



# Federal Emergency Management Agency

Washington, D.C. 20472

February 4, 2021

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Calvin Ball  
Howard County Executive  
3430 Court House Drive  
Ellicott City, MD 21043

IN REPLY REFER TO:

Case No.: 20-03-1198P  
Follows Conditional  
Case No.: 17-03-2398R  
Community Name: Howard County, MD  
Community No.: 240044  
Effective Date of  
This Revision: June 25, 2021

Dear Dr. Ball:

The Flood Insurance Study (FIS) report and Flood Insurance Rate Map (FIRM) for your community have been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panel revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed that provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other enclosures specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Director, Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Philadelphia, Pennsylvania, at (215) 931-5635, or the FEMA Mapping and Insurance eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <https://www.fema.gov/flood-insurance>.

Sincerely,

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

List of Enclosures:

Letter of Map Revision Determination Document  
Annotated Flood Insurance Rate Map  
Annotated Flood Insurance Study Report

cc: Mr. Mark S. Richmond, P.E.  
Stormwater Management Division Chief  
Howard County

Ms. Dana N. Havlik, P.E.  
Division Chief, Highway Hydraulics  
MDOT State Highway Administration

Ms. Diane B. Rubin, P.E.  
Water Resources Associate  
Whitman, Requardt & Associates, LLP

Follows Conditional Case No.: 17-03-2398R



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	Howard County Maryland (Unincorporated Areas)	CULVERT	HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS UPDATED TOPOGRAPHIC DATA
	COMMUNITY NO.: 240044		
IDENTIFIER	MD 32 Phase I Culvert Replacements on Streams CB-1 and CB-4	APPROXIMATE LATITUDE AND LONGITUDE: 39.212, -76.951 SOURCE: Google Earth Pro      DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM*      NO.: 24027C0130D      DATE: November 6, 2013		DATE OF EFFECTIVE FLOOD INSURANCE STUDY: November 6, 2013  PROFILES: 146P, 147P, AND 151P SUMMARY OF DISCHARGE TABLE: 5	

Enclosures reflect changes to flooding sources affected by this revision.

\* FIRM - Flood Insurance Rate Map

### FLOODING SOURCES AND REVISED REACHES

Stream CB-1 - from approximately 120 feet downstream of the confluence of Stream CB-4 to approximately 980 feet upstream of State Route 32

Stream CB-4 - from the confluence with Stream CB-1 to approximately 150 feet upstream of the confluence with Stream CB-1 and from approximately 580 feet downstream of State Route 32 to approximately 1,120 feet upstream of State Route 32

### SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Stream CB-1	BFEs*	BFEs	YES	YES
	Zone AE	Zone AE	YES	YES
Stream CB-4	BFEs	BFEs	YES	YES
	Zone AE	Zone AE	YES	YES

\* BFEs - Base Flood Elevations

### DETERMINATION

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

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

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

20-03-1198P

102-I-A-C



# Federal Emergency Management Agency

Washington, D.C. 20472

## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

### COMMUNITY INFORMATION

#### APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

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

NFIP regulations Subparagraph 60.3(b)(7) requires communities to ensure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management ordinances; therefore, responsibility for maintenance of the altered or relocated watercourse, including any related appurtenances such as bridges, culverts, and other drainage structures, rests with your community. We may request that your community submit a description and schedule of maintenance activities necessary to ensure this requirement.

