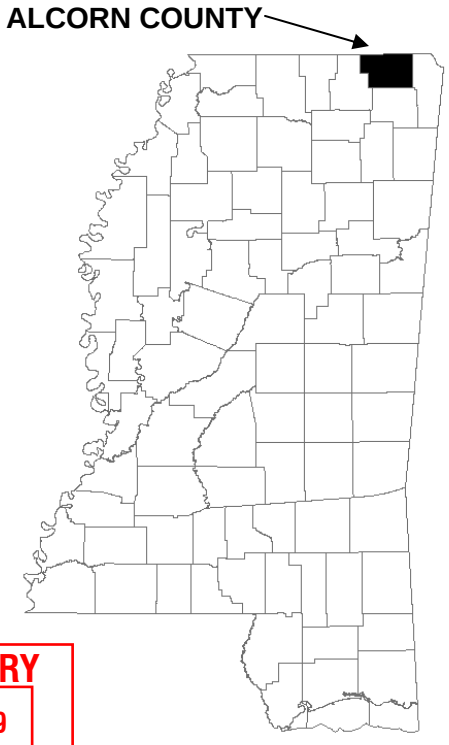
FLOOD INSURANCE STUDY

ALCORN COUNTY, MISSISSIPPI
AND INCORPORATED AREAS

Community Name	Community Number
ALCORN COUNTY (UNINCORPORATED AREAS)	280267
CORINTH, CITY OF	280002
FARMINGTON, TOWN OF	280170
GLEN, TOWN OF	280137
KOSSUTH, VILLAGE OF	280062
RIENZI, TOWN OF	280322



PRELIMINARY

JUL 17 2009

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
28003CV000A

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.

Selected Flood Insurance Rate Map panels for the community contain information that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels (e.g., floodways, cross sections). In addition, former flood hazard zone designations have been changed as follows:

Old Zone	New Zone
A1 through A30	AE
V1 through V30	VE
B	X
C	X

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.

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ALCORN 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 Alcorn County, Mississippi, including the City of Corinth, the Town of Farmington, the Town of Glen, the Village of Kossuth, and the Town of Rienzi, as well as the unincorporated areas of Alcorn County (referred to collectively herein as Alcorn 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. 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.

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 sources of hydrologic and hydraulic analyses that have been performed for each jurisdiction included in this countywide FIS have been compiled from previous FIS reports and are described below.

Alcorn County: (Unincorporated Areas)	The hydrologic and hydraulic analyses for the January 17, 1991 FIS report were prepared by Spencer-Engineers, Inc. for the Federal Emergency Management Agency (FEMA), under Contract No. EMW-87-C-2458. This study was completed in September 1988 (Reference 1).
Cornth, City of	The hydrologic and hydraulic analyses for the September 16, 1980 FIS report were prepared by the U.S. Army Corps of Engineers (USACE) for the Federal Insurance Administration, under Inter-Agency Agreement No. (IAA)-H-16-75, Project Order No. 21, and Interagency Agreement No. (IAA)-H-7-76, Project Order No. 1. This work was completed in February 1978 (Reference 2).

The hydrologic and hydraulic analyses for this study were performed by the State of Mississippi for FEMA, under Contract No. EMA-2006-CA-5617. This study was completed in April 2009. Floodplain boundaries for approximate study streams were

delineated based on 10 and 30 meter Digital Elevation Models (DEMs) from the United States Geological Survey (USGS).

Base map information shown on this Flood Insurance Rate Map (FIRM) was provided in digital format by Mississippi Department of Environmental Quality (MDEQ) and Mississippi Emergency Management Agency (MEMA).

The coordinate system used for the production of DFIRM is Mississippi State Plane East (FIPS 2301), reference to the North American Datum of 1983 and the GRS80. Distance units were measured in United States (U.S.) feet.

1.3 Coordination

An initial Consultation Coordination Officer's (CCO) 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 meeting is held with representatives of the communities, FEMA, and the study contractors to review the results of the study

The dates of the initial and final CCO meetings held for the communities within the boundaries of Winston County are shown below.

Community Name	Initial CCO Date	Final CCO Date
City of Corinth	April 1975	March 12, 1980
Alcorn County (Unincorporated Areas)	October 17, 1986	February 21, 1990

For this countywide FIS, an initial Consultation Coordination Officer (CCO) meeting was held on January 10, 2007, and attended by representatives of FEMA, MDEQ, MEMA, Alcorn County, the City of Corinth, and the study contractor, Watershed Concepts. A final meeting, the Preliminary DFIRM Community Coordination (PDCC), was held on Month DD, YEAR to review the results of this study.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS covers the geographic area of Alcorn County, Mississippi, including the incorporated communities listed in Section 1.1. The areas studied by detailed methods were selected with priority given to all known flood hazards and areas of projected development or proposed construction.

Two types of analysis were used to develop this FIS report: redelineation of streams that had been previously studied with detailed methods, and approximate methods analysis. Floodplain boundaries of streams that had been previously studied by detailed methods were redelineated based on more detailed and up-to-date topographic mapping for this FIS report. Enhanced approximate analyses were used to study those areas having a low development potential or minimal flood hazards. The scope and methods of study for each stream were proposed to, and agreed upon, by FEMA and Alcorn County.

2.2 Community Description

Alcorn County is located in northeastern along the Tennessee state line and about 15 miles west of the Alabama state line. It is bordered by Hardemen, McNairy, and Hardin Counties, Tennessee, on the north; Tishomingo County Mississippi, on the east; Prentiss County, Mississippi, on the south, and Tippah County, Mississippi on the west. The county has a total land area of 401 square miles and an estimated 2006 population of 35,589 (Reference 3). The City of Corinth is the county seat. The county's major thoroughfares are US Highways 45 and 72, state highways 2, 350, 356, and 367. Economically, Alcorn County is in transition from agricultural to industrial dominance. Many of the areas available for future growth are in or near the floodplains.

Major drainage for Alcorn County is provided by the Tuscumbia River Canal, the Hatchie River, and tributaries to the Tennessee River. The majority of the county is drained by the Tuscumbia River Canal before joining the Hatchie River in Tennessee. The Hatchie River drains the extreme western part of the county. The extreme eastern side of the county is drained by tributaries to the Tennessee River (Reference 1).

This county has a relatively low relief. Geological evidence shows that the land seems to have emerged relatively late from below sea level, presenting a fairly smooth surface of unconsolidated material. Upon exposure to the elements, the land was incised to form a pattern of valleys rimmed at comparatively uniform elevations. This developed into the long, narrow fern-like drainage pattern typical of this area. The numerous short tributaries flowing into a long, main stream result in a longer time of concentration. This accounts for the more casual runoff of extended duration (Reference 2).

Most of the soil covering the area of study appears to be made up of residual breakdown from the Demopolis Chalk, one of the older layers of the cretaceous group near the lower contact of deposits of the Mississippi Embayment, which was previously an arm of what is now known as the Gulf of Mexico. The cretaceous formations are supported by some of the Mississippian (upper rocks) of the Paleozoic. The developing meander belts have cut laterally into the stratum where it has progressively carved occasional steep valley sides. Bridge Creek, on the other hand, has cut through the chalk in its reach from a little north of Shiloh Road to near US Highway 72. It has also scoured out a broad plain in the Coffee Sand, the aquifer which supplies well water to the community, leaving a rugged, bluff-like terrain in the more resistant chalk stratum to the south and east of the crescent swing of the valley (Reference 2).

