FLOOD INSURANCE STUDY



WALKER COUNTY
TEXAS
AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
HUNTSVILLE, CITY OF	480639
NEW WAVERLY, CITY OF	481043
RIVERSIDE, CITY OF	481044
WALKER COUNTY (UNINCORPORATED AREAS)	481042



EFFECTIVE DATE: August 16, 2011

Federal Emergency Management Agency

Flood Insurance Study Number: 48471CV000A

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

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: August 16 , 2011

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FLOOD INSURANCE STUDY
WALKER COUNTY, TEXAS 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 Walker County, including the Cities of Huntsville, New Waverly, and Riverside: and the unincorporated areas of Walker County (referred to collectively herein as Walker 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 Acknowledgements

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

This FIS was prepared to include the unincorporated areas of, and incorporated communities within, Walker County in a countywide format. Information on the authority and acknowledgments for each jurisdiction included in this countywide FIS, as compiled from their previously printed FIS reports, is shown below.

The hydrologic and hydraulic analyses for the original City of Huntsville study were performed by Turner, Collie & Braden, Inc for the Federal Insurance Administration (FIA), under Contract No. H-4568. This work was completed in March 1979.

The hydrologic and hydraulic analyses for the restudy were performed by the U.S. Army Corps of Engineers (USACE), Galveston District for the Federal Emergency Management Agency (FEMA), under Contract No. EMW-96-IA-0294. This work was completed in September 1997.

1.3 Coordination

For this countywide study, the initial Consultation Coordination Officer (CCO) meeting was held April 20, 2007. This meeting was attended by representatives of FEMA, CF3R, City of Huntsville, City of New Waverly, City of Riverside and Walker County.

The results of this countywide study were reviewed at the final CCO meeting held on March 19, 2009, and attended by representatives of FEMA, study contractor and community officials. All problems raised at the meeting have been addressed in this study.

2.0 AREA STUDIED

2.1 Scope of Study

This FIS report covers the geographic area of Walker County, Texas, including the incorporated communities listed in Section 1.1. The areas studied by detailed methods (Table 1) were selected with priority given to all known flood hazards and areas of projected development or proposed construction.

TABLE 1 – SCOPE OF STUDY

Stream	Limits of Detailed Study
Alligator Branch	From a point approximately 4,200 feet upstream of confluence with Prairie Branch to a point approximately 7,400 feet upstream of confluence with Prairie Branch.
Baldwin Creek	From a point approximately 36,500 feet above confluence with Nelson Creek to a point approximately 43,500 feet above confluence with Nelson Creek.
Caney Creek	From a point approximately 1,900 feet upstream of confluence with Winters Bayou to a point approximately 24,000 feet upstream of confluence with Winters Bayou.
Crabb Creek	From a point approximately 17,400 feet above confluence with Nelson Creek to a point approximately 27,100 feet above confluence with Nelson Creek.
East Fork	From its confluence with Tanyard Branch to a point approximately 5,500 feet upstream of confluence with Tanyard Branch
Ford Branch	From its confluence with Wayne Creek to a point approximately 2,700 feet upstream of confluence with Wayne Creek
Hadley Creek	From a point approximately 29,000 feet above confluence with Nelson Creek to a point approximately 44,000 feet above confluence with Nelson Creek.

TABLE 1 – SCOPE OF STUDY (Cont'd)

Horse Branch	From its confluence with Town Branch to a point approximately 3,500 feet upstream of Holly Bench Road.
Mays Creek	From a point approximately 2,600 feet upstream of confluence of Shepherd Creek to a point approximately 13,400 feet upstream of Shepherd Creek.
McDonald Creek	From a point approximately 2,300 feet downstream of Sunset Lake Dam to a point approximately 1,900 feet upstream of Spring Lake Dam.
McGary Creek	From a point approximately 32,200 feet above confluence with West Fork San Jacinto River to a point approximately 64,200 feet upstream of confluence with West Fork San Jacinto River.
Parker Creek	From a point approximately 10,500 feet upstream of confluence with Harmon Creek to a point approximately 1,000 feet upstream of FM 247.
Prairie Branch	From a point approximately 14,800 feet upstream of confluence with East Sandy Creek to a point approximately 800 feet upstream of Broadmoor Drive.
Robinson Creek	From a point approximately 37,500 feet upstream of confluence with West Fork San Jacinto River to a point approximately 58,600 feet upstream of confluence with West Fork San Jacinto River.
Shepherd Creek	From a point approximately 3,700 feet upstream of confluence with Mays Creek to a point approximately 31,200 feet upstream of confluence of Mays Creek
Sixmile Branch	From a point approximately 11,100 feet above confluence with Hadley Creek to a point approximately 12,900 feet above confluence with Hadley Creek.
Tanyard Branch	From a point approximately 500 feet upstream of confluence with Harmon Creek to a point 2,600 feet upstream of State Highway 190.
Thompson Branch	From its confluence with Sixmile Branch to a point approximately 1,000 feet above confluence with Sixmile Branch.

TABLE 1 – SCOPE OF STUDY (Cont'd)

Town Branch	From its confluence with Parker Creek to a point approximately 700 feet upstream of the intersection of Avenue J and 14th Street.
Tributary A	From its confluence with Town Branch to a point approximately 300 feet upstream of State Highway 30/190.
Tributary B	From its confluence with Horse Branch to a point approximately 800 feet upstream of private dam.
Tributary 2	From its confluence with Tanyard Branch to a point approximately 1,250 feet upstream of Robinson Road.
Tributary 3	From its confluence with Shepherd Creek to a point approximately 1,700 feet upstream of confluence with Shepherd Creek.
Tributary 4	From its confluence with Robinson Creek to a point approximately 7,800 feet upstream of confluence with Robinson Creek.
Tributary 5	From its confluence with McGary Creek to a point approximately 7,600 feet above confluence with McGary Creek.
Tributary 6	At its confluence with McGary Creek to a point approximately 10,500 feet above confluence with McGary Creek.
Tributary 7	From a point approximately 14,800 feet above confluence with Hadley Creek to a point approximately 20,400 feet above confluence with Hadley Creek.
Tributary 8	From a point approximately 3,700 feet upstream of confluence with Parker Creek to a point approximately 8,000 feet upstream of confluence with Parker Creek.
Tributary 9	From its confluence with Shepherd Creek to a point approximately 6,700 feet upstream of confluence with Shepherd Creek.
Wayne Creek	From a point approximately 2,100 feet upstream of confluence with Harmon Creek to a point approximately 12,600 feet upstream of confluence with Harmon Creek

Approximate analyses were used to study those areas having a low development potential or minimal flood hazards. The scope and methods of study were proposed to, and agreed upon, by FEMA and Walker County.

2.2 Community Description

Walker County is located in Southeast Texas, approximately 60 miles north of the City of Houston. Walker County has a total area of approximately 801 square miles (sq. mi.), and a population of approximately 63,304 in 2006 (Reference 1). The economy of the area is based on agribusiness, lumber, education (Sam Houston State University), and business associated with the Texas Department of Criminal Justice headquarters and nearby prisons.

The study area is situated in the gently rolling hills of the Texas Piney Woods region, an area predominantly covered with pine forests. Elevations in the county range from 140 to 404 feet above sea level. The land is well watered, receiving forty-six inches of rain each year, and is drained by two major rivers, the Trinity River in the north and the San Jacinto River in the south. Numerous creeks also cross the county. Bedias Creek forms part of the northwestern boundary and empties into the Trinity River, as do Harmon, Carolina, and Nelson creeks. Mill, East and West Sandy, and Robinson creeks drain into the San Jacinto River in the south. Forest soils are typically sands and clays, but alluvial loams are found in creek beds and at lower elevations. Temperatures range from an average low of 38° F in January to an average high of 95° F in July; the growing season lasts 265 days. Clay deposits-ceramic and brick clays and Fuller's earth-have been mined commercially, as have other minerals, including sand, gravel, lignite, volcanic ash, and petroleum. Walker County is crossed by the Missouri Pacific Railroad and Interstate Highway 45. Transportation in the area is also facilitated by a series of farm-to-market roads radiating outward from Huntsville (Reference 2).

2.3 Principal Flood Problems

Major floods on Town Branch occurred on September 13, 1974, and again in 1983 that caused damage to buildings in Huntsville's central business district. Flood flow over the roadway at the 7th Street Bridge on Town Branch is not uncommon. No historical flood records were found for the study area.

2.4 Flood Protection Measures

Walker County has adopted a flood-hazard prevention ordinance to control development within the flood hazard areas. No major flood protection structures 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 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

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

For the original study done for the City of Huntsville, peak discharges for the 10-, 2-, and 1-percent-annual-chance floods on Town Branch, Horse Branch, and the two tributaries were computed by unit hydrograph methodology using a rainfall-runoff mathematical model developed by the USACE, Hydrologic Engineering Center (Reference 3). Rainfall data developed by the U.S. Weather Bureau were used in the development of the 10-, 2-, and 1-percent-annual-chance storm events (Reference 4). Rainfall loss values and unit hydrograph parameters were based on the results of previous studies in nearby areas (references 5 through 8). The 0.2-percent annual chance flood discharges were determined by straight line extrapolations of log-probability plots of the 10-, 2-, and 1-percent-annual-chance flood discharges.

For the restudy, peak discharges for the selected exceedence probabilities were computed using newly published regional regression equations for the State of Texas. The city of Huntsville falls along the border of Region 8 and Region 11 of the study published by the U.S. Geological Survey (USGS) (Reference 9). Peak discharges were computed at selected points along each stream studied in detail. The average between Regions 8 and 11 was used as the peak frequency discharge for each selected point along the stream. A second USGS regression method was used to adjust the computed peak flows for the effects of watershed urbanization (Reference 10).The percentage of urbanization in the watershed for each stream was determined by field visits to the study area. The 0.2-percent exceedence probability peak discharges were determined by extrapolation.

Peak discharge-drainage area relationships for the flooding sources studied by detailed methods are shown in Table 2, “Summary of Discharges.”

TABLE 2 – 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
ALLIGATOR BRANCH					
Approximately 4,200 feet above confluence with Prairie Branch	1.93	1,142	2,004	2,460	3,746
Approximately 7,500 feet above confluence with Prairie Branch	1.53	1,089	1,872	2,302	3,529
BALDWIN CREEK					
Approximately 36,400 feet above confluence with Nelson Creek	1.53	649	1,197	1,433	2,039
Approximately 39,300 feet above confluence with Nelson Creek	1.28	588	1,076	1,286	1,823
CANEY CREEK					
Approximately 19,000 feet above confluence with Winters Bayou	1.57	838	1,475	1,788	2,627
Approximately 21,500 feet above confluence with Winters Bayou	1.22	742	1,290	1,560	2,287
Approximately 19,000 feet above confluence with Winters Bayou	0.92	662	1,131	1,366	2,003
CRABB CREEK					
Approximately 17,500 feet above confluence with Nelson Creek	3.27	982	1,769	2,126	3,043
Approximately 19,800 feet above confluence with Nelson Creek	2.63	910	1,637	1,970	2,830
Approximately 25,000 feet above confluence with Nelson Creek	1.28	571	1,017	1,211	1,702
Approximately 32,200 feet above confluence with Nelson Creek	1.16	676	1,143	1,373	1,981
EAST FORK					
At confluence with Tanyard Branch	1.10	645	1,165	1,404	2,041
Approximately 3,000 feet above confluence with Tanyard Branch	1.02	636	1,132	1,364	1,985
Approximately 5,400 feet above confluence with Tanyard Branch	0.83	583	1,025	1,234	1,793
FORD BRANCH					
At confluence with Wayne Creek[1]	1.00	641	1,142	1,377	2,010
HADLEY CREEK					
Just below Rosenwall Road	3.86	1,228	2,218	2,693	3,948
Approximately 1,500 feet above Rosenwall Road[1]	3.47	1,173	2,111	2,561	3,756

[1]Peak discharges were adjusted to show effects of watershed urbanization.

TABLE 2 – SUMMARY OF DISCHARGES (Cont'd)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (square miles)	PEAK DISCHARGES (cfs) 10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
HADLEY CREEK					
Approximately 7,900 feet above Rosenwall Road	2.67	1,168	1,950	2,360	3,326
Approximately 15,800 feet above Rosenwall Road[1]	1.04	753	1,203	1,441	1,989
HORSE BRANCH					
At confluence with Parker Creek	1.40	854	1,509	1,853	2,732
Above FM 2821[1]	1.12	799	1,317	1,588	2,230
Downstream of Tributary B[1]	0.96	829	1,336	1,615	2,282
Above Tributary B[1]	0.44	465	754	896	1,223
Approximately 2,300 feet above Tributary B[1]	0.27	386	605	713	956
MAYS CREEK					
Approximately 2,600 feet above confluence of Shepherd Creek	3.67	1,296	2,330	2,841	4,216
Approximately 6,500 feet above confluence of Shepherd Creek	2.87	1,158	2,056	2,503	3,709
Approximately 9,400 feet above confluence of Shepherd Creek	2.06	947	1,664	2,017	2,962
Approximately 6,500 feet above confluence of Shepherd Creek	0.99	637	1,105	1,330	1,932
MCDONALD CREEK					
Approximately 2,300 feet below Sunset Lake Dam[1]	4.79	1,719	3,007	3,689	5,338
Above Sunset Lake Drive[1]	3.44	1,411	2,433	2,970	4,258
Just below Club Lake Dam	2.25	994	1,790	2,174	3,209
Above Spring Lake Dam	0.97	598	1,062	1,276	1,844
MCGARY CREEK					
Approximately 8,400 feet below Tributary 6	12.79	2,515	4,609	5,673	8,549
Just below Tributary 6	11.18	2,408	4,320	5,316	8,009
Just above Tributary 6	7.77	1,834	3,328	4,068	6,039
Approximately 2,200 feet above Dirt Road	4.20	1,682	2,984	3,652	5,453
Just below Tributary 5	2.61	1,331	2,330	2,839	4,205
Just above Tributary 5	1.44	899	1,595	1,925	2,791
Approximately 10,000 feet above Tributary 5	0.94	656	1,098	1,323	1,927
PARKER CREEK					
Approximately 10,600 feet above confluence with Harmon Creek	12.55	2,882	5,289	6,571	10,150
Downstream of Tributary 1	11.47	2,893	5,206	6,478	10,052
Above Tributary 1	10.38	2,686	4,848	6,021	9,305

[1]Peak discharges were adjusted to show effects of watershed urbanization.

TABLE 2 – SUMMARY OF DISCHARGES (Cont'd)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (square miles)	PEAK DISCHARGES (cfs) 10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
PARKER CREEK					
Downstream of Town Branch	7.98	2,973	5,060	6,346	10,094
Above Town Branch	1.53	874	1,546	1,880	2,791
PRAIRIE BRANCH					
Approximately 5,800 feet below Camelia Lake Dam[1]	5.71	2,516	4,274	5,276	7,640
Just below Camelia Lake Dam[1]	4.17	2,103	3,542	4,356	6,277
Approximately 700 feet above Azelea Lake Dam[1]	3.23	1,789	2,989	3,659	5,219
Approximately 1,500 feet below River Oaks Drive[1]	1.43	1,110	1,821	2,204	3,085
Approximately 1,000 feet above Broadmoor Drive[1]	1.09	1,002	1,614	1,960	2,781
ROBINSON CREEK					
Approximately 4,800 feet below Tributary 4	9.70	2,795	5,079	6,339	9,928
Just below Tributary 4	8.45	2,720	4,882	6,099	9,595
Just above Tributary 4	6.61	2,265	4,090	5,086	7,920
Approximately 8,800 feet above Tributary 4	4.20	1,909	3,342	4,151	6,478
Approximately 13,100 feet above Tributary 4	1.44	1,070	1,766	2,153	3,087
SHEPHERD CREEK					
Approximately 3,700 feet above confluence of Mays Creek	8.52	2,064	3,862	4,753	7,182
Downstream of Tributary 9	6.74	1,946	3,569	4,398	6,681
Above Tributary 9	4.64	1,477	2,732	3,344	5,003
Downstream of Tributary 3	3.29	1,297	2,326	2,844	4,255
Above Tributary 3	2.28	987	1,784	2,166	3,192
Approximately 7,700 feet above Tributary 3[1]	0.99	680	1,132	1,355	1,872
SIXMILE BRANCH					
Approximately 400 feet below Thompson Branch	2.39	1,137	2,024	2,473	3,708
Just below Thompson Branch	2.31	1,113	1,978	2,416	3,618
Just above Thompson Branch	1.12	653	1,174	1,415	2,057
Approximately 700 feet above Thompson Branch	1.00	587	1,053	1,264	1,820

[1]Peak discharges were adjusted to show effects of watershed urbanization.

TABLE 2 – SUMMARY OF DISCHARGES (Cont'd)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (square miles)	PEAK DISCHARGES (cfs) 10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
TANYARD BRANCH					
Downstream of Tributary 2	8.67	2,278	4,318	5,350	8,225
Above Tributary 2	6.83	1,896	3,610	4,450	6,766
Downstream of Fish Hatchery Road	6.03	1,877	3,514	4,339	6,633
Downstream of East Fork	4.81	1,695	3,124	3,852	5,879
Above East Fork	3.71	1,400	2,594	3,183	4,805
Downstream of Old Colony Road[1]	2.51	1,238	2,135	2,602	3,715
Above Old Colony Road[1]	2.05	1,213	2,039	2,478	3,509
Above State Highway 190[1]	0.95	824	1,338	1,611	2,237
THOMPSON BRANCH					
At confluence with Sixmile Branch	1.20	559	1,001	1,193	1,679
TOWN BRANCH					
At confluence with Parker Creek[1]	6.45	2,631	4,526	5,628	8,326
Approximately 3,000 feet downstream of FM 247[1]	4.31	2,423	4,068	5,027	7,285
Approximately 1,200 feet above the State Prison Bridge[1]	2.93	2,018	3,315	4,084	5,897
Approximately 1,000 feet above 7th Street[1]	1.13	1,178	1,898	2,301	3,208
Above the intersection of Avenue J and 14th Street[1]	0.64	872	1,366	1,644	2,269
TRIBUTARY A					
At confluence with Town Branch[1]	1.17	955	1,545	1,866	2,611
Downstream of State Highway 75[1]	1.08	940	1,496	1,808	2,531
Above State Highway 75[1]	0.47	505	810	961	1,296
Above State Highway 30/190[1]	0.41	483	768	911	1,232
TRIBUTARY B					
At confluence with Horse Branch[1]	0.52	806	1,265	1,524	2,109
Approximately 1,500 feet above Private Dam[1]	0.37	668	1,030	1,234	1,696
TRIBUTARY 2					
At confluence with Tanyard Branch	1.84	921	1,676	2,038	3,022
Downstream of Robinson Road	1.61	887	1,598	1,944	2,889
Above Robinson Road	1.01	684	1,212	1 ,466	2,160
TRIBUTARY 3					
At confluence with Shepherd Creek	1.02	664	1,142	1,377	2,006
Approximately 1,700 feet above confluence with Shepherd Creek	0.99	696	1,179	1,425	2,092

[1]Peak discharges were adjusted to show effects of watershed urbanization.

TABLE 2 – SUMMARY OF DISCHARGES (Cont'd)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (square miles)	PEAK DISCHARGES (cfs) 10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
TRIBUTARY 4					
At confluence with Robinson Creek	3.10	1,326	2,329	2,852	4,290
Approximately 4,500 feet above confluence with Robinson Creek	1.84	983	1,691	2,057	3,055
Approximately 4,500 feet above confluence with Robinson Creek	1.02	730	1,221	1,478	2,178
TRIBUTARY 5					
At confluence with McGary Creek[1]	1.54	732	1,234	1,472	2,020
Approximately 2,600 feet above confluence with McGary Creek[1]	1.28	688	1,144	1,363	1,862
Approximately 7,800 feet above confluence with McGary Creek[1]	0.94	637	1,023	1,217	1,659
TRIBUTARY 6					
At confluence with McGary Creek	3.41	1,138	2,038	2,470	3,606
Approximately 3,800 feet above confluence with McGary Creek	2.28	920	1,637	1,977	2,872
Approximately 6,600 feet above confluence with McGary Creek	1.91	828	1,454	1,751	2,528
Approximately 7,700 feet above confluence with McGary Creek	1.54	825	1,414	1,709	2,497
TRIBUTARY 7					
Approximately 14,800 feet above confluence with Hadley Creek	1.48	748	1,325	1,597	2,317
Approximately 19,000 feet above confluence with Hadley Creek	1.30	744	1,282	1,547	2,254
Approximately 20,700 feet above confluence with Hadley Creek	1.05	665	1,133	1,364	1,980
TRIBUTARY 8					
Approximately 3,700 feet above confluence with Parker Creek	1.61	745	1,314	1,580	2,275
Approximately 8,200 feet above confluence with Parker Creek	1.12	625	1,073	1,286	1,841
TRIBUTARY 9					
At confluence with Shepherd Creek	2.09	791	1,384	1,659	2,359
Approximately 3,300 feet above confluence with Shepherd Creek	1.43	654	1,131	1,351	1,914
Approximately 7,000 feet above confluence with Shepherd Creek	1.03	564	951	1,133	1,601

[1]Peak discharges were adjusted to show effects of watershed urbanization.

TABLE 2 – SUMMARY OF DISCHARGES (Cont'd)

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (square miles)	PEAK DISCHARGES (cfs) 10% Annual Chance	2% Annual Chance	1% Annual Chance	0.2% Annual Chance
WAYNE CREEK					
Approximately 2,000 feet above confluence with Harmon Creek	3.15	1,331	2,388	2,927	4,415
Downstream of Ford Branch	2.80	1,316	2,318	2,845	4,309
Above Ford Branch	1.81	952	1,691	2,058	3,061
Approximately 6,800 feet above Ford Branch	1.04	800	1,363	1,660	2,488

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.

For the original study done for the City of Huntsville, water-surface elevations of the 10-, 2-, 1-, and 0.2-percent-annual-chance floods were computed using a computer program developed by the USACE, Hydrologic Engineering Center (Reference 11). Field surveys were conducted to obtain channel and valley cross-sections, as well as bridge and culvert dimensions. Roughness coefficients (Manning's "n values) were estimated for stream channels and floodplain areas on the basis of field inspection and aerial photographs. Channel roughness coefficients ranged from 0.05 to 0.07, while overbank roughness coefficients ranged from 0.05 to 0.10.

Starting water-surface elevations for Town Branch were determined at a location downstream of the corporate limits by using normal depth calculations and assuming the slope of the energy grade line equal to the slope of the channel bottom. Horse Branch water-surface profiles were started at critical depth at a low water crossing near Stream Mile 0.3. Water-surface elevations for Tributaries A and B were started at a normal depth.

For the restudy, water-surface elevations were computed using the USACE HEC-RAS one-dimensional hydraulic computer program (Reference 12). Digital terrain models used to obtain the channel and valley cross sections, as well as some bridge data. Field spacing of 1,000 feet between cross sections was used in the hydraulic computations. Roughness coefficients (Manning's "n" values) were estimated for stream channels and floodplain areas on the basis of field inspections. Channel roughness coefficients ranged from 0.060 to 0.085, while overbank roughness coefficients ranged from 0.070 to 0.170.

Starting water-surface elevations for all the main streams studied in detail, excluding Prairie Creek and Alligator Branch, were determined at locations downstream of their respective starting points by using normal depth calculations and assuming the slope of the energy grade line equal to the channel bottom. Prairie Creek and Alligator Branch backwater computations were started with a known water-surface elevation of a lake downstream of the starting point. Starting water-elevations for tributary streams were set at normal depth at their outlets. However the profiles shown in Exhibit 1 represent either the normal depth elevation or the flat backwater from the main stream, whichever is higher.

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.

The hydraulic analyses for this study were based on unobstructed flow. The flood elevations shown on the Flood Profiles 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. For 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
SSMC-3, #9202
National Geodetic Survey
1315 East-West Highway
Silver Spring, Maryland 20910-3282

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 PIS report provides l-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 methods, 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 using topographic maps at a scale of 1:24,000, with a contour interval of 10 feet (Reference 13).

The 1- and 0.2-percent-annual-chance floodplain boundaries 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), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations, but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM.

Approximate 1-percent-annual-chance floodplain boundaries in the study area were developed from the communities most recent FIRMs and the topographic maps referenced above.

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 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 (see Table 3, Floodway Data). In cases where the floodway and 1-percent - annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Alligator Branch								
A	4,230[1]	143	876	2.8	307.3	307.3	308.3	1.0
B	4,790[1]	170	851	2.8	311.4	311.4	312.4	1.0
C	5,690[1]	139	767	3.1	314.4	314.4	315.4	1.0
D	6,810[1]	80	580	4.0	320.7	320.7	321.7	1.0
E	7,340[1]	84	585	3.9	323.1	323.1	323.9	0.8
Baldwin Creek								
A	36,440[2]	130	529	2.7	243.5	243.5	244.5	1.0
B	38,410[2]	82	434	3.0	246.9	246.9	247.7	0.8
C	39,460[2]	87	417	3.1	251.6	251.6	252.5	0.9
D	40,420[2]	79	575	2.3	255.4	255.4	256.3	0.9
E	41,470[2]	88	687	1.9	257.2	257.2	258.2	1.0
F	43,420[2]	104	830	1.6	261.2	261.2	262.2	1.0
Caney Creek								
A	19,020[3]	125	747	2.4	353.8	353.8	354.8	1.0
B	21,130[3]	148	802	2.0	361.8	361.8	362.8	1.0
C	22,200[3]	145	708	2.1	365.2	365.2	366.1	0.9
D	24,050[3]	113	632	2.2	374.4	374.4	375.4	1.0

[1] Feet above confluence with Prairie Branch

[2] Feet above confluence with Nelson Creek

[3] Feet above confluence with Winters Bayou

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

ALLIGATOR BRANCH - BALDWIN CREEK
CANEY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
East Fork								
A	460[1]	41	257	5.5	271.6	271.6	272.2	0.6
B	880[1]	119	922	1.5	279.6	279.6	280.6	1.0
C	1,460[1]	62	316	4.4	280.8	280.8	281.3	0.5
D	2,560[1]	41	298	4.6	285.9	285.9	286.8	0.9
E	3,580[1]	40	311	4.3	289.7	289.7	290.4	0.7
F	4,850[1]	36	186	6.8	294.4	294.4	295.1	0.7
G	5,450[1]	46	377	3.3	298.4	298.4	299.2	0.8
Ford Branch								
A	320[2]	123	450	3.1	273.1	273.1	274.1	1.0
B	1,890[2]	58	171	8.1	279.5	279.5	279.9	0.4
C	2,690[2]	93	538	2.6	286.5	286.5	287.5	1.0
Hadley Creek								
A	29,480[3]	117	1,062	2.5	251.0	251.0	251.1	0.1
B	31,900[3]	170	843	3.0	256.3	256.3	257.3	1.0
C	32,900[3]	333	1,329	1.9	258.8	258.8	259.8	1.0
D	34,700[3]	498	2,332	1.1	263.3	263.3	264.3	1.0
E	35,700[3]	282	1,164	1.9	265.0	265.0	265.7	0.7
F	39,000[3]	77	556	3.4	273.0	273.0	273.7	0.7
G	40,000[3]	223	949	1.9	275.9	275.9	276.6	0.7
H	40,700[3]	86	516	3.3	277.8	277.8	278.7	0.9
I	41,700[3]	166	761	2.1	281.8	281.8	282.7	0.9
J	43,370[3]	140	584	2.4	286.5	286.5	287.3	0.8
K	44,370[3]	36	310	4.4	291.9	291.9	292.4	0.5

[1] Feet above confluence with Tanyard Branch

[2] Feet above confluence with Wayne Creek

[3] Feet above confluence with Nelson Creek

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

EAST FORK - FORD BRANCH
HADLEY CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Horse Branch								
A	350[1]	27	244	7.2	273.5	268.6[2]	269.6[2]	1.0
B	2,110[1]	53	241	7.0	285.1	285.1	285.5	0.4
C	2,640[1]	98	857	1.9	291.1	291.1	291.9	0.8
D	3,850[1]	103	459	3.5	294.5	294.5	295.3	0.8
E	4,940[1]	148	958	1.7	303.4	303.4	304.1	0.7
F	6,050[1]	83	592	2.7	307.0	307.0	307.4	0.4
G	7,600[1]	18	81	9.7	313.3	313.3	313.3	0.0
H	8,400[1]	28	156	4.6	328.6	328.6	329.2	0.6
Mays Creek								
A	3,600[3]	350	1,605	1.7	322.2	322.2	322.9	0.7
B	5,850[3]	261	1,486	1.7	325.5	325.5	326.5	1.0
C	7,770[3]	241	1,079	2.1	330.8	330.8	331.8	1.0
D	8,170[3]	241	1,058	2.0	333.1	333.1	334.1	1.0
E	9,850[3]	232	697	2.8	337.6	337.6	338.2	0.6
F	10,800[3]	220	813	2.2	343.0	343.0	343.9	0.9
G	12,500[3]	195	597	2.5	351.5	351.5	352.1	0.6
H	13,420[3]	191	634	2.1	355.4	355.4	356.4	1.0

[1] Feet above confluence with Town Branch

[2] Elevation computed without consideration of backwater effects from Town Branch

[3] Feet above confluence with Shepherd Creek

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

HORSE BRANCH - MAYS 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)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
McDonald Creek								
A	38,730	351	1,455	2.5	292.5	292.5	293.5	1.0
B	40,570	215	1,176	3.0	303.9	303.9	304.8	0.9
C	41,080	368	7,062	0.5	322.2	322.2	323.2	1.0
D	44,360	235	1,675	1.8	322.5	322.5	323.5	1.0
E	45,560	234	1,408	2.1	324.1	324.1	325.1	1.0
F	46,520	191	1,191	2.3	328.0	328.0	329.0	1.0
G	48,490	172	984	2.5	333.8	333.8	334.8	1.0
H	49,730	162	1,085	2.1	341.0	341.0	342.0	1.0
I	50,060	291	5,457	0.4	356.9	356.9	357.8	0.9
J	52,670	283	783	2.2	356.8	356.8	357.8	1.0
K	53,020	126	2,401	0.7	376.1	376.1	377.1	1.0
L	54,870	165	1,511	0.9	376.1	376.1	377.1	1.0

[1] Feet above confluence with West Fork San Jacinto River

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

McDONALD 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)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
McGary Creek								
A	32,220	867	3,704	1.6	278.5	278.5	279.3	0.8
B	34,150	844	3,576	1.7	281.9	281.9	282.4	0.5
C	36,320	805	3,778	1.6	284.1	284.1	285.0	0.9
D	40,250	851	3,923	1.1	291.9	291.9	292.6	0.7
E	42,350	799	4,535	0.9	292.9	292.9	293.7	0.8
F	43,350	634	1,984	2.1	293.9	293.9	294.8	0.9
G	46,460	658	2,257	1.7	303.0	303.0	303.5	0.5
H	47,490	627	2,662	1.4	306.6	306.6	307.1	0.5
I	50,280	523	1,786	2.0	310.1	310.1	310.9	0.8
J	52,060	390	1,508	2.1	314.7	314.7	315.3	0.6
K	53,560	351	767	3.8	316.2	316.2	316.4	0.2
L	54,550	377	1,378	1.4	319.0	319.0	319.9	0.9
M	57,430	329	1,113	1.5	325.0	325.0	325.8	0.8
N	58,360	152	599	2.7	327.6	327.6	328.4	0.8
O	62,260	61	360	3.7	341.2	341.2	342.0	0.8
P	64,260	62	347	3.4	350.8	350.8	351.6	0.8

[1] Feet above confluence with West Fork San Jacinto River

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

McGARY 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)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Parker Creek								
A	10,500	393	3,102	2.1	211.6	211.6	212.6	1.0
B	12,500	228	2,151	3.0	214.2	214.2	215.2	1.0
C	13,700	97	787	8.3	217.7	217.7	218.7	1.0
D	14,800	219	18,120	3.6	224.1	224.1	225.0	0.9
E	16,710	787	3,291	1.8	229.6	229.6	230.0	0.4
F	17,710	1,411	15,355	0.4	237.6	237.6	238.6	1.0
G	22,150	303	2,175	2.9	238.3	238.3	239.3	1.0
H	23,650	913	3,671	1.7	241.2	241.2	242.0	0.8
I	24,150	61	899	7.1	241.9	241.9	242.9	1.0
J	25,250	627	3,248	1.9	245.3	245.3	246.3	1.0
K	26,300	649	2,634	2.4	246.7	246.7	247.5	0.8
L	30,050	72	1,038	6.1	253.0	253.0	253.6	0.6
M	31,250	686	2,916	2.2	257.2	257.2	257.6	0.4
N	32,250	475	1,535	1.2	258.8	258.8	259.1	0.3
O	33,550	224	861	2.1	259.8	259.8	260.0	0.2
P	34,540	29	225	7.7	264.5	264.5	264.6	0.1
Q	35,170	40	381	4.5	274.7	274.7	275.4	0.7
R	36,000	78	554	3.1	278.9	278.9	279.8	0.9

[1] Feet above confluence with Harmon Creek

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

PARKER 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)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Prairie Branch								
A	14,790	223	1,982	2.7	287.4	287.4	288.4	1.0
B	17,440	220	1,886	2.8	298.2	298.2	299.2	1.0
C	19,440	236	1,812	2.7	304.8	304.8	305.8	1.0
D	20,590	257	2,556	1.8	314.7	314.7	315.6	0.9
E	22,150	329	3,015	1.5	314.8	314.8	315.7	0.9
F	22,690	308	4,973	0.9	323.4	323.4	324.4	1.0
G	24,730	97	447	9.5	323.5	323.5	324.1	0.6
H	24,500	149	801	5.3	327.4	327.4	327.7	0.3
I	25,480	166	992	4.2	332.7	332.7	333.4	0.7
J	26,070	186	4,266	0.9	352.0	352.0	352.0	0.0
K	31,180	170	508	6.0	352.2	352.2	352.2	0.0
L	31,770	220	1,396	2.1	357.2	357.2	358.2	1.0
M	32,710	206	1,384	1.6	359.9	359.9	360.9	1.0
N	34,050	225	1,166	1.8	365.9	365.9	366.8	0.9
O	34,780	100	756	2.8	368.0	368.0	369.0	1.0

[1] Feet above confluence with East Sandy Creek

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

PRAIRIE 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)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Robinson Creek								
A	37,500	1,045	5,807	1.1	282.9	282.9	283.9	1.0
B	40,350	584	2,883	2.1	288.0	288.0	289.0	1.0
C	41,430	507	1,980	2.6	290.5	290.5	291.5	1.0
D	43,300	730	2,584	1.9	296.3	296.3	297.3	1.0
E	44,350	585	2,567	1.9	298.4	298.4	299.4	1.0
F	47,280	200	1,014	4.4	308.3	308.3	309.0	0.7
G	50,130	272	1,462	2.8	319.1	319.1	320.0	0.9
H	51,930	344	1,678	2.2	329.8	329.8	330.8	1.0
I	52,980	298	1,330	2.6	332.7	332.7	333.5	0.8
J	54,060	365	1,144	2.9	336.3	336.3	337.3	1.0
K	55,090	116	617	3.4	342.3	342.3	343.0	0.7
L	58,560	106	456	4.0	361.8	361.8	362.7	0.9

[1] Feet above confluence with West Fork San Jacinto River

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

ROBINSON CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Shepherd Creek								
A	4,730[1]	576	5,078	0.9	317.6	317.6	318.6	1.0
B	5,650[1]	497	3,525	1.3	318.6	318.6	319.4	0.8
C	8,530[1]	334	2,517	1.8	323.2	323.2	323.8	0.6
D	11,720[1]	498	2,775	1.6	325.8	325.8	326.5	0.7
E	13,030[1]	493	4,474	1.0	332.0	332.0	333.0	1.0
F	15,020[1]	413	2,831	1.2	333.0	333.0	334.0	1.0
G	15,500[1]	370	1,881	1.7	334.0	334.0	334.8	0.8
H	16,060[1]	346	2,544	1.3	338.0	338.0	338.4	0.4
I	18,140[1]	347	1,818	1.7	342.4	342.4	343.0	0.6
J	20,050[1]	347	1,584	1.9	345.8	345.8	346.5	0.7
K	22,060[1]	290	1,659	1.8	351.7	351.7	352.6	0.9
L	23,530[1]	382	1,622	1.8	357.6	357.6	358.6	1.0
M	25,050[1]	227	1,079	1.9	360.3	360.3	361.2	0.9
N	28,120[1]	178	694	2.5	369.4	369.4	370.3	0.9
O	31,160[1]	143	407	3.5	380.7	380.7	381.3	0.6
Sixmile Branch								
A	11,090[2]	59	395	3.3	252.5	252.5	253.4	0.9
B	12,090[2]	27	176	6.1	256.1	256.1	256.5	0.4
C	12,920[2]	45	290	3.0	261.1	261.1	261.9	0.8

