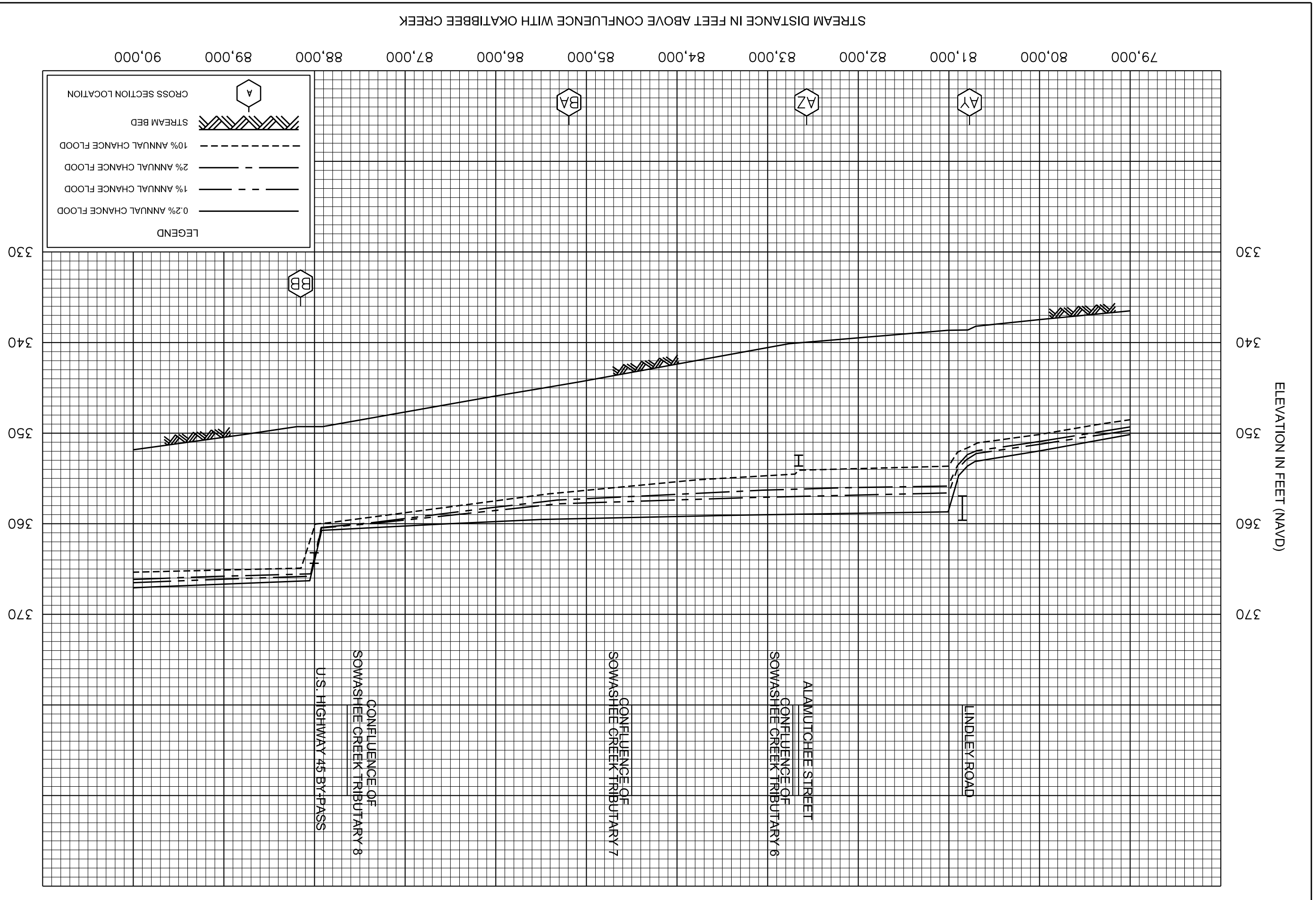


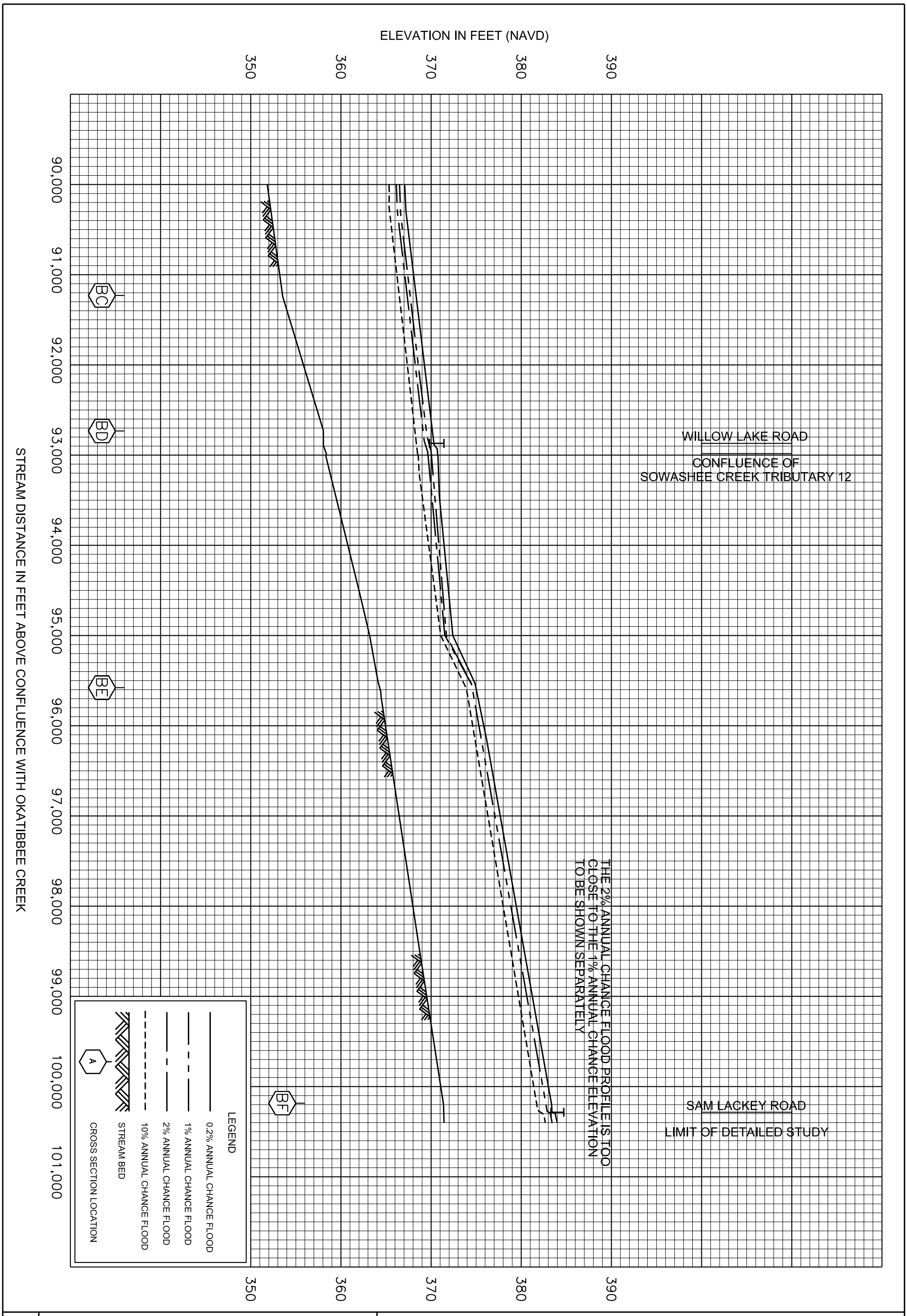
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK





43P

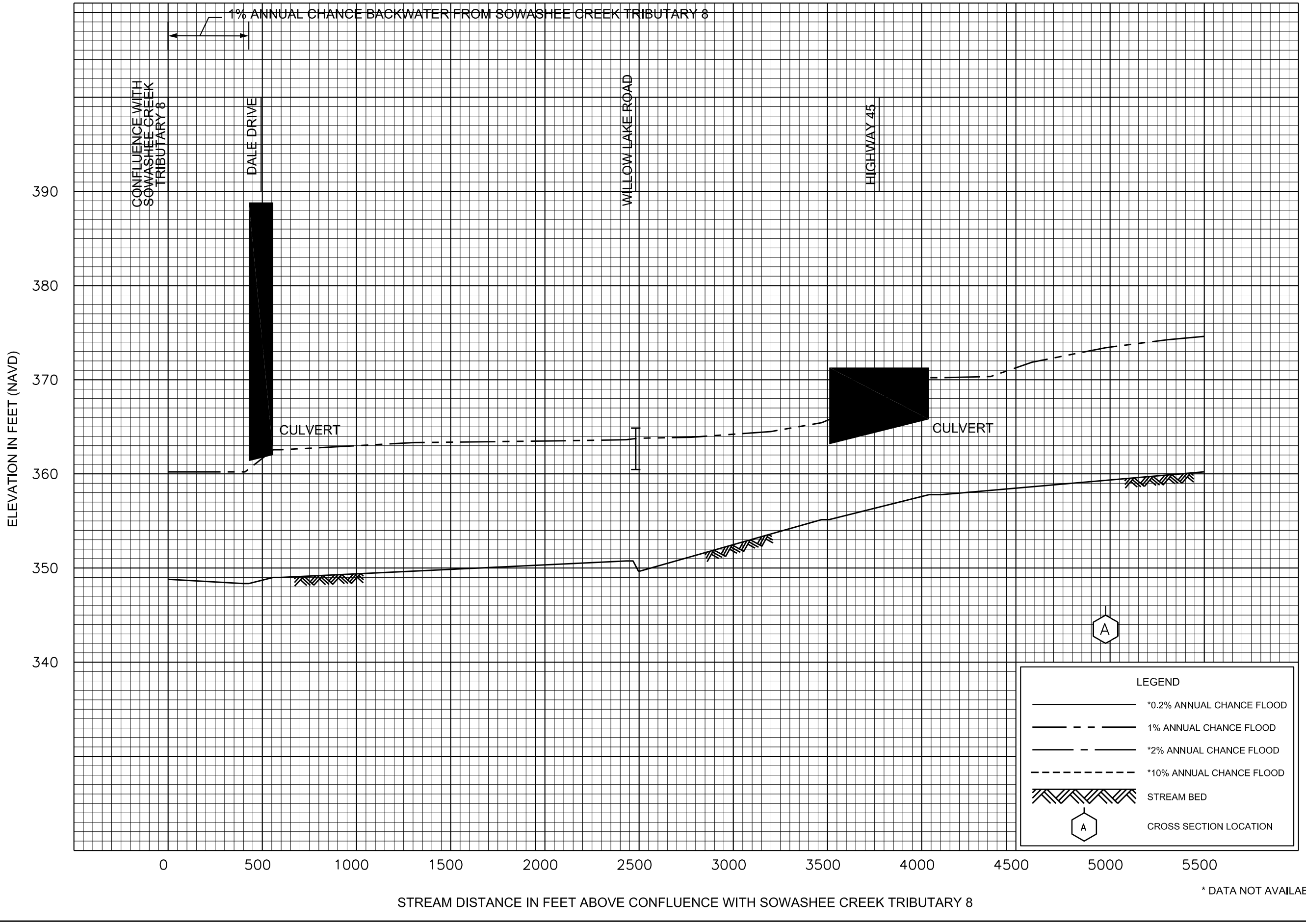
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK



FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

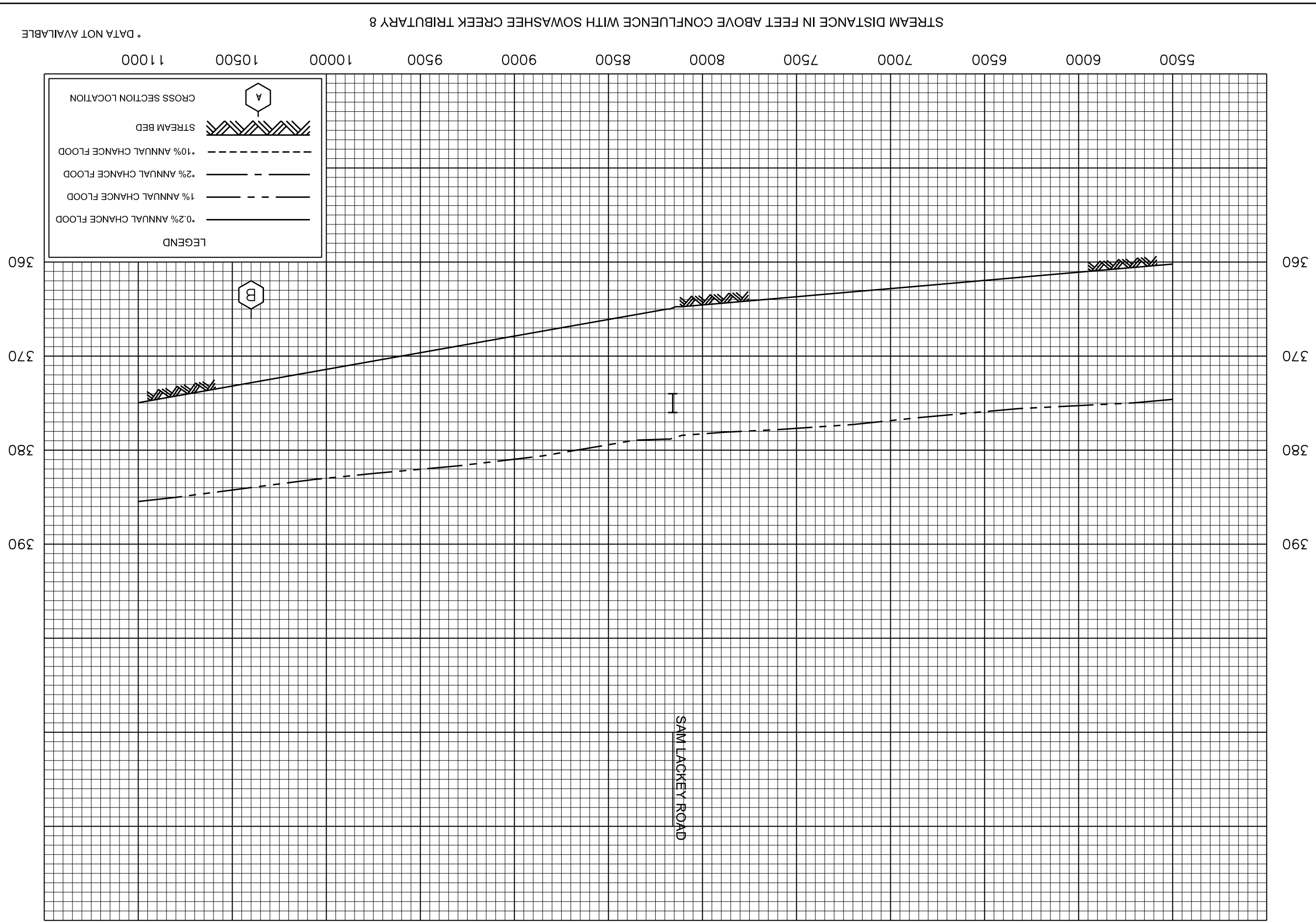
AND INCORPORATED AREAS

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 10



ELEVATION IN FEET (NAVD)

400
390
380
370

COTTON GIN ROAD

C

LEGEND

- *0.2% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD
- *2% ANNUAL CHANCE FLOOD
- *10% ANNUAL CHANCE FLOOD
- STREAM BED
- A — CROSS SECTION LOCATION

11000 11500 12000 12500 13000 13500 14000 14500 15000 15500 16000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK TRIBUTARY 8

* DATA NOT AVAILABLE

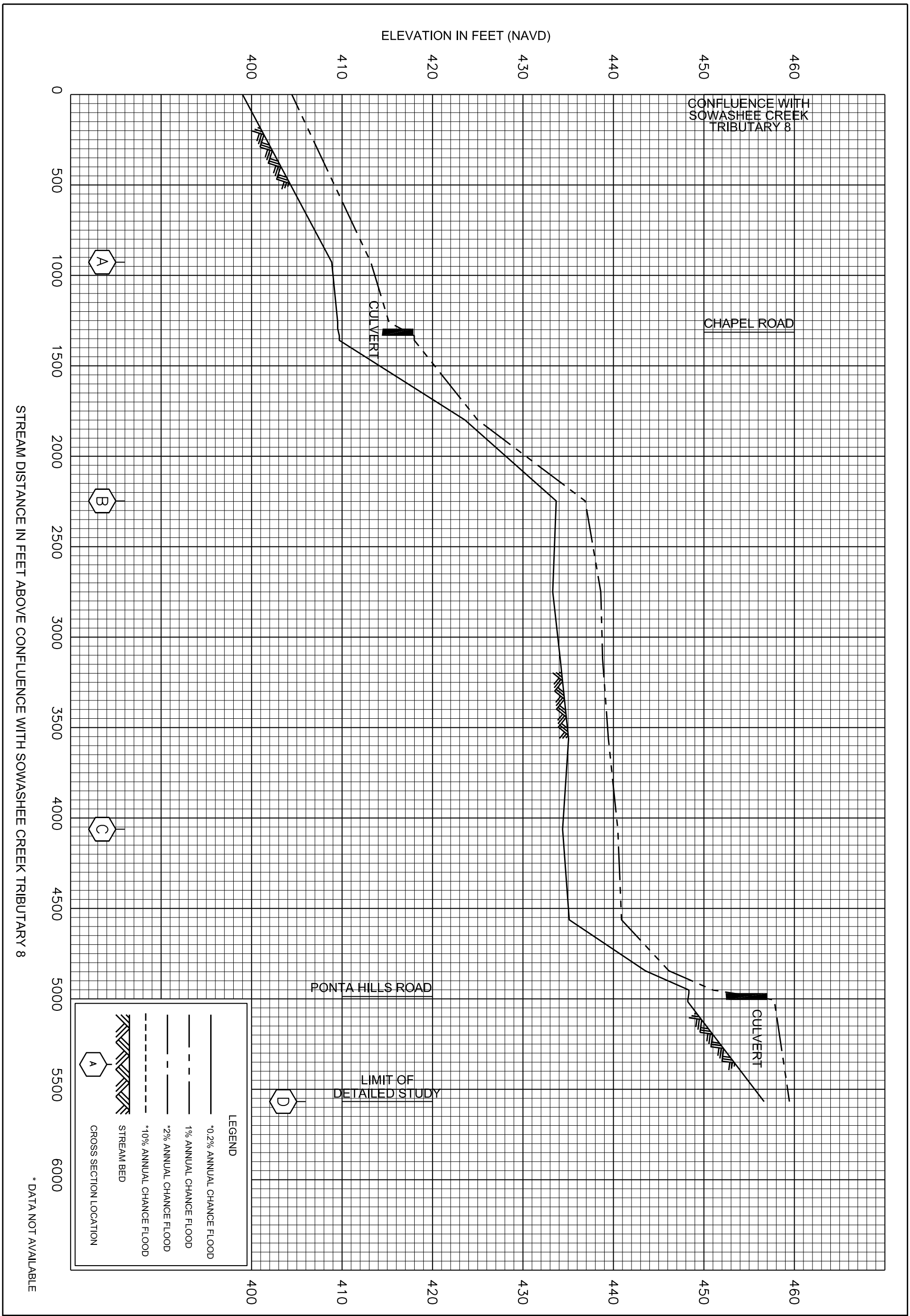
FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