Bridge Creek rises just north of the Tennessee state line and flows southward along the eastern edge of the City of Corinth before turning west along the southern edge of the city to its confluence with the Tuscumbia River Canal. Within the study segment, Bridge Creek has a broad alluvial valley with a slope between 5-7 feet per mile. Turner Creek rises in the hills northeast of the City of Corinth and flows southward to its confluence with Elam Creek which flows southward to Bridge Creek. Turner Creek has a slope of about 46 feet per mile at its upper reach, and 23 feet per mile though the town of Corinth. Cane Creek rises in Tennessee and flows southward to its confluence with the Tuscumbia River Canal west of the City of Corinth. Cane Creek has a broad alluvial valley with a slope of about 8 feet per mile. Elam and Phillips Creeks follow a 10-11 foot per mile slope (Reference 2).

Summers may be described as long and hot and winters are short and mild. The average annual temperature in Alcorn County is 68 degrees Fahrenheit (Reference 4). The average

annual rainfall is 53.1 inches (Reference 5). Generally, winter rains are of several days duration and cover large areas from frontal type storms. Summer rains are usually thunderstorms with high intensities over small areas.

2.3 Principal Flood Problems

The history of flooding in Alcorn County indicates that flooding may occur during any season of the year. The majority of floods occur during winter and spring. Runoff from rainfall is the principal cause of flooding. Due to the relatively small size of the drainage basins, flash floods can occur from local high intensity thunderstorms.

2.4 Flood Protection Measures

Flood protection measures are not known to exist within the study area.

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 are expected to be equaled or exceeded once on the average during any l0-, 50-, l00-, 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 l0-, 50-, 100-, and 500-year floods, have a l0-, 2-, 1-, and 0.2-percent-annual-chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 1-percent-annual-chance flood in any 50-year period is approximately 40 percent (4 in 10); for any 90 year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

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

Pre-Countywide Analysis

Since there are no stream gages on any of the streams under study, peak discharges for floods of the 10, 2, 1, and 0.2-percent annual chance recurrence intervals were established using the region regression equation (Reference 6). Discharges for Bridge Creek and portions of Turner Creek were developed synthetically using unit hydrographs and rainfall-frequency values from the National Weather Service Technical Paper No. 40 (Reference 5). Unit hydrographs were developed using Snyder's method with coefficients taken from previous studies of basins with similar characteristics. Discharges were developed previously for these streams for a flood plain information report published by the Memphis District in 1972. However, to better define the change in discharge with the change in drainage area, the basin was divided into smaller sub-areas and discharges were computed for each of the sub-areas. Discharges for the 0.2-percent chance flood for all streams were determined by straight line extrapolation of a log-probability graph of flood discharges computed for frequencies of up to 100 years (Reference 2).

This Countywide Study

For this countywide study, discharges for the 1-percent-annual-chance recurrence interval were calculated for stream reaches studied by approximate methods using regression equations for rural areas in Mississippi found in USGS Fact Sheet 008-01 (Reference 7).

Peak discharge-drainage area relationships for the streams studied by detailed methods are shown in Table 1, "Summary of Discharges".

Table 1. Summary of Discharges

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (Square miles)	PEAK DISCHARGES (cfs) 10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
BRIDGE CREK					
At US Highway 45	32.85	5,070	7,085	8,010	10,100
At Fulton Drive	27.94	4,580	6,370	7,210	9,000
At the confluence of Elam Creek	16.32	3,850	5,380	6,080	7,800
At the Railroad	8.80	3,158	4,410	4,987	6,300
At the Railroad	4.80	1,946	2,676	3,063	3,900
CANE CREEK					
At US Highway 72	9.50	2,800	4,400	5,250	7,300
About 3,300 feet upstream of Smithbridge Road	6.94	2,240	3,520	4,170	5,700
ELAM CREEK					
At US Highway 45	6.09	2,355	3,235	3,702	4,700
PHILLIPS CREEK					
At mouth	5.53	2,500	3,400	3,900	4,900
At Cross Section F	4.44	1,945	2,688	3,060	3,900
TURNER CREEK					
At mouth	2.34	950	1,300	1,500	1,920
2,150 feet downstream of US Highway 45	1.58	868	1,239	1,394	1,780
Just downstream of US Highway 45	0.75	430	620	730	960

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 FIRMs 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.

Pre-Countywide Analysis

Cross-section data for the water-surface profile analyses were obtained from field surveys. All bridges and culverts were surveyed to obtain elevation data and structural geometry. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles and on the Flood Insurance Rate Map.

Water-surface elevations of floods of the selected recurrence intervals were computed using the HEC-2 water-surface profile computer program (Reference 8). Starting water-surface elevations for Bridge Creek and Cane Creek were determined by the slope-area method. Channel and overbank roughness coefficients (Manning's "n") used in the hydraulic computations were chosen by engineering judgment and were based on field observations of the stream and floodplain areas. Manning's "n" values for channels ranged from 0.04 to 0.06 and for overbank areas ranged from 0.08 to 0.15 (Reference 1).

This Countywide Study

For this countywide study, water-surface profiles were computed through the use of the USACE HEC-RAS version 3.1.2 computer program (Reference 9). Water surface profiles were produced for the 1-percent-annual-chance storms for approximate studies.

The approximate study methodology used the computer program WISE as a preprocessor to HEC-RAS. WISE combined geo-referenced data from the terrain model and miscellaneous shapefiles (such as streams and cross sections). Tools within WISE allowed the engineer to verify that the cross-section data was acceptable. The WISE program was used to generate the input data file for HEC-RAS. Then HEC-RAS was used to determine the flood elevation at each cross section of the modeled stream. No floodway was calculated for streams studied by approximate methods.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 4.2), selected cross-section locations are also shown on the FIRM.
Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals. In cases where the 2%- and 1%-annual chance elevations are close together, due to limitations of the profile scale, only the 1%-annual chance profile has been shown.

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.

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.

Flood elevations shown in this FIS report and on the FIRM are referenced to the NAVD. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. Some of the data used in this revision were taken from the prior effective FIS reports and FIRMs and adjusted to NAVD88. The datum conversion factor from NGVD29 to NAVD88 in Alcorn County is +0.05 feet.

For additional information regarding conversion between the NGVD and NAVD, 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 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 1- and 0.2-percent-annual-chance floodplains; and 1-percent-annual-chance floodway. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data 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 county. For each stream studied in detail, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated based on topographic maps at a scale of 1:24000 with contour intervals of 10 and 20 feet (Reference 10).

The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM (Exhibit 2). On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE) and 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards (Zone X). In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundaries are shown on the FIRM. For this revision, the floodplain boundaries were delineated based on topographic data provided by the USGS.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces the flood carrying capacity, increases the flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent-annual-chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1-percent-annual-chance flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this 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 study 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 in Table 3, “Floodway Data.” 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.

No floodways were computed for streams studied by enhanced approximate and approximate methods. Along streams where floodways have not been computed, the community must ensure that the cumulative effect of development in the floodplains will

not cause more than a 1.0-foot increase in the base flood elevations at any point within the county.

