United City of Yorkville
651 Prairie Pointe Drive
Yorkville, Illinois 60560
Telephone: 630-553-4350
www.yorkville.il.us

AGENDA
CITY COUNCIL MEETING
Tuesday, April 23, 2024
7:00 p.m.
City Hall Council Chambers
651 Prairie Pointe Drive, Yorkville, IL

Call to Order:

Pledge of Allegiance:

Roll Call by Clerk:

WARD I	WARD II	WARD III	WARD IV
Ken Koch	Arden Joe Plocher	Chris Funkhouser	Seaver Tarulis
Dan Transier	Craig Soling	Matt Marek	Rusty Corneils

Establishment of Quorum:

Amendments to Agenda:

Presentations:

Public Hearings:

1. Corneils Solar Farm – Annexation

Citizen Comments on Agenda Items:

Consent Agenda:

1. Minutes of the Regular City Council – March 26, 2024
2. Minutes of the Regular City Council – April 9, 2024
3. Bill Payments for Approval
   $ 1,921,679.08 (vendors)
   $ 370,113.15 (payroll period ending 04/12/24)
   $ 2,291,792.23 (total)
4. PW 2024-31 Water Reports for July 2023 – March 2024
5. PW 2024-37 Kennedy Road and Freedom Place Intersection Improvements – Construction Engineering Agreement – *authorize the Mayor and City Clerk to execute*
6. ADM 2024-16 Treasurer's Report for March 2024
7. ADM 2024-21 Ordinance Approving the Third Amendment to the Amended Intergovernmental Cooperative Agreement Between the United City of Yorkville and the Yorkville Bristol Sanitary District Regarding Billing for District Services – *authorize the Mayor and City Clerk to execute*

Mayor's Report:

1. CC 2024-23 Poppy Days Proclamation
2. CC 2024-24 Motorcycle Awareness Month Proclamation
3. CC 2024-25 Appointment of Police Department FOIA Officer – Crystal Bieritz
4. CC 2024-26 Resolution Authorizing the Lease/Purchase of Eight Tasers from Axon Enterprises, Inc.
5. CC 2024-27 Parks and Recreation Truck Purchase
6. CC 2024-28 Resolution Approving a Memorandum of Understanding By and Between the United City of Yorkville, Kendall County, Illinois and the Illinois Fraternal Order of Police Labor Council
7. CC 2024-29 Resolution Adopting the 2024 Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan
8. CC 2024-30 Ordinance Approving an Amendment to the Yorkville Unified Development Ordinance Regarding Park and Recreation and School Site Dedication (Land Cash)
9. CC 2024-31 Ordinance Amending Water Service Rates
10. CC 2024-32 Resolution Approving an Intergovernmental Agreement Between the United City of Yorkville and Bristol Township
11. CC 2024-33 Resolution Approving a Sublease Agreement Between the United City of Yorkville and Yorkville Community Unit School District No. 115

Public Works Committee Report:

1. PW 2024-34 Leak Detection Contract with M.E. Simpson
2. PW 2024-35 Pavement Management Program Update – Preliminary Engineering Agreement
3. PW 2024-36 Kennedy Road and Freedom Place Intersection Improvements – Contract Award
4. PW 2024-38 Supplemental MFT Resolution for Bulk Rock Salt

Economic Development Committee Report:

Public Safety Committee Report:

Administration Committee Report:

1. ADM 2024-20 Aurora Area Convention & Visitors Bureau (AACVB) 2024 Municipal Marketing Plan
2. ADM 2024-22 Salary Ranges of City Employees

Park Board:

Planning and Zoning Commission:

City Council Report:

City Clerk's Report:

Community and Liaison Report:

Staff Report:

Mayor's Report (cont'd):

12. CC 2021-04 City Buildings Updates
13. CC 2021-38 Water Study Update

Additional Business:

Citizen Comments:

Executive Session:

Adjournment:

COMMITTEES, MEMBERS AND RESPONSIBILITIES

ADMINISTRATION: April 17, 2024 – 6:00 p.m. – East Conference Room #337

Committee		Departments	Liaisons
Chairman:	Alderman Marek	Finance	Library
Vice-Chairman:	Alderman Plocher	Administration	
Committee:	Alderman Koch		
Committee:	Alderman Corneils		

ECONOMIC DEVELOPMENT: May 7, 2024 – 6:00 p.m. – East Conference Room #337

Committee		Departments	Liaisons
Chairman:	Alderman Plocher	Community Development	Planning & Zoning Commission
Vice-Chairman:	Alderman Funkhouser	Building Safety & Zoning	Kendall Co. Plan Commission
Committee:	Alderman Transier		
Committee:	Alderman Tarulis		

PUBLIC SAFETY: May 2, 2024 – 6:00 p.m. – East Conference Room #337

Committee		Departments	Liaisons
Chairman:	Alderman Transier	Police	School District
Vice-Chairman:	Alderman Tarulis		
Committee:	Alderman Soling		
Committee:	Alderman Funkhouser		

PUBLIC WORKS: May 21, 2024 – 6:00 p.m. – East Conference Room #337

Committee		Departments	Liaisons
Chairman:	Alderman Koch	Public Works	Park Board
Vice-Chairman:	Alderman Soling	Engineering	YBSD
Committee:	Alderman Marek	Parks and Recreation	
Committee:	Alderman Corneils		

UNITED CITY OF YORKVILLE
WORKSHEET
CITY COUNCIL
Tuesday, April 23, 2024
7:00 PM
CITY COUNCIL CHAMBERS

AMENDMENTS TO AGENDA:

CITIZEN COMMENTS ON AGENDA ITEMS:

CONSENT AGENDA:

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1. Minutes of the Regular City Council – March 26, 2024
   - ☐ Approved: **Y** _____ **N** _____ □ Subject to _____
   - ☐ Removed _____
   - ☐ Notes _____

     _____

     _____

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2. Minutes of the Regular City Council – April 9, 2024
   - ☐ Approved: **Y** _____ **N** _____ □ Subject to _____
   - ☐ Removed _____
   - ☐ Notes _____

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3. Bill Payments for Approval
   - ☐ Approved _____
     - ☐ As presented
     - ☐ As amended
   - ☐ Notes _____

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4. PW 2024-31 Water Reports for July 2023 – March 2024
   - ☐ Approved: **Y** _____ **N** _____ □ Subject to _____
   - ☐ Removed _____
   - ☐ Notes _____

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5. PW 2024-37 Kennedy Road and Freedom Place Intersection Improvements – Construction Engineering Agreement

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

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6. ADM 2024-16 Treasurer's Report for March 2024

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

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7. ADM 2024-21 Ordinance Approving the Third Amendment to the Amended Intergovernmental Cooperative Agreement Between the United City of Yorkville and the Yorkville Bristol Sanitary District Regarding Billing for District Services

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

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MAYOR'S REPORT:

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1. CC 2024-23 Poppy Days Proclamation

   ☐ Approved: **Y** _____ **N** _____ □ Subject to _____

   ☐ Removed _____

   ☐ Notes _____

   _____

   _____

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2. CC 2024-24 Motorcycle Awareness Month Proclamation

   ☐ Approved: **Y** _____ **N** _____ □ Subject to _____

   ☐ Removed _____

   ☐ Notes _____

   _____

   _____

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3. CC 2024-25 Appointment of Police Department FOIA Officer – Crystal Bieritz

   ☐ Approved: **Y** _____ **N** _____ □ Subject to _____

   ☐ Removed _____

   ☐ Notes _____

   _____

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4. CC 2024-26 Resolution Authorizing the Lease/Purchase of Eight Tasers from Axon Enterprises, Inc.
   - ☐ Approved: **Y** _____ **N** _____ □ Subject to _____
   - ☐ Removed _____
   - ☐ Notes _____

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5. CC 2024-27 Parks and Recreation Truck Purchase
   - ☐ Approved: **Y** _____ **N** _____ □ Subject to _____
   - ☐ Removed _____
   - ☐ Notes _____

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6. CC 2024-28 Resolution Approving a Memorandum of Understanding By and Between the United City of Yorkville, Kendall County, Illinois and the Illinois Fraternal Order of Police Labor Council
   - ☐ Approved: **Y** _____ **N** _____ □ Subject to _____
   - ☐ Removed _____
   - ☐ Notes _____

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7. CC 2024-29 Resolution Adopting the 2024 Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

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8. CC 2024-30 Ordinance Approving an Amendment to the Yorkville Unified Development Ordinance Regarding Park and Recreation and School Site Dedication (Land Cash)

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

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9. CC 2024-31 Ordinance Amending Water Service Rates

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

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10. CC 2024-32 Resolution Approving an Intergovernmental Agreement Between the United City of Yorkville and Bristol Township

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

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11. CC 2024-33 Resolution Approving a Sublease Agreement Between the United City of Yorkville and Yorkville Community School District No. 115

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

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PUBLIC WORKS COMMITTEE REPORT:

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1. PW 2024-34 Leak Detection Contract with M.E. Simpson

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

_____

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2. PW 2024-35 Pavement Management Program Update – Preliminary Engineering Agreement

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

_____

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3. PW 2024-36 Kennedy Road and Freedom Place Intersection Improvements – Contract Award

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

_____

_____

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4. PW 2024-38 Supplemental MFT Resolution for Bulk Rock Salt

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

_____

_____

ADMINISTRATION COMMITTEE REPORT:

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1. ADM 2024-20 Aurora Area Convention & Visitors Bureau (AACVB) 2024 Municipal Marketing Plan
   - ☐ Approved: **Y** _____ **N** _____ □ Subject to _____
   - ☐ Removed _____
   - ☐ Notes _____

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2. ADM 2024-22 Salary Ranges of City Employees
   - ☐ Approved: **Y** _____ **N** _____ □ Subject to _____
   - ☐ Removed _____
   - ☐ Notes _____

MAYOR'S REPORT (CONT'D):

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12. CC 2021-04 City Building Updates
    - ☐ Approved: **Y** _____ **N** _____ □ Subject to _____
    - ☐ Removed _____
    - ☐ Notes _____

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13. CC 2021-38 Water Study Update

☐ Approved: **Y** _____ **N** _____ □ Subject to _____

☐ Removed _____

☐ Notes _____

_____

_____

ADDITIONAL BUSINESS:

CITIZEN COMMENTS:

Reviewed By:	
Legal	■
Finance	☐
Engineer	■
City Administrator	■
Community Development	■
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Public Hearing #1

Tracking Number

Agenda Item Summary Memo

Title: **PUBLIC HEARING** Corneils Road Solar – Solar Farm (Annexation)

Meeting and Date: City Council – April 23, 2024

Synopsis: Requested annexation & agreement approval for a proposed alternative energy system or "solar farm".

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Krysti Barksdale – Noble, AICP (Name) Community Development (Department)

Agenda Item Notes:

See attached memo.

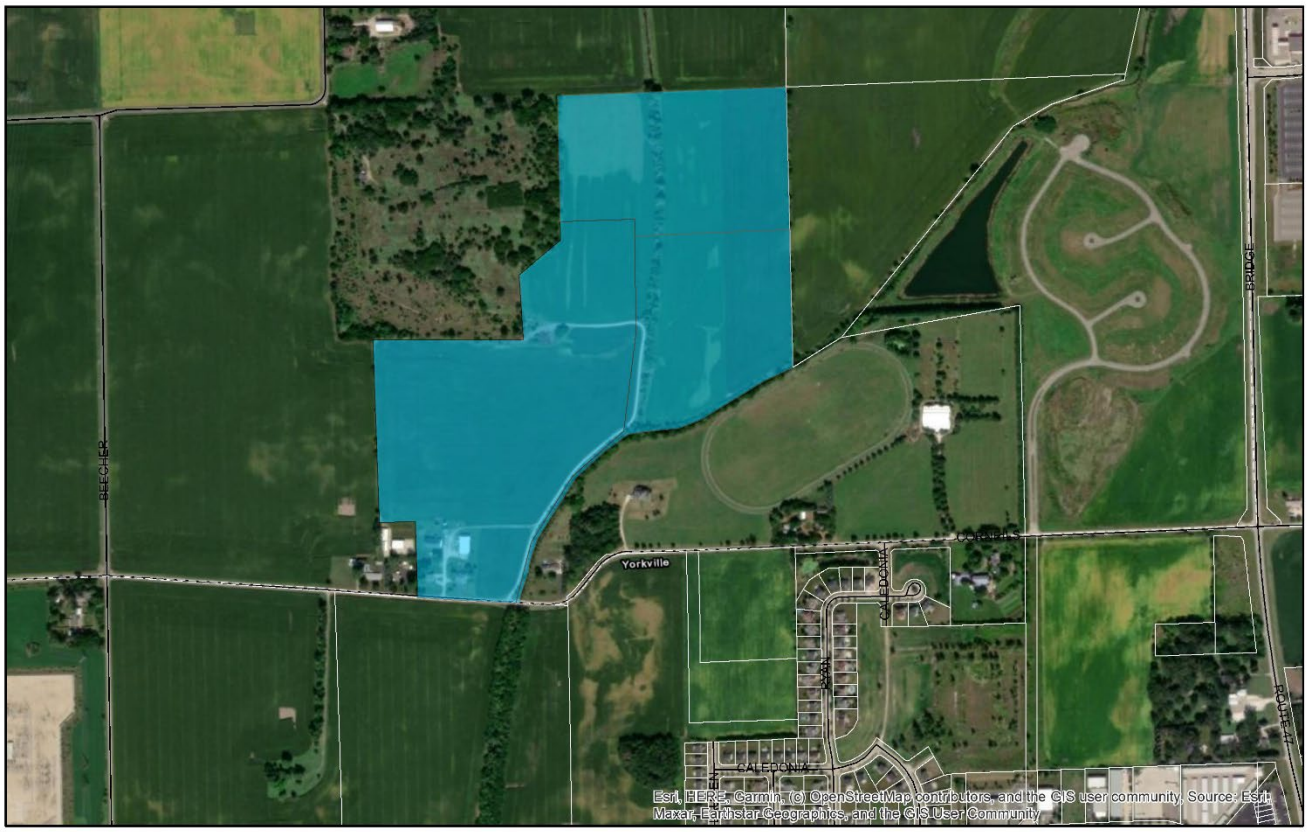
Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: City Council
From: Krysti Barksdale-Noble, Community Development Director
CC: Bart Olson, City Administrator
Sara Mendez, Planner I
Date: April 12, 2024
Subject: **Corneils Road Solar, LLC/Nexamp, Inc. (Bennett)**
PUBLIC HEARING Proposed Annexation Agreement Request

SUMMARY:

The petitioner, Daniel Kramer on behalf of Nexamp dba Corneils Road Solar, LLC, contract leasee, is requesting annexation, rezoning, and special use permit approval to construct a 5-megawatt (MW) alternating current (AC) freestanding community solar farm. As part of the request, the petitioner is seeking to annex three (3) unincorporated agricultural parcels (#02-08-300-008, 02-08-300-011, and 02-08-300-012). The owners of the real property are Gary and Betty Bennett. The proposed 31-acre solar farm will be situated on approximately 94 acres of existing farmland located in unincorporated Kendall County immediately north of Corneils Road, east of Beecher Road and west of IL Route 47 (N. Bridge Street). The property also consists of an existing farm homestead with accessory buildings. The required rezoning and special use for the solar farm development has been reviewed by the Planning and Zoning Commission at the April 10, 2024 meeting. This memorandum covers the project description and the area proposed for annexation.



Cornelis Solar Farm Location Map

United City of Yorkville, Illinois
Date: Febuary 21, 2024
File Location: I:\ARCGIS TEMPLATES:\Cornelis Solar Farm Loation Map

ANNEXATION REQUEST:

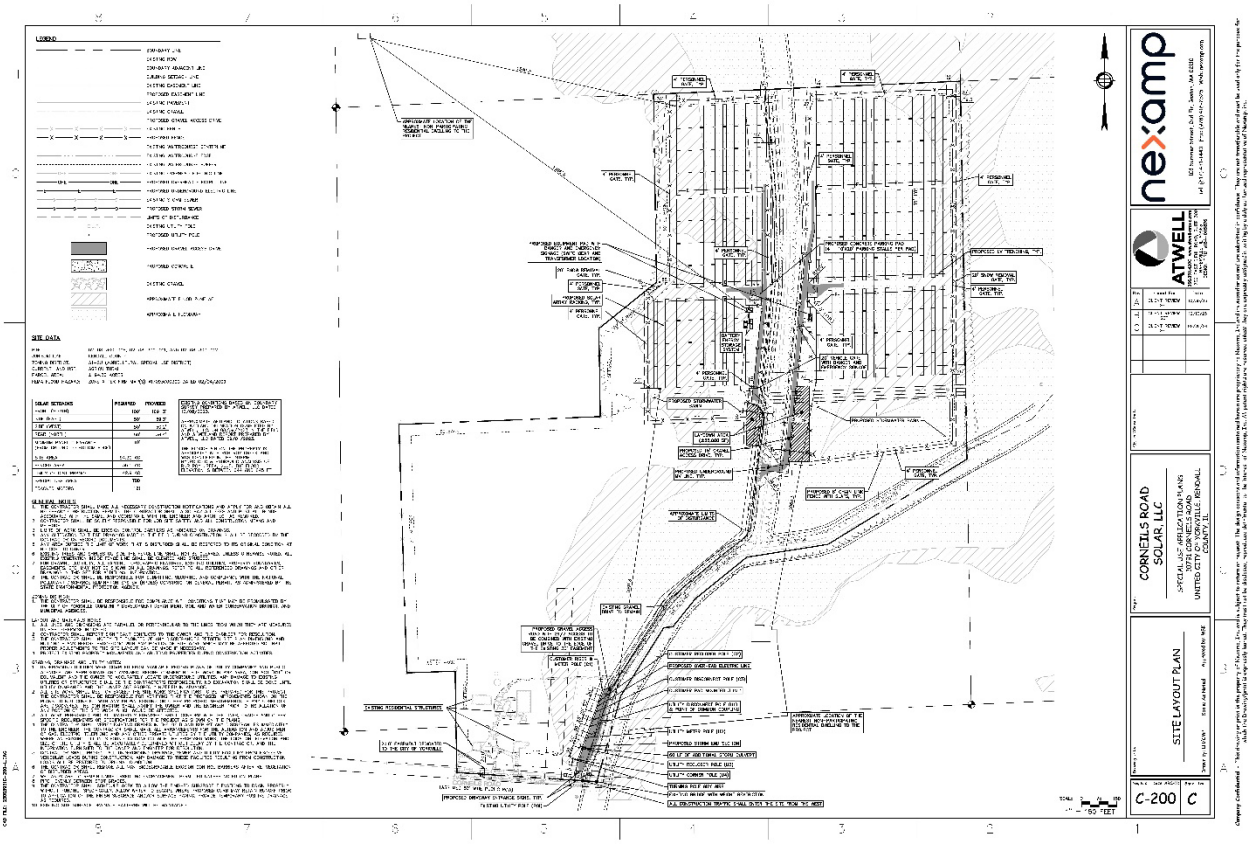
As mentioned, the applicant seeks annexation of three (3) unincorporated parcels, #02-08-300-008, 02-08-300-011, and 02-08-300-012, totaling approximately 94-acres for the purpose of constructing and operating a community solar farm on approximately 31 acres of the annexed area. Contiguity of the subject parcels and Yorkville's current corporate boundary is established immediately south of Corneils Road (Westbury South Village) and abutting to the east is the Westbury East Village. Both developments are unimproved but are entitled for mixed-use planned unit developments.

Annexation is contingent upon City Council approval of a requested rezoning to A-1 Agricultural District and special use authorization for the solar farm. A draft annexation agreement and the proposed Plat of Annexation has been provided for review and comment.

PROJECT DESCRIPTION:

The proposed commercial solar farm will consist of approximately 11,592 modules installed over ~31-acres of the existing farmland and enclosed within a fenced area, per the project narrative. The system will include two (2) central inverters and 1-2 transformers, per the Decommissioning Plan. Additionally, the inverters and transformers will be located within the fence and mounted on a concrete pad. The petitioner will enter a twenty (20) year lease with the property owner to operate the proposed community solar farm. The lease also has an option to extend the lease term for one (1) ten (10) year term and then for one or both of two (2) additional five (5) year terms.

In addition to meeting the required minimum setbacks, the closest array/module of the proposed solar farm will be ~1,336 feet from the property line of the nearest unincorporated residence located northwest on E. Beecher Road. Further, the overall solar farm project area is approximately 2,000 feet from the nearest residentially platted Yorkville property in the Caledonia subdivision located to the south.



RECENT UDO TEXT AMENDMENT

The City Council recently approved an amendment to the Unified Development Ordinance at their March 26, 2024 meeting establishing acceptable locations of solar farm developments within Yorkville which are as follows: (1) a minimum 1,000-foot buffer between the nearest solar array and a major roadway and (2) a minimum 1,000-foot buffer between the nearest solar array and the Fox River. The proposed location of the Corneils Road Solar Farm meets the above approved criteria.

THE COMPREHENSIVE PLAN

The 2016 Comprehensive Plan designates the future land use for this property as Estate/Conservation Residential (ERC). The Estate/Conservation Residential (ERC) designation is generally intended for future neighborhood developments that promotes flexibility in residential design, accommodates low density detached single family housing, and is sensitive to environmental and scenic features of the area and utilized this land use designation as a "holding" classification for those areas, particularly on the outskirts or along the perimeter of the City's corporate boundaries that lacked the public infrastructure to support the development of the land within the 10-year timeline of the plan.

While the proposed A-1 Agricultural District is not dissimilar to the large lot/low density residential envisioned for the ERC future land use designation, an amendment to the Comprehensive Plan would be required if the rezoning is approved.

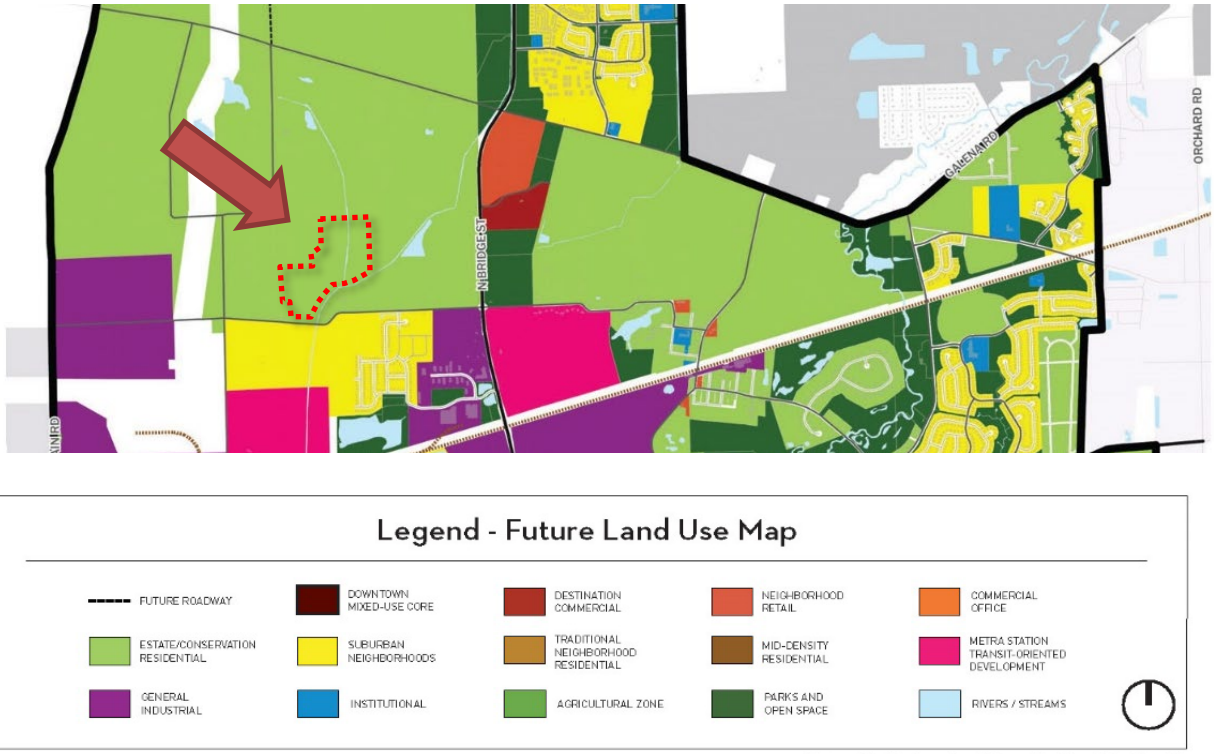


Figure 4.1 - Future Land Uses North of the Fox River

REQUEST\COMMENTS\CONCERNS:

The petitioner is requesting a straightforward annexation into the City of Yorkville for the three (3) parcels meaning they aren't seeking relief or variance from the request A-1 Agricultural District. Further, the annexation is contingent upon approval of the requested rezoning and special use authorization for the solar farm. However, there may be additional requirements and conditions for the solar farm which will be tied to the special use, if authorized. Both the rezoning and special use requests

were heard at a public hearing before the Planning and Zoning Commission on April 10th and a resident provided written feedback which has been attached to this memo for your consideration.

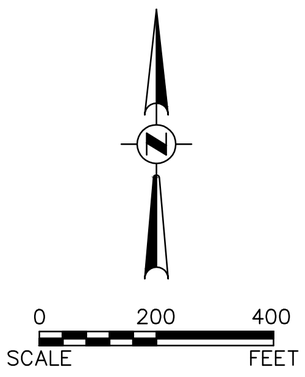
ATTACHMENTS:

1. Draft Annexation Ordinance
2. Draft Annexation Agreement
3. Revised Plan submittal date last revised 02/26/24
4. Corneils Road Solar Project Narrative with Attachments
5. Public Hearing Notice
6. Letter from Resident at PZC meeting

PLAT OF ANNEXATION

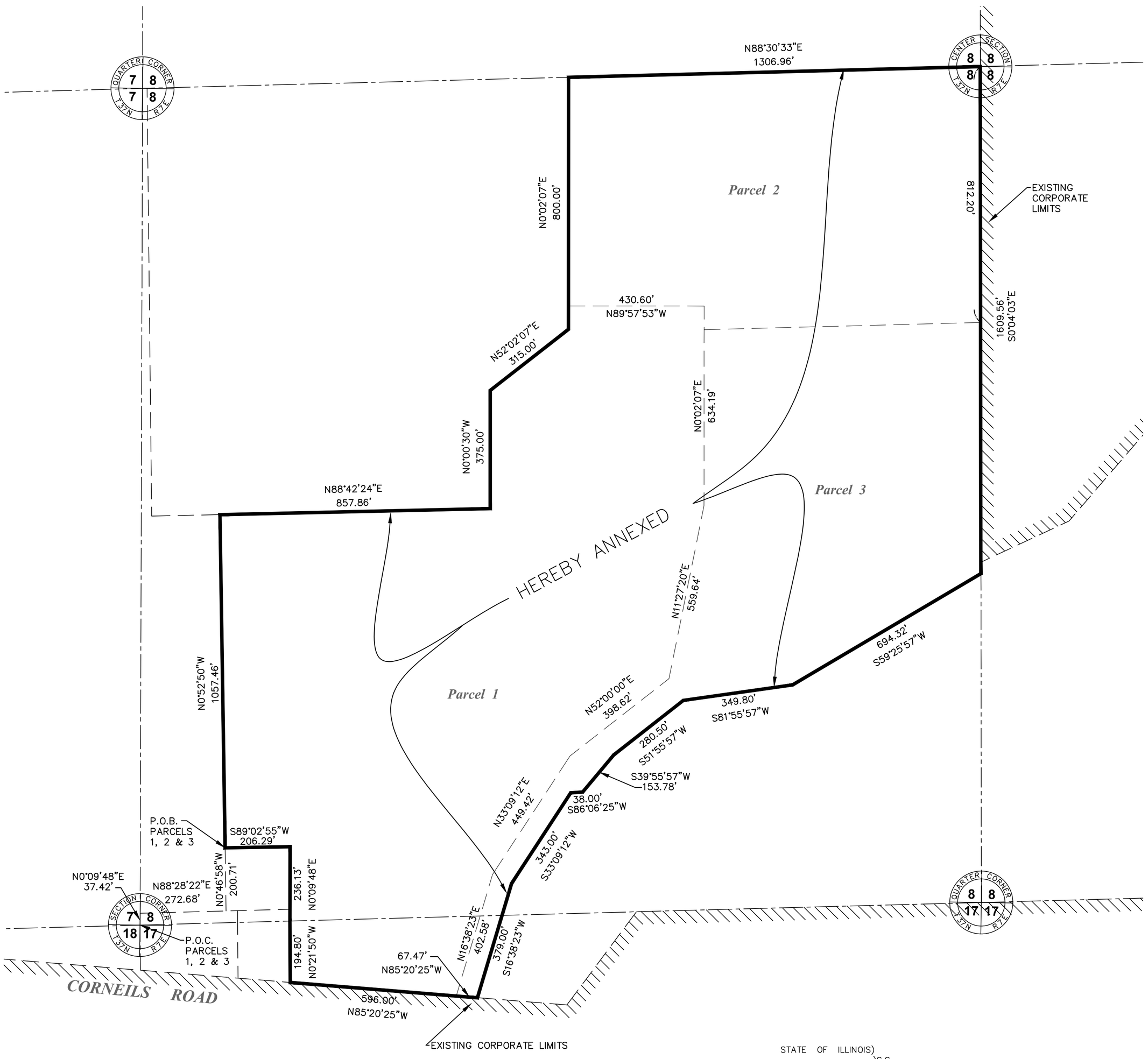
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN

PARCEL 1:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00 ° 09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.68 FEET; THENCE NORTH 00°46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52'50" WEST 1,057.46 FEET; THENCE NORTH 88° 42'24" EAST, 857.86 FEET; THENCE NORTH 00° 00'30" WEST, 375.0 FEET; THENCE NORTH 52° 02'07" EAST, 315.0 FEET, THENCE NORTH 00° 02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88° 30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00° 04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25'57" WEST, 694.32 FEET; THENCE SOUTH 81° 55'57" WEST, 349.80 FEET; THENCE SOUTH 51° 55'57" WEST 280.50 FEET; THENCE SOUTH 39° 55'57" WEST, 153.78 FEET; THENCE SOUTH 86° 06'25" WEST, 38.0 FEET THENCE SOUTH 33° 09'12" WEST, 343.0 FEET; THENCE SOUTH 16°38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21'50" WEST ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00° 09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02'55" EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89° 02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING EASTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38'23" EAST, 402.58 FEET; THENCE NORTH 33° 09'12" EAST, 449.42 FEET; THENCE NORTH 52° EAST, 398.62 FEET; THENCE NORTH 11° 27'20" EAST, 559.64 FEET; THENCE NORTH 00°02'07" EAST, 634.19 FEET; THENCE NORTH 89° 57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02'07" EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;



PARCEL 2:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.68 FEET; THENCE NORTH 00° 46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52'50" WEST 1,057.46 FEET; THENCE NORTH 88° 42'24" EAST, 857.86 FEET; THENCE NORTH 00° 00'30" WEST, 375.0 FEET; THENCE NORTH 52° 02'07" EAST, 315.0 FEET, THENCE NORTH 00 ° 02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88° 30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00° 04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25'57" WEST, 694.32 FEET; THENCE SOUTH 81° 55'57" WEST, 349.80 FEET; THENCE SOUTH 51° 55'57" WEST 280.50 FEET; THENCE SOUTH 39° 55'57" WEST, 153.78 FEET; THENCE SOUTH 86° 06'25" WEST, 38.0 FEET; THENCE SOUTH 33° 09'12" WEST, 343.0 FEET;THENCE SOUTH 16° 38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21'50" WEST ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE;THENCE NORTH 00° 09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02'55" EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89° 02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING WESTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38'23" EAST, 402.58 FEET; THENCE NORTH 33° 09'12" EAST, 449.42 FEET; THENCE NORTH 52° 00'00" EAST, 398.62 FEET; THENCE NORTH 11° 27'20" EAST, 559.64 FEET; THENCE NORTH 00° 02'07" EAST, 634.19 FEET; THENCE NORTH 89° 57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02'07" EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4 FOR THE TERMINUS OF SAID LINE, AND EXCEPT THAT PART THEREOF LYING SOUTHERLY OF THE SOUTHERLY LINE OF THE NORTHERLY 812.20 FEET, MEASURED ALONG THE EASTERLY LINE, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;

PARCEL 3:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 26'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.66 FEET; THENCE NORTH 00° 46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52'50" WEST 1,057.46 FEET; THENCE NORTH 88° 42'24" EAST, 857.86 FEET; THENCE NORTH 00° 00'30" WEST, 375.0 FEET; THENCE NORTH 52° 02'07" EAST, 315.0 FEET, THENCE NORTH00 °02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88 ° 30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00 °04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25'57" WEST, 694.32 FEET; THENCE SOUTH 81° 55'57" WEST, 349.80 FEET; THENCE SOUTH 51° 55'57" WEST 280.50 FEET; THENCE SOUTH 39° 55'57" WEST, 153.78 FEET; THENCE SOUTH 86°06'25" WEST, 38.0 FEET; THENCE SOUTH 33° 09'12" WEST, 343.0 FEET; THENCE SOUTH 16° 38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21'50" WEST, ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00° 09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02'55" EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89° 02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING WESTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38'23"EAST, 402.58 FEET; THENCE NORTH 33° 09'12" EAST, 449.42 FEET; THENCE NORTH 52° 00'00" EAST, 398.62 FEET; THENCE NORTH 11° 27'20" EAST, 559.64 FEET; THENCE NORTH 00 ° 02'07" EAST, 634.19 FEET; THENCE NORTH 89° 57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02'07" EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4, AND EXCEPT THAT PART THEREOF LYING NORTHERLY OF THE SOUTHERLY LINE OF THE NORTHERLY 812.20 FEET, MEASURED ALONG THE EASTERLY LINE, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS.



STATE OF ILLINOIS)
)S.S.
COUNTY OF KANE)

THIS IS TO CERTIFY THAT WE, ENGINEERING ENTERPRISES, INC. HAVE PLATTED THE PROPERTY DESCRIBED HEREON, AS SHOWN BY THE ATTACHED PLAT FOR THE PURPOSE OF ANNEXATION TO THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS. ALL DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF.

DATED AT SUGAR GROVE, ILLINOIS, THIS 16th DAY OF APRIL 2024.

BY: _____
ILLINOIS PROFESSIONAL LAND SURVEYOR NO 3581
(EXP. 11/30/24)

MARK G. SCHELLER
035-003581
PROFESSIONAL LAND SURVEYOR STATE OF ILLINOIS
SUGAR GROVE, IL

50 YEARS
Engineering Enterprises, Inc.
CONSULTING ENGINEERS
52 Wheeler Road
Sugar Grove, Illinois 60554
630.466.6700 / www.eeiweb.com

UNITED CITY OF YORKVILLE
651 PRAIRIE POINT DRIVE
YORKVILLE , IL 60560

PLAT OF ANNEXATION

DATE:	APRIL 16, 2024
PROJECT NO.	YO2402
FILE NO YO2402 CORNEILS RD SOLAR	

Ordinance No. 2024-_____

AN ORDINANCE OF THE UNITED CITY OF YORKVILLE, ILLINOIS, ANNEXING CERTAIN TERRITORY GENERALLY LOCATED IMMEDIATELY NORTH OF CORNEILS ROAD, EAST OF BEECHER ROAD, AND WEST OF IL STATE ROUTE 47 (Corneils Road Solar, LLC – Solar Farm)

WHEREAS, the United City of Yorkville (the "City") is a duly organized and validly existing non-home rule municipality created in accordance with the Constitution of the State of Illinois of 1970 and the laws of the State; and,

WHEREAS, a duly executed *PETITION FOR ANNEXATION*, signed by Gary and Betty Bennett, owners, and submitted by contract lessee, Nexamp dba Corneils Road Solar, LLC, has been filed with the City, requesting that certain territory legally described hereinafter be annexed to the City; and,

WHEREAS, there are no electors residing within said territory: and,

WHEREAS, the said territory is not within the corporate limits of any municipality, but is contiguous to the City; and,

WHEREAS, legal notices regarding the intention of the City to annex said territory have been sent to all public bodies required to receive such notice by state statute; and,

WHEREAS, all petitions, documents and other necessary legal requirements are in full compliance with the terms of the statutes of the State of Illinois, specifically Section 7-1-8 of the Illinois Municipal Code; and,

WHEREAS, it is in the best interests of the City that said territory be annexed.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1. That the legal description and property index number(s) of the territory to be annexed are as follows:

PARCEL 1:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF
SAID SOUTHWEST 1/4; THENCE NORTH 00 ° 09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.68 FEET; THENCE NORTH 00°46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52'50" WEST 1,057.46 FEET; THENCE NORTH 88° 42'24" EAST, 857.86 FEET; THENCE NORTH 00° 00'30" WEST, 375.0 FEET; THENCE NORTH 52° 02'07" EAST, 315.0 FEET, THENCE NORTH 00° 02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88° 30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00° 04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25'57" WEST, 694.32 FEET; THENCE SOUTH 81° 55'57" WEST, 349.80 FEET;THENCE SOUTH 51° 55'57" WEST 280.50 FEET; THENCE SOUTH 39° 55'57" WEST, 153.78 FEET; THENCE SOUTH 86° 06'25" WEST, 38.0 FEET THENCE SOUTH 33° 09'12" WEST, 343.0 FEET; THENCE SOUTH 16°38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21'50" WEST ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00° 09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02'55" EAST FROM THE POINT OF BEGINNING;THENCE SOUTH 89° 02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING EASTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38'23" EAST, 402.58 FEET; THENCE NORTH 33° 09'12" EAST, 449.42 FEET; THENCE NORTH 52° EAST, 398.62 FEET; THENCE NORTH 11° 27'20" EAST, 559.64 FEET; THENCE NORTH 00°02'07" EAST, 634.19 FEET; THENCE NORTH 89° 57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02'07" EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;

PARCEL 2:
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ALONG THE EASTERLY LINE, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;

PARCEL 3:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 26'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.66 FEET; THENCE NORTH 00° 46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52'50" WEST 1,057.46 FEET; THENCE NORTH 88° 42'24" EAST, 857.86 FEET; THENCE NORTH 00° 00'30" WEST, 375.0 FEET; THENCE NORTH 52° 02'07" EAST, 315.0 FEET, THENCE NORTH00 °02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88 ° 30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00 °04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25'57" WEST, 694.32 FEET; THENCE SOUTH 81° 55'57" WEST, 349.80 FEET; THENCE SOUTH 51° 55'57" WEST 280.50 FEET; THENCE SOUTH 39° 55'57" WEST, 153.78 FEET; THENCE SOUTH 86°06'25" WEST, 38.0 FEET; THENCE SOUTH 33° 09'12" WEST, 343.0 FEET; THENCE SOUTH 16° 38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21'50" WEST, ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00° 09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02'55" EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89° 02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING WESTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38'23"EAST, 402.58 FEET; THENCE NORTH 33° 09'12" EAST, 449.42 FEET; THENCE NORTH 52° 00'00" EAST, 398.62 FEET; THENCE NORTH 11° 27'20" EAST, 559.64 FEET; THENCE NORTH 00 ° 02'07" EAST, 634.19 FEET; THENCE NORTH 89° 57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02'07" EAST

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Property Index Numbers 02-08-300-008, 02-08-300-011, and 02-08-300-012

Section 2. That the territory described in Section 1 above is hereby annexed to the United City of Yorkville, Illinois.

Section 3. That the City Clerk is hereby directed within 90 days from the effective date of this ordinance to record or cause to be recorded with the Office of the Kendall County Recorder and to file with the Kendall County Clerk a certified copy of this Ordinance, together with the *Plat of Annexation* appended to this Ordinance.

Section 4. That this Ordinance shall be in full force and effect from and after its passage, approval, and publication in the manner provided by law.

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

CITY CLERK

KEN KOCH	_____	DAN TRANSIER	_____
ARDEN JOE PLOCHER	_____	CRAIG SOLING	_____
CHRIS FUNKHOUSER	_____	MATT MAREK	_____
SEAVER TARULIS	_____	RUSTY CORNEILS	_____

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

MAYOR

STATE OF ILLINOIS)
) ss.
COUNTY OF KENDALL)

ANNEXATION AGREEMENT

This Annexation Agreement (hereinafter ("*Agreement*"), is made and entered into this _____ day of _____, 2024, by and between the United City of Yorkville, a municipal corporation, hereinafter referred to as "*City*" and Gary and Betty Bennett, hereinafter jointly referred to as "*Owner*".

WITNESSETH:

WHEREAS, the Owner owns fee simple interest to the real property, which is legally described in *Exhibit A* attached hereto, consisting of approximately 94 acres, more or less (the "*Subject Property*"); and,

WHEREAS, it is the desire of the Owner to provide for the annexation of the Subject Property and to use the Subject Property in accordance with the terms of this Agreement and the ordinances of the City; and, to provide that when annexed, the Subject Property is to be zoned as A-1 Agricultural District with a special use for a solar farm; and,

WHEREAS, it is the desire of the Mayor and City Council (the "*Corporate Authorities*") to annex the Subject Property and permit the solar farm as a special use, all being pursuant to the terms and conditions of this Agreement and the ordinances of the City; and,

WHEREAS, Owner and City have or will perform and execute all acts required by law to effectuate such annexation; and,

WHEREAS, all notices and publications as required by law relating to the zoning and special use of the Subject Property and the Agreement have been published and given to the persons or entities entitled thereto, pursuant to the applicable provisions of the Illinois Municipal Code (the "*Municipal Code*"); and,

WHEREAS, the Corporate Authorities of the City have duly fixed the time for a public hearing on this Agreement and pursuant to legal notice have held such hearing thereon all as required by the provisions of the Municipal Code; and,

WHEREAS, the Planning and Zoning Commission of the City and has duly held all public hearings relating to zoning and special use for the solar farm, all as required by the provisions of the City's Zoning Code and the Municipal Code (the "*Municipal Code*"); and,

WHEREAS, the Owner and City agree that upon Annexation to the City of the Subject Property shall be placed in the A-1 Agricultural District; and,

WHEREAS, in accordance with the powers granted to the City by the provisions of Section 11-15.1-1 *et seq*. of the Municipal Code (65 ILCS 5/11-15.1-1 *et seq*.), relating to Annexation Agreements, the parties hereto wish to enter into a binding Agreement with respect to the future annexation, and zoning of the Subject Property and to provide for various other matters related directly or indirectly to the annexation and use of the Subject Property during the term of this Agreement as authorized by the provisions of said statutes.

NOW THEREFORE, in consideration of the mutual covenants, agreements and conditions herein contained, and by authority of and in accordance with the aforesaid statutes of the State of Illinois, the City and the Owner agree as follows:

Section 1. Annexation.

The Owner has filed with the Clerk of the City a duly and properly executed petition pursuant to, and in accordance with, the provisions of Section 5/7-1-1 *et seq*. of the Municipal Code to annex the Subject Property and any adjacent roadways not previously annexed to the City of Yorkville.

Section 2. Zoning.

A. The City hereby agrees, contemporaneously with annexation, the Subject Property shall be classified and shall be zoned as A-1 Agricultural District.

B. The City and the Owner agree that annexation is contingent upon approval of a special use application for a solar farm which will be considered contemporaneously with the petition for annexation and rezoning submitted to the City.

Section 3. Binding Effect and Term.

This Annexation Agreement shall be binding upon and inure to the benefit of the parties hereto, their successors and assigns including, but not limited to, successor owners of record, successor developers, lessees, and successor lessees, and upon any successor municipal authority of the City and the successor municipalities for a period of twenty (20) years from the later of the date of execution hereof and the date of adoption of the ordinances pursuant hereto.

Section 4. Notices and Remedies.

Upon a breach of this Agreement, the parties hereto agree that the venue shall be the Circuit Court of Kendall County. It is further understood by the parties hereto that upon breach of this Agreement the non-defaulting party may exercise any remedy available at law or equity.

Before any failure of any part of this Agreement to perform its obligations under this Agreement shall be deemed to be a breach of this Agreement, the party claiming such failure shall notify, in writing, by certified mail/return receipt requested, the party alleged to have failed to perform, state the obligation allegedly not performed and the performance demanded.

Notice shall be provided at the following addresses:

To the City: United City of Yorkville
651 Prairie Pointe Drive
Yorkville, Illinois 60560
Attn: City Administrator

With a copy to: Kathleen Field Orr
Ottosen DiNolfo Hasenbalg & Castaldo, Ltd.
1804 North Naper Boulevard
Suite 350
Naperville, Illinois 60563

To the Owner: Gary and Betty Bennett
11159 Faxon Road
Yorkville, IL, 60560

To the Lessee: Matt Kwiatkowski
Nexamp Solar, LLC
Corneils Road Solar, LLC
101 Summer Street
2nd Floor
Boston, MA 02110

Section 6. Agreement to Prevail over Ordinances.

In the event of any conflict between this Agreement and any ordinances of the City in force at the time of execution of this Agreement or enacted during the pendency of this Agreement, the provisions of this Agreement shall prevail to the of any such conflict or inconsistency.

Section 7. Provisions.

If any provision of this Agreement or its application to any person, entity, or property is held invalid, such provision shall be deemed to be excised here from and the invalidity thereof shall not affect the application or validity of any other terms, conditions, and provisions of this Agreement and, to that end, any terms, conditions, and provisions of this Agreement are declared to be severable.

IN WITNESS WHEREOF, the parties hereto have caused this Fourth Amendment to be executed by their duly authorized officers on the above date at Yorkville, Illinois.

United City of Yorkville, an Illinois municipal corporation

By: _____
Mayor

Attest:

_____
City Clerk

Gary Bennett

By: _____
Owner

Betty Bennett

By: _____
Owner

CORNEILS ROAD SOLAR, LLC

A 4.99 MW (AC) GROUND-MOUNTED SOLAR POWER GENERATING FACILITY

10791 CORNEILS ROAD
UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS

SPECIAL USE APPLICATION PLANS

DEVELOPMENT TEAM

PROJECT OWNER
NEXAMP, INC.
101 SUMMER STREET, SECOND FLOOR
BOSTON, MA 02110
PHONE: (617) 431-1440

APPLICANT/CONTRACTOR
CORNEILS ROAD SOLAR, LLC
101 SUMMER STREET, SECOND FLOOR
BOSTON, MA 02110
PHONE: (317) 760-3190
CONTACT: MATT KWIATKOWSKI

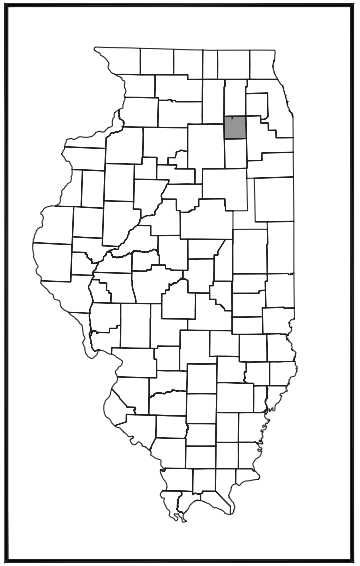
CIVIL ENGINEER/LANDSCAPE ARCHITECT/SURVEYOR
ATWELL, LLC
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
PHONE: (630) 577-0800
FAX: (630) 577-0900
CONTACT: MICHAEL KEITH, P.E.

GOVERNING AGENCIES CONTACTS

PLANNING
UNITED CITY OF YORKVILLE
651 PRARIE POINTE DRIVE
YORKVILLE, IL 60560
(630) 553-8573
CONTACT: KRYSTI BARKSDALE-NOBLE

HIGHWAY
UNITED CITY OF YORKVILLE ENGINEERING DEPARTMENT
651 PRAIRIE POINTE DRIVE
YORKVILLE, ILLINOIS, 60560
(630) 466-6700

EROSION & SEDIMENTATION
KENDALL COUNTY SOIL & WATER CONSERVATION DISTRICT
7775A ROUTE 47
YORKVILLE, IL 60560
(630) 553-5821 X 3
CONTACT: JULIE BROWN

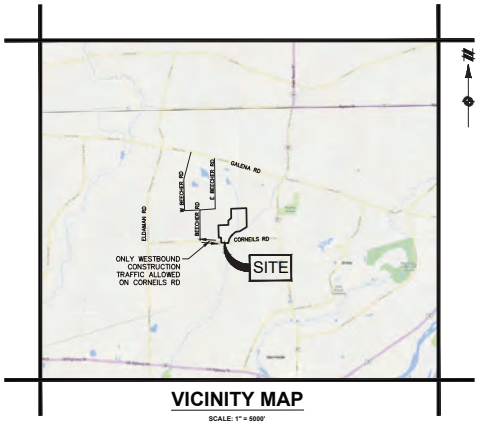


ILLINOIS
NOT TO SCALE

SHEET INDEX

C-000	COVER SHEET
C-100	EXISTING CONDITIONS PLAN
C-200	SITE LAYOUT PLAN
C-300	STORMWATER MANAGEMENT PLAN
C-400	LANDSCAPE PLAN
C-500	STANDARD DETAILS

KENDALL COUNTY
NOT TO SCALE



VICINITY MAP
SCALE: 1" = 5000'

811 Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OR OF ANY OTHER PERSONS ON OR OF ANY OTHER PERSONS.

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ATWELL
1250 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
DESIGN FIRM #184-003876

Rev	Issued For	Date
A	CLIENT REVIEW SET	10/30/23
B	CLIENT REVIEW SET	12/10/23
C	CLIENT REVIEW SET	02/28/24

P.E. seal/Consultant:

Project: CORNEILS ROAD SOLAR, LLC
SPECIAL USE APPLICATION PLANS
10791 CORNEILS ROAD
UNITED CITY OF YORKVILLE, KENDALL COUNTY, IL

Drawing Title: COVER SHEET
Drawn by: LH/CMP Scale: As Noted Approved by: MBK

Dwg No: C-000 Size: ARCH D Sheet Rev: C

CAD FILE: 23003931C-000-CV.DWG

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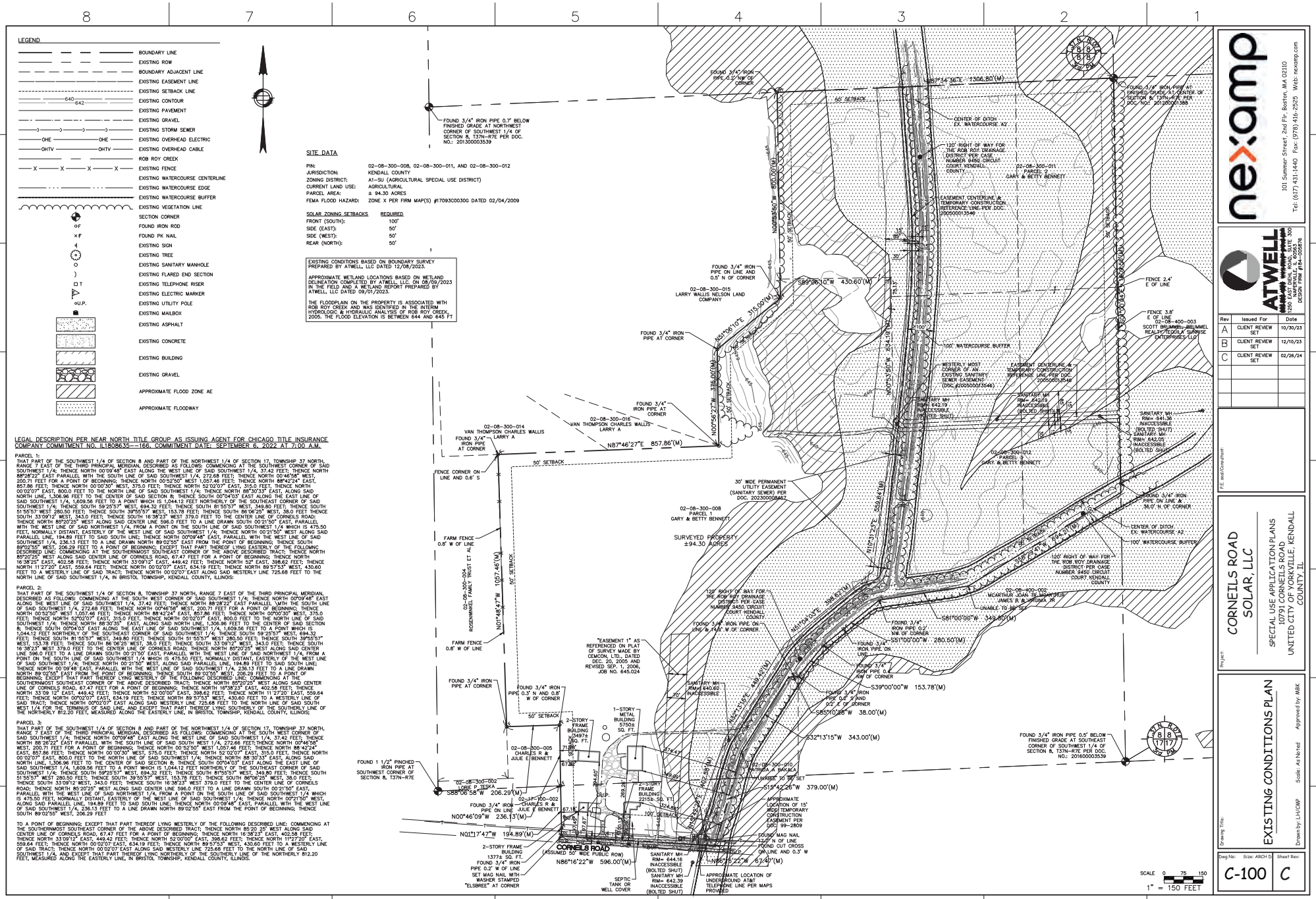

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P.E. seal/Consultant

Project: CORNELS ROAD SOLAR, LLC
SPECIAL USE APPLICATION PLANS
10791 CORNELS ROAD
UNITED CITY OF YORKVILLE, KENDALL COUNTY, IL

Drawing Title: EXISTING CONDITIONS PLAN

Drawn by: LH/CMP Scale: As Noted Approved by: MRK

Dwg No: C-100 Size: ARCH D Sheet Rev: C

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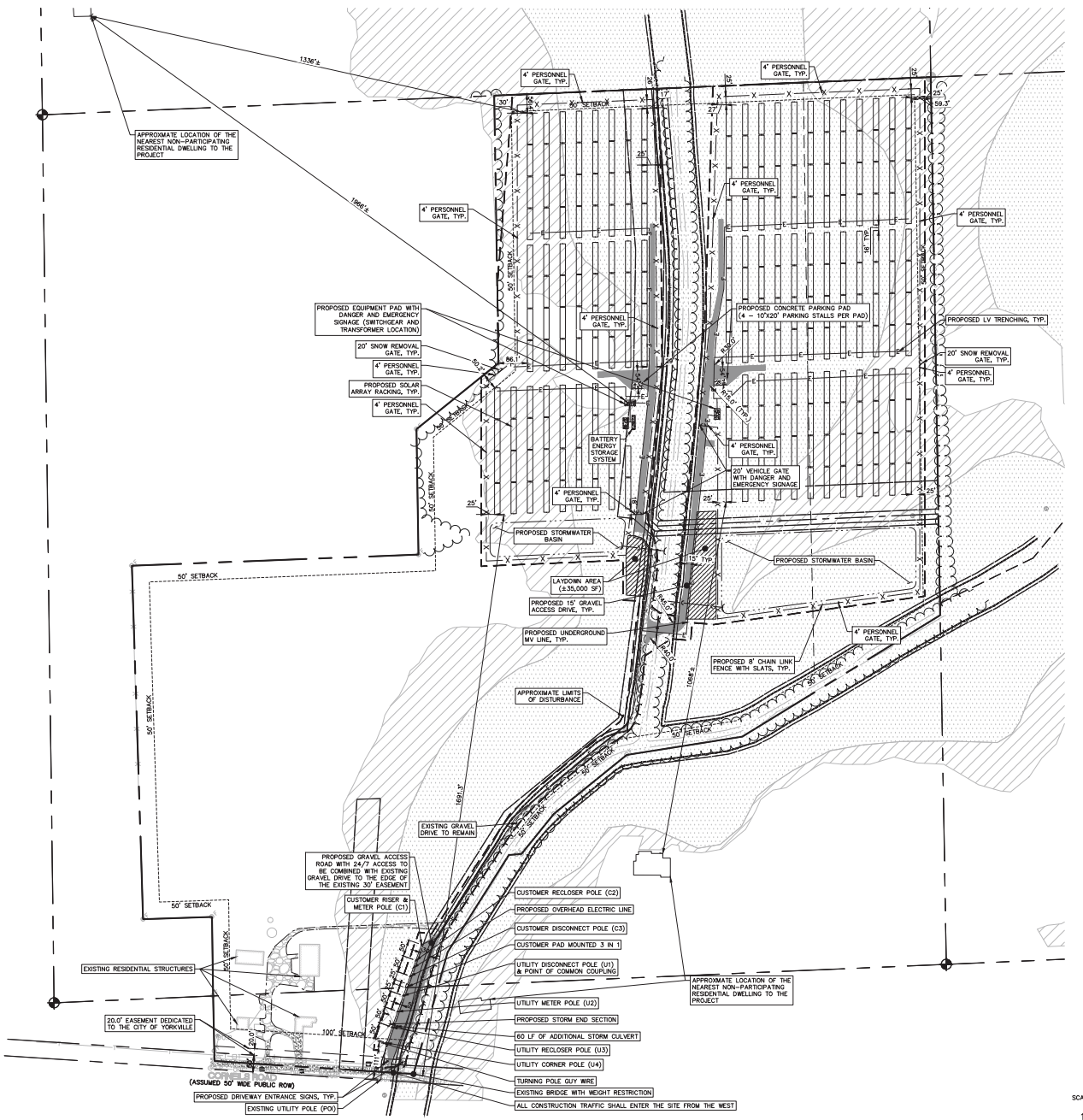
CAD FILE: 230093510-100-ECLDWG



LEGEND

- BOUNDARY LINE
- EXISTING ROW
- BOUNDARY ADJACENT LINE
- BUILDING SETBACK LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- EXISTING PAVEMENT
- EXISTING GRAVEL
- PROPOSED GRAVEL ACCESS DRIVE
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING WATERCOURSE CENTERLINE
- EXISTING WATERCOURSE EDGE
- EXISTING WATERCOURSE BUFFER
- EXISTING OVERHEAD ELECTRIC LINE
- PROPOSED OVERHEAD ELECTRIC LINE
- PROPOSED UNDERGROUND ELECTRIC LINE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- LIMITS OF DISTURBANCE
- EXISTING UTILITY POLE
- PROPOSED UTILITY POLE
- PROPOSED GRAVEL ACCESS DRIVE
- PROPOSED CONCRETE
- EXISTING GRAVEL
- APPROXIMATE FLOOD ZONE AE
- APPROXIMATE FLOODWAY

SITE DATA

PIN:	02-08-300-008, 02-08-300-011, AND 02-08-300-012
JURISDICTION:	KENDALL COUNTY
ZONING DISTRICT:	A1-SU (AGRICULTURAL SPECIAL USE DISTRICT)
CURRENT LAND USE:	AGRICULTURAL
PARCEL AREA:	± 94.30 ACRES
FEMA FLOOD HAZARD:	ZONE X PER FIRM MAP(S) #17093C0030G DATED 02/04/2009

SOLAR SETBACKS	REQUIRED	PROVIDED
FRONT (SOUTH)	100'	1691.3'
SIDE (EAST)	50'	59.3'
SIDE (WEST)	50'	50.2'
REAR (NORTH)	50'	56.4'
MINIMUM PANEL CLEARANCE (FROM GROUND TO BOTTOM EDGE)	10'	
SITE AREA	94.30 AC	
FENCED AREA	35.5 AC	
LIMITS OF DISTURBANCE	42.9 AC	
SPECIAL USE AREA	TBD	
TRACKER MOTORS	121	

EXISTING CONDITIONS BASED ON BOUNDARY SURVEY PREPARED BY ATWELL, LLC DATED 12/08/2023.

APPROXIMATE WETLAND LOCATIONS BASED ON WETLAND DELINEATION COMPLETED BY ATWELL, LLC ON 08/09/2023 IN THE FIELD AND A WETLAND REPORT PREPARED BY ATWELL, LLC DATED 09/01/2023.

THE FLOODPLAIN ON THE PROPERTY IS ASSOCIATED WITH ROB ROY CREEK AND WAS IDENTIFIED IN THE INTERIM HYDROLOGIC & HYDRAULIC ANALYSIS OF ROB ROY CREEK, 2000. THE FLOOD ELEVATION IS BETWEEN 644 AND 645 FT

GENERAL NOTES

1. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL ALSO PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE ENGINEER AND ARCHITECT AS REQUIRED.
2. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND METHODS.
3. LIMITS OF WORK SHALL BE EROSION CONTROL BARRIERS AS INDICATED ON DRAWINGS.
4. ANY ALTERATION TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS.
5. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.
6. EXISTING TREES AND SHRUBS OUTSIDE THE FENCE LINE SHALL NOT BE CLEARED, UNLESS OTHERWISE NOTED. ALL EXISTING VEGETATION INSIDE FENCE LINE SHALL BE CLEARED AND GRUBBED.
7. FOR DRAWING LEGIBILITY, ALL EXISTING TOPOGRAPHIC FEATURES, EXISTING UTILITIES, PROPERTY BOUNDARIES, EASEMENTS, ETC. MAY NOT BE SHOWN ON ALL DRAWINGS. REFER TO ALL REFERENCED DRAWINGS AND OTHER DRAWINGS IN THIS SET FOR ADDITIONAL INFORMATION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING, SECURING, AND COMPLIANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT, AS ADMINISTERED BY THE STATE ENVIRONMENTAL PROTECTION AGENCY.

ZONING DISTRICT:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH CONDITIONS THAT MAY BE PROMULGATED BY THE CITY OF YORKVILLE COMMUNITY DEVELOPMENT DEPARTMENT, SOIL AND WATER CONSERVATION DISTRICT, AND MUNICIPAL AGENCIES.

LAYOUT AND MATERIALS NOTES:

1. ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.
2. CONTRACTOR SHALL REPORT SIGNIFICANT CONFLICTS TO THE OWNER AND THE ENGINEER FOR RESOLUTION.
3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN SITE PLAN DIMENSIONS AND BUILDING PLANS BEFORE PROCEEDING WITH ANY PORTION OF SITE WORK WHICH MAY BE AFFECTED SO THAT PROPER ADJUSTMENTS TO THE SITE LAYOUT CAN BE MADE IF NECESSARY.
4. PROTECT EXISTING PROPERTY MONUMENTS AND ABUTTING PROPERTIES DURING CONSTRUCTION ACTIVITIES.

GRADING, DRAINAGE AND UTILITY NOTES:

1. UNDERGROUND UTILITIES WERE COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES, ARE APPROXIMATE AND ASSUMED. BEFORE COMMENCING SITE WORK IN ANY AREA, CONTACT "811" OR EQUIVALENT AND THE OWNER TO ACCURATELY LOCATE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO EXCAVATION SHALL BE DONE UNTIL UTILITY COMPANIES AND THE OWNER ARE PROPERLY NOTIFIED IN ADVANCE.
2. ALL SITE WORK SHALL MEET OR EXCEED THE SITE WORK SPECIFICATIONS TO BE PREPARED FOR THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
3. ALL WORK PERFORMED AND ALL MATERIALS FURNISHED SHALL CONFORM WITH THE LINES, GRADES AND OTHER SPECIFIC REQUIREMENTS OR SPECIFICATIONS FOR THE PROJECT AS SHOWN ON THE PLANS.
4. THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE OWNER AND ENGINEER FOR RESOLUTION.
5. CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION.
6. THE CONTRACTOR SHALL REMOVE ALL NON-BIODEGRADABLE EROSION CONTROL BARRIERS AFTER RE-VEGETATION OF DISTURBED AREAS.
7. WETLANDS ARE TO REMAIN UNDISTURBED. NO ENCROACHMENT PERMITTED UNLESS NOTED ON PLANS.
8. PITCH EVENLY BETWEEN SPOT GRADES.
9. THE CONTRACTOR SHALL SCHEDULE WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PONDING. SPECIFICALLY, ALLOW WATER TO ESCAPE WHERE PROPOSED CURB MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUBGRADE AND/OR SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE AS REQUIRED.
10. EXISTING SITE SURFACE DRAINAGE PATTERNS WILL BE MAINTAINED.

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DESIGN FIRM #184-003876

Rev	Issued For	Date
A	CLIENT REVIEW SET	10/30/23
B	CLIENT REVIEW SET	12/10/23
C	CLIENT REVIEW SET	02/28/24

P.E. seal/Consultant:

Project:
CORNEILS ROAD SOLAR, LLC
SPECIAL USE APPLICATION PLANS
10791 CORNEILS ROAD
UNITED CITY OF YORKVILLE, KENDALL COUNTY, IL

Drawing Title:
SITE LAYOUT PLAN

Drawn by: LJH/CMP Scale: As Noted Approved by: MBK

Dwg No: C-200 Size: ARCH D Sheet Rev: C

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CAD FILE: 23009931C-200-LDWG

LEGEND

- BOUNDARY LINE
- EXISTING ROW
- BOUNDARY ADJACENT LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- EXISTING CONTOUR
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- LIMITS OF DISTURBANCE
- EXISTING STORM CATCH BASIN/MANHOLE
- EXISTING WATERCOURSE CENTERLINE
- EXISTING WATERCOURSE EDGE
- EXISTING WATERCOURSE BUFFER
- APPROXIMATE FLOOD ZONE AE
- APPROXIMATE FLOODWAY

SITE DATA TABLE	
TOTAL PROJECT AREA (ACRES)	94.30
TOTAL DISTURBED AREA (ACRES)	42.9
*EXISTING IMPERVIOUS AREA (ACRES)	0.8
*FINAL IMPERVIOUS AREA (ACRES)	2.1

*WITHIN LIMITS OF DISTURBED AREA

EXISTING CONDITIONS BASED ON BOUNDARY SURVEY PREPARED BY ATWELL, