



**Federal Emergency Management Agency**  
Washington, D.C. 20472

**LETTER OF MAP REVISION  
DETERMINATION DOCUMENT**

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST	
COMMUNITY	Village of Northbrook Cook County Illinois	CULVERT DETENTION BASIN	FLOODWAY HYDRAULIC ANALYSIS HYDROLOGIC ANALYSIS NEW TOPOGRAPHIC DATA	
	COMMUNITY NO.: 170132			
IDENTIFIER	Techny Drain LOMR	APPROXIMATE LATITUDE & LONGITUDE: 42.114, -87.831 SOURCE: Other DATUM: NAD 83		
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES		
TYPE: FIRM* NO.: 17031C0226J DATE: August 19, 2008 TYPE: FIRM NO.: 17031C0227J DATE: August 19, 2008		DATE OF EFFECTIVE FLOOD INSURANCE STUDY: August 19, 2008 PROFILE(S): 352P - 354P FLOODWAY DATA TABLE: 19 SUMMARY OF DISCHARGES TABLE: 14		

Enclosures reflect changes to flooding sources affected by this revision.

\* FIRM - Flood Insurance Rate Map

**FLOODING SOURCE(S) & REVISED REACH(ES)**

See Page 2 for Additional Flooding Sources

Techny Drain - From the confluence with Chicago River, North Branch, West Fork to just downstream of Pfingsten Road

**SUMMARY OF REVISIONS**

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Techny Drain	Zone AE	Zone AE	YES	YES
	Zone X (shaded)	Zone X (shaded)	YES	YES
	BFEs*	BFEs	NONE	YES
	Floodway	Floodway	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 panels 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 Map Information eXchange (FMIX) 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 <http://www.fema.gov/nfip>.

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



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

**OTHER FLOODING SOURCES AFFECTED BY THIS REVISION**

**FLOODING SOURCE(S) & REVISED REACH(ES)**

Techny Drain, South Fork - From the confluence with Techny Drain to approximately 450 feet upstream of Wood Drive

**SUMMARY OF REVISIONS**

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Techny Drain, South Fork				
	Zone AE	Zone AE	YES	YES
	Floodway	Floodway	YES	YES
	BFEs	BFEs	NONE	YES
	Zone X (shaded)	Zone X (shaded)	YES	YES

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 Map Information eXchange (FMIX) 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 <http://www.fema.gov/nfip>.

A handwritten signature in black ink, appearing to read "Patrick 'Rick' F. Sacbabit".

Patrick "Rick" F. Sacbabit, P.E., Branch Chief  
Engineering Services Branch  
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## LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

### OTHER COMMUNITIES AFFECTED BY THIS REVISION

**CID Number:** 170054      **Name:** Cook County, Illinois

AFFECTED MAP PANELS	AFFECTED PORTIONS OF THE FLOOD INSURANCE STUDY REPORT
TYPE: FIRM*    NO.: 17031C0227J    DATE: August 19, 2008	DATE OF EFFECTIVE FLOOD INSURANCE STUDY: August 19, 2008 PROFILE(S): 352 -353P FLOODWAY DATA TABLE: 19 SUMMARY OF DISCHARGES TABLE: 14

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## 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.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

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 Map Information eXchange (FMIX) 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 <http://www.fema.gov/nfip>.

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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. Mary Beth Caruso  
Director, Mitigation Division  
Federal Emergency Management Agency, Region V  
536 South Clark Street, Sixth Floor  
Chicago, IL 60605  
(312) 408-5500

### 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(s) 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 Map Information eXchange (FMIX) 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 <http://www.fema.gov/nfip>.

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## 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: *Northbrook Star*

Dates: March 15, 2018 and March 22, 2018

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 Map Information eXchange (FMIX) 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 <http://www.fema.gov/nfip>.