The area between the floodway and the 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 (WSEL) of the flood more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1.

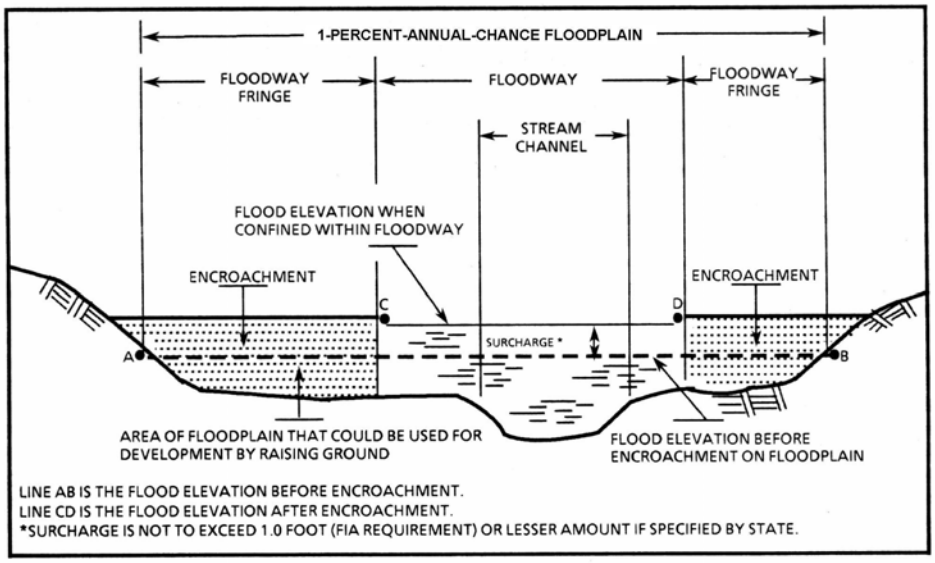


Figure 1. Floodway Schematic

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BRIDGE CREEK								
A	4,382	1,296	7,734	1.0	405.7	405.7	406.7	1.0
B	5,755	462	1,554	5.2	406.9	406.9	407.8	0.9
C	7,075	1,513	10,593	0.8	408.8	408.8	409.7	0.9
D	11,088	1,273	6,115	1.3	410.7	410.7	411.7	1.0
E	13,358	1,050	3,900	1.8	413.1	413.1	414.1	1.0
F	13,675	850	4,437	1.6	414.3	414.3	415.0	0.7
G	14,890	891	4,260	1.7	415.0	415.0	415.9	0.9
H	17,688	464	2,065	3.5	418.4	418.4	419.0	0.6
I	18,322	148	1,407	5.1	419.4	419.4	420.0	0.6
J	19,008	900	5,045	1.2	420.3	420.3	420.8	0.5
K	20,011	905	4,646	1.3	420.7	420.7	421.4	0.7
L	22,123	696	2,746	2.2	422.1	422.1	422.8	0.7
M	24,446	240	1,360	4.5	426.1	426.1	426.5	0.4
N	26,030	725	3,529	1.7	427.6	427.6	428.2	0.6
O	31,258	50	604	8.3	436.5	436.5	436.5	0.0
P	32,630	560	3,557	1.4	438.0	438.0	438.5	0.5
Q	33,845	535	3,370	1.5	440.2	440.2	440.3	0.1
R	38,544	400	1,813	1.7	443.8	443.8	444.7	0.9

[1] Feet above confluence with Tuscumbia River

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS AND INCORPORATED AREAS

FLOODWAY DATA

BRIDGE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BRIDGE CREEK (continued)								
S	40,075	400	1,692	1.8	447.0	447.0	447.6	0.6
T	44,563	300	4,150	0.7	455.0	455.0	455.1	0.1
U	48,682	255	1,131	2.7	460.8	460.8	461.7	0.9

[1] Feet above confluence with Tuscumbia River

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS AND INCORPORATED AREAS

FLOODWAY DATA

BRIDGE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CANE CREEK								
A	4,500	317	2,050	2.6	404.3	404.3	404.7	0.4
B	7,900	269	1,114	4.7	408.3	408.3	409.2	0.9
C	8,717	75	907	5.8	411.9	411.9	412.4	0.5
D	9,900	906	4,347	1.2	413.6	413.6	414.1	0.5
E	12,000	7,696	2,767	1.5	416.0	416.0	417.0	1.0
F	15,400	293	1,256	3.3	422.7	422.7	423.7	1.0
G	16,900	548	2,424	1.7	425.4	425.4	426.3	0.9
H	17,700	480	696	6.0	426.8	426.8	427.4	0.6
I	18,400	652	1,320	3.2	429.1	429.1	429.7	0.6

[1] Feet above mouth

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS AND INCORPORATED AREAS

FLOODWAY DATA

CANE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
ELAM CREEK								
A	0.71	305	1,189	4.1	423.1	423.1	424.1	1.0
B	0.96	505	2,850	1.7	425.7	425.7	426.7	1.0
C	1.12	675	3,238	1.5	426.6	426.6	427.5	0.9
D	1.27	210	1,206	4.1	427.4	427.4	428.3	0.9
E	1.36	233	1,096	4.5	428.7	428.7	429.6	0.9
F	1.43	300	1,622	3.0	429.4	429.4	430.0	0.6
G	1.46	937	4,099	1.2	430.1	430.1	430.6	0.5
H	1.65	600	1,902	2.6	430.3	430.3	431.0	0.7
I	1.67	600	2,301	2.1	430.9	430.9	431.8	0.9
J	1.77	600	2,967	1.7	431.7	431.7	432.5	0.8
K	1.85	730	1,839	2.7	432.2	432.2	432.9	0.7
L	1.91	535	2,042	2.4	433.4	433.4	433.4	0.0
M	2.14	590	2,931	1.3	434.9	434.9	435.8	0.9
N	2.25	310	1,389	2.7	435.4	435.4	436.3	0.9
O	2.28	75	625	5.9	437.4	437.4	438.0	0.6
P	2.38	400	2,088	1.8	438.4	438.4	438.9	0.5
Q	2.44	430	2,492	1.5	438.5	438.5	439.0	0.5
R	2.53	280	1,650	2.2	438.7	438.7	439.4	0.7

[1] Miles above confluence with Bridge Creek

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS AND INCORPORATED AREAS

FLOODWAY DATA

ELAM CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
ELAM CREEK (continued)								
S	2.76	630	3,251	1.1	439.5	439.5	440.5	1.0
T	3.04	500	1,949	1.9	440.5	440.5	441.5	1.0
U	3.07	500	1,993	1.9	442.4	442.4	442.6	0.2
V	3.10	600	2,983	1.2	442.5	442.5	442.7	0.2
W	3.23	1,200	3,170	1.2	442.9	442.9	443.3	0.4

