



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. Sacbitt, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

17-05-3265P

102-I-A-C



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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>.

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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

TYPE: FIRM* NO.: 17031C0227J DATE: August 19, 2008

AFFECTED PORTIONS OF THE FLOOD INSURANCE STUDY REPORT

DATE OF EFFECTIVE FLOOD INSURANCE STUDY: August 19, 2008
PROFILE(S): 352 -353P
FLOODWAY DATA TABLE: 19
SUMMARY OF DISCHARGES TABLE: 14

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)

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>.

A handwritten signature in black ink, appearing to read "Rick F. Sacbibit".

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
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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

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>
Stony Creek (West)					
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
Techny Drain					
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 Wintercross Circle	0.7	105	171	208	284
Techny Drain South Fork					
At confluence with Techny Drain	0.4	36	68	90	138
Third Creek					
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
Thorn Creek					
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

Revised Data

**REVISED TO REFLECT
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 ⁷⁷	37	152	2.3	636.0	634.5 ⁷⁸	634.5	0.0
B	2,188 ⁷⁷	400	245	2.7	636.3	636.3	636.4	0.1
C	3,185 ⁷⁷	30	139	2.7	639.0	639.0	639.1	0.1
D	3,572 ⁷⁷	35	142	2.6	639.4	639.4	639.5	0.1
E	3,897 ⁷⁷	162	245	1.5	639.7	639.7	639.8	0.1
F	4,405 ⁷⁷	42	101	3.7	640.5	640.5	640.6	0.1
G	5,229 ⁷⁷	223	241	1.3	643.7	643.7	643.8	0.1
H	5,854 ⁷⁷	119	96	4.8	645.0	645.0	645.1	0.1
I	6,929 ⁷⁷	28	73	3.4	648.9	648.9	648.9	0.0
J	7,481 ⁷⁷	61	160	1.5	649.8	649.8	649.8	0.0
REVISED DATA								
Techny Drain South Fork		*	*	*	*	*	*	*
Third Creek								
A	2,400 ⁴	180	501	0.4	620.5	620.5	620.6	0.1
B	5,900 ⁴	120	188	1.0	624.9	624.9	625.0	0.1
C	10,300 ⁴	70	1,311	0.1	629.1	629.1	629.1	0.0
D	10,480 ⁴	330	1,019	0.1	629.1	629.1	629.2	0.1
E	12,560 ⁴	730	422	0.1	629.2	629.2	629.3	0.1
F	12,740 ⁴	160	2,550	0.0	631.5	631.5	631.5	0.0