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**Table 14 – Summary of Discharges (Continued)**

<i>Flooding Source and Location</i>	<i>Drainage Area (square miles)</i>	<i>Peak Discharges (cubic feet per second)</i>			
		<i>10-Percent- Annual-Chance</i>	<i>2-Percent- Annual-Chance</i>	<i>1-Percent- Annual-Chance</i>	<i>0.2-Percent- Annual-Chance</i>
<b>Stony Creek (West)</b>					
At the mouth	26.8	1,420	1,900	2,100	2,620
At confluence of Lucas Ditch	26.3	1,420	1,900	2,100	2,620
At Roberts Road	23.2	1,355	1,815	2,013	2,490
At Southwest Highway	18.3	1,240	1,680	1,867	2,030
At Norfolk & Western Railway	9.3	935	1,250	1,405	1,720
<b>Techny Drain</b>					
At confluence with Chicago River, North Branch, West Fork	2.0	370	514	590	736
Just downstream of Union Pacific Railroad	1.9	250	324	355	394
At Shermer Road	1.1	127	223	275	407
At confluence of Techny Drain, South Fork	1.0	114	199	247	369
At Wintercress Circle	0.7	105	171	208	284
<b>Techny Drain South Fork</b>					
At confluence with Techny Drain	0.4	36	68	90	138
<b>Third Creek</b>					
<b>Revised Data</b>					
At a point approximately 2,400 feet upstream of confluence with Deer Creek	1.4	98	172	221	325
At Joe Orr Road	0.5	48	88	118	175
At Missouri Pacific Railroad	0.2	18	37	51	77
<b>Thorn Creek</b>					
At the confluence with the Little Calumet River	107.7	1,156	2,020	2,870	5,450
Upstream of Tri-State Tollway (Interstate 80)	105.5	1,490	2,220	3,210	6,010
USGS gage at Thornton	104.0	3,650	5,220	5,940	7,740
At confluence with North Creek	103.3	4,323	6,180	7,442	9,650
Downstream of confluence of Butterfield Creek	79.7	3,803	5,700	6,510	8,800
At CSX Railroad	54.1	2,650	4,000	4,590	6,200
At a point approximately 700 feet downstream of Joe Orr Road	23.4	1,230	1,957	2,360	3,200

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LOMR EFFECTIVE  
JULY 20, 2018

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE-FLOOD WATER SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE (FEET)
Techny Drain								
A	844 <sup>77</sup>	37	152	2.3	636.0	634.5 <sup>78</sup>	634.5	0.0
B	2,188 <sup>77</sup>	400	245	2.7	636.3	636.3	636.4	0.1
C	3,185 <sup>77</sup>	30	139	2.7	639.0	639.0	639.1	0.1
D	3,572 <sup>77</sup>	35	142	2.6	639.4	639.4	639.5	0.1
E	3,897 <sup>77</sup>	162	245	1.5	639.7	639.7	639.8	0.1
F	4,405 <sup>77</sup>	42	101	3.7	640.5	640.5	640.6	0.1
G	5,229 <sup>77</sup>	223	241	1.3	643.7	643.7	643.8	0.1
H	5,854 <sup>77</sup>	119	96	4.8	645.0	645.0	645.1	0.1
I	6,929 <sup>77</sup>	28	73	3.4	648.9	648.9	648.9	0.0
J	7,481 <sup>77</sup>	61	160	1.5	649.8	649.8	649.8	0.0
REVISED DATA								
Techny Drain South Fork	*	*	*	*	*	*	*	*
Third Creek								
A	2,400 <sup>4</sup>	180	501	0.4	620.5	620.5	620.6	0.1
B	5,900 <sup>4</sup>	120	188	1.0	624.9	624.9	625.0	0.1
C	10,300 <sup>4</sup>	70	1,311	0.1	629.1	629.1	629.1	0.0
D	10,480 <sup>4</sup>	330	1,019	0.1	629.1	629.1	629.2	0.1
E	12,560 <sup>4</sup>	730	422	0.1	629.2	629.2	629.3	0.1
F	12,740 <sup>4</sup>	160	2,550	0.0	631.5	631.5	631.5	0.0