[1] Miles above confluence with Bridge Creek

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS AND INCORPORATED AREAS

FLOODWAY DATA

ELAM CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PHILLIPS CREEK								
A	0.47	80	658	5.9	430.4	430.4	431.0	0.6
B	0.62	300	1,772	2.2	433.0	433.0	433.8	0.8
C	0.65	390	2,354	1.7	433.5	433.5	434.1	0.6
D	0.82	90	742	5.3	435.3	435.3	436.3	1.0
E	0.94	200	1,307	3.0	437.3	437.3	437.5	0.2
F	1.12	240	1,467	2.7	437.7	437.7	438.5	0.8
G	1.24	290	1,656	2.4	439.2	439.2	439.6	0.4
H	1.46	380	2,151	1.8	440.2	440.2	441.0	0.8
I	1.59	50	478	8.2	441.5	441.5	442.3	0.8
J	1.83	490	2,652	1.5	443.5	443.5	444.2	0.7
K	2.07	400	1,998	2.0	445.2	445.2	445.5	0.3
L	2.24	350	1,224	2.5	446.0	446.0	446.7	0.7
M	2.32	290	1,323	2.3	449.2	449.2	449.2	0.0
N	2.88	570	2,245	1.4	453.3	453.3	453.8	0.5

[1] Miles above confluence with Bridge Creek

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS AND INCORPORATED AREAS

FLOODWAY DATA

PHILLIPS CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TURNER CREEK								
A	1,003	930	4,442	0.3	434.9	434.9	435.6	0.7
B	2,957	165	333	4.5	435.2	435.2	435.8	0.6
C	4,171	100	376	4.0	442.7	442.7	443.5	0.8
D	4,541	30	252	5.9	444.5	444.5	445.2	0.7
E	7,286	335	2,105	0.7	455.3	455.3	455.3	0.0
F	8,976	146	498	2.8	457.1	457.1	458.0	0.9
G	9,451	164	460	3.0	459.3	459.3	460.1	0.8
H	9,979	98	332	2.2	460.6	460.6	461.4	0.8
I	10,243	27	258	2.8	460.8	460.8	461.7	0.9
J	11,194	29	198	3.7	463.0	463.0	463.8	0.8
K	12,091	21	141	5.2	470.4	470.4	470.4	0.0
L	12,778	139	368	2.0	472.2	472.2	473.0	0.8

[1] Feet above confluence with Elam Creek

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS AND INCORPORATED AREAS

FLOODWAY DATA

TURNER CREEK

5.0 INSURANCE APPLICATION

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 Alcorn County, Mississippi. Previously, FIRMs were prepared for each incorporated community and the unincorporated areas of the county identified as flood-prone. This countywide FIRM also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps (FBFMs), where applicable. Historical data relating to the maps prepared for each community are presented in Table 3, “Community Map History.”

7.0 OTHER STUDIES

FIS reports have been published or are currently in progress for Prentiss, Tippah, and Toshimingo Counties, Mississippi; and Hardemen, McNairy, and Hardin Counties, Tennessee. The Alcorn County study is in agreement with these studies.

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Alcorn County has been compiled into this FIS. Therefore, this FIS supersedes all previously printed FIS reports, FIRMs, and\or FBFMs for all the incorporated and unincorporated jurisdictions within Alcorn County, 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 FEMA Region IV, Federal Insurance and Mitigation Division, Koger Center – Rutgers Building, 3003 Chamblee Tucker Road, Atlanta, Georgia, 30341.

9.0 BIBLIOGRAPHY AND REFERENCES

1. Federal Emergency Management Agency, Flood Insurance Study, Alcorn County (Unincorporated Areas), Mississippi, Washington, D.C., January 17, 1991.

2. Federal Emergency Management Agency, Flood Insurance Study, City of Corinth, Mississippi, Washington, D.C., September 16, 1980.

3. U.S. Census 2000, http://quickfacts.census.gov/qfd/states/28/28003.html accessed February 2009.

4. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Environmental Data Services, Climatological Data for Mississippi, Asheville, North Carolina.

5. U.S. Department of Commerce, National Weather Service, Technical Paper No. 40, Rainfall Frequency Atlas of the United States, Washington, DC, January 1963.

6. U.S. Department of the Interior, Geological Survey, Flood Frequency of Mississippi Streams, Mississippi State Highway Department RD-76-014, B.E. Colson, J.W. Hudson, 1976.

7. U.S Department of the Interior, Geological Survey, Flood Characteristics of Mississippi Streams, Water-Resources Investigations Report 91-4037, Jackson, Mississippi, 1991.

8. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Generalized Computer Program, Davis, California, April 1984.

9. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-RAS River Analysis System, Version 3.1.2, Davis, California, April 2004.

10. U.S. Geological Survey, 7.5 Minute Series Topographic Maps, Scale 1:24000, Contour Intervals 10 Feet and 20 feet: Corinth, Mississippi-Tennessee, 1982, Kendrick, Mississippi-Tennessee, 1950, photo-revised, 1969.

ELEVATION IN FEET (NAVD)

380 385 390 395 400 405 410 415 420 425

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH TUSCUMBIA RIVER

4,000 5,000 6,000 7,000 8,000 9,000 10,000 11,000 12,000 13,000 14,000 15,000

LIMIT OF DETAILED STUDY

WHITMORE LEVEE RD

U.S. HIGHWAY 45

COUNTY ROAD 402

A B C D E F G

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

A CROSS SECTION LOCATION

390 395 400 405 410 415 420 425

FEDERAL EMERGENCY MANAGEMENT AGENCY

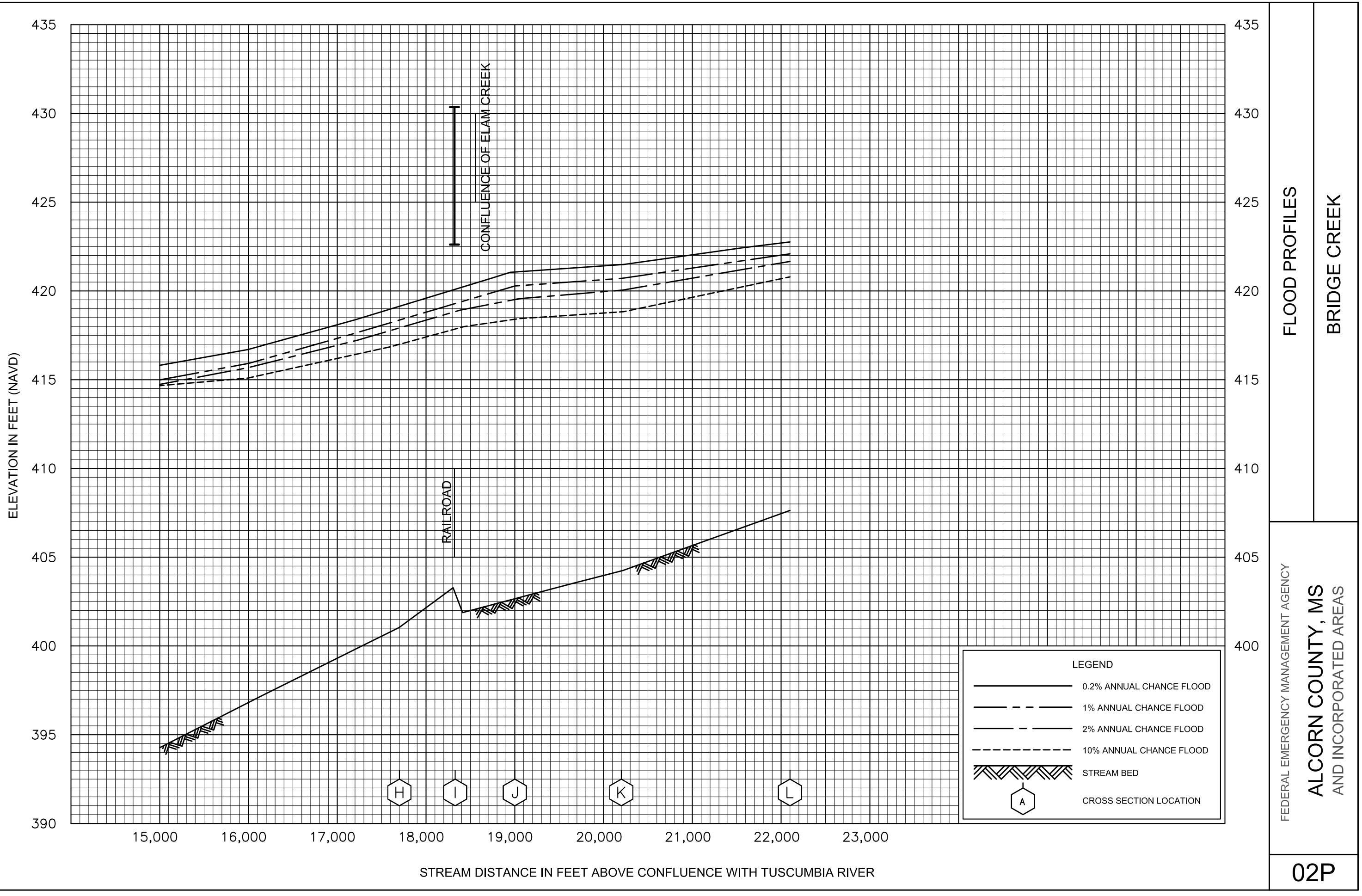
ALCORN COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