[1] Feet above confluence with Mays Creek

[2] Feet above confluence with Hadley Creek

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

SHEPHERD CREEK - SIXMILE 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)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Tanyard Branch								
A	1,110	343	2,371	1.9	225.3	225.3	226.3	1.0
B	4,250	223	1,594	2.8	231.3	231.3	232.2	0.9
C	6,250	257	1,438	3.1	238.0	238.0	239.0	1.0
D	7,250	186	1,260	3.5	241.1	241.1	242.0	0.9
E	10,400	91	935	4.6	247.2	247.2	248.2	1.0
F	12,180	121	1,113	3.7	260.2	260.2	261.2	1.0
G	12,400	94	964	4.2	262.5	262.5	263.3	0.8
H	13,880	149	1,260	3.2	266.0	266.0	267.0	1.0
I	14,260	243	1,889	2.1	268.4	268.4	269.2	0.8
J	16,130	50	507	7.6	271.4	271.4	272.0	0.6
K	16,740	504	2,028	1.5	274.9	274.9	275.8	0.9
L	17,670	57	57	6.8	277.7	277.7	278.4	0.7
M	18,190	111	111	2.8	282.4	282.4	283.2	0.8
N	19,210	81	602	4.7	284.8	284.8	285.6	0.8
O	19,760	48	481	5.8	288.8	288.8	289.4	0.6
P	20,750	73	741	3.6	294.0	294.0	294.9	0.9
Q	21,880	79	607	4.3	296.5	296.5	297.3	0.8
R	22,660	46	364	7.1	299.9	299.9	300.8	0.9
S	23,350	66	591	4.3	305.4	305.4	306.1	0.7
T	24,710	55	55	4.8	312.7	312.7	313.3	0.6
U	25,420	330	2,759	0.9	320.8	320.8	321.6	0.8
V	25,830	114	922	2.7	320.9	320.9	321.7	0.8
W	27,530	112	1,005	2.4	325.9	325.9	326.9	1.0
X	29,540	35	245	8.9	331.5	331.5	332.1	0.6
Y	30,090	102	759	2.8	336.5	336.5	337.4	0.9
Z	31,460	41	409	4.8	344.2	344.2	345.0	0.8

[1] Feet above confluence with Harmon Creek

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

TANYARD BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	**DISTANCE**	**WIDTH (FEET)**	**SECTION AREA (SQUARE FEET)**	**MEAN VELOCITY (FEET PER SECOND)**	**REGULATORY (FEET NAVD)**	**WITHOUT FLOODWAY (FEET NAVD)**	**WITH FLOODWAY (FEET NAVD)**	**INCREASE (FEET)**
Tanyard Branch (Cont'd)								
AA	32,130[1]	106	817	2.3	353.6	353.6	353.8	0.2
AB	33,170[1]	168	782	2.2	355.2	355.2	356.2	1.0
AC	34,020[1]	112	450	3.7	360.9	360.9	361.5	0.6
AD	34,540[1]	101	1,212	2.2	363.1	363.1	364.1	1.0
Thompson Branch								
A	470[2]	87	241	4.9	256.4	256.4	256.7	0.3
B	1,050[2]	162	702	1.7	260.0	260.0	261.0	1.0

[1] Feet above confluence with Harmon Creek

[2] Feet above confluence with Sixmile Branch

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

TANYARD BRANCH - THOMPSON 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)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Town Branch								
A	0	78	807	7.1	259.8	258.9[2]	258.9[2]	1.0
B	1,950	433	1,771	3.2	266.0	266.0	266.8	0.8
C	6,260	101	1,133	4.2	278.6	278.6	279.3	0.7
D	7,450	390	1,760	2.6	285.7	285.7	286.5	0.8
E	8,980	170	1,463	3.1	289.5	289.5	290.4	0.9
F	9,550	459	2,340	1.9	294.1	294.1	294.3	0.2
G	10,140	217	1,194	3.6	294.5	294.5	294.8	0.3
H	10,900	64	703	6.0	296.4	296.4	296.8	0.4
I	13,660	196	1,283	3.1	308.7	308.7	309.3	0.6
J	15,760	108	635	6.2	320.7	320.7	320.7	0.0
K	16,800	64	635	3.4	327.8	327.8	327.8	0.0
L	17,640	80	663	3.1	336.7	336.7	336.7	0.0
M	18,390	302	534	3.7	339.5	339.5	339.6	0.1
N	20,050	119	894	2.0	357.7	357.7	358.2	0.5
O	20,950	39	335	5.1	358.4	358.4	359.2	0.8
P	20,750	42	372	4.4	361.1	361.1	362.0	0.9

[1] Feet above confluence with Parker Creek

[2] Elevation computed without consideration of backwater effects from Parker Creek

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

TOWN BRANCH

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Tributary A								
A	250[1]	40	191	9.7	323.9	318.8[4]	318.9[4]	0.1
B	1,170[1]	100	735	2.5	330.1	330.1	331.1	1.0
C	2,100[1]	74	444	2.2	332.0	332.0	332.9	0.9
D	2,470[1]	28	200	4.7	334.3	334.3	334.8	0.5
E	2,770[1]	105	378	2.5	337.2	337.2	337.5	0.3
F	3,010[1]	52	154	5.9	338.4	338.4	338.7	0.3
Tributary B								
A	470[2]	94	382	3.7	310.3	310.3	310.4	0.1
B	700[2]	60	171	7.7	312.7	312.7	312.9	0.2
C	830[2]	525	6,548	0.2	327.1	327.1	327.1	0.0
D	1,660[2]	246	1,618	0.7	327.1	327.1	327.1	0.0
Tributary 2								
A	350[3]	73	315	6.4	225.3	221.8[5]	222.8[5]	1.0
B	2,130[3]	74	501	2.8	227.9	227.9	228.6	0.7
C	3,930[3]	117	665	2.7	234.9	234.9	235.1	0.2
D	5,040[3]	107	348	4.8	240.4	240.4	240.6	0.2
E	5,610[3]	196	803	2.0	248.6	248.6	249.6	1.0
F	6,740[3]	92	416	3.5	253.2	253.2	254.1	0.9

[1] Feet above confluence with Town Branch

[2] Feet above confluence with Horse Branch

[3] Feet above confluence with Tanyard Branch

[4] Elevation computed without consideration of backwater effects from Town Branch

[5] Elevation computed without consideration of backwater effects from Tanyard Branch

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

TRIBUTARY A - TRIBUTARY B
TRIBUTARY 2

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Tributary 3								
A	880[1]	166	747	1.9	359.9	359.9	360.9	1.0
B	1,700[1]	101	448	3.2	364.2	364.2	365.0	0.8
Tributary 4								
A	420[2]	580	1,880	1.5	293.2	293.0[4]	294.0[4]	1.0
B	1,260[2]	226	301	4.7	296.2	296.2	297.1	0.9
C	3,330[2]	306	936	3.0	306.1	306.1	307.1	1.0
D	4,330[2]	371	1,148	2.4	312.5	312.5	313.1	0.6
E	5,290[2]	253	727	2.7	317.2	317.2	318.2	1.0
F	7,770[2]	152	575	2.7	329.6	329.6	330.5	0.9
Tributary 5								
A	380[3]	182	813	1.8	319.0	318.2[5]	319.0[5]	0.8
B	1,930[3]	139	649	2.2	324.1	324.1	324.6	0.5
C	2,930[3]	239	504	2.7	327.1	327.1	327.9	0.8
D	4,800[3]	233	586	2.2	336.6	336.6	337.3	0.7
E	5,730[3]	254	766	1.7	339.5	339.5	340.4	0.9
F	7,630[3]	121	496	2.5	346.7	346.7	347.7	1.0

[1] Feet above confluence with Shepherd Creek

[2] Feet above confluence with Robinson Creek

[3] Feet above confluence with McGary Creek

[4] Elevation computed without consideration of backwater effects from Robinson Creek

[5] Elevation computed without consideration of backwater effects from McGary Creek

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

TRIBUTARY 3 - TRIBUTARY 4
TRIBUTARY 5

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Tributary 6								
A	1,115[1]	421	1,802	1.4	291.8	290.6	291.6	1.0
B	2,000[1]	350	1,536	1.6	294.8	294.8	295.6	0.8
C	3,120[1]	413	1,566	1.6	296.1	296.1	297.0	0.9
D	5,620[1]	219	872	2.2	304.5	304.5	305.3	0.8
E	6,460[1]	168	708	2.7	308.3	308.3	309.1	0.8
F	7,530[1]	137	736	2.4	311.5	311.5	312.3	0.8
G	8,400[1]	157	722	2.4	314.4	314.4	315.1	0.7
H	10,450[1]	170	776	2.2	319.0	319.0	320.0	1.0
Tributary 7								
A	14,790[2]	179	680	2.3	256.0	256.0	256.9	0.9
B	16,370[2]	114	583	2.7	260.7	260.7	261.3	0.6
C	17,430[2]	128	563	2.8	263.0	263.0	264.0	1.0
D	18,370[2]	245	900	1.6	267.0	267.0	268.0	1.0
E	19,350[2]	211	1,044	1.3	268.7	268.7	269.7	1.0
F	19,950[2]	54	242	5.6	270.8	270.8	271.5	0.7
G	20,400[2]	109	521	2.6	275.0	275.0	276.0	1.0
Tributary 8								
A	3,700[3]	47	267	5.8	216.9	216.9	217.5	0.6
B	4,260[3]	59	510	3.0	220.6	220.6	221.5	0.9
C	4,720[3]	62	436	3.1	222.1	222.1	223.1	1.0
D	5,700[3]	37	339	3.9	227.4	227.4	228.1	0.7
E	6,060[3]	81	581	2.3	228.5	228.5	229.3	0.8
F	7,090[3]	85	695	1.8	229.0	229.0	230.0	1.0
G	8,040[3]	62	429	2.9	231.2	231.2	232.2	1.0

[1] Feet above confluence with McGary Creek

[2] Feet above confluence with Hadley Creek

[3] Feet above confluence with Parker Creek

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

TRIBUTARY 6 - TRIBUTARY 7
TRIBUTARY 8

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (FEET NAVD)	WITHOUT FLOODWAY (FEET NAVD)	WITH FLOODWAY (FEET NAVD)	INCREASE (FEET)
Tributary 9								
A	1,120[1]	163	627	2.5	332.2	329.5[3]	330.0[3]	0.5
B	3,100[1]	162	815	1.7	336.6	336.6	337.4	0.8
C	5,300[1]	184	803	1.5	346.1	346.1	346.9	0.8
D	6,700[1]	94	370	3.1	347.4	347.4	348.3	0.9
Wayne Creek								
A	2,210[2]	61	648	4.5	259.1	259.1	260.1	1.0
B	3,380[2]	135	680	4.2	265.0	265.0	266.0	1.0
C	5,300[2]	117	583	3.5	272.1	272.1	272.8	0.7
D	9,150[2]	174	828	2.5	283.7	283.7	284.6	0.9
E	11,380[2]	62	275	6.3	288.8	288.8	289.7	0.9
F	12,630[2]	71	514	2.9	297.9	297.9	298.9	1.0
D	6,700[2]	94	370	3.1	347.4	347.4	348.3	0.9

[1] Feet above confluence with Shepherd Creek

[2] Feet above confluence with Harmon Creek

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

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY
WALKER COUNTY, TEXAS
AND INCORPORATED AREAS

FLOODWAY DATA

TRIBUTARY 9 - WAYNE CREEK

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

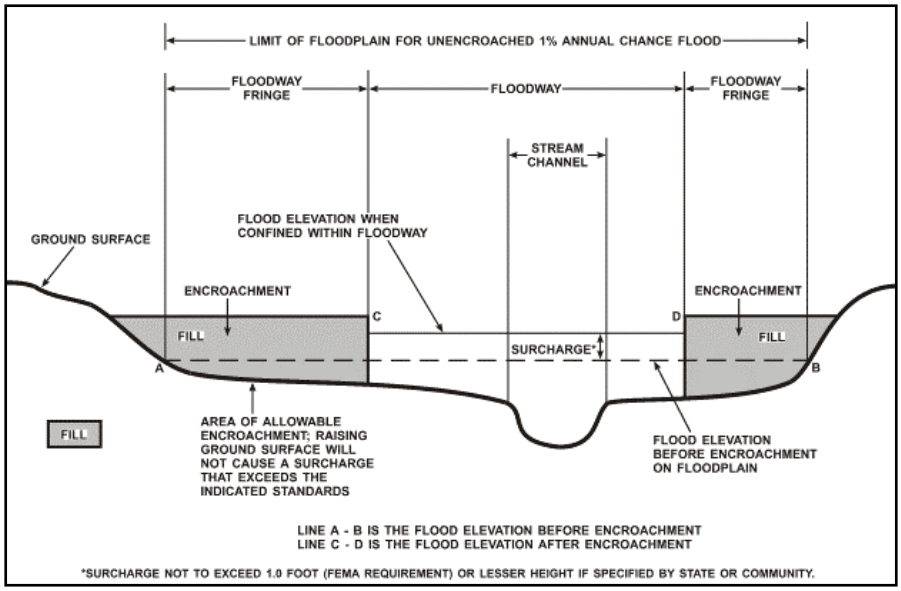


Figure 1. Floodway Schematic

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 (l-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 AO

Zone AO is the flood insurance rate zone that corresponds to areas of l-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown 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 Walker County. 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 4 "Community Map History."

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE
Huntsville, City of	5/24/74	2/6/76	2/4/81	5/7/01
New Waverly, City of	6/25/76	None	8/16/11	None
Riverside, City of	11/19/76	None	11/1/07	None
Walker County (Unincorporated Areas)	7/19/77	None	5/1/87	5/7/01

TABLE 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX
AND INCORPORATED ARES

COMMUNITY MAP HISTORY

7.0 OTHER STUDIES

A Flood Insurance Study was published in 1980 for the City of Huntsville. That study covered four streams. A restudy for the City of Huntsville was published in 2001. The 2001 restudy covered 30 streams in detail.

This FIS report either 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 FEMA Region VI, Federal Insurance and Mitigation Division, 800 North Loop 288, Denton, Texas 76209.

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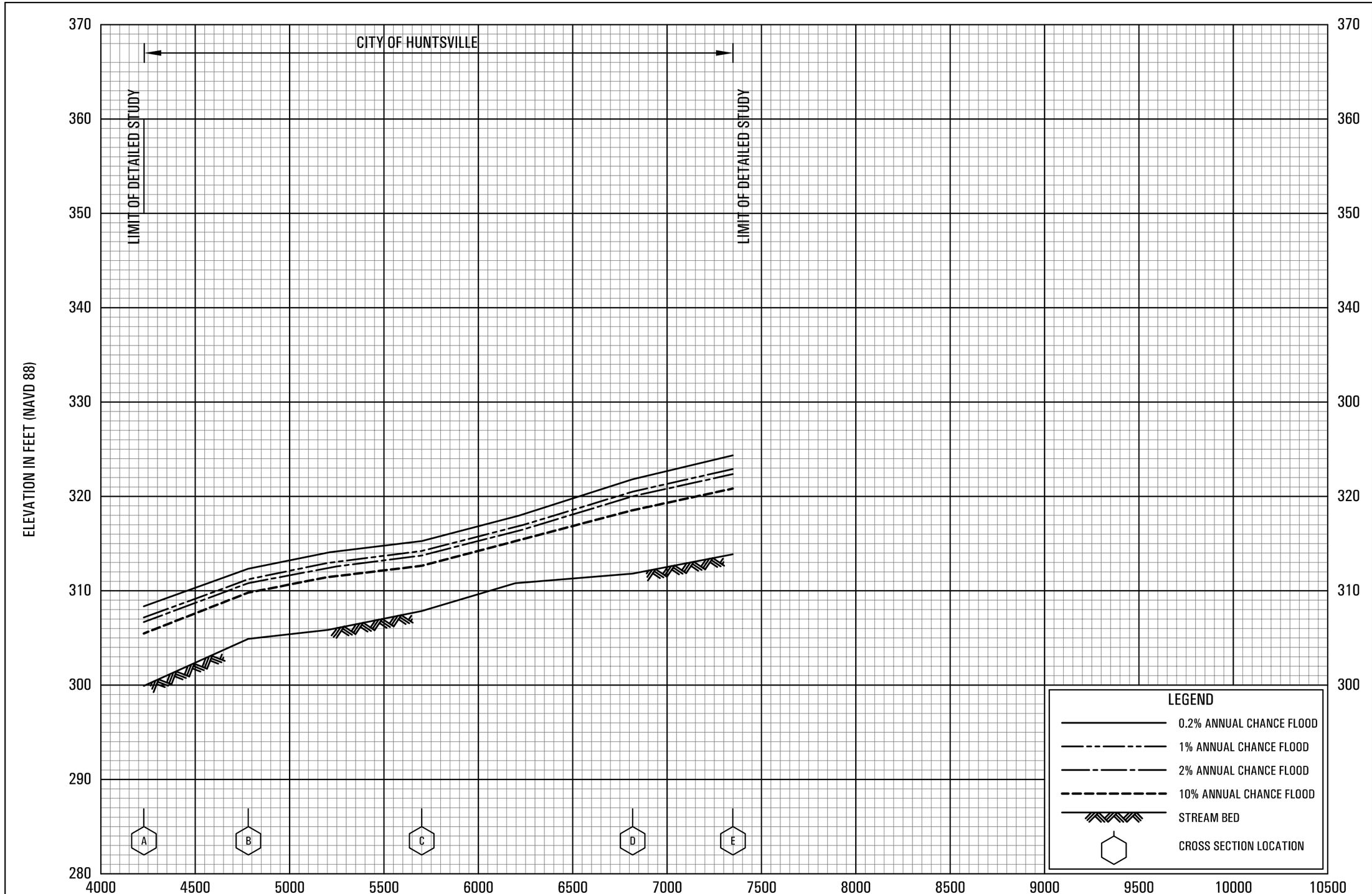
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    Federal Emercency Management Agency, FIA-21, National Flood Insurance Program, Standards for Digital Flood Insurance Rate Maps, October 1993.

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FLOOD PROFILES

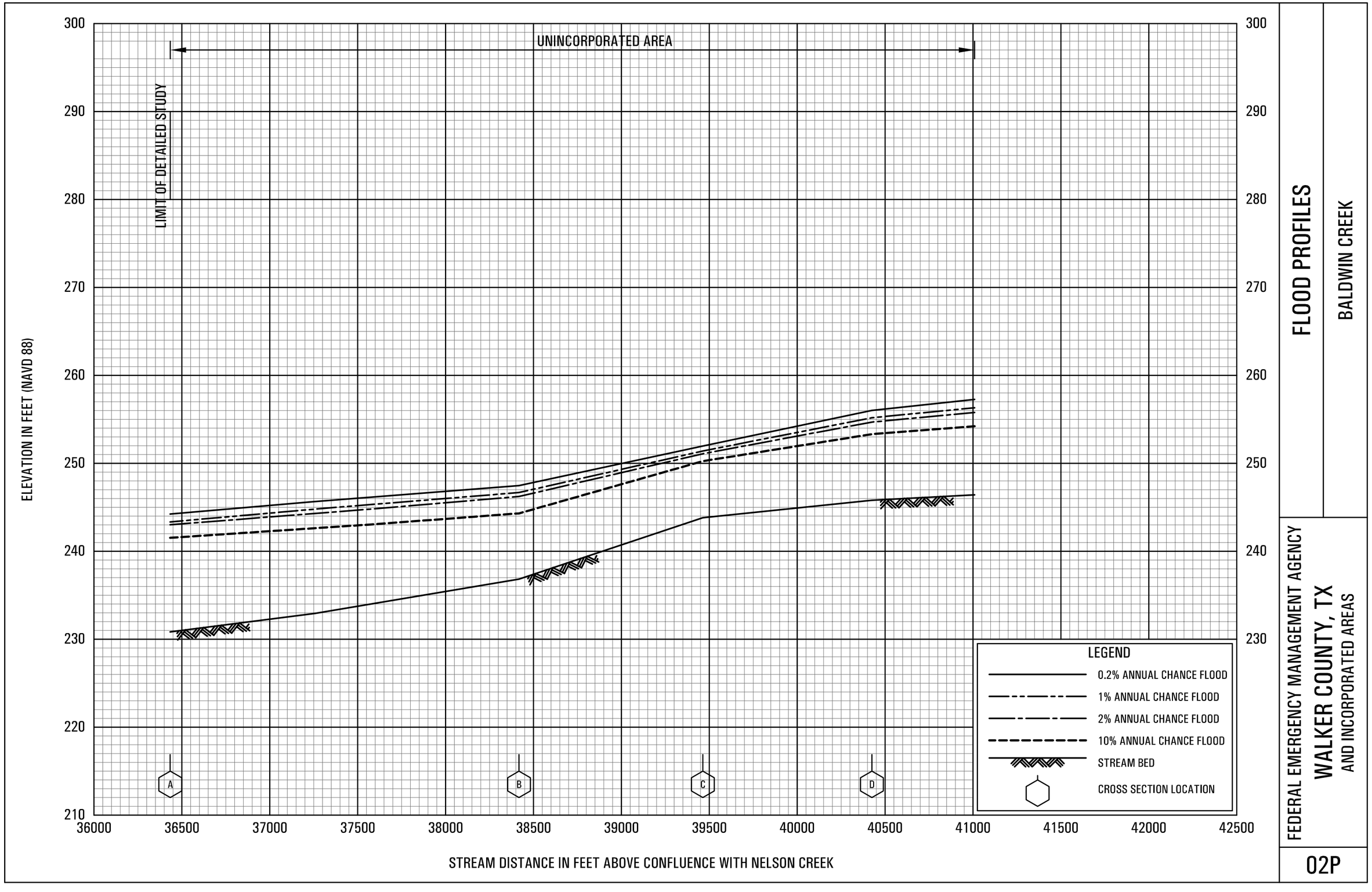
ALLIGATOR BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

01P



FLOOD PROFILES

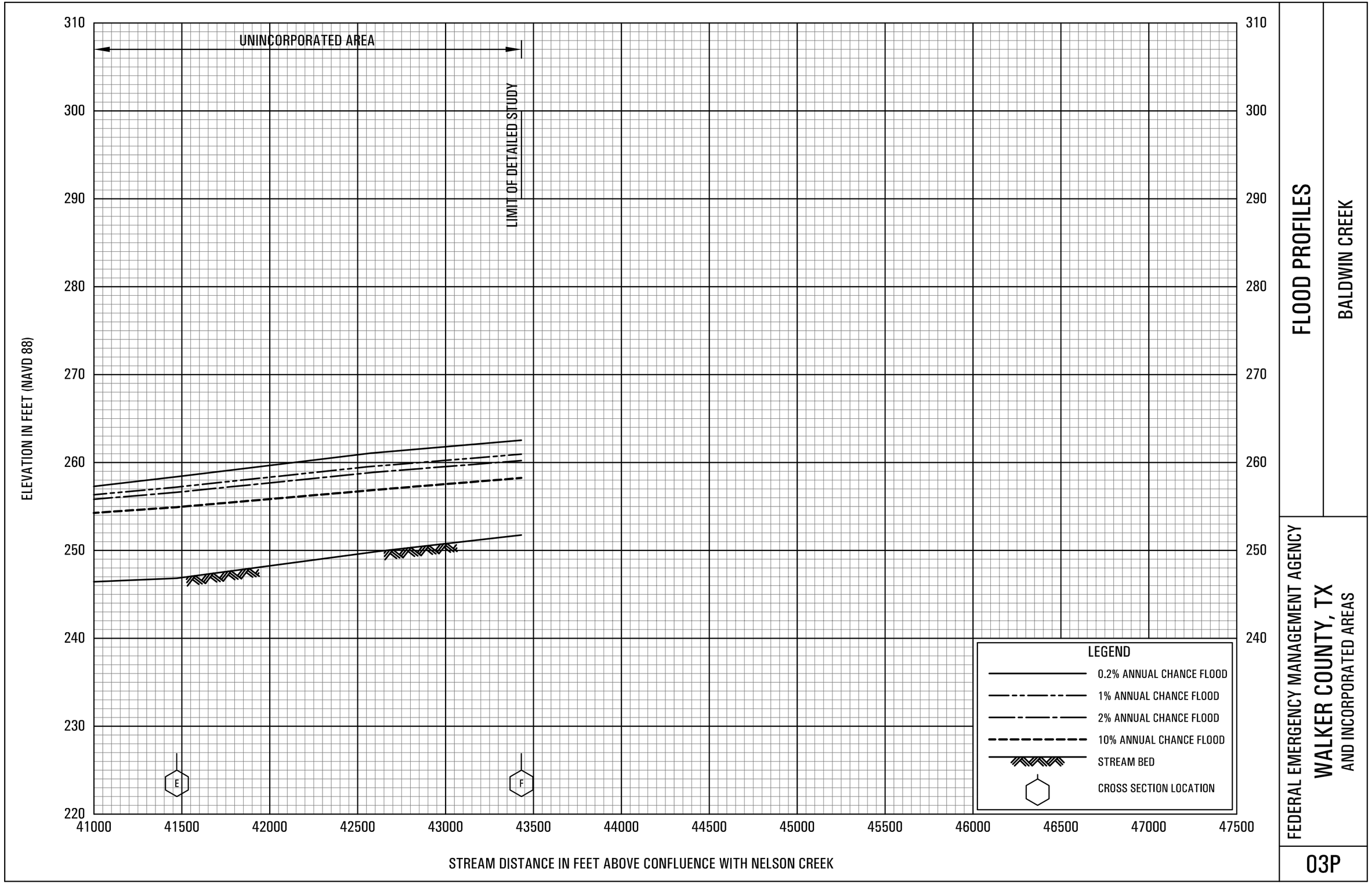
BALDWIN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

02P



FLOOD PROFILES

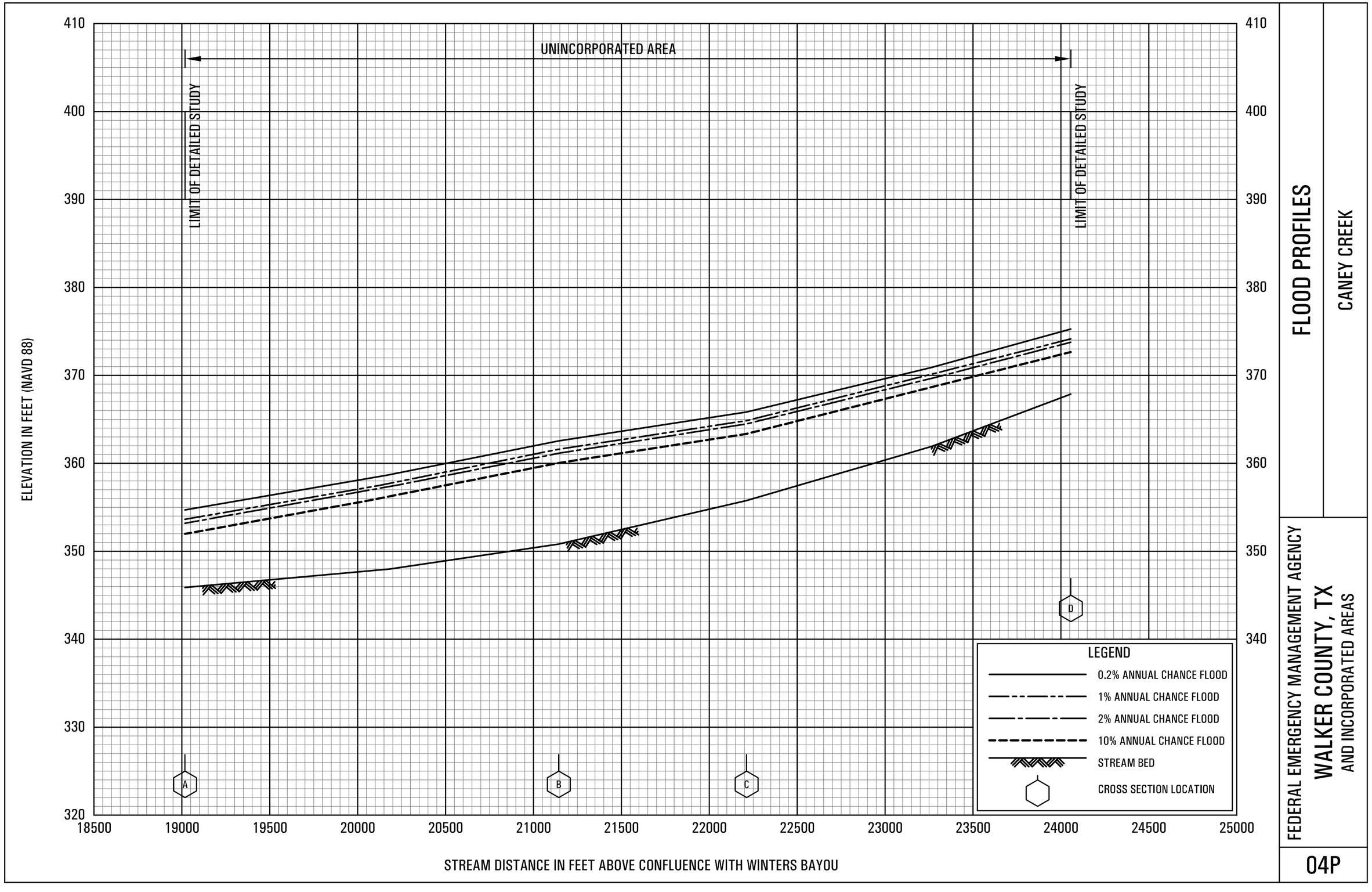
BALDWIN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

03P



FLOOD PROFILES

CANEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

UNINCORPORATED AREA

LIMIT OF DETAILED STUDY

ELEVATION IN FEET (NAVD 88)

310
300
290
280
270
260
250
240
230
220

17000 17500 18000 18500 19000 19500 20000 20500 21000 21500 22000 22500 23000 23500

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH NELSON CREEK

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
- CROSS SECTION LOCATION

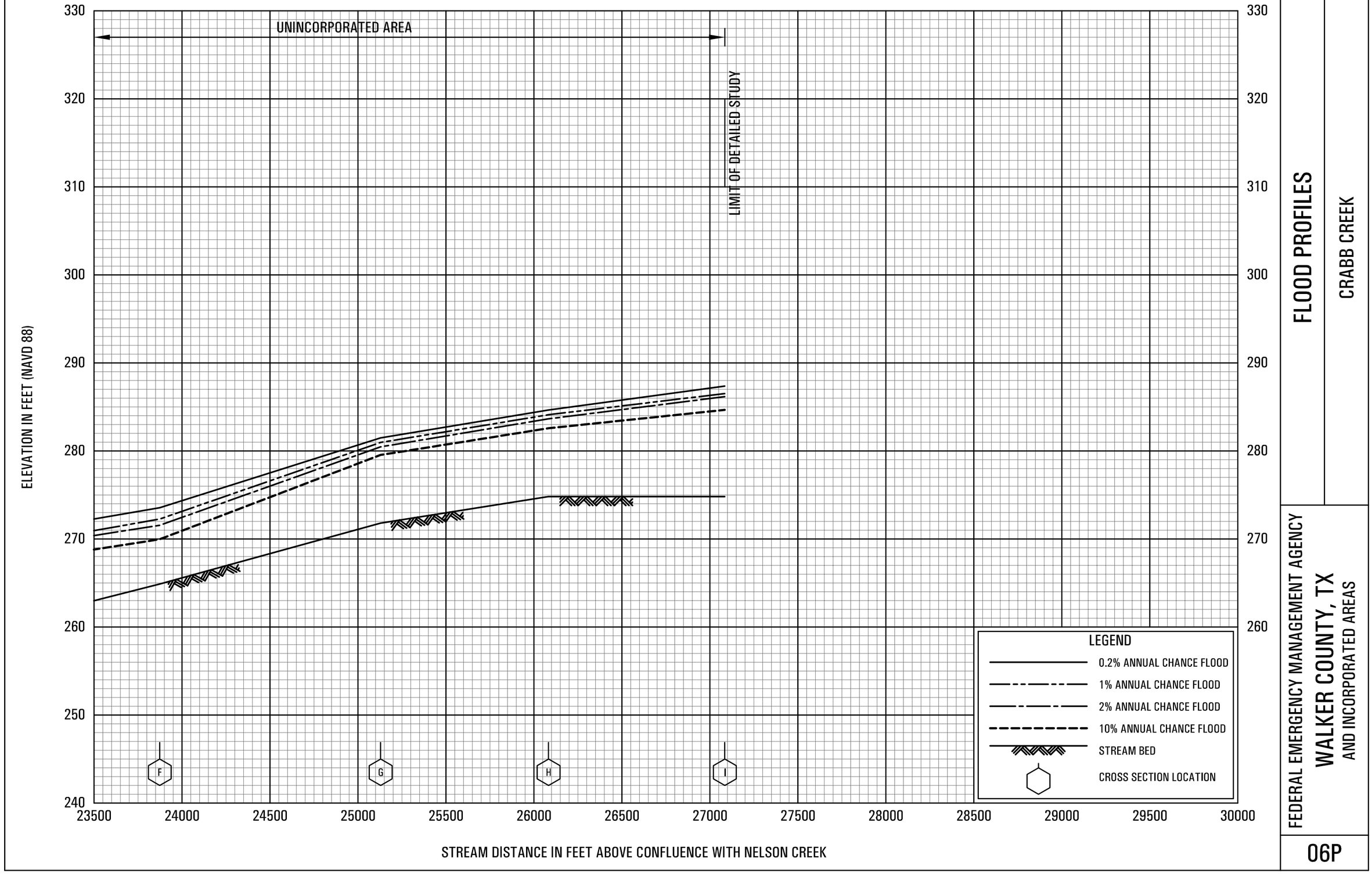
FLOOD PROFILES

CRABB CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

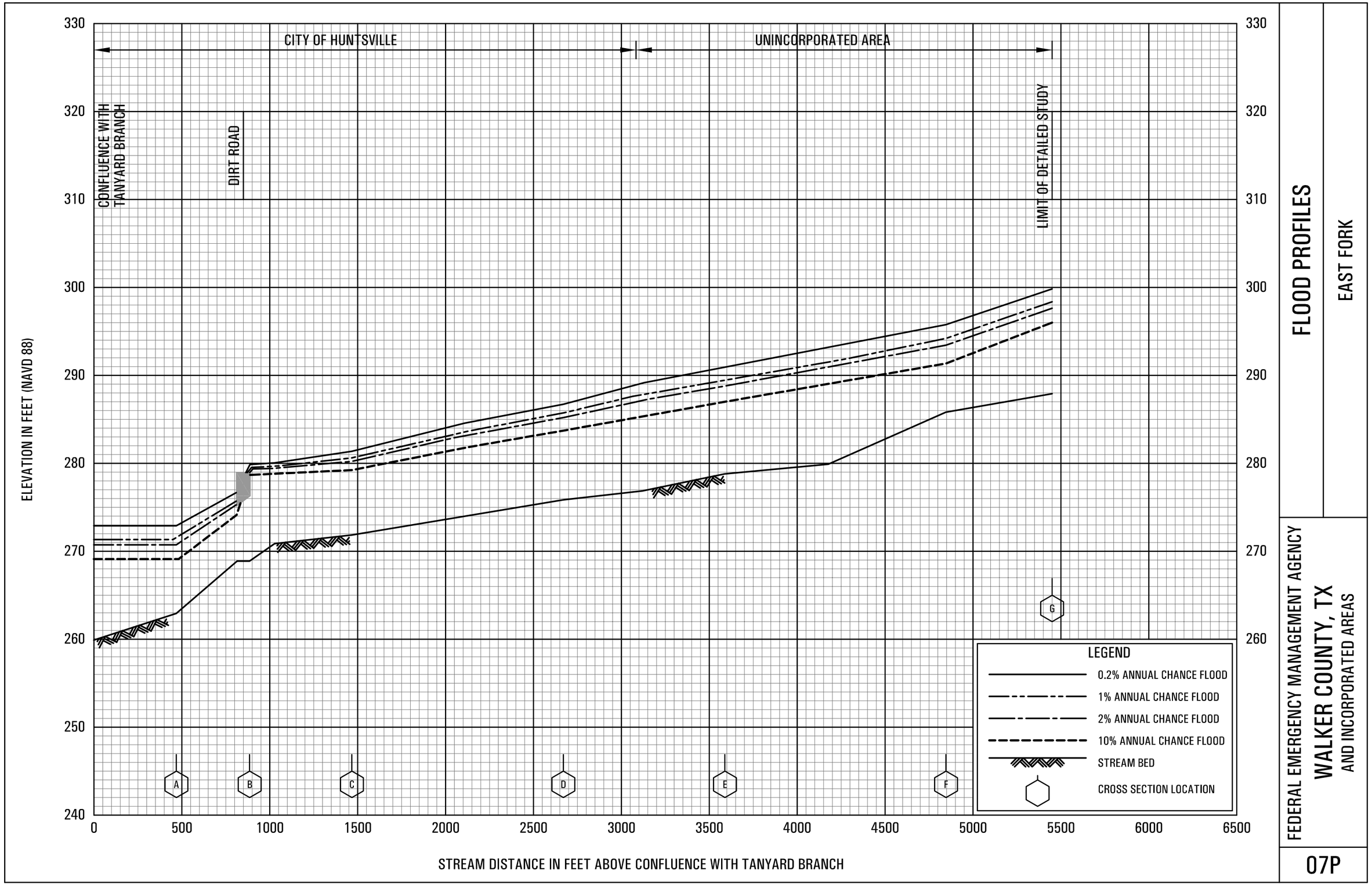
CRABB CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