<sup>4</sup> Feet above mouth

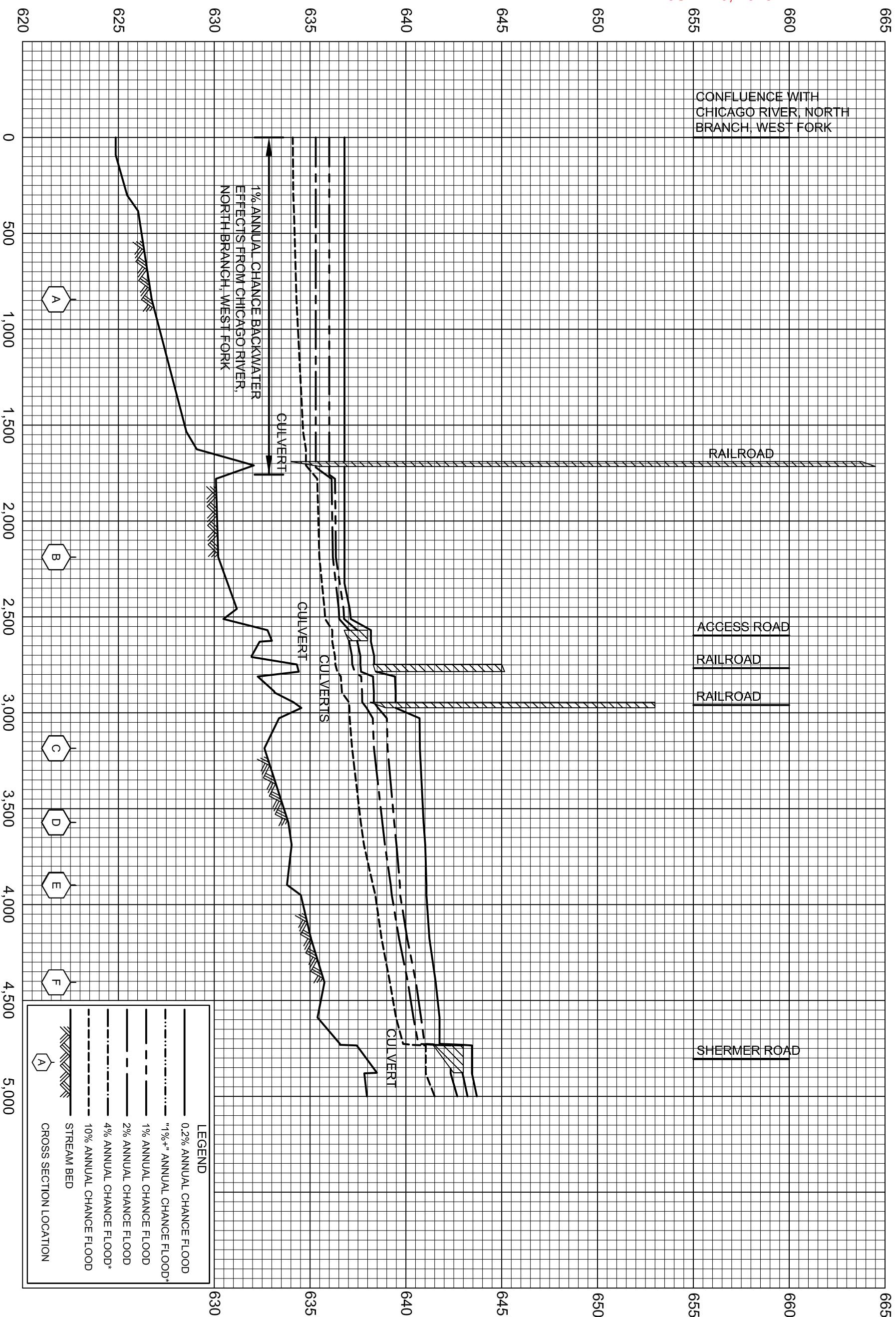
<sup>77</sup> Feet above confluence with Chicago River, North Branch, West Fork

<sup>78</sup> Elevation computed without consideration of backwater effects from Chicago River, North Branch, West Fork

