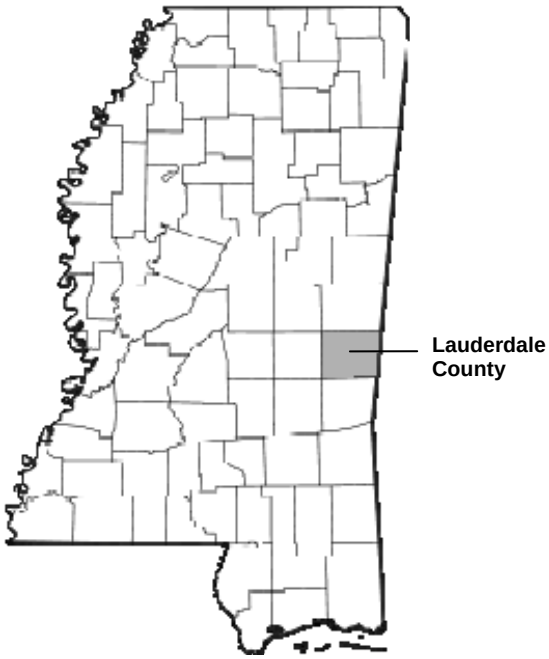
# FLOOD INSURANCE STUDY

# LAUDERDALE COUNTY, MISSISSIPPI
## AND INCORPORATED AREAS

| Community Name | Community Number |
|---|---|
| LAUDERDALE COUNTY (UNINCORPORATED AREAS) | 280224 |
| MARION, TOWN OF | 280095 |
| MERIDIAN, CITY OF | 280096 |




PRELIMINARY
SEP 07 2011

REVISED

**Federal Emergency Management Agency**

FLOOD INSURANCE STUDY NUMBER
28075CV000B

**NOTICE TO**
**FLOOD INSURANCE STUDY USERS**

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

This preliminary revised Flood Insurance Study contains profiles presented at a reduced scale to minimize reproduction costs. All profiles will be included and printed at full scale in the final published report.

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

Initial Countywide FIS Effective Date: September 29, 1989

Revised Countywide FIS Date: August 16, 1995
March 21, 2000
February 3, 2010

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**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 information on the existence and severity of flood hazards in the geographic area of Lauderdale County, including the incorporated areas of the City of Meridian, the Town of Marion, and the unincorporated areas of Lauderdale County (referred to collectively herein 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 and to assist the community in its efforts to promote sound floodplain management. 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). Minimum floodplain management requirements for participation in the National Flood Insurance Program (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.

The Digital Flood Insurance Rate Map (DFIRM) and FIS Report for this countywide study have been produced in digital format. Flood hazard information was converted to meet the Federal Emergency Management Agency (FEMA) DFIRM database specifications and geographic information standards and is provided in a digital format so that it can be incorporated into a local Geographic Information System and be accessed more easily by the community.

## 1.2 Authority and Acknowledgments

The sources of authority for this FIS report 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 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. That work was completed in February 1998.

The hydrologic and hydraulic analyses for the February 3, 2010 countywide revision were performed by the State of Mississippi for FEMA. That study was completed in September 2008 under Contract No. EMA-2005-CA-5215.

For this revision of the countywide FIS, new hydrologic and hydraulic analyses were prepared by Mississippi Geographic Information, LLC (MGI, LLC), the Study Contractor, for FEMA, under Contract No. EMA-2009-CA-5932. This revised study was completed in April 2011.

The following streams were included in this study:

- Bucatunna Creek
- Coats Creek
- Long Creek
- Rodgers Creek
- Suqualena Creek Tributary 4

Table 1, "Summary of Flooding Sources Presented in Current Study," provides a summary of the flooding sources within Lauderdale County included in this current study, the contract number under which they were performed, and the communities affected by each.

**Table 1: Summary of Flooding Sources Presented in Current Study**

| Flooding Source | Completion Date | Study Contractor(s) | Contract or Inter-Agency Agreement No. | Communities Affected |
|---|---|---|---|---|
| Bailey Branch | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County |
| Bucatunna Creek | April 2011 | Mississippi Geographic Information, LLC | EMA-2009-CA-5932 | Lauderdale County |
| Coats Creek | April 2011 | Mississippi Geographic Information, LLC | EMA-2009-CA-5932 | Lauderdale County |
| Gallagher Creek | February 1998 | USACE, Mobile District | EMW-94-E-4371 | Lauderdale County<br>City of Meridian |

**Table 1: Summary of Flooding Sources Presented in Current Study**

| Flooding Source | Completion Date | Study Contractor(s) | Contract or Inter-Agency Agreement No. | Communities Affected |
|---|---|---|---|---|
| Gunn Branch | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County |
| Harbour Creek | February 1998 | USACE, Mobile District | EMW-94-E-4371 | Lauderdale County<br>City of Meridian |
| Harper Creek | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County |
| Harper Creek Tributary 1 | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County |
| Long Creek | April 2011 | Mississippi Geographic Information, LLC | EMA-2009-CA-5932 | Lauderdale County<br>City of Meridian |
| Loper Creek | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County<br>City of Meridian |
| Magnolia Creek | February 1998 | USACE, Mobile District | EMW-94-E-4371 | Lauderdale County<br>City of Meridian |
| McLemore Branch | September 2008 | State of Mississippi | EMA-2005-CA-5215 | Lauderdale County<br>City of Meridian |
| Nanabe Creek | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County |
| Nanabe Creek | January 1993 | USACE, Mobile District | * | Lauderdale County |

*Data not available

**Table 1: Summary of Flooding Sources Presented in Current Study**

| Flooding Source | Completion Date | Study Contractor(s) | Contract or Inter-Agency Agreement No. | Communities Affected |
|---|---|---|---|---|
| Newell Branch | February 1998 | USACE, Mobile District | EMW-94-E-4371 | Lauderdale County<br>Town of Marion<br>City of Meridian |
| Okatibbee Creek | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County |
| Okatibbee Creek | January 1993 | USACE, Mobile District | * | Lauderdale County<br>City of Meridian |
| Okatibbee Creek Tributary 5 | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County |
| Robbins Branch | February 1998 | USACE, Mobile District | EMW-94-E-4371 | Lauderdale County<br>City of Meridian |
| Rodgers Creek | April 2011 | Mississippi Geographic Information, LLC | EMA-2009-CA-5932 | Lauderdale County |
| Shear's Branch | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County<br>City of Meridian |
| Shear's Branch | January 1993 | USACE, Mobile District | * | Lauderdale County<br>City of Meridian |

*Data not available

**Table 1: Summary of Flooding Sources Presented in Current Study**

| Flooding Source | Completion Date | Study Contractor(s) | Contract or Inter-Agency Agreement No. | Communities Affected |
|---|---|---|---|---|
| Sowashee Creek | January 1993 | USACE, Mobile District | * | Lauderdale County<br>Town of Marion<br>City of Meridian |
| Sowashee Creek Tributary 8 | September 2008 | State of Mississippi | EMA-2005-CA-5215 | Lauderdale County<br>Town of Marion |
| Sowashee Creek Tributary 10 | September 2008 | State of Mississippi | EMA-2005-CA-5215 | Lauderdale County<br>Town of Marion |
| Sowashee Creek Tributary 11 | September 2008 | State of Mississippi | EMA-2005-CA-5215 | Lauderdale County |
| Suqualena Creek | March 1987 | USACE, Mobile District | EMW-85-E-1822 | Lauderdale County |
| Suqualena Creek Tributary 4 | April 2011 | Mississippi Geographic Information, LLC | EMA-2009-CA-5932 | Lauderdale County |

*Data not available

For the February 3, 2010 FIS for Lauderdale County, the digital base map information was provided 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.

Base map information for the revised panels of this study of Lauderdale County and the City of Meridian was provided in digital format by the State of Mississippi. The

digital orthoimagery was photogrammetrically compiled at a scale of 1:12,000 from aerial photography dated July 2009.

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. Differences in the datum and spheroid used in the production of FIRMs for adjacent counties may result in slight positional differences in map features at the county boundaries. These differences do not affect the accuracy of information shown on the FIRM.

## 1.3 Coordination

An initial Consultation Coordination Officer (CCO) meeting (also occasionally referred to as the Scoping meeting) is held with representatives of the communities, FEMA, and the study contractors to explain the nature and purpose of the FIS and to identify the streams to be studied by detailed methods. A final CCO (often referred to as the Preliminary DFIRM Community Coordination, or PDCC, meeting) is held with representatives of the communities, FEMA, and the study contractors to review the results of the study.

For this revision of the countywide FIS, the initial CCO meeting was held on September 16, 2009, and attended by representatives of FEMA, the Mississippi Emergency Management Agency, Lauderdale County, the City of Meridian, AES Limited, and MGI, LLC.

The final CCO meeting was held on _____ to review and accept the results of this FIS. Those who attended this meeting included representatives of Lauderdale County, the Study Contractor, FEMA, and the communities. All problems raised at that meeting have been addressed in this study.

The dates of the historical initial and final CCO meetings held for the communities within the boundaries of Lauderdale County are shown in Table 2, "Historical CCO Meeting Dates."

**Table 2: Historical CCO Meeting Dates**

| Community Name | Initial CCO Date | Final CCO Date |
|---|---|---|
| Lauderdale County and Incorporated Areas (September 29, 1989) | June 13, 1985 | October 17 and 18, 1988 |
| Lauderdale County and Incorporated Areas (August 16, 1995) | July 21, 1993 | August 9, 1994 |
| Lauderdale County and Incorporated Areas (March 21, 2000) | August 13, 1993 | * |

*Data not available

**Table 2: Historical CCO Meeting Dates**

| Community Name | Initial CCO Date | Final CCO Date |
|---|---|---|
| Lauderdale County and Incorporated Areas (February 3, 2010) | October 19, 2005 | November 13, 2008 |

## 2.0 AREA STUDIED

### 2.1 Scope of Study

This FIS report covers the geographic area of Lauderdale County, Mississippi, including the incorporated community listed in Section 1.1. The scope and methods of this study were proposed to, and agreed upon, by FEMA and Lauderdale County.

**September 29, 1989 Initial Countywide**

All or portions of these flooding sources were studied using detailed methods for this countywide FIS: 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**

All or portions of these flooding sources were studied using detailed methods for this FIS revision: Gallagher Creek, Magnolia Creek, Nanabe Creek, Okatibbee Creek, Robbins Branch, Shear's Branch, and Sowashee Creek. Backwater effects from Sowashee Creek on the other creeks were adjusted based on detailed analyses of Sowashee Creek.

**March 21, 2000 Revision**

All or portions of these flooding sources were studied using detailed methods for this FIS revision: Bailey Branch, Gallagher Creek, Gunn Branch, Harbour Creek, Harper Creek, Harper Creek Tributary, Loper Creek, Magnolia Creek, Nanabe Creek, Newell Branch, Okatibbee Creek, Okatibbee Creek Tributary, Robbins Branch, Shear's Branch, Sowashee Creek, and Suqualena Creek. These analyses superseded any previous studies on these streams.

This revision also incorporated a Letter of Map Revision (LOMR), dated September 30, 1999. This LOMR reflected 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.

**February 3, 2010 Revision**

For the February 3, 2010 FIS revision, some streams had names other than those used in previously printed FIS reports. 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 that countywide FIS revision, limited detailed analyses were performed for McLemore Branch, Sowashee Creek Tributary 8, Sowashee Creek Tributary 10, and Sowashee Creek Tributary 11. Streams that had not been previously studied using detailed methods were studied by approximate methods.

**This Countywide Revision Analyses**

For this revision, Bucatunna Creek was studied using detailed methods, and Coats Creek, Long Creek, Rodgers Creek, and Suqualena Creek Tributary 4 were studied by limited detailed methods. No new streams were studied by approximate methods.

All or portions of the flooding sources listed in Table 3, "Flooding Sources Studied by Detailed Methods," were studied by detailed methods and incorporated into this FIS report. Limits of detailed study are indicated on the Flood Profiles (Exhibit 1) and on the FIRM (Exhibit 2).

**Table 3: Flooding Sources Studied by Detailed Methods**

| Flooding Source | Reach Length (miles) | Study Limits |
|---|---|---|
| Bailey Branch | 2.4 | From the confluence with Loper Creek and Gun Branch to a point approximately 1,400 feet upstream of Windsor Road. |
| Bucatunna Creek* | 17.1 | From the county boundary to a point approximately 1.25 miles upstream of Carl Harper Road. |
| Gallagher Creek | 6 | From the confluence with Sowashee Creek to a point approximately 50 feet upstream of State Route 493. |

*Flooding source with new or revised analysis incorporated as part of the current study update

**Table 3: Flooding Sources Studied by Detailed Methods**

| Flooding Source | Reach Length (miles) | Study Limits |
|---|---|---|
| Harbour Creek | 2.6 | From the confluence with Sowashee Creek to a point approximately 1,025 feet upstream of Windover Circle. |
| Harper Creek | 4.5 | From the confluence with Okatibbee Creek to a point approximately 3,975 feet upstream of Cooksey Road. |
| Harper Creek Tributary 1 | 1.1 | From the confluence with Harper Creek to a point approximately 115 feet upstream of Woods Road. |
| Loper Creek | 6.1 | From the confluence with Okatibbee Creek to the confluence with Gunn Branch and Bailey Branch. |
| Gunn Branch | 2.8 | From the confluence with Loper Creek and Bailey Branch to a point approximately 2,500 feet upstream of State Highway 493. |
| Magnolia Creek | 2.7 | From the confluence with Sowashee Creek to a point approximately 100 feet upstream of 36th Street. |
| Nanabe Creek | 4.5 | From the confluence with Sowashee Creek to the confluence of Brandon Branch. |
| Newell Branch | 3.2 | From the confluence with Sowashee Creek to a point approximately 1,150 feet upstream of 61st Court. |
| Okatibbee Creek | 11.9 | From a point approximately 18 miles upstream of the mouth to a point approximately 180 feet upstream of Allen Swamp Road. |
| Okatibbee Creek Tributary 5 | 1.0 | From the confluence with Okatibbee Creek to a point approximately 145 feet upstream of Old 8th Street Road. |
| Robbins Branch | 4.0 | From the confluence with Sowashee Creek to a point approximately 2,800 feet upstream of 52nd Court |
| Shear's Branch | 1.9 | From the confluence with Sowashee Creek to a point approximately 0.2 miles upstream of 20th Street. |

**Table 3: Flooding Sources Studied by Detailed Methods**

| Flooding Source | Reach Length (miles) | Study Limits |
|---|---|---|
| Sowashee Creek | 18.5 | From a point approximately 2,600 feet above the confluence with Okatibbee Creek to a point approximately 90 feet upstream of Sam Lackey Road. |
| Suqualena Creek | 6.1 | From the confluence with Okatibbee Creek to a point approximately 2,300 feet upstream of Wilsondale Road. |

The areas studied by limited detailed methods were selected for areas having low to moderate development potential or flood hazards. The flooding sources studied by limited detailed methods are presented in Table 4, "Flooding Sources Studied by Limited Detailed Methods."

**Table 4: Flooding Sources Studied by Limited Detailed Methods**

| Flooding Source | Reach Length (miles) | Study Limits |
|---|---|---|
| Coats Creek* | 5.9 | From a point approximately 2,925 feet upstream of the confluence with Okatibbee Creek to a point approximately 1.7 miles upstream of Brookins Road. |
| Long Creek* | 9.9 | From the southern county boundary to a point approximately 3,200 feet upstream of Causeyville Road. |
| McLemore Branch | 3.4 | From the confluence with Newell Branch to a point approximately 3,400 feet upstream of Windmill Drive. |
| Rodgers Creek* | 11.6 | From the confluence with Okatibbee Creek to a point approximately 3,400 feet upstream of Haguewood Road. |
| Sowashee Creek Tributary 8 | 6.9 | From the confluence with Sowashee Creek to a point approximately 2,475 feet upstream of State Highway 39. |
| Sowashee Creek Tributary 10 | 3.0 | From the confluence with Sowashee Creek Tributary 8 to a point approximately 475 feet upstream of Cotton Gin Road. |

*Flooding source with new or revised analysis incorporated as part of the current study update

**Table 4: Flooding Sources Studied by Limited Detailed Methods**

| Flooding Source | Reach Length (miles) | Study Limits |
|---|---|---|
| Sowashee Creek Tributary 11 | 1.1 | From the confluence with Sowashee Creek Tributary 8 to a point approximately 575 feet upstream of Ponta Hills Road. |
| Suqualena Creek Tributary 4* | 1.1 | From a point approximately 470 upstream of the confluence with Suqulaena Creek Tributary 2 to a point approximately 3,550 feet upstream of Collinsville Road. |

*Flooding source with new or revised analysis incorporated as part of the current study update

Approximately 491.8 stream miles were studied by approximate methods. None of these were newly studied or revised for this countywide revision. Approximate analyses were used to study those areas having a low development potential or minimal flood hazards.

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. Lauderdale County's 2010 population was 80,261 (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°F. Extreme temperatures of -7°F and 105°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 the 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 the 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- and 1-percent-annual-chance frequency 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 0.2-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). has completed three flood control structures in the Sowashee Creek drainage basin that help to reduce the flood elevations along Sowashee Creek. These existing SCS structures were considered for this FIS. The SCS 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 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 SCS.

## 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 study. Flood events of a magnitude that is 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

### 3.1.1 Methods for Flooding Sources with New or Revised Analyses in Current Study

For this countywide study, peak discharges for the streams studied by detailed and limited detailed methods were calculated based on USGS regional regression equations (Reference 4).

For the discharges calculated based on regional regression equations, the rural regression values were updated to reflect urbanization as necessary. The seven-parameter urbanization equation in the USGS report 91-4037 (Reference 4) was used to calculate urbanization discharges.

A summary of the drainage area-peak discharge relationships for the detailed and limited detailed study streams is shown in Table 5, “Summary of Discharges for Detailed Study Streams”, and for limited detail study streams is shown in Table 6, “Summary of Discharges for Limited Detailed Study Streams.”

### 3.1.2 Methods for Flooding Sources Incorporated from Previous Studies

This section describes the methodology used in previous studies of flooding sources incorporated into this FIS that were not revised for this countywide study.

**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 5). 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 6).

**August 16, 1995 Countywide 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 from 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 7). 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 8). Table II-1 in 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 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 5).

Discharge data were obtained from the SCS 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 recently completed a regional study in Mississippi and published a report, Water-Resources Investigation Report 91-4037 (Reference 4). 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 Countywide Revision Analyses**

Discharges were determined using USGS regional equations from *Flood Characteristics of Mississippi Streams* (Reference 4). Drainage areas were determined from 1:24,000 quadrangle maps (Reference 9).

**February 3, 2010 Countywide Revision Analyses**

Peak discharges for the streams studied by Limited Detailed methods were calculated based on USGS regional regression equations (Reference 4). For the discharges calculated based on regional regression equations, the rural regression values were updated to reflect urbanization as necessary.

## 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 cautioned to use the flood elevation data presented in this FIS in conjunction with the data shown on the FIRM.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1).

Roughness coefficients (Manning's “n”) were chosen by engineering judgment and based on field observation of the channel and floodplain areas. Table 7, “Summary of Roughness Coefficients,” contains the channel and overbank "n" values for the streams studied by detailed methods.

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 for NAVD88.

**Table 5: Summary of Discharges for Detailed Study Streams**

| Flooding Source and Location | Drainage Area (Square miles) | Peak Discharges (Cubic Feet per Second) 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 |
| 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 |

**Table 5: Summary of Discharges for Detailed Study Streams**

| Flooding Source and Location | Drainage Area (Square miles) | Peak Discharges (Cubic Feet per Second) 10-percent | 2-percent | 1-percent | 0.2-percent |
|---|---|---|---|---|---|
| HARPER CREEK (continued) | | | | | |
| 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 |
| 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 |

**Table 5: Summary of Discharges for Detailed Study Streams**

| Flooding Source and Location | Drainage Area (Square miles) | Peak Discharges (Cubic Feet per Second) 10-percent | 2-percent | 1-percent | 0.2-percent |
|---|---|---|---|---|---|
| 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 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 |
| 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 |

**Table 5: Summary of Discharges for Detailed Study Streams**

| Flooding Source and Location | Drainage Area (Square miles) | Peak Discharges (Cubic Feet per Second) 10-percent | 2-percent | 1-percent | 0.2-percent |
|---|---|---|---|---|---|
| ROBBINS BRANCH (continued) | | | | | |
| 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 |

**Table 5: Summary of Discharges for Detailed Study Streams**

| Flooding Source and Location | Drainage Area (Square miles) | Peak Discharges (Cubic Feet per Second) 10-percent | 2-percent | 1-percent | 0.2-percent |
|---|---|---|---|---|---|
| SOWASHEE CREEK (continued) | | | | | |
| 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 |
| 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 6: Summary of Discharges for Limited Detailed Study Streams**

| Flooding Source and Location | Drainage Area (Square miles) | Peak Discharges (Cubic Feet per Second) 10-percent | 2-percent | 1-percent | 0.2-percent |
|---|---|---|---|---|---|
| COATS CREEK | | | | | |
| At confluence with Okatibbee Creek | 11.8 | * | * | 6,495 | * |
| At T M Jones Road | 2.1 | * | * | 1,435 | * |
| LONG CREEK | | | | | |
| At county boundary | 30.6 | * | * | 9,575 | * |
| At Purvis Road | 19.1 | * | * | 7,007 | * |
| At Railroad | 6.6 | * | * | 3,035 | * |
| MCLEMORE BRANCH | | | | | |
| At mouth | 2.14 | * | * | 1,829 | * |
| RODGERS CREEK | | | | | |
| At confluence with Okatibbee Creek | 14.1 | * | * | 5,016 | * |
| At State Highway 495 | 8.3 | * | * | 4,286 | * |
| SOWASHEE CREEK TRIBUTARY 8 | | | | | |
| At Willow Lake Road | 3.53 | * | * | 2,350 | * |
| SOWASHEE CREEK TRIBUTARY 10 | | | | | |
| Approximate 2,900 feet upstream of mouth | 3.06 | * | * | 1,943 | * |
| SOWASHEE CREEK TRIBUTARY 11 | | | | | |
| At mouth | 0.41 | * | * | 532 | * |

*Data Not Available

**Table 6: Summary of Discharges for Limited Detailed Study Streams**

| Flooding Source and Location | Drainage Area (Square miles) | Peak Discharges (Cubic Feet per Second) 10-percent | 2-percent | 1-percent | 0.2-percent |
|---|---|---|---|---|---|
| SUQUALENA CREEK TRIBUTARY 4 | | | | | |
| Approximately 470 feet upstream of the confluence with Suqualena Creek Tributary 2 | 2.6 | * | * | 2,053 | * |

* Data Not Available

**Table 7: Summary of Roughness Coefficients**

| Flooding Source | Channel | Overbanks |
|---|---|---|
| Bailey Branch | 0.015-0.07 | 0.080-0.15 |
| Bucatunna Creek | 0.045-0.05 | 0.08-0.15 |
| Coats Creek | 0.038-0.05 | 0.12-0.14 |
| 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 |
| Long Creek | 0.045 | 0.12-0.14 |
| 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 |
| Rodgers Creek | 0.045 | 0.10-0.14 |
| 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 |
| Suqualena Creek Tributary 4 | 0.04-0.05 | 0.12-0.14 |

3.2.1 Methods for Flooding Sources with New or Revised Analyses in Current Study

Cross section geometries were obtained from a combination of terrain data and

field surveys. The computer program WISE was used as a preprocessor to extract cross section topographic data from the WISE terrain project (Reference 10). Structure data is based on Mississippi Department of Transportation (MDOT) as-built data and field surveys. Standard limited detailed survey method was used to collect elevation data and structural geometry for bridges and culverts located within the limited detail study limits where as-built data is not available.

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 4.1 computer program (Reference 11). The model was run for the 1 and 0.2-percent-annual-chance storm for the detail study stream and for the 1-percent-annual-chance storm for the limited detail study streams.

3.2.2 Methods for Flooding Sources Incorporated from Previous Studies

**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 12).

Water-surface elevations of floods of the selected recurrence intervals were computed using the USACE HEC-2 step-backwater computer program (Reference 13).

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 14). 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 15). All bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry.

Starting water-surface elevations for Sowashee Creek were obtained from a USACE design memorandum (Reference 5). 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 Corps of Engineers HEC-2 computer program (Reference 13). 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 noneffective 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 12).

**February 3, 2010 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 16). 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 7, "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 studied by limited detailed methods for that revision.

## 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 used for newly created or revised FIS reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD). With the completion of the North American Vertical Datum of 1988 (NAVD), many FIS reports and FIRMs are now prepared using NAVD as the referenced vertical datum.

Qualifying bench marks within a given jurisdiction that are catalogued 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 catalogued 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. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum.

Ground, structure, and flood elevations may be compared and/or referenced to NGVD by subtracting 0.04 feet from the NAVD elevation. The 0.04 foot 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 NGVD 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.

For more information regarding conversion between the NGVD and NAVD, see the FEMA publication entitled *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988* (Reference 17), visit the National Geodetic Survey website at www.ngs.noaa.gov, or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

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.

To obtain current elevation, description, and/or location information for benchmarks shown on this map, please contact the Information Services Branch of the NGS at (301) 713-3242, or visit their website at www.ngs.noaa.gov.

## 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 report 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- and 0.2-percent-annual-chance floodplains; and a 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 tables, and Summary of Stillwater Elevation tables. 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 or limited detailed

methods, the 1-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section.

For the February 3, 2010 countywide revision, 10 meter Digital Elevation Model (DEM) data from the USGS were used to delineate the floodplain boundaries.

For the revised panels of this update, between cross sections, the boundaries were interpolated using a contour interval of 2 feet.

Some areas of the county that are protected from the 1-percent-annual-chance flood by a levee have been delineated as having potential risk due to possible failure or overtopping of the levee during larger floods.

The 1-percent-annual-chance floodplain boundaries for streams studied by detailed methods are shown on the FIRM. 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). 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 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 base flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1 foot, provided that hazardous velocities are not produced. The floodways in this study 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 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 are tabulated for selected cross sections (Table 8). 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 8, "Floodway Data." In order to reduce the risk of property damage in areas where the stream velocities are high, the community 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 8 , "Floodway Data" for certain downstream cross sections of Gallagher Creek, Loper 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 flooding 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 by 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, portions of Loper Creek, Gunn Branch, and Bailey Branch. No floodways were computed for Coats Creek, Long Creek, Rodgers Creek, McLemore Branch, Sowashee Creek Tributary 8, Sowashee Creek Tributary 10, Sowashee Creek Tributary 11 and Suqualena Creek Tributary 4 because of limitations in the limited detailed study methodology.

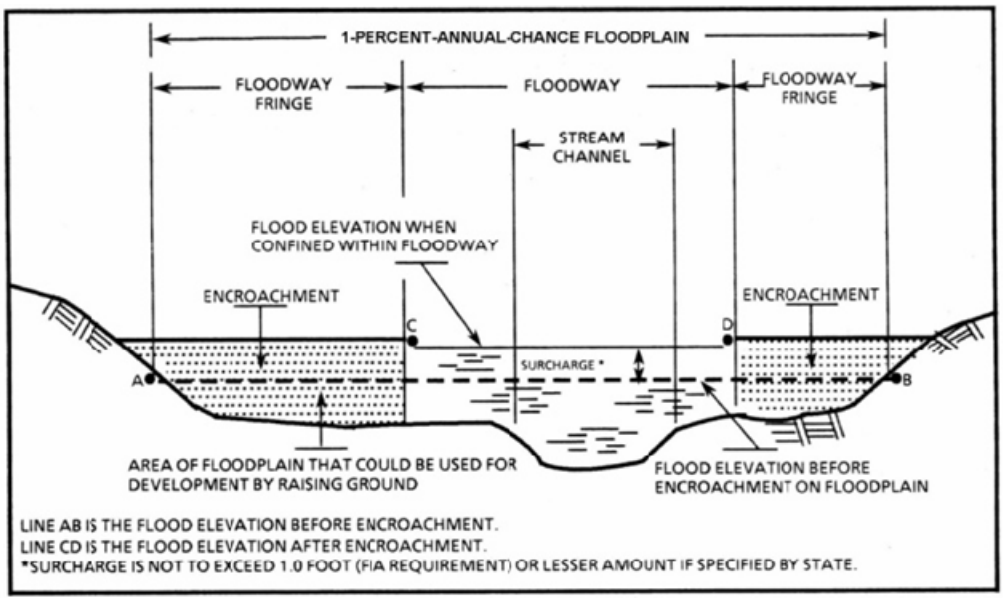


Figure 1: Floodway Schematic

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **Bucantunna Creek** | | | | | | | | |
| A | 2,000 | 1378 | 6,953 | 1.5 | 354.3 | 354.3 | 355.3 | 1.0 |
| B | 7,678 | 1670 | 8,684 | 1.2 | 359.3 | 359.3 | 359.9 | 0.6 |
| C | 12,000 | 1706 | 9,160 | 1.2 | 360.9 | 360.9 | 361.7 | 0.8 |
| D | 17,000 | 829 | 4,471 | 2.4 | 363.5 | 363.5 | 364.5 | 1.0 |
| E | 23,500 | 1110 | 8,526 | 1.3 | 368.0 | 368.0 | 369.0 | 1.0 |
| F | 27,172 | 1637 | 7,361 | 1.3 | 371.7 | 371.7 | 372.5 | 0.8 |
| G | 34,000 | 664 | 4,214 | 1.9 | 378.1 | 378.1 | 379.0 | 0.9 |
| H | 40,180 | 992 | 6,081 | 1.3 | 383.3 | 383.3 | 384.2 | 0.9 |
| I | 45,634 | 1445 | 3,932 | 2.1 | 386.8 | 386.8 | 387.8 | 1.0 |
| J | 50,840 | 1008 | 4,562 | 1.6 | 392.3 | 392.3 | 393.2 | 0.9 |
| K | 54,185 | 617 | 3,439 | 2.0 | 396.3 | 396.3 | 397.2 | 0.9 |
| L | 58,000 | 870 | 3,800 | 1.7 | 400.3 | 400.3 | 401.3 | 1.0 |
| M | 63,000 | 1106 | 4,343 | 1.4 | 405.5 | 405.5 | 406.5 | 1.0 |
| N | 66,819 | 233 | 1,418 | 3.1 | 408.7 | 408.7 | 409.4 | 0.7 |
| O | 71,500 | 746 | 4,855 | 0.8 | 411.9 | 411.9 | 412.7 | 0.8 |
| P | 76,000 | 293 | 1,463 | 2.5 | 417.6 | 417.6 | 418.4 | 0.8 |
| Q | 79,000 | 425 | 1,434 | 2.2 | 423.9 | 423.9 | 424.5 | 0.6 |
| R | 82,000 | 309 | 1,139 | 2.6 | 429.6 | 429.6 | 430.5 | 0.9 |
| S | 88,028 | 169 | 924 | 2.4 | 442.4 | 442.4 | 443.0 | 0.6 |

[1] Feet above Limit of Detailed Study (a point approximately 860 feet upstream of County Rd 432 in Clarke County, MS)

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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 | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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] Feet above confluence with Sowashee Creek

[2] Combined Harbour Creek/Sowashee Creek floodway

[3] Elevation computed without consideration of backwater effects from Sowashee Creek

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

**LAUDERDALE COUNTY, MS**

AND INCORPORATED AREAS

## FLOODWAY DATA

## Loper Creek

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

**LAUDERDALE COUNTY, MS**

AND INCORPORATED AREAS

**FLOODWAY DATA**

**Magnolia Creek**

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

**LAUDERDALE COUNTY, MS**

AND INCORPORATED AREAS

## FLOODWAY DATA

## Newell Branch

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **Sowashee Creek (continued)** | | | | | | | | |
| T | 25,487 | 373 | 4,524 | 4.8 | 302.6 | 302.6 | 303.0 | 0.4 |
| 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

| FLOODING SOURCE | | FLOODWAY | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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 | | | BASE FLOOD WATER SURFACE ELEVATION | | | |
|---|---|---|---|---|---|---|---|---|
| CROSS SECTION | DISTANCE[1] | WIDTH (FEET) | SECTION AREA (SQUARE FEET) | MEAN VELOCITY (FEET PER SECOND) | REGULATORY (FEET NAVD 88) | WITHOUT FLOODWAY (FEET NAVD 88) | WITH FLOODWAY (FEET NAVD 88) | INCREASE (FEET) |
| **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 report by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base (1-percent-annual-chance) flood elevations (BFEs) or 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 report by detailed methods. 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 (sq. mi.), and areas protected from the base flood by levees. No BFEs or depths are shown within this zone.