06P



FLOOD PROFILES

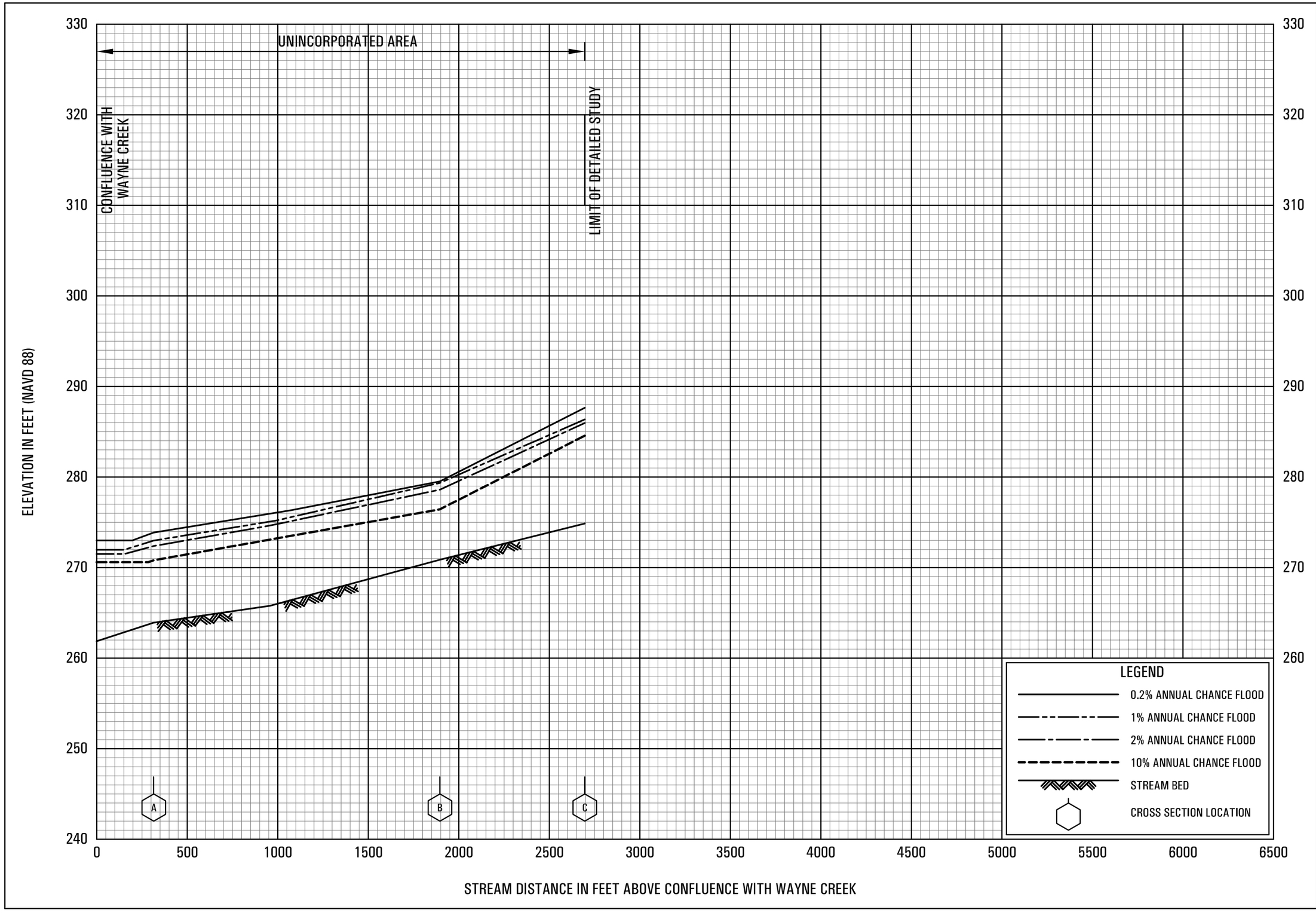
EAST FORK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

07P



FLOOD PROFILES

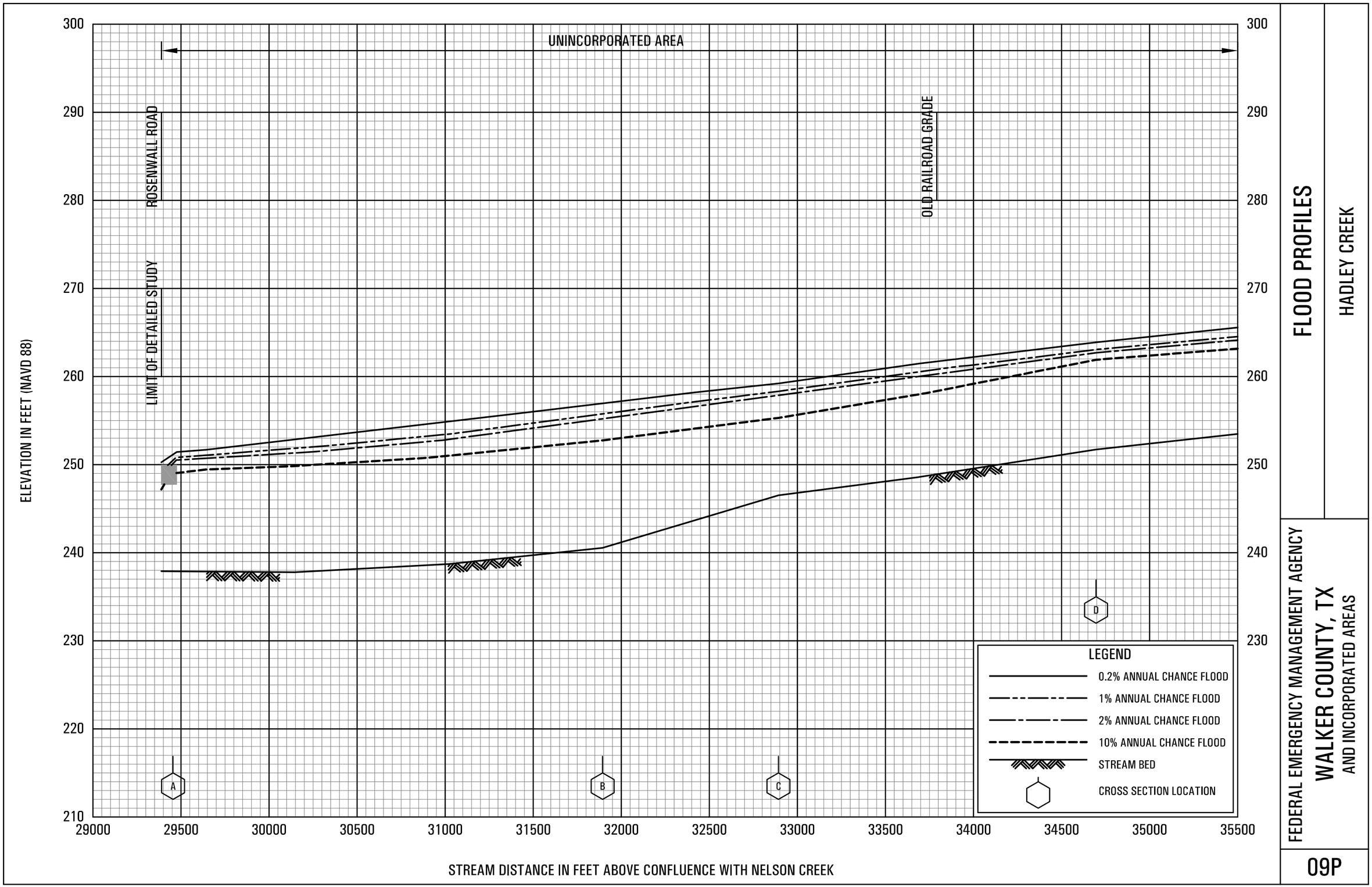
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FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

08P



FLOOD PROFILES

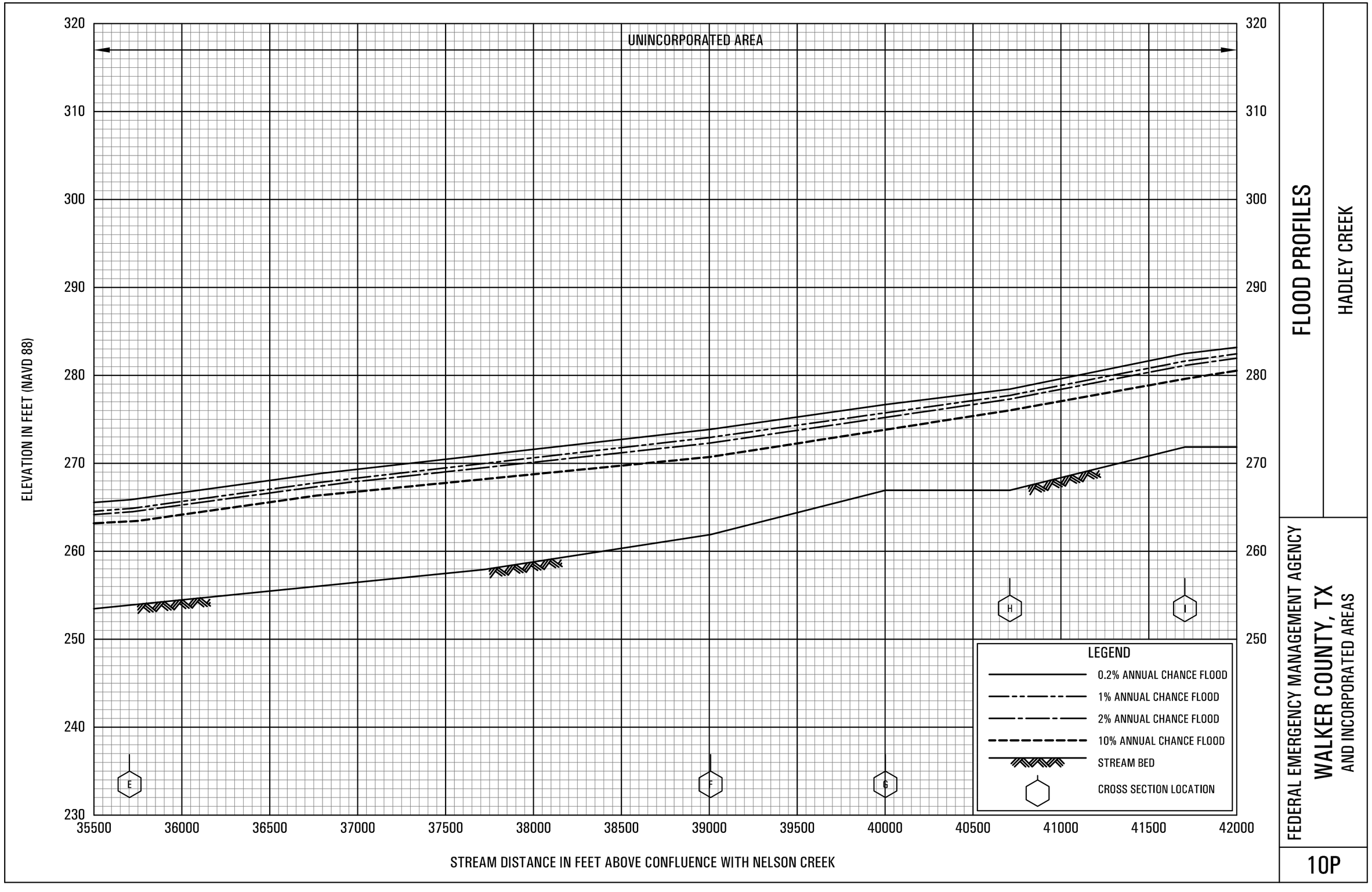
HADLEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

09P



FLOOD PROFILES

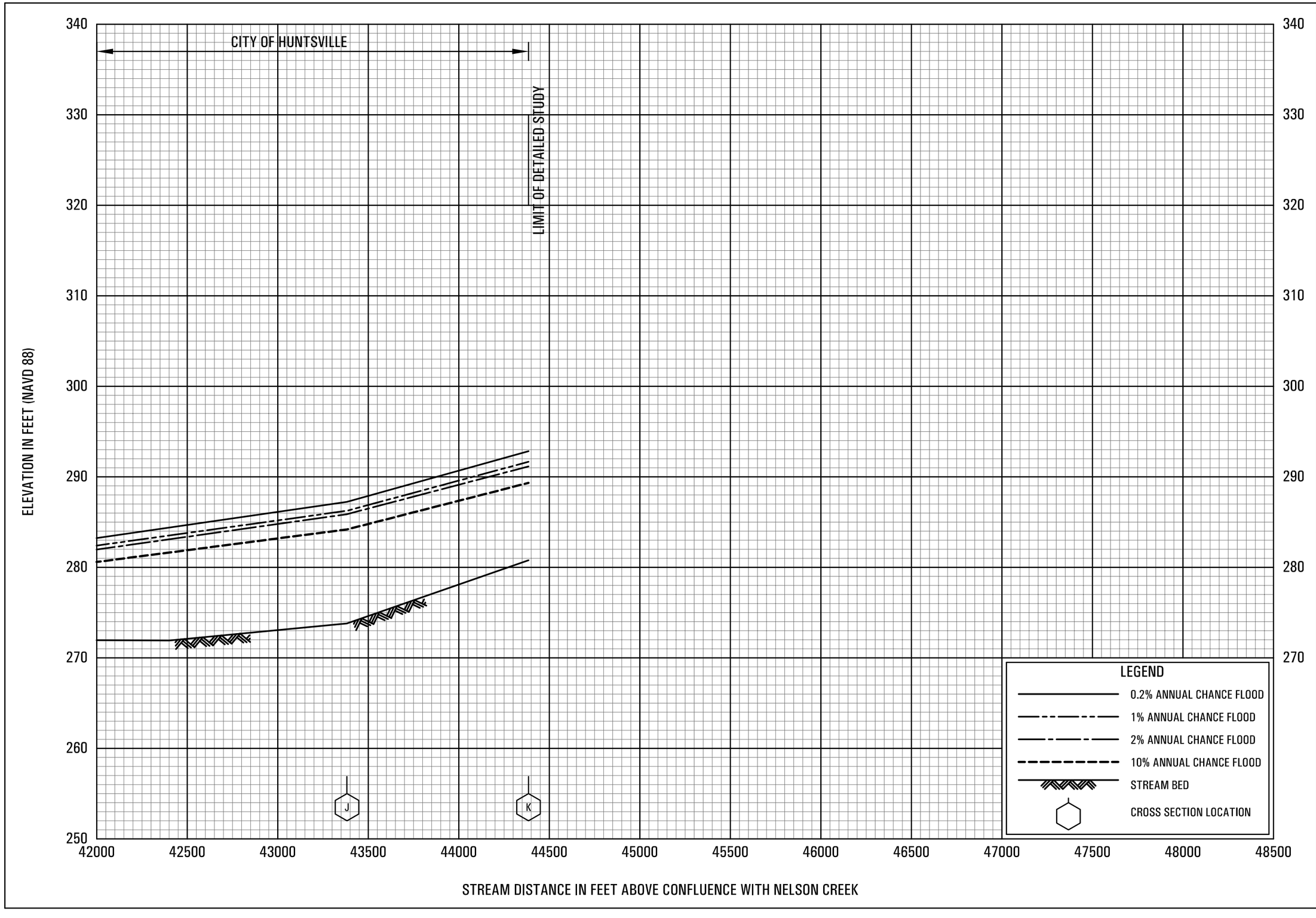
HADLEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

10P



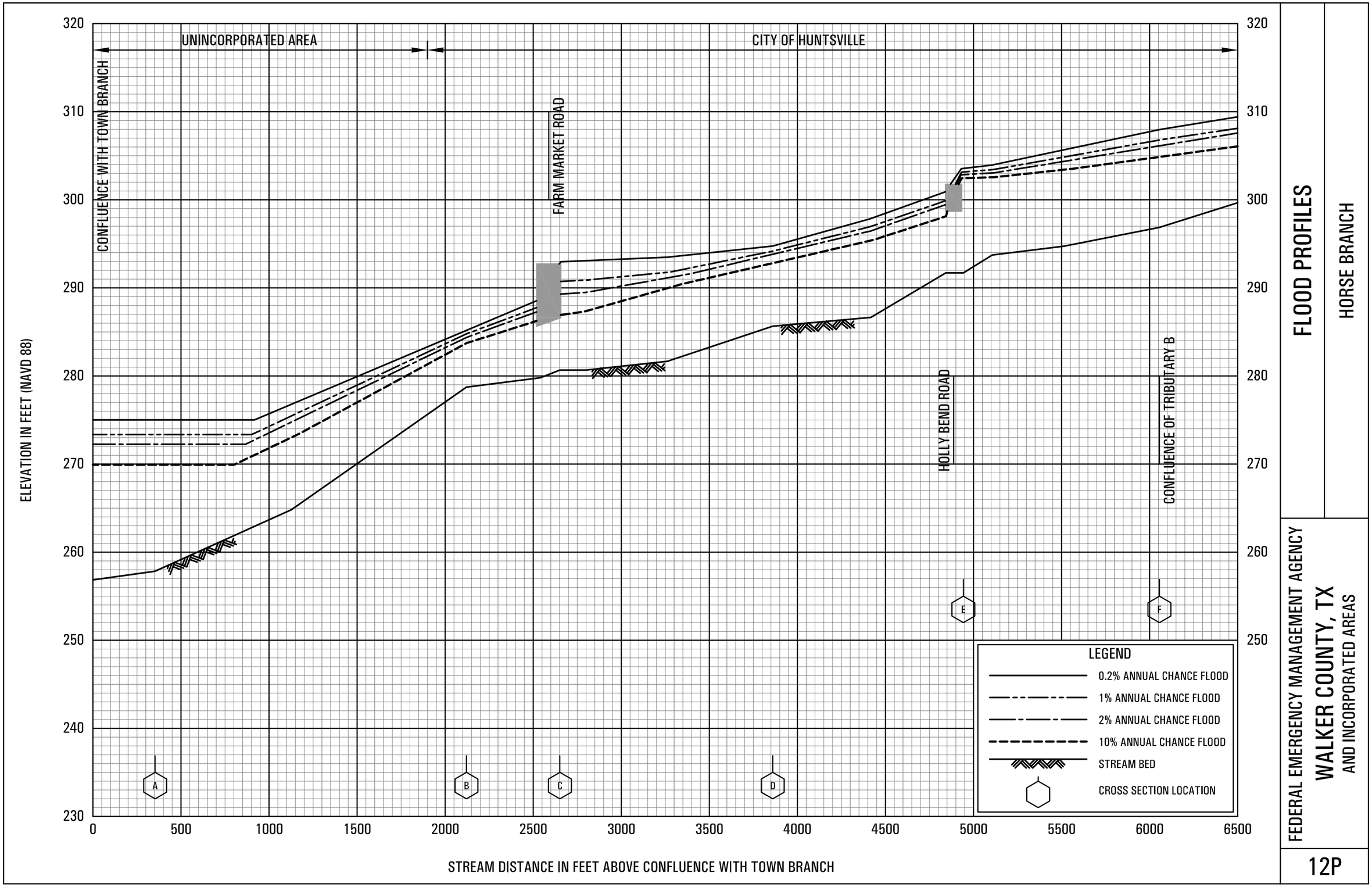
FLOOD PROFILES

HADLEY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

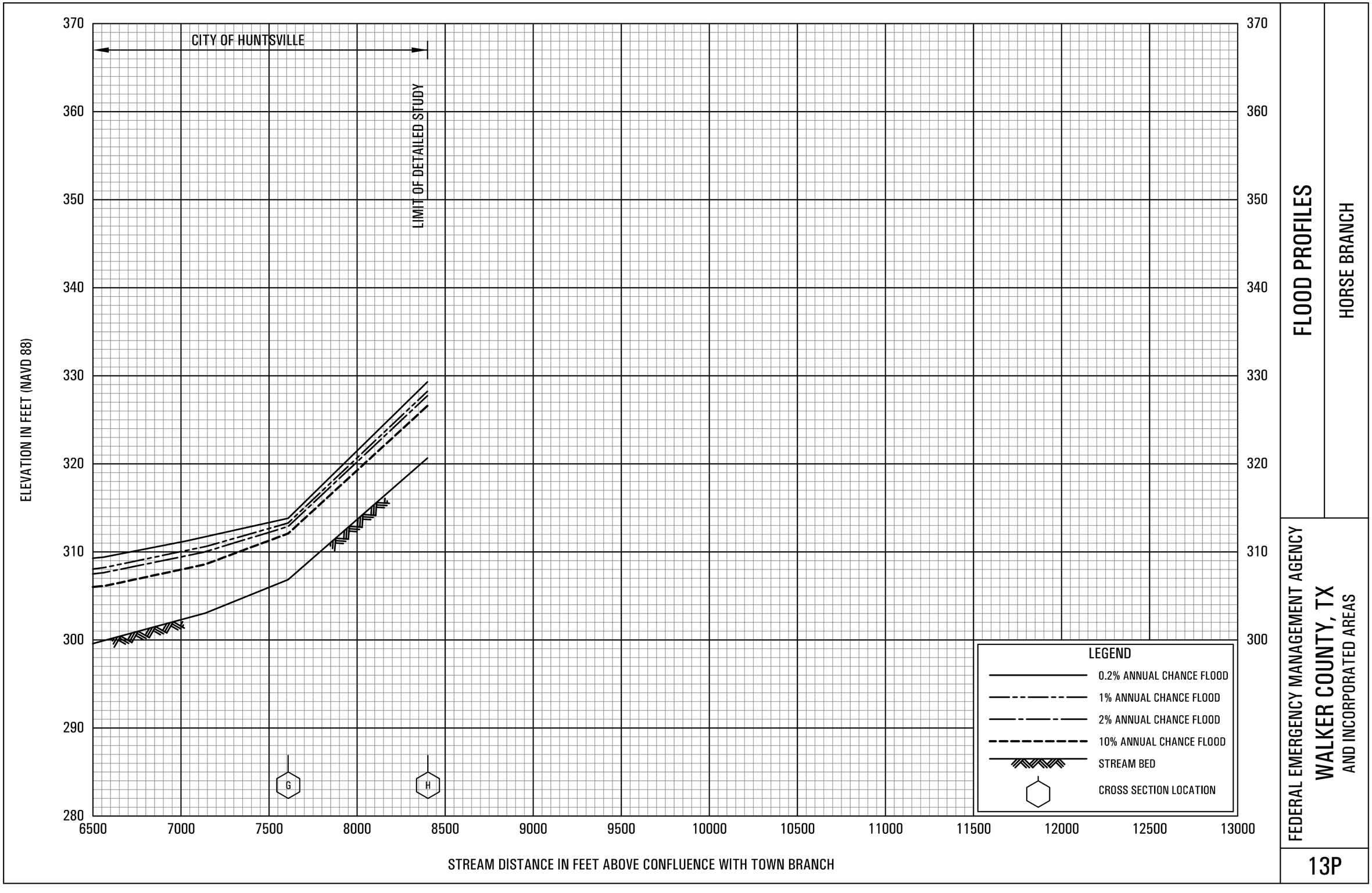
HORSE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

12P



FLOOD PROFILES

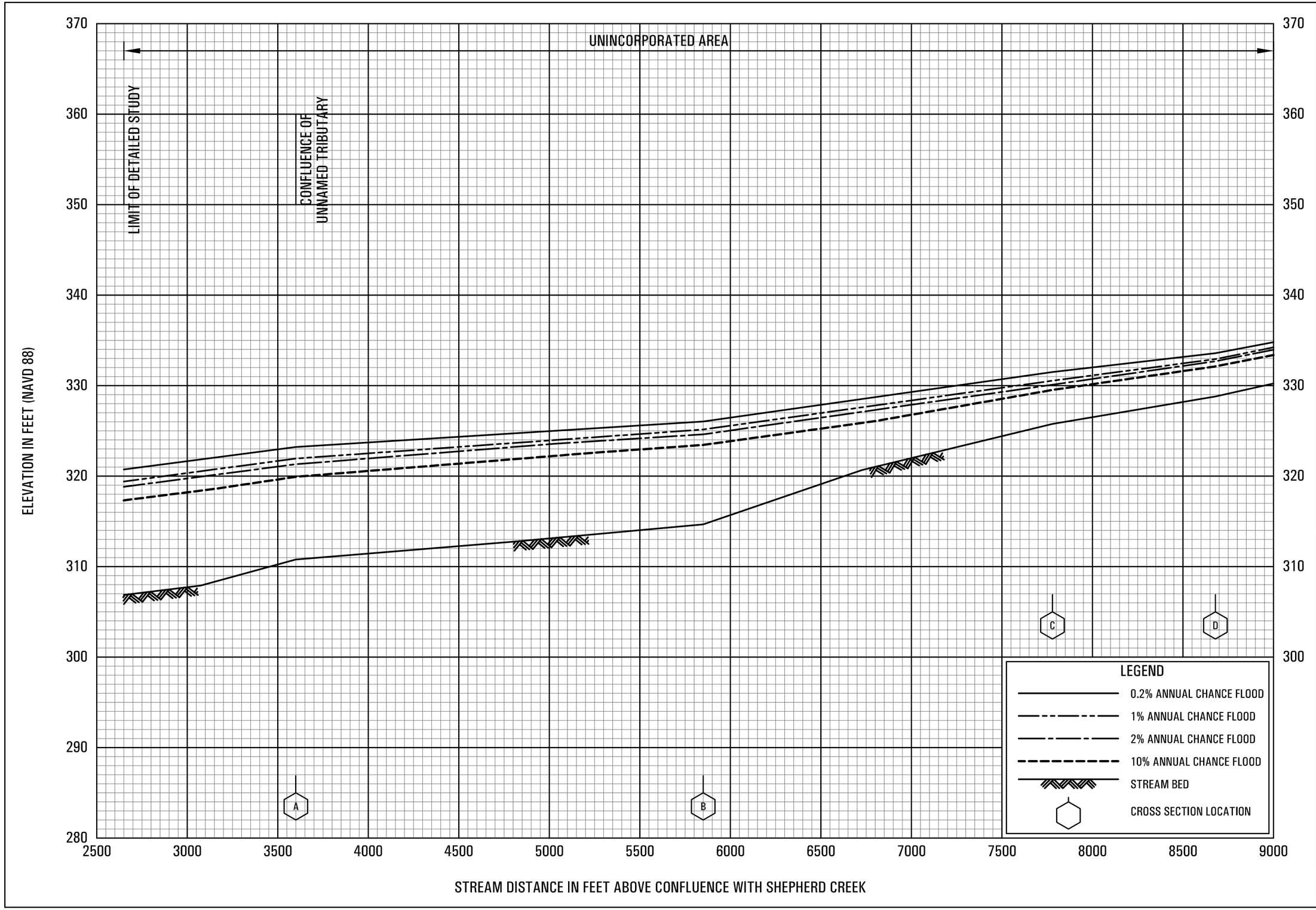
HORSE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

13P



FLOOD PROFILES

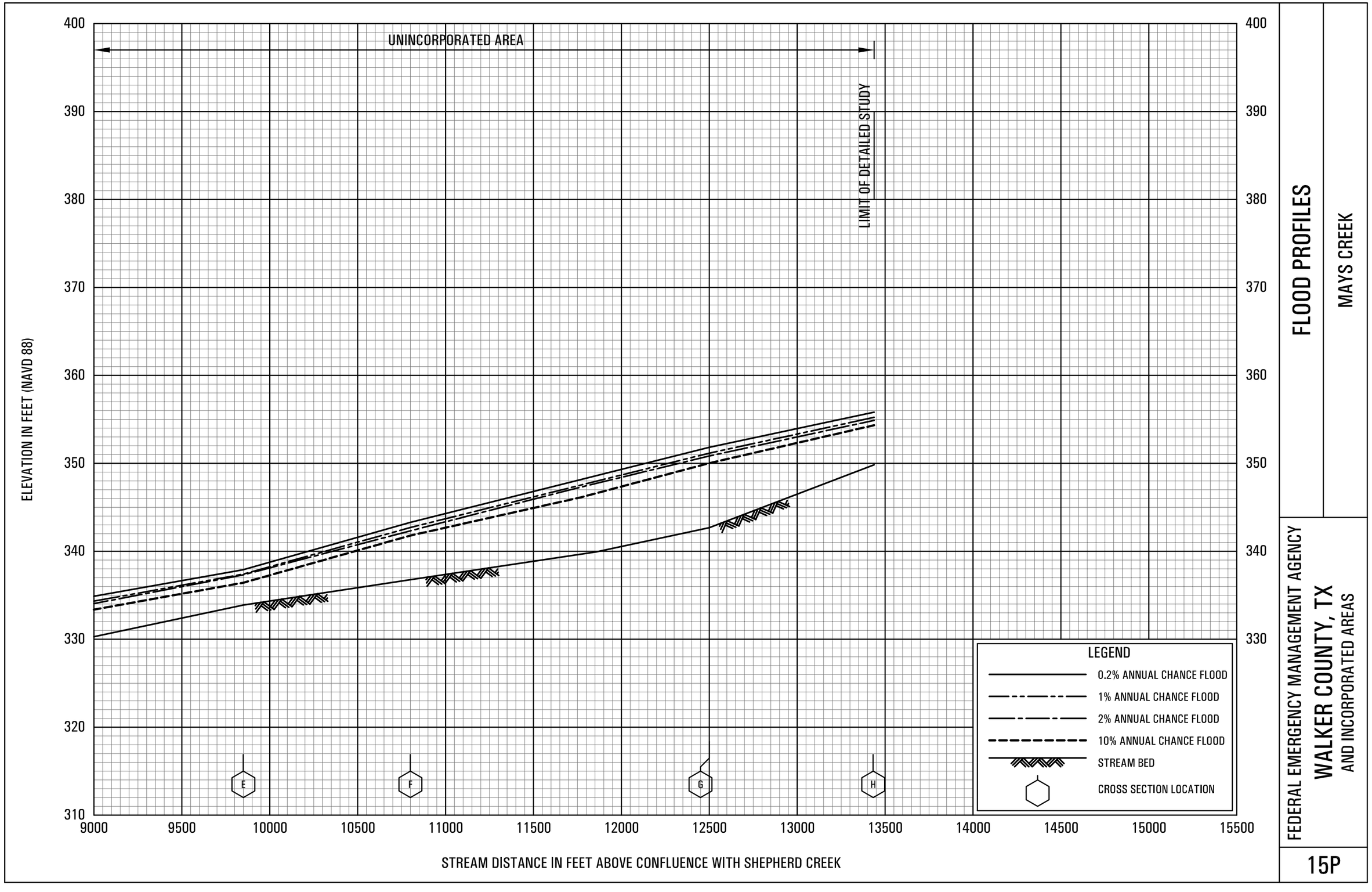
MAYS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

14P



FLOOD PROFILES

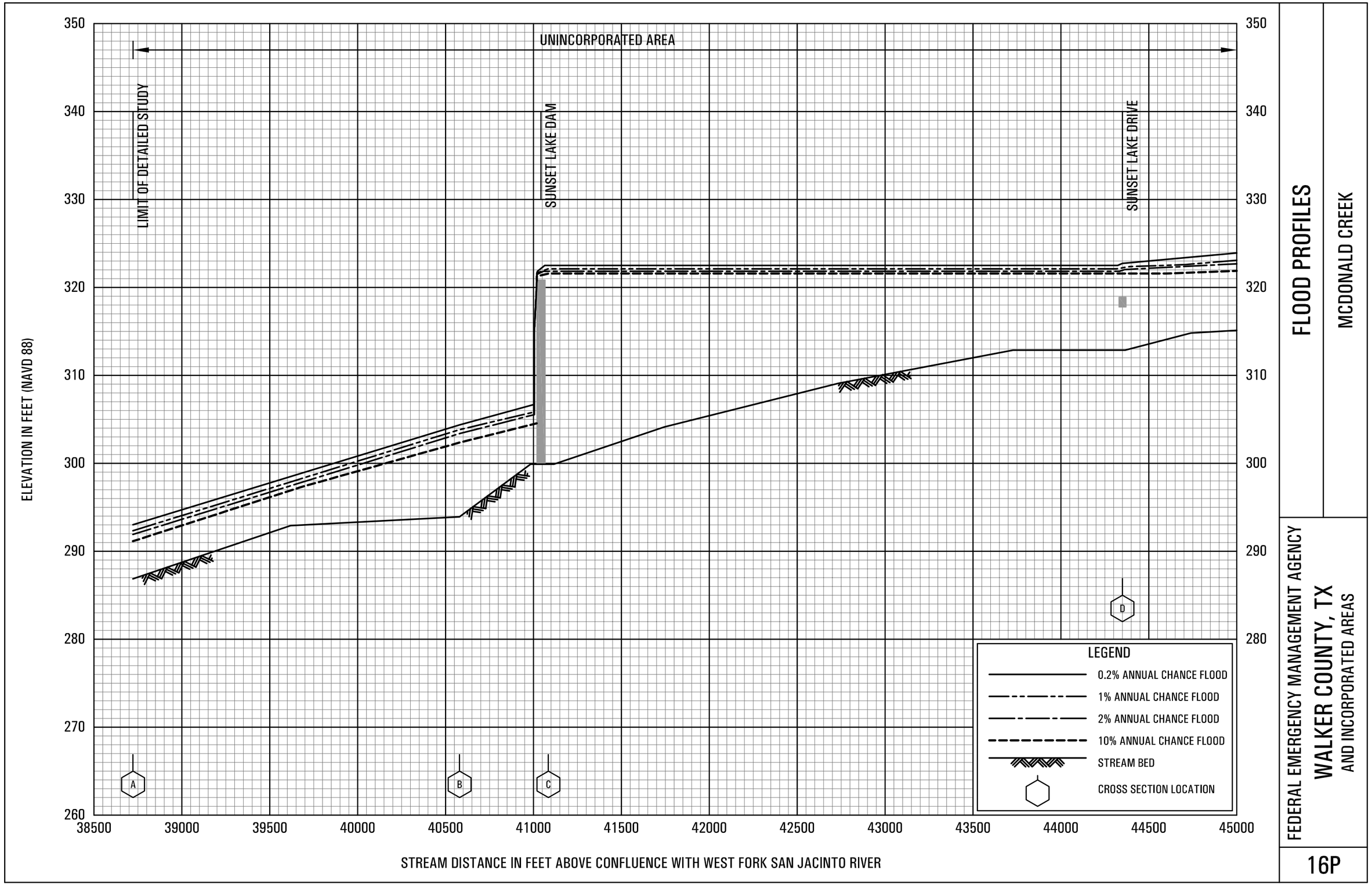
MAYS CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

15P



FLOOD PROFILES

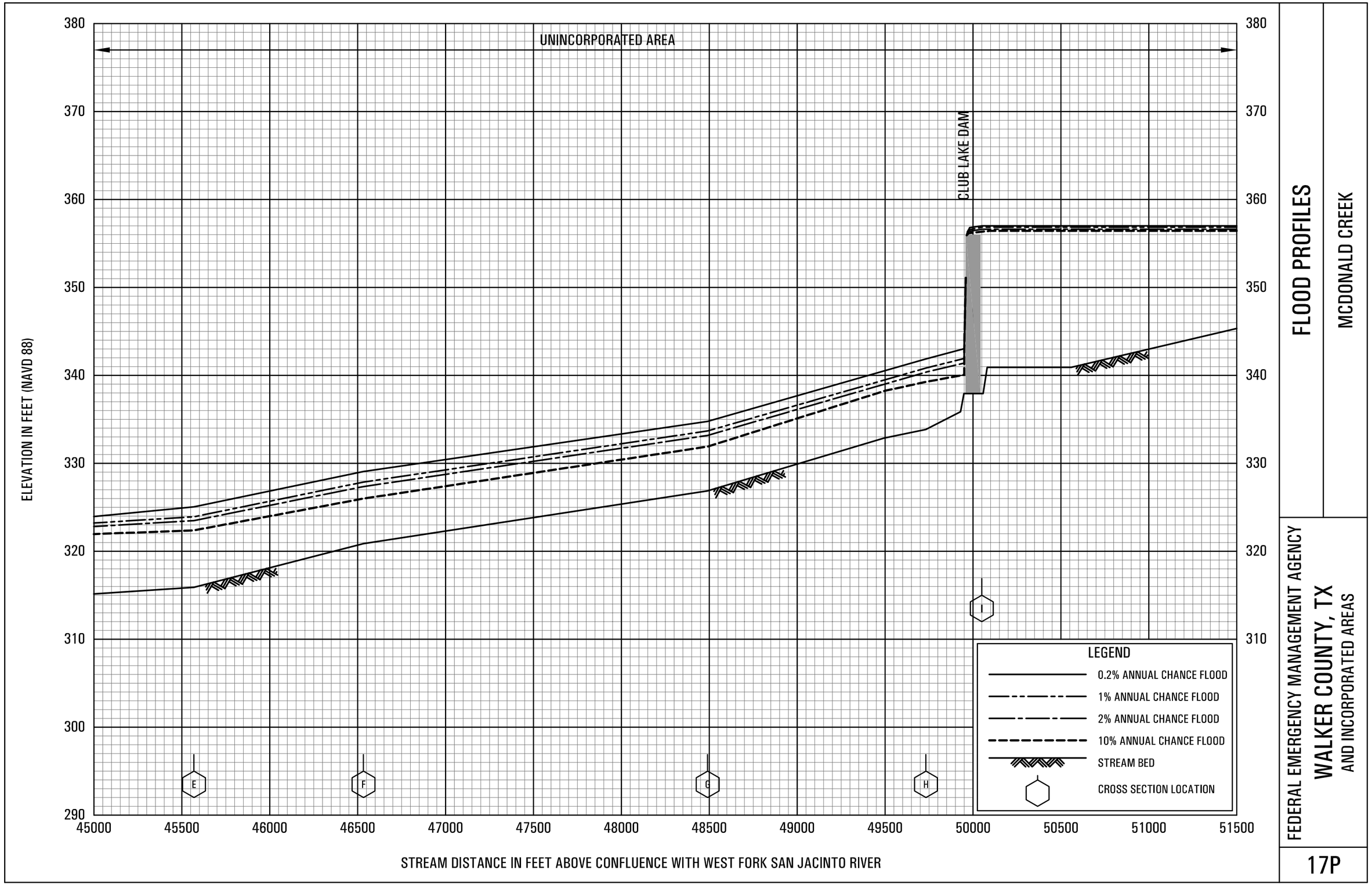
MCDONALD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