\* Data not available

REVISED TO REFLECT LOMR  
EFFECTIVE JULY 20, 2018

REVISED TO REFLECT  
LOMR EFFECTIVE  
JULY 20, 2018

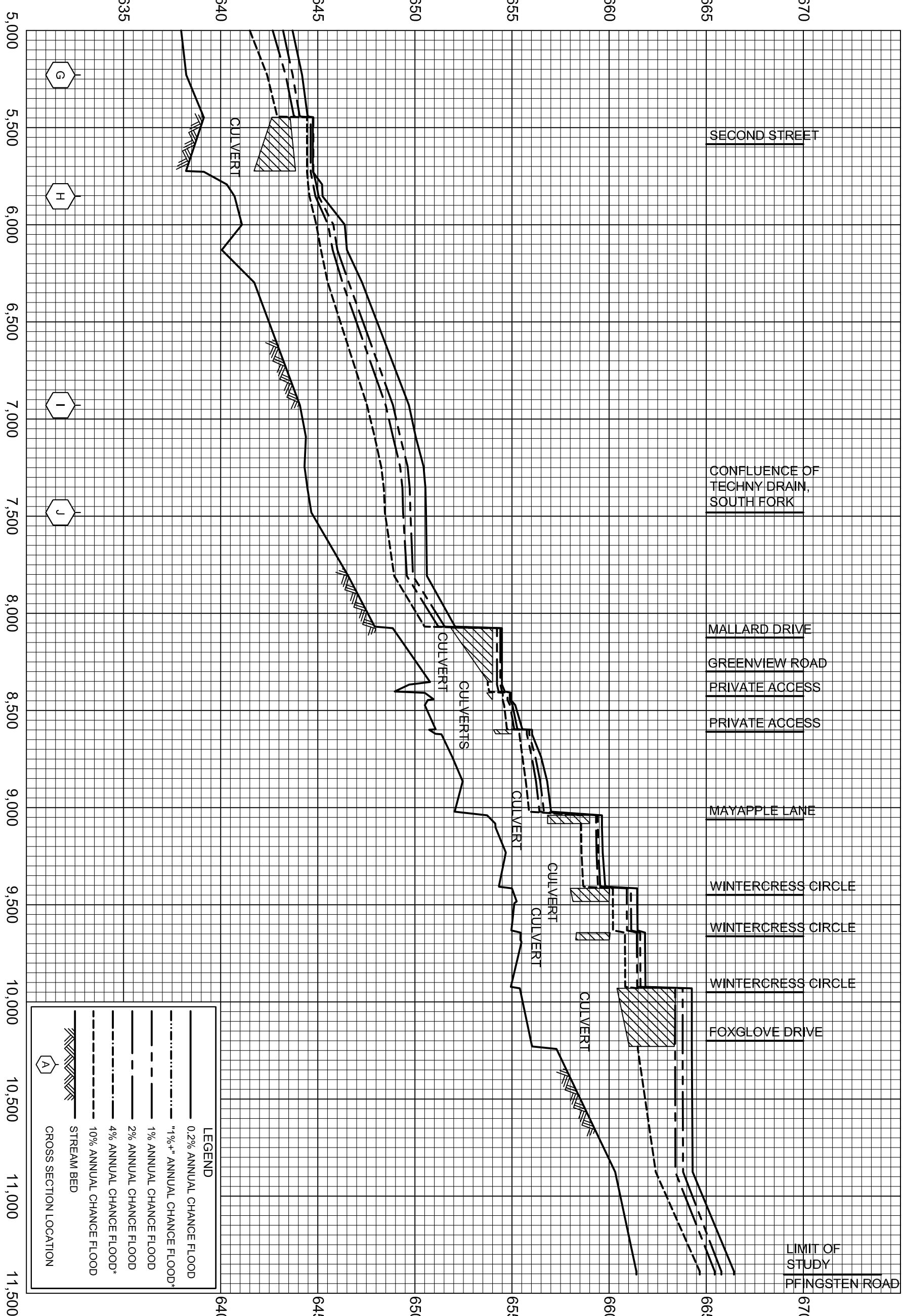


FEDERAL EMERGENCY MANAGEMENT AGENCY  
COOK COUNTY, IL  
AND INCORPORATED AREAS

FLOOD PROFILES  
TECHNY DRAIN

REVISED TO REFLECT  
LOMR EFFECTIVE  
JULY 20, 2018

ELEVATION IN FEET (NAVD 88)