## 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 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 9, “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.

This FIS report supersedes or is compatible with all previous studies published on streams studied in this report and should be considered authoritative for the purposes of the NFIP.

## 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.

| 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<br>September 5, 1980 | September 29, 1989 | August 16, 1995<br>March 21, 2000<br>February 3, 2010 |
| Meridian, City of | June 28, 1974 | January 30, 1976 | December 15, 1977 | September 10, 1982<br>September 29, 1989<br>August 16, 1995<br>March 21, 2000<br>February 3, 2010 |
| Lauderdale County (Unincorporated Areas) | January 13, 1978 | -- | September 29, 1989 | August 16, 1995<br>March 21, 2000<br>February 3, 2010 |

TABLE 9

FEDERAL EMERGENCY MANAGEMENT AGENCY

**LAUDERDALE COUNTY, MS**
AND INCORPORATED AREAS

# COMMUNITY MAP HISTORY

## 9.0 BIBLIOGRAPHY AND REFERENCES


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*Work Map, Meridian, Mississippi.* Scale 1"=200', Contour Interval 2 Feet, August 1992.

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17. Federal Emergency Management Agency. *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988 - Guidelines for Community Officals, Engineers, and Surveyors.* 6/1/1992. 3-0170.

18. (MARIS), Mississippi Automated Resource information System. *Countywide Elevation Grid for Mississippi, 10 meter.* 2004.

19. U.S. Department of the Interior, Geological Survey. *Flood Chracteristics of Mississippi Streams, Water-Resources Investigations Report 91-4037.* Jackson, Mississippi : 1991.

## 10.0 REVISION DESCRIPTIONS

This section has been added to provide information regarding significant revisions made since the original FIS was printed. Future revisions may be made that do not result in the republishing of the FIS report. To assure that the user is aware of all revisions, it is advisable to contact the community repository of flood-hazard data located at:

- Lauderdale County Courthouse, Tax Assessor's Office
  500 Constitution Avenue
  Meridian, Mississippi 30301

- Marion Town Hall
  6021 Dale Drive
  Marion, Mississippi 39342

- Meridian City Hall
  601 24th Avenue
  Meridian, Mississippi 39302

### 10.1 First Revision (August 16, 1995)

The August 16, 1995, revisions to the countywide FIS updated hydrologic and hydraulic analyses for Sowashee Creek, Gallagher Creek, Magnolia Creek, Nanabe Creek, Robbins Branch, and Shear's Branch.

### 10.2 Second Revision (March 21, 2000)

The March 21, 2000, revisions to the countywide FIS added hydrologic and hydraulic analyses for sections of Gallagher Creek, Magnolia Creek, Robbins Branch, Harbour Creek, and Newell Branch.

## 10.3 Third Revision (February 3, 2010)

The February 3, 2010 countywide revision was initiated in support of the FEMA MapMod program and converted all data to NAVD, updated the map format, and created the digital data. This updated study resulted in some stream name changes (listed in Section 2.1). New limited detailed analyses were performed for Mclemore Branch, Sowashee Creek Tributary 8, Sowashee Creek Tributary 10, and Sowashee Creek Tributary 11. Floodplain boundaries of streams that had been previously studied by detailed methods were redelineated based on updated topographic information. All floodplain boundaries were refined based on the updated topographic data.

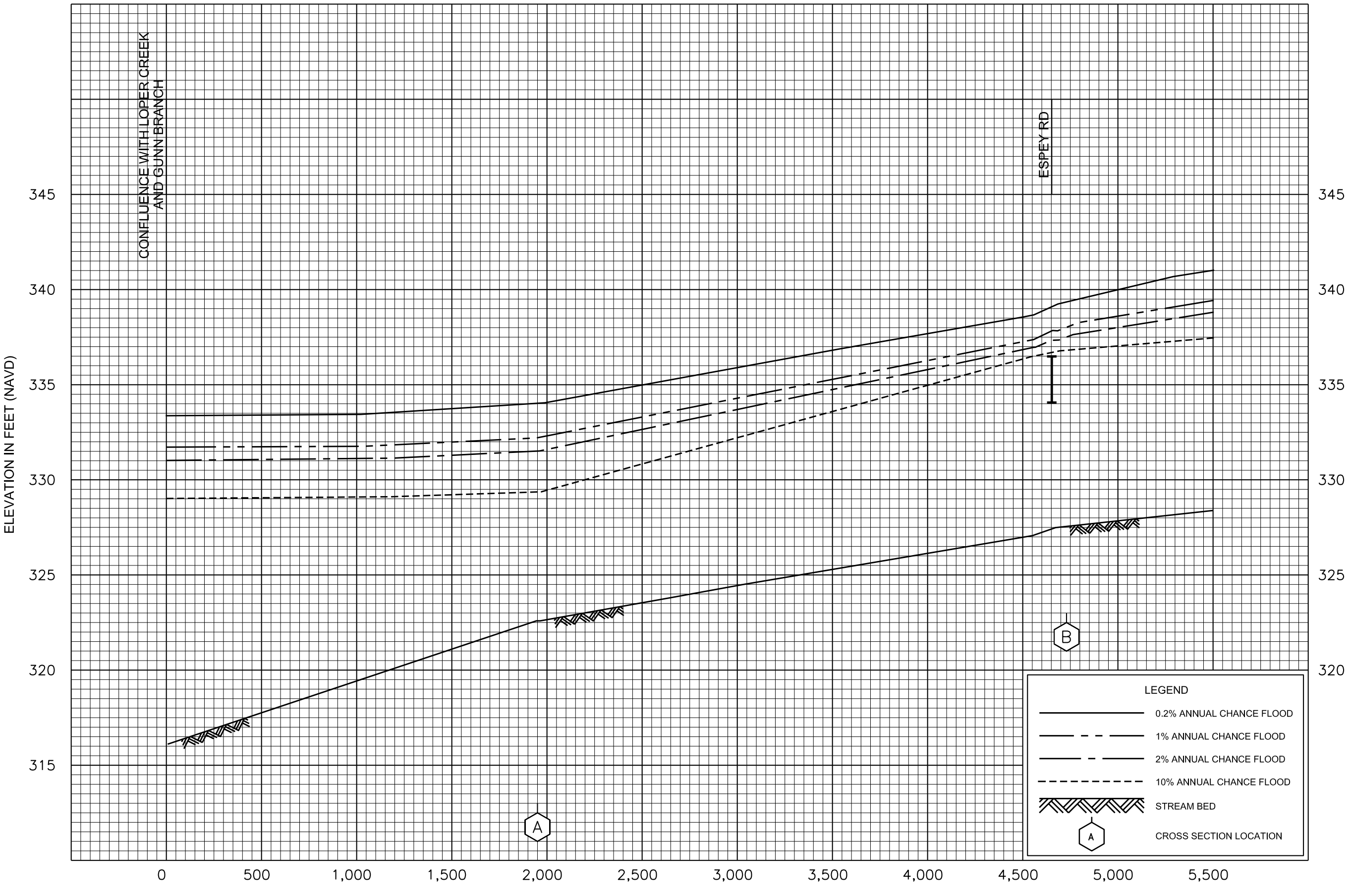
## 10.4 Fourth Revision (Month Day, 2011)

This xx/xx/xxxx revision was initiated in support of the FEMA Risk MAP Program.

This revision involved updating the mapping for portions of Lauderdale County, Mississippi. The revision includes a new detailed study on Bucatunna Creek and new limited detailed studies on Coats Creek, Long Creek, Rodgers Creek, and Suqualena Creek Tributary 4. These revisions resulted in refined floodplain boundaries.

Floodplain boundaries for only the previously mentioned streams were updated. Therefore, only the panels affected by these floodplain boundaries have been updated. The following panels were updated in support of the Risk MAP Program:

| | | | |
|---|---|---|---|
| 28075C0065G | 28039C0295G | 28075C0330G | 28075C0430G |
| 28075C0155G | 28075C0310G | 28075C0340G | 28075C0435G |
| 28075C0160G | 28075C0315G | 28075C0350G | 28075C0475G |
| 28075C0180G | 28075C0320G | 28075C0410G | |



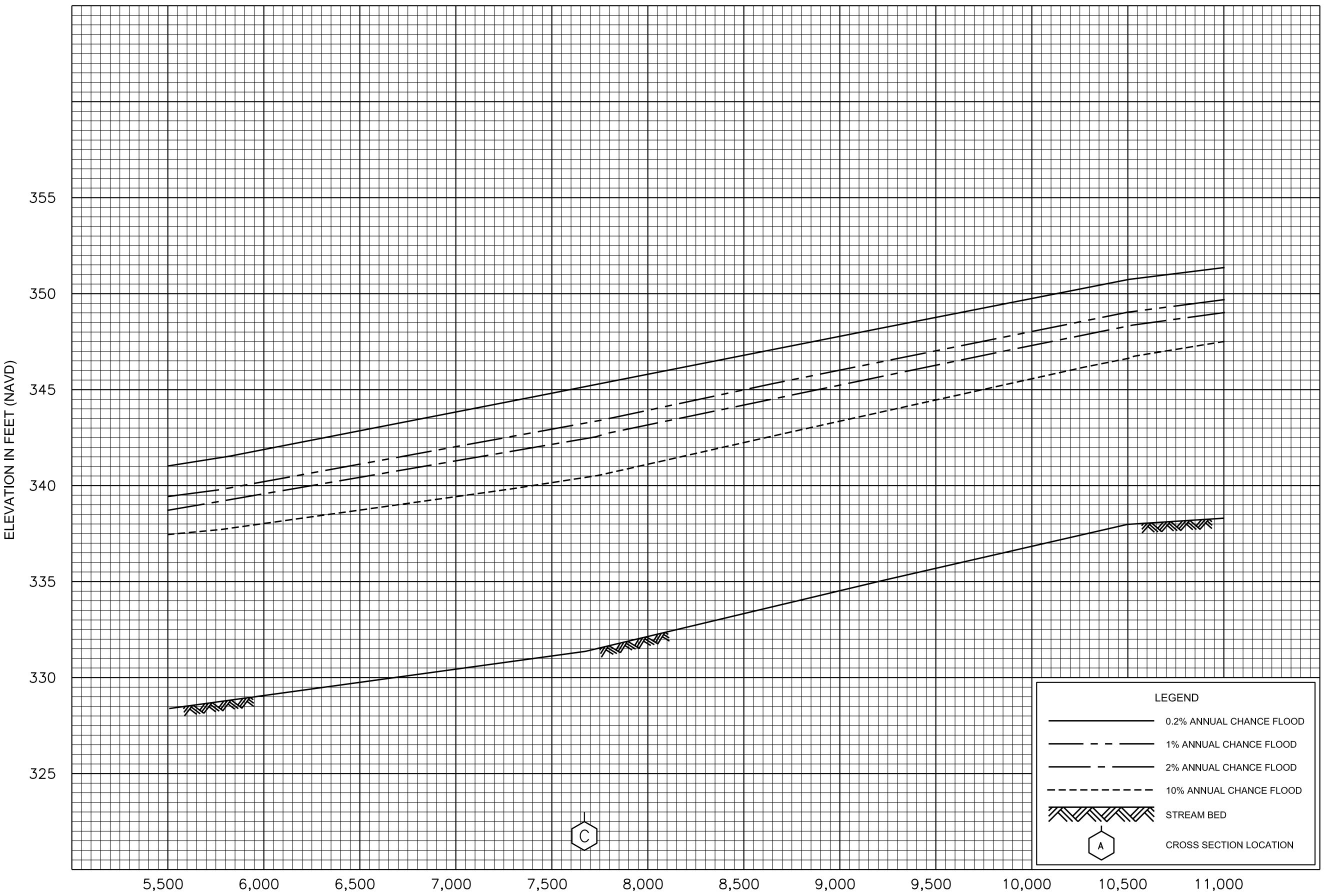

FLOOD PROFILES

BAILEY BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

01P



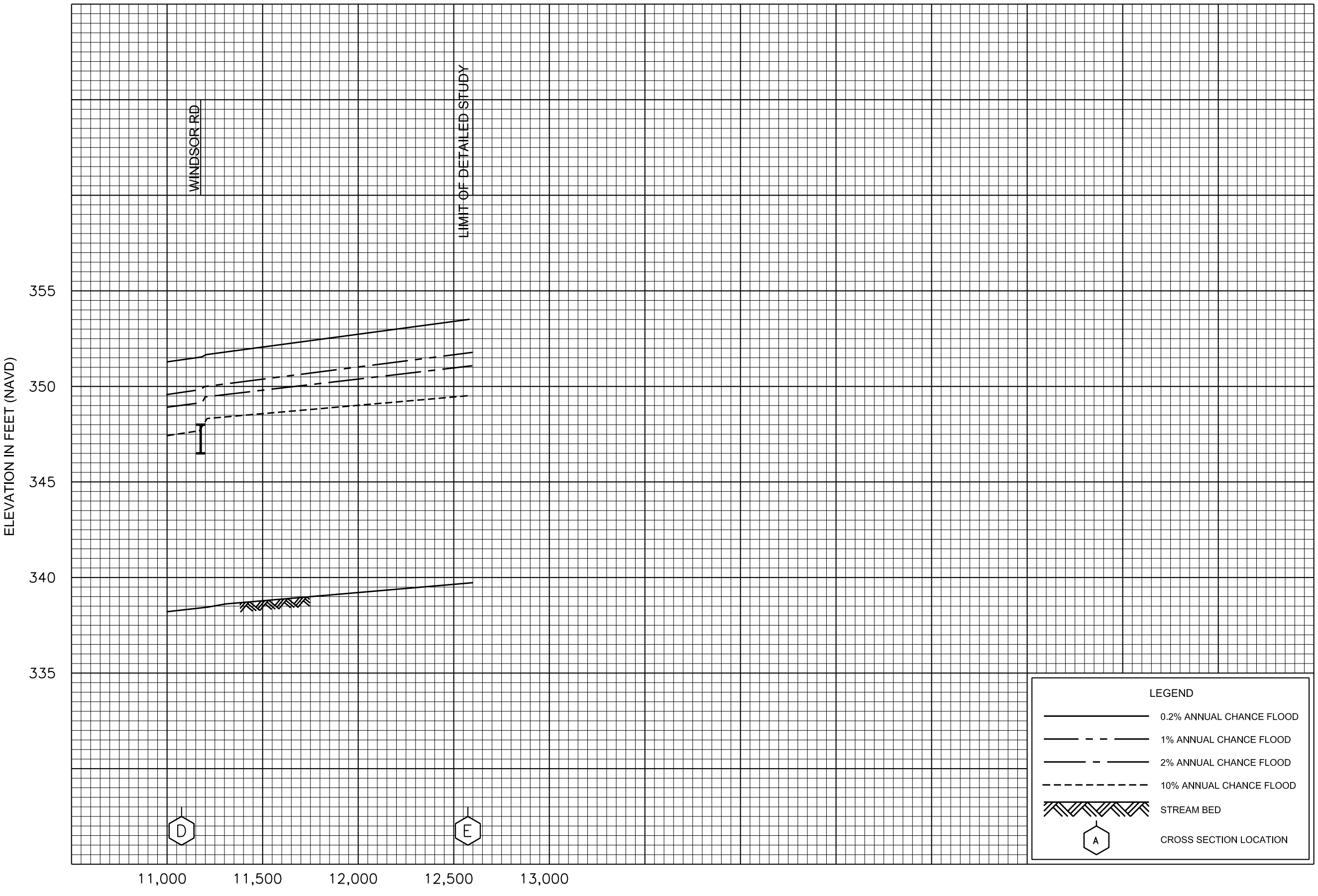

FLOOD PROFILES

BAILEY BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

02P




FLOOD PROFILES

BAILEY BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

03P

FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

## FLOOD PROFILES

BUCANTUNNA CREEK

04P

*LIMIT OF DETAILED STUDY IS LOCATED AT A POINT APPROXIMATELY 860 FEET UPSTREAM OF COUNTY RD 432 (CLARKE COUNTY)

STREAM DISTANCE IN FEET ABOVE LIMIT OF DETAILED STUDY*

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

A B C D

ELEVATION IN FEET (NAVD)

320 340 360 380

LEGEND

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

THE 0.2% AND 2% ANNUAL CHANCE FLOOD PROFILES ARE TOO CLOSE TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY

COUNTY BOUNDARY

PICKARD CAMPBELL RD

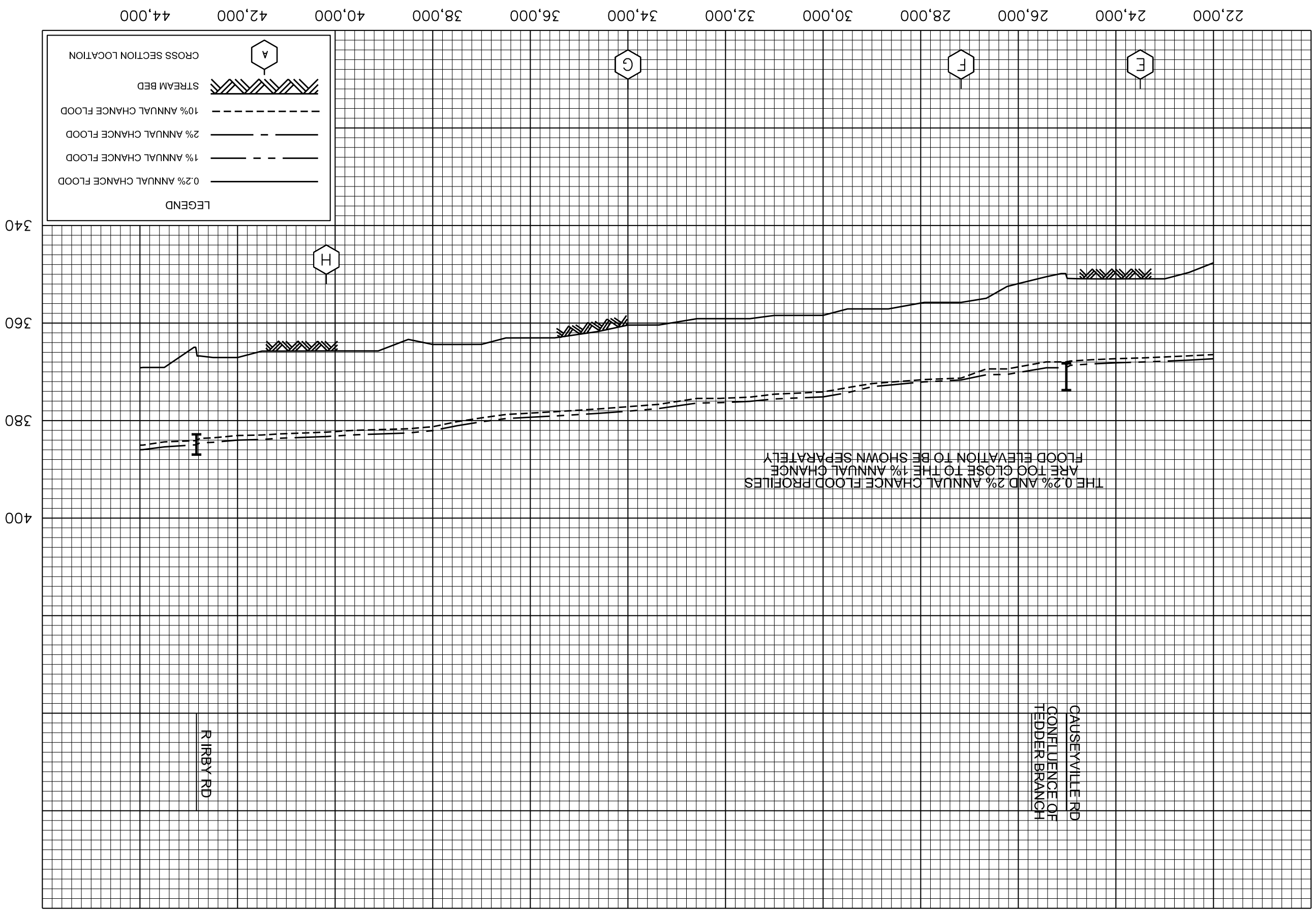
CONFLUENCE OF BUCANTUNNA CREEK TRIBUTARY 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

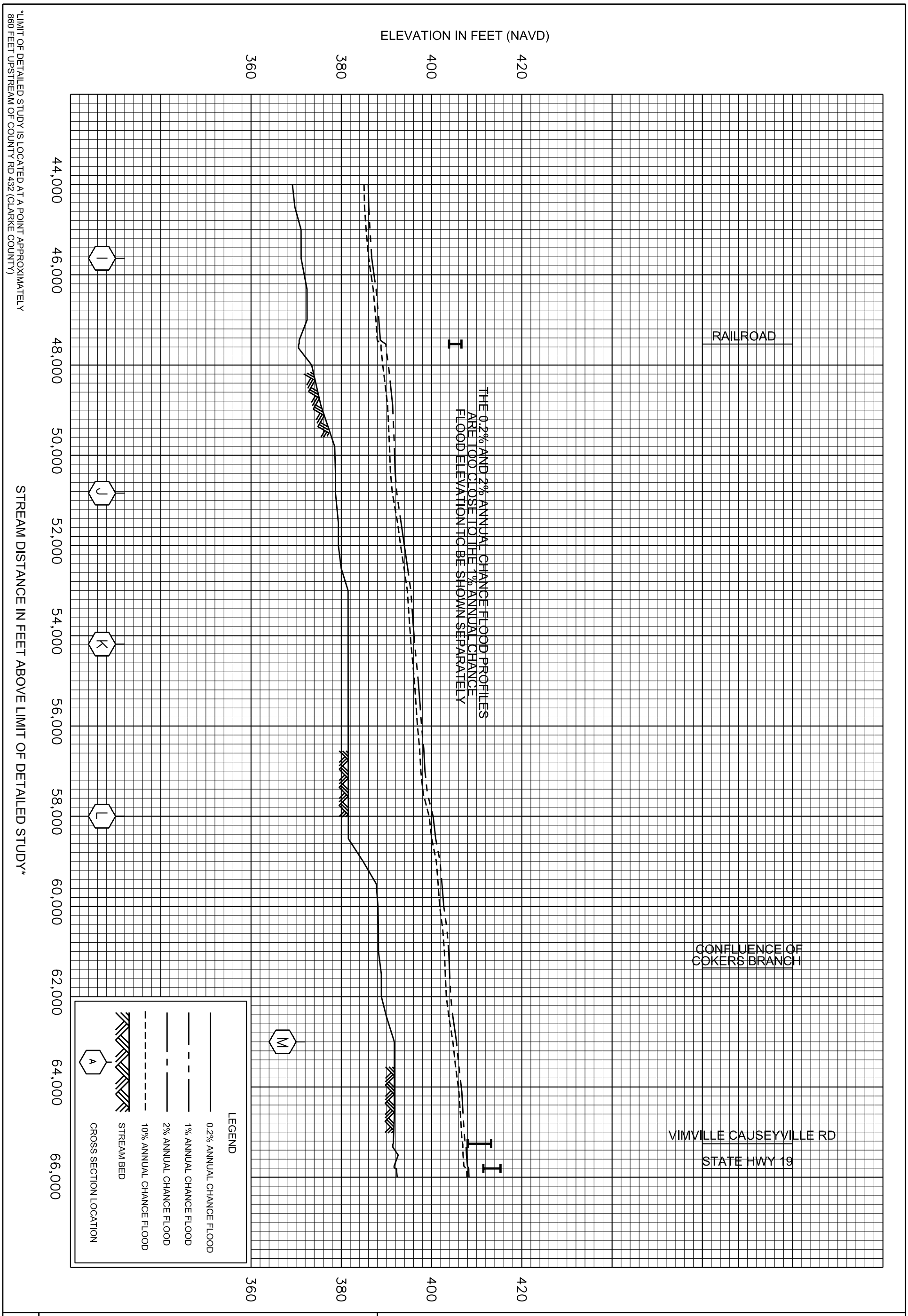
# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

## FLOOD PROFILES

## BUCANTUNNA CREEK




05P




*LIMIT OF DETAILED STUDY IS LOCATED AT A POINT APPROXIMATELY 860 FEET UPSTREAM OF COUNTY RD 432 (CLARKE COUNTY)

FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

## FLOOD PROFILES

## BUCANTUNNA CREEK

06P

FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

## FLOOD PROFILES

## BUCANTUNNA CREEK

07P

*LIMIT OF DETAILED STUDY IS LOCATED AT A POINT APPROXIMATELY 860 FEET UPSTREAM OF COUNTY RD 432 (CLARKE COUNTY)

STREAM DISTANCE IN FEET ABOVE LIMIT OF DETAILED STUDY*

66,000 68,000 70,000 72,000 74,000 76,000 78,000 80,000 82,000 84,000 86,000 88,000 90,000 92,000

N O P Q R S

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

THE 0.2% AND 2% ANNUAL CHANCE FLOOD PROFILES ARE TOO CLOSE TO THE 1% ANNUAL CHANCE FLOOD ELEVATION TO BE SHOWN SEPARATELY

I CULVERT

OLD HWY 19

CONFLUENCE OF WALKERS BRANCH

OLD WIRE RD

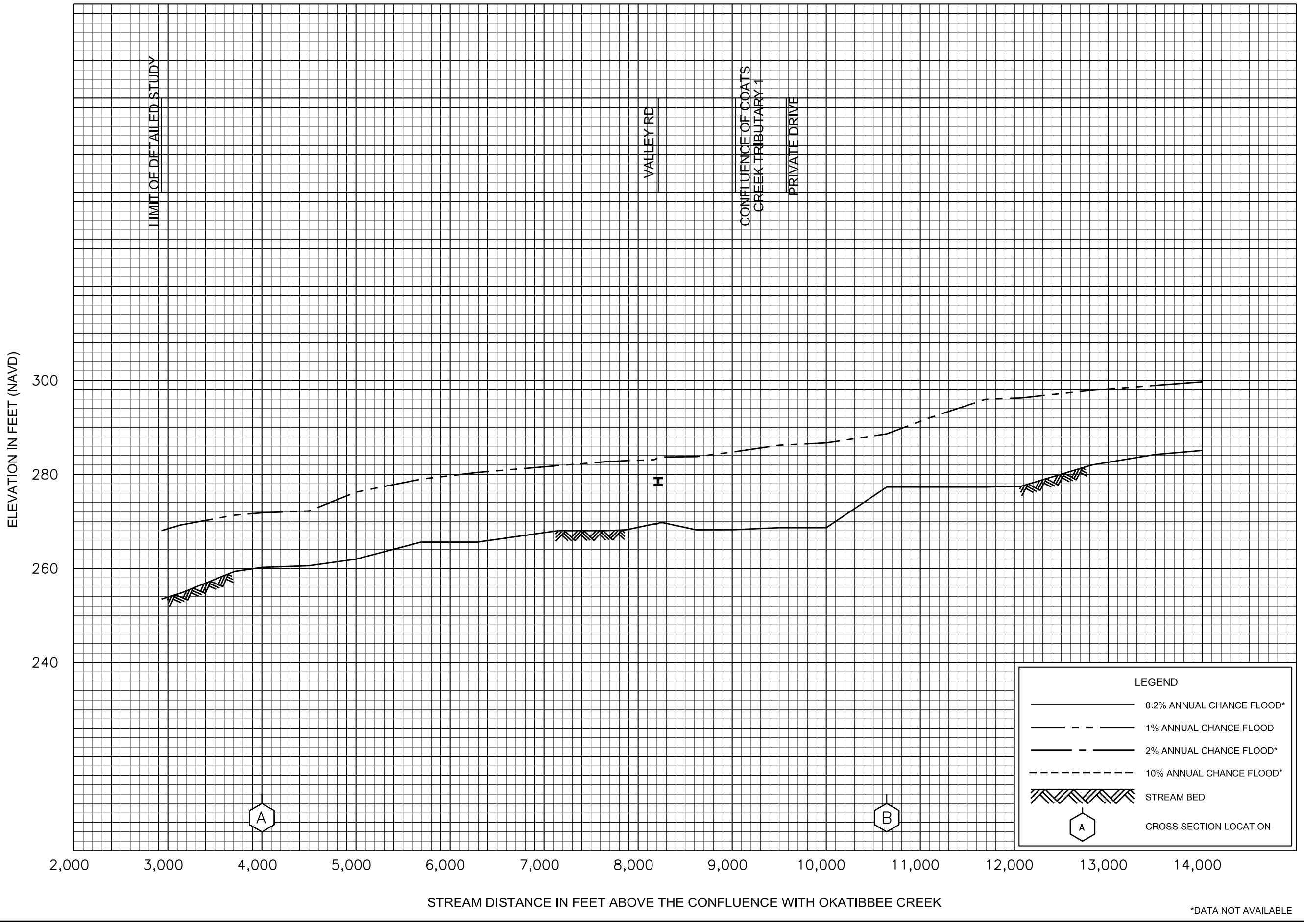
CARL HARPER RD

LIMIT OF STUDY

ELEVATION IN FEET (NAVD)