16P



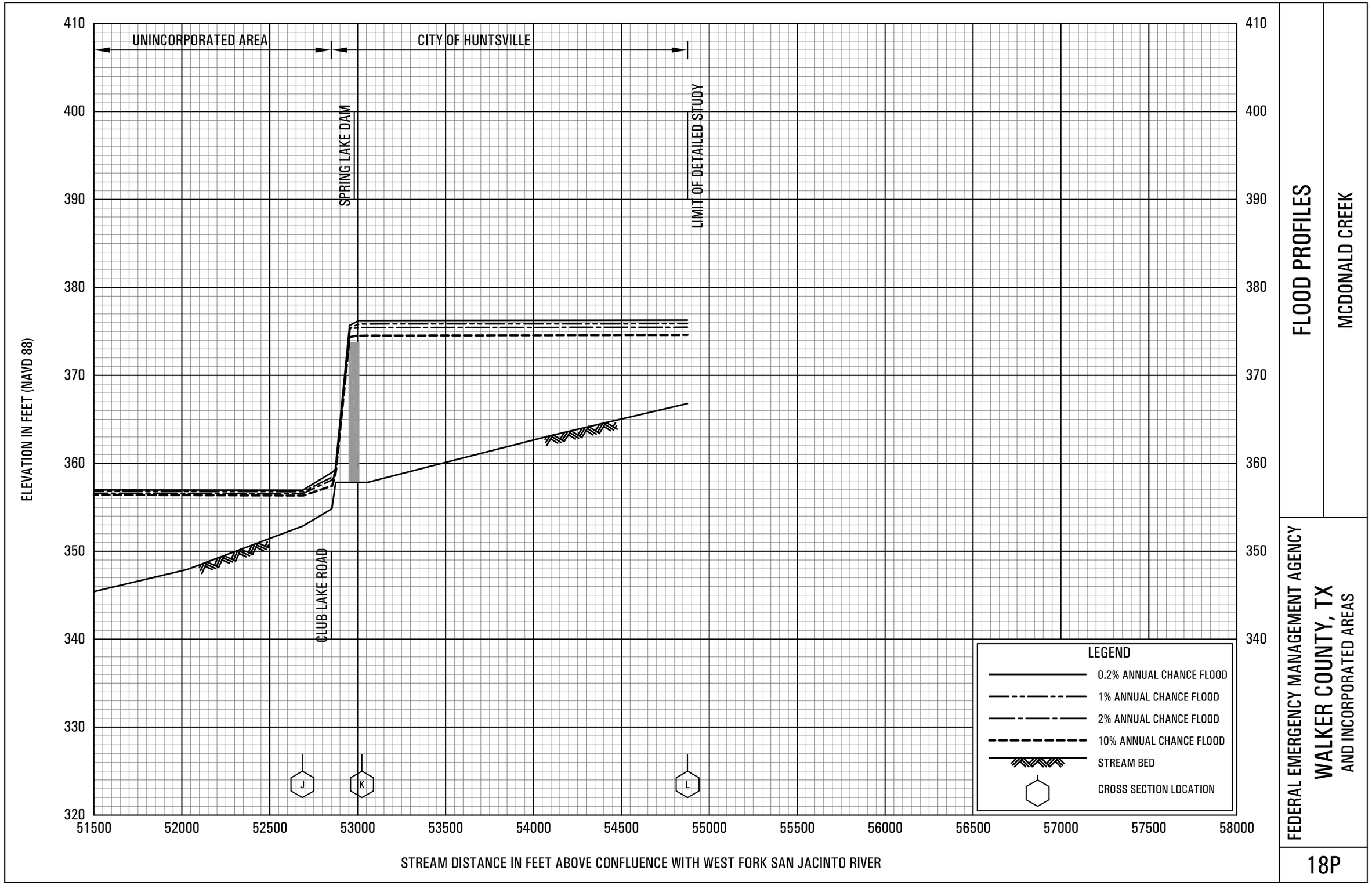
FLOOD PROFILES

MCDONALD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



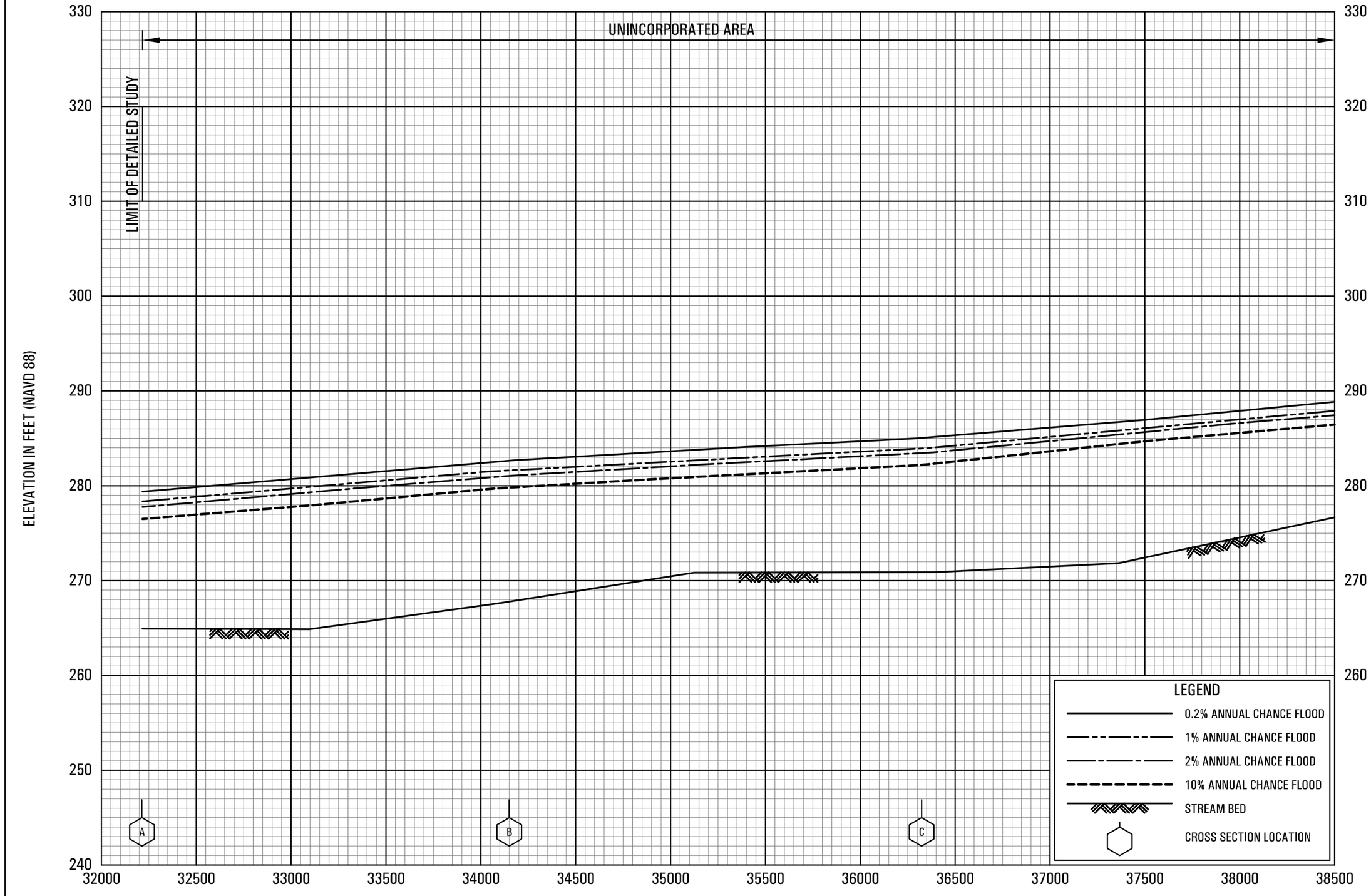
FLOOD PROFILES

MCDONALD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

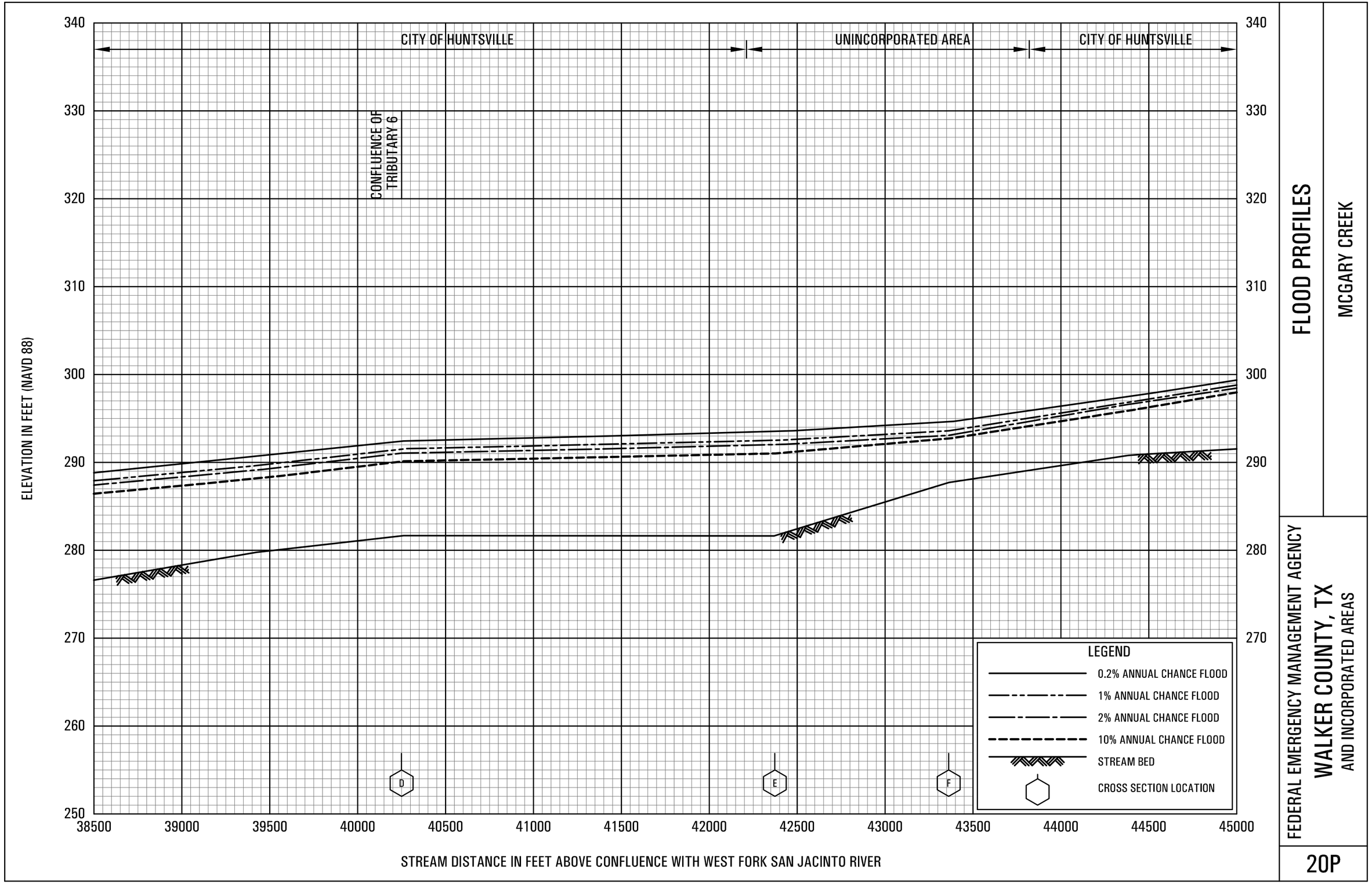
MCGARY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

19P



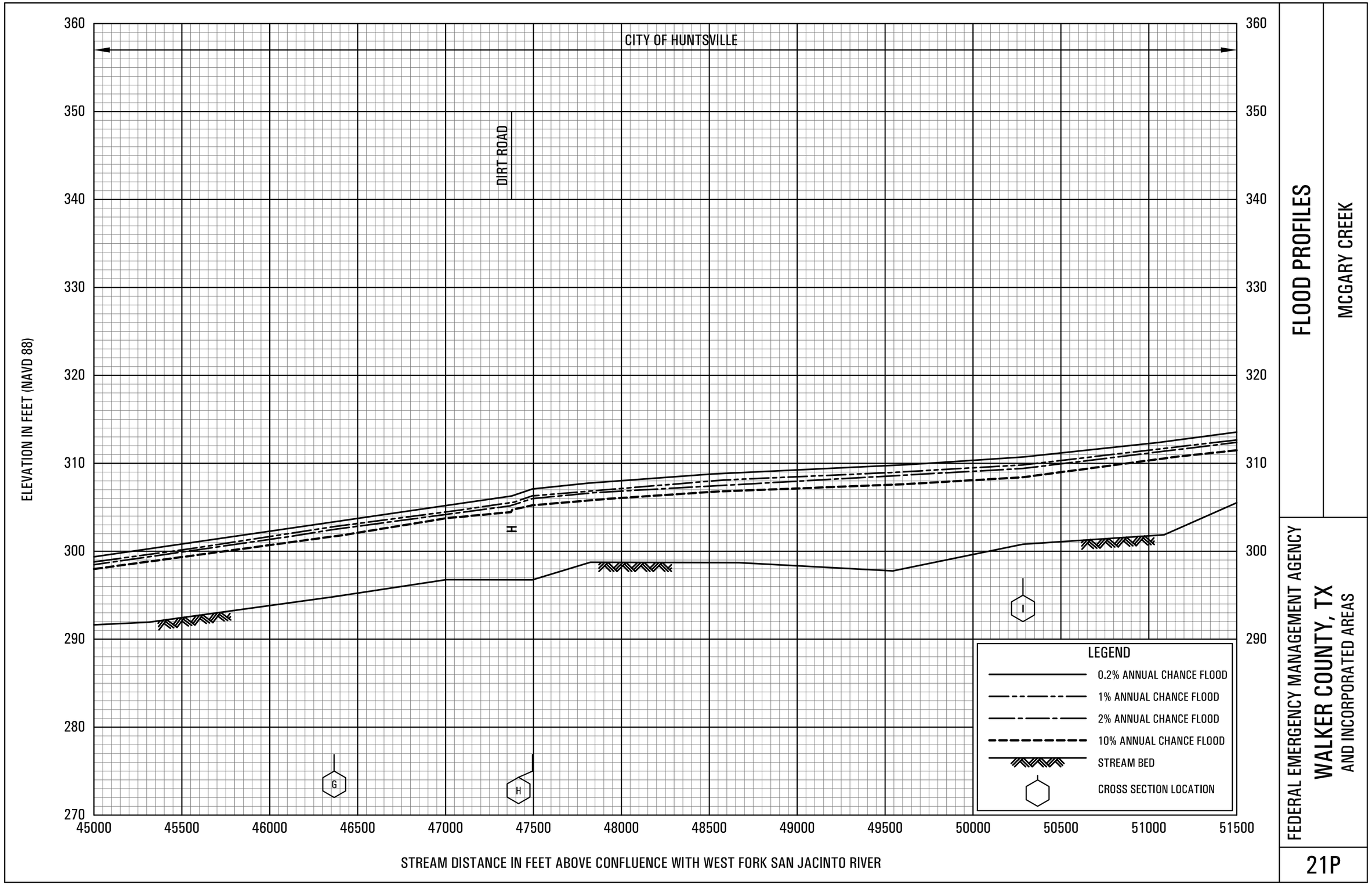
FLOOD PROFILES

MCGARY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



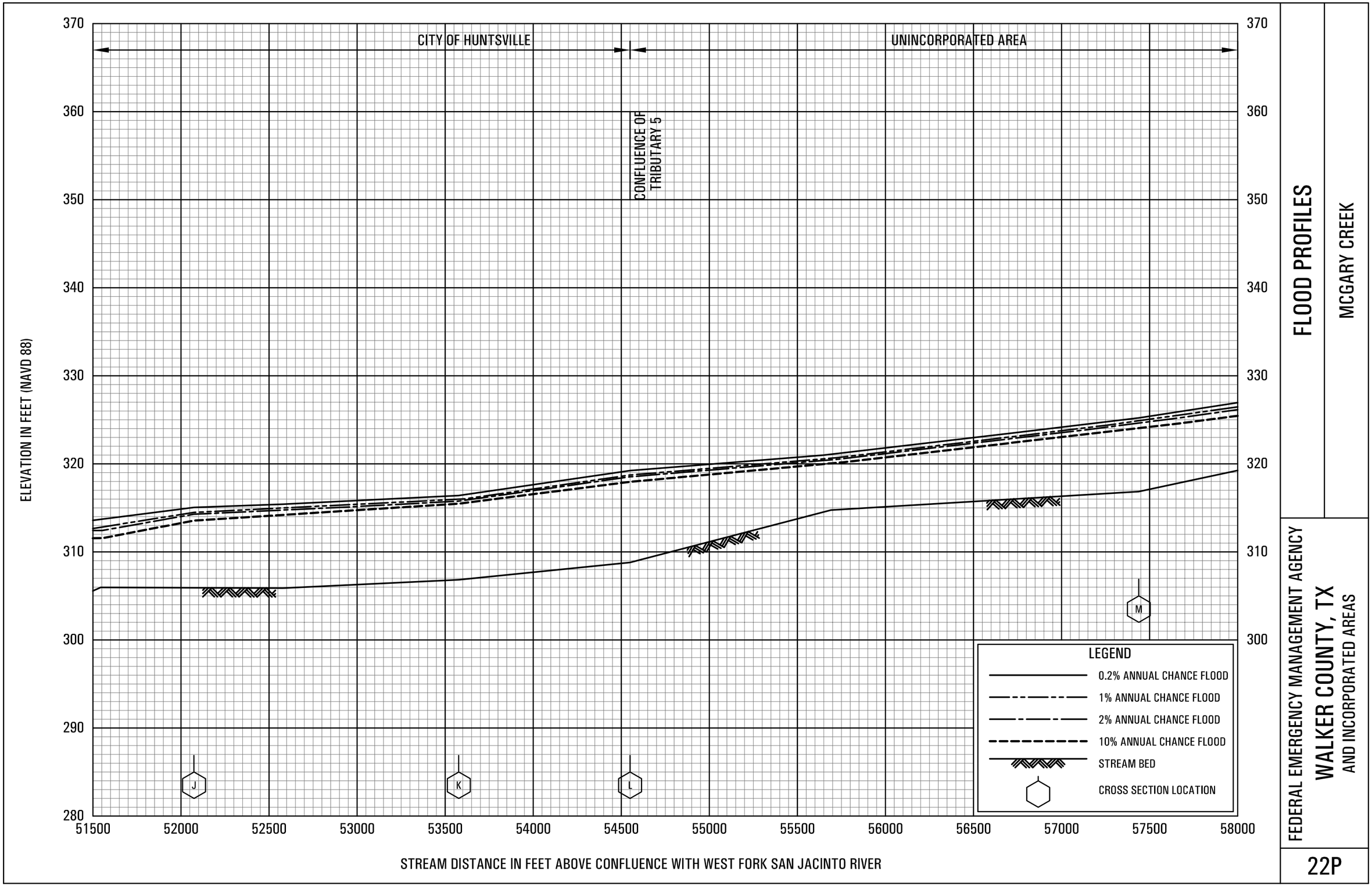
FLOOD PROFILES

MCGARY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



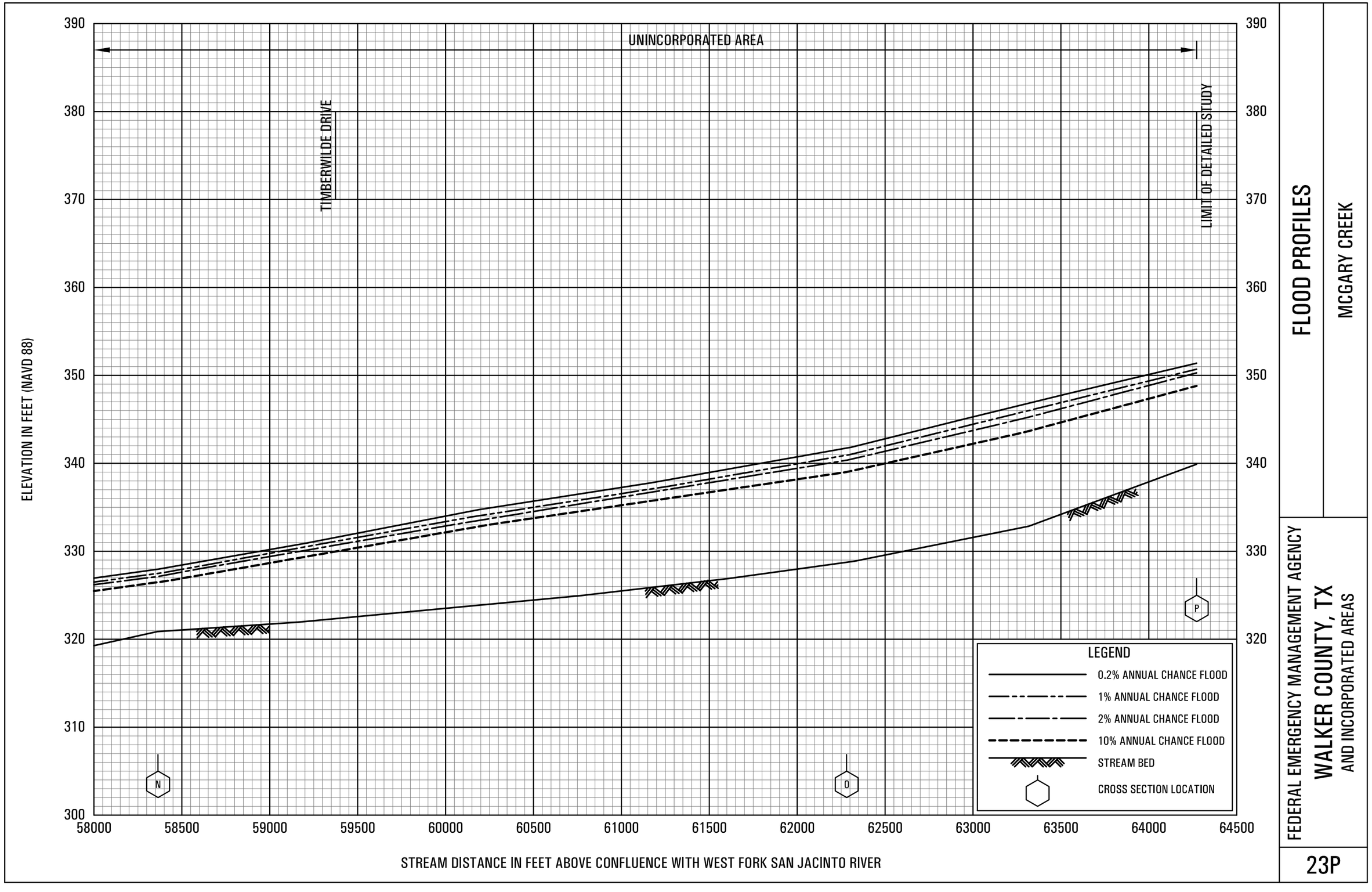
FLOOD PROFILES

MCGARY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

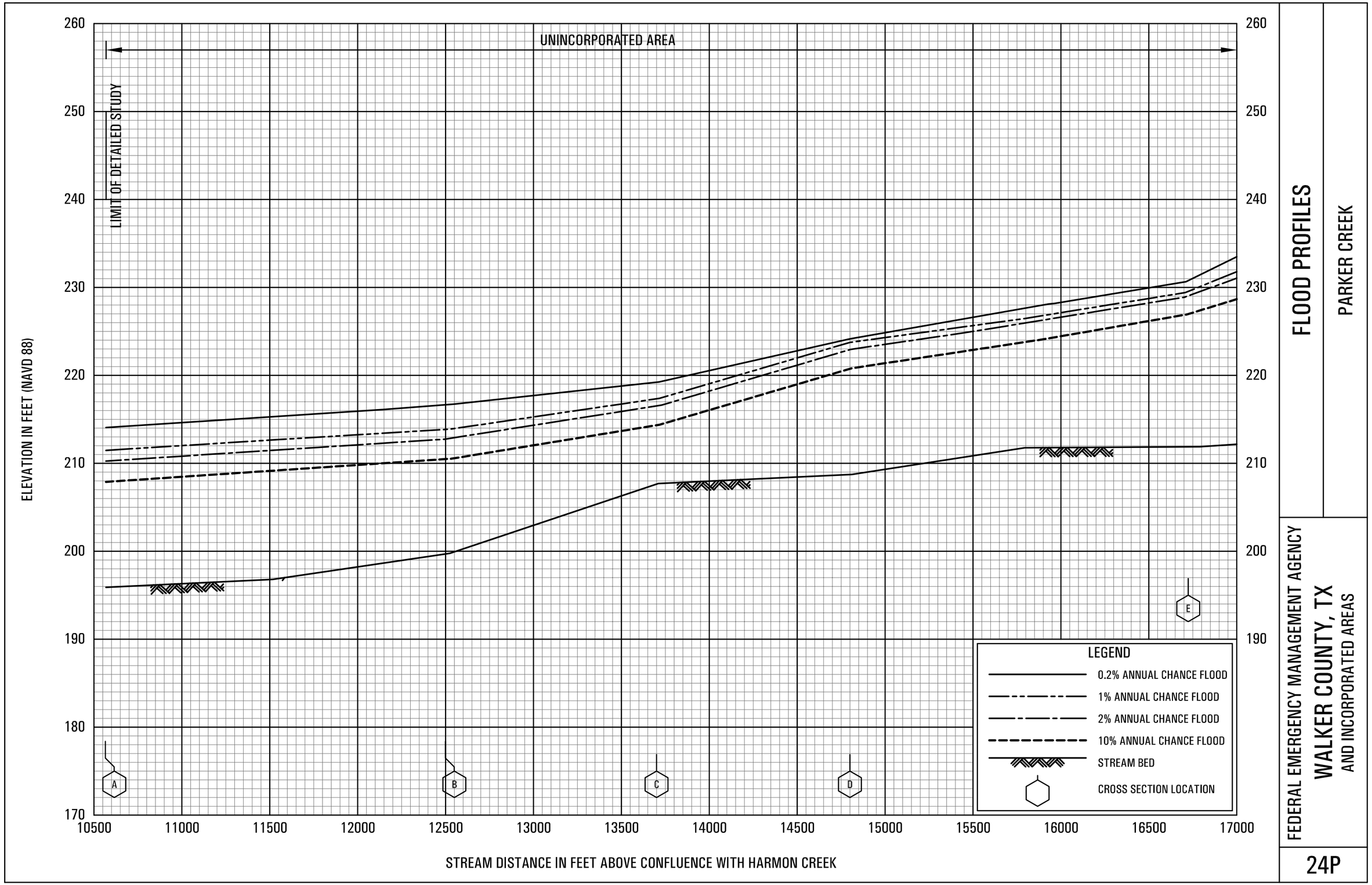
MCGARY CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

23P



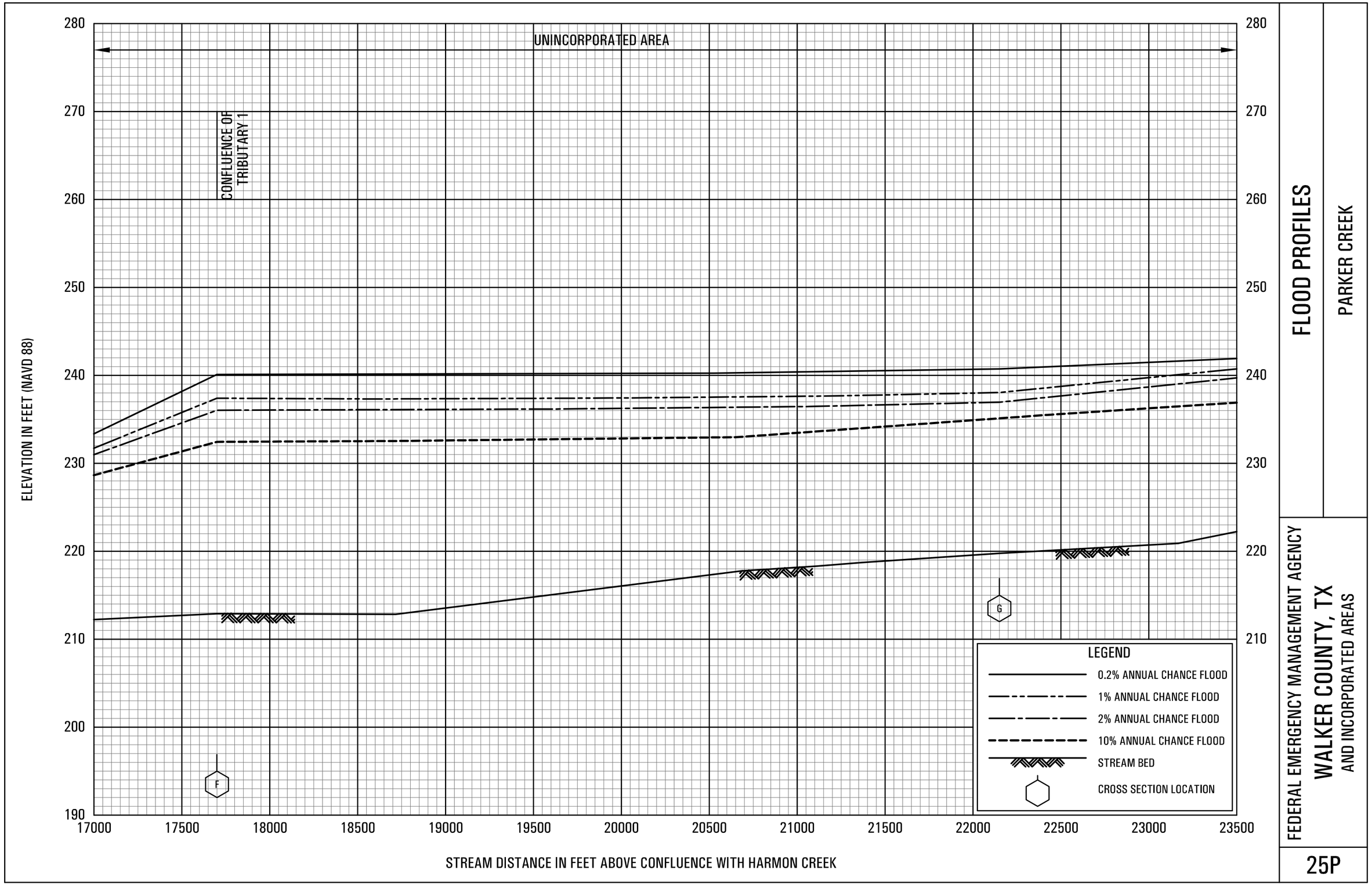
FLOOD PROFILES

PARKER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

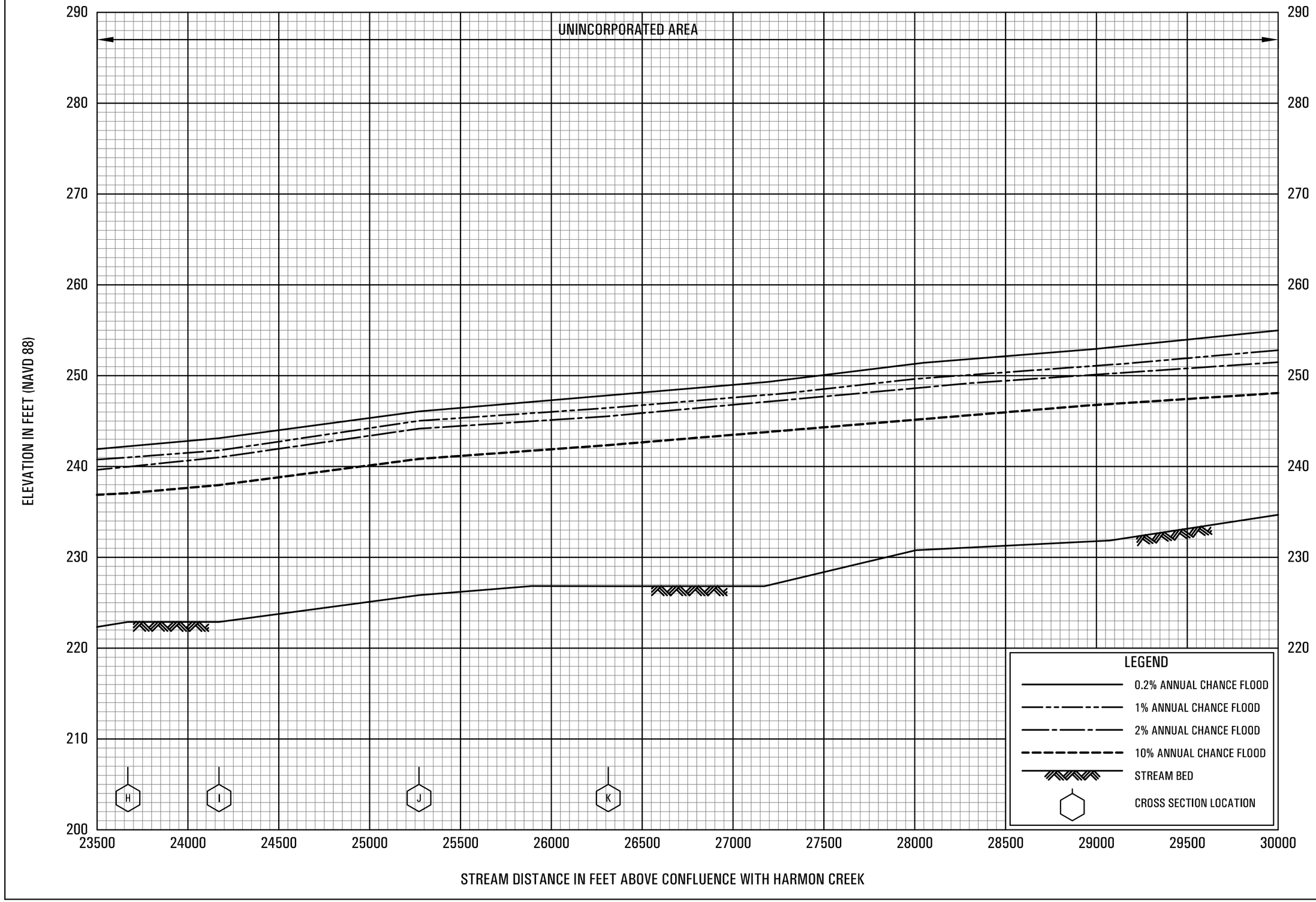
PARKER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

25P



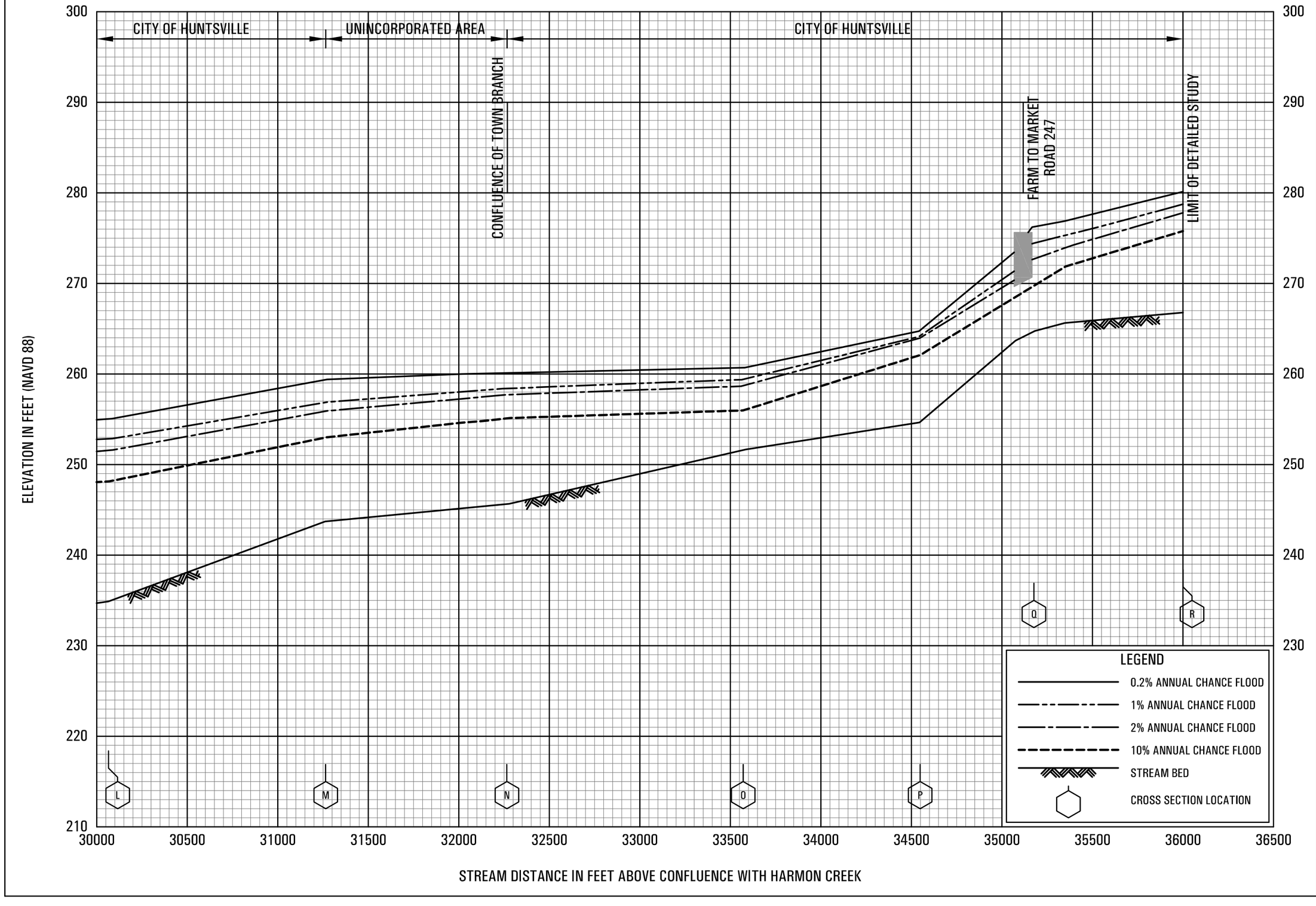
FLOOD PROFILES

PARKER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX
AND INCORPORATED AREAS