53P



54P

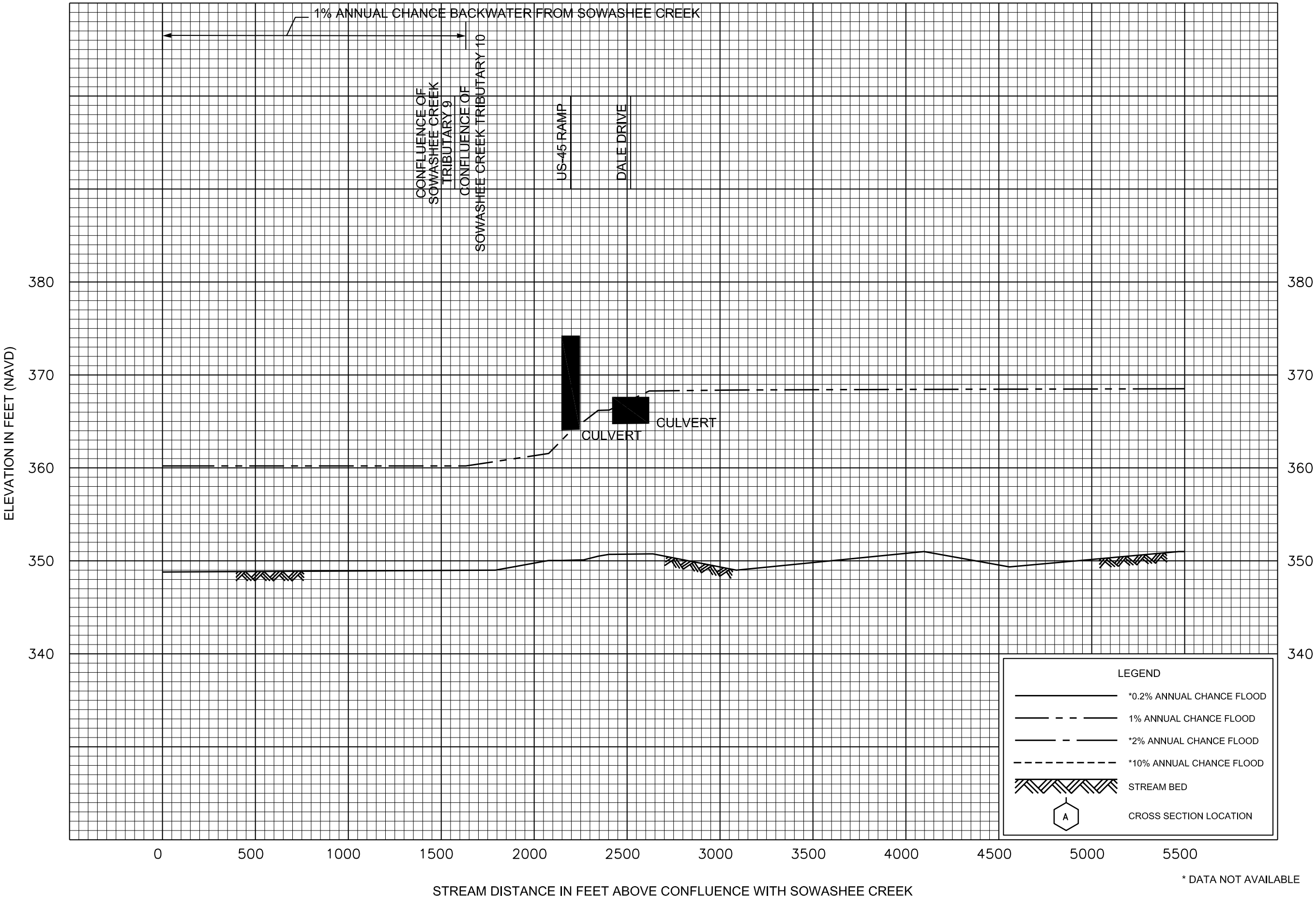
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 11



FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

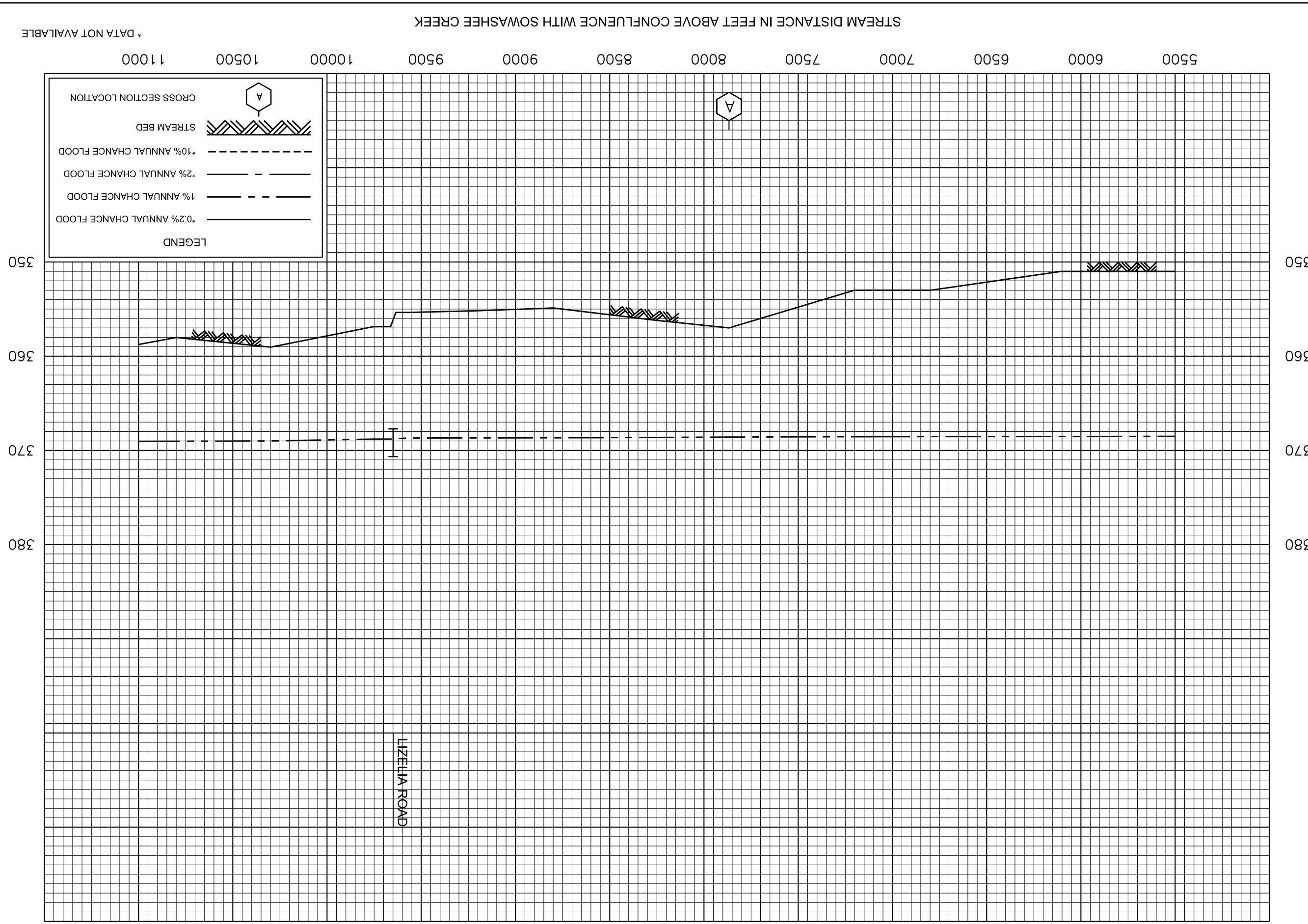
LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8



FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

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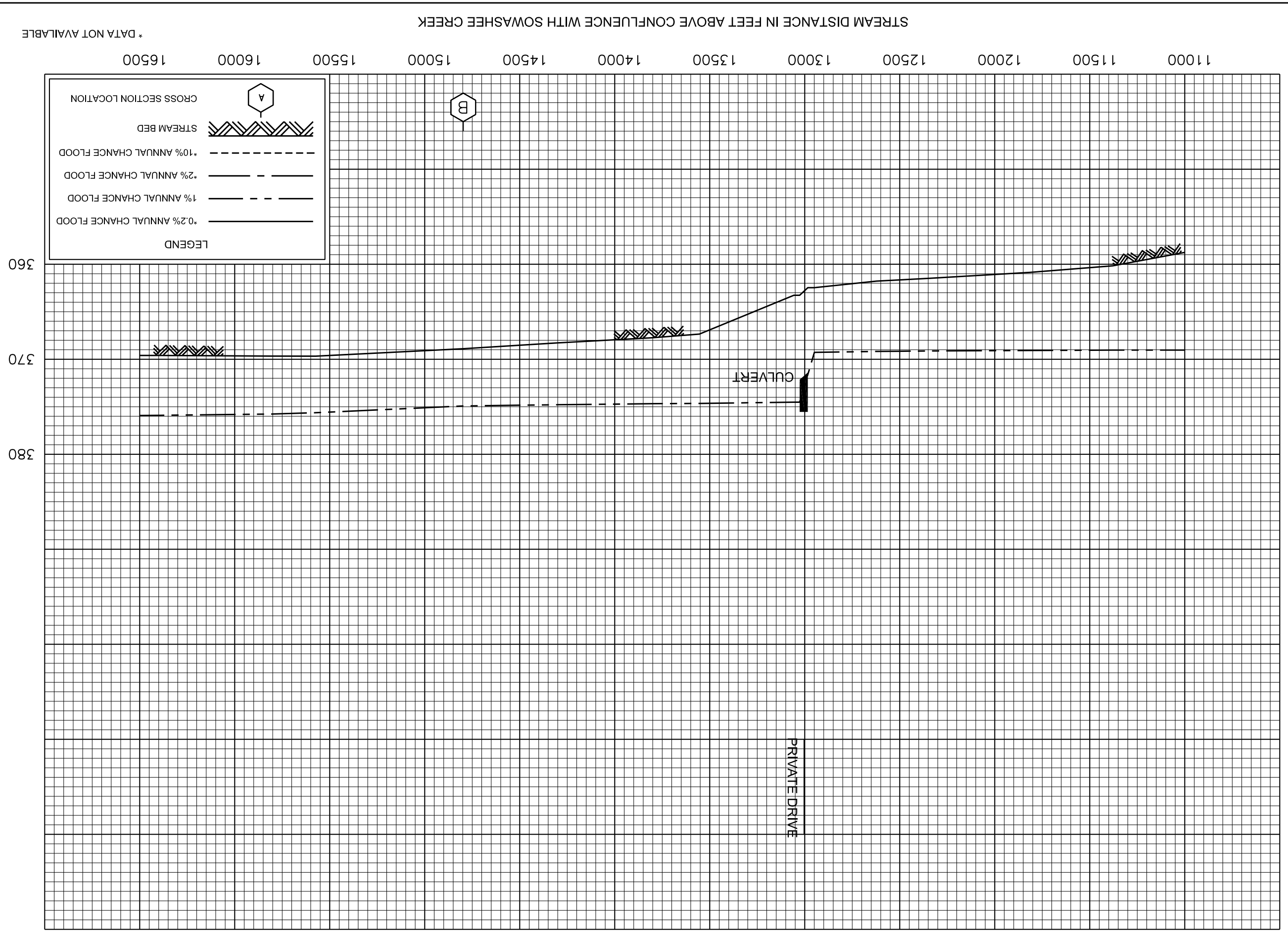
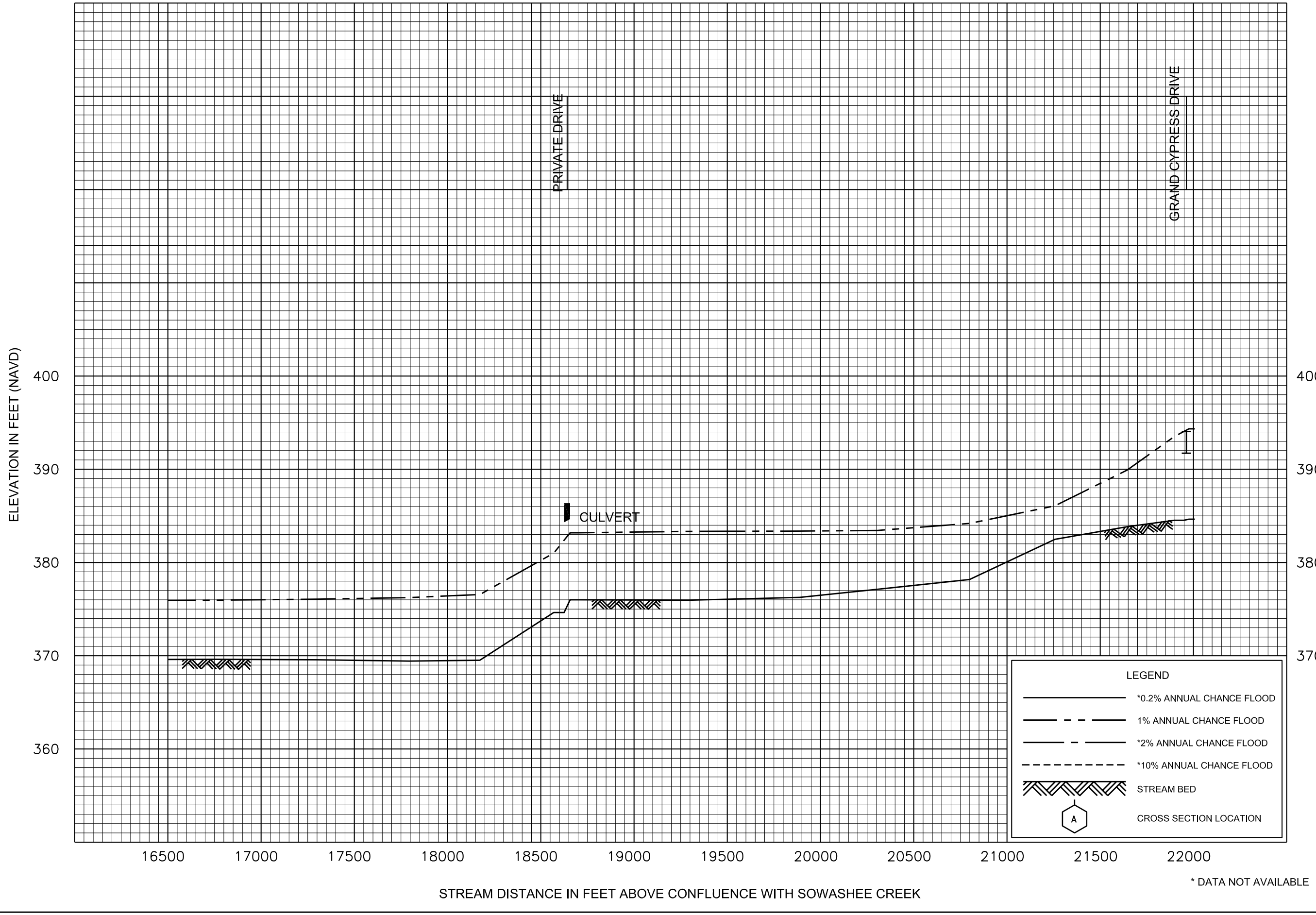
FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8





FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD)

380 390 400 410 420

22000 22500 23000 23500 24000 24500 25000 25500 26000 26500 27000 27500

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

PRIVATE DRIVE

PRIVATE DRIVE

PRIVATE DRIVE

PRIVATE DRIVE

PRIVATE DRIVE

PRIVATE DRIVE

BRIARWOOD ROAD

CONFLUENCE OF
SOWASHEE CREEK TRIBUTARY 11

A

C

D

LEGEND

*0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

*2% ANNUAL CHANCE FLOOD

*10% ANNUAL CHANCE FLOOD

STREAM BED

CROSS SECTION LOCATION

* DATA NOT AVAILABLE

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

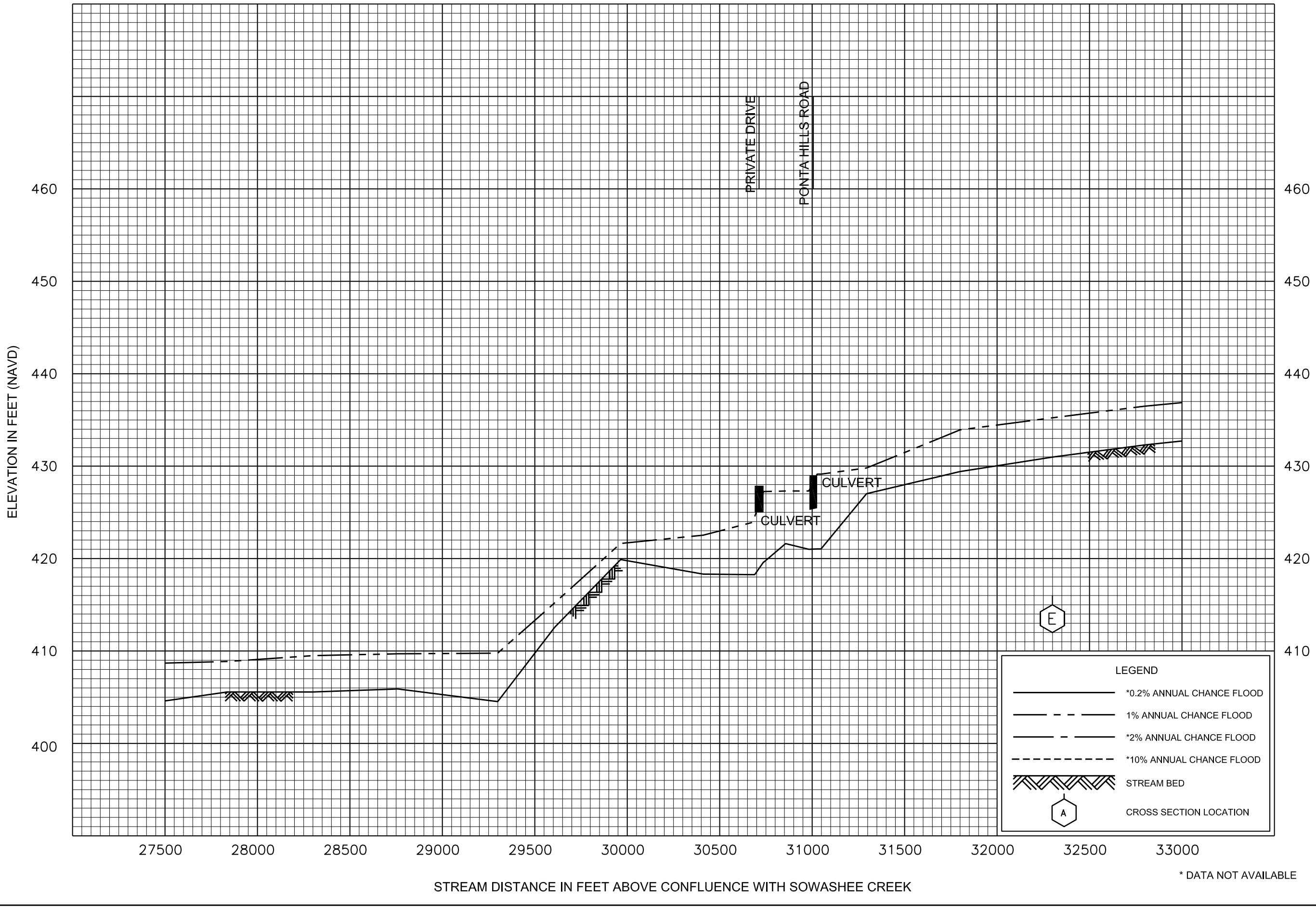
SOWASHEE CREEK TRIBUTARY 8

SOWASHEE CREEK TRIBUTARY 8

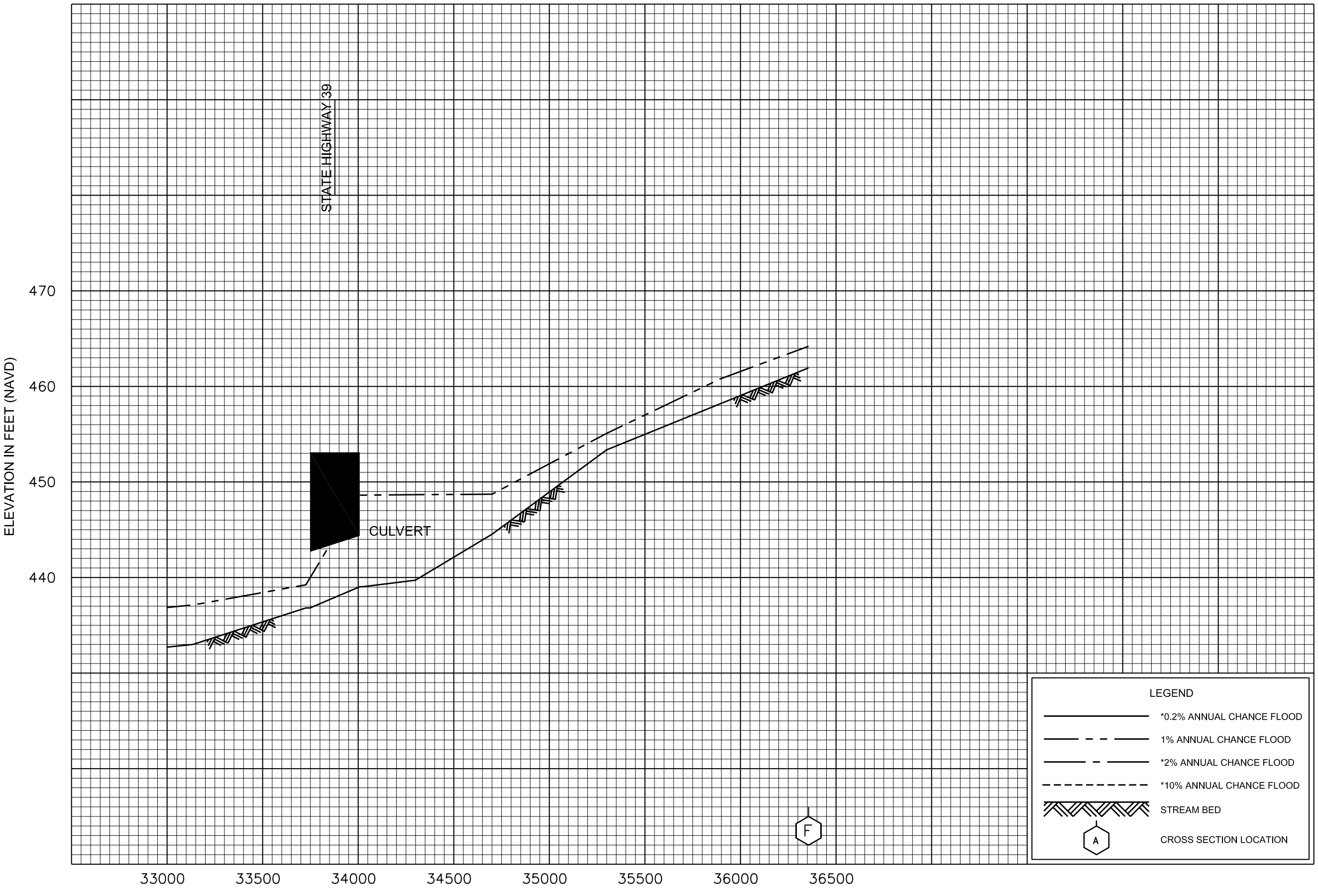
FLOOD PROFILES

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS



* DATA NOT AVAILABLE