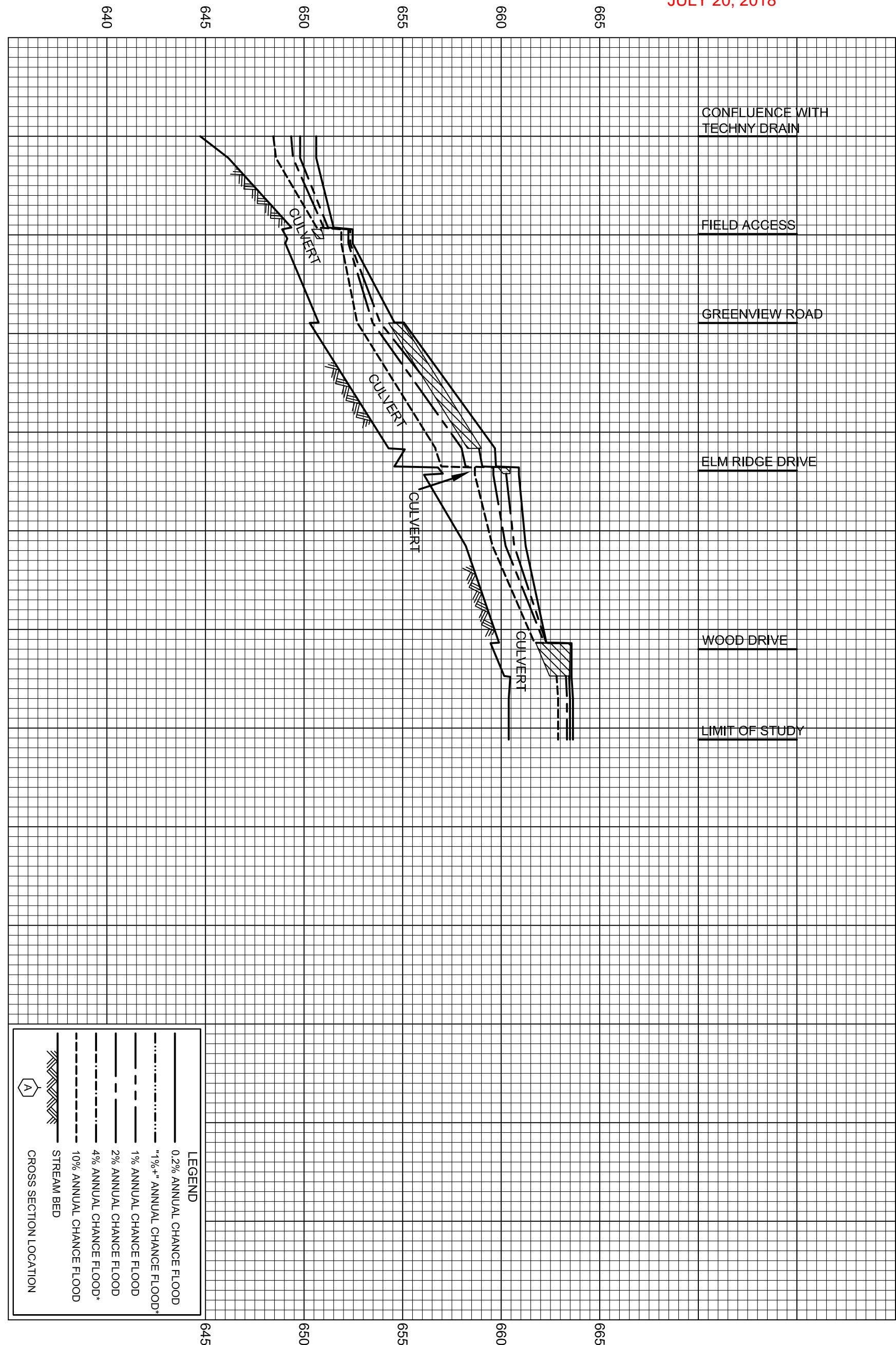
\*DATA NOT AVAILABLE

FEDERAL EMERGENCY MANAGEMENT AGENCY  
COOK COUNTY, IL  
AND INCORPORATED AREAS

FLOOD PROFILES  
TECHNY DRAIN

ELEVATION IN FEET (NAVD 88)