26P



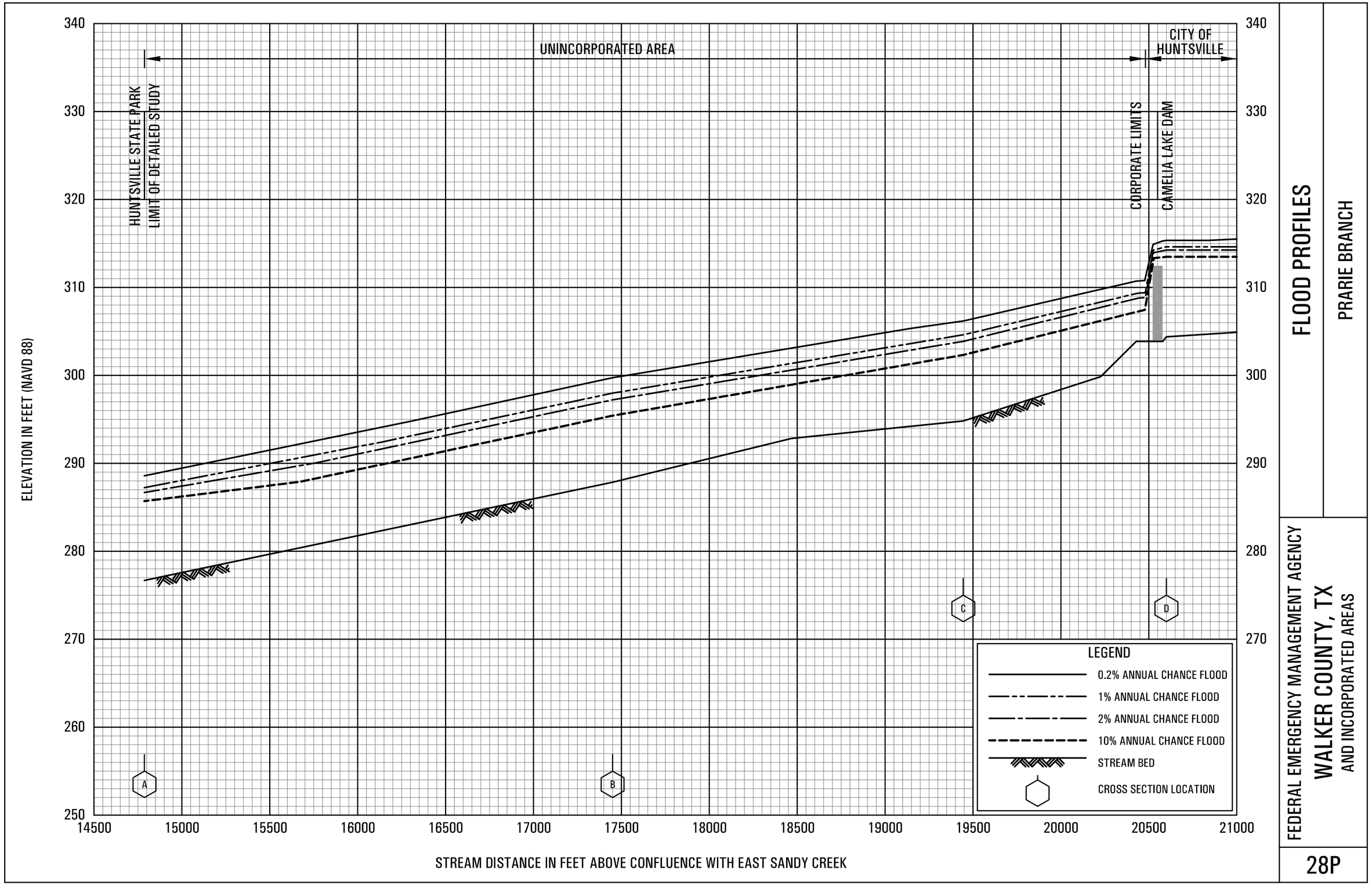
FLOOD PROFILES

PARKER CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

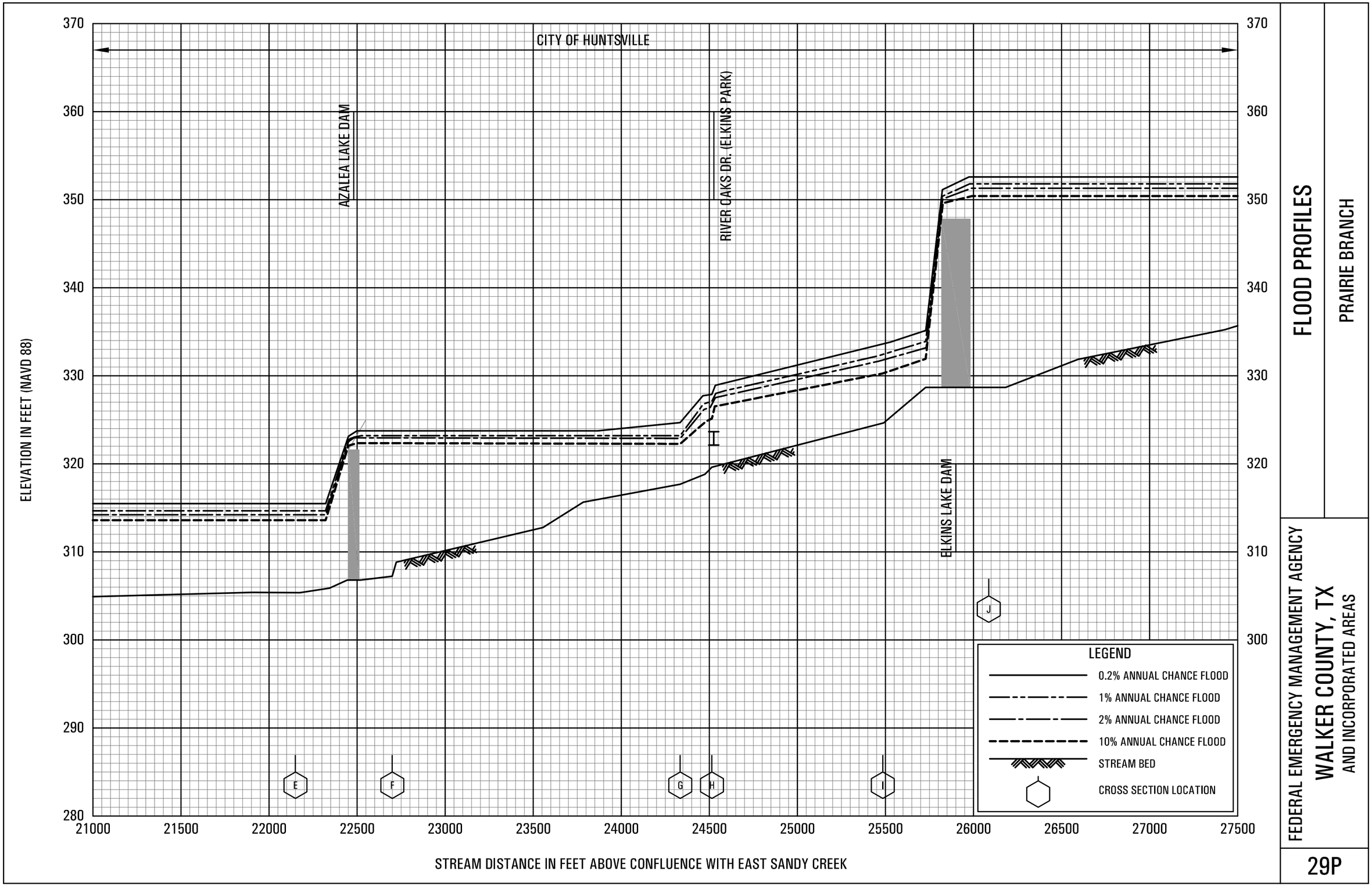
PRARIE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

28P



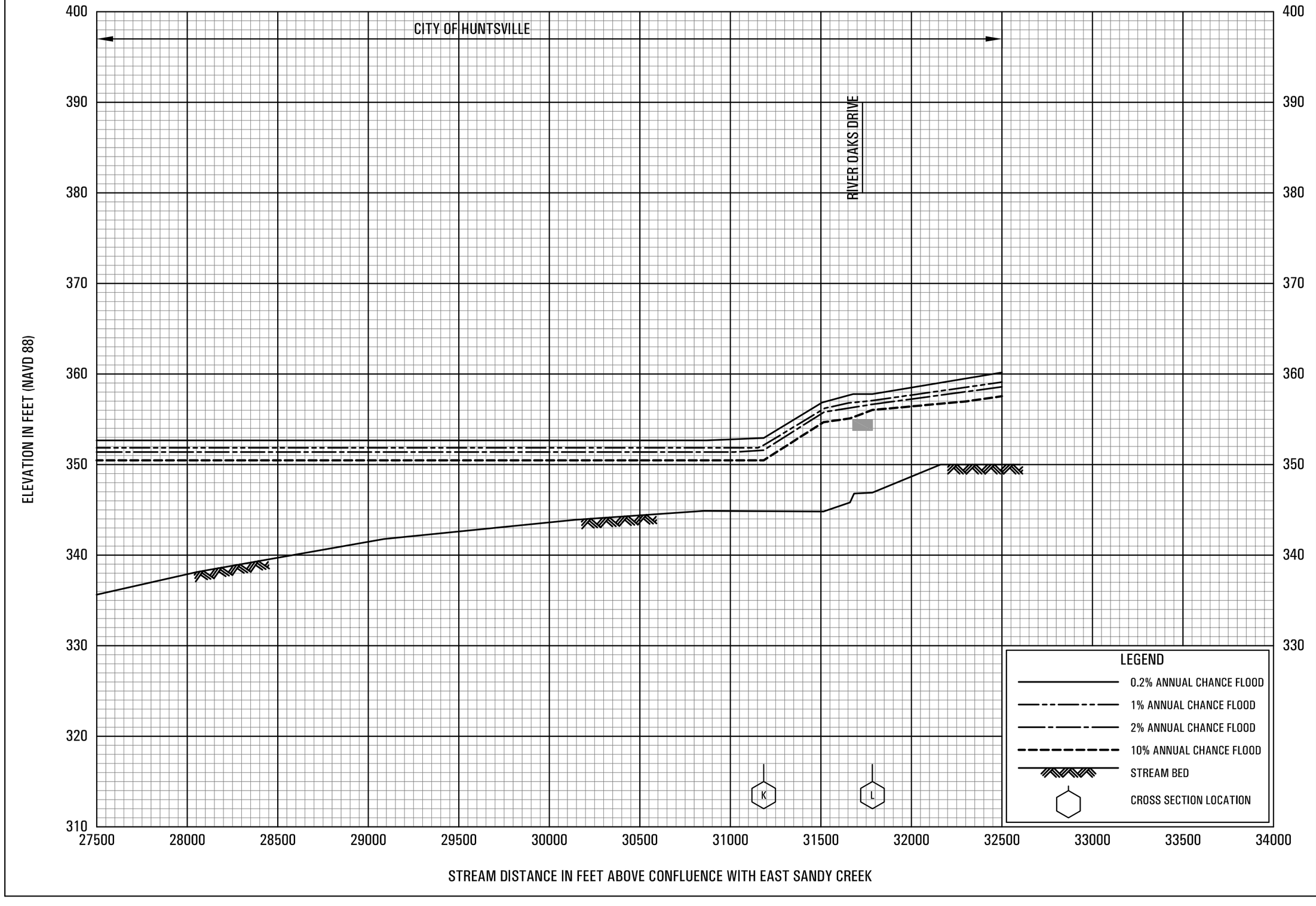
FLOOD PROFILES

PRAIRIE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

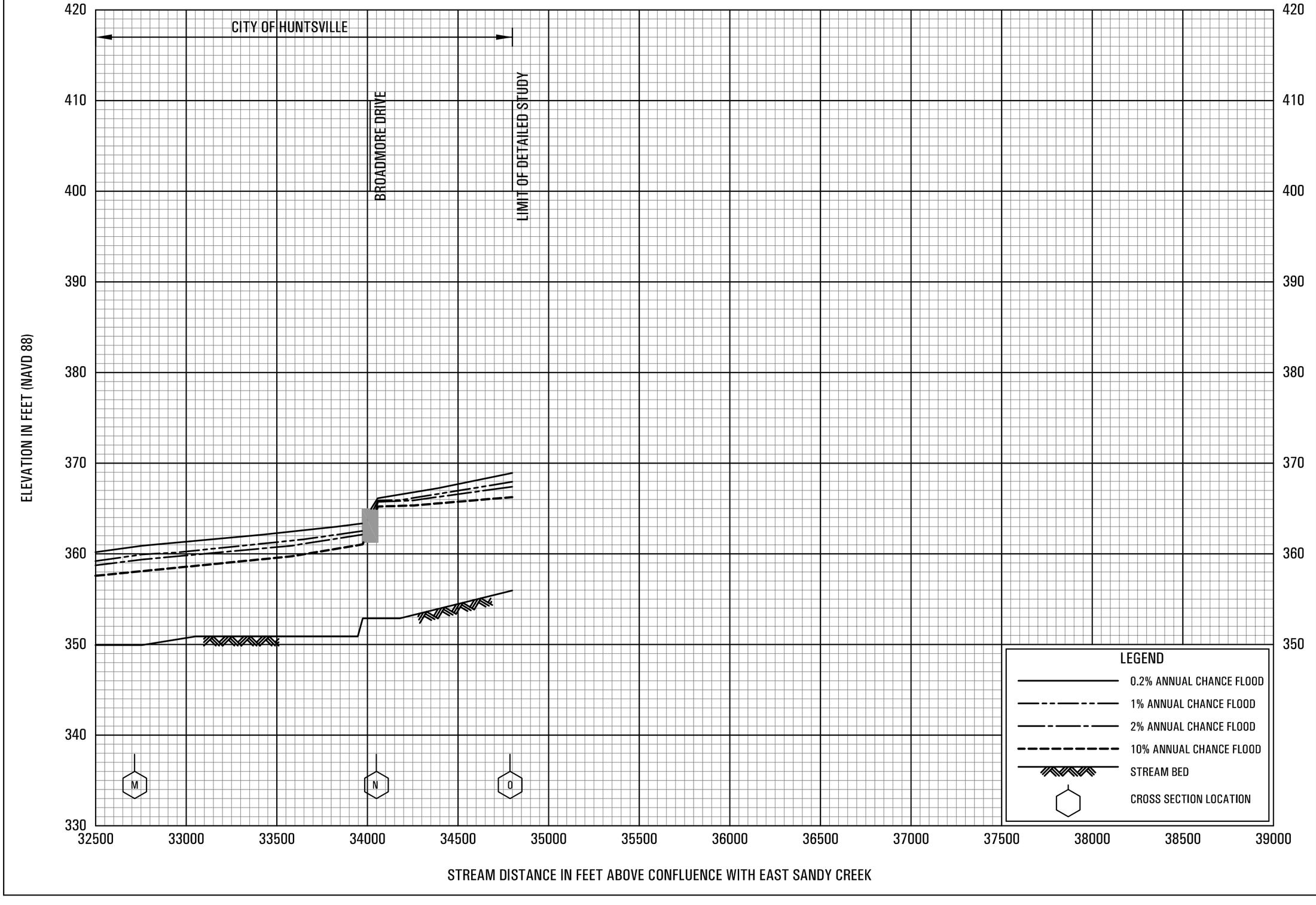
PRAIRIE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

30P



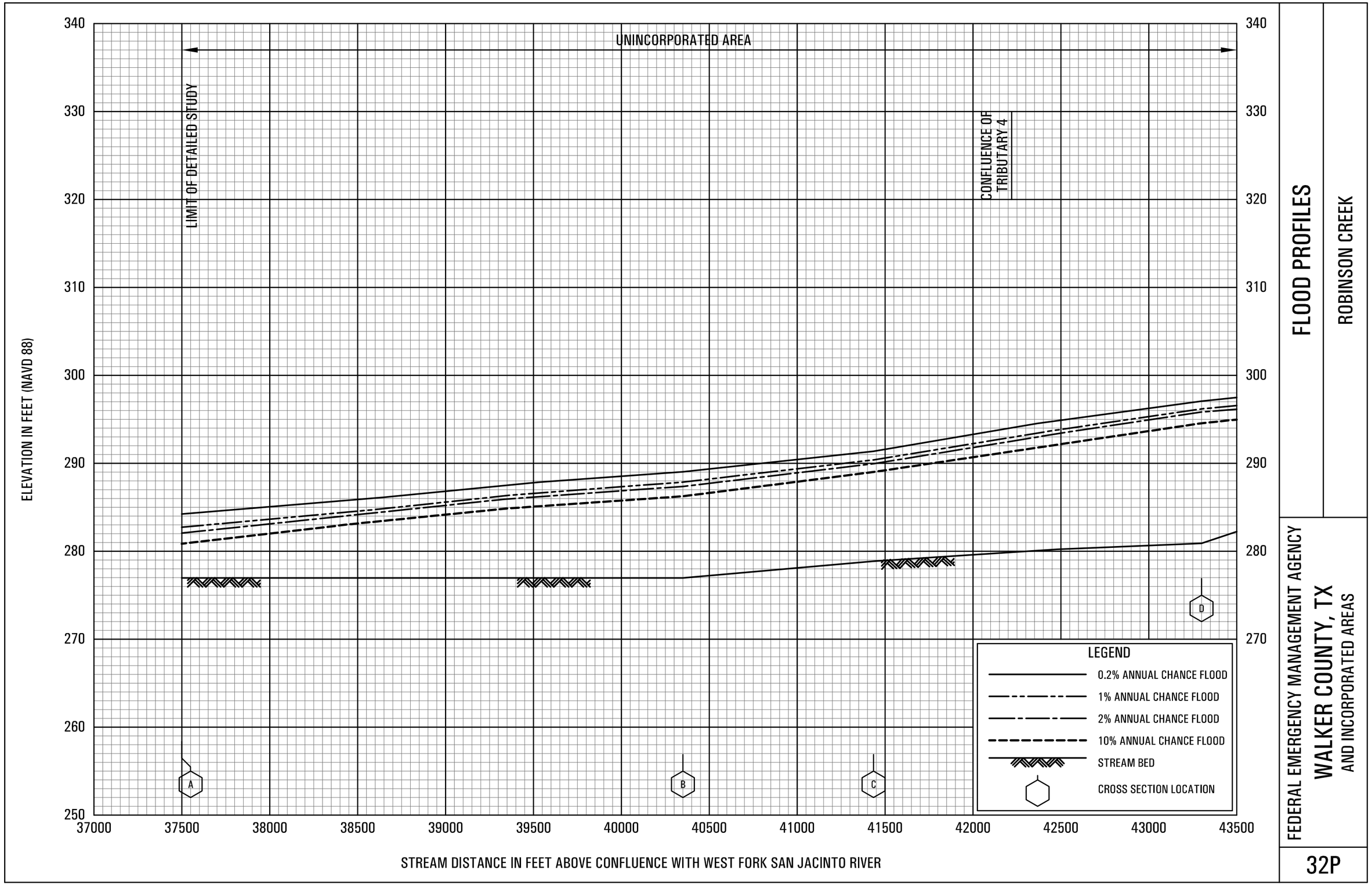
FLOOD PROFILES

PRAIRIE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

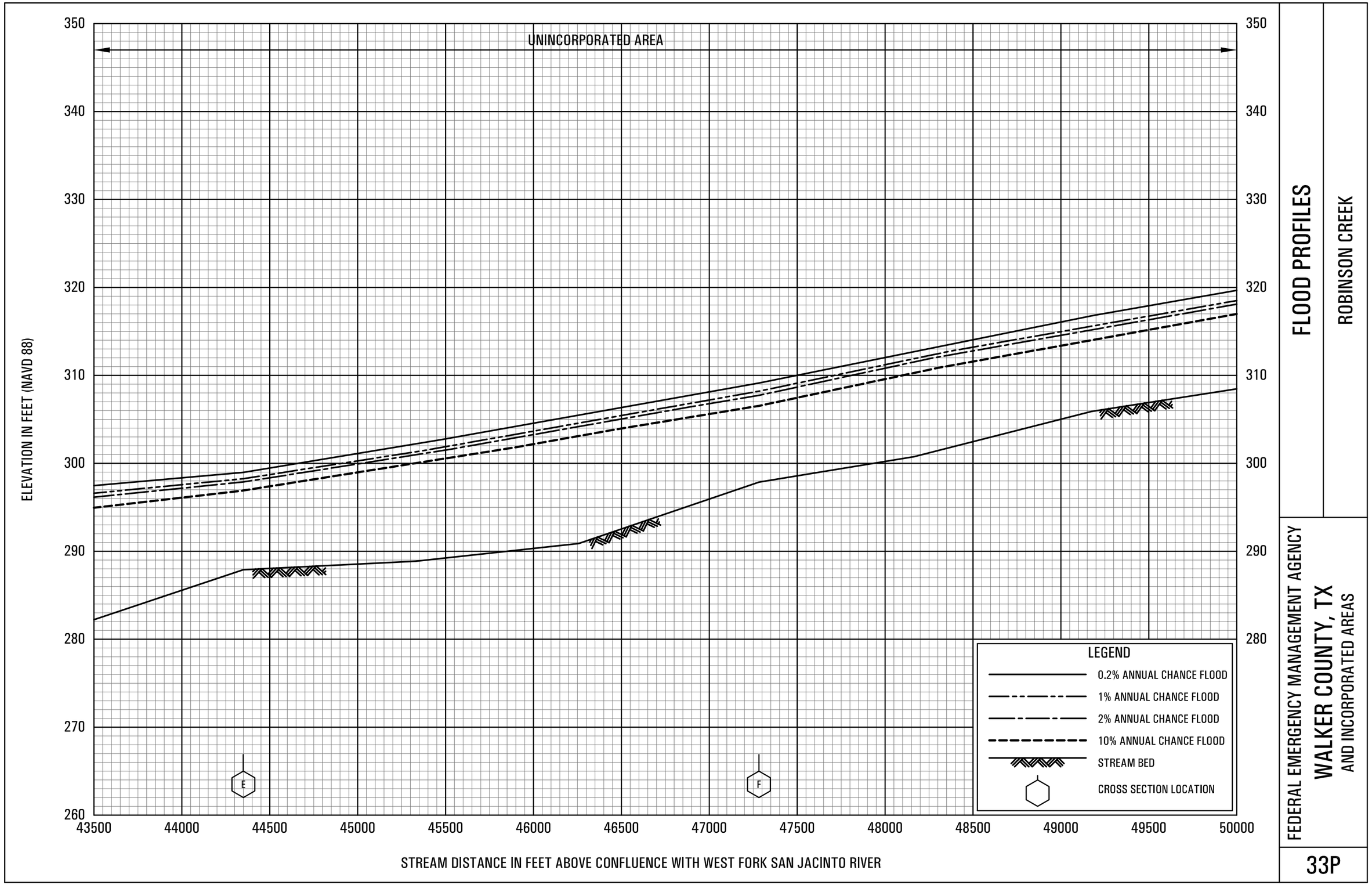
ROBINSON CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

32P



FLOOD PROFILES

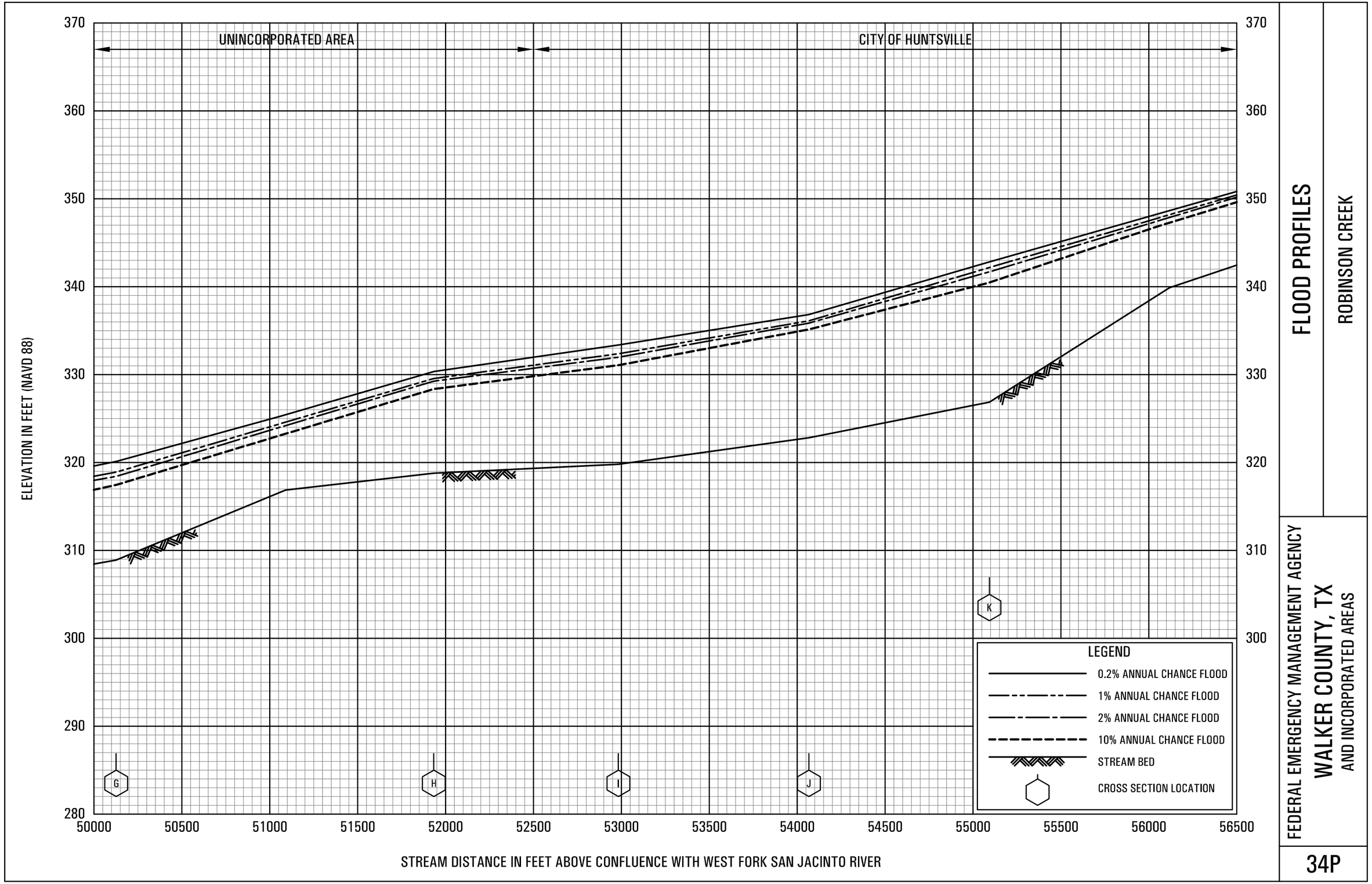
ROBINSON CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

33P



FLOOD PROFILES

ROBINSON CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

34P

CITY OF HUNTSVILLE

LIMIT OF DETAILED STUDY

ELEVATION IN FEET (NAVD 88)

410
400
390
380
370
360
350
340
330
320

56500 57000 57500 58000 58500 59000 59500 60000 60500 61000 61500 62000 62500 63000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH WEST FORK SAN JACINTO RIVER

L

LEGEND

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

FLOOD PROFILES

ROBINSON CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

35P

UNINCORPORATED AREA

LIMIT OF DETAILED STUDY

ELEVATION IN FEET (NAVD 88)

370
360
350
340
330
320
310
300
290
280

3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH MAYS CREEK

A
B
C

LEGEND

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

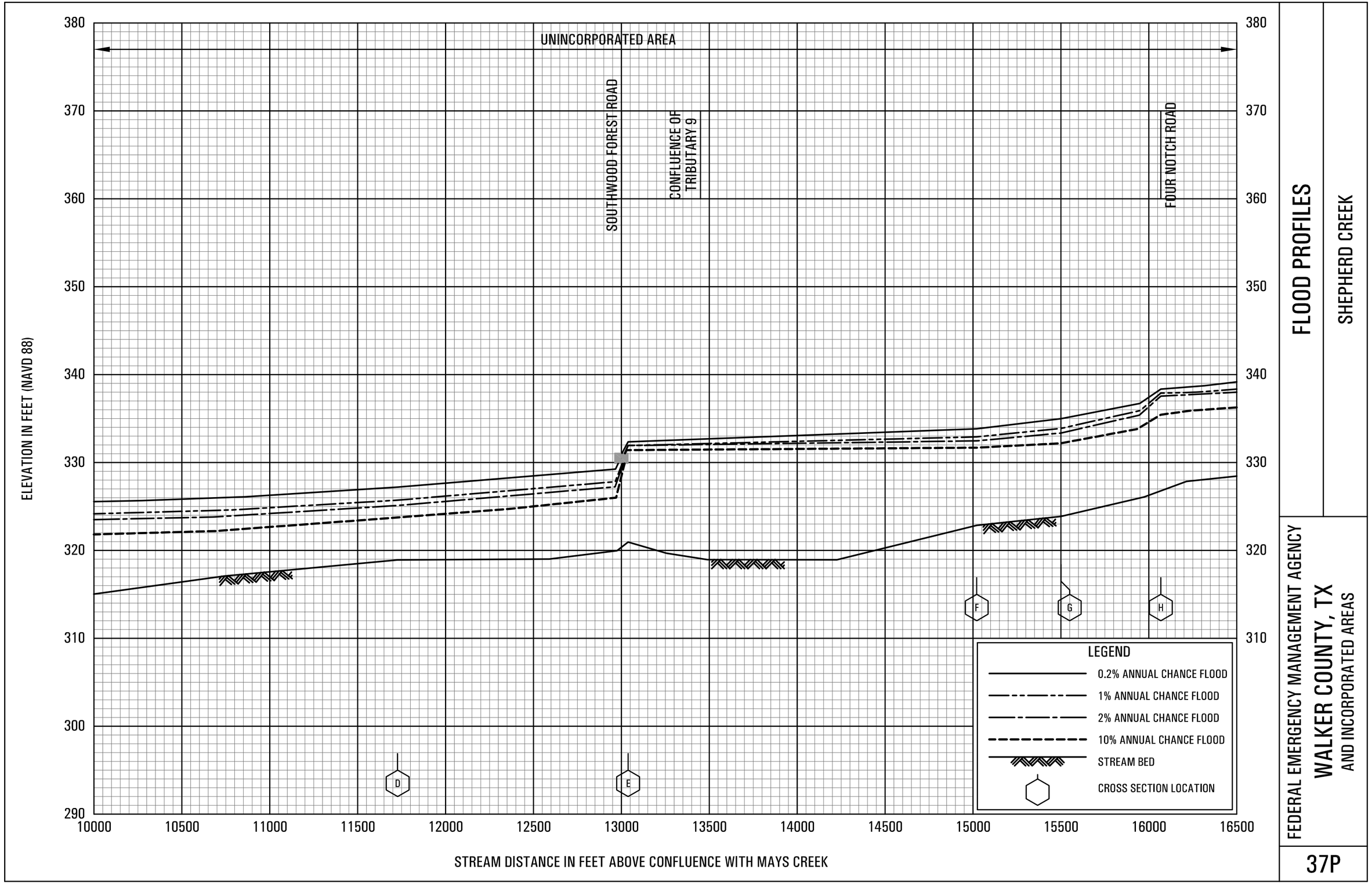
FLOOD PROFILES

SHEPHERD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

SHEPHERD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

UNINCORPORATED AREA

ELEVATION IN FEET (NAVD 88)

400
390
380
370
360
350
340
330
320
310

16500 17000 17500 18000 18500 19000 19500 20000 20500 21000 21500 22000 22500 23000

STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH MAYS CREEK

I J K

LEGEND

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

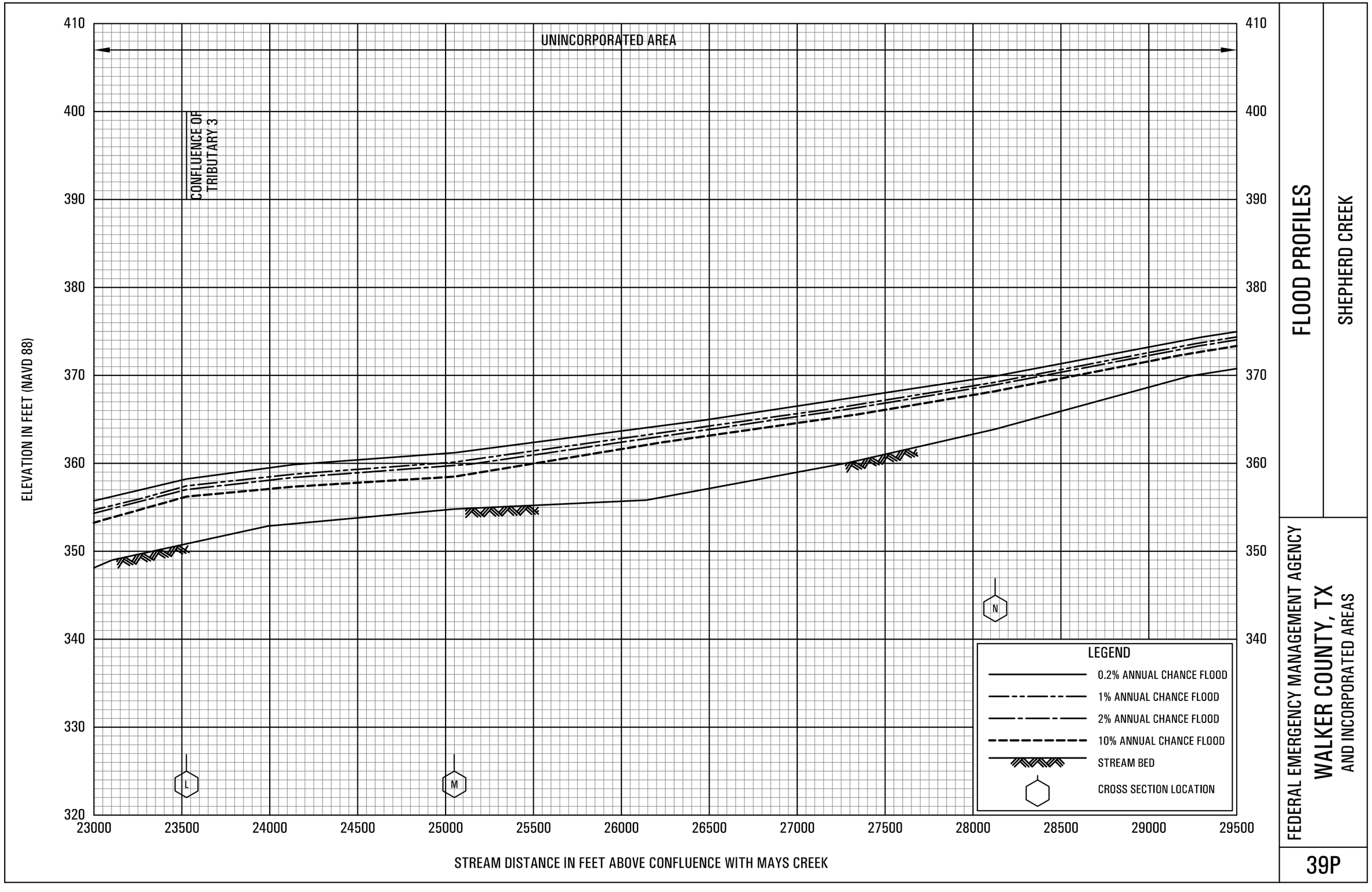
FLOOD PROFILES

SHEPHERD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

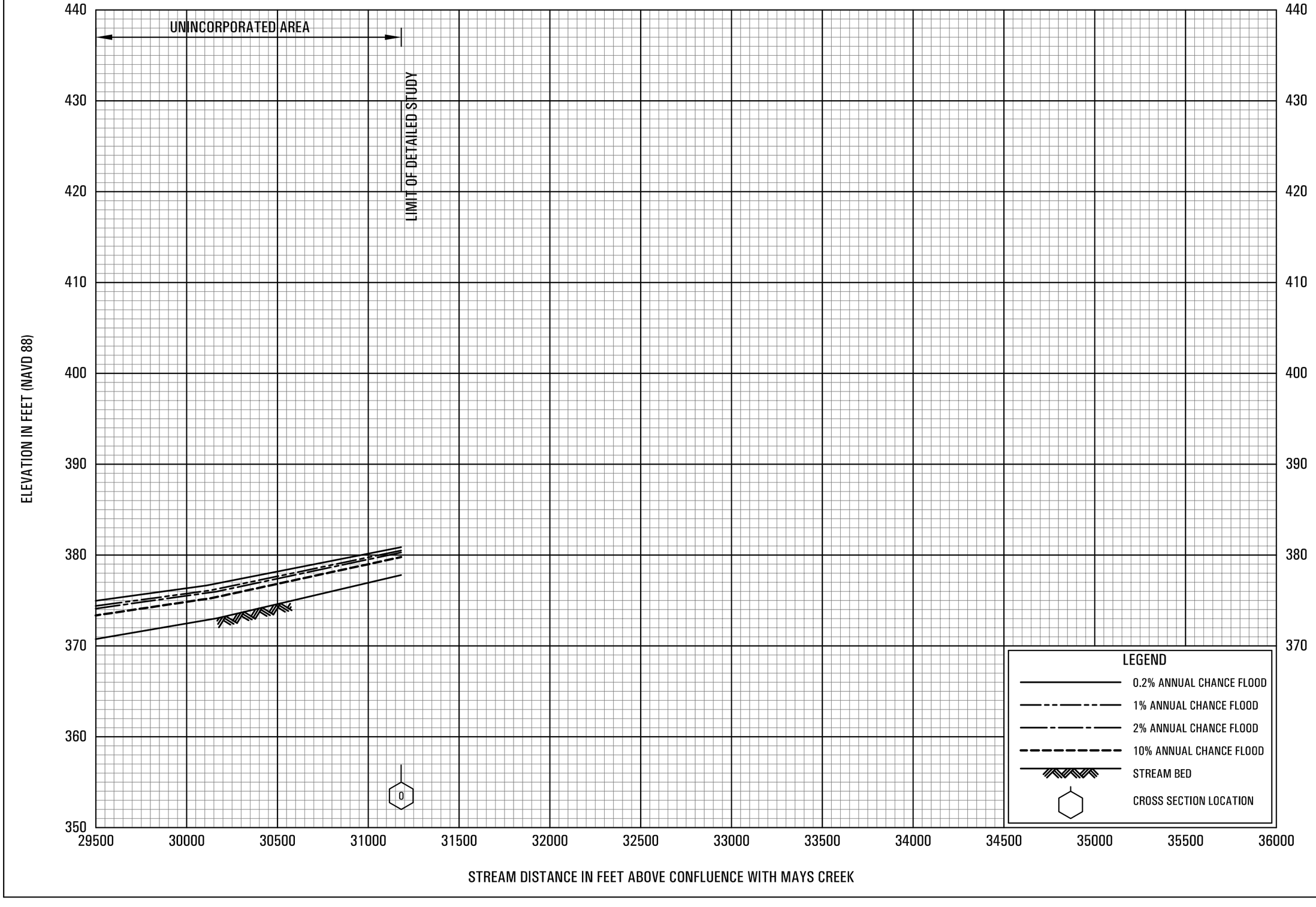
SHEPHERD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