⁴ Feet above mouth

⁷⁷ Feet above confluence with Chicago River, North Branch, West Fork

⁷⁸ 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

TABLE 19

FEDERAL EMERGENCY MANAGEMENT AGENCY

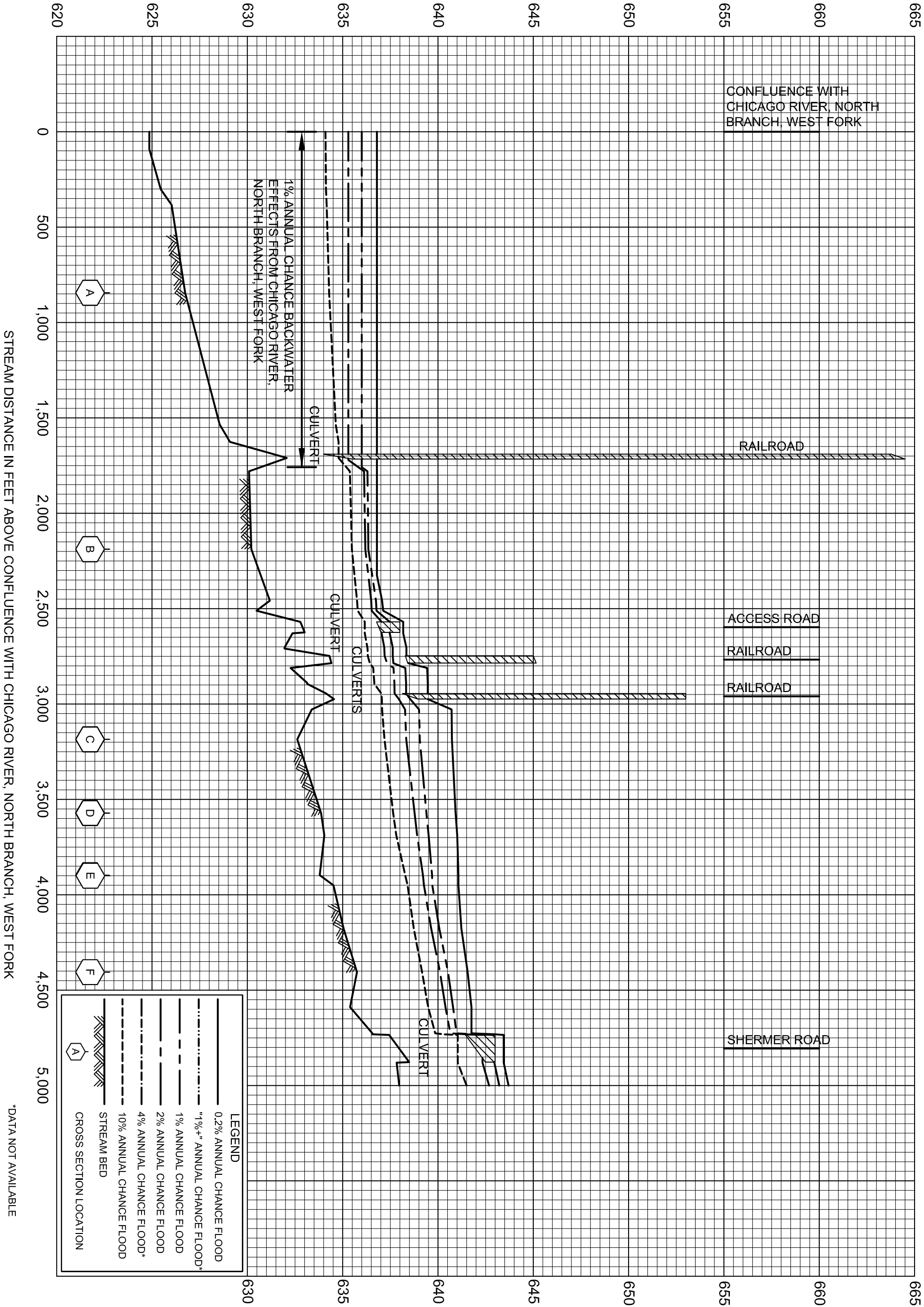
COOK COUNTY, IL
AND INCORPORATED AREAS

FLOODWAY DATA

TECHNY DRAIN – TECHNY DRAIN SOUTH
FORK – THIRD CREEK

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LOMR EFFECTIVE
JULY 20, 2018