380 400 420 440 460

400 420 440 460



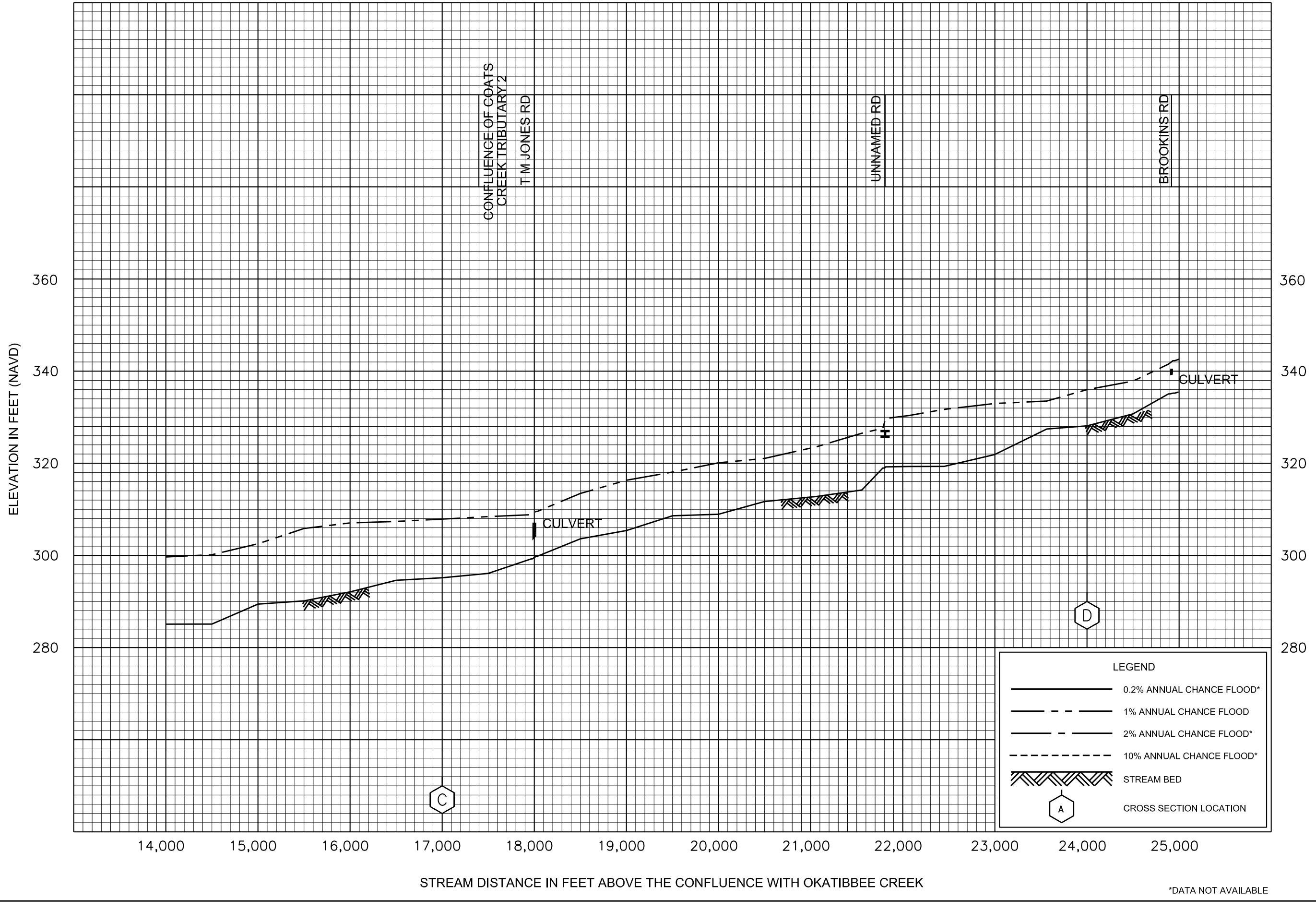

FLOOD PROFILES

COATS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

08P




STREAM DISTANCE IN FEET ABOVE THE CONFLUENCE WITH OKATIBBEE CREEK

*DATA NOT AVAILABLE

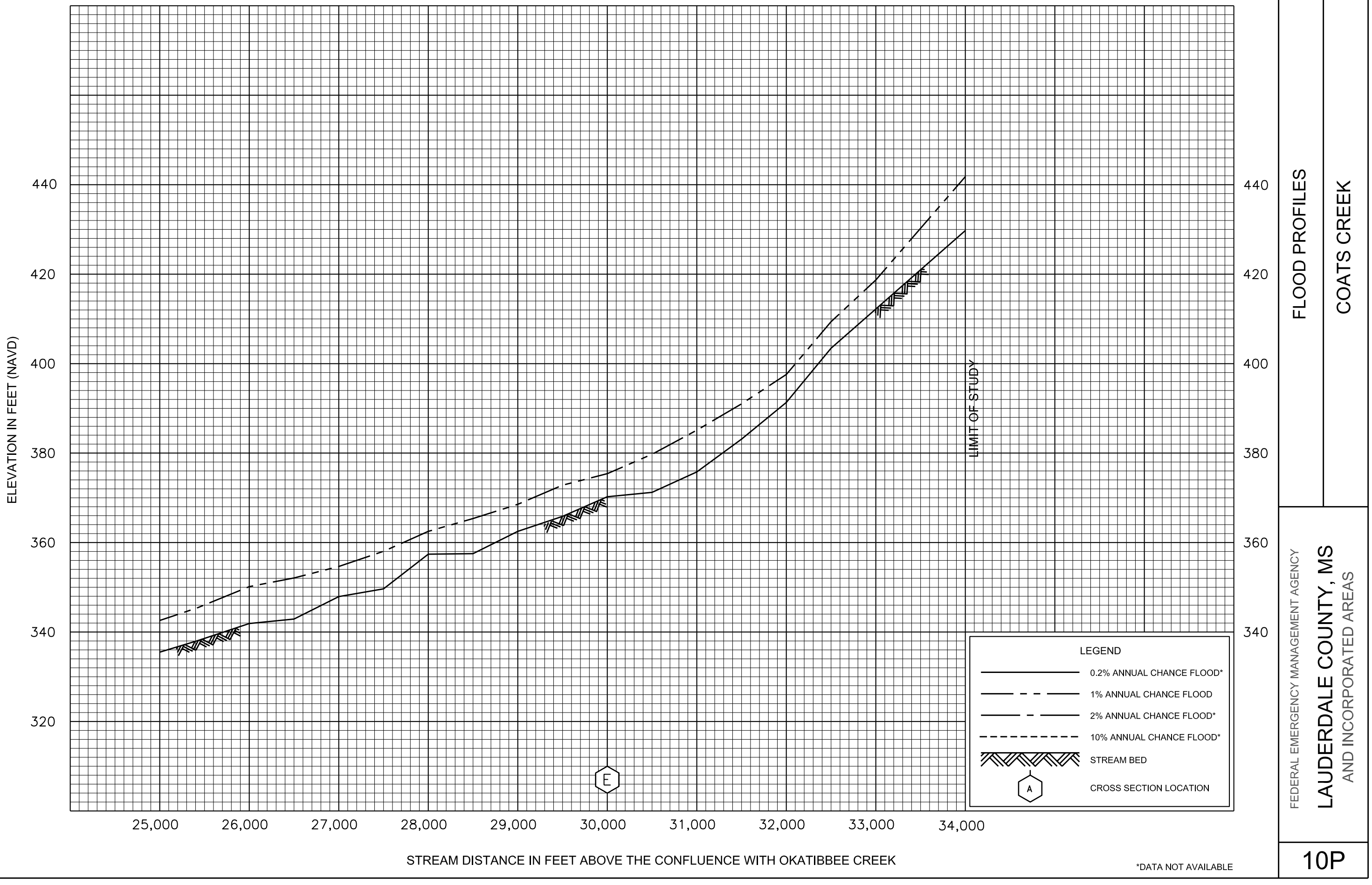
FLOOD PROFILES

COATS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

09P




*DATA NOT AVAILABLE

FLOOD PROFILES

COATS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

10P

ELEVATION IN FEET (NAVD)

280 290 300 310 320 330 340

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

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

1% ANNUAL CHANCE BACKWATER FROM SOWASHEE CREEK

CONFLUENCE WITH SOWASHEE CREEK

INTERCHANGE RD

RAILROAD

HOOPER ST

5TH ST

PAULDING ST

8TH ST

PEDESTRIAN BRIDGE

HIGHLAND PARK DR

JIMMIE RODGERS DR

19TH ST

20TH ST

ROYAL RD

RAILROAD

CULVERT

CULVERT

CULVERT

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

11P

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

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 ST

CULVERT

M

N

34TH ST

36TH ST

38TH ST

CULVERT

CULVERT

O

P

Q

R

40TH ST

S

35TH AVE

PEDESTRIAN BRIDGE

45TH ST

T

CULVERT

U

NORTH HILLS ST

V

49TH CT

50TH ST

W

52ND ST

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

12P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

GALLAGHER CREEK

ELEVATION IN FEET (NAVD)

370 380 390 400 410 420 430

26,000 27,000 28,000 29,000 30,000 31,000 32,000 33,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

GRAVEL ROAD

STATE HWY 493

LIMIT OF DETAILED STUDY

X Y Z

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

A CROSS SECTION LOCATION

380 390 400 410 420 430

13P

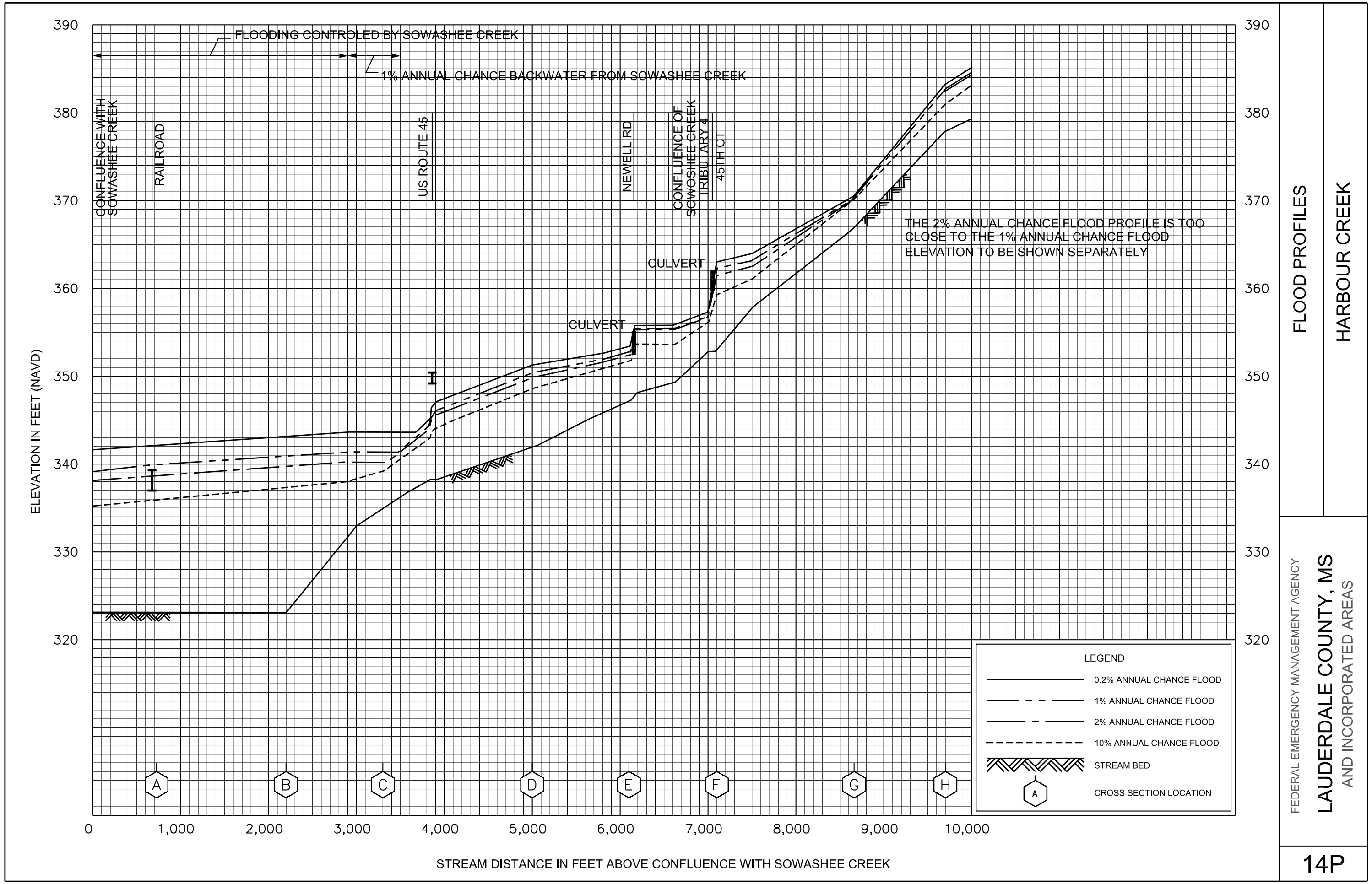
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

GALLAGHER CREEK



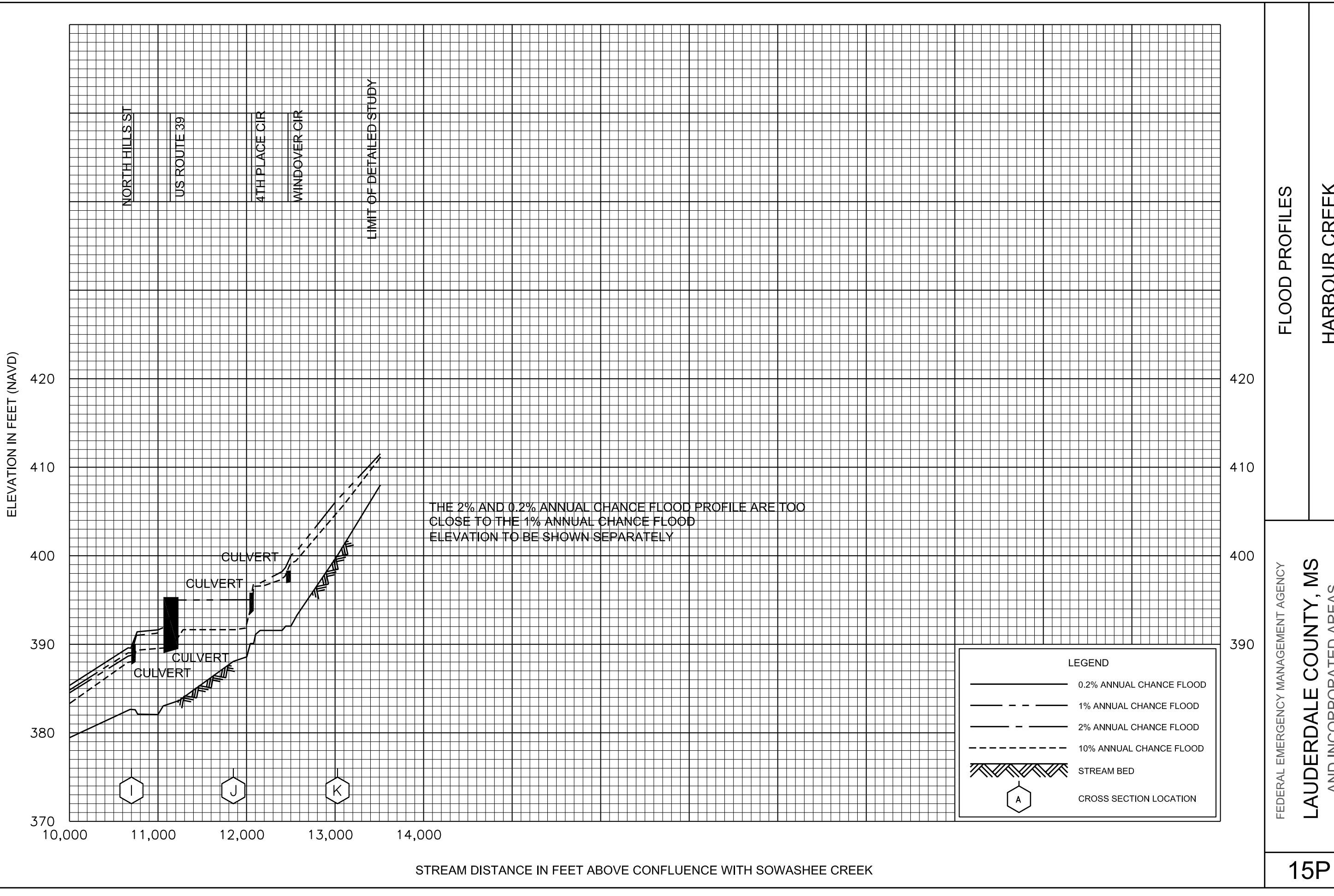

FLOOD PROFILES

HARBOUR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

14P




FLOOD PROFILES

HARBOUR CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

15P

ELEVATION IN FEET (NAVD)

290 300 310 320 330 340

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

STREAM DISTANCE IN FEET ABOVE MOUTH

CONFLUENCE WITH OKATIBBEE CREEK

1% ANNUAL CHANCE BACKWATER FROM OKATIBBEE CREEK

CONFLUENCE OF HARPER CREEK TRIBUTARY 1

CRICKET RD

STATE HWY 19

RAILROAD

CONFLUENCE OF HARPER CREEK TRIBUTARY 2

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

300 310 320 330 340

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

HARPER CREEK

16P

ELEVATION IN FEET (NAVD)

320 330 340 350 360 370

12,000 13,000 14,000 15,000 16,000 17,000 18,000 19,000 20,000 21,000 22,000 23,000 24,000

STREAM DISTANCE IN FEET ABOVE MOUTH

F G H I

WOODS RD

COOKSEY RD

LIMIT OF DETAILED STUDY

LEGEND

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

320 330 340 350 360 370

FEDERAL EMERGENCY MANAGEMENT AGENCY

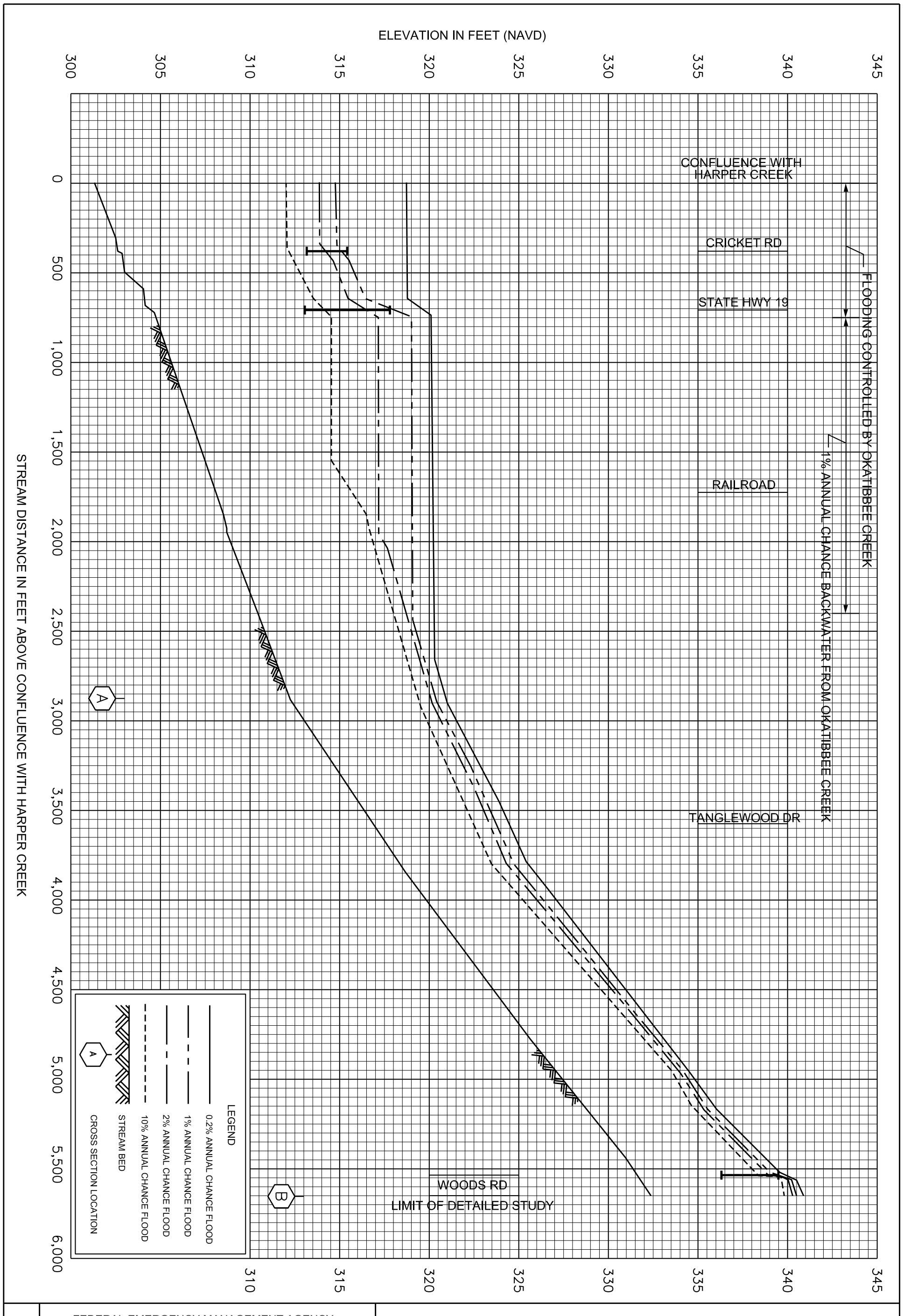
# LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

## FLOOD PROFILES

## HARPER CREEK

17P




18P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

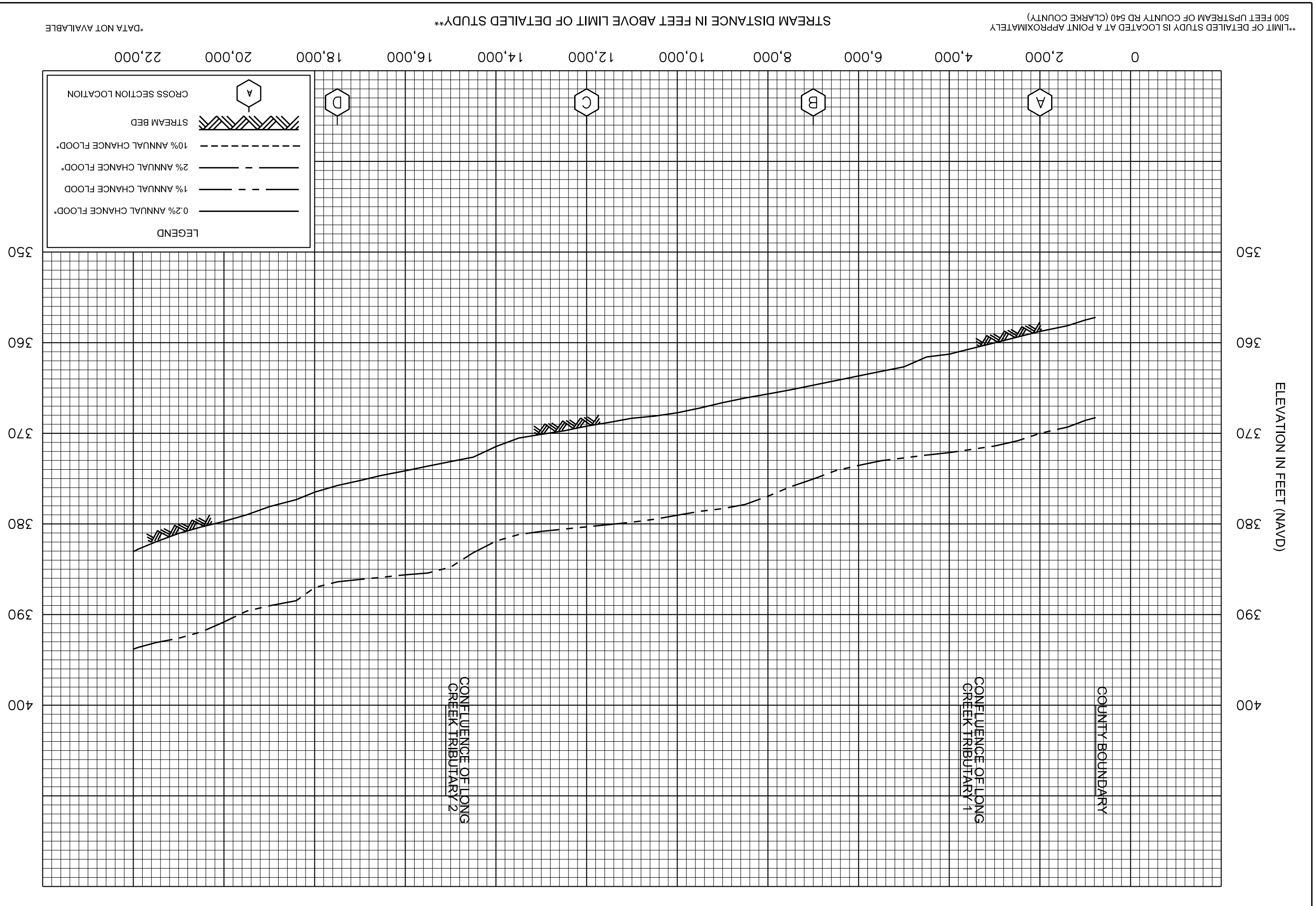
HARPER CREEK TRIBUTARY 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