39P



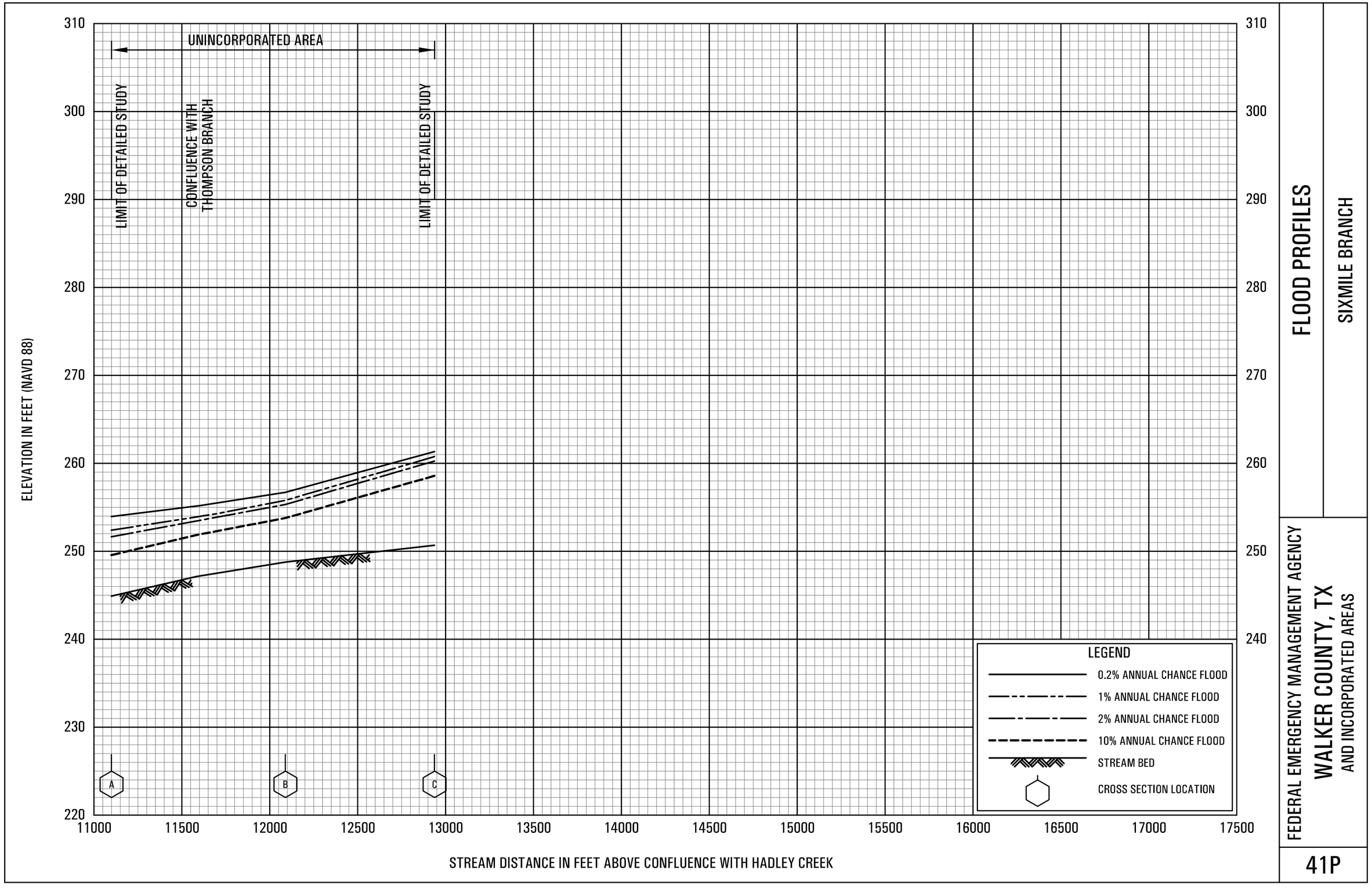
FLOOD PROFILES

SHEPHERD CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



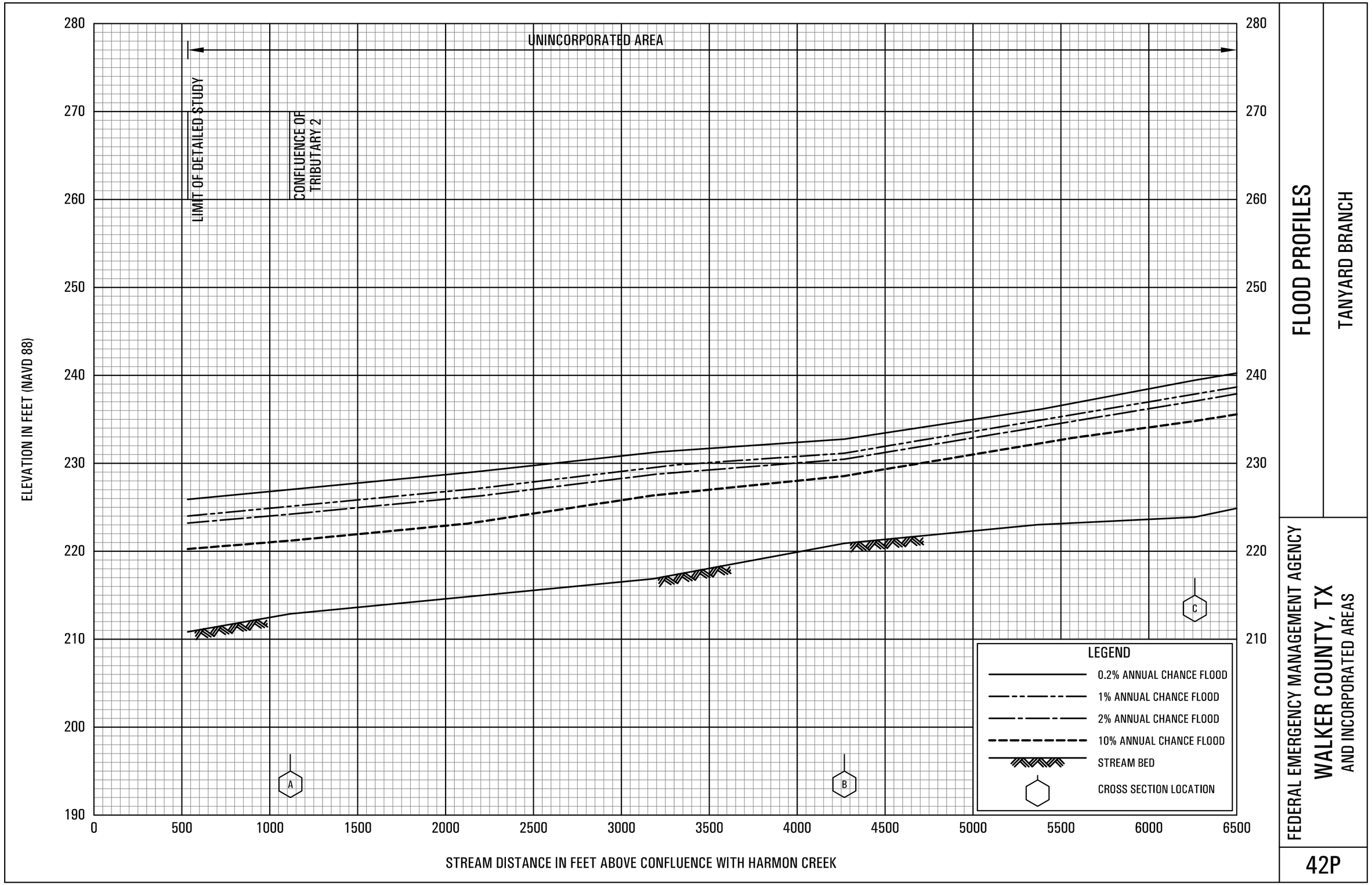
FLOOD PROFILES

SIXMILE BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



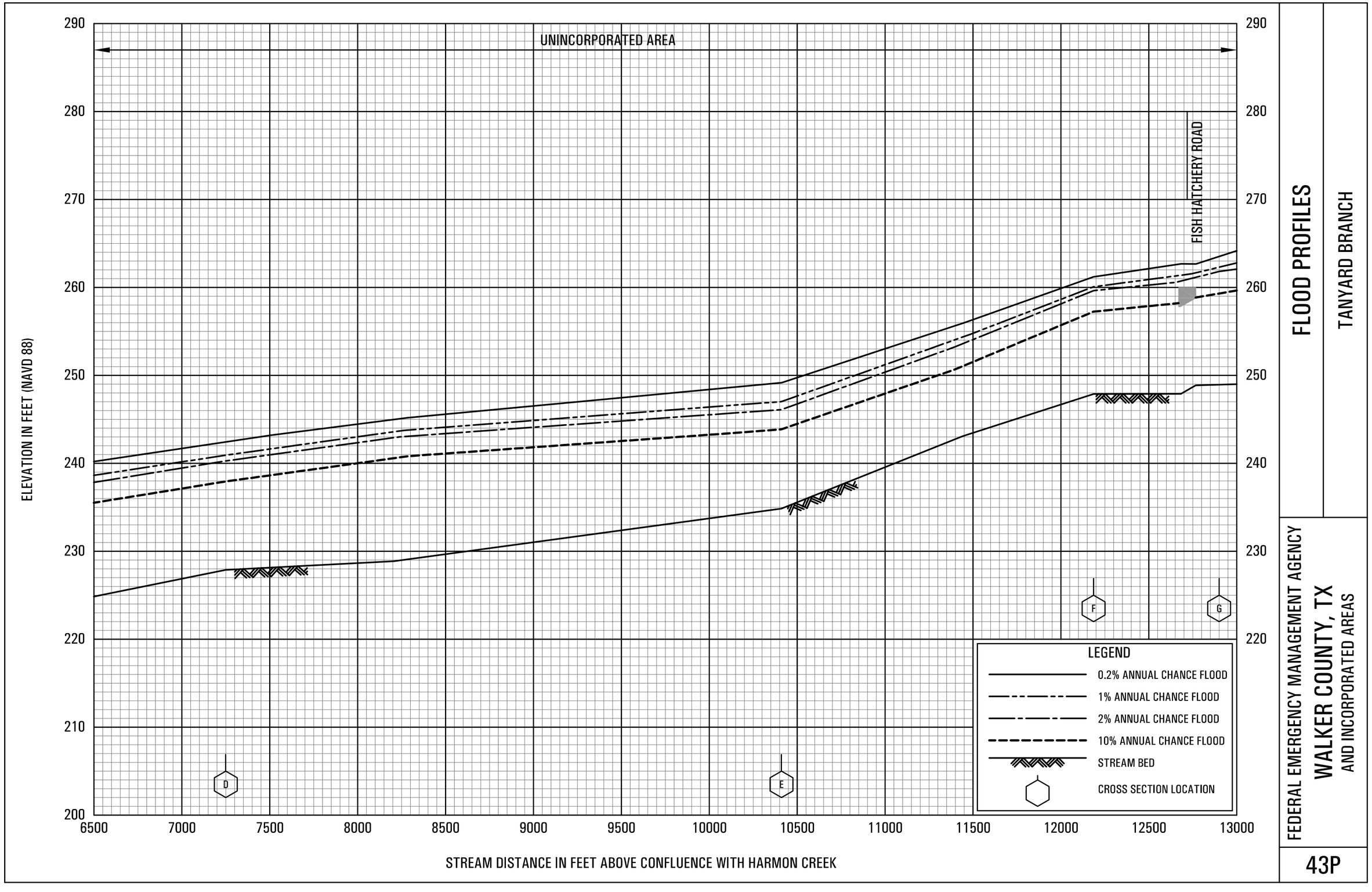
FLOOD PROFILES

TANYARD BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



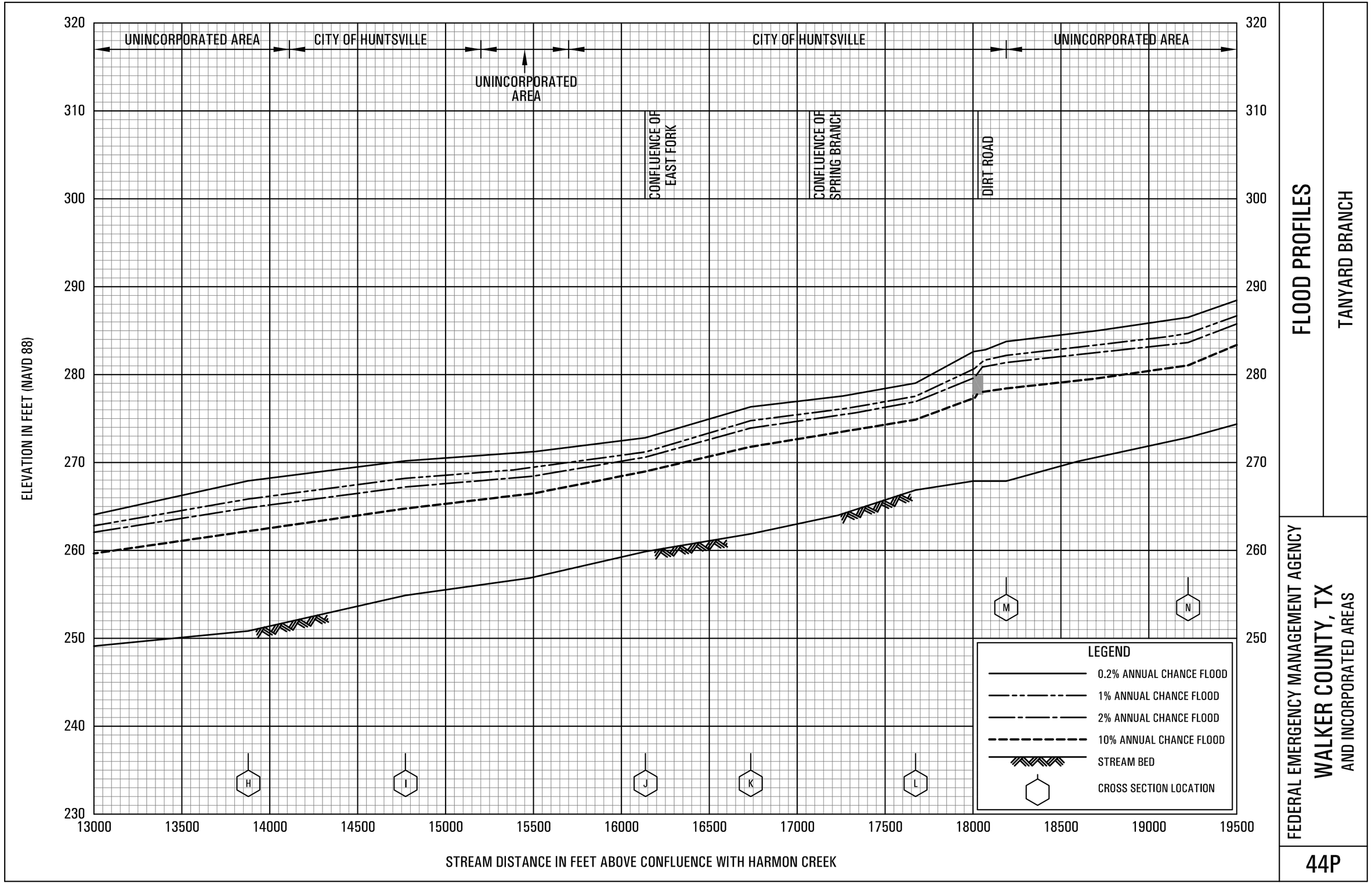
FLOOD PROFILES

TANYARD BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



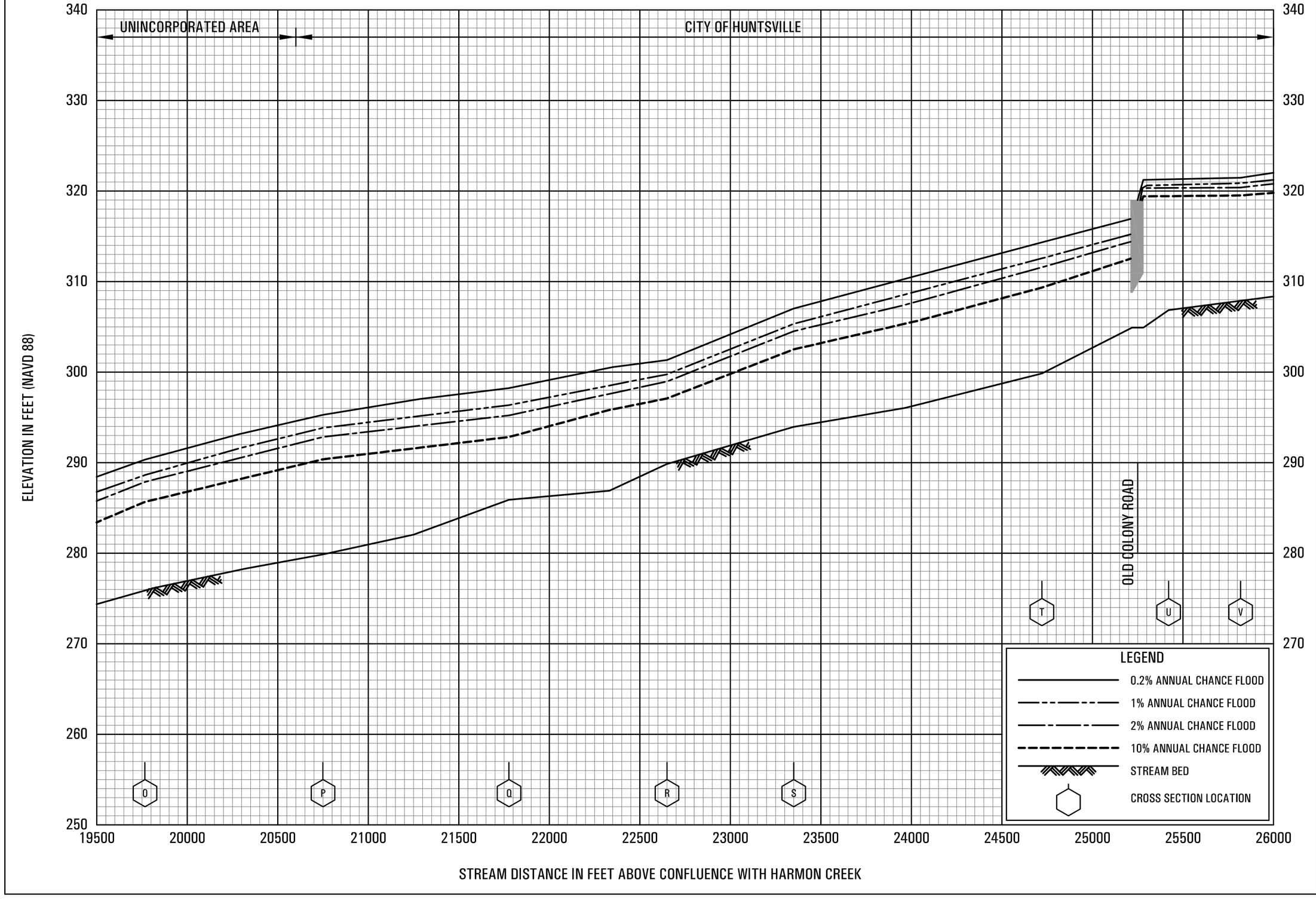
FLOOD PROFILES

TANYARD BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



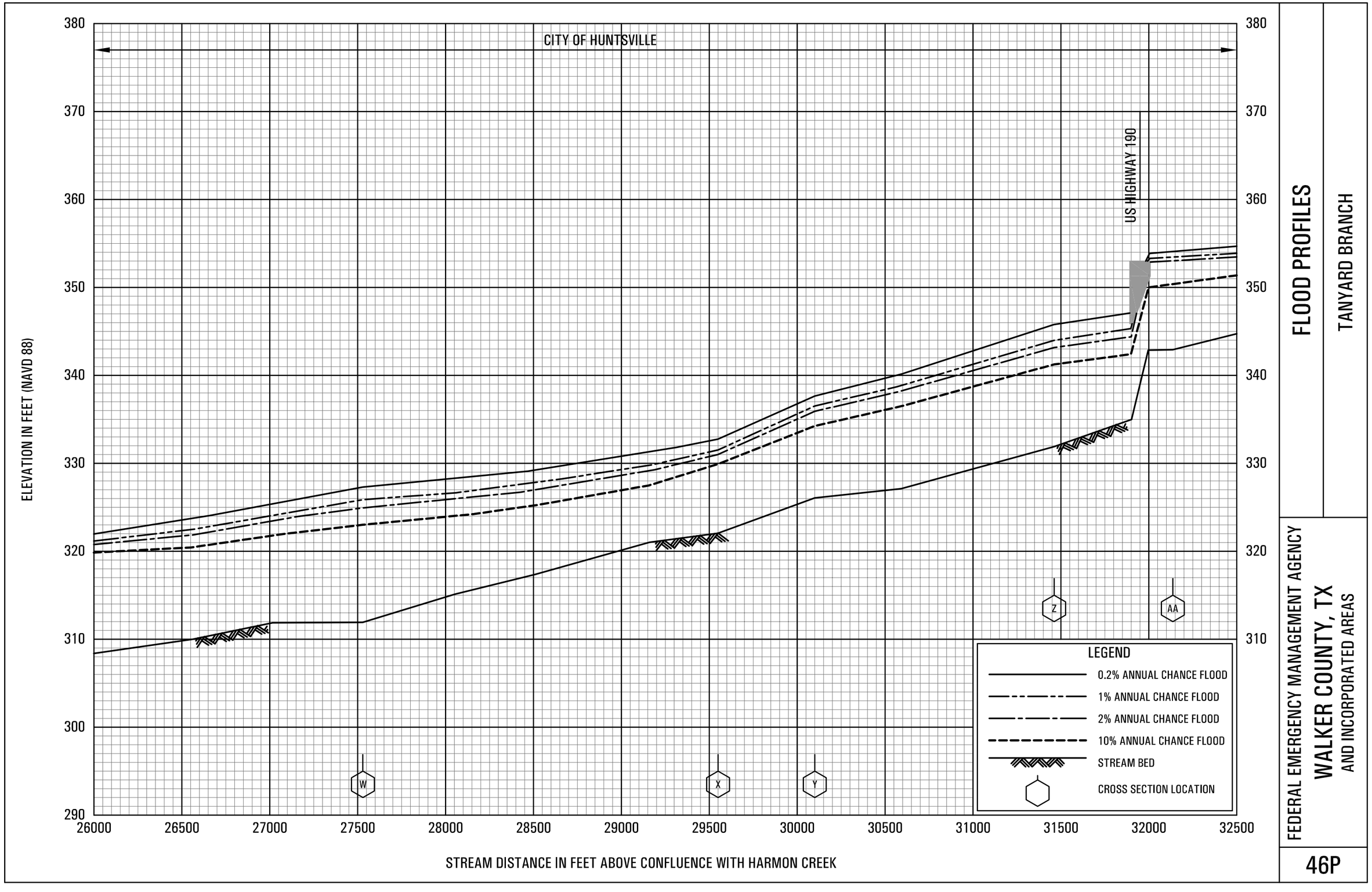
FLOOD PROFILES

TANYARD BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



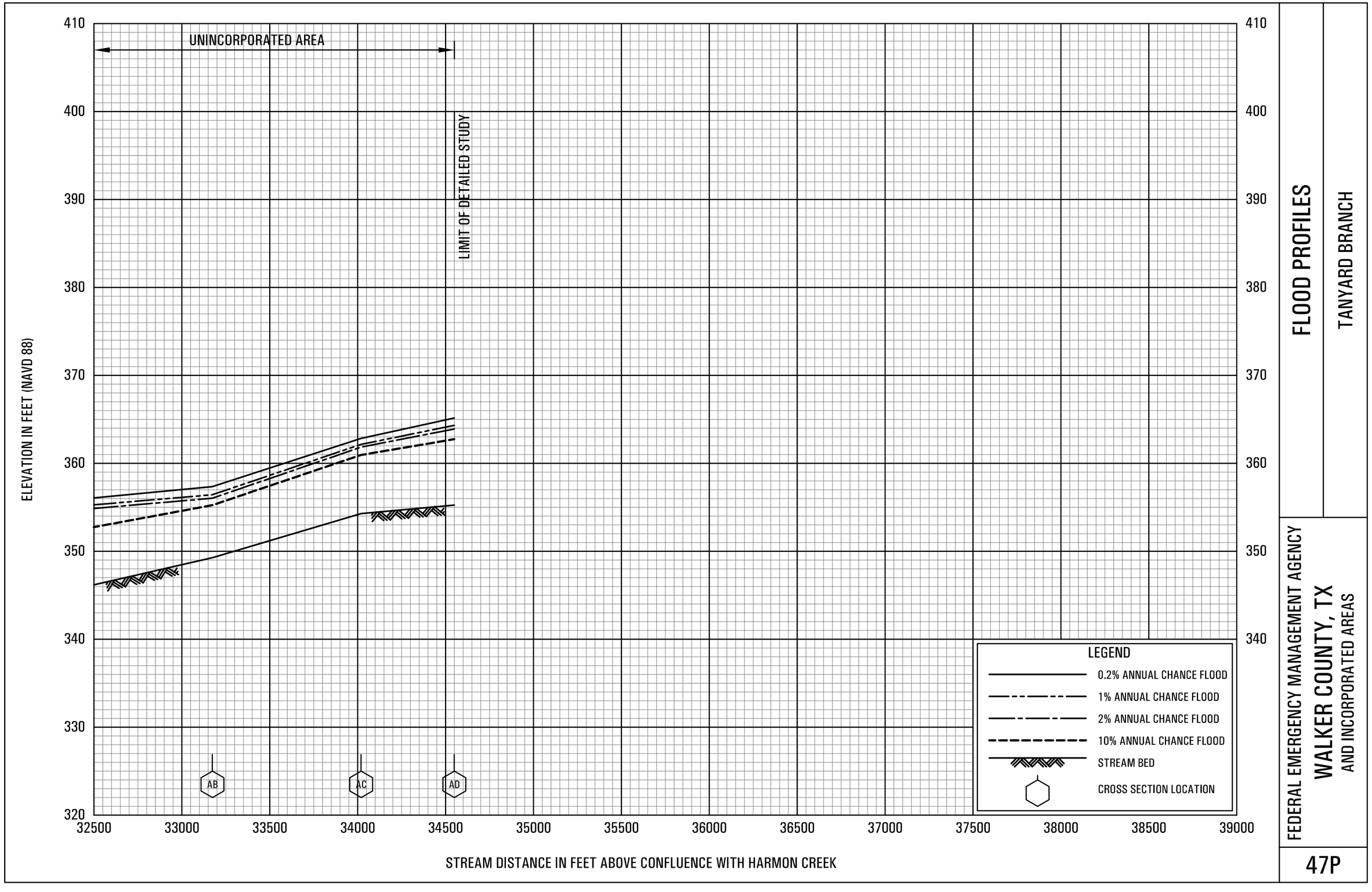
FLOOD PROFILES

TANYARD BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



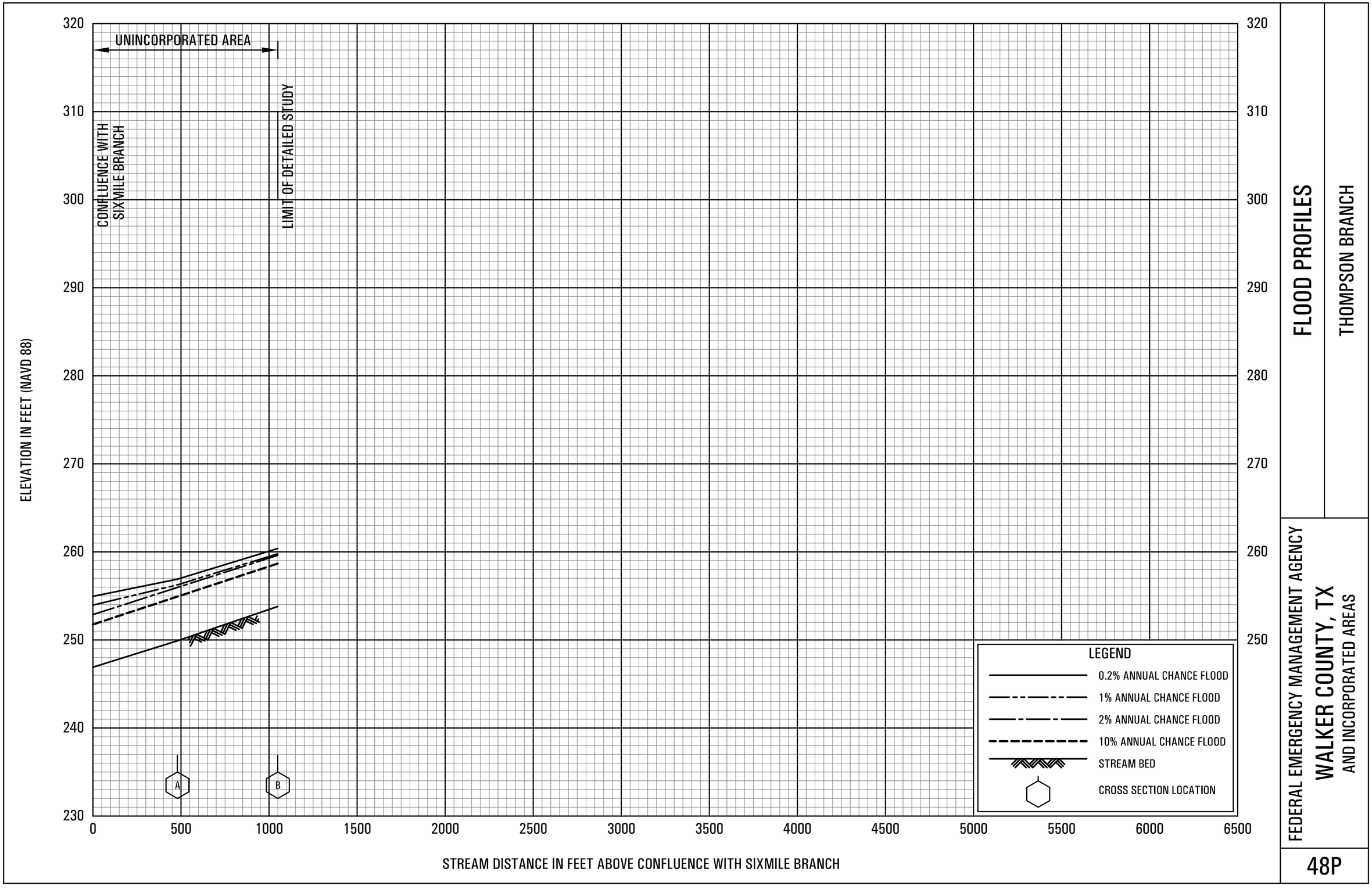
FLOOD PROFILES

TANYARD BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



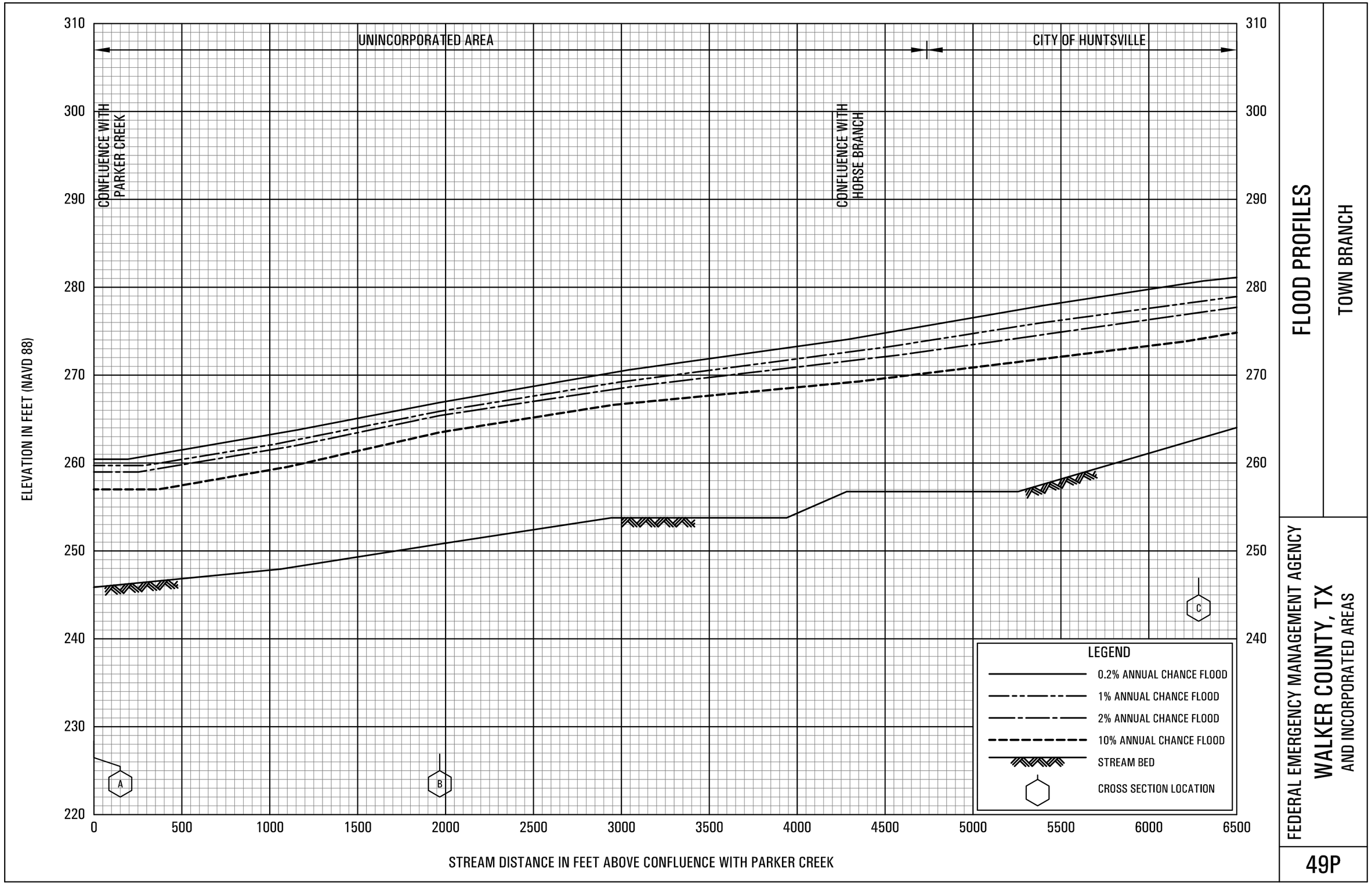
FLOOD PROFILES

THOMPSON BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



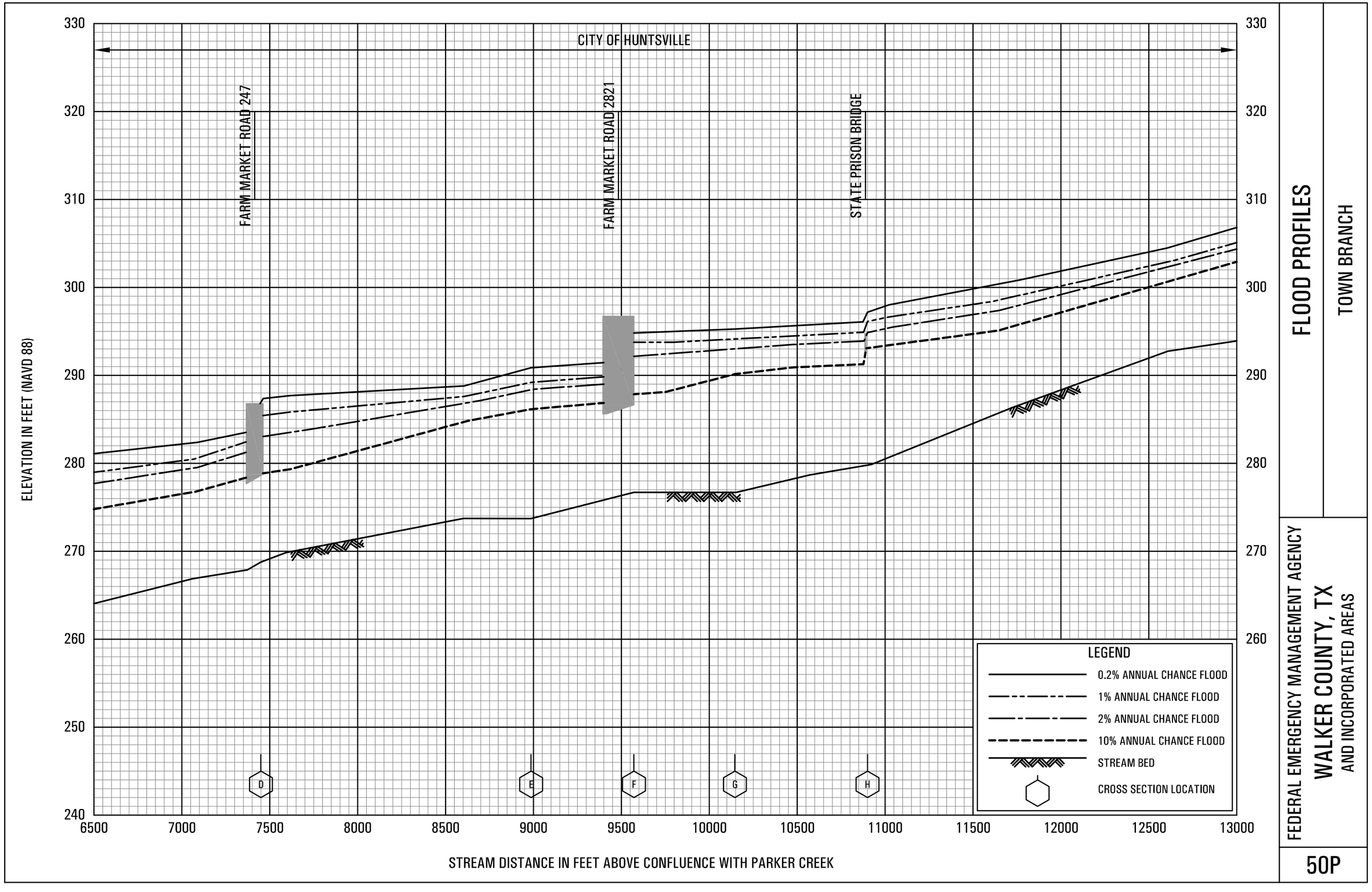
FLOOD PROFILES

TOWN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX
AND INCORPORATED AREAS