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JULY 20, 2018

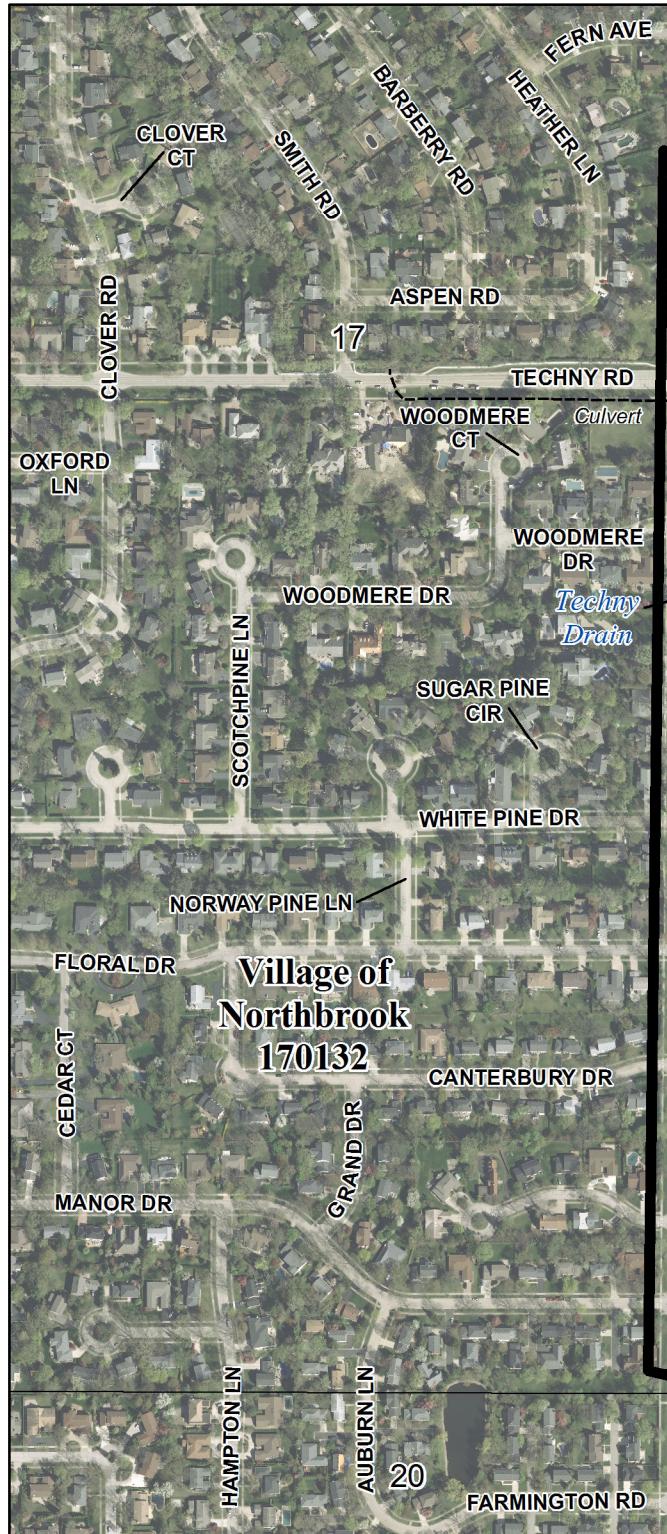


STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH TECHNY DRAIN

\*DATA NOT AVAILABLE

FEDERAL EMERGENCY MANAGEMENT AGENCY  
COOK COUNTY, IL  
AND INCORPORATED AREAS

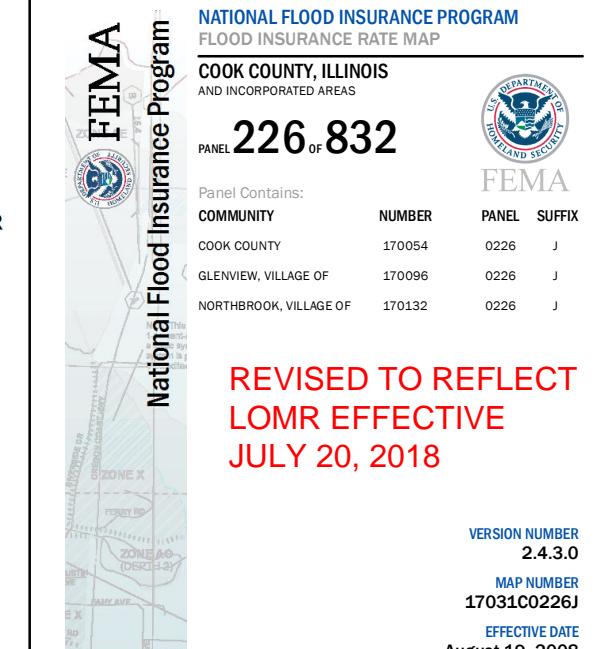
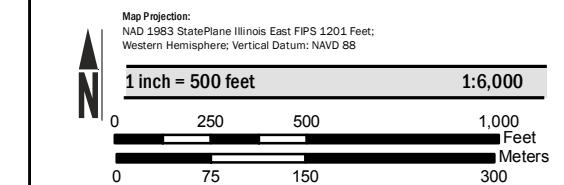
FLOOD PROFILES  
TECHNY DRAIN, SOUTH FORK

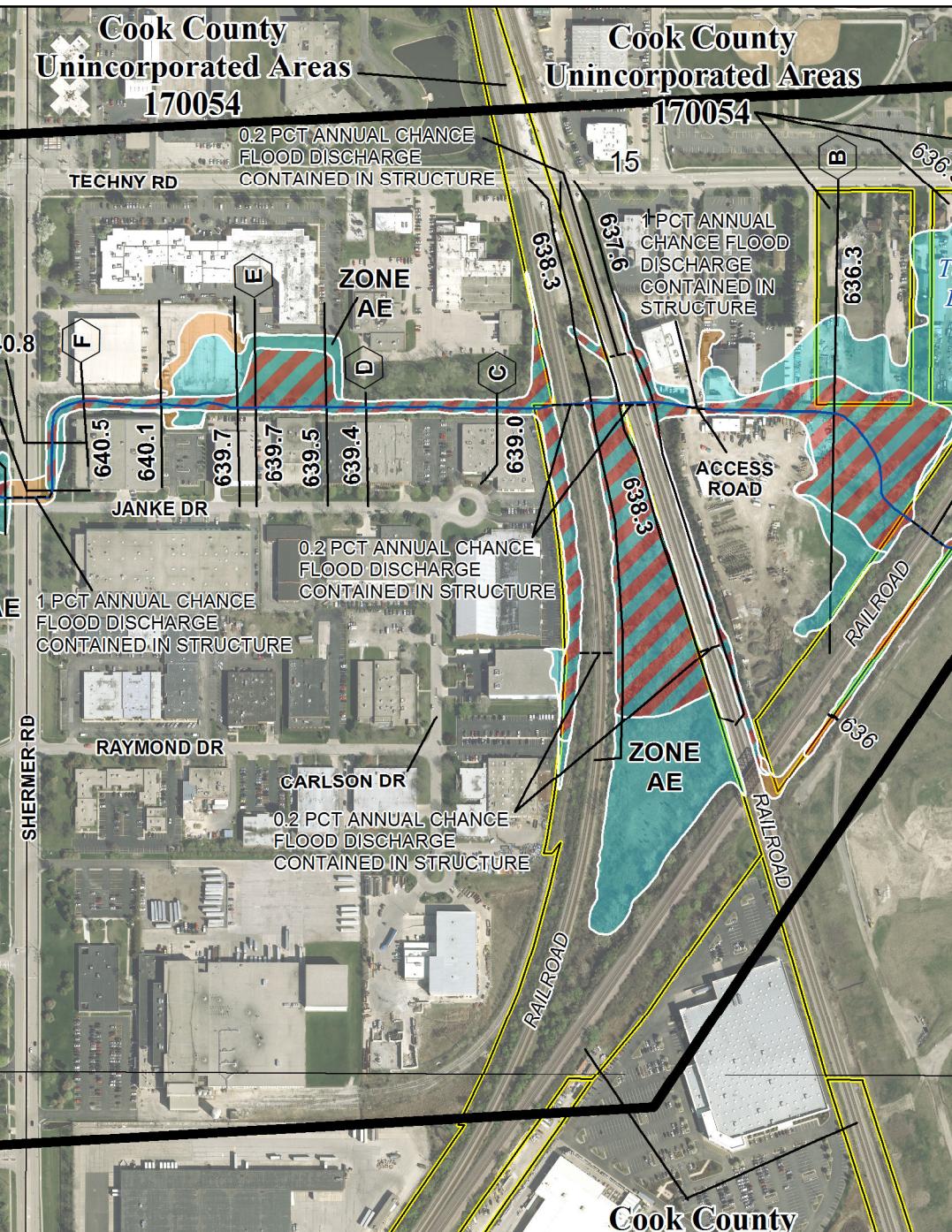
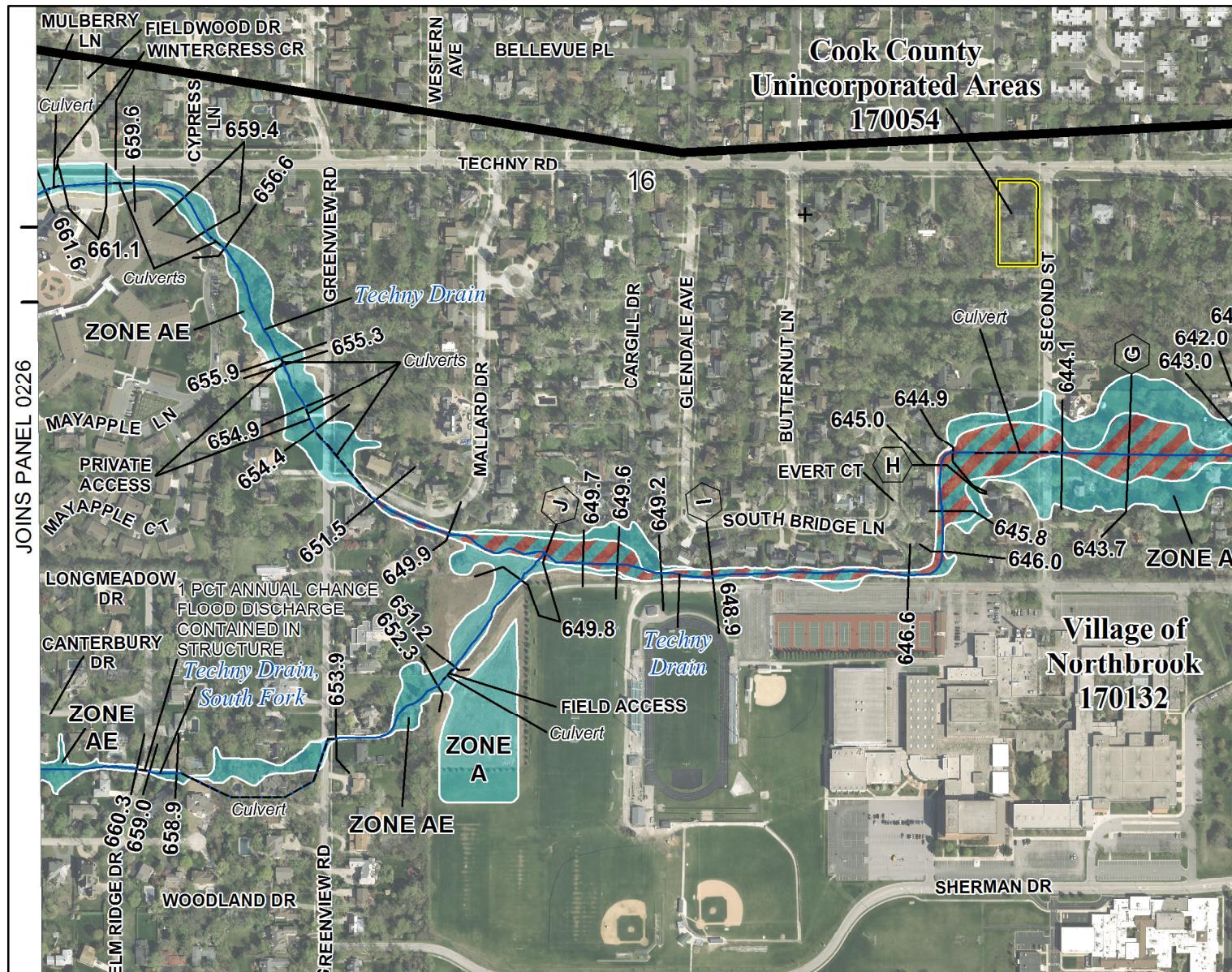


## REVISED AREA

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) Zone A, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
REGULATORY FLOODWAY	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
OTHER AREAS OF FLOOD HAZARD	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee See Notes Zone X

### SCALE





REVISED TO REFLECT  
LOMR EFFECTIVE  
JULY 20, 2018

VERSION NUMBER  
2.4.3.0  
MAP NUMBER  
17031C0227J  
EFFECTIVE DATE  
August 19, 2008