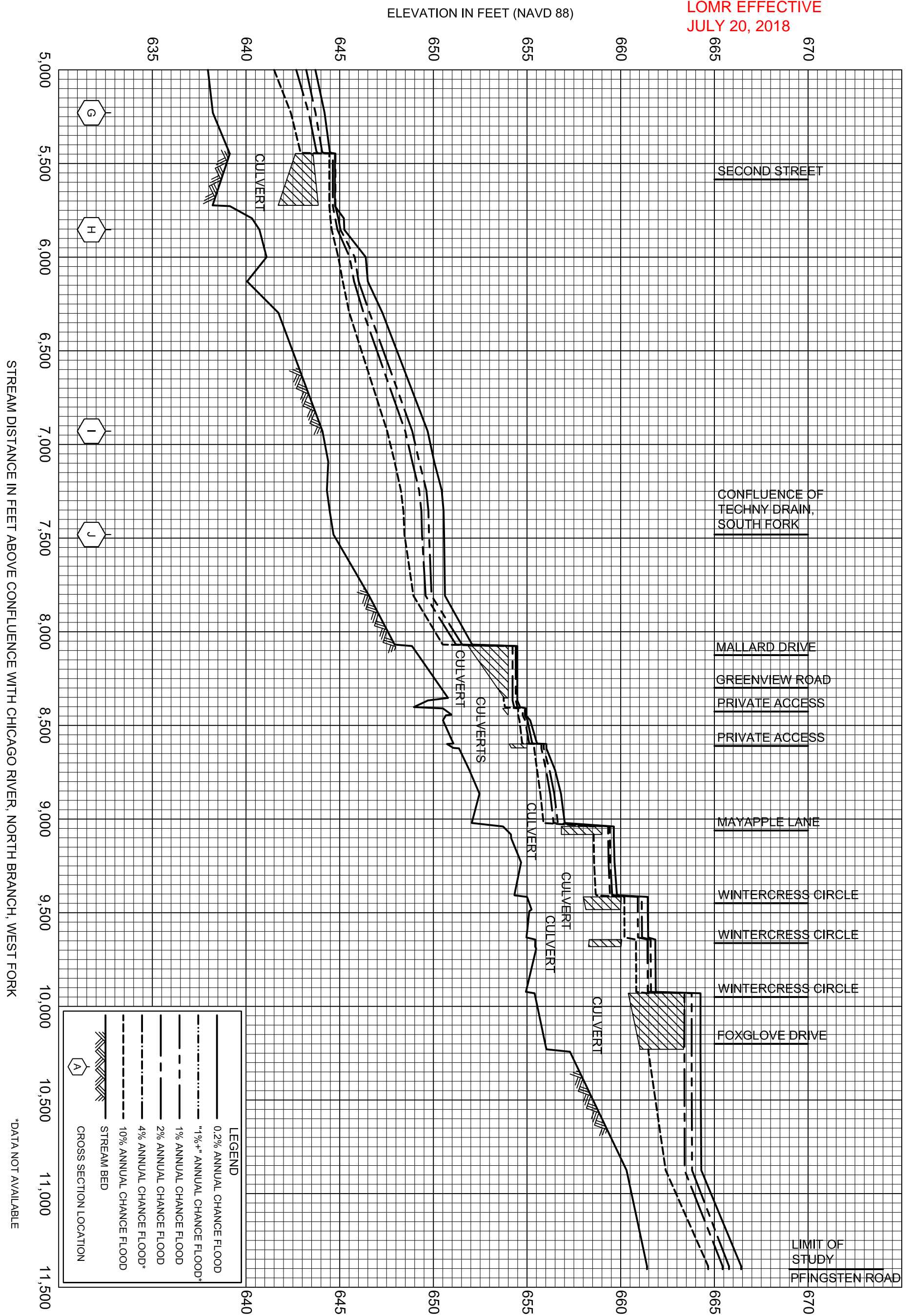
ELEVATION IN FEET (NAVD 88)



STREAM DISTANCE IN FEET ABOVE CONFLUENCE WITH CHICAGO RIVER, NORTH BRANCH, WEST FORK

* DATA NOT AVAILABLE

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LOMR EFFECTIVE
JULY 20, 2018



FEDERAL EMERGENCY MANAGEMENT AGENCY

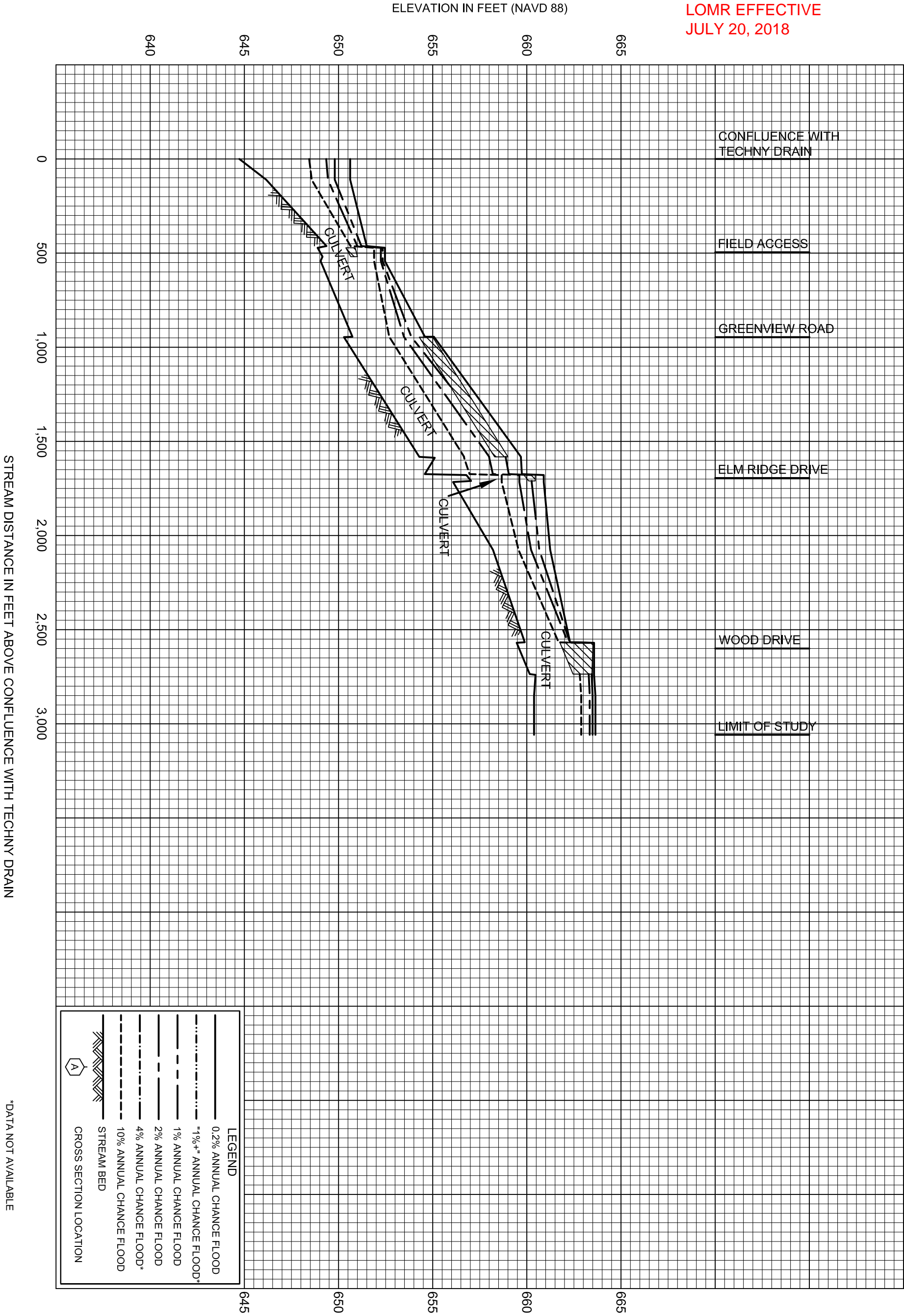
COOK COUNTY, IL
AND INCORPORATED AREAS

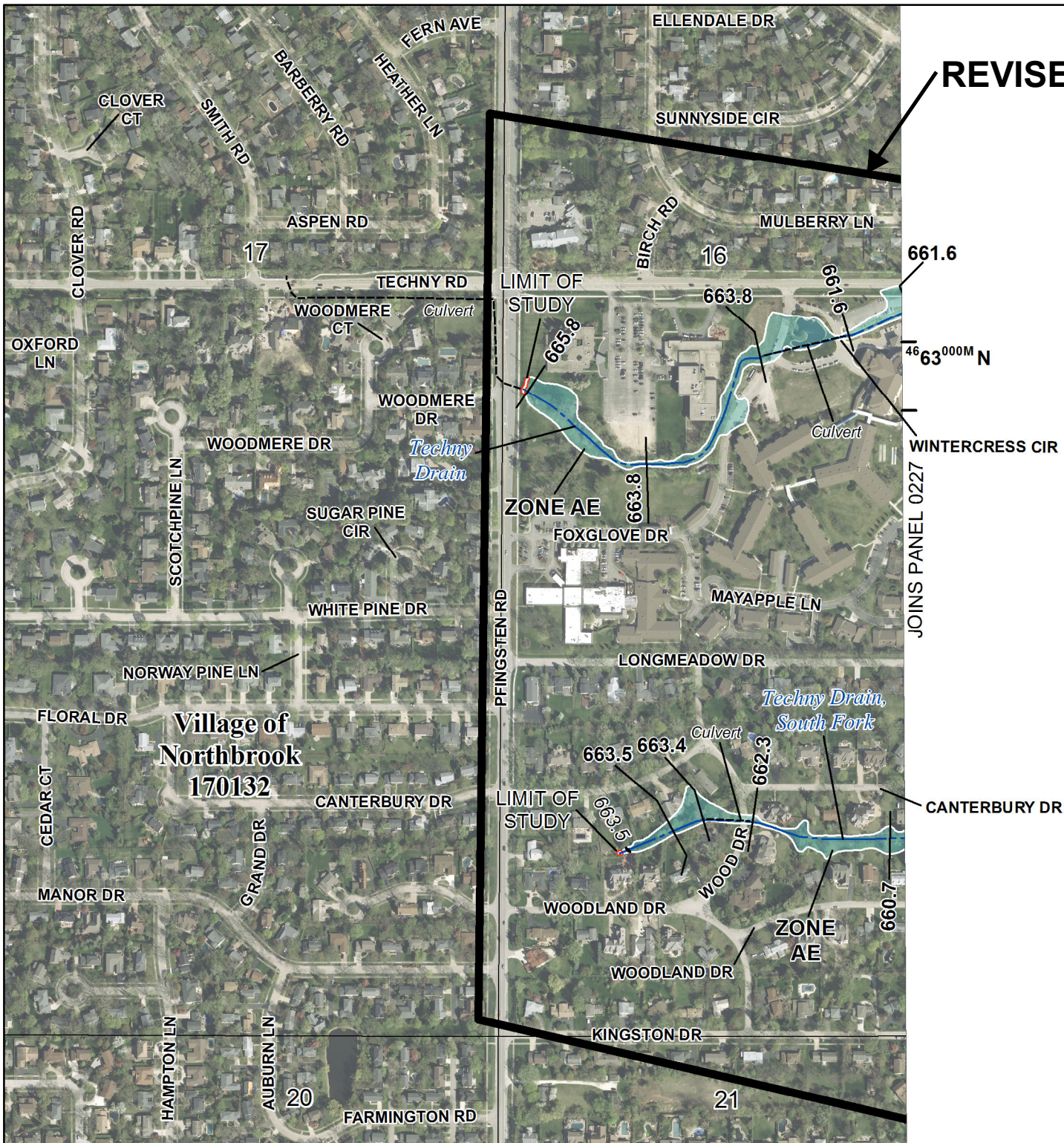
FLOOD PROFILES

TECHNY DRAIN

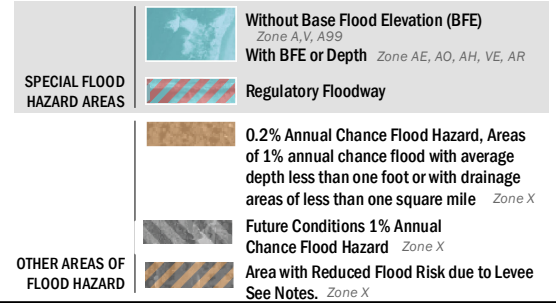
353P

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LOMR EFFECTIVE
JULY 20, 2018

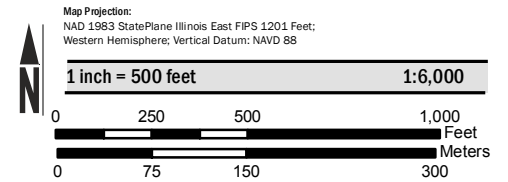




REVISED AREA



SCALE



FEMA
National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

COOK COUNTY, ILLINOIS
AND INCORPORATED AREAS

PANEL **226** OF **832**

Panel Contains:

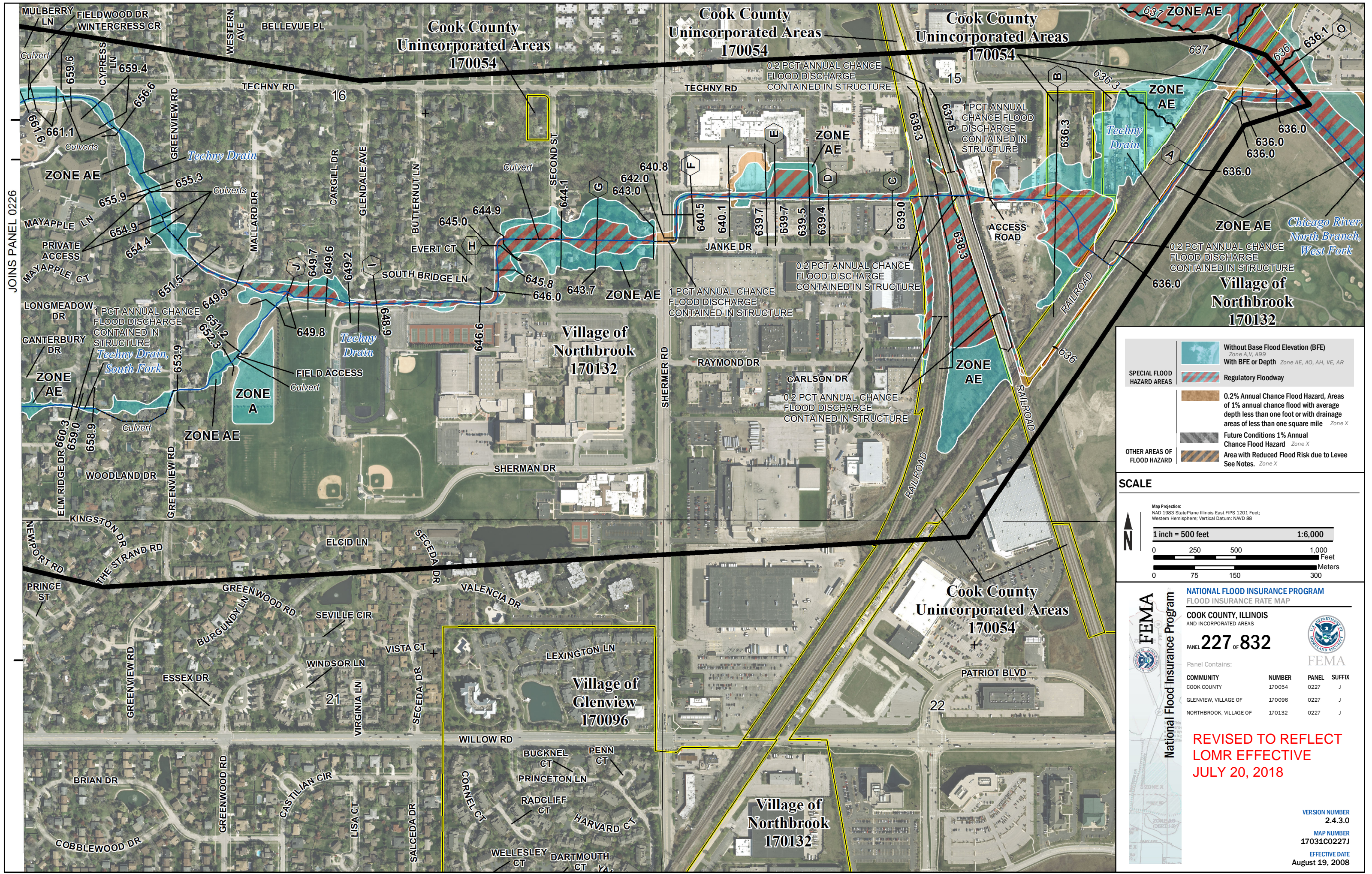
COMMUNITY	NUMBER	PANEL	SUFFIX
COOK COUNTY	170054	0226	J
GLENVIEW, VILLAGE OF	170096	0226	J
NORTHBROOK, VILLAGE OF	170132	0226	J

REVISED TO REFLECT LOMR EFFECTIVE JULY 20, 2018

VERSION NUMBER
2.4.3.0

MAP NUMBER
17031C0226J

EFFECTIVE DATE
August 19, 2008



JOINS PANEL 0226

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:
NAD 1983 StatePlane Illinois East FIPS 1201 Feet;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 500 feet 1:6,000

0 250 500 1,000 Feet
0 75 150 300 Meters

FEMA
National Flood Insurance Program

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

**COOK COUNTY, ILLINOIS
AND INCORPORATED AREAS**

227 OF 832

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
COOK COUNTY	170054	0227	J
GLENVIEW, VILLAGE OF	170096	0227	J
NORTHBROOK, VILLAGE OF	170132	0227	J

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