49P



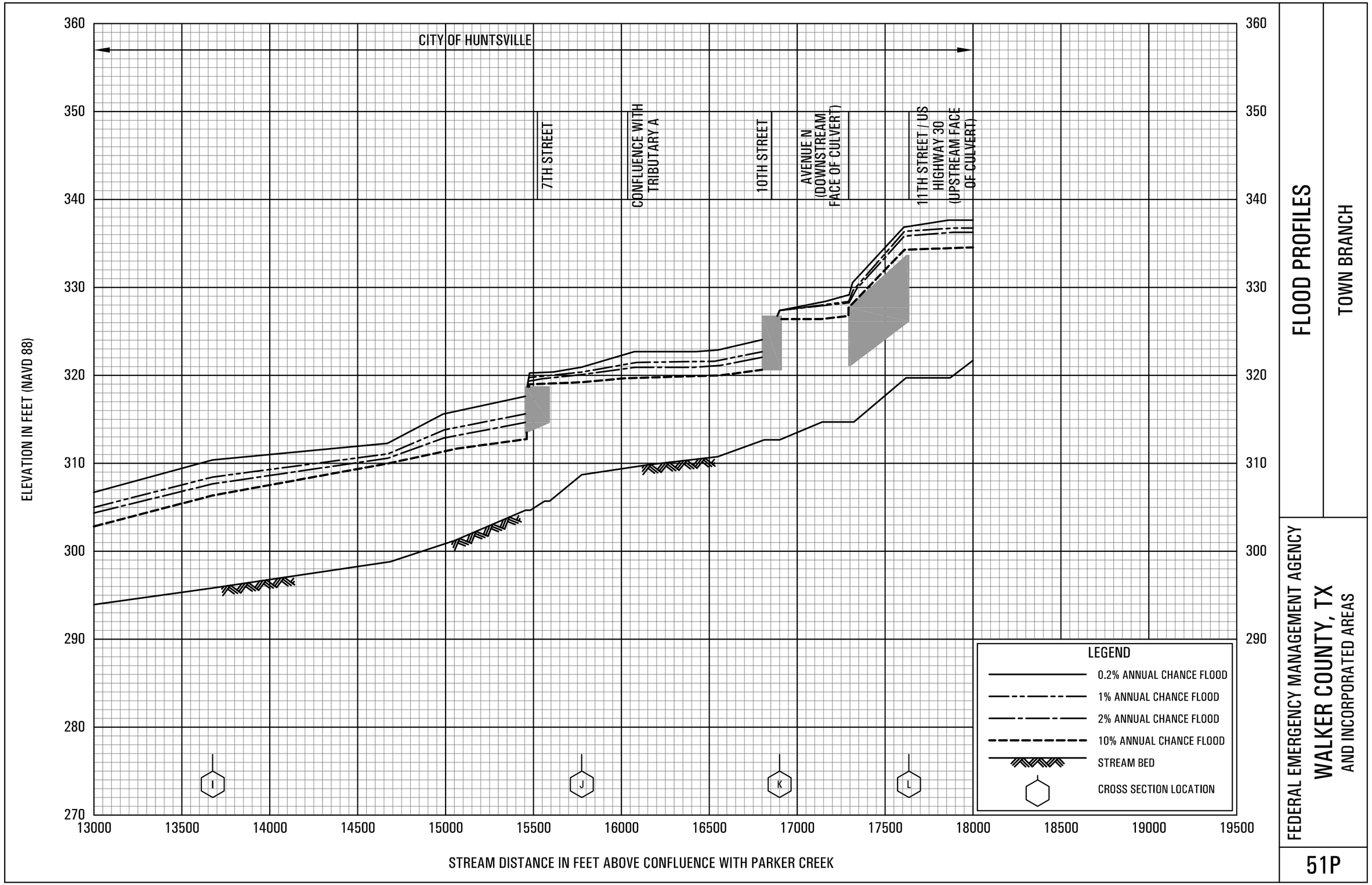
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TOWN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



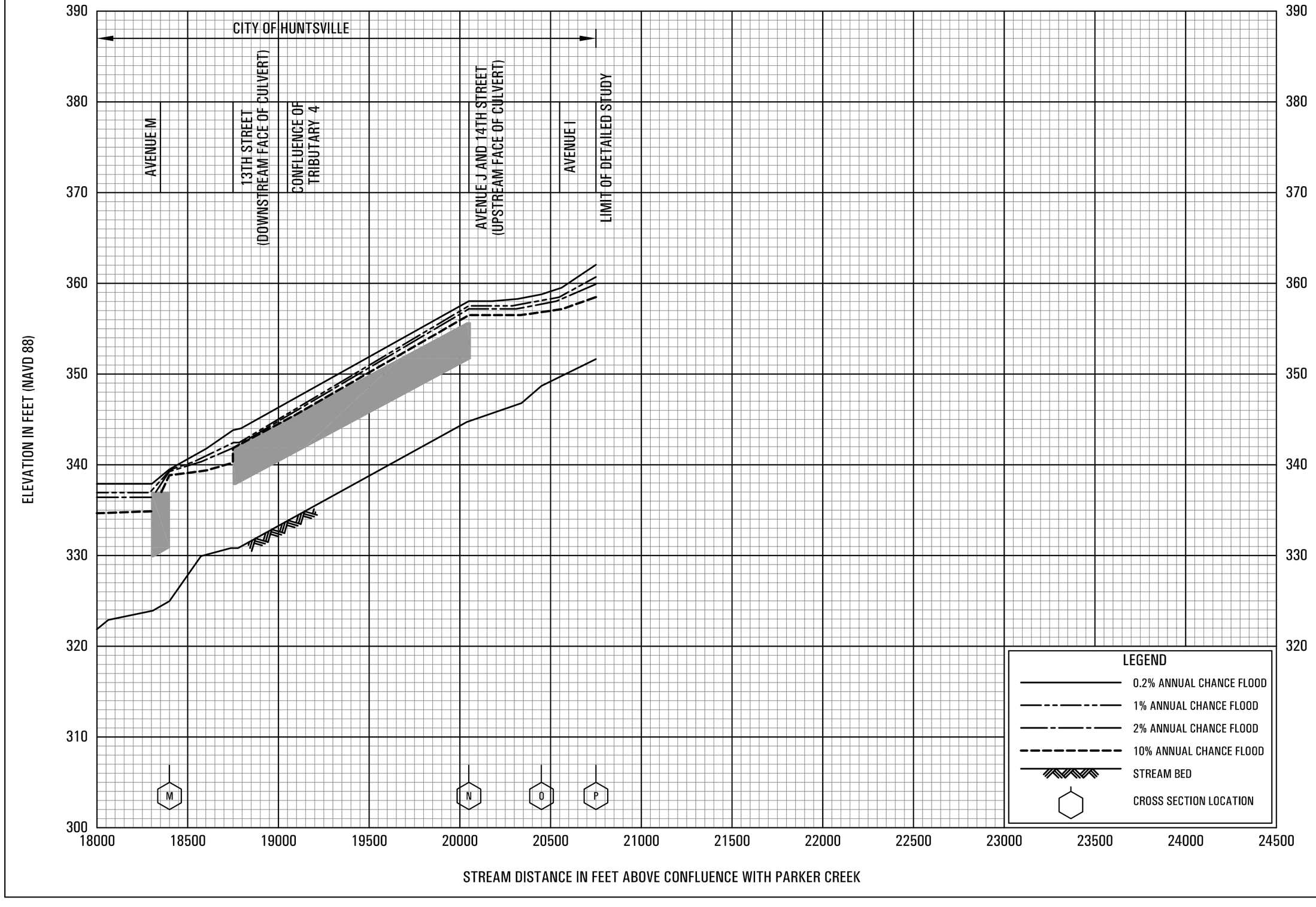
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TOWN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