* DATA NOT AVAILABLE

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD)

300 310 320 330 340 350

0 2,000 4,000 6,000 8,000 10,000 12,000 14,000 16,000 18,000 20,000 22,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OKATIBBEE CREEK

CONFLUENCE WITH OKATIBBEE CREEK

1% ANNUAL CHANCE BACKWATER FROM OKATIBBEE CREEK

STATE HIGHWAY 19

HOOKSTON ROAD

CONFLUENCE OF SUQUALENA CREEK TRIBUTARY 1

A

B

C

D

E

LEGEND

- 0.2% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD
- 2% ANNUAL CHANCE FLOOD
- 10% ANNUAL CHANCE FLOOD
- STREAM BED
- A CROSS SECTION LOCATION

55P

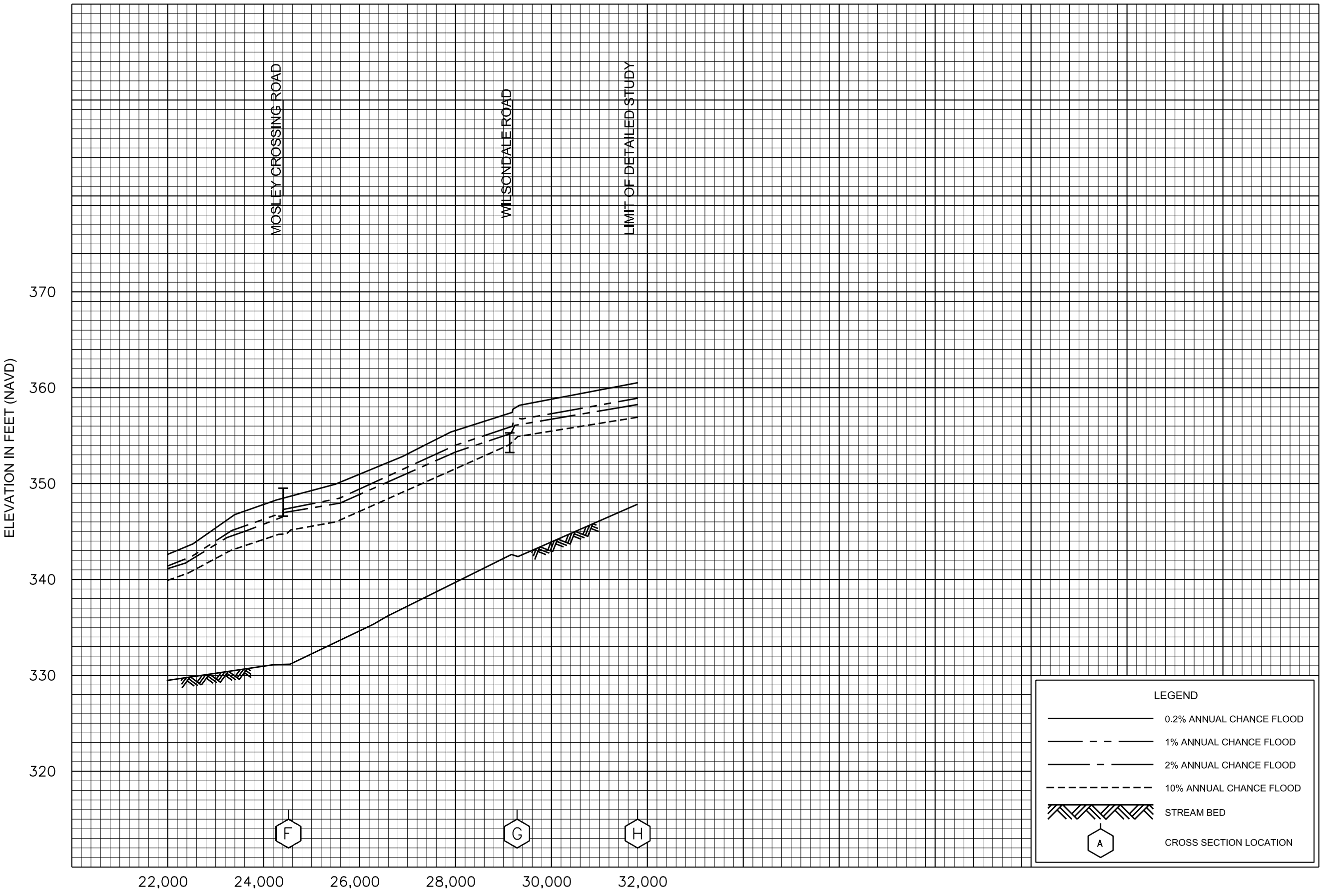
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SUQUALENA CREEK



FLOOD PROFILES

SUQUALENA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

56P