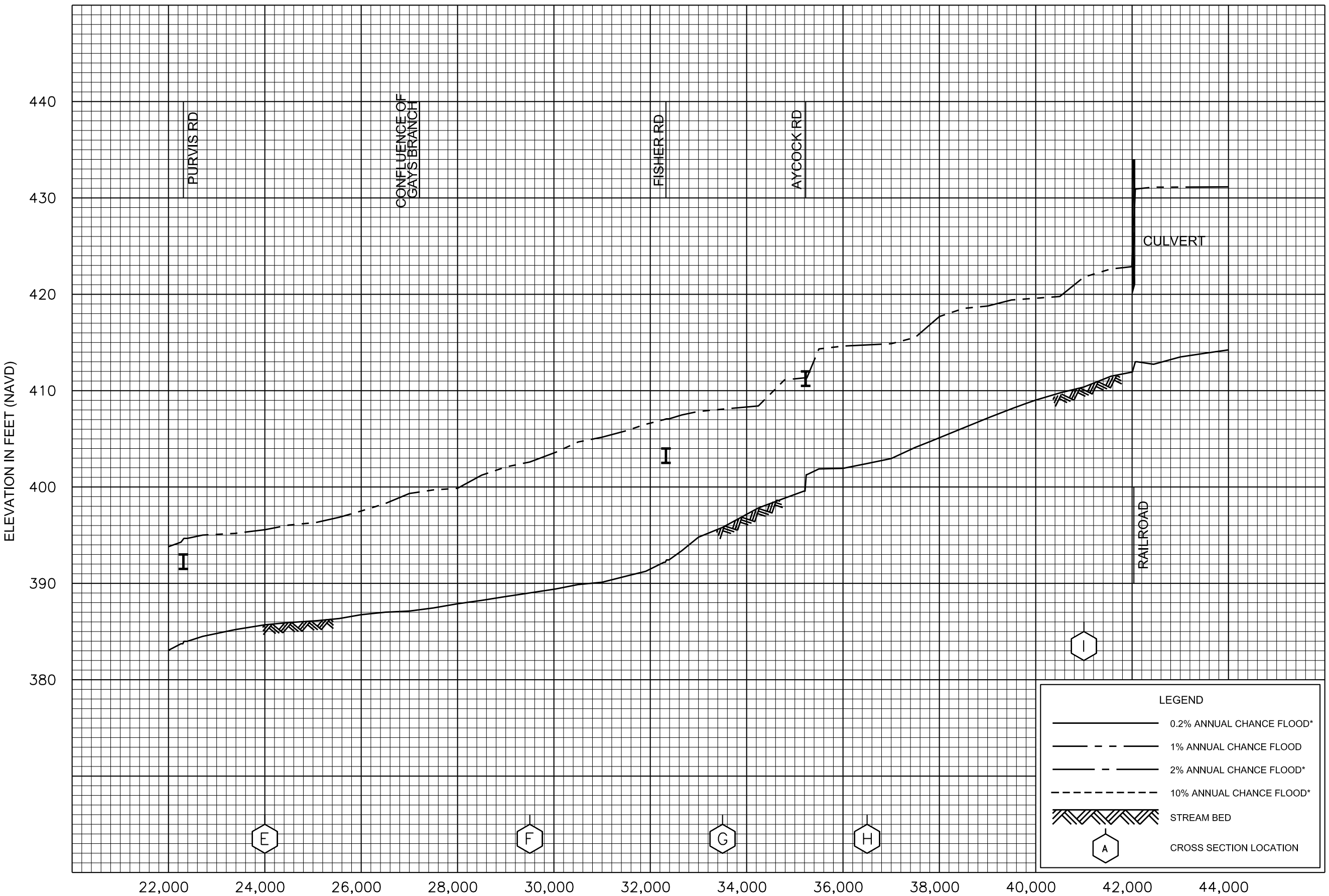
## FLOOD PROFILES

LONG CREEK




**LIMIT OF DETAILED STUDY IS LOCATED AT A POINT APPROXIMATELY 500 FEET UPSTREAM OF COUNTY RD 540 (CLARKE COUNTY)

*DATA NOT AVAILABLE




**LIMIT OF DETAILED STUDY IS LOCATED AT A POINT APPROXIMATELY 500 FEET UPSTREAM OF COUNTY RD 540 (CLARKE COUNTY)

STREAM DISTANCE IN FEET ABOVE LIMIT OF DETAILED STUDY**

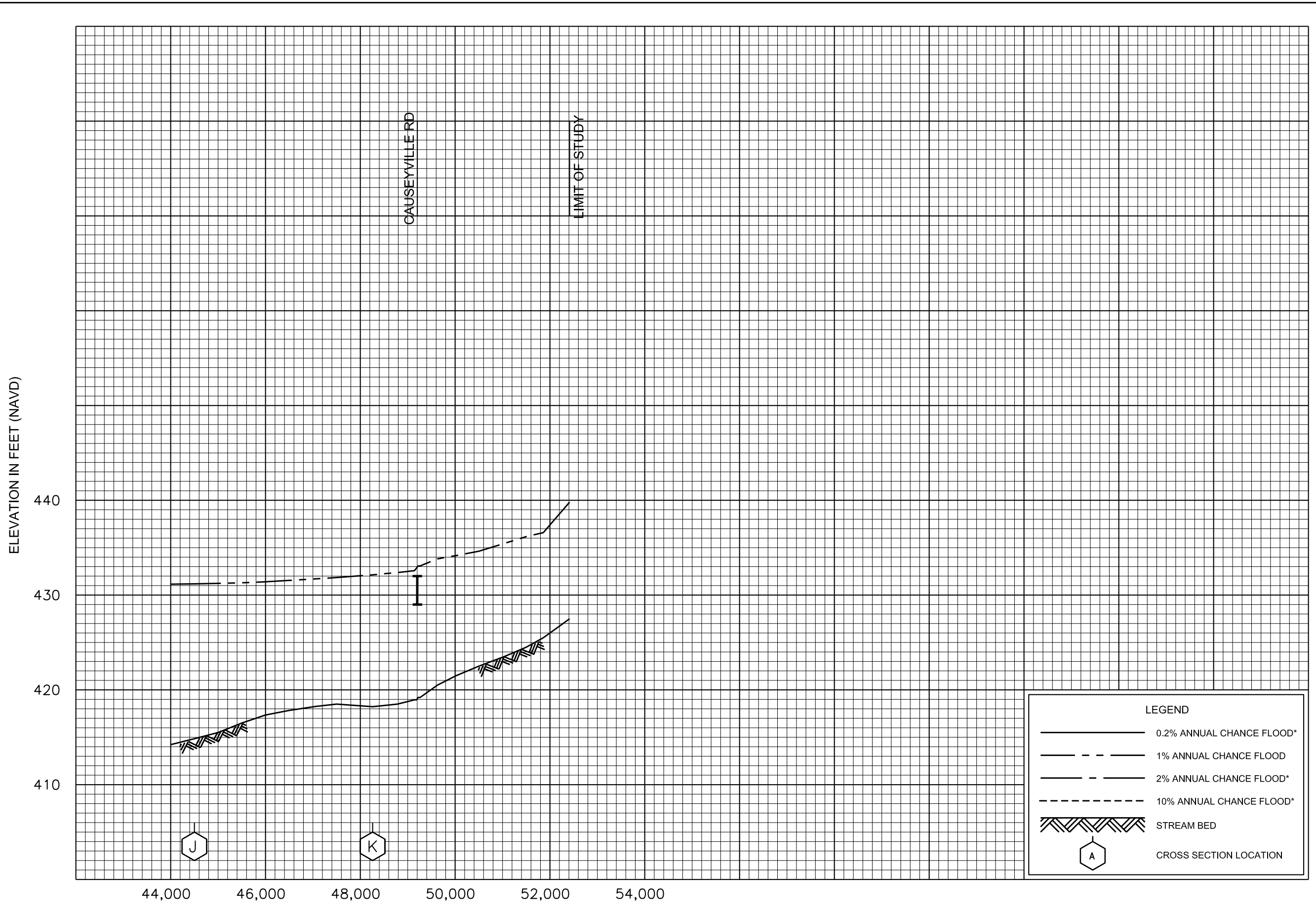
*DATA NOT AVAILABLE

FLOOD PROFILES

LONG CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS




**LIMIT OF DETAILED STUDY IS LOCATED AT A POINT APPROXIMATELY 500 FEET UPSTREAM OF COUNTY RD 540 (CLARKE COUNTY)

STREAM DISTANCE IN FEET ABOVE LIMIT OF DETAILED STUDY**

*DATA NOT AVAILABLE

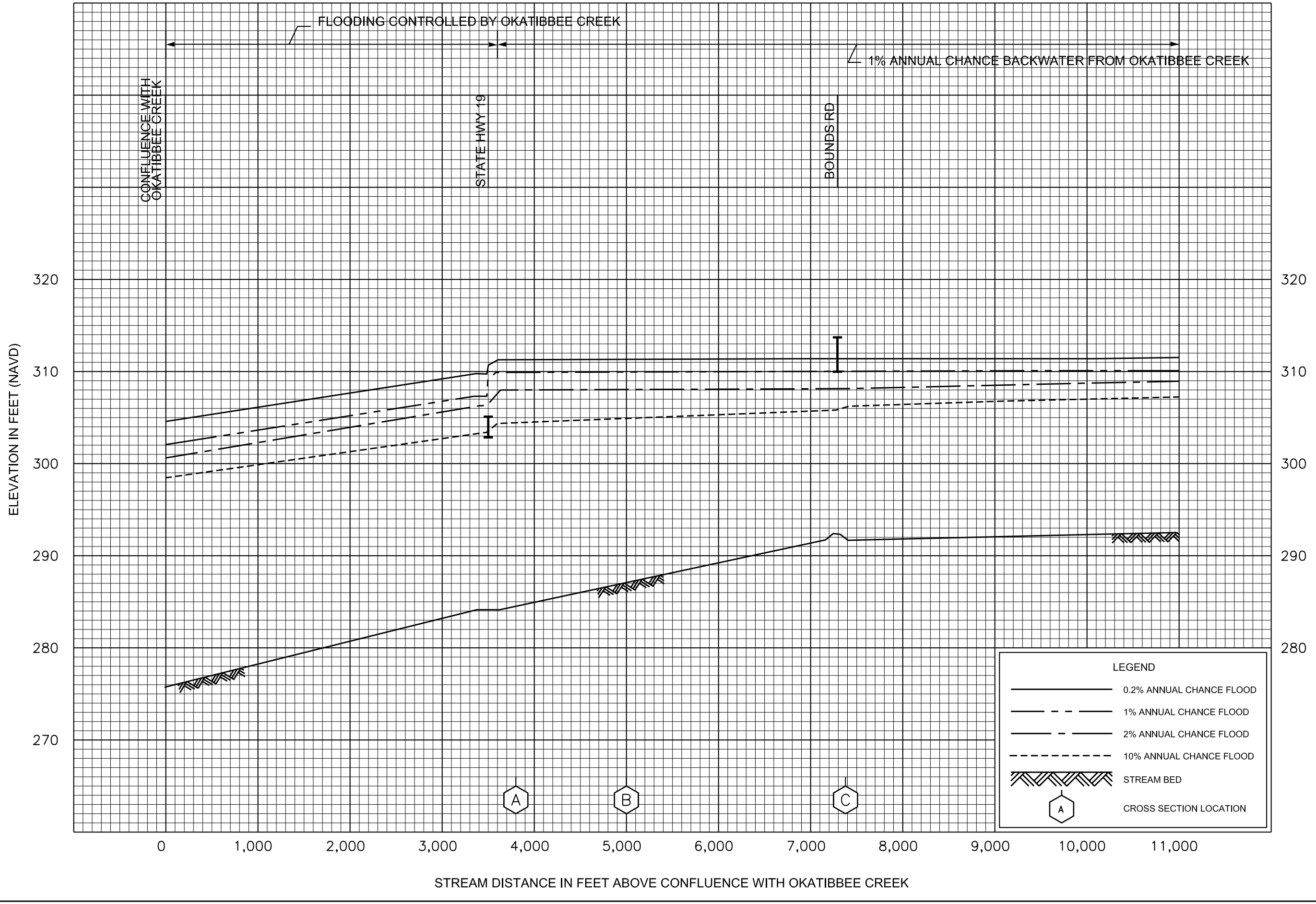
FLOOD PROFILES

LONG CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS



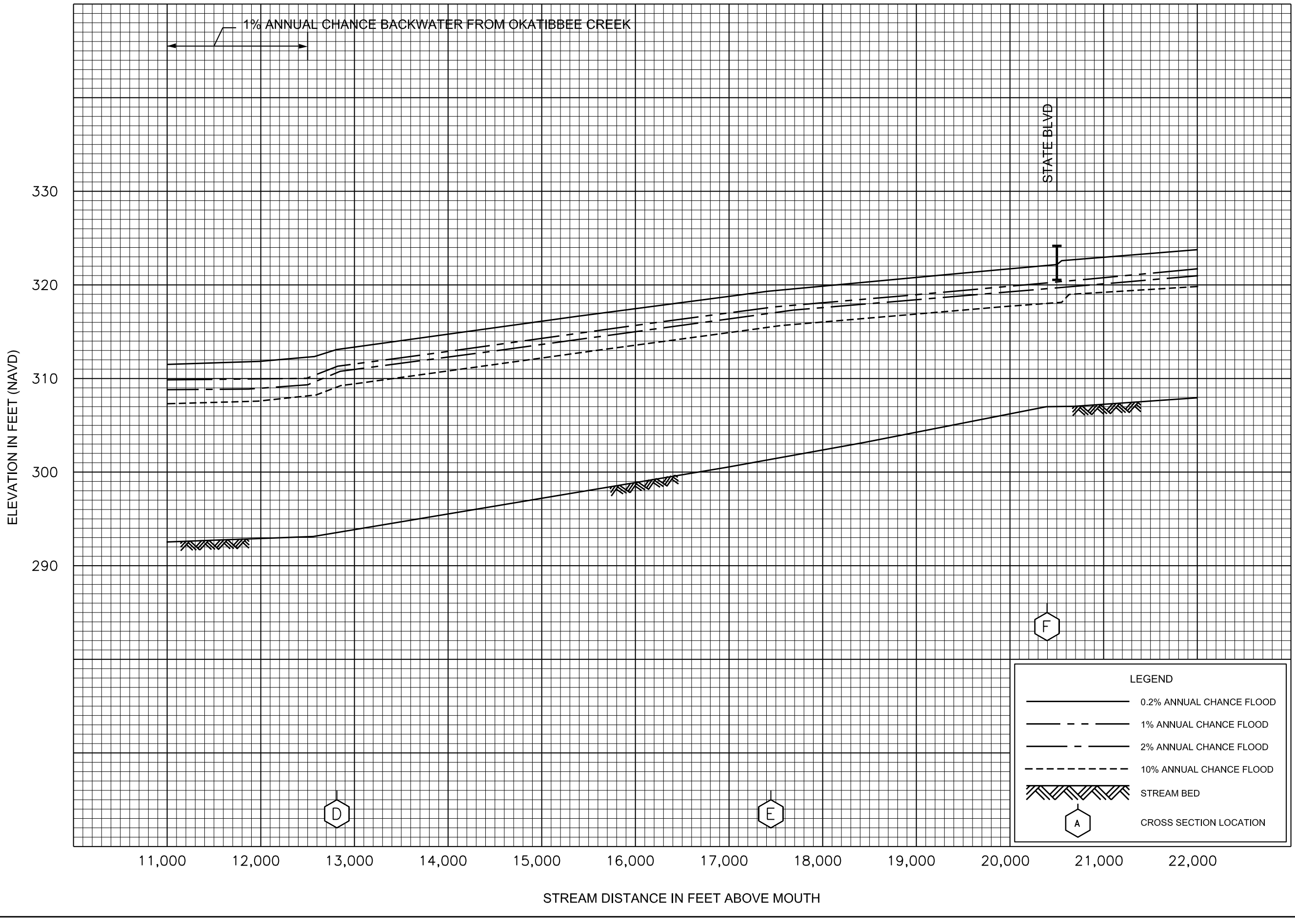

FLOOD PROFILES

LOPER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

22P




FLOOD PROFILES

LOPER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

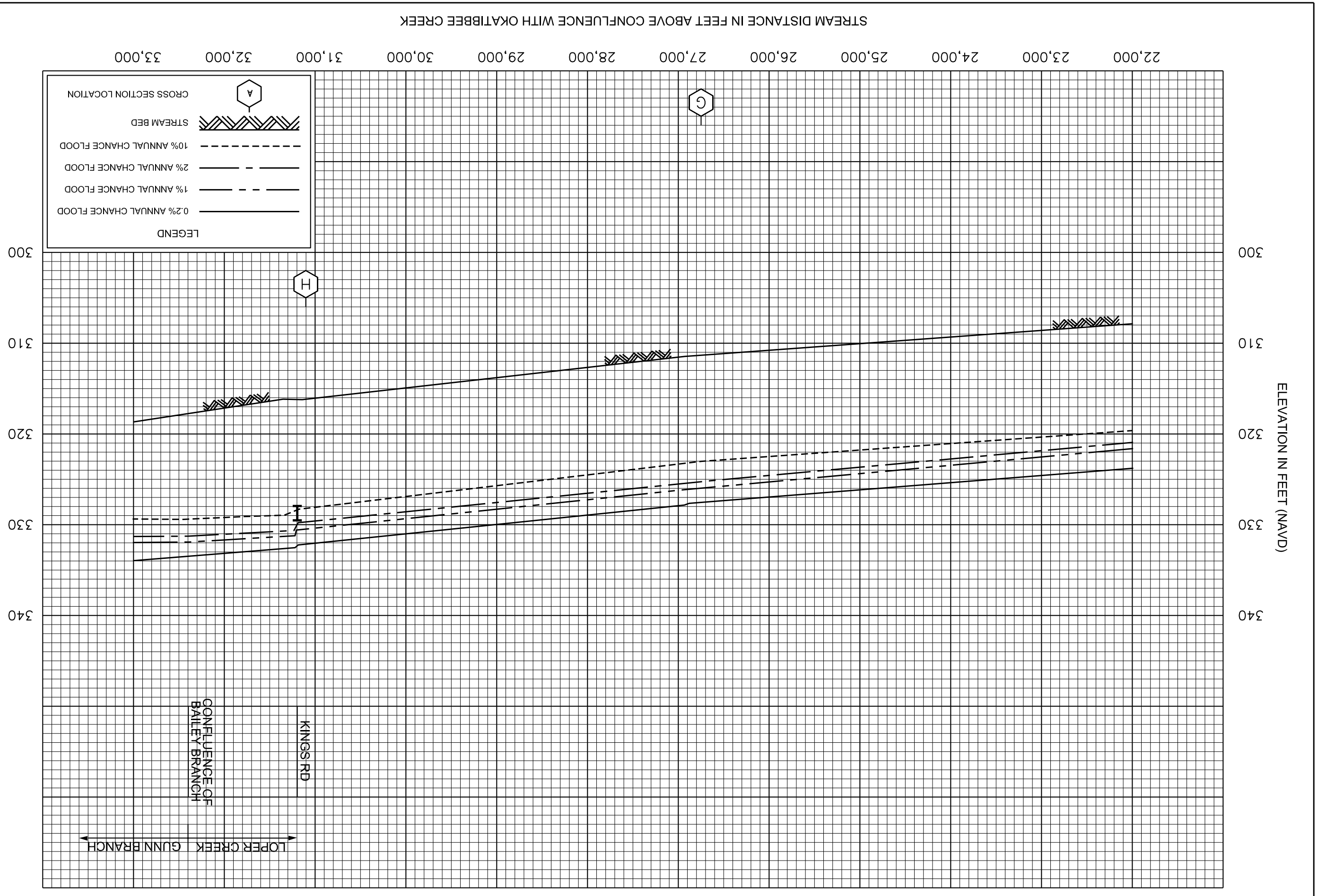
LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

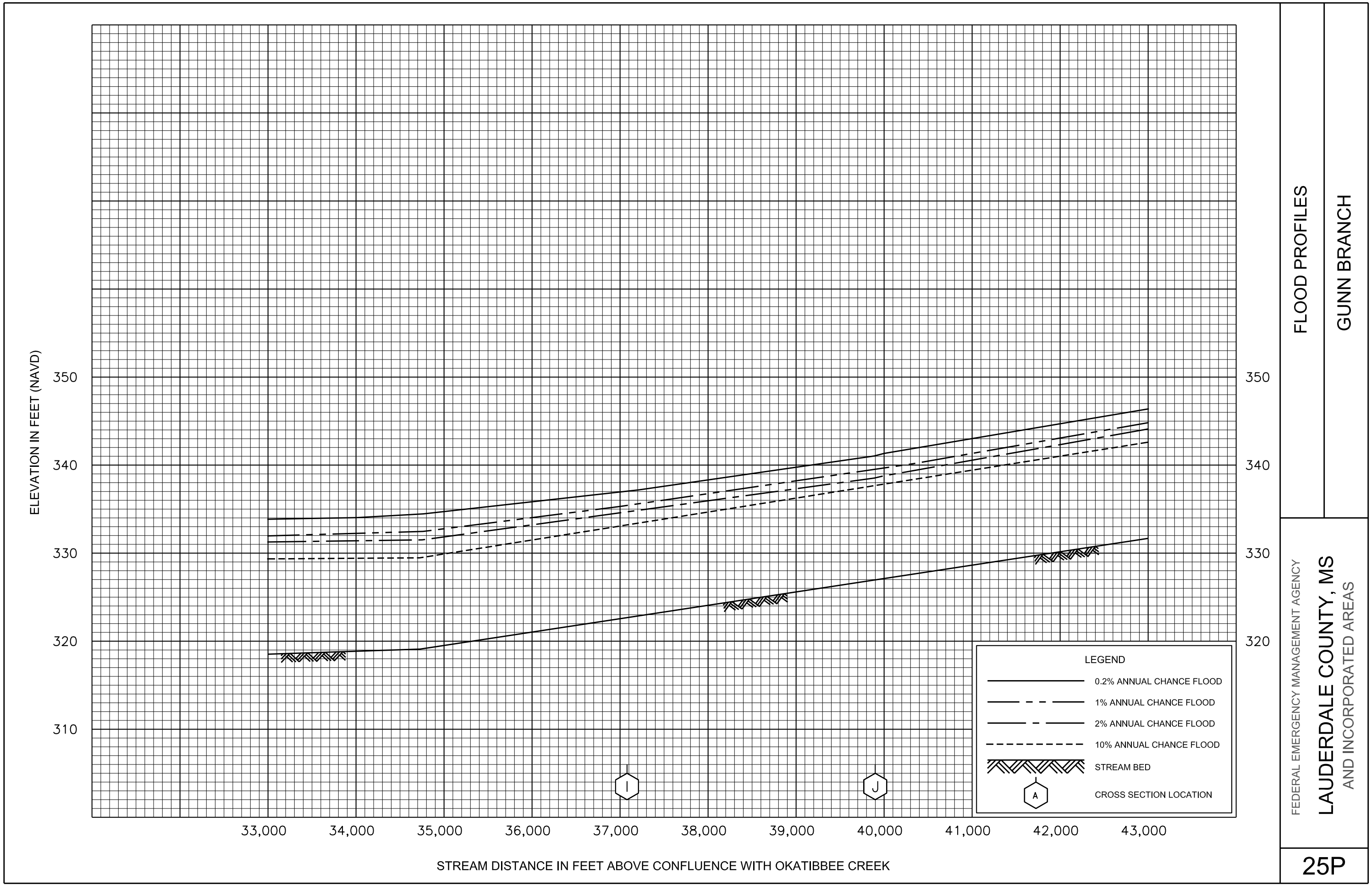
FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

## FLOOD PROFILES

## LOPER CREEK / GUNN BRANCH





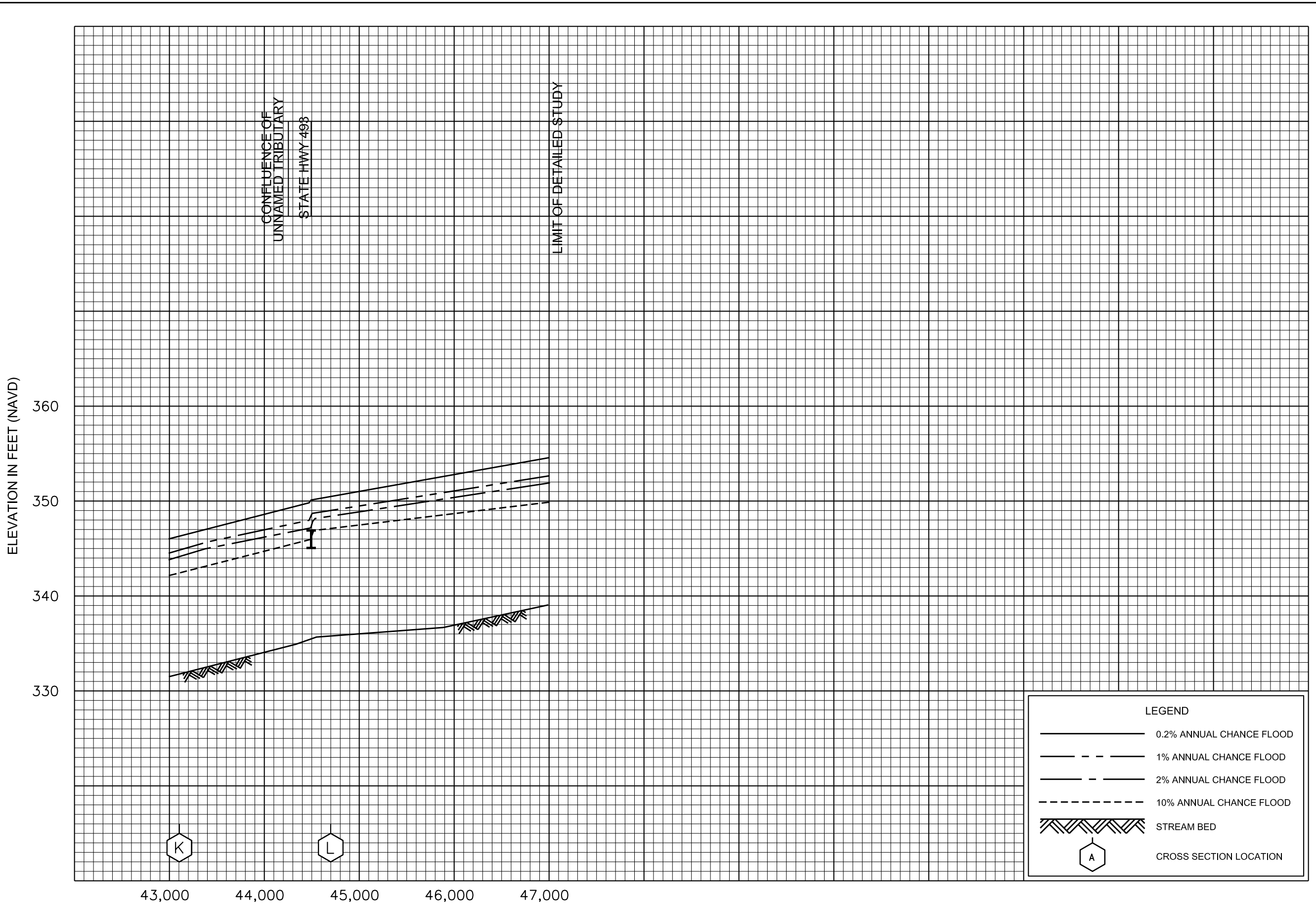

FLOOD PROFILES

GUNN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

25P

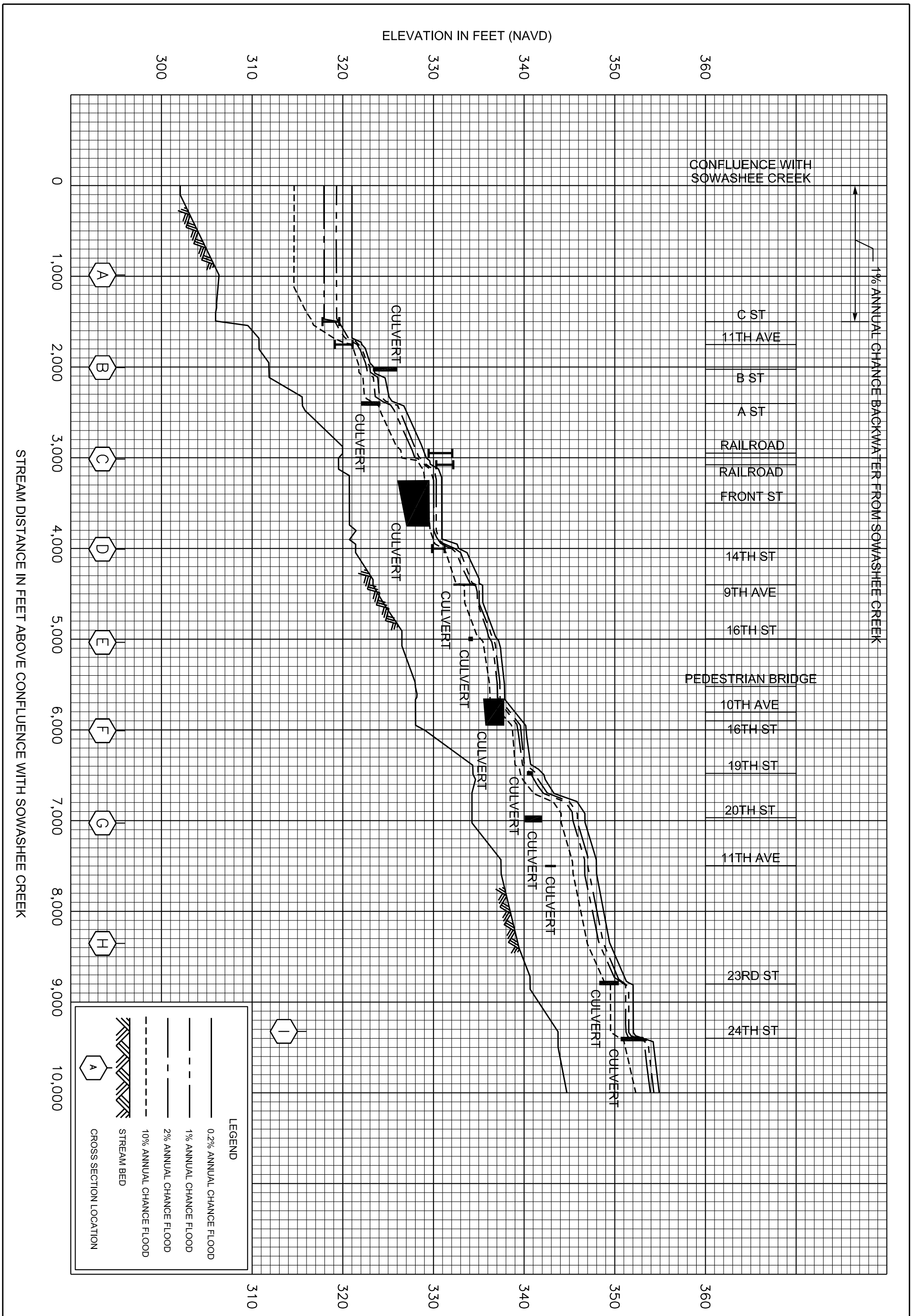



FLOOD PROFILES

GUNN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS



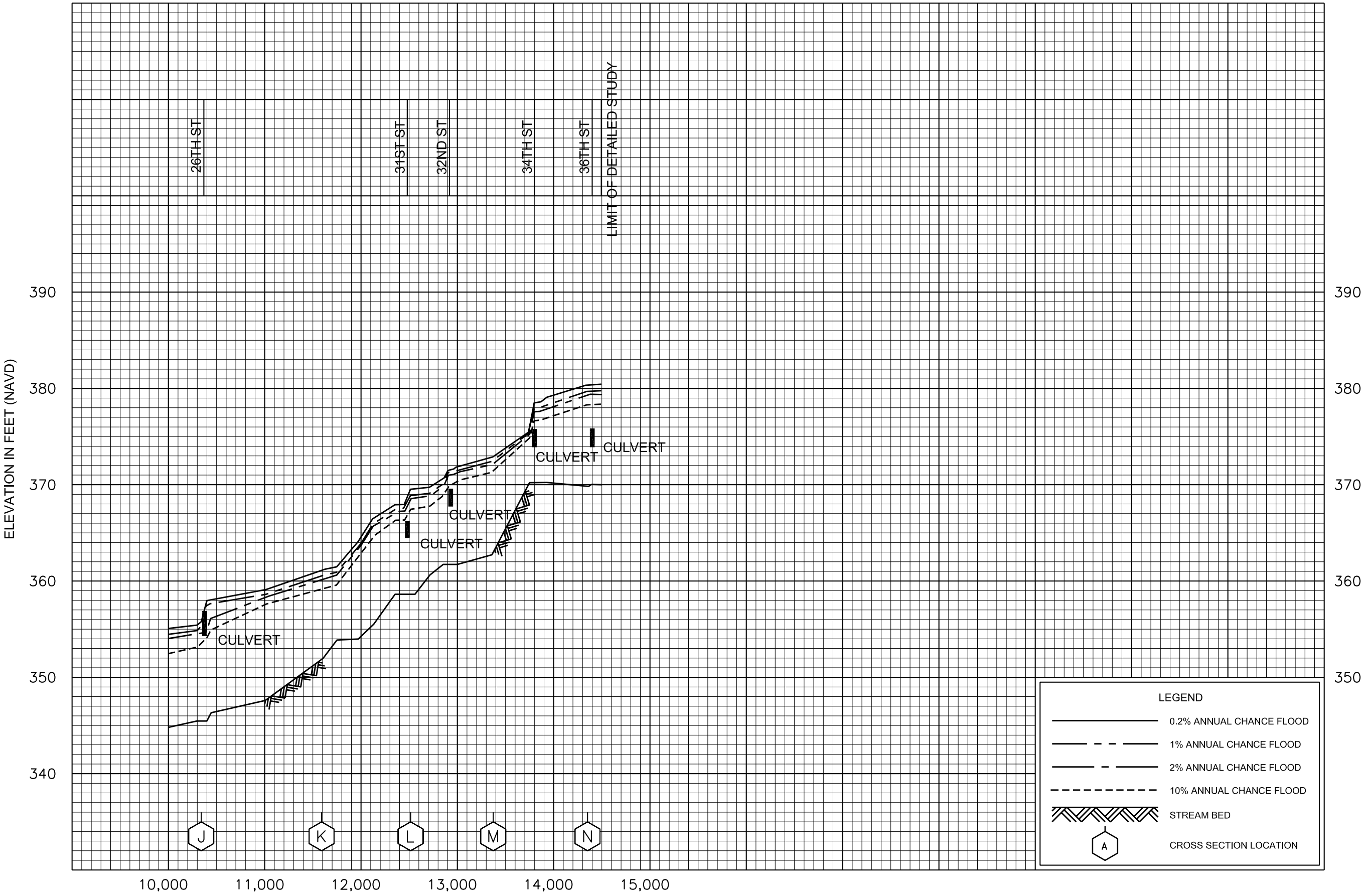

27P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

MAGNOLIA CREEK




FLOOD PROFILES

MAGNOLIA CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

28P

FLOODING EFFECTS FROM NEWELL BRANCH

1% ANNUAL CHANCE BACKWATER FROM NEWELL BRANCH

CONFLUENCE WITH NEWELL BRANCH

LINDLEY RD

ELEVATION IN FEET (NAVD)

370

360

350

340

330

0 500 1,000 1,500 2,000 2,500 3,000 3,500 4,000 4,500 5,000 5,500

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH NEWELL BRANCH

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

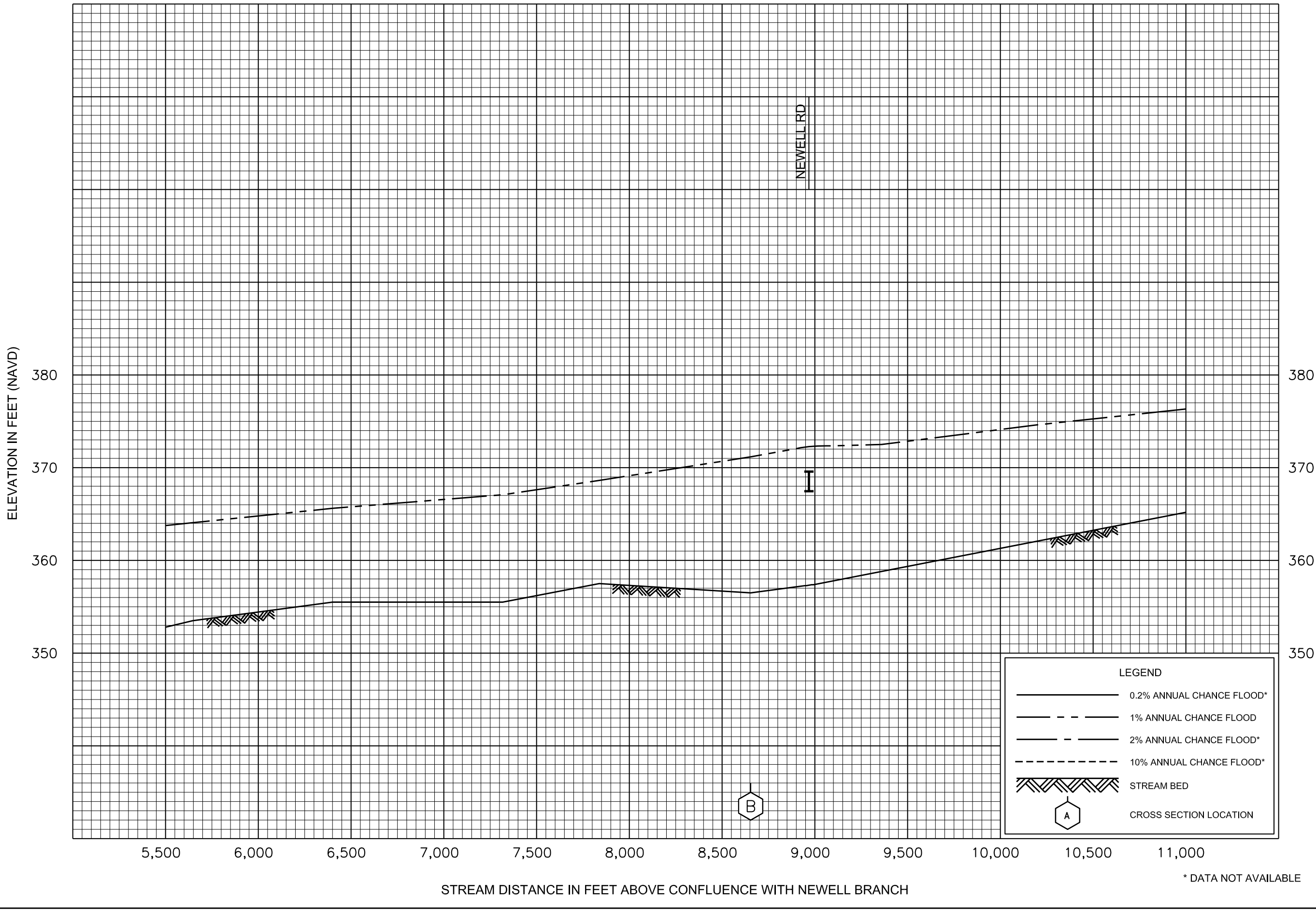
FLOOD PROFILES

MCLEMORE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

29P




STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH NEWELL BRANCH

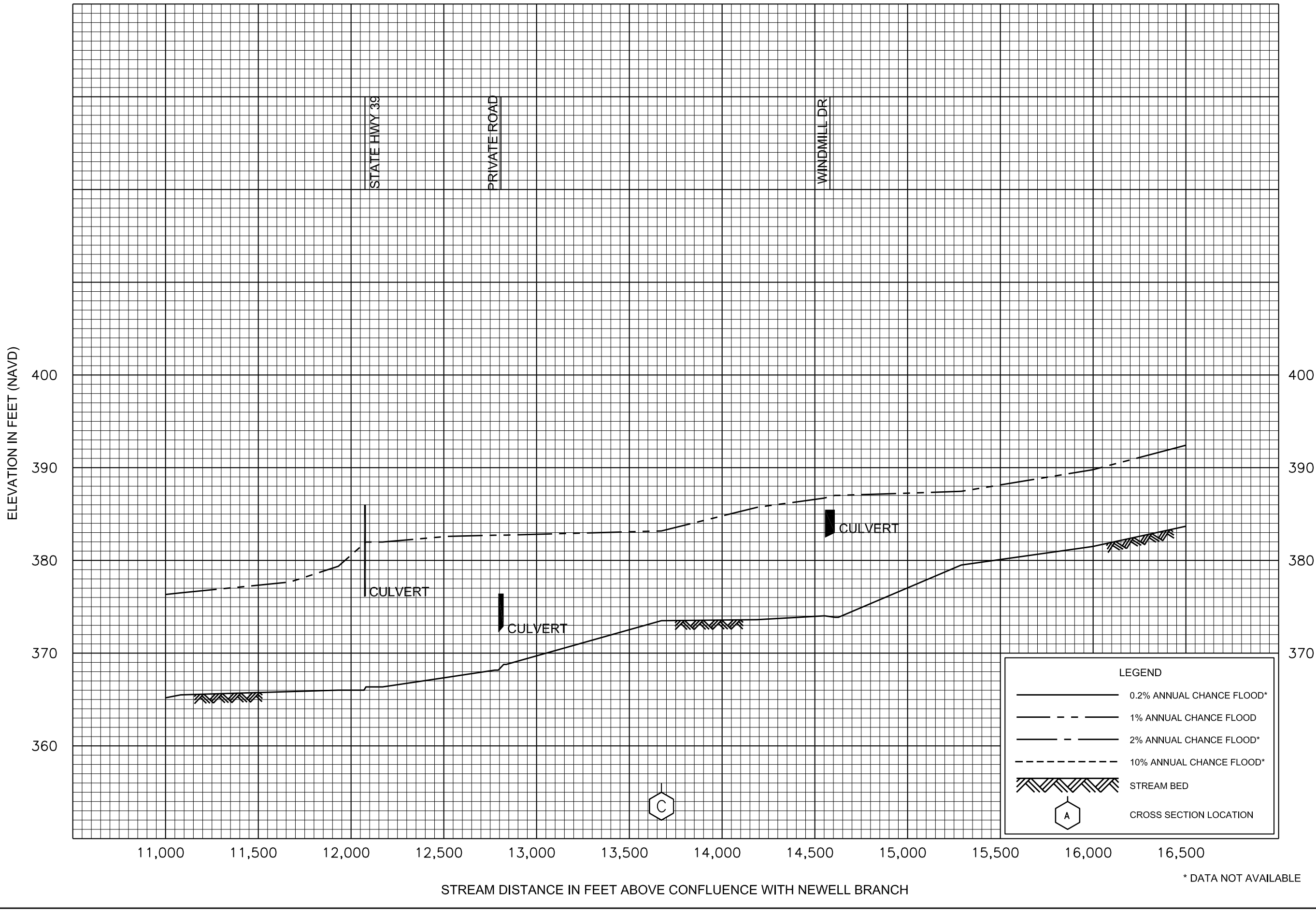
* DATA NOT AVAILABLE

FLOOD PROFILES

MCLEMORE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS



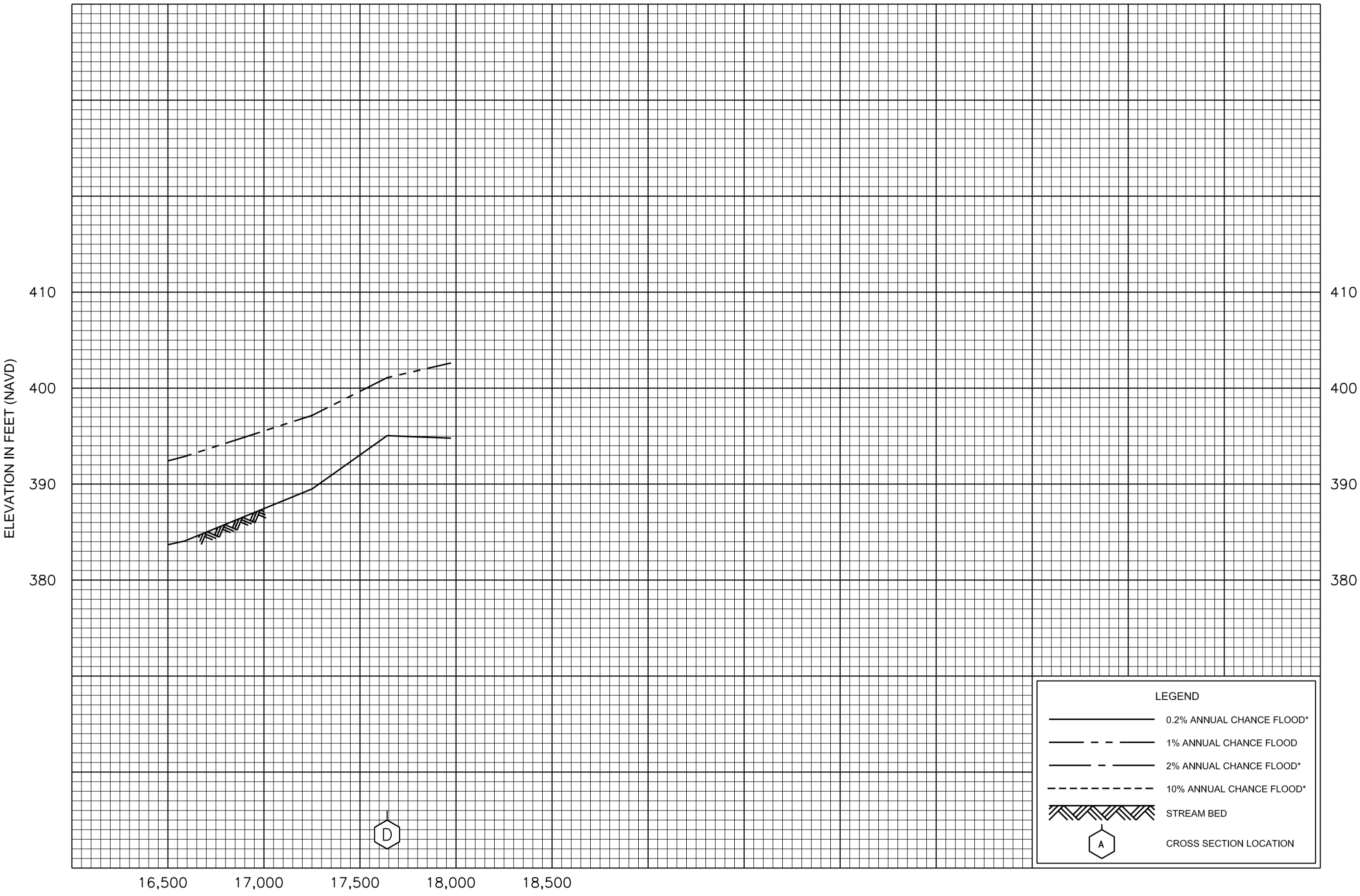

* DATA NOT AVAILABLE

FLOOD PROFILES

MCLEMORE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS



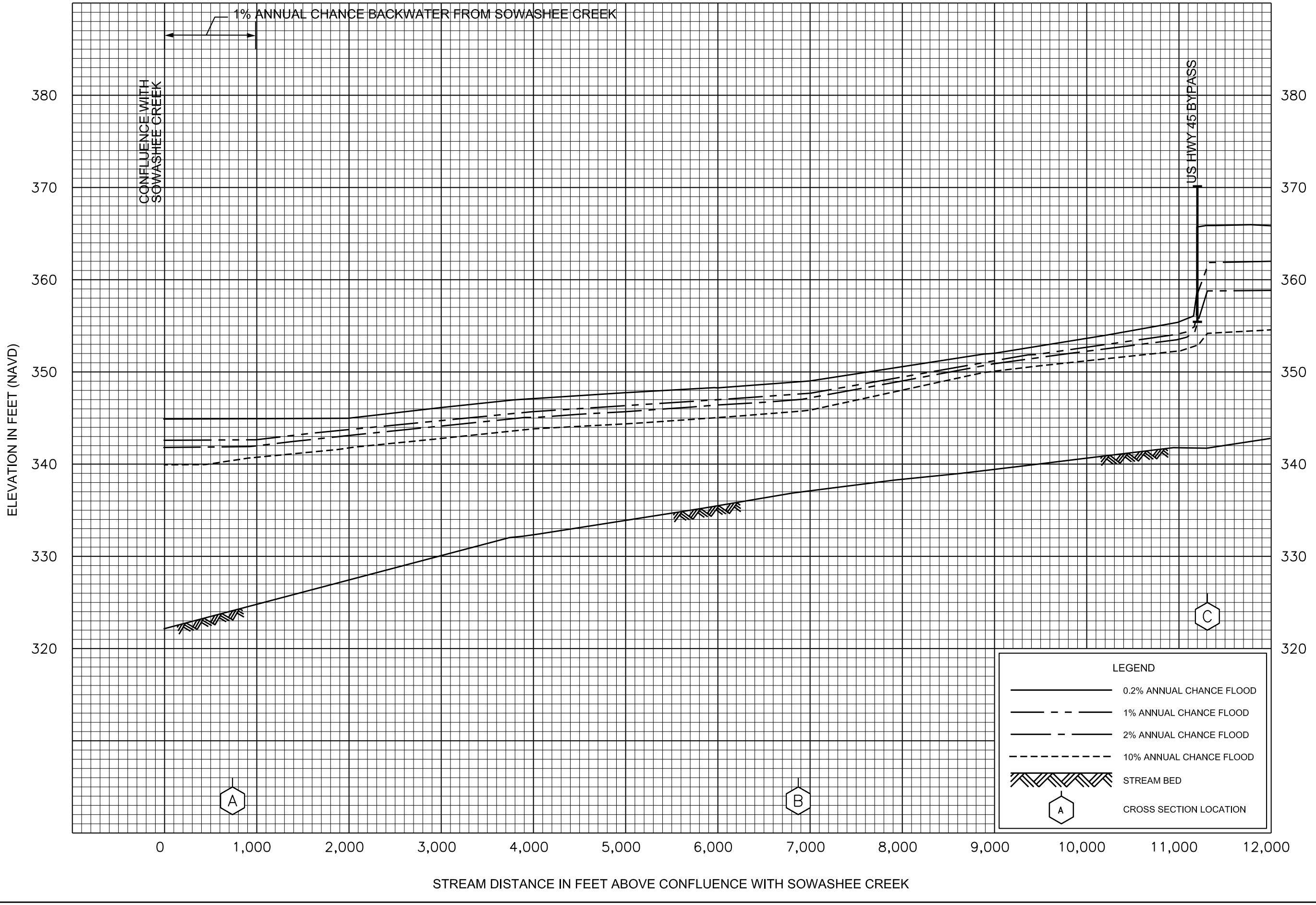

FLOOD PROFILES

MCLEMORE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

32P



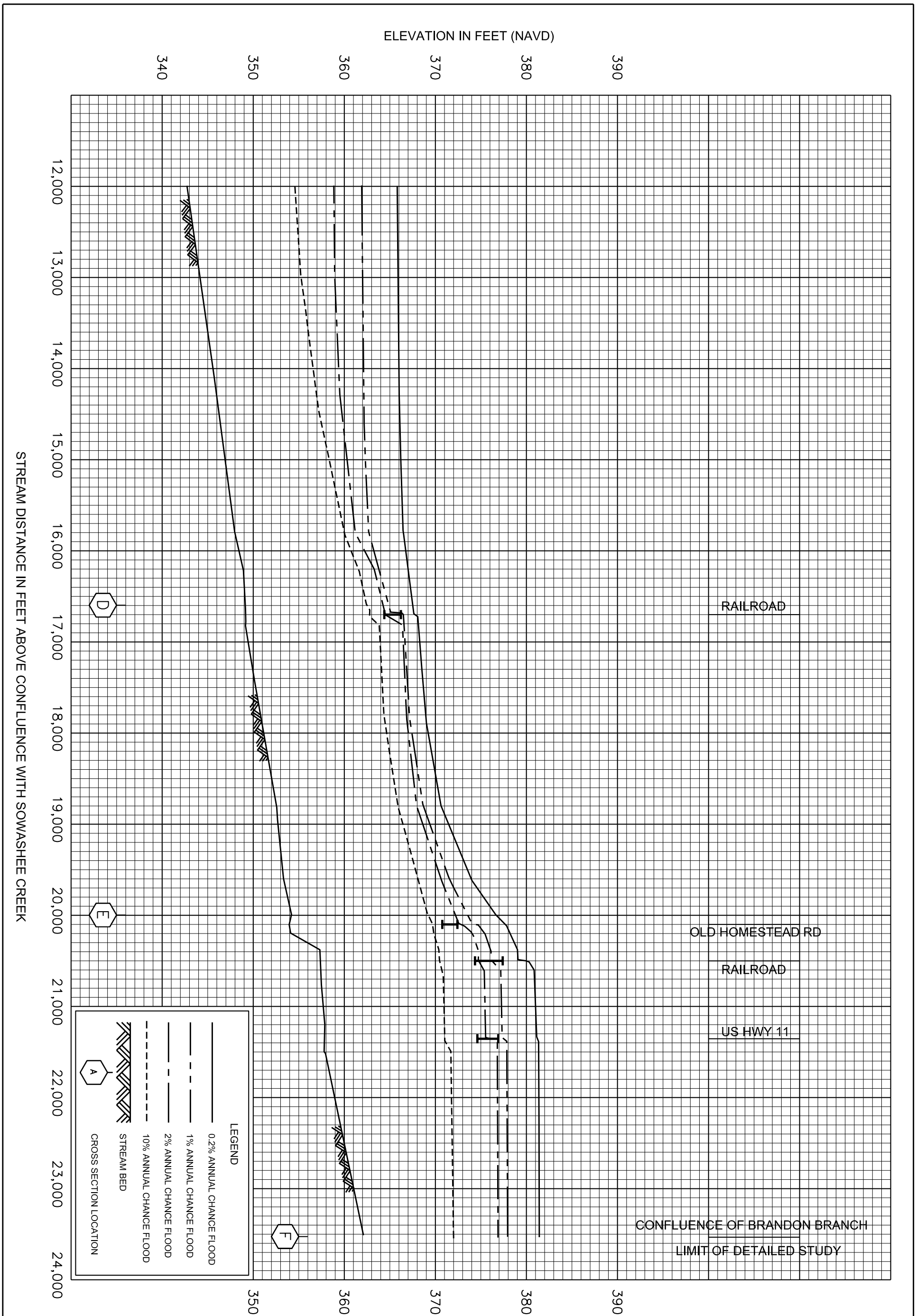

FLOOD PROFILES

NANABE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

33P




34P

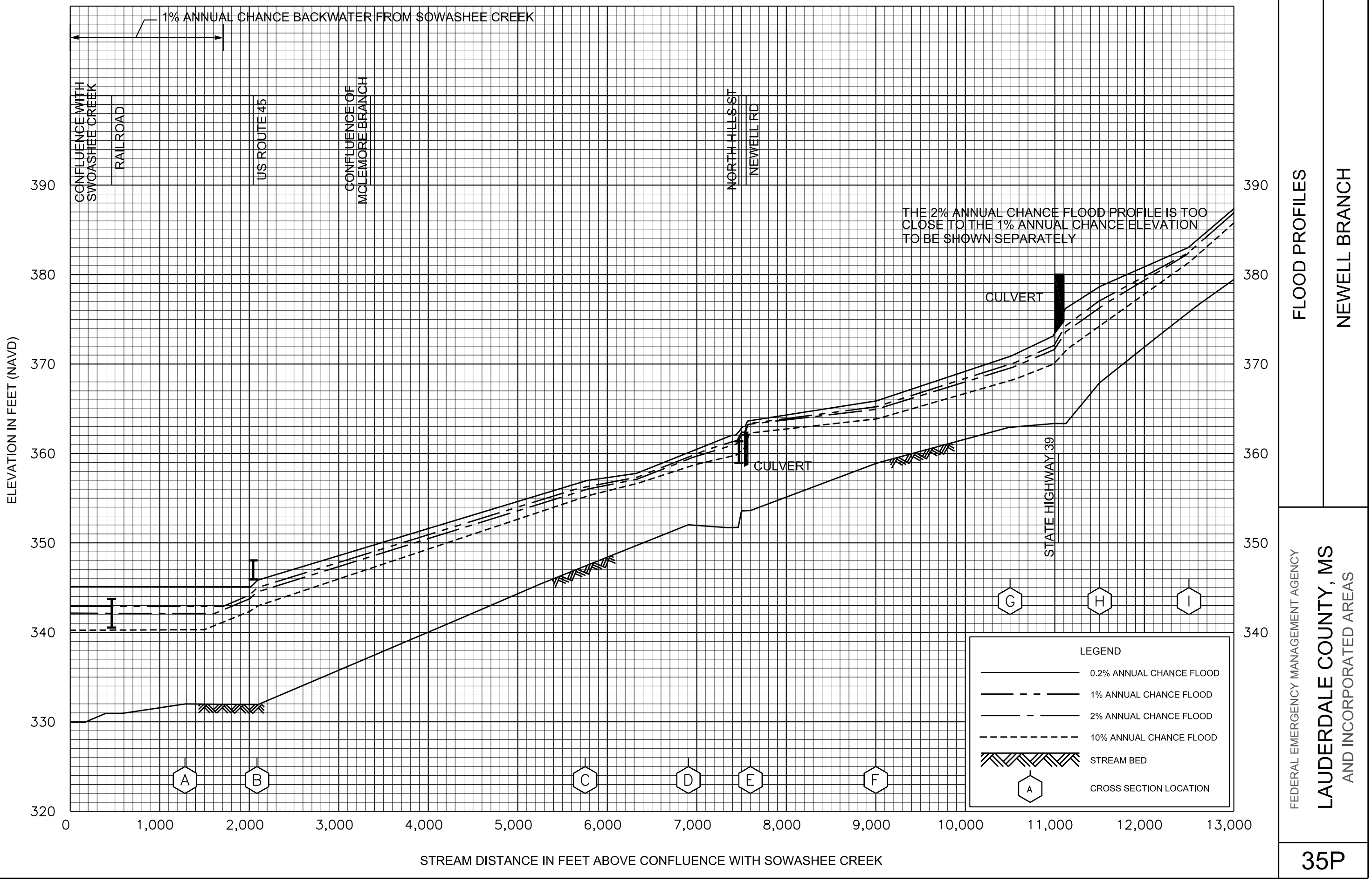
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

NANABE CREEK



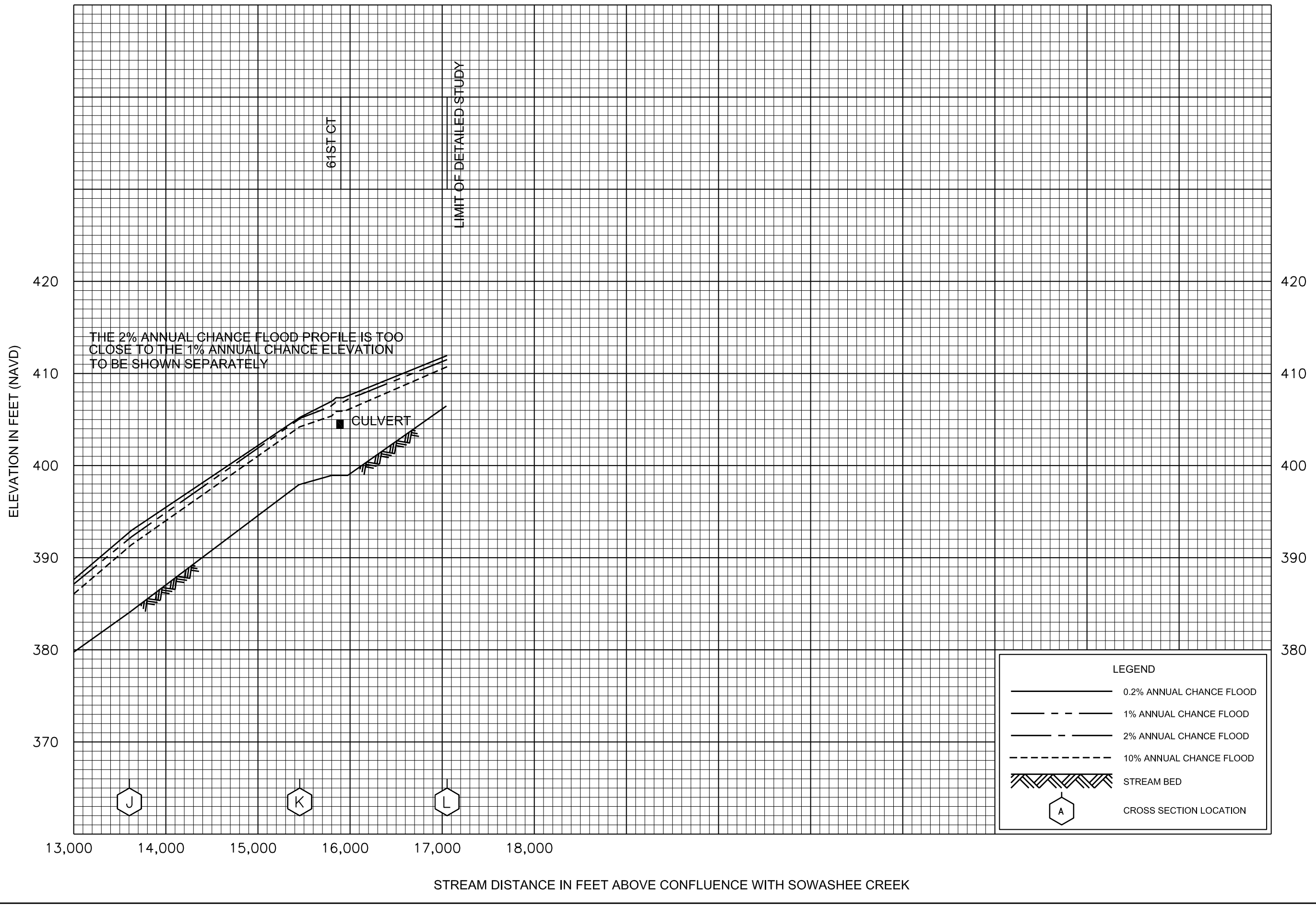

FLOOD PROFILES

NEWELL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

35P




FLOOD PROFILES

NEWELL BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

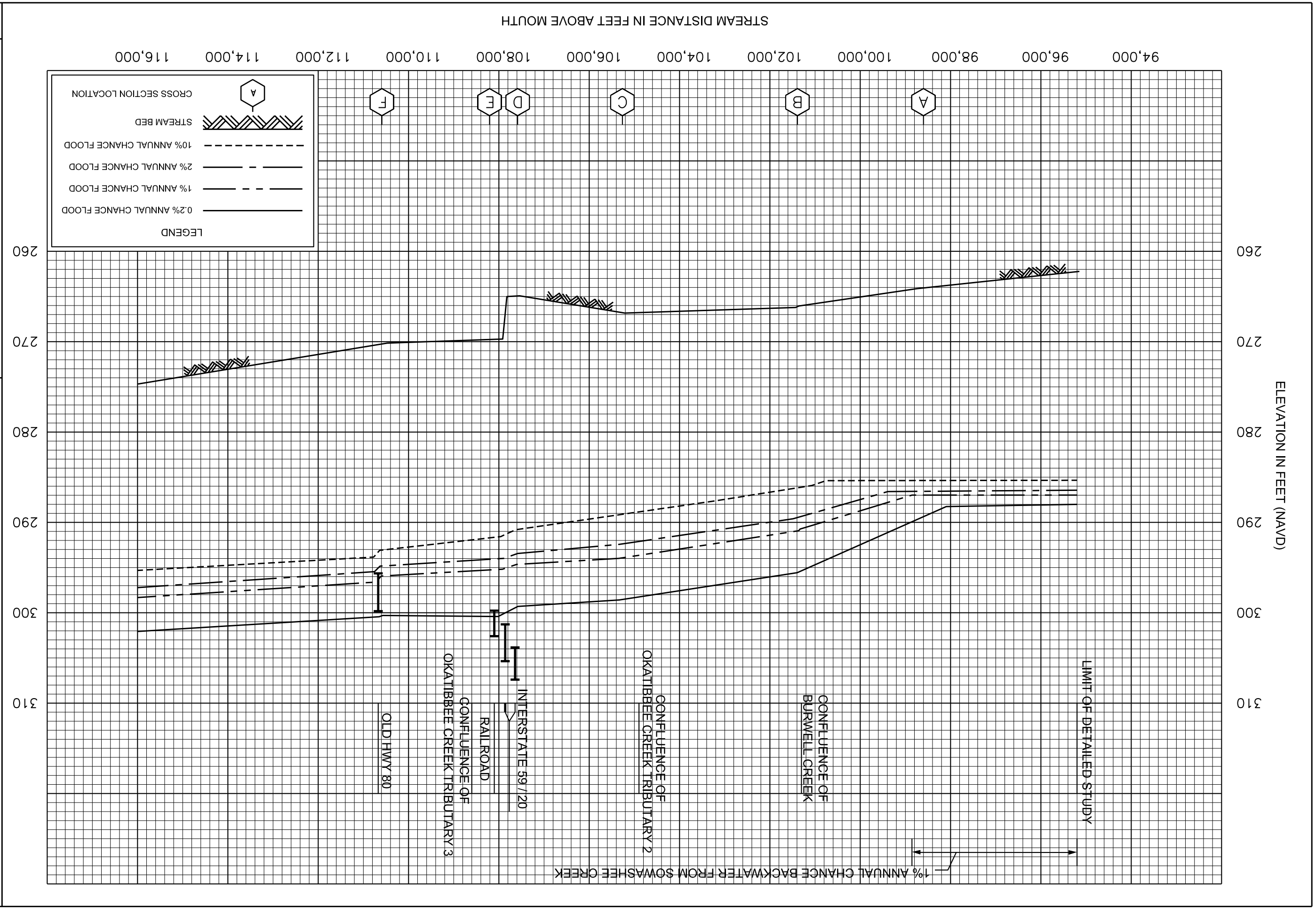
LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