#### COMMUNITY REMINDERS

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

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

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

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

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



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## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

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

Ms. April Cummings  
Director, Mitigation Division  
Federal Emergency Management Agency, Region III  
One Independence Mall, Sixth Floor  
615 Chestnut Street  
Philadelphia, PA 19106-4404  
(215) 931-5635

### STATUS OF THE COMMUNITY NFIP MAPS

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

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

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Engineering Services Branch  
Federal Insurance and Mitigation Administration



Federal Emergency Management Agency  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT (CONTINUED)**

**PUBLIC NOTIFICATION OF REVISION**

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

LOCAL NEWSPAPER

Name: *Howard County Times*

Dates: February 18, 2021 and February 25, 2021

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

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

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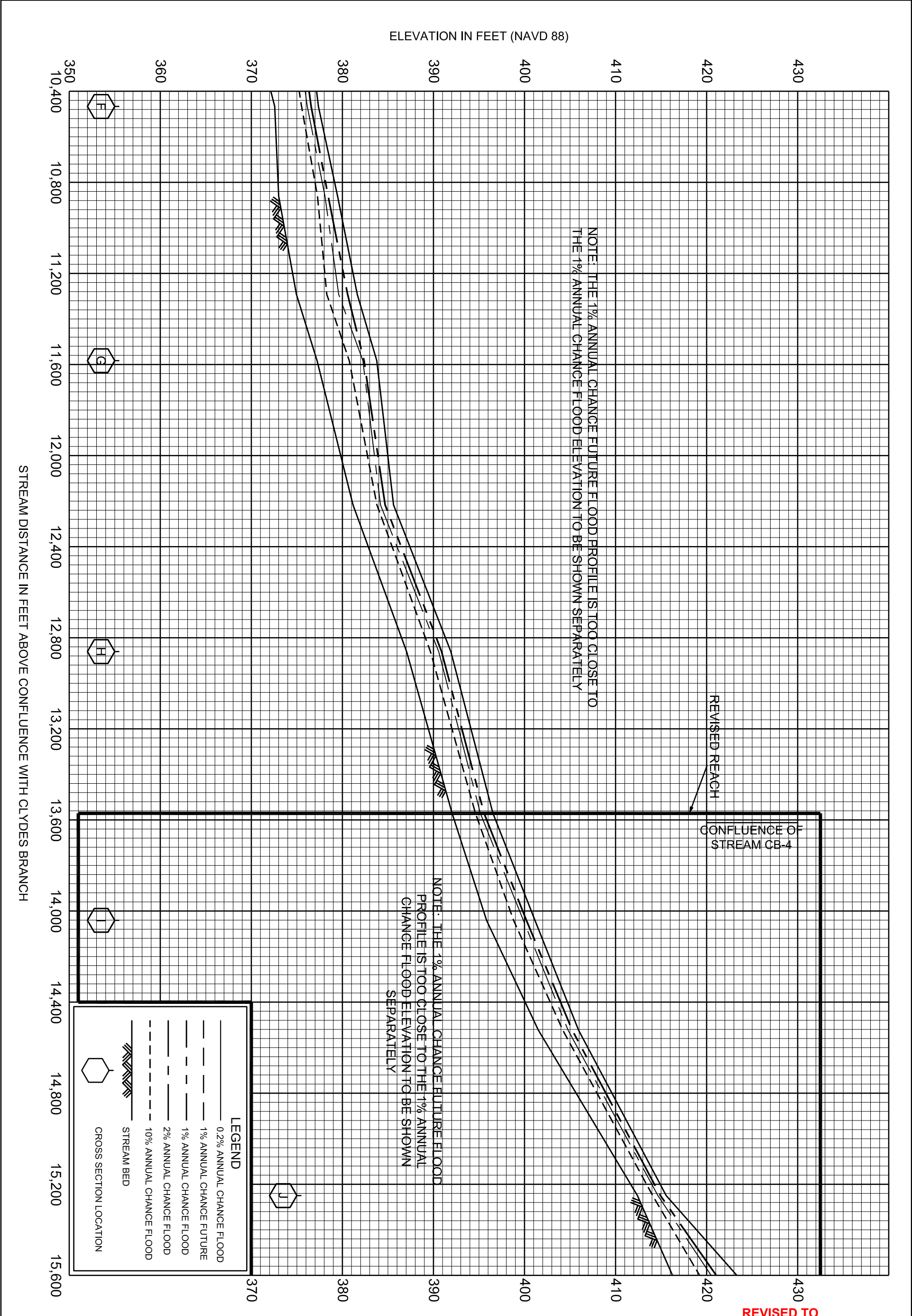
Patrick "Rick" F. Sacibit, P.E., Branch Chief  
Engineering Services Branch  
Federal Insurance and Mitigation Administration