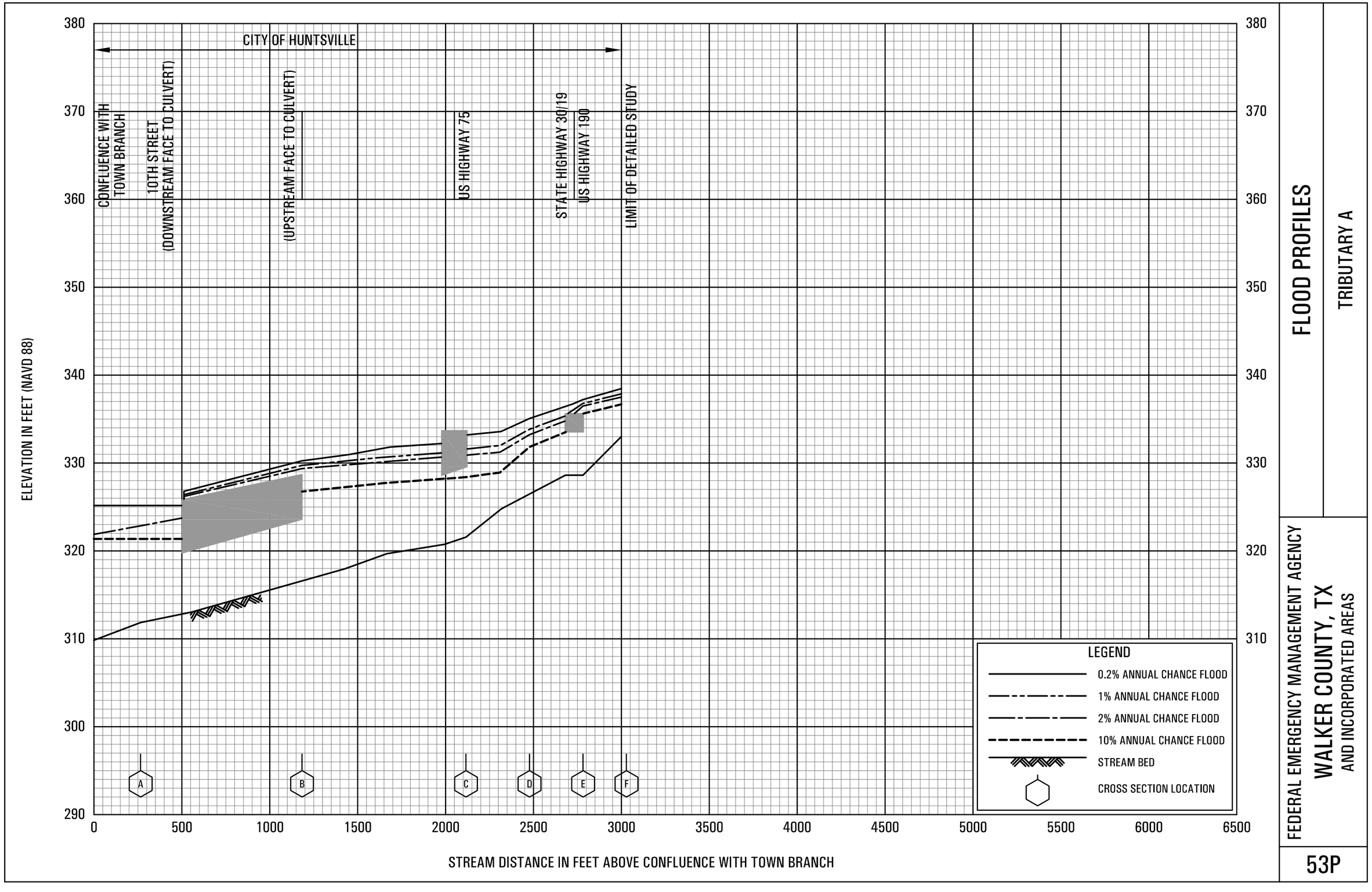
FLOOD PROFILES

TOWN BRANCH

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



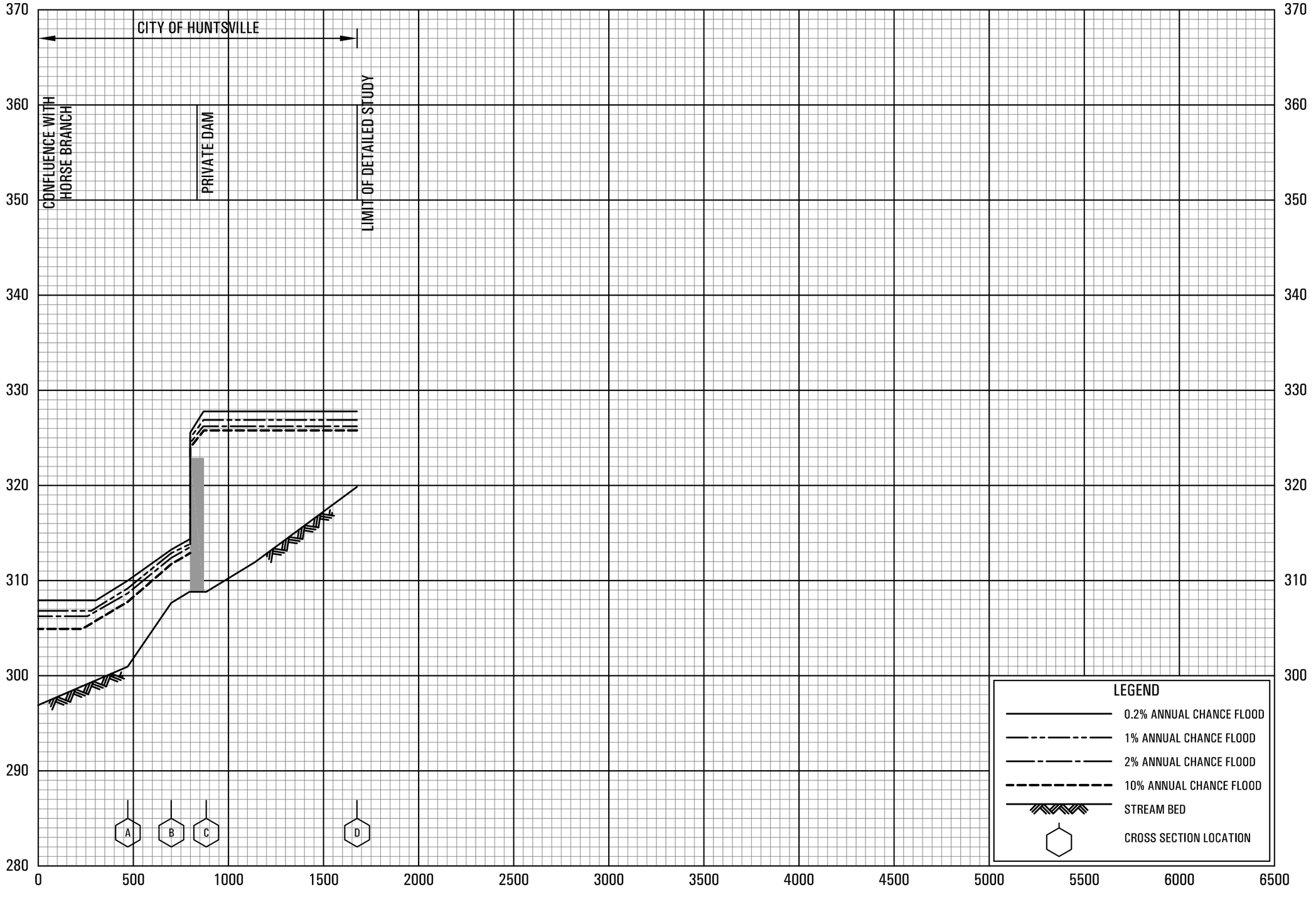
FLOOD PROFILES

TRIBUTARY A

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



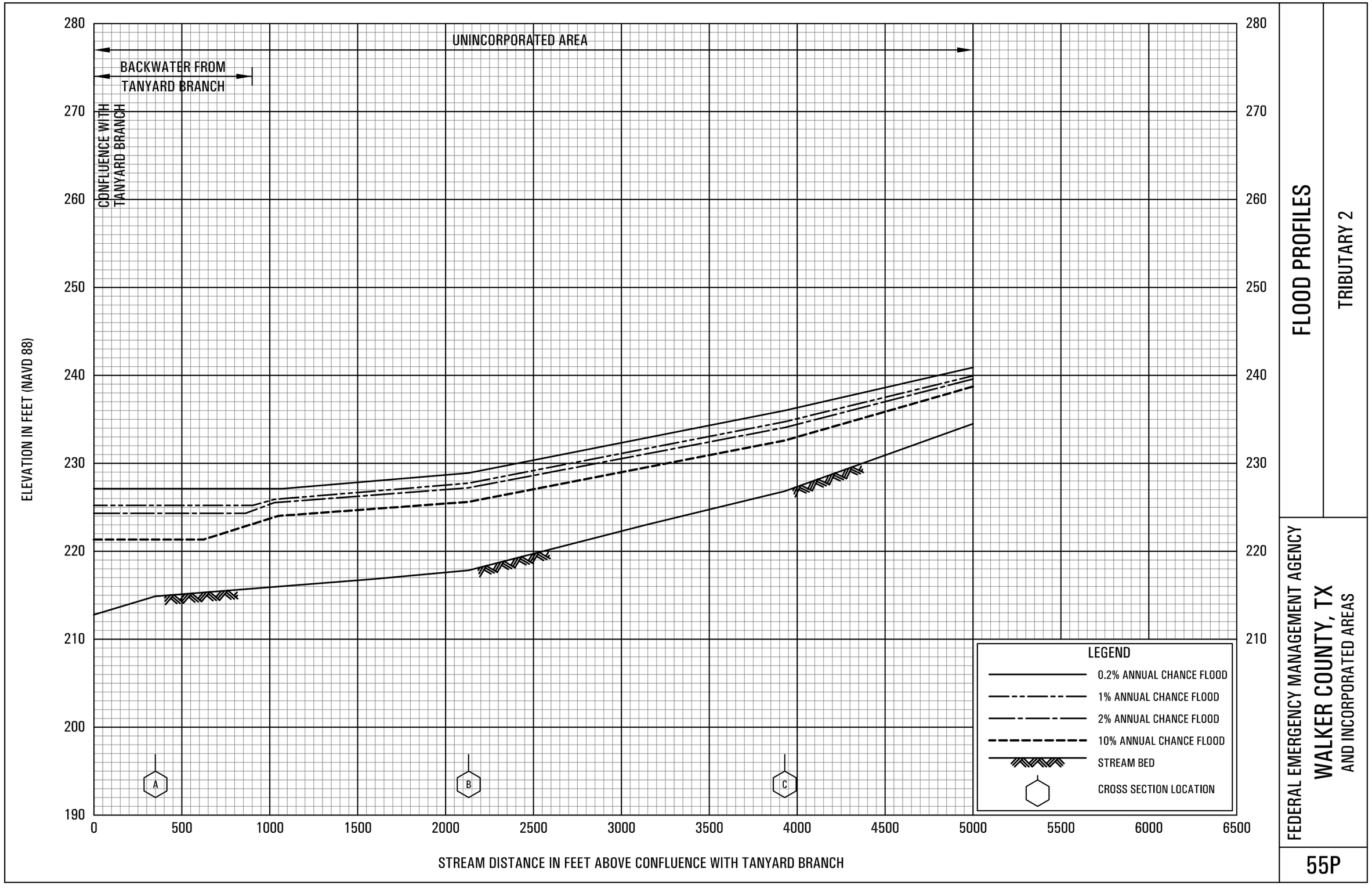
FLOOD PROFILES

TRIBUTARY B

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



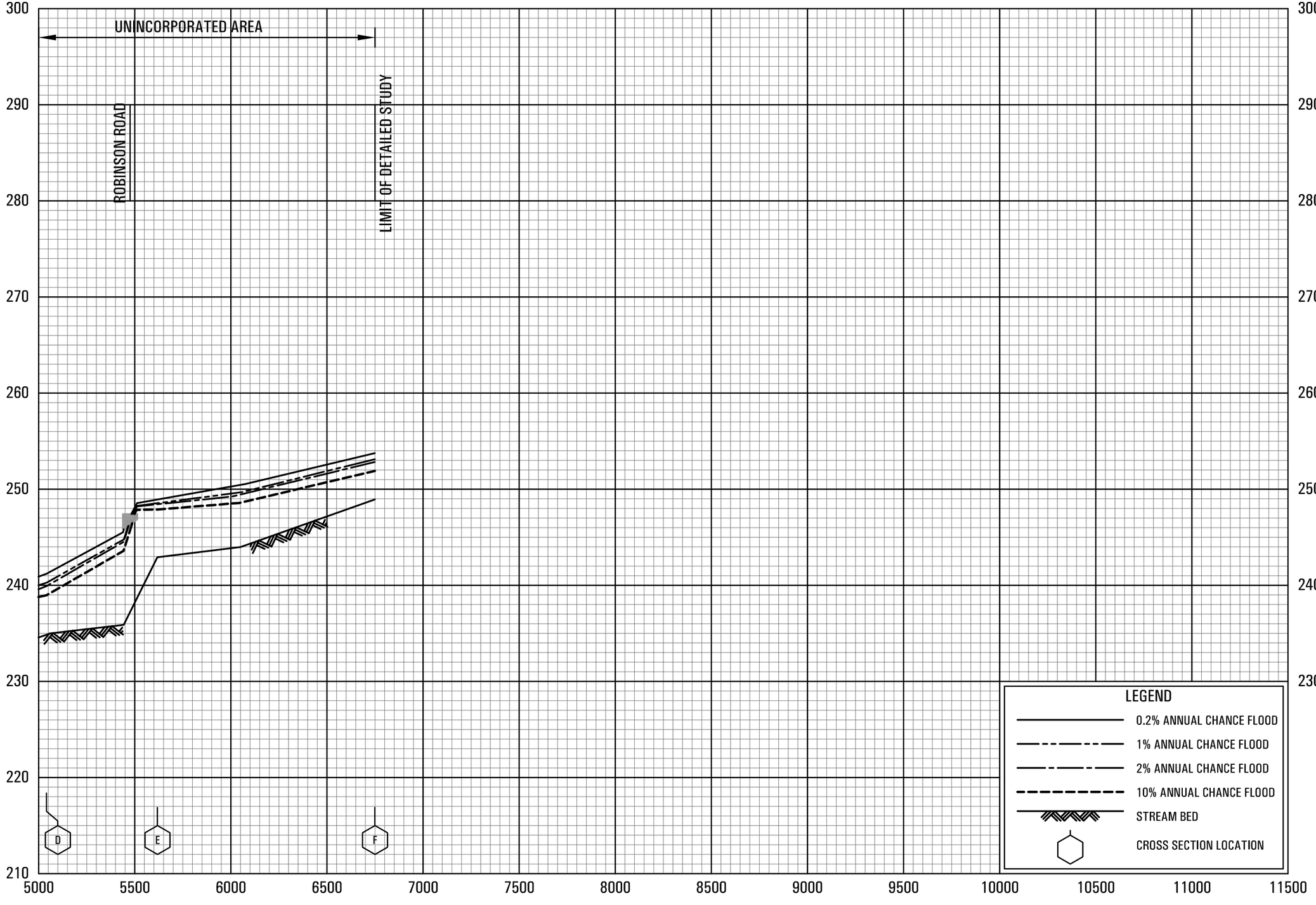
FLOOD PROFILES

TRIBUTARY 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



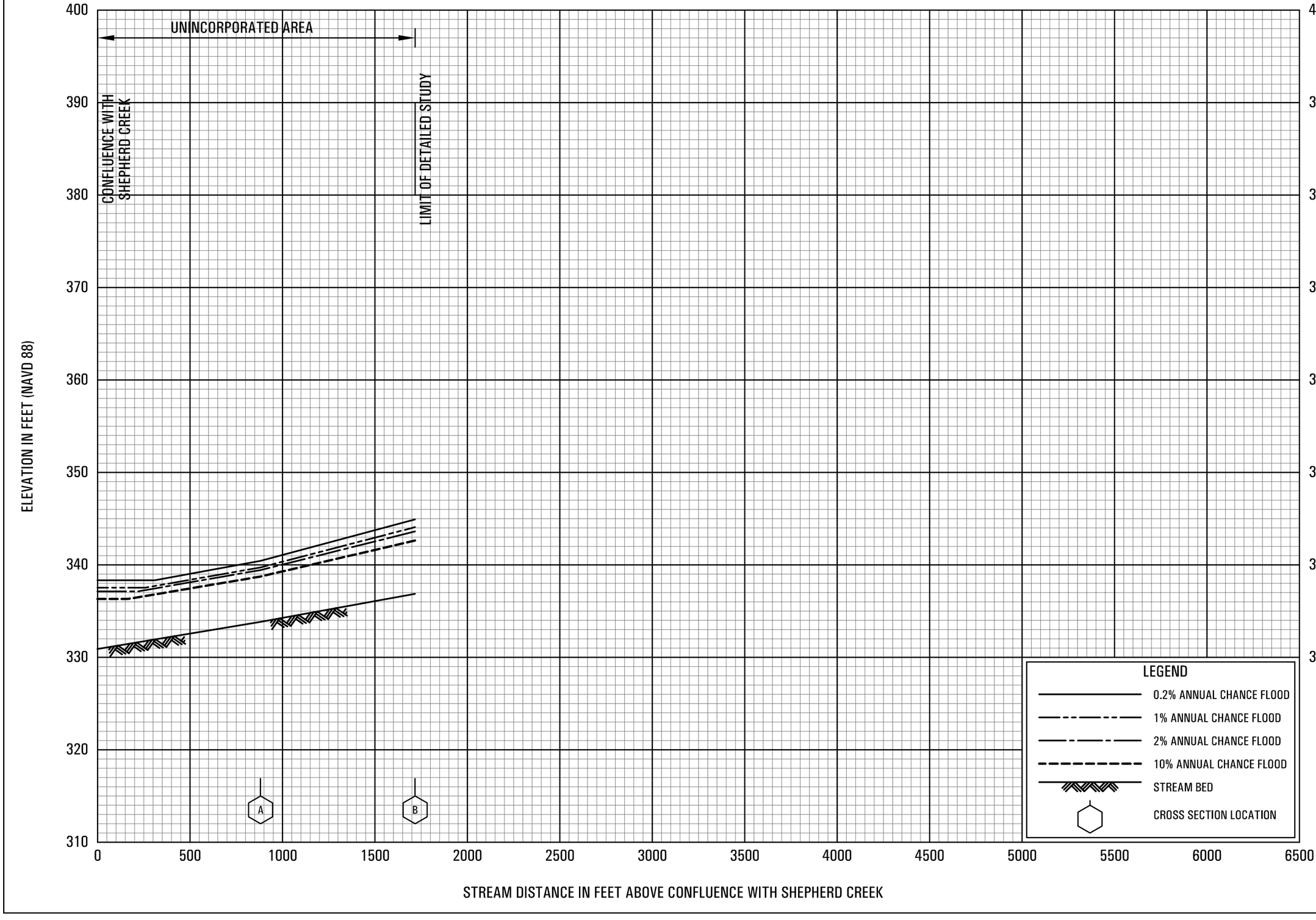
FLOOD PROFILES

TRIBUTARY 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



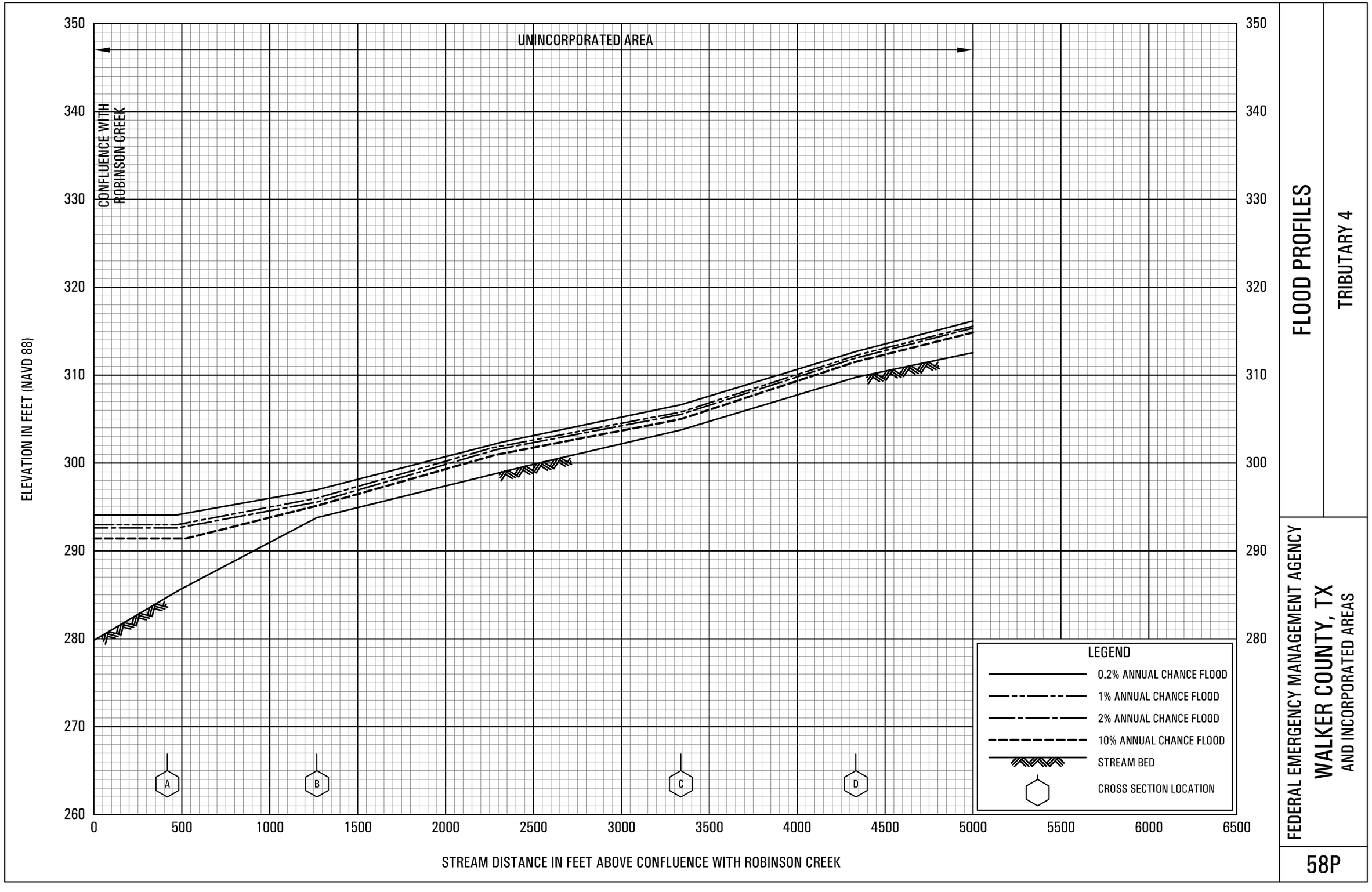
FLOOD PROFILES

TRIBUTARY 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



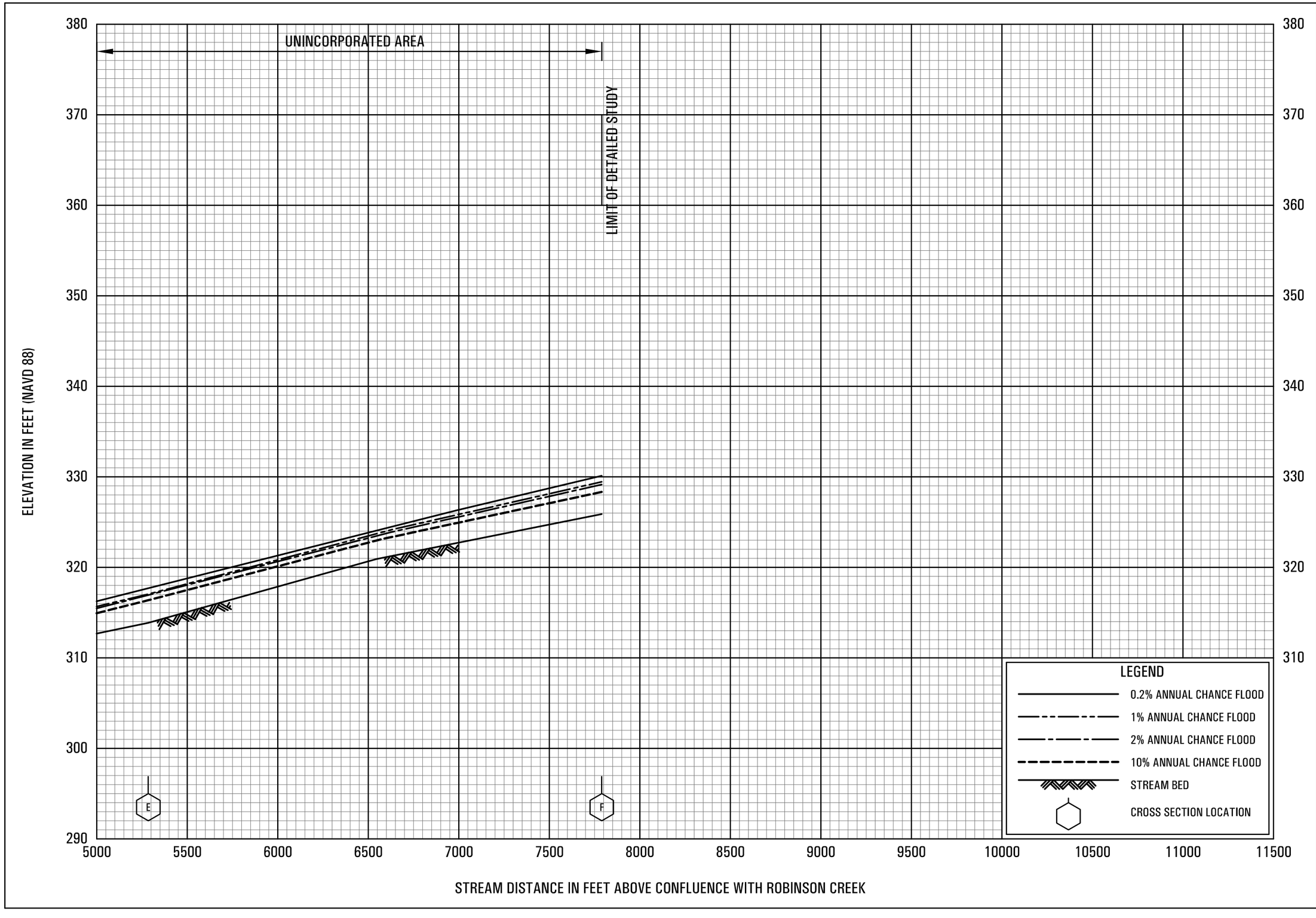
FLOOD PROFILES

TRIBUTARY 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



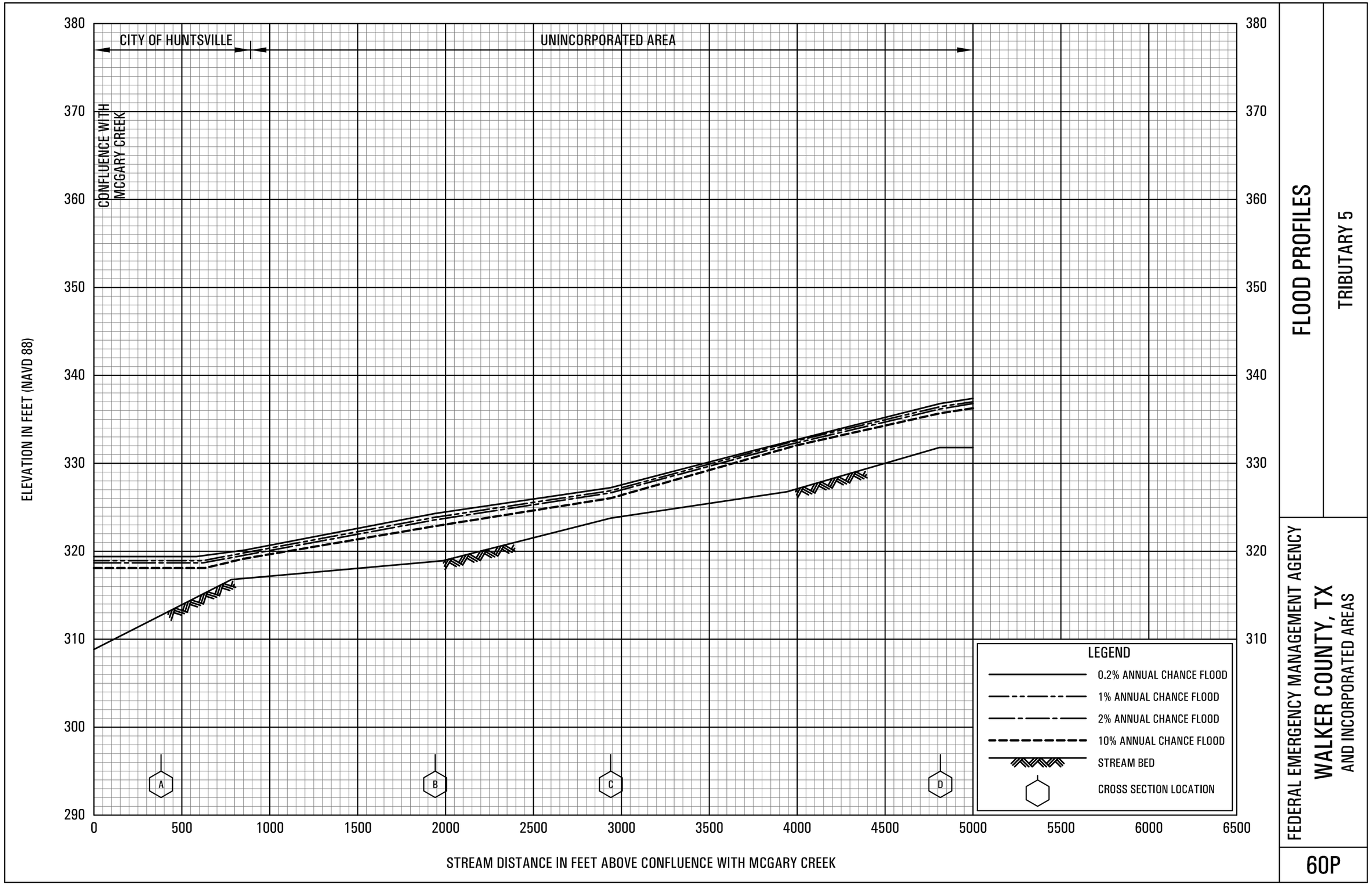
FLOOD PROFILES

TRIBUTARY 4

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



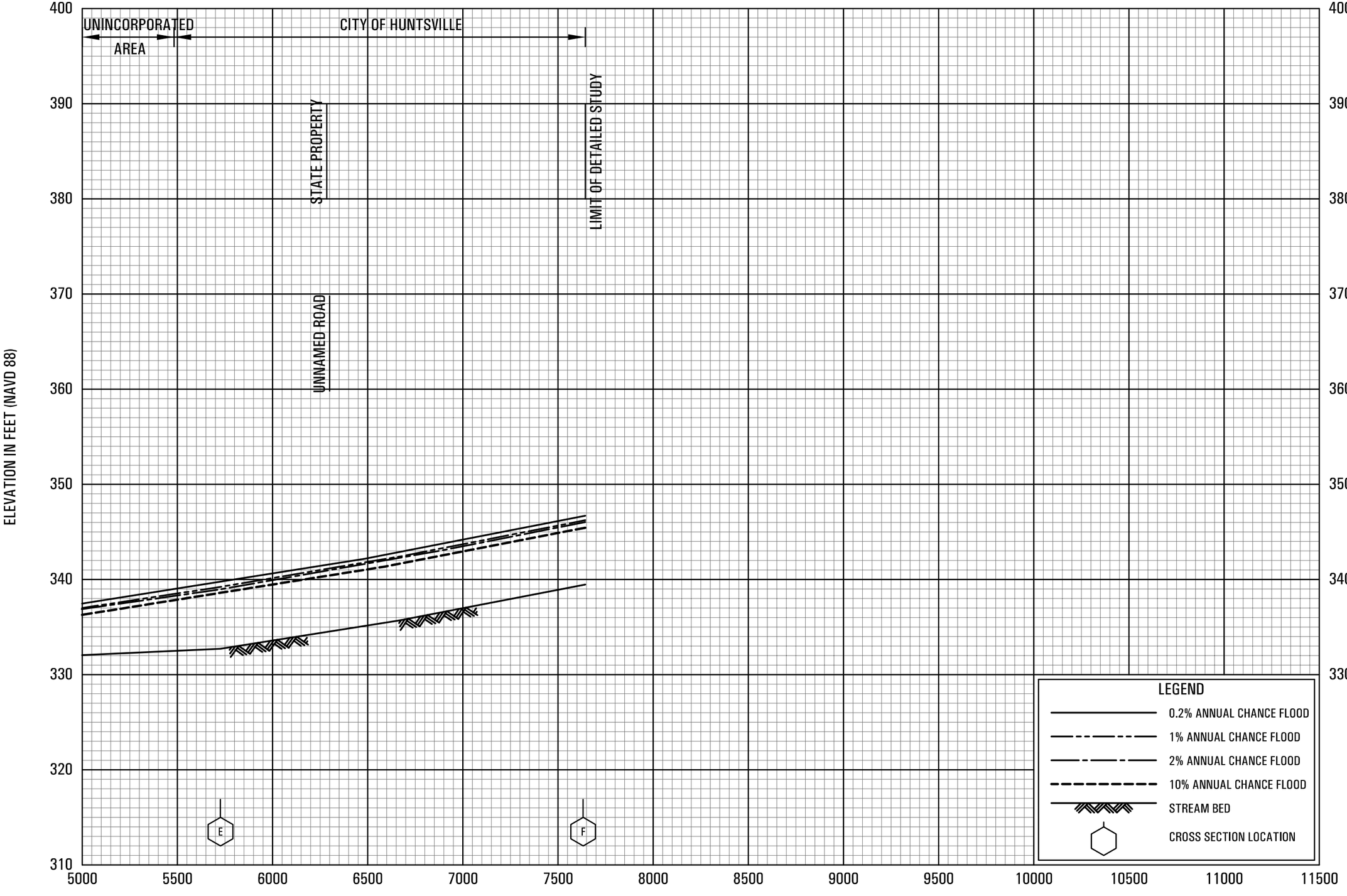
FLOOD PROFILES

TRIBUTARY 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



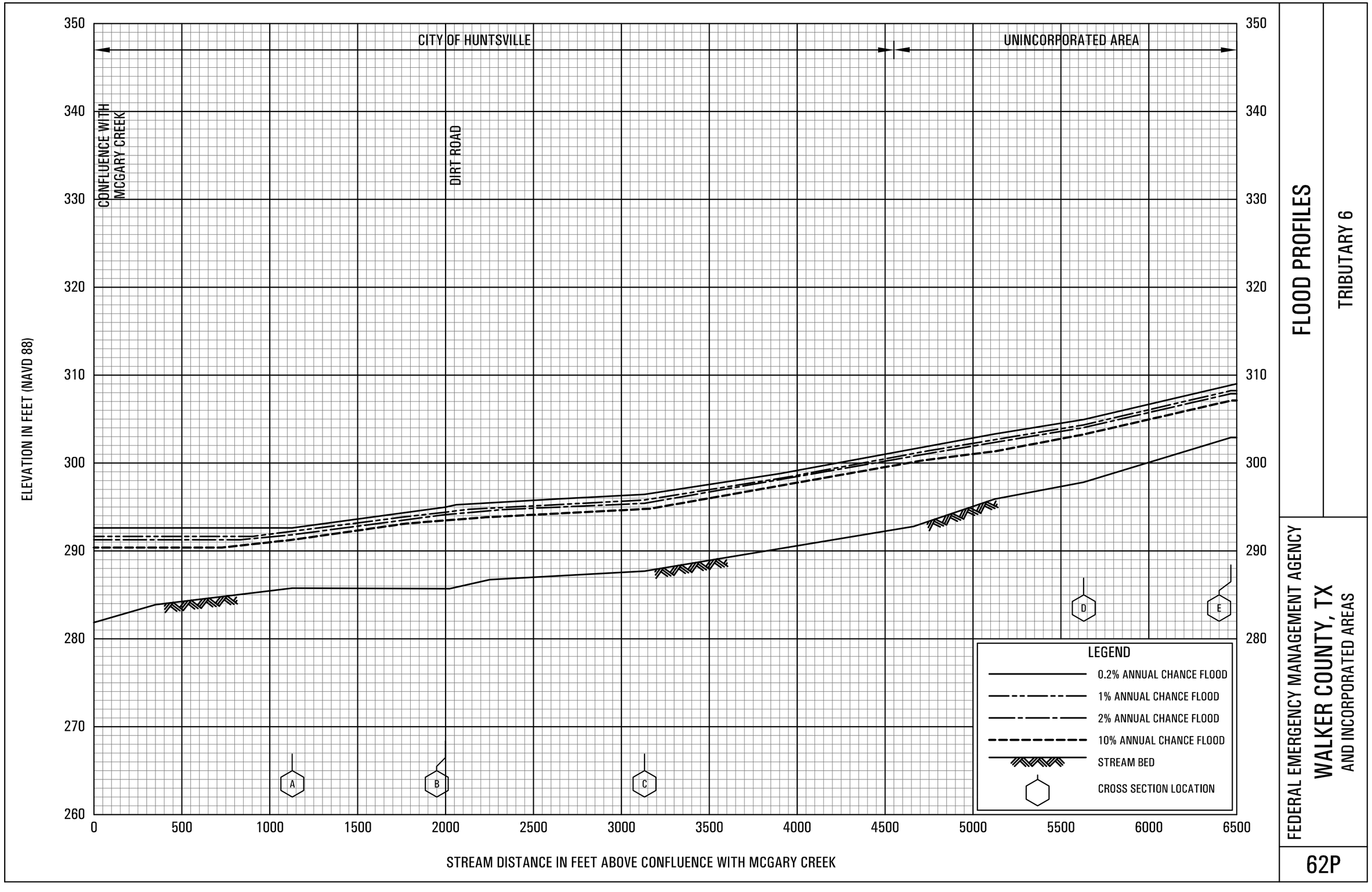
FLOOD PROFILES

TRIBUTARY 5

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

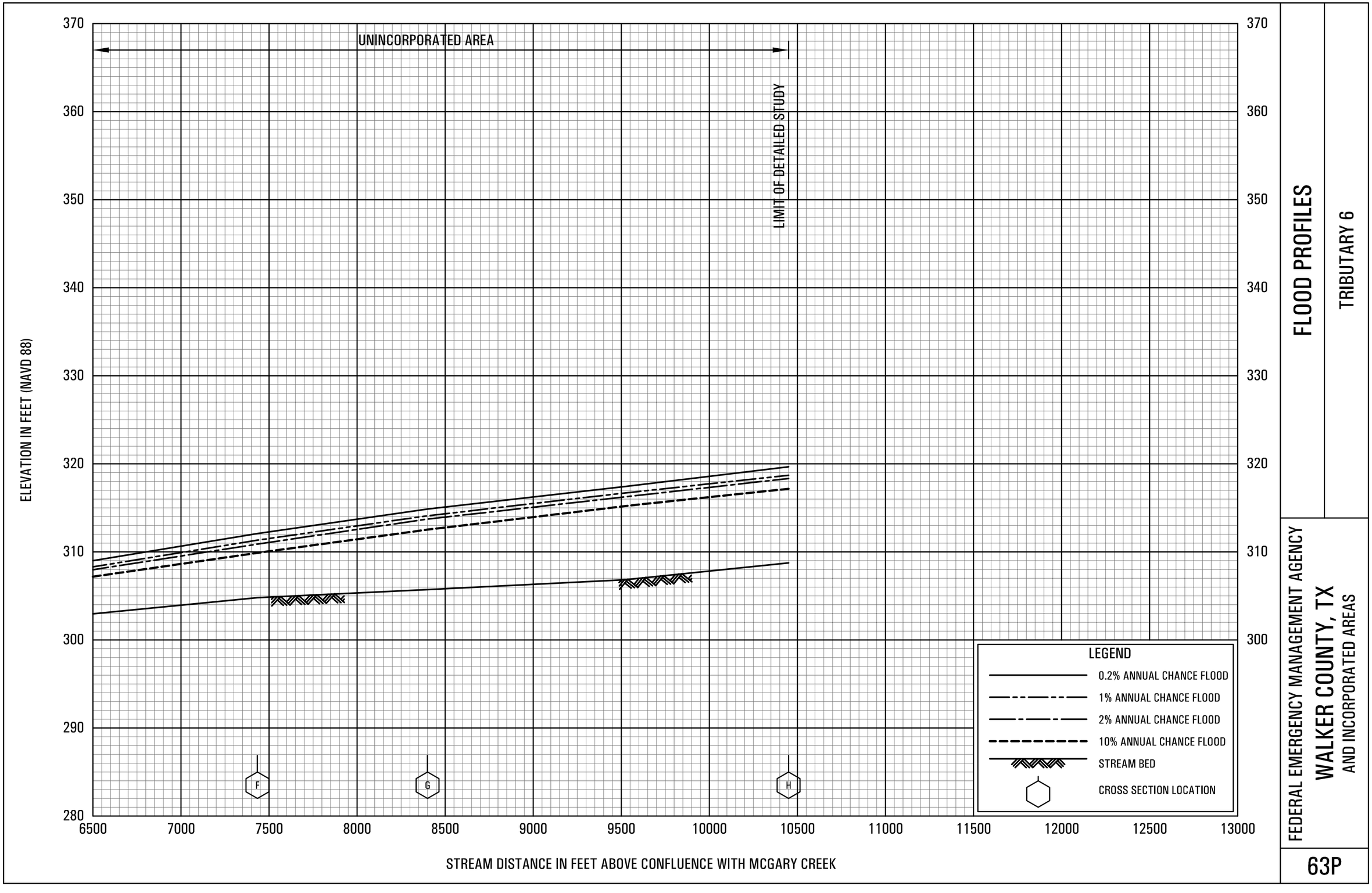
TRIBUTARY 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

62P



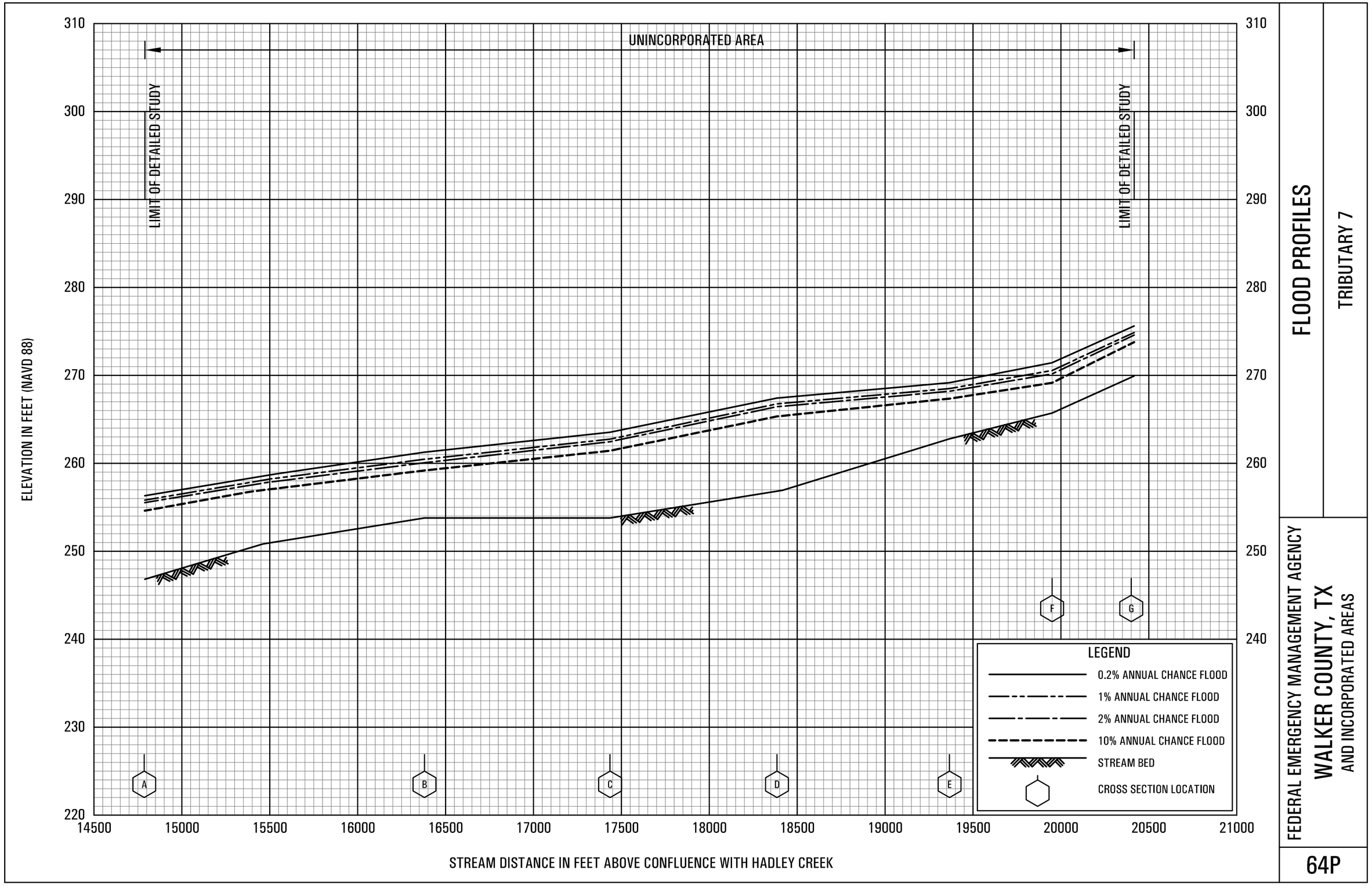
FLOOD PROFILES

TRIBUTARY 6

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX
AND INCORPORATED AREAS

63P



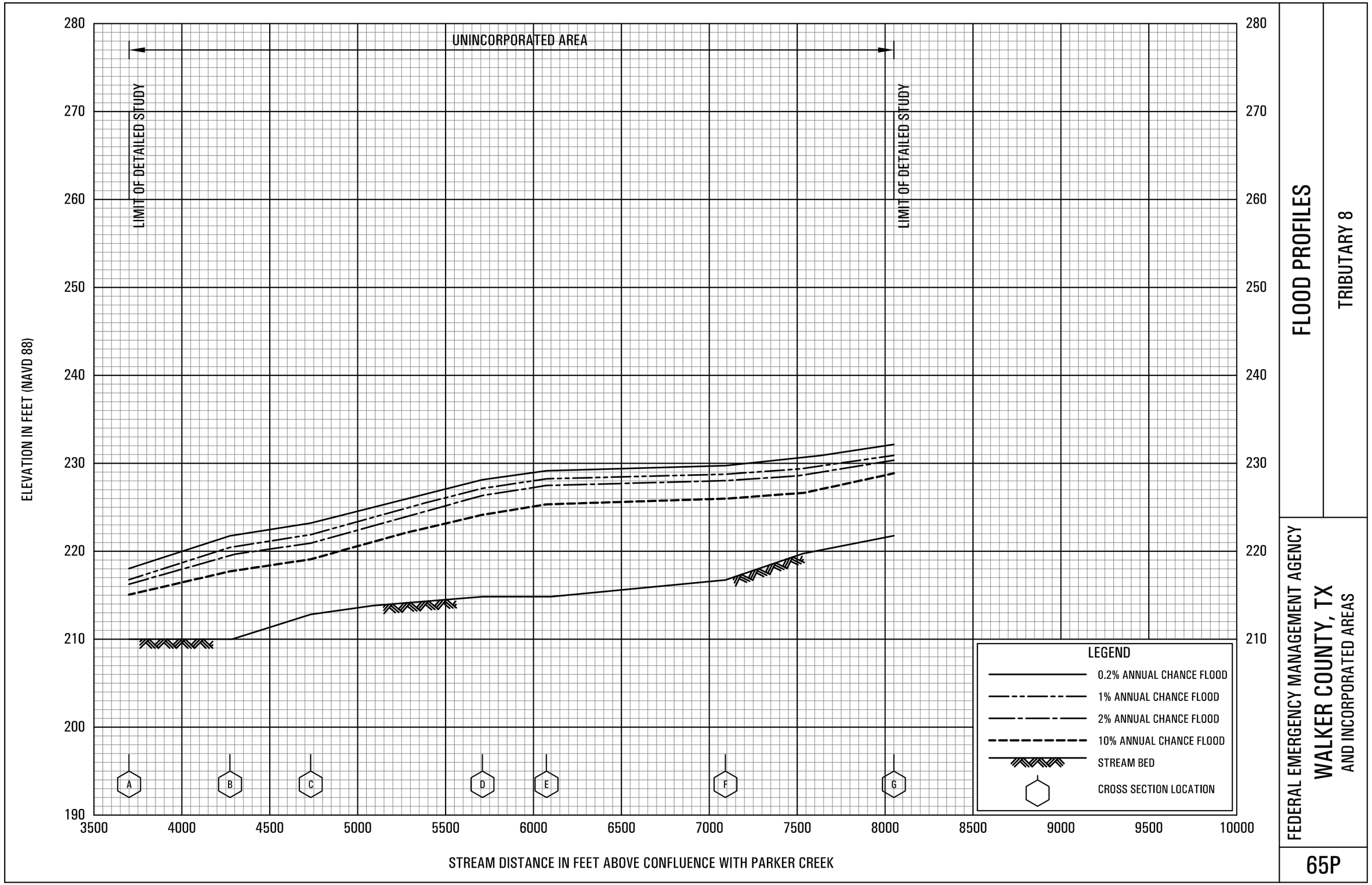
FLOOD PROFILES

TRIBUTARY 7

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

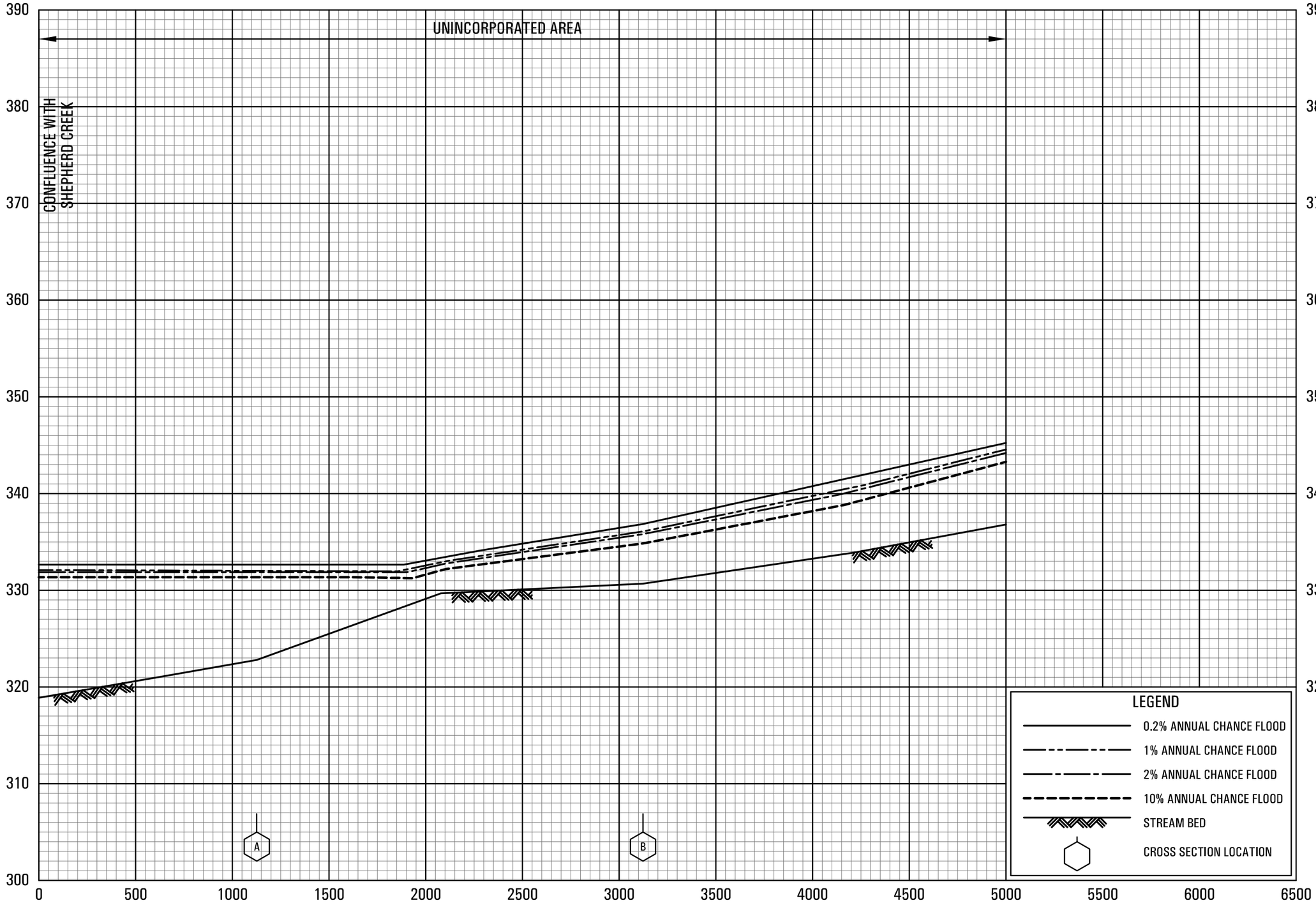
TRIBUTARY 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

65P



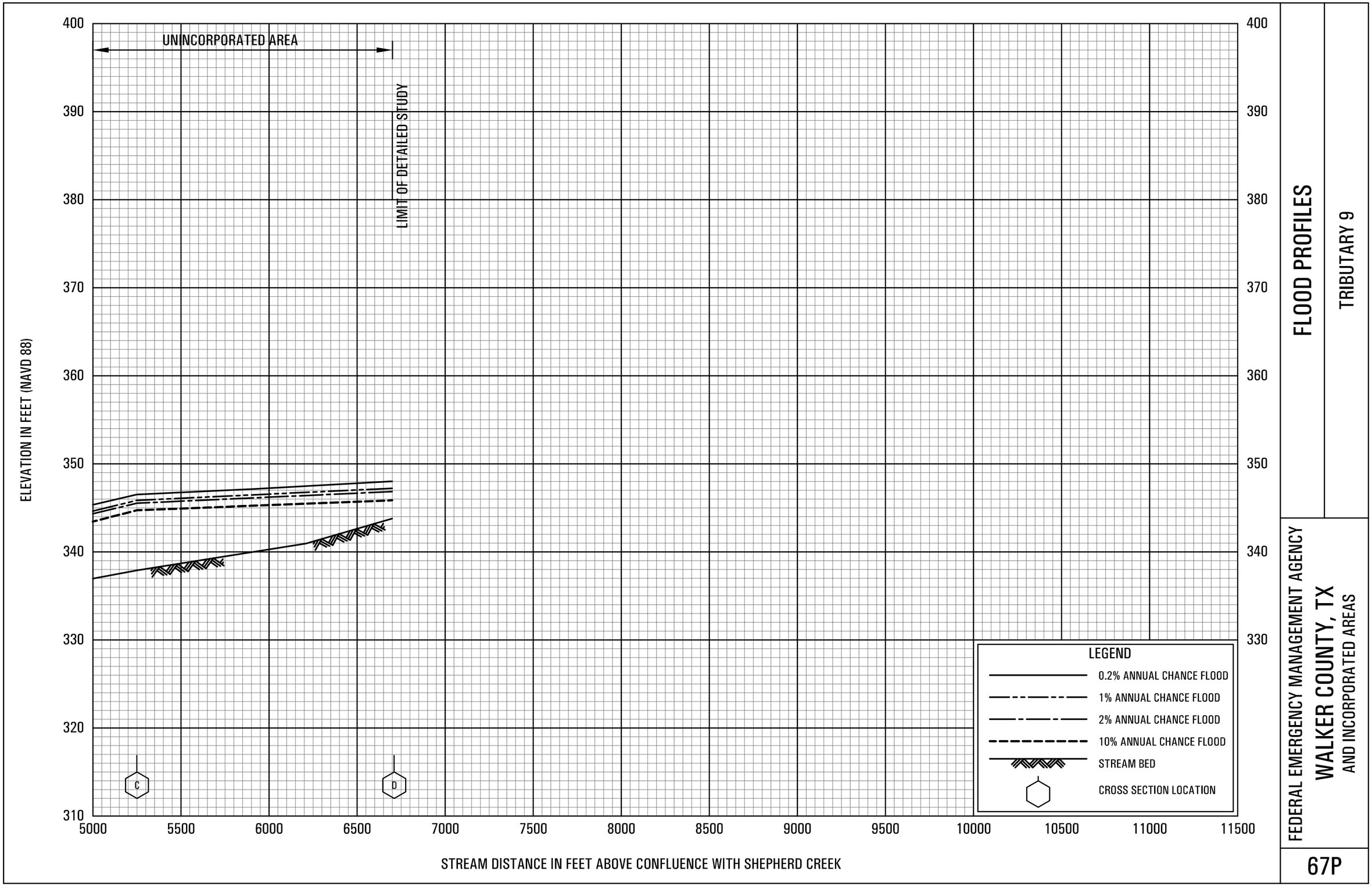
FLOOD PROFILES

TRIBUTARY 9

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



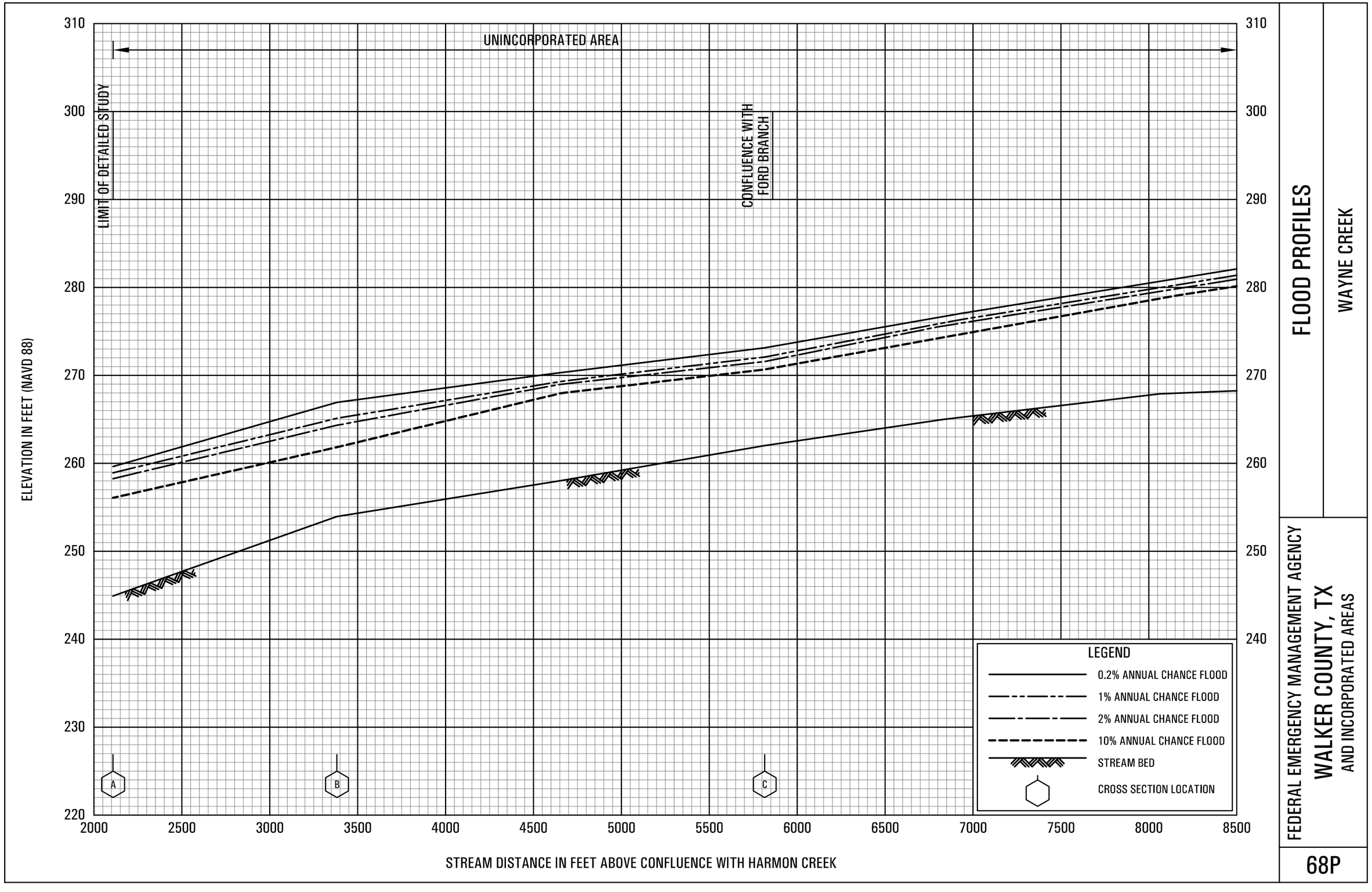
FLOOD PROFILES

TRIBUTARY 9

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS



FLOOD PROFILES

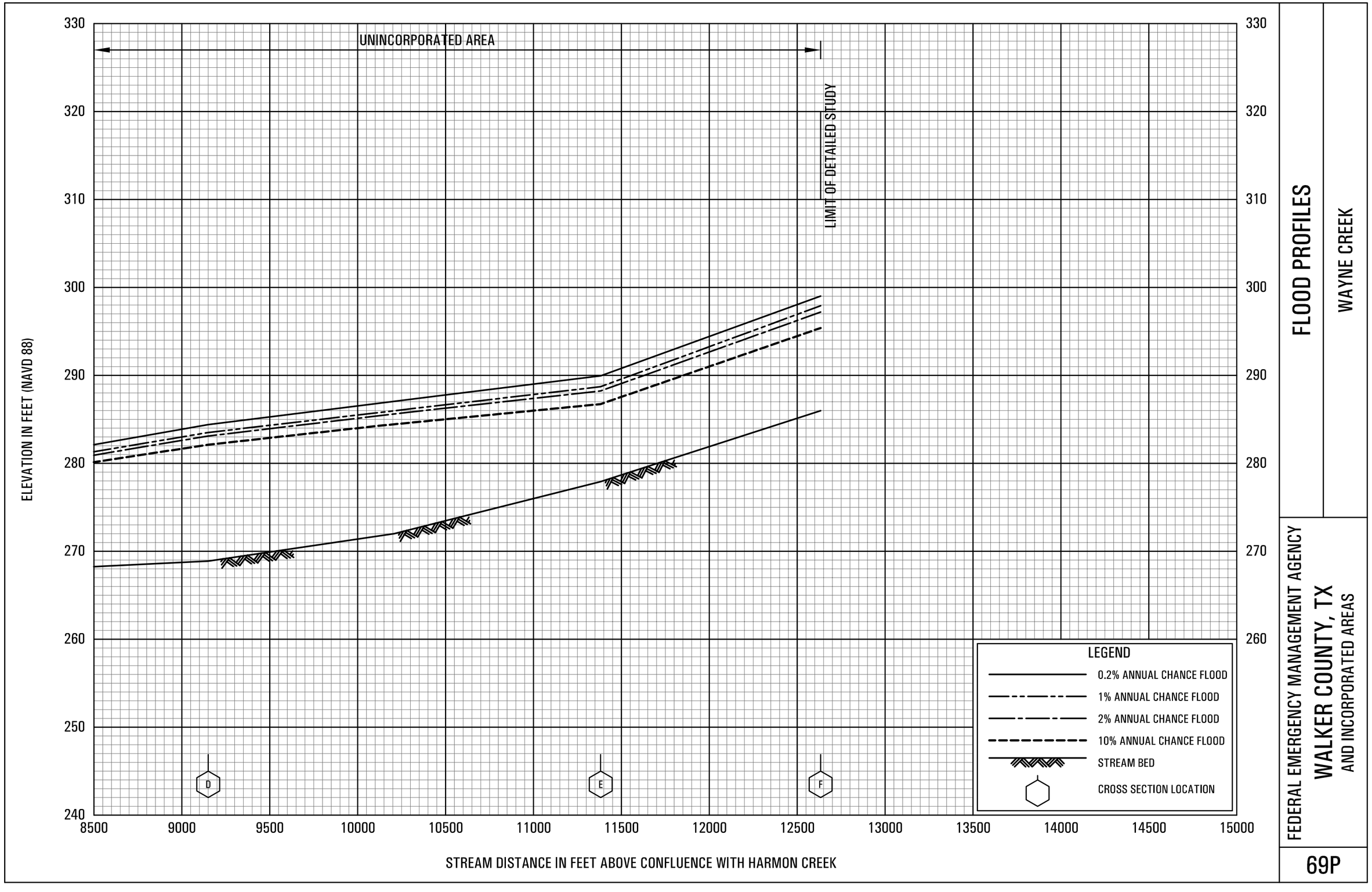
WAYNE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS

68P



FLOOD PROFILES

WAYNE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

WALKER COUNTY, TX

AND INCORPORATED AREAS