BRIDGE CREEK

01P



FLOOD PROFILES

BRIDGE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS

AND INCORPORATED AREAS

02P

ELEVATION IN FEET (NAVD)

390 400 410 420 430 440 450 460 470 480

0 5,280 10,560 15,840 21,120 26,400 31,680 36,960 42,240 47,520 52,800 58,080

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH TUSCUMBIA RIVER

M N O P Q R S T U

U.S. HIGHWAY 72

CONFLUENCE OF PHILLIPS CREEK

RAILROAD

RAILROAD

PROPER ST

RAILROAD

KENDRICK RD

SHILOH 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

410 420 430 440 450 460 470 480

FEDERAL EMERGENCY MANAGEMENT AGENCY

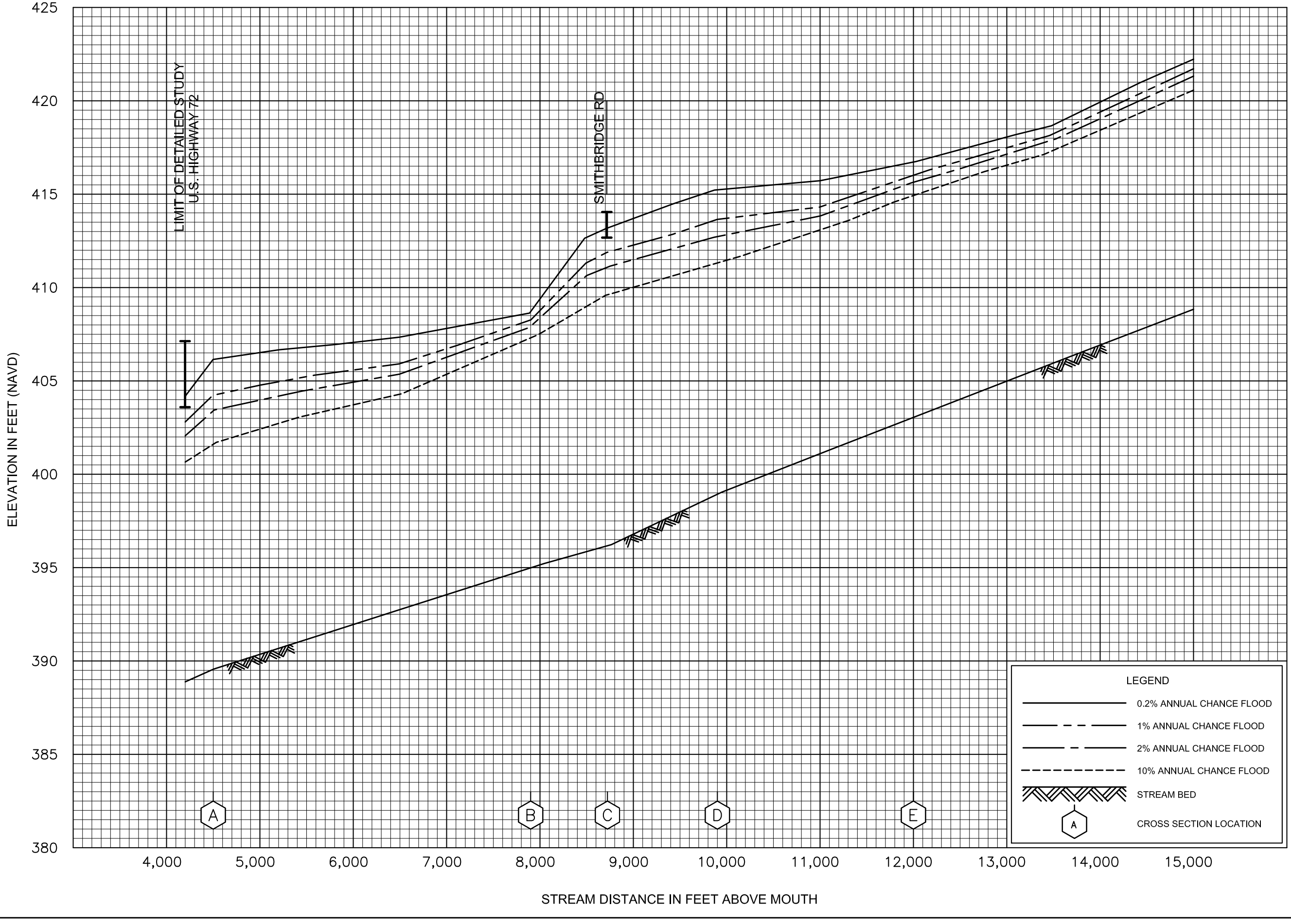
ALCORN COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