## FLOOD PROFILES

## OKATIBBEE CREEK

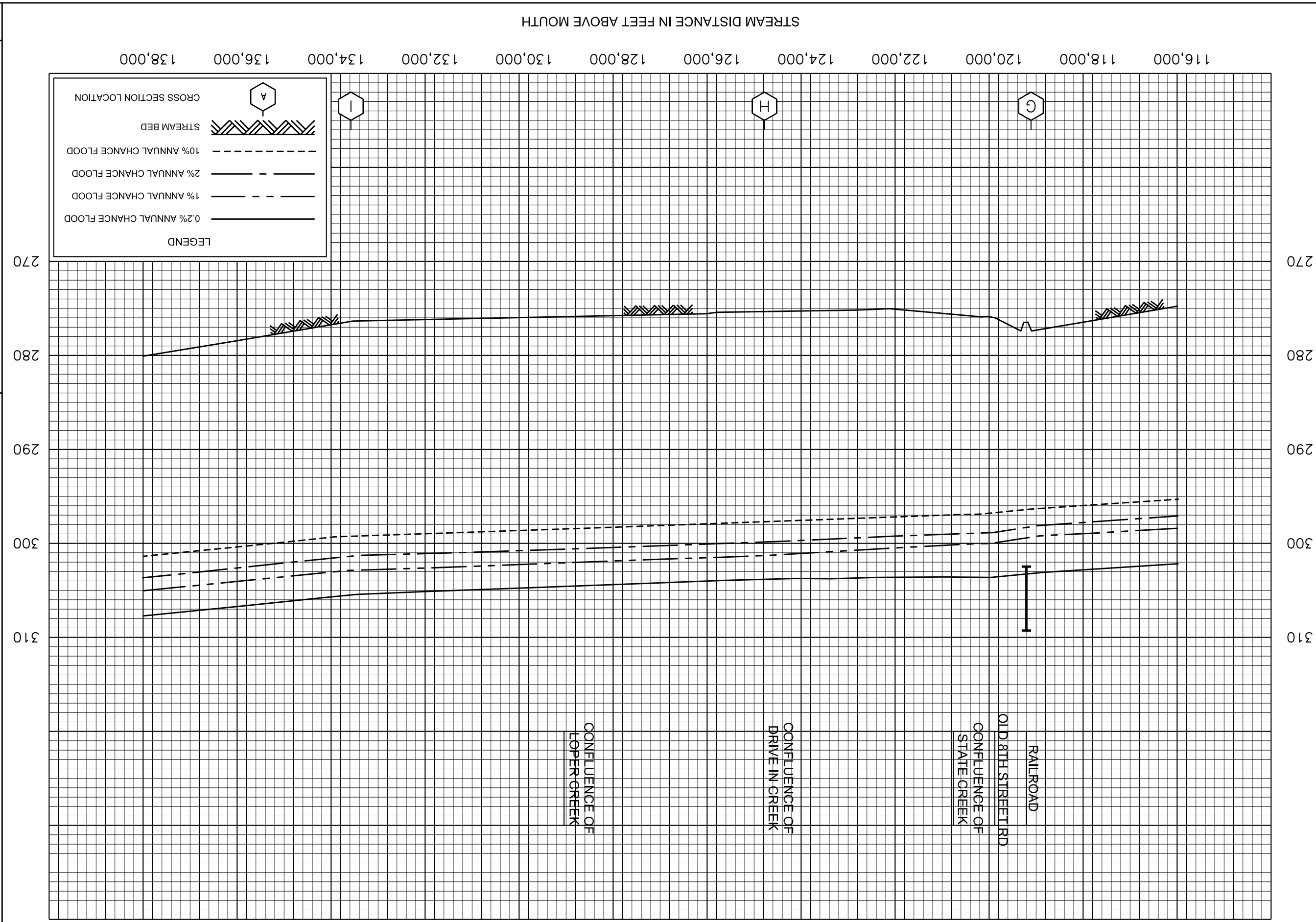


FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

## FLOOD PROFILES

## OKATIBBEE CREEK



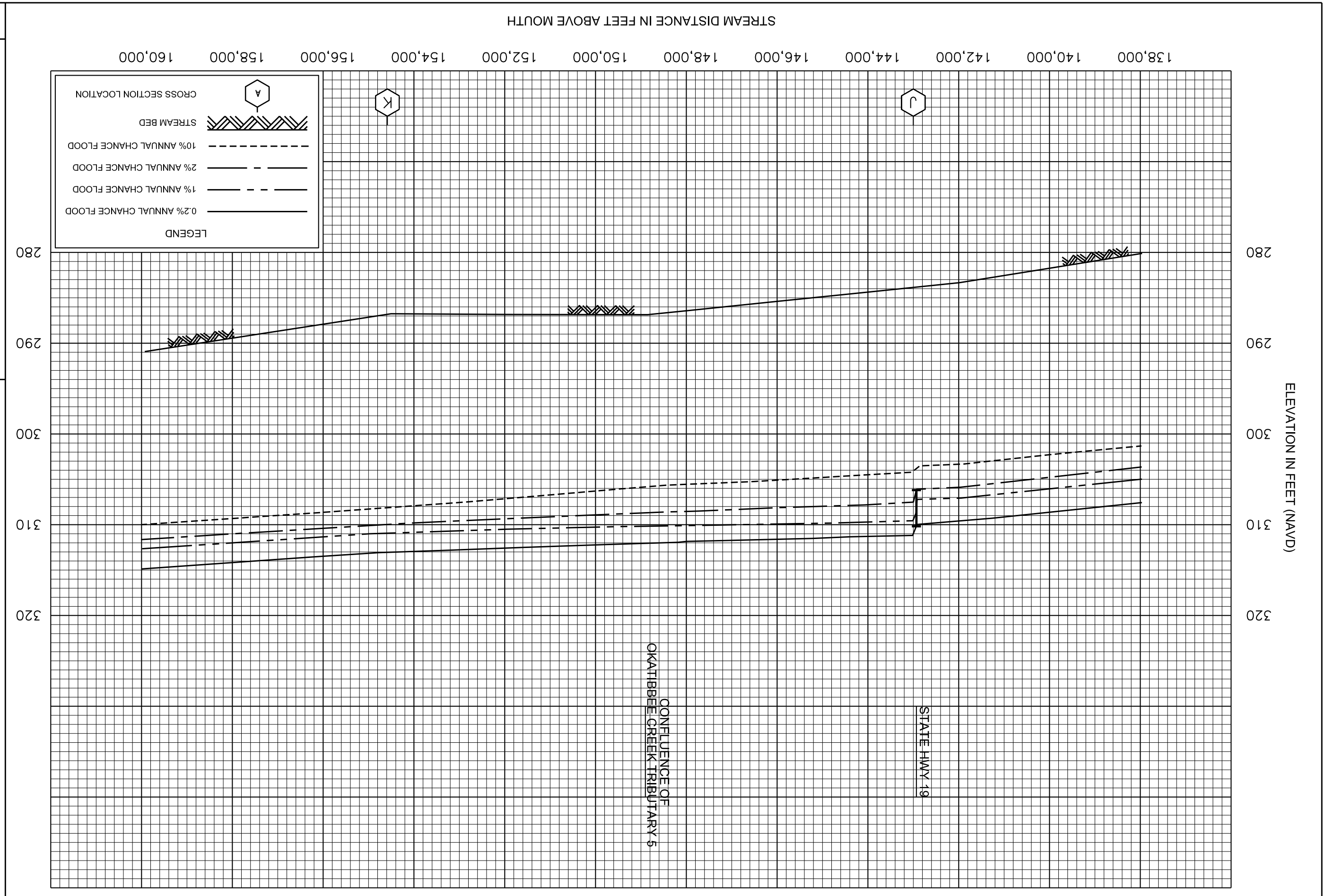
FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

## FLOOD PROFILES

## OKATIBBEE CREEK

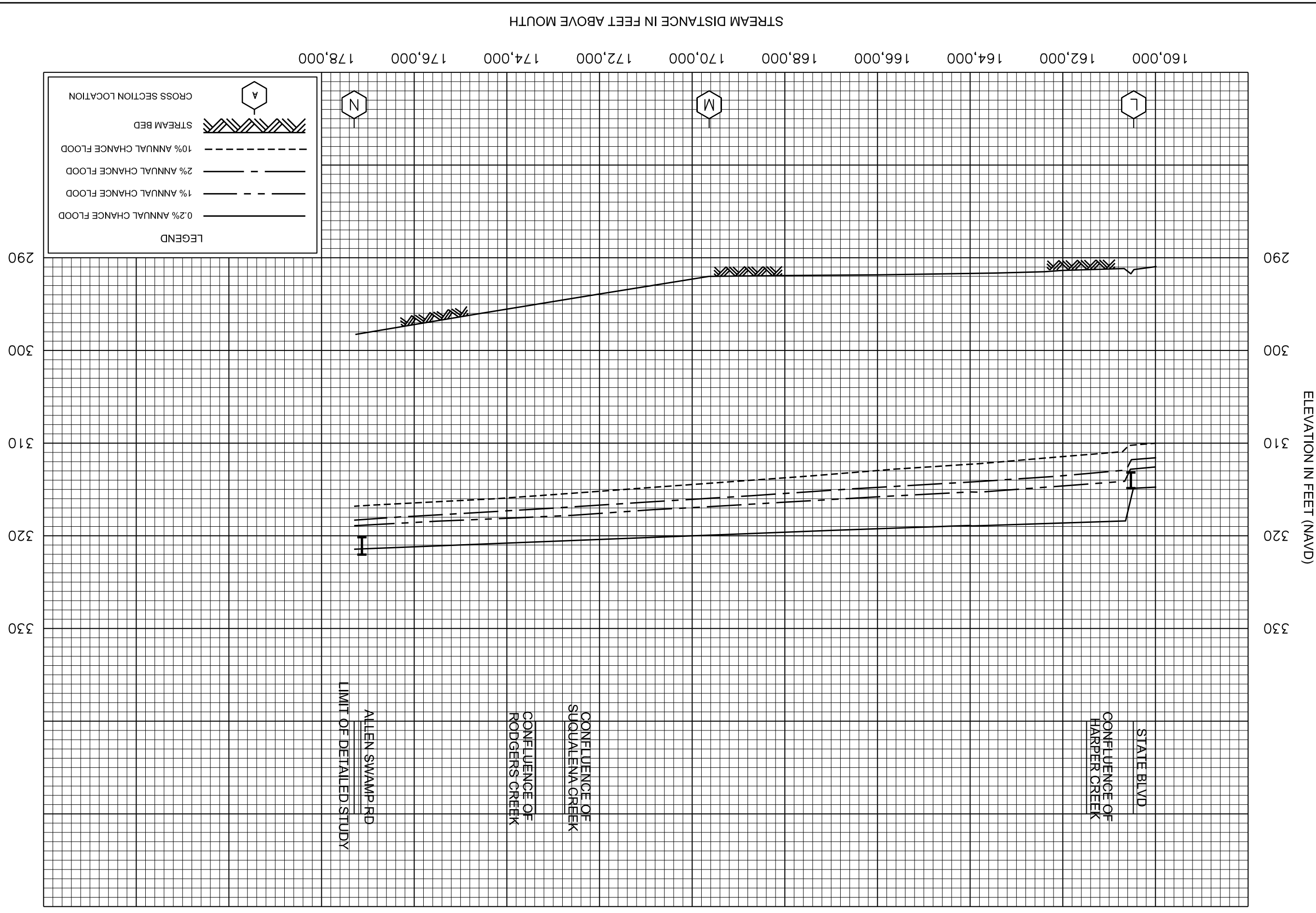


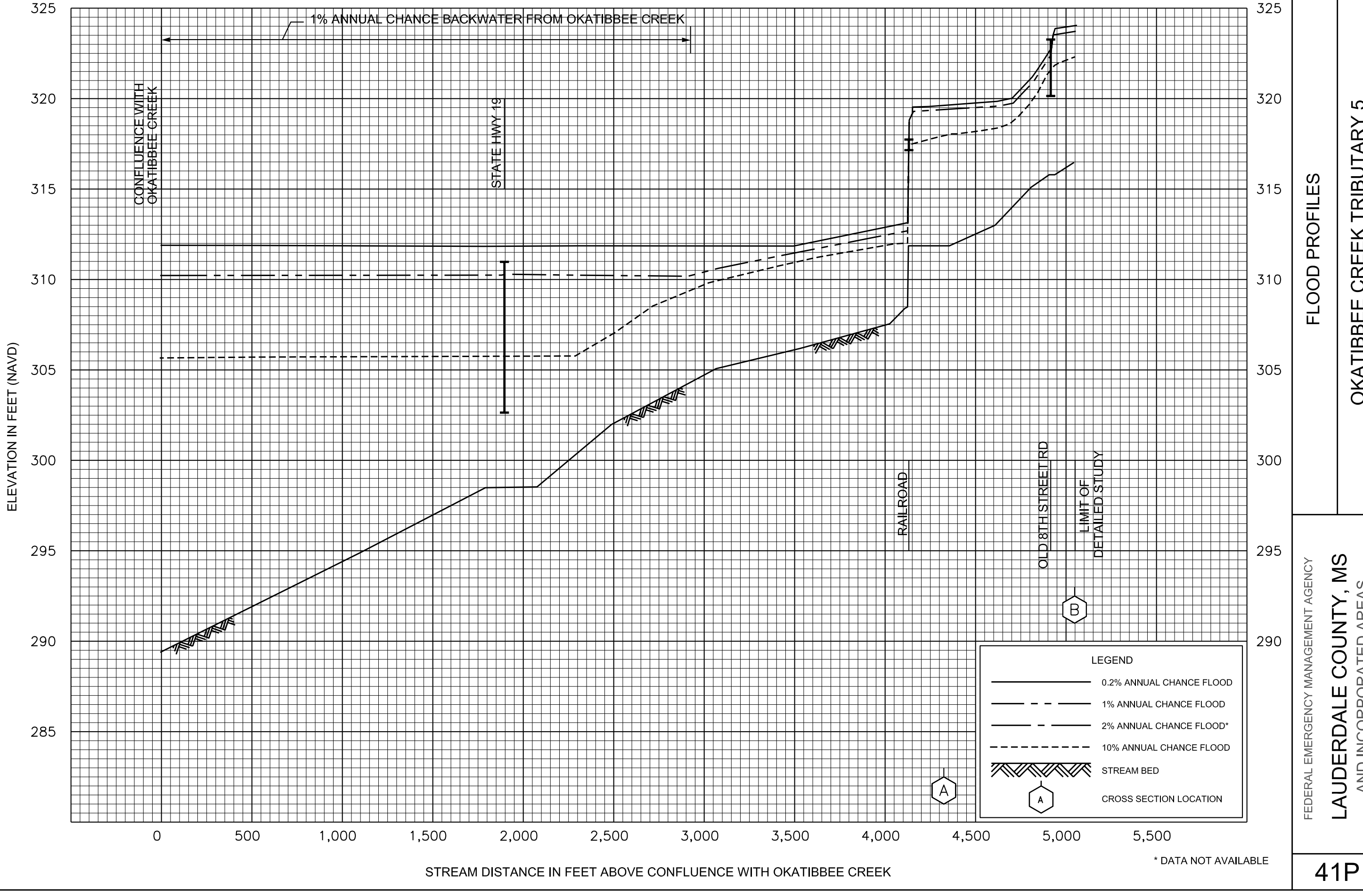
FEDERAL EMERGENCY MANAGEMENT AGENCY

# 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

41P

FLOODING CONTROLLED BY SOWASHEE CREEK

1% ANNUAL CHANCE BACKWATER FROM SOWASHEE CREEK

CONFLUENCE WITH SOWASHEE CREEK

RAILROAD

RAILROAD

US HWY 45

OLD MARION HWY

PRIVATE DRIVE

CROSS CREEK PARK DRIVEWAY

10TH AVE

34TH ST

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

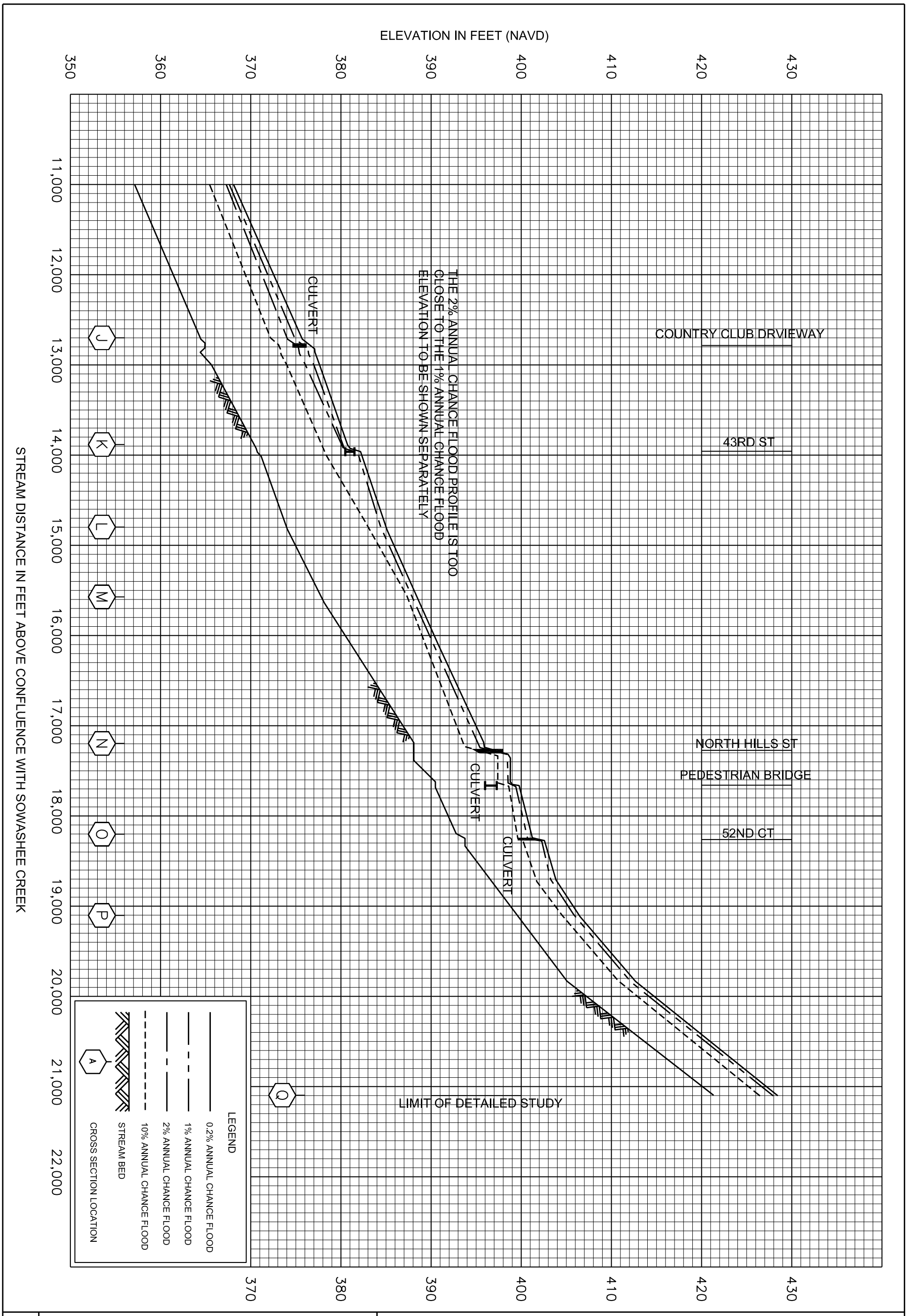
ROBBINS BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

42P




43P

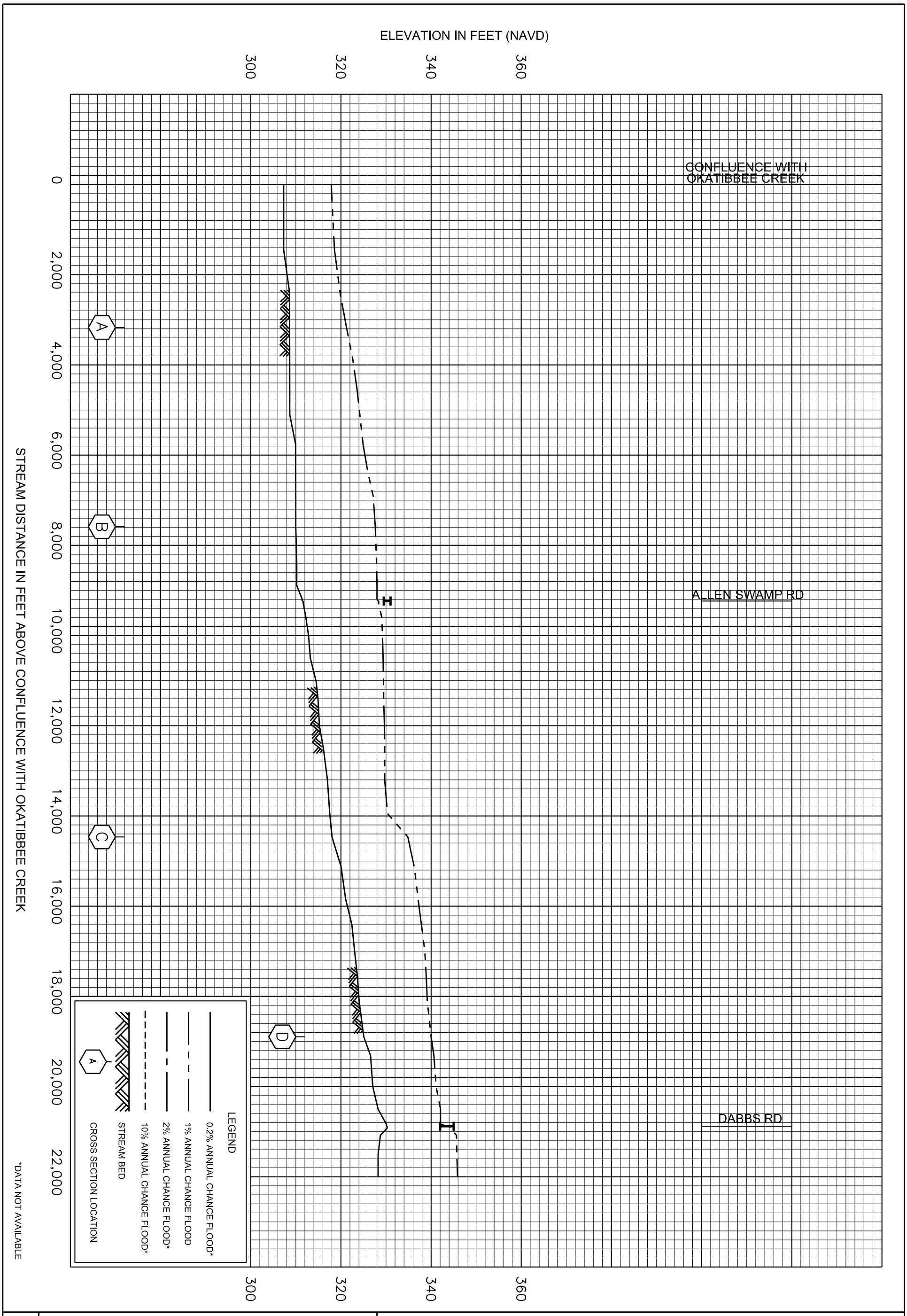
FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

## FLOOD PROFILES

## ROBBINS BRANCH




FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

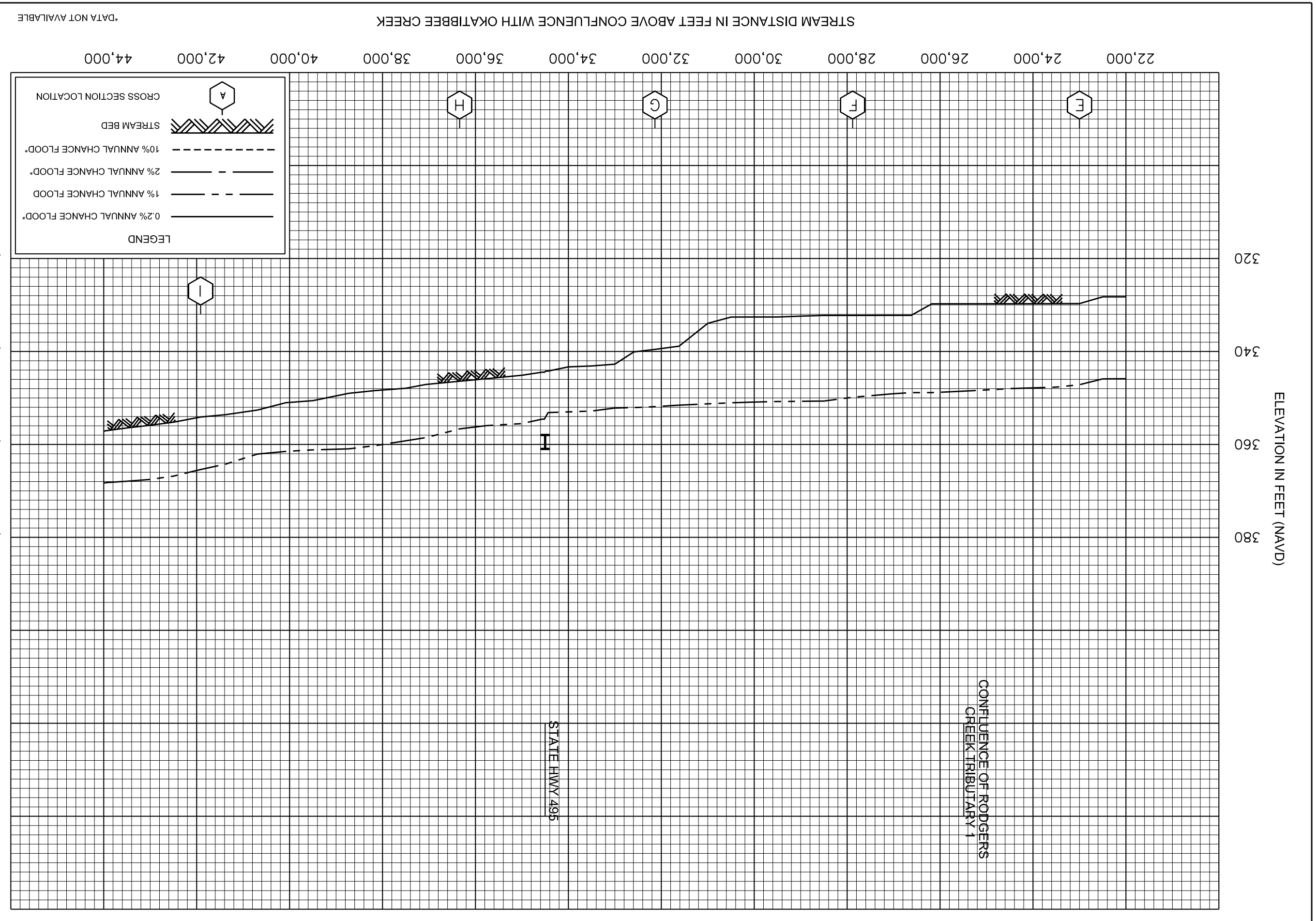
RODGERS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

## FLOOD PROFILES

## RODGERS CREEK



ELEVATION IN FEET (NAVD)

340 360 380 400 420

44,000 46,000 48,000 50,000 52,000 54,000 56,000 58,000 60,000 62,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OKATIBBEE CREEK

BLIND BROWN RD

GUM LOGGING RD

CONFLUENCE OF RODGERS CREEK TRIBUTARY 3

HAGUEWOOD RD

LIMIT OF STUDY

CULVERT

J K L M

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

340 360 380 400 420

46P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

RODGERS CREEK

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

CONFLUENCE OF SHEAR'S BRANCH TRIBUTARY 1

INTERCHANGE RD

RAILROAD

5TH ST

DAVIS ST

7TH ST

8TH ST

10TH ST

11TH ST

12TH ST

33RD AVE

13TH ST

15TH ST

16TH ST

33RD AVE

17TH ST

18TH ST

19TH ST

20TH ST

LIMIT OF DETAILED STUDY

1% ANNUAL CHANCE BACKWATER FROM SOWASHEE CREEK

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

CROSS SECTION LOCATION

* DATA NOT AVAILABLE

47P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

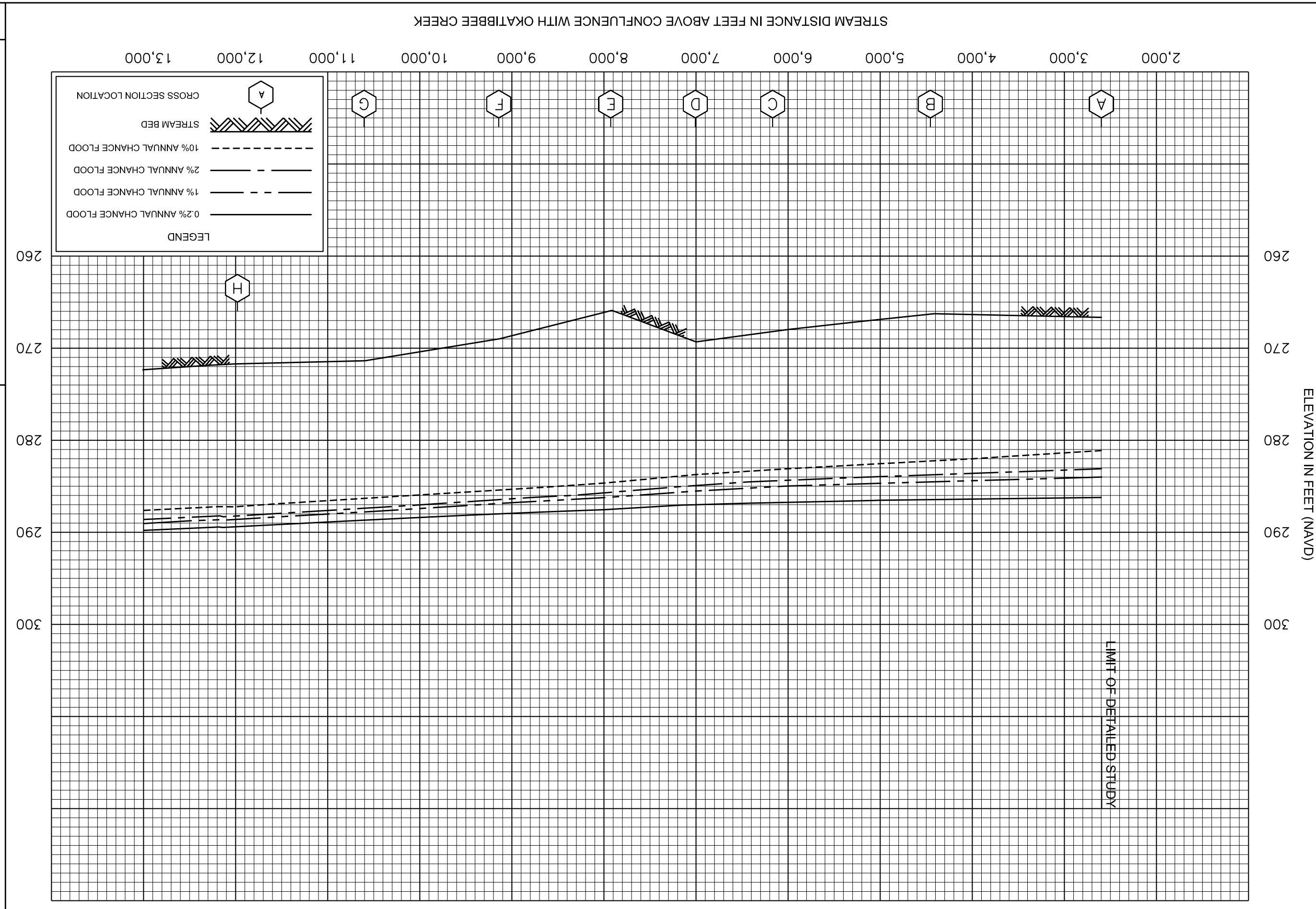
FLOOD PROFILES

SHEAR'S BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

# LUADERDALE COUNTY, MS

AND INCORPORATED AREAS




FLOOD PROFILES

SOWASHEE CREEK

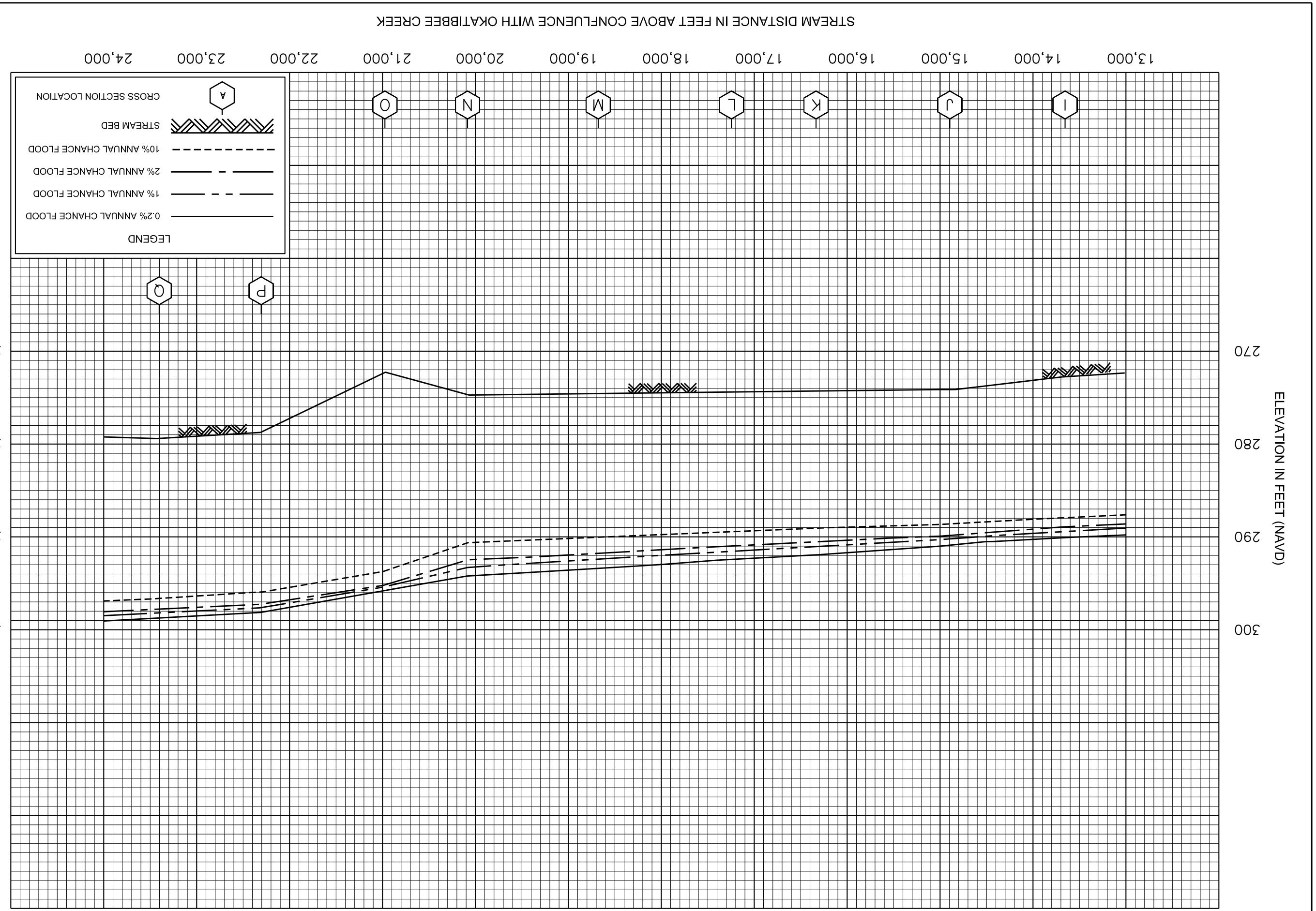
FEDERAL EMERGENCY MANAGEMENT AGENCY

# 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 AVE (VALLEY RD)

RAILROAD

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

INTERSTATE ROUTE 59

INTERSTATE ROUTE 59
(WEST OFF RAMP TO HWY 49)

FRONTAGE RD

CONFLUENCE OF
GALLAGHER CREEK

RAILROAD

CONFLUENCE OF
SHEAR'S BRANCH

RAILROAD

31ST AVE

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

50P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK

ELEVATION IN FEET (NAVD)

280 290 300 310 320 330

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

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OKATIBBEE CREEK

AB AC AD AE AF AG AH AI AJ AK AL

GRAND AVENUE

CONFLUENCE OF LAKEMONT LAKE CREEK

NORTH FRONTAGE RD WEST OF 22ND AVE

22ND AVE

NORTH FRONTAGE RD EAST OF 22ND AVE

18TH AVE S

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

290 300 310 320 330

FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

## FLOOD PROFILES

## SOWASHEE CREEK

51P

ELEVATION IN FEET (NAVD)

290 300 310 320 330 340 350

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OKATIBBEE CREEK

46,000 47,000 48,000 49,000 50,000 51,000 52,000 53,000 54,000 55,000 56,000 57,000

AM AN AO AP AQ AR AS AT AU

CONFLUENCE OF
SOWASHEE CREEK TRIBUTARY 1

BONITA RD

US HWY 45
STATE HWY 19

US HWY 11
(OLD US HWY 80)

CONFLUENCE OF
ROBBINS BRANCH

RAILROAD

HAWKINS
CROSSING RD

CONFLUENCE OF
OAK BRANCH

LEGEND

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

290 300 310 320 330 340 350

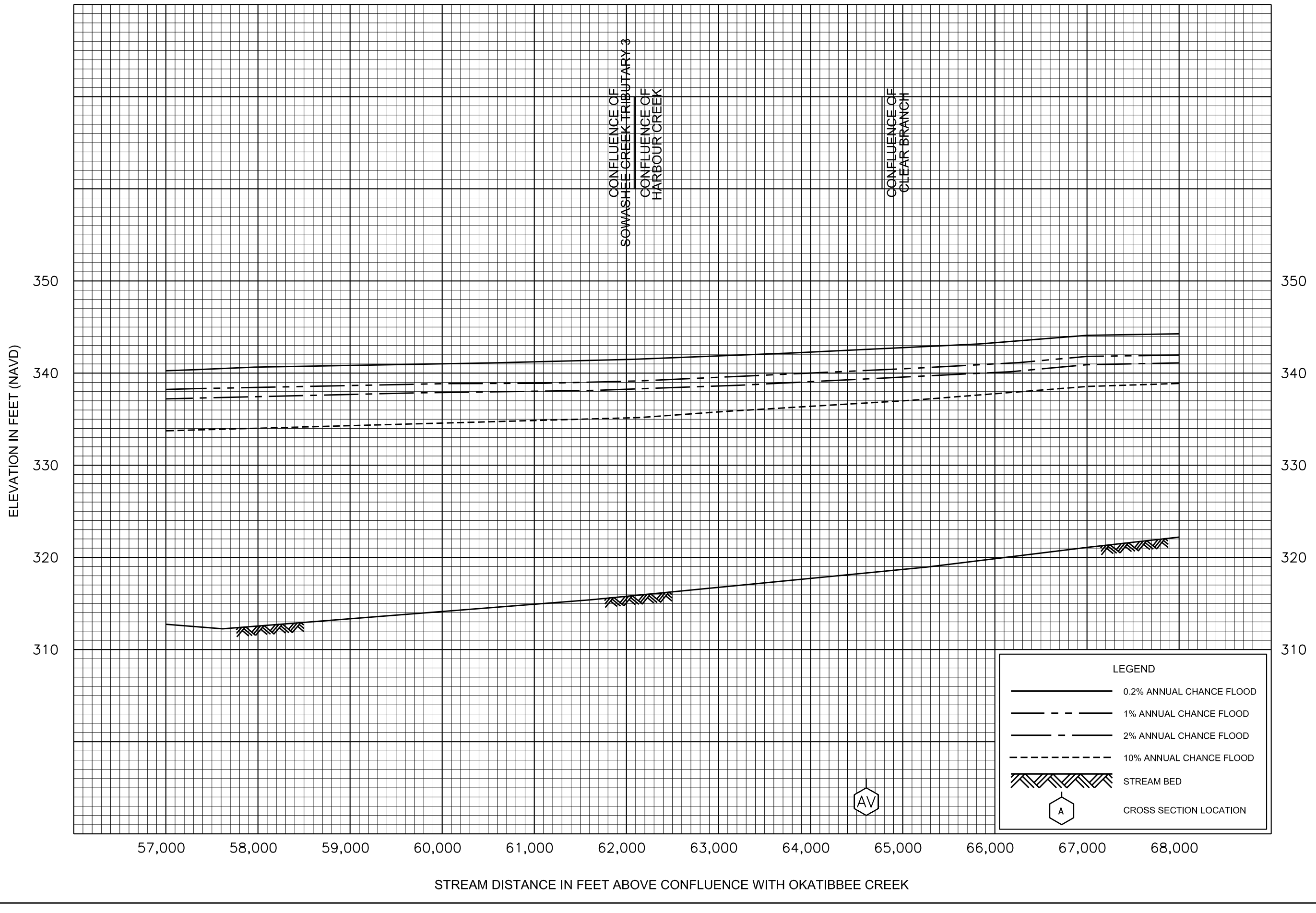
52P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK




FLOOD PROFILES

SOWASHEE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

53P

ELEVATION IN FEET (NAVD)

320 330 340 350 360

68,000 69,000 70,000 71,000 72,000 73,000 74,000 75,000 76,000 77,000 78,000 79,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OKATIBBEE CREEK

CONFLUENCE OF NANABE CREEK

CONFLUENCE OF NEWELL BRANCH

AW

AX

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

SOWASHEE CREEK

ELEVATION IN FEET (NAVD)

330 340 350 360 370

79,000 80,000 81,000 82,000 83,000 84,000 85,000 86,000 87,000 88,000 89,000 90,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OKATIBBEE CREEK

AY AZ BA BB

LINDLEY RD

ALAMUTCHEE ST

CONFLUENCE OF
SOWASHEE CREEK TRIBUTARY 6

CONFLUENCE OF
SOWASHEE CREEK TRIBUTARY 7

CONFLUENCE OF
SOWASHEE CREEK TRIBUTARY 8

US HWY 45 BY-PASS

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

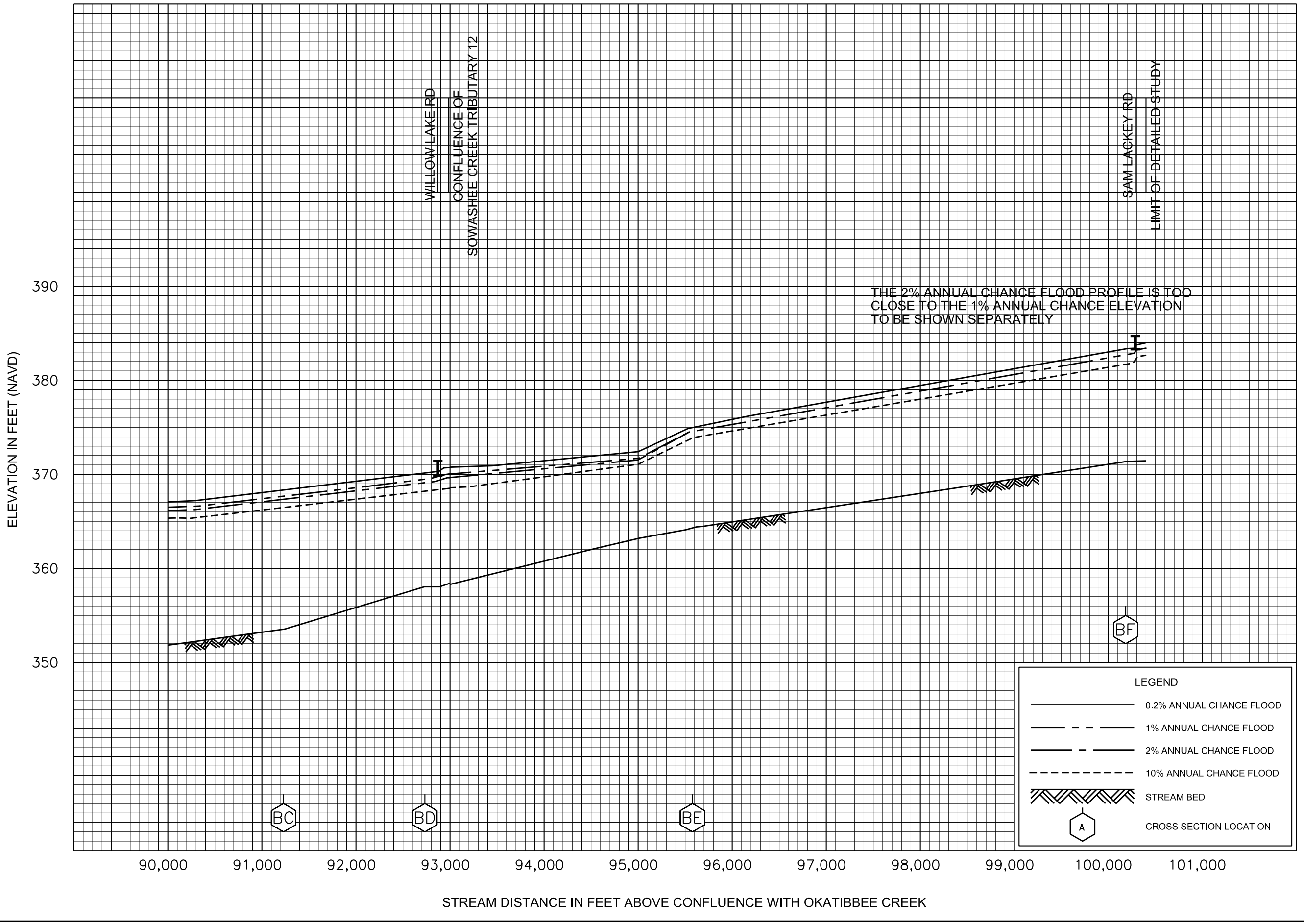
55P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK



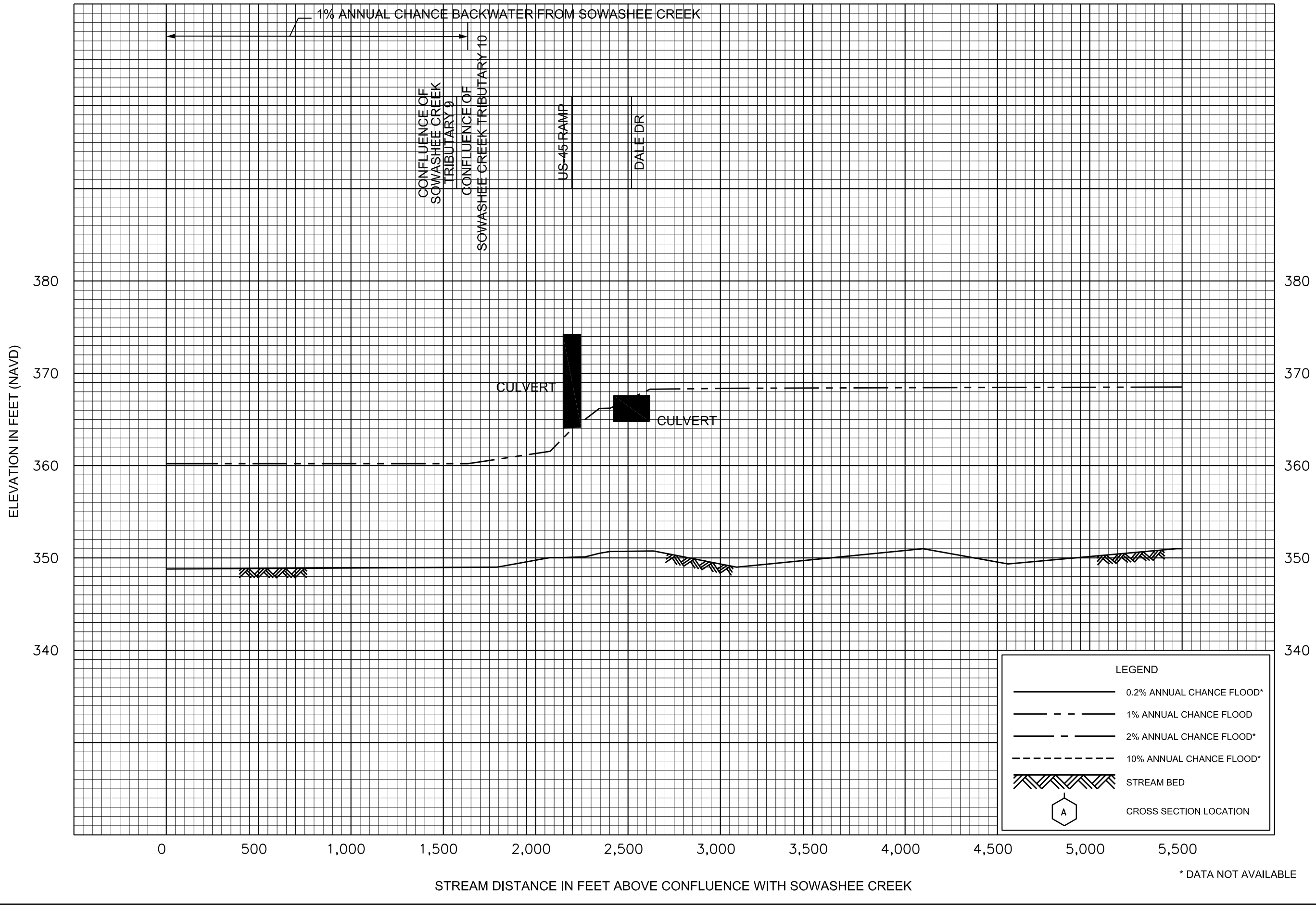

FLOOD PROFILES

SOWASHEE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

56P




FLOOD PROFILES

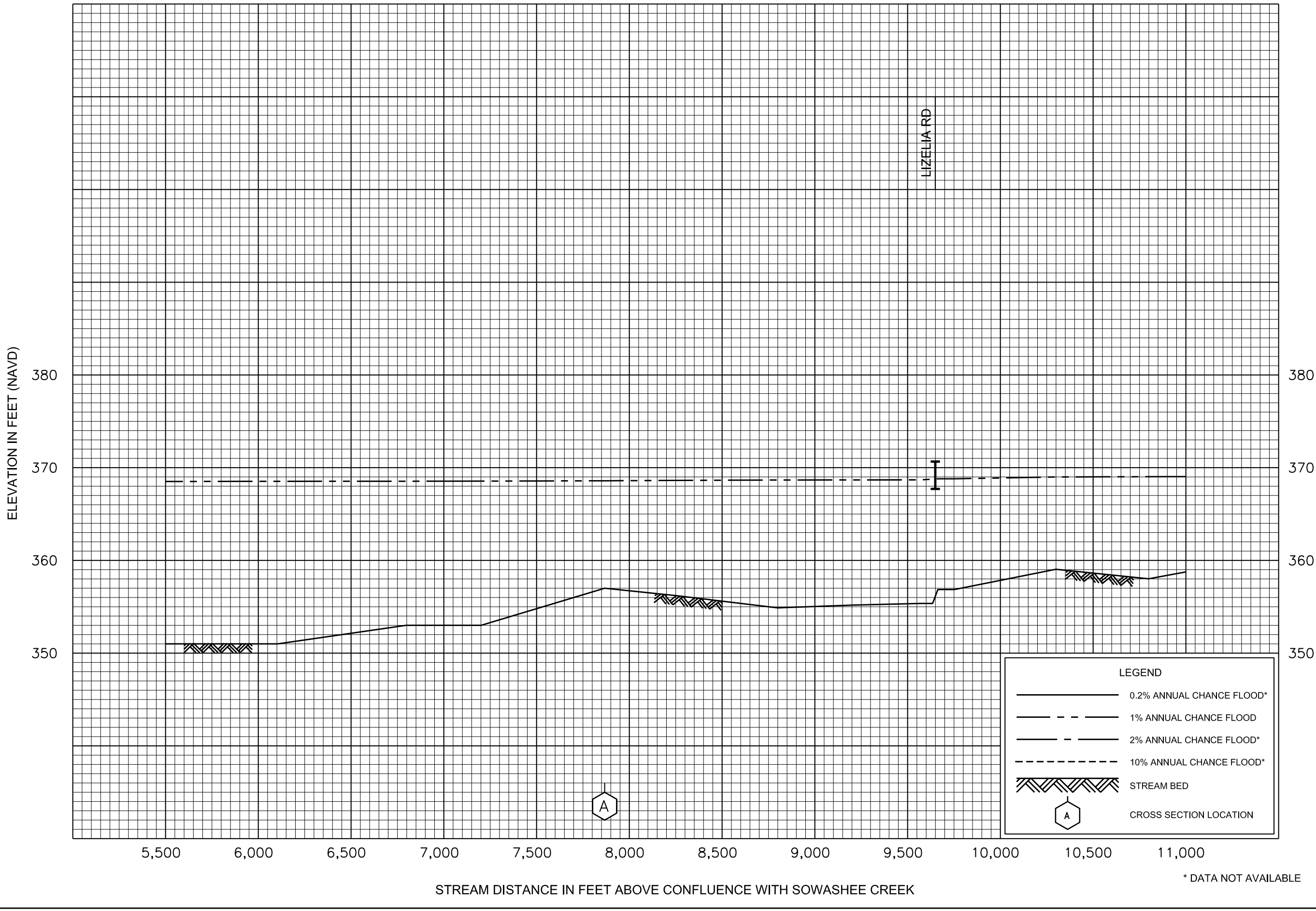
SOWASHEE CREEK TRIBUTARY 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

57P



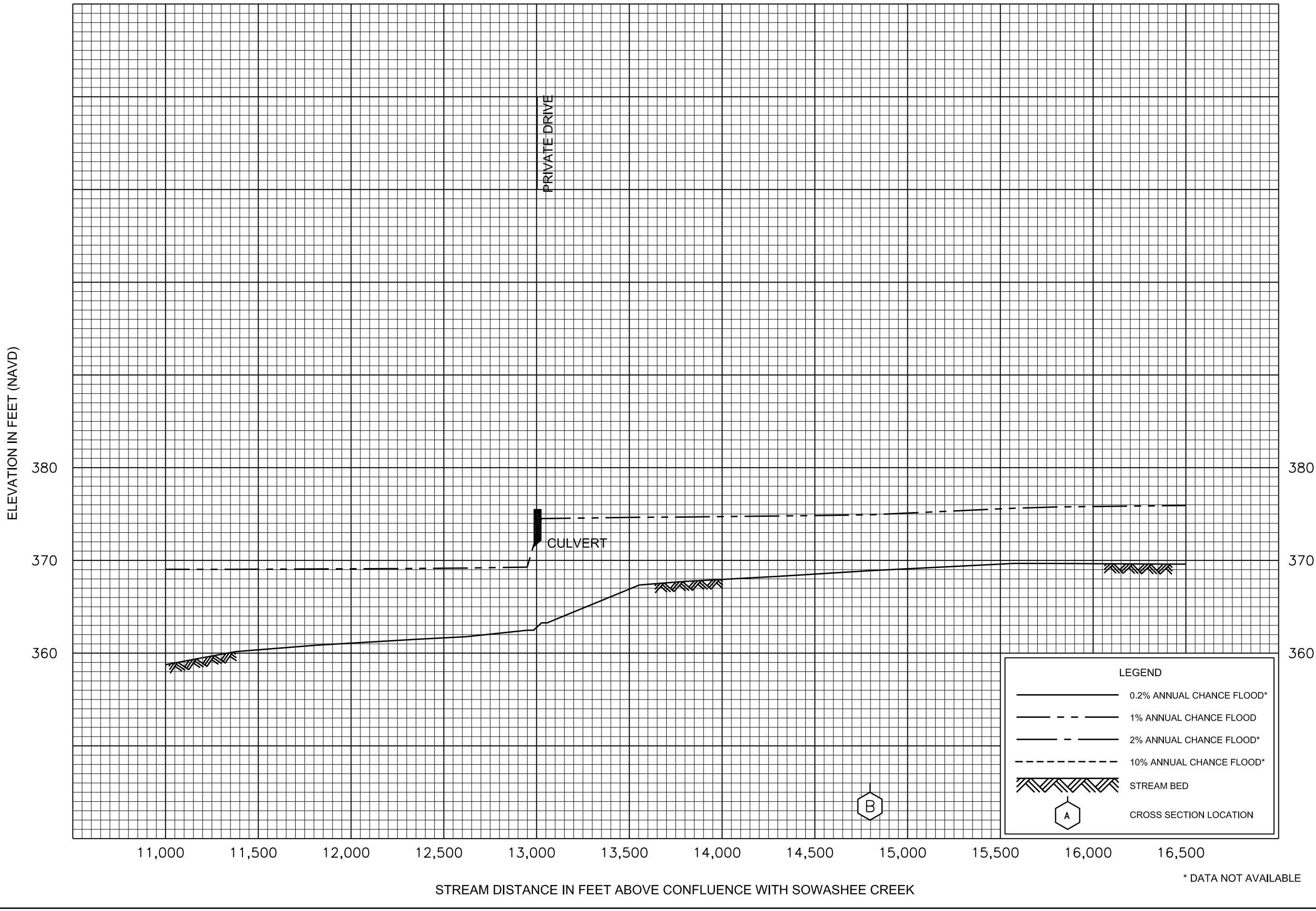

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

58P




* DATA NOT AVAILABLE

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

59P

ELEVATION IN FEET (NAVD)

360 370 380 390 400

16,500 17,000 17,500 18,000 18,500 19,000 19,500 20,000 20,500 21,000 21,500 22,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

* DATA NOT AVAILABLE

CULVERT

PRIVATE DRIVE

GRAND CYPRESS DR

LEGEND

0.2% ANNUAL CHANCE FLOOD*

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD*

10% ANNUAL CHANCE FLOOD*

STREAM BED

A CROSS SECTION LOCATION

60P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8

ELEVATION IN FEET (NAVD)

380 390 400 410 420

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

22,000 22,500 23,000 23,500 24,000 24,500 25,000 25,500 26,000 26,500 27,000 27,500

PRIVATE DRIVE
PRIVATE DRIVE
PRIVATE DRIVE
PRIVATE DRIVE
PRIVATE DRIVE
PRIVATE DRIVE
BRIARWOOD RD

CONFLUENCE OF
SOWASHEE CREEK TRIBUTARY 11

A
C
D
H
I

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

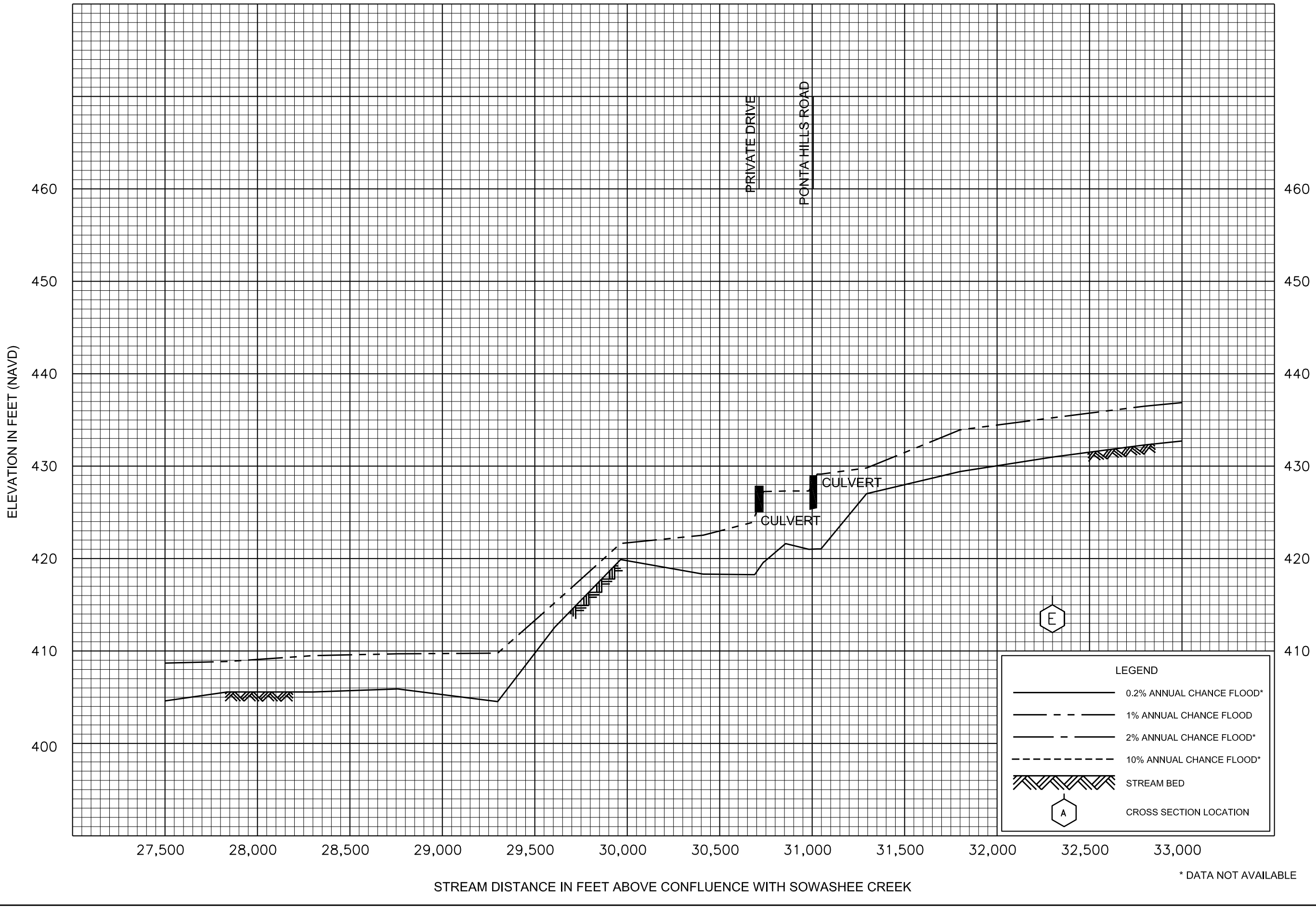
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8

61P



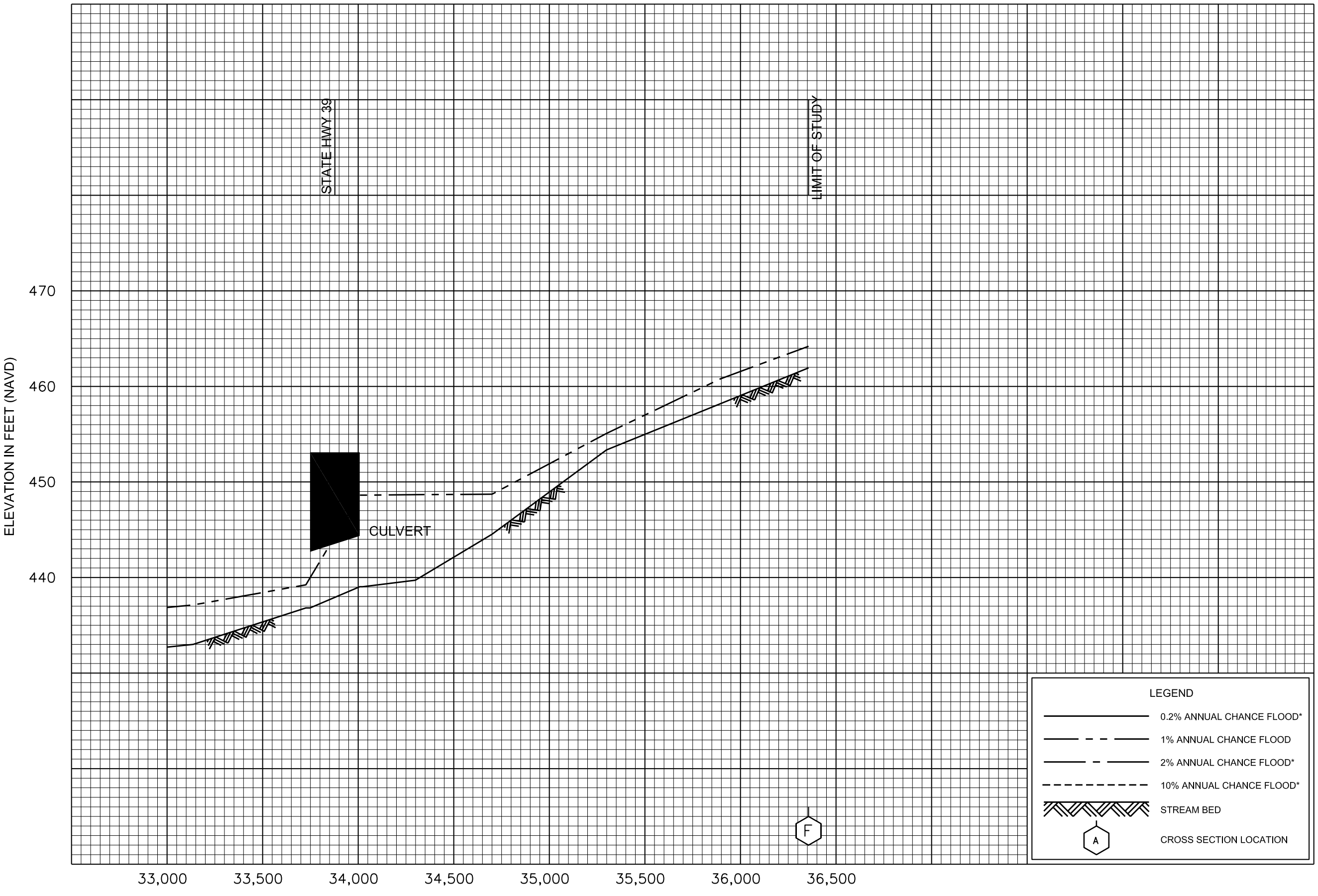

* DATA NOT AVAILABLE

# FLOOD PROFILES

## SOWASHEE CREEK TRIBUTARY 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS




* DATA NOT AVAILABLE

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH SOWASHEE CREEK

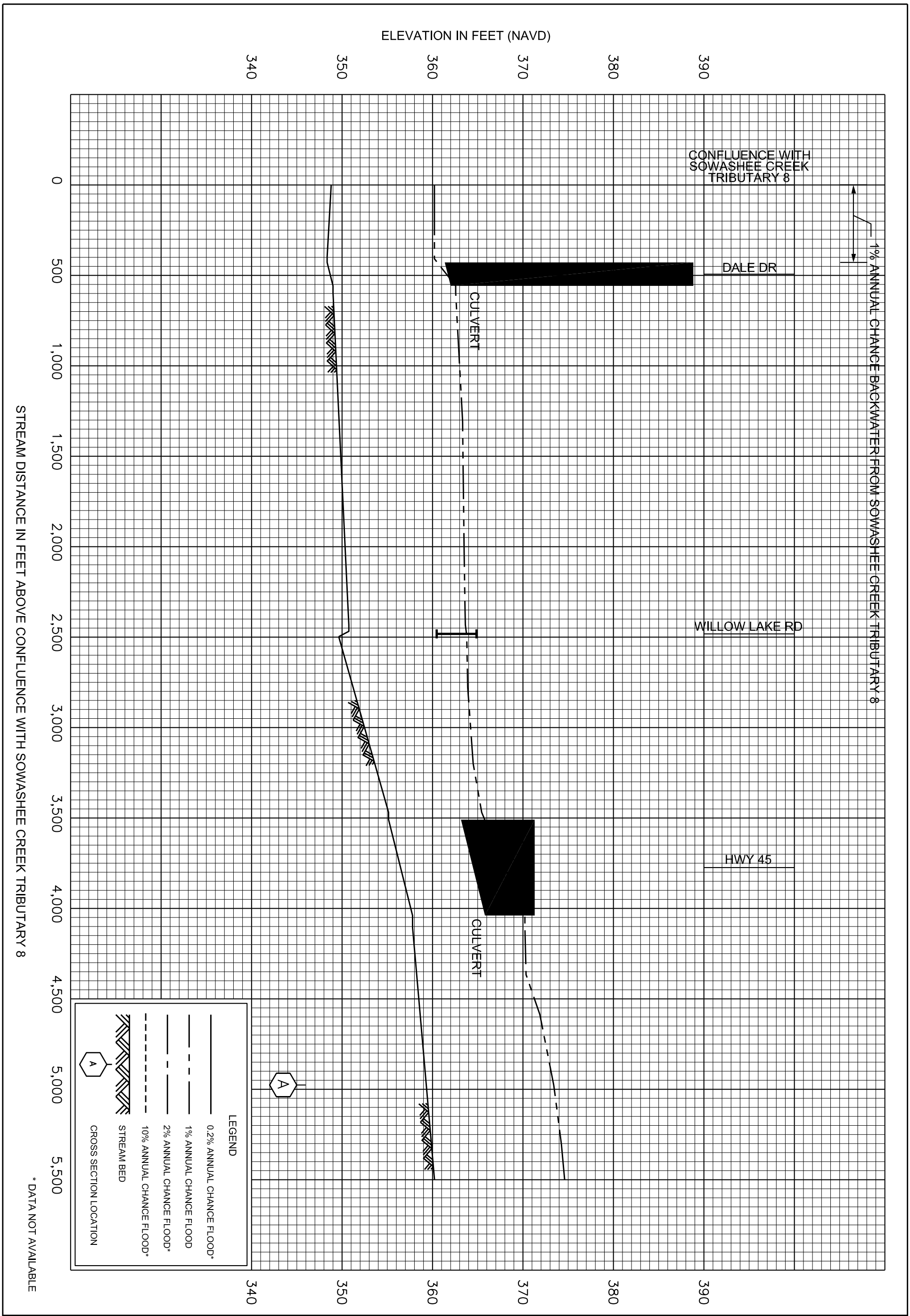
FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

63P




64P

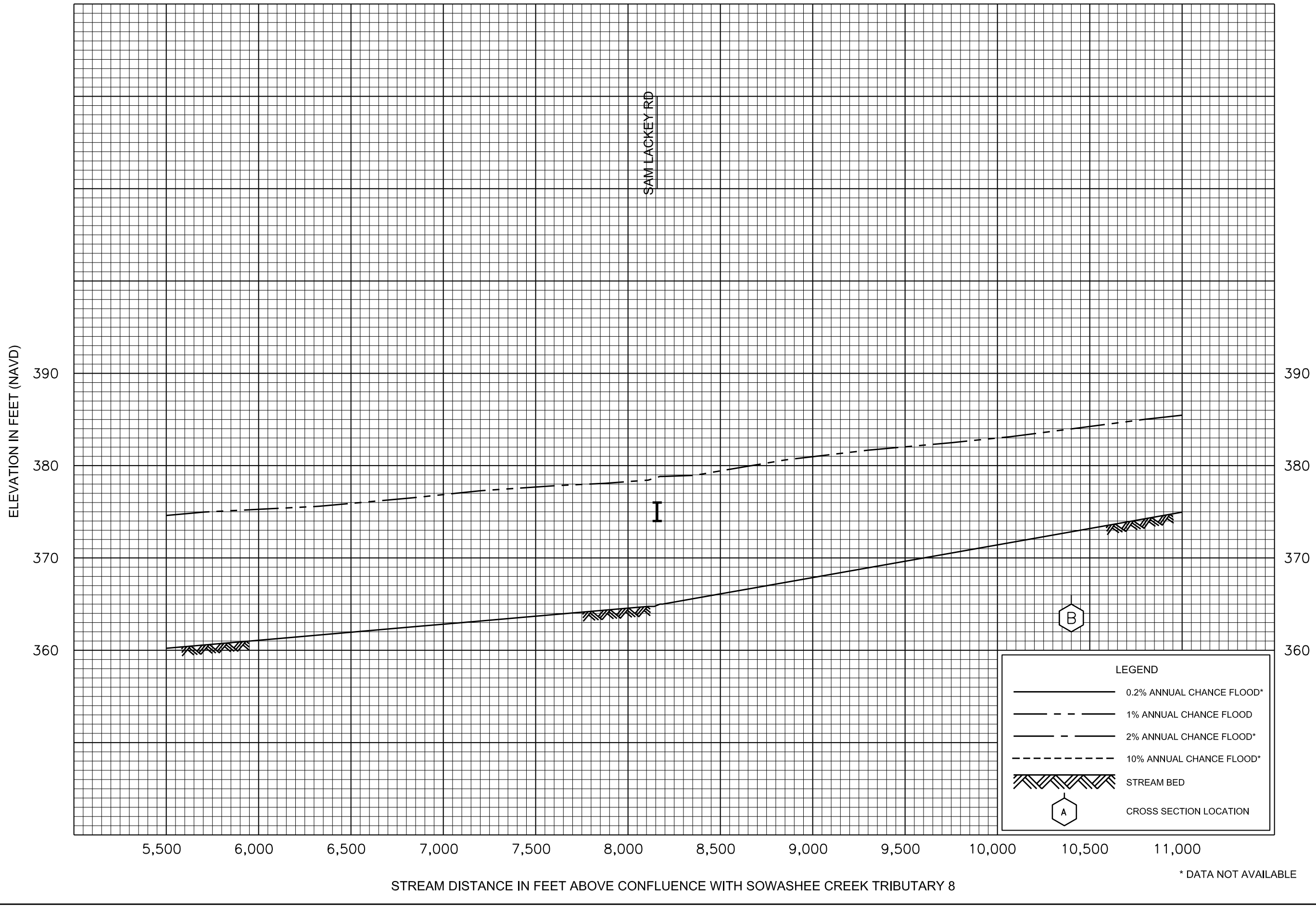
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 10



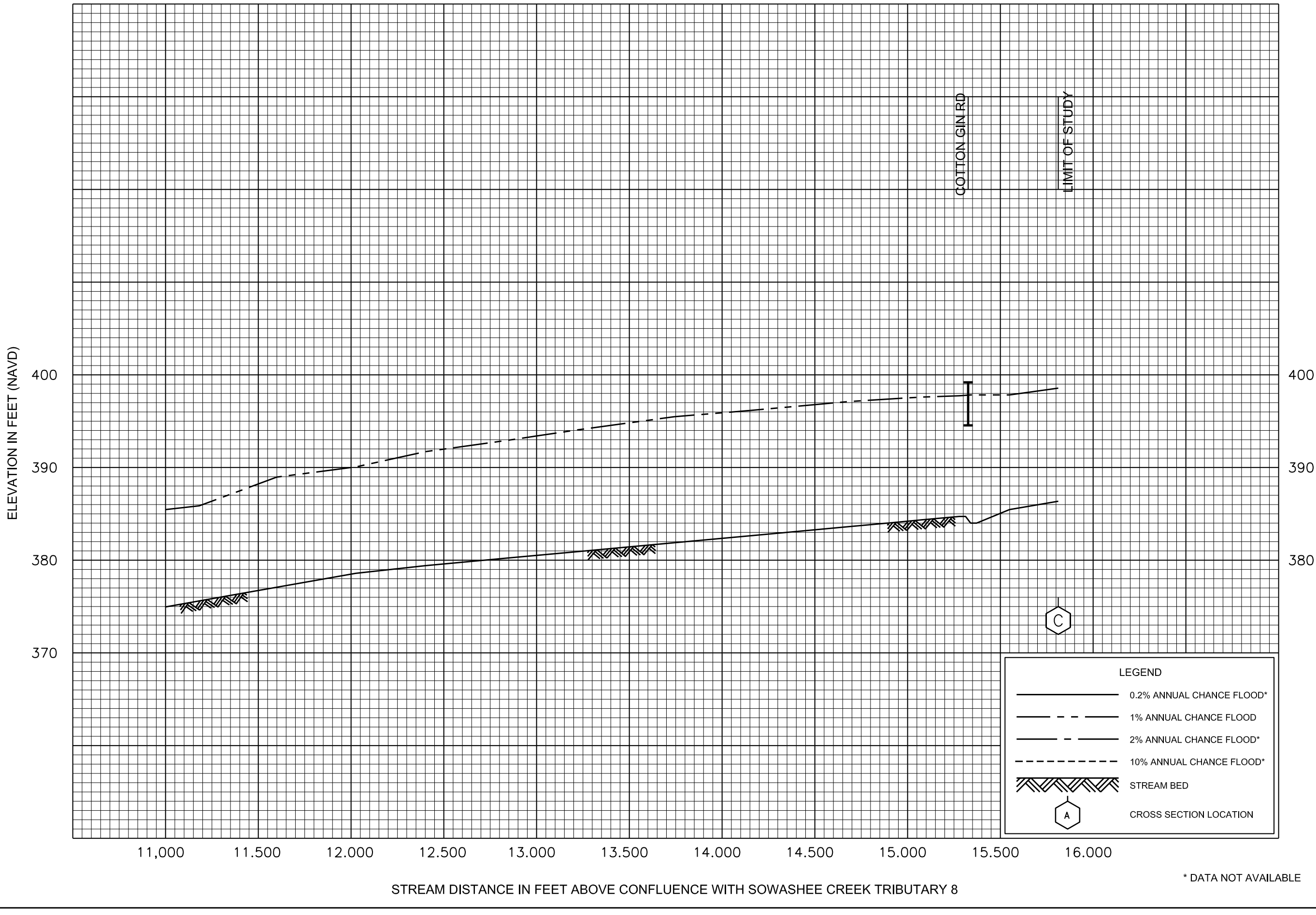

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

65P



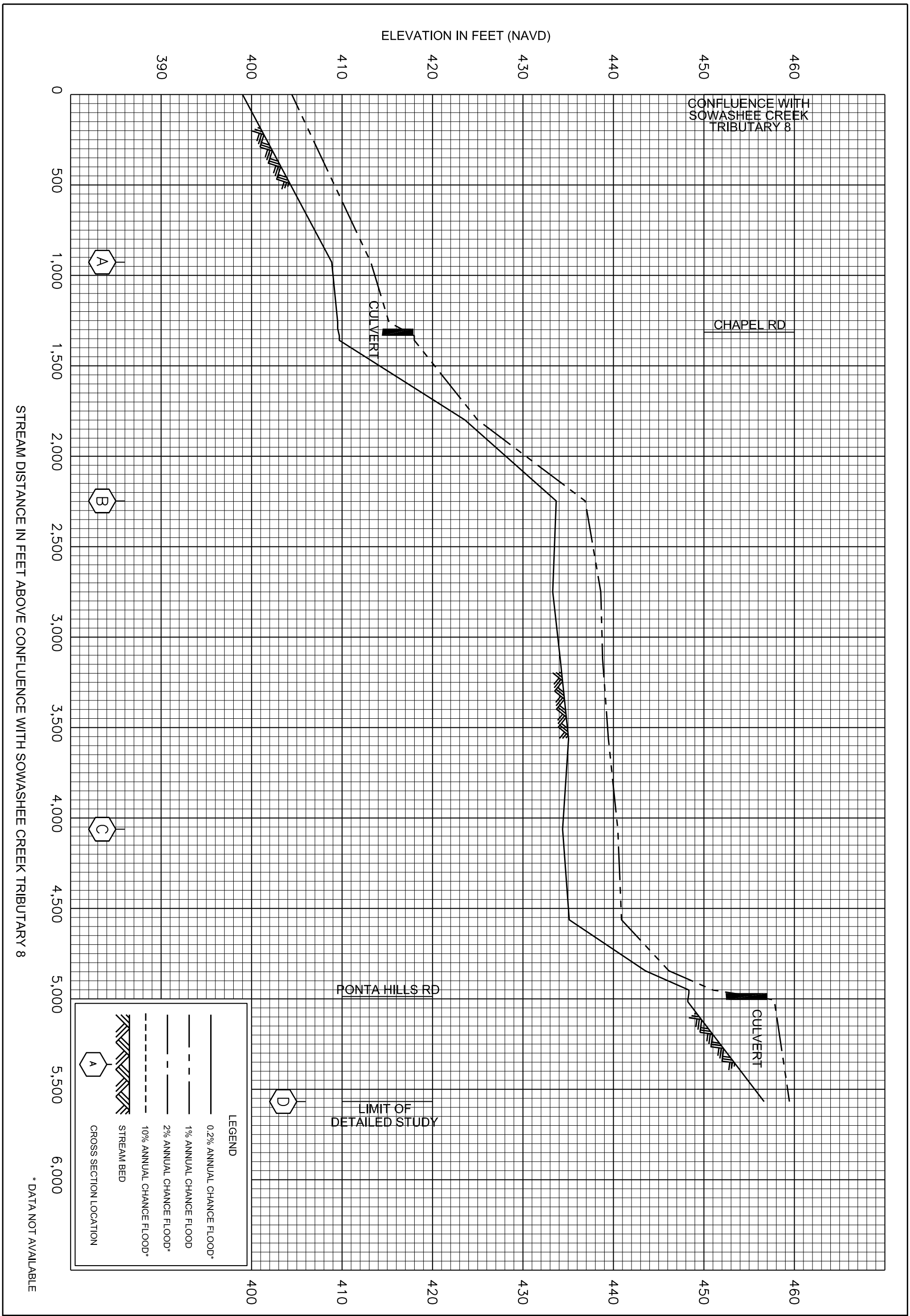

* DATA NOT AVAILABLE

FLOOD PROFILES

SOWASHEE CREEK TRIBUTARY 10

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS




67P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

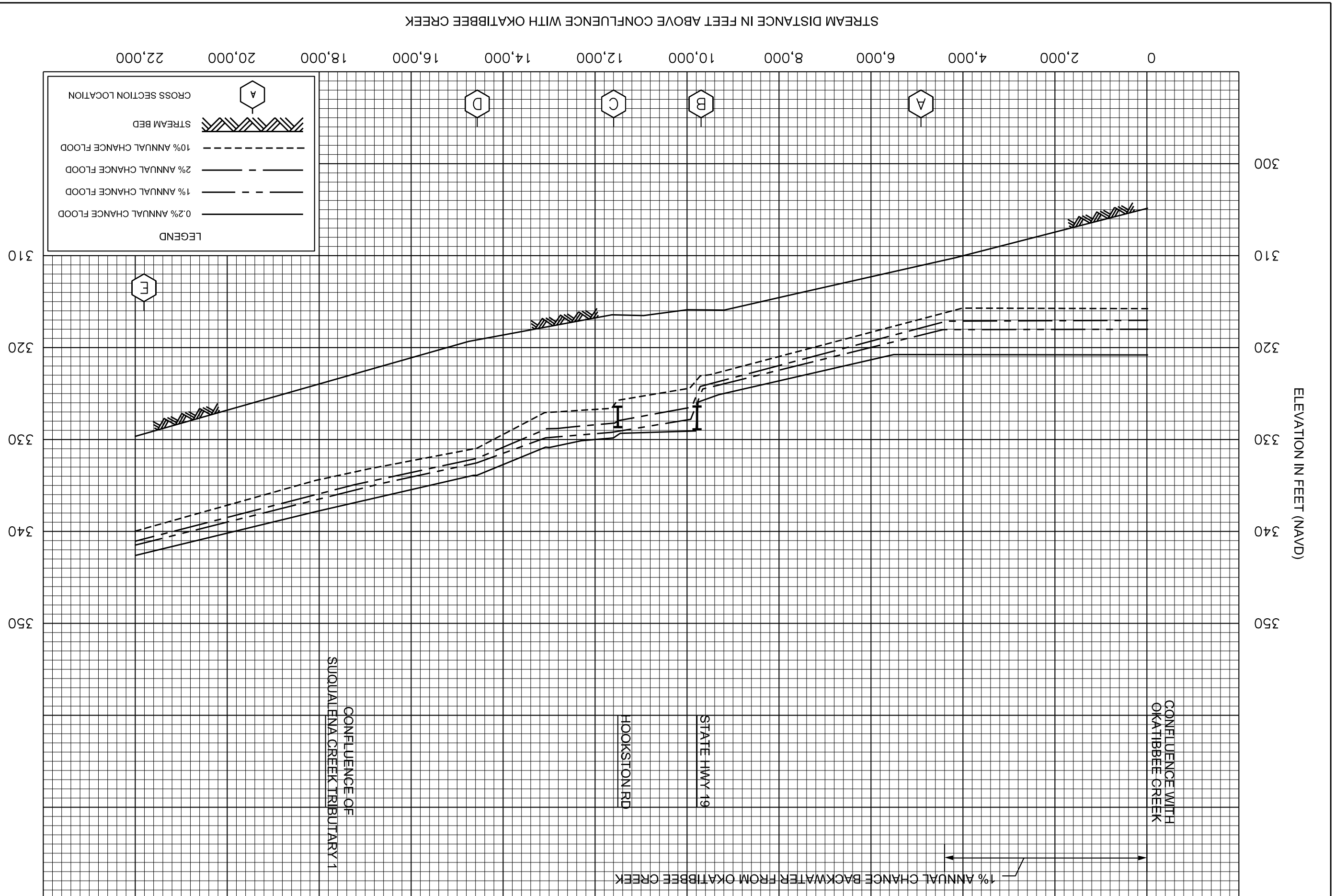
SOWASHEE CREEK TRIBUTARY 11

FEDERAL EMERGENCY MANAGEMENT AGENCY

# LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

## FLOOD PROFILES

## SUQUALENA CREEK

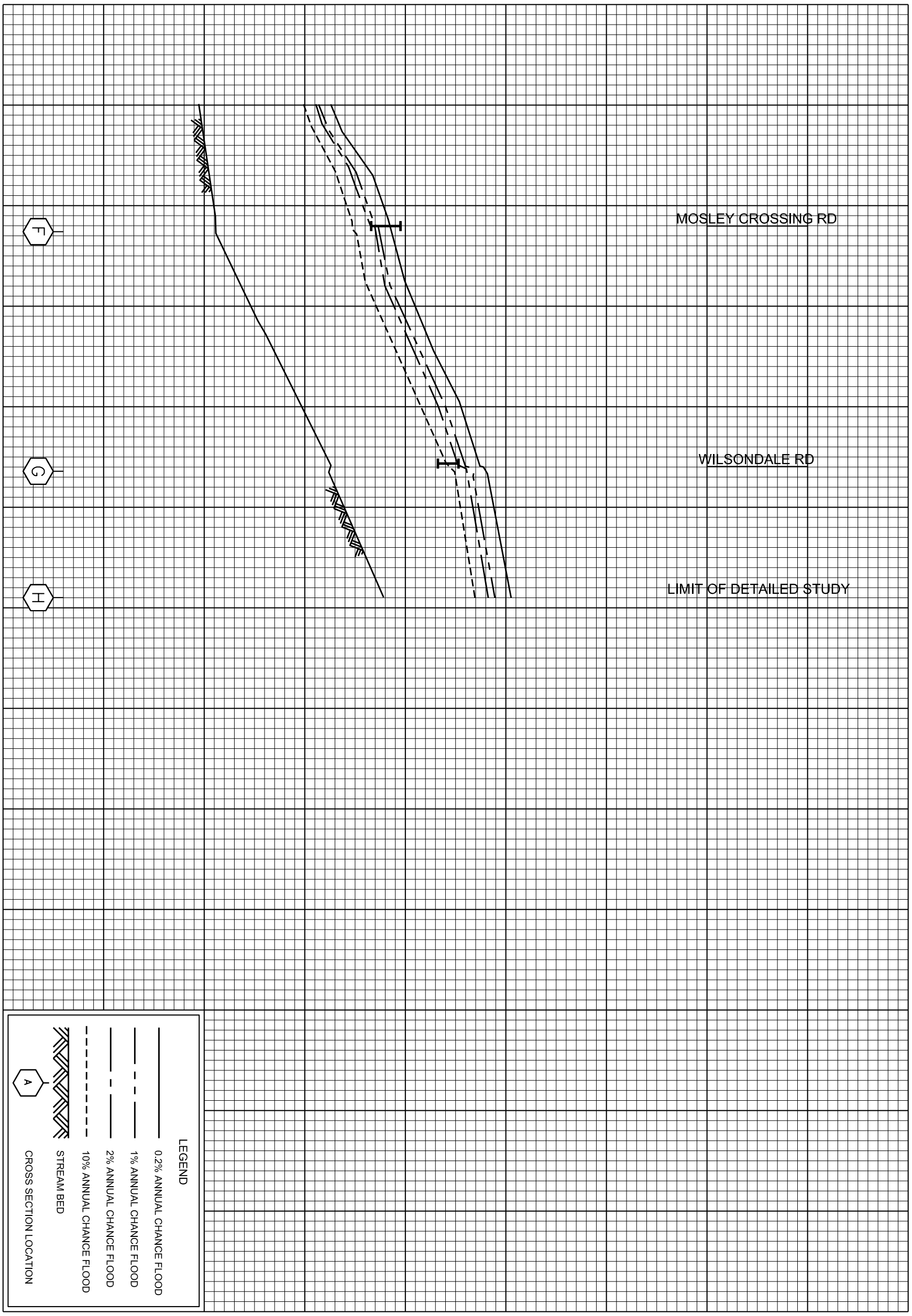


ELEVATION IN FEET (NAVD)

320 330 340 350 360 370

22,000 24,000 26,000 28,000 30,000 32,000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH OKATIBBEE CREEK




330 340 350 360 370

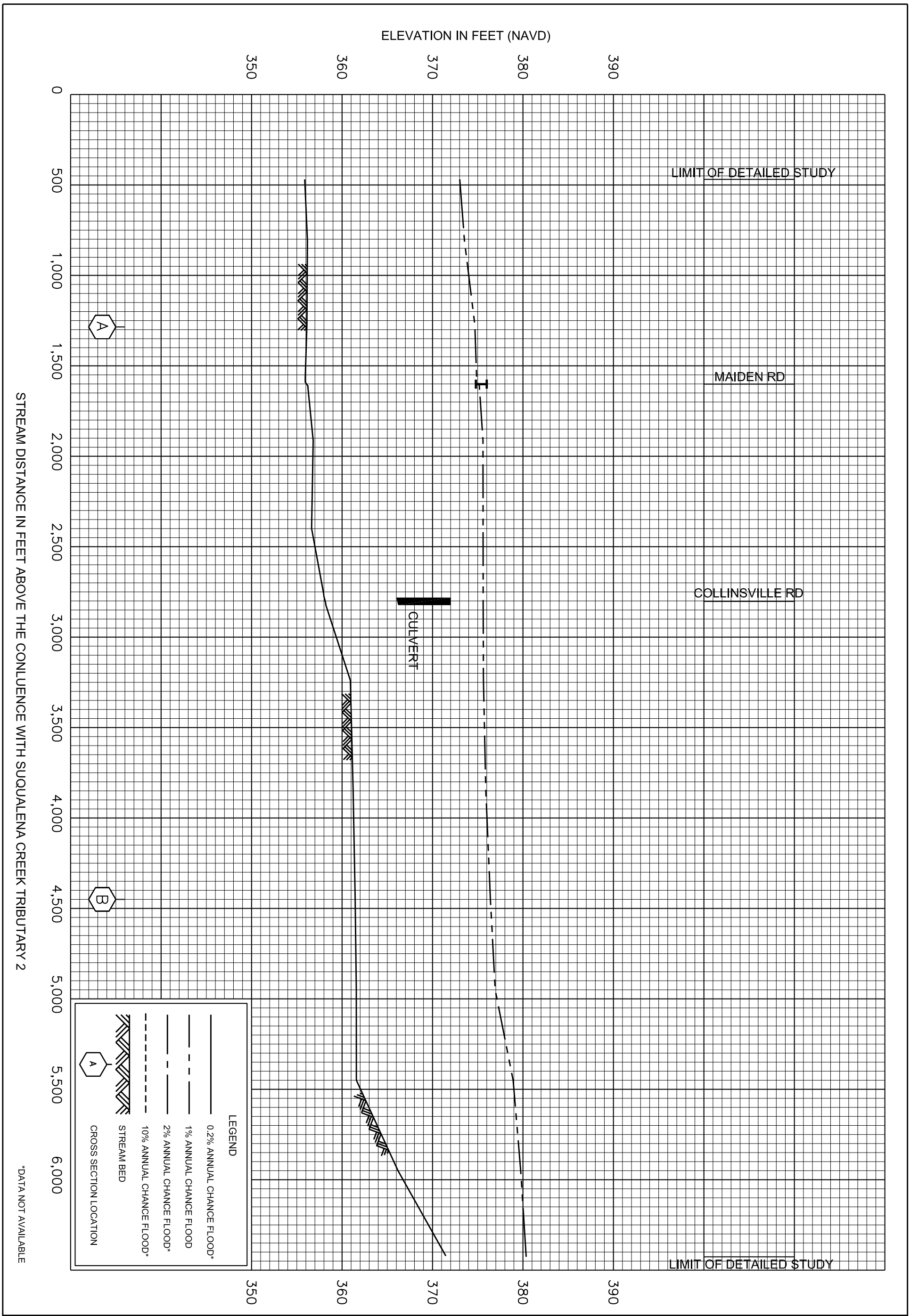
FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS
AND INCORPORATED AREAS

FLOOD PROFILES

SUQUALENA CREEK

69P




70P

FEDERAL EMERGENCY MANAGEMENT AGENCY

LAUDERDALE COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

SUQUALENA CREEK TRIBUTARY 4