**TABLE 5 – SUMMARY OF DISCHARGES (CONTINUED)**

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cubic feet per second)				
		10-Percent-Annual-Chance	2-Percent-Annual-Chance	1-Percent-Annual-Chance	Future 1-Percent-Annual-Chance	0.2-Percent-Annual-Chance
<b>RIGHT FORK NORTH TRIBUTARY WEST BRANCH DORSEY RUN</b>						
(entire reach)	0.12	186	355	547	499	1040
<b>ROCKBURN BRANCH</b>						
Mouth at Patapsco River (River Road)	3.69	1,248	2,630	3,580	3,924	6,697
At Landing Road	1.57	869	1,800	2,370	2,430	4,280
<b>ROCKBURN BRANCH (CONTINUED)</b>						
At Kerger Road	0.23	307	607	781	748	1,330
<b>SANNER ROAD TRIBUTARY</b>						
Approximately 200 feet upstream of confluence with Middle Patuxent River	2.42	1,000	2,170	2,910	2,910	5,480
<b>SOUTH BRANCH PATAPSCO RIVER</b>						
Approximately 900 feet upstream of Marriottsville Road	64.65	6,830	13,100	16,800	20,900	28,400
Approximately 2,000 feet upstream of Gaither Road	42.11	5,250	10,200	13,100	22,400	16,000
Approximately 6,000 feet upstream of Watersville Road	5.49	1,730	3,690	4,920	5,290	9,180
<b>STREAM CB-1</b>						
Approximately 300 feet upstream of confluence with Clyde's Branch	2.24	792	1,830	2,520	2,750	5,050
At confluence of Stream CB-1	1.51	715	1,510	2,020	2,210	3,760
At confluence of Stream CB-4	0.79	528	1,140	1,530	1,530	2,910
Approximately 460 feet upstream of the confluence of Stream CB-4	0.29	296	682	933	933	1,752
At State Route 32	0.16	217	504	693	693	1,284

REVISED DATA

<sup>1</sup>Please note that the Summary of Discharges table may not include all flow change locations found in the model