BRIDGE CREEK

03P



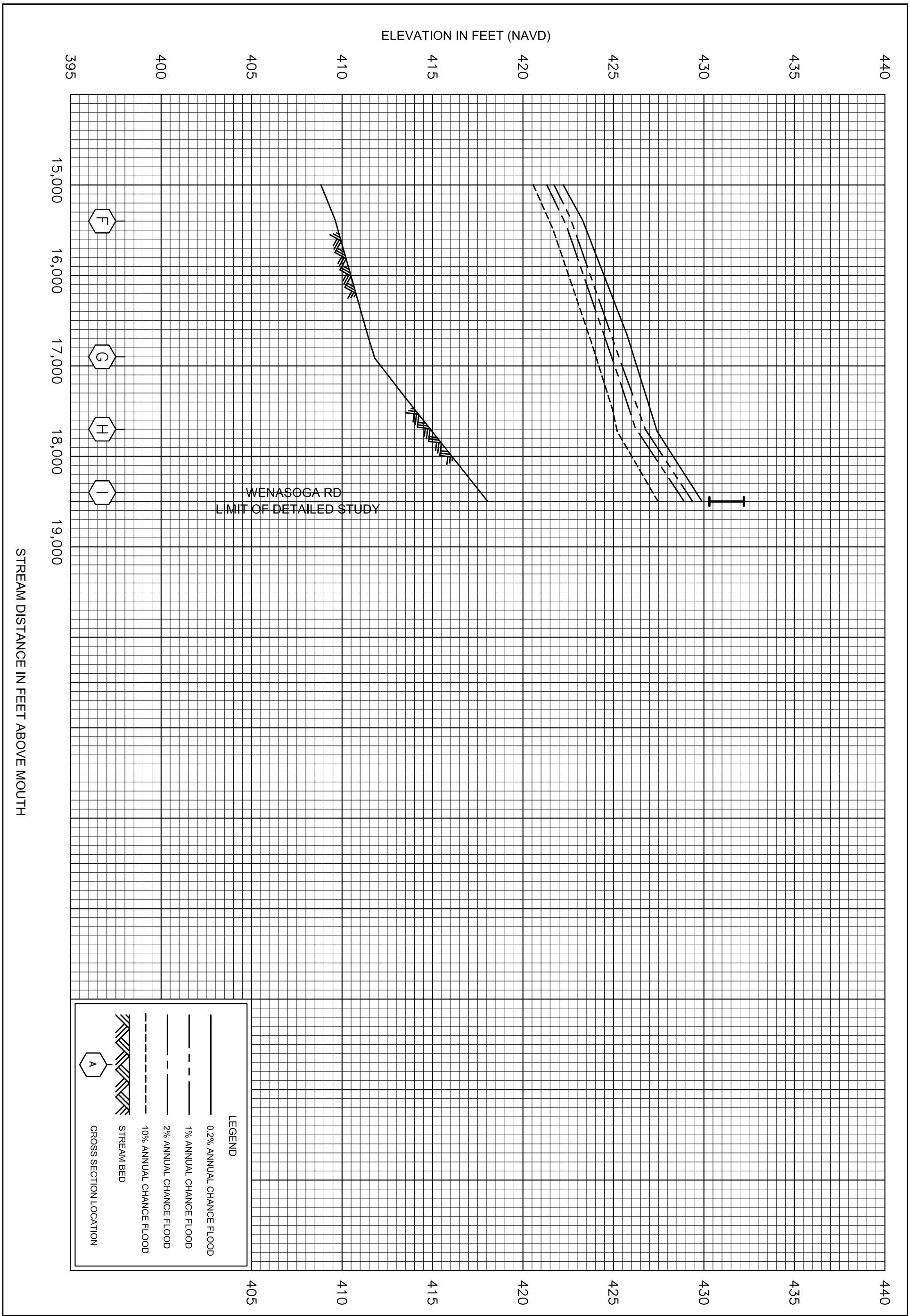
FLOOD PROFILES

CANE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS
AND INCORPORATED AREAS

04P



05P

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

CANE CREEK

ELEVATION IN FEET (NAVD)

400 410 420 430 440 450 460 470 480 490

STREAM DISTANCE IN MILES ABOVE CONFLUENCE WITH BRIDGE CREEK

0 0.5 1.0 1.5 2.0 2.5 3.0 3.5

CONFLUENCE WITH BRIDGE CREEK

U.S. HIGHWAY 72

RAILROAD

MITCHELL ST

ALLEN ST

CONFLUENCE OF TURNER CREEK

U.S. HIGHWAY 45

RAILROAD

WALDRON ST

LINDEN ST

SHILOH RD

RAILROAD

RAILROAD

HIGHWAY 45 BYPASS

HENSON RD

LIMIT OF DETAILED STUDY

A B C D E F G H I J K L M N O P Q R S T U V W

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

A CROSS SECTION LOCATION

420 430 440 450 460 470 480 490

06P

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

ELAM CREEK

ELEVATION IN FEET (NAVD)

410 420 430 440 450 460 470 480 490 500

0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0

STREAM DISTANCE IN MILES ABOVE CONFLUENCE WITH BRIDGE CREEK

CONFLUENCE WITH BRIDGE CREEK

RAILROAD

DROKE RD

RAILROAD

RAILROAD

PROPER ST

RAILROAD

THIRD ST

SHILOH RD

LIMIT OF DETAILED STUDY

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

LEGEND

0.2% ANNUAL CHANCE FLOOD

1% ANNUAL CHANCE FLOOD

2% ANNUAL CHANCE FLOOD

10% ANNUAL CHANCE FLOOD

STREAM BED

A CROSS SECTION LOCATION

410 420 430 440 450 460 470 480 490 500

FEDERAL EMERGENCY MANAGEMENT AGENCY

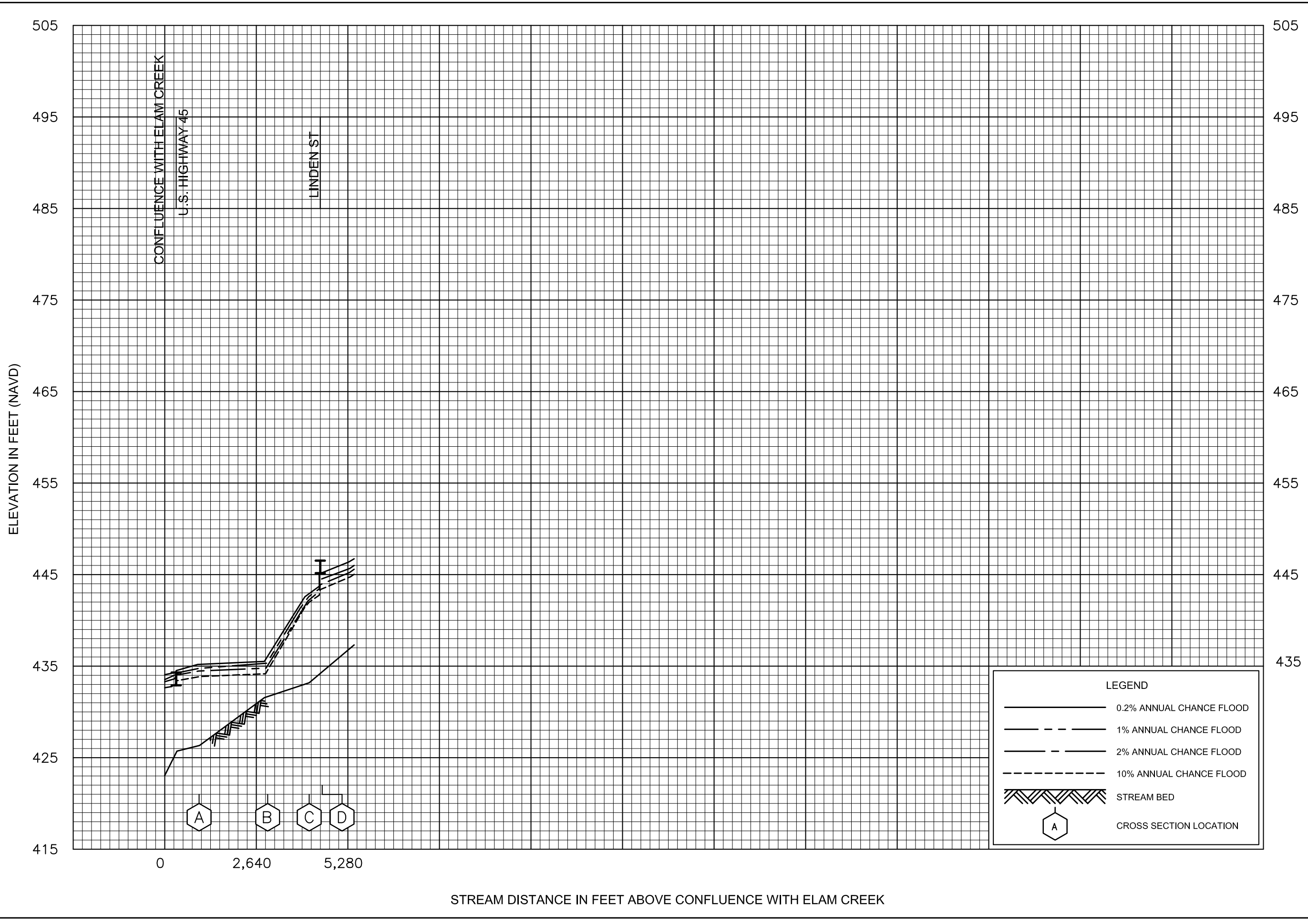
ALCORN COUNTY, MS

AND INCORPORATED AREAS

FLOOD PROFILES

PHILLIPS CREEK

07P



FLOOD PROFILES

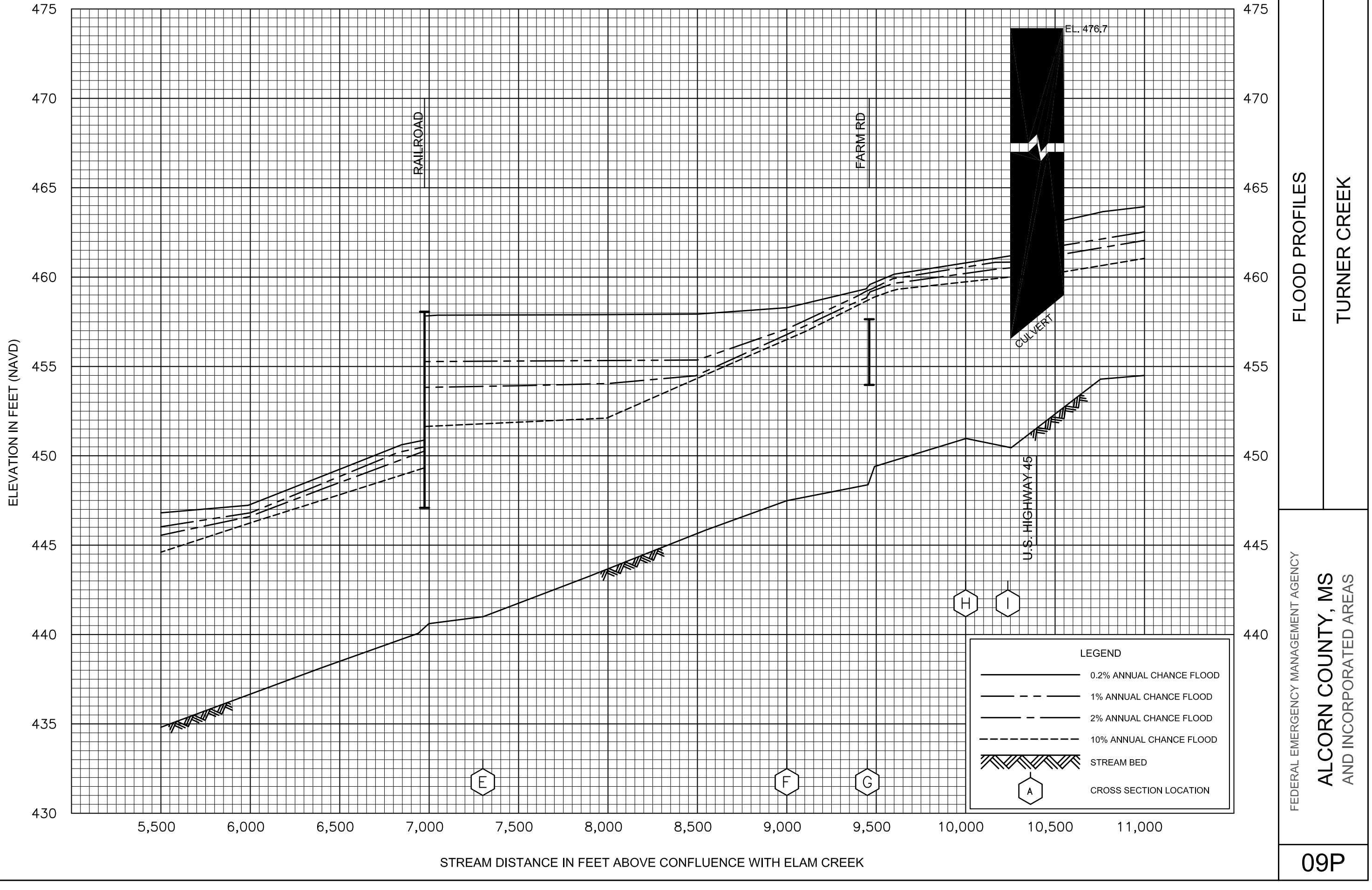
TURNER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS

AND INCORPORATED AREAS

08P



FLOOD PROFILES

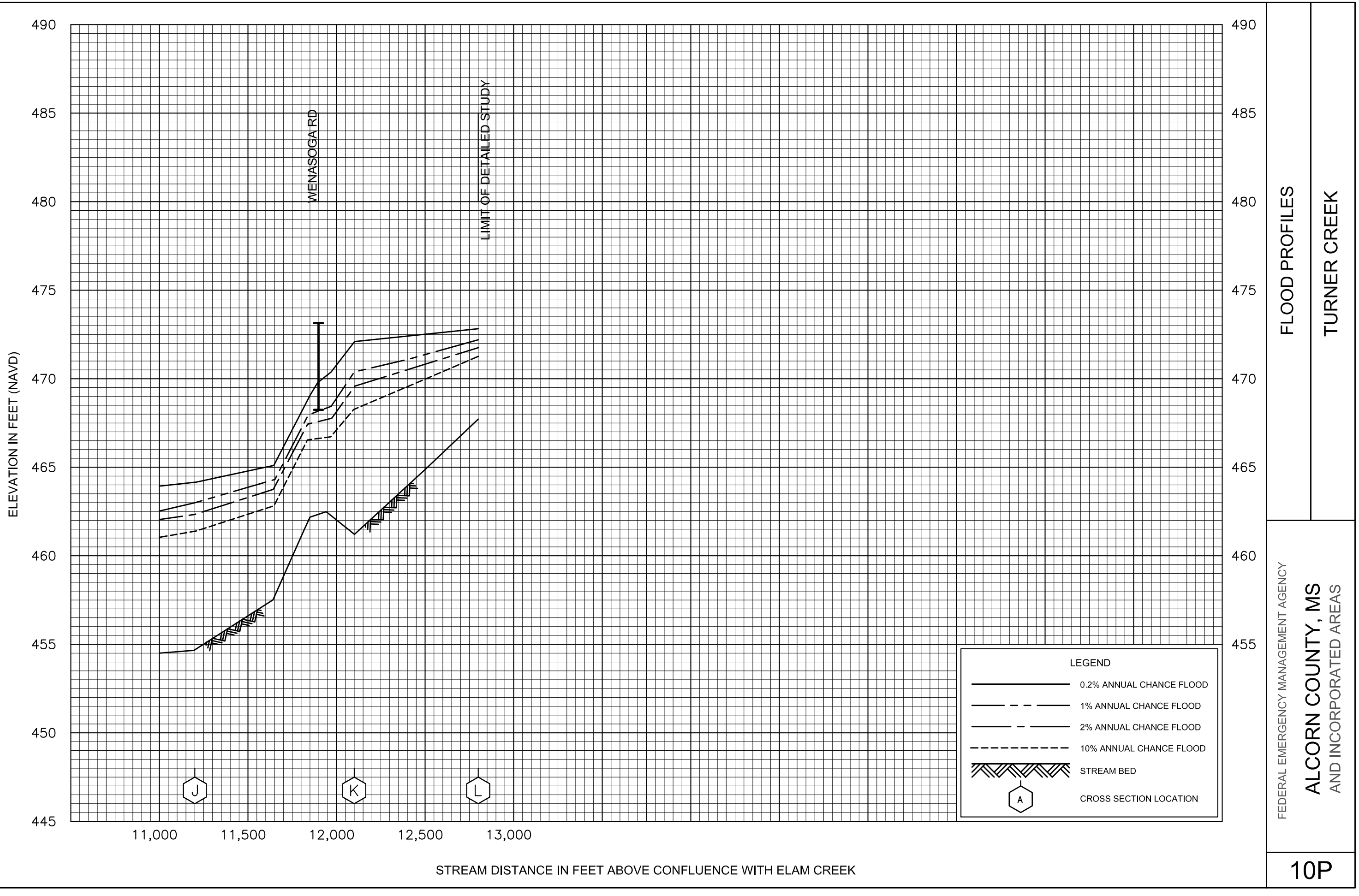
TURNER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS

AND INCORPORATED AREAS

09P



FLOOD PROFILES

TURNER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

ALCORN COUNTY, MS

AND INCORPORATED AREAS

10P

Alcorn County, Mississippi

Further information

Want more? **Browse data sets for Alcorn County**

People QuickFacts	Alcorn County	Mississippi
Population, 2008 estimate	35,673	2,938,618
Population, percent change, April 1, 2000 to July 1, 2008	3.2%	3.3%
Population estimates base (April 1) 2000	34,558	2,844,666
Persons under 5 years old, percent, 2007	6.7%	7.5%
Persons under 18 years old, percent, 2007	23.8%	26.3%
Persons 65 years old and over, percent, 2007	15.7%	12.5%
Female persons, percent, 2007	51.3%	51.6%
White persons, percent, 2007 (a)	87.6%	60.7%
Black persons, percent, 2007 (a)	11.3%	37.2%
American Indian and Alaska Native persons, percent, 2007 (a)	0.1%	0.5%
Asian persons, percent, 2007 (a)	0.2%	0.8%
Native Hawaiian and Other Pacific Islander, percent, 2007 (a)	0.1%	Z
Persons reporting two or more races, percent, 2007	0.6%	0.8%
Persons of Hispanic or Latino origin, percent, 2007 (b)	2.0%	2.1%
White persons not Hispanic, percent, 2007	85.8%	58.9%
Living in same house in 1995 and 2000, pct 5 yrs old & over	63.7%	58.5%
Foreign born persons, percent, 2000	1.0%	1.4%
Language other than English spoken at home, pct age 5+, 2000	2.6%	3.6%
High school graduates, percent of persons age 25+, 2000	68.1%	72.9%
Bachelor's degree or higher, pct of persons age 25+, 2000	11.7%	16.9%
Persons with a disability, age 5+, 2000	8,240	607,570
Mean travel time to work (minutes), workers age 16+, 2000	20.8	24.6
Housing units, 2007	16,434	1,254,908

Homeownership rate, 2000	73.5%	72.3%
Housing units in multi-unit structures, percent, 2000	10.4%	13.3%
Median value of owner-occupied housing units, 2000	$62,100	$71,400
Households, 2000	14,224	1,046,434
Persons per household, 2000	2.39	2.63
Median household income, 2007	$34,807	$36,424
Per capita money income, 1999	$15,418	$15,853
Persons below poverty, percent, 2007	17.7%	20.7%

Business QuickFacts	**Alcorn County**	**Mississippi**
Private nonfarm establishments, 2006	849	60,590[1]
Private nonfarm employment, 2006	12,510	940,609[1]
Private nonfarm employment, percent change 2000-2006	-9.8%	-1.7%[1]
Nonemployer establishments, 2006	2,396	175,064
Total number of firms, 2002	2,813	187,602
Black-owned firms, percent, 2002	3.8%	13.3%
American Indian and Alaska Native owned firms, percent, 2002	F	0.4%
Asian-owned firms, percent, 2002	F	1.6%
Native Hawaiian and Other Pacific Islander owned firms, percent, 2002	F	0.1%
Hispanic-owned firms, percent, 2002	F	0.7%
Women-owned firms, percent, 2002	21.0%	25.1%
Manufacturers shipments, 2002 ($1000)	694,837	38,276,054
Wholesale trade sales, 2002 ($1000)	287,506	19,215,751
Retail sales, 2002 ($1000)	488,150	25,017,531
Retail sales per capita, 2002	$14,025	$8,724
Accommodation and foodservices sales, 2002 ($1000)	32,078	5,486,105
Building permits, 2007	2	16,832
Federal spending, 2007 ($1000)	250,684	30,615,961[1]

Geography QuickFacts	**Alcorn County**	**Mississippi**
Land area, 2000 (square miles)	399.89	46,906.96
Persons per square mile, 2000	86.4	60.6
FIPS Code	003	28
Metropolitan or Micropolitan Statistical Area	Corinth, MS Micro Area	

1: Includes data not distributed by county.

Download these tables - delimited | Download these tables - Excel | Download the full data set

(a) Includes persons reporting only one race.
(b) Hispanics may be of any race, so also are included in applicable race categories.

D: Suppressed to avoid disclosure of confidential information
F: Fewer than 100 firms
FN: Footnote on this item for this area in place of data
NA: Not available
S: Suppressed; does not meet publication standards

X: Not applicable
Z: Value greater than zero but less than half unit of measure shown

What do you think of QuickFacts?

Source U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, Census of Population and Housing, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits, Consolidated Federal Funds Report

Last Revised: Friday, 10-Jul-2009 13:33:59 EDT