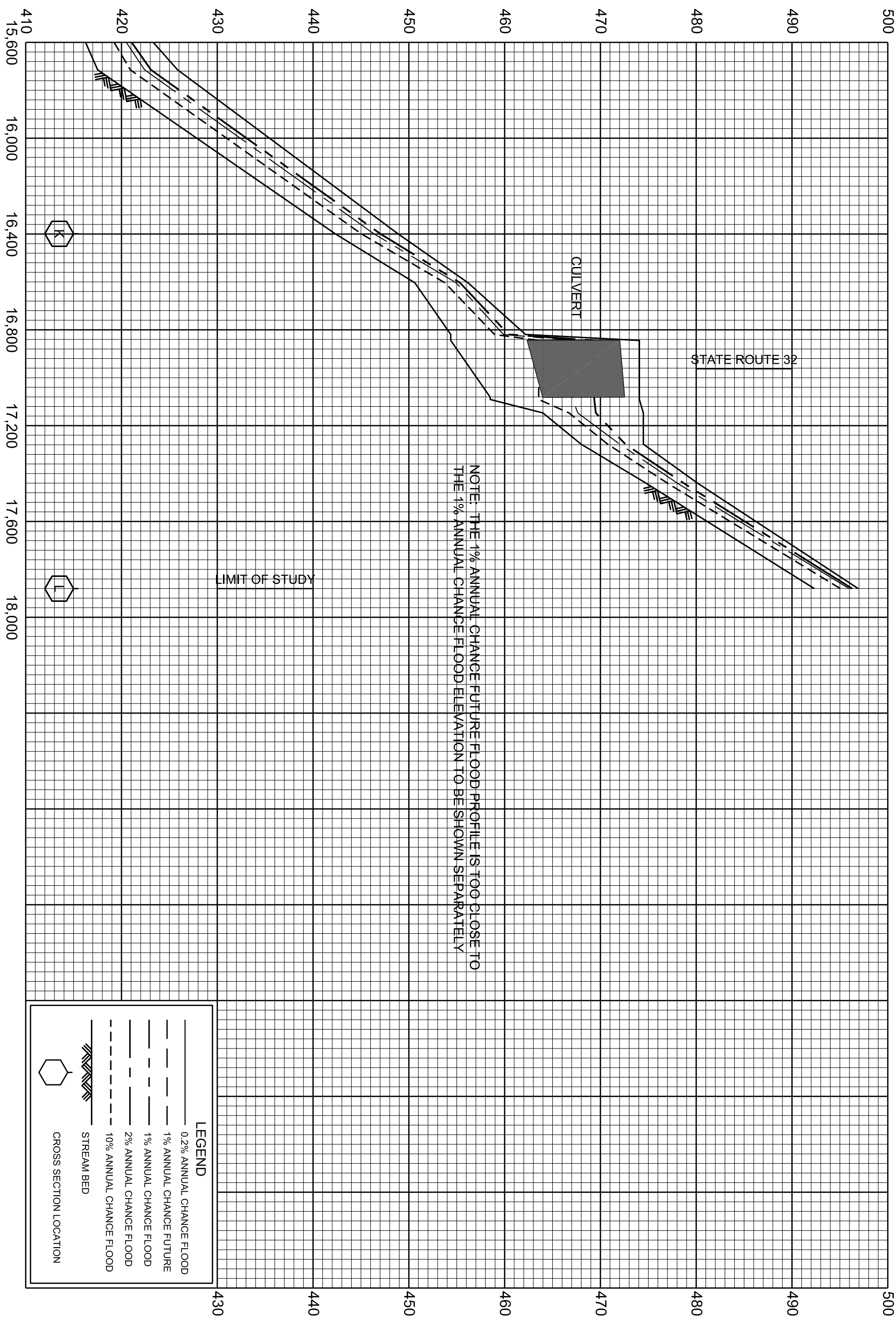
REVISED TO REFLECT LOMR EFFECTIVE: June 25, 2021

FLOOD PROFILES

STREAM CB-1

FEDERAL EMERGENCY MANAGEMENT AGENCY  
**HOWARD COUNTY, MD**  
 AND INCORPORATED AREAS

ELEVATION IN FEET (NAVD 88)



STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH CLYDES BRANCH

**LEGEND**

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

430 440 450 460 470 480 490 500

REVISED TO  
REFLECT LOMR  
EFFECTIVE: June 25, 2021

**FLOOD PROFILES**

STREAM CB-1

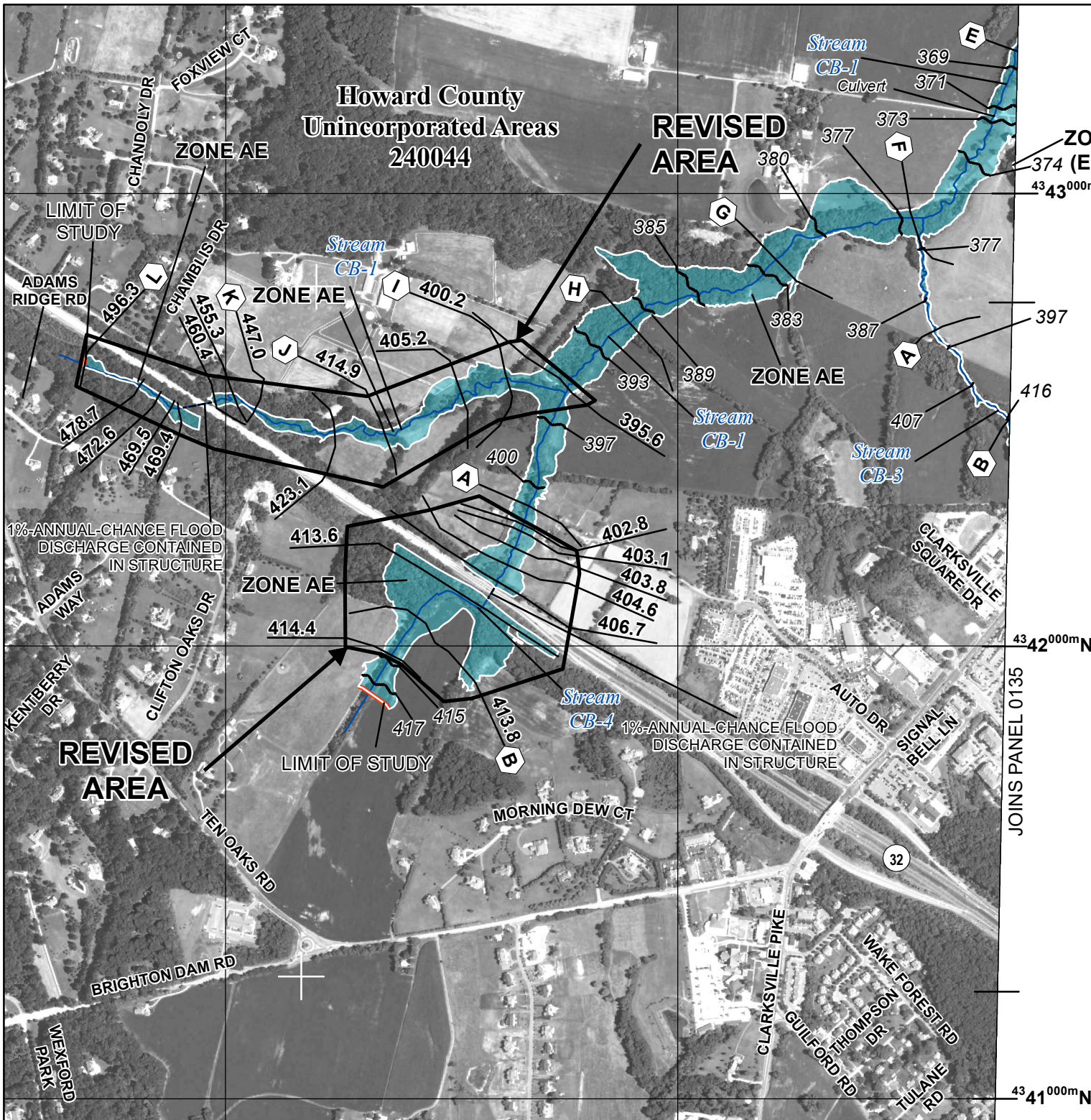
FEDERAL EMERGENCY MANAGEMENT AGENCY

**HOWARD COUNTY, MD**  
AND INCORPORATED AREAS

147P







**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE)  
Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee See Notes- Zone X

**OTHER AREAS OF FLOOD HAZARD**

**SCALE**

Map Projection:  
Universal Transverse Mercator NAD 1983 UTM Zone 18N  
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 500 1,000 2,000 Feet

0 125 250 500 Meters

Imagery Source: NAIP 2015

**FEMA**  
National Flood Insurance Program

**NATIONAL FLOOD INSURANCE PROGRAM**  
FLOOD INSURANCE RATE MAP

**HOWARD COUNTY, MARYLAND**  
and Incorporated Areas

PANEL 130 of 235

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
HOWARD COUNTY	240044	0130	D

**REVISED TO REFLECT LOMR EFFECTIVE: June 25, 2021**

VERSION NUMBER 1.1.1.0  
MAP NUMBER 24027C0130D  
EFFECTIVE DATE NOVEMBER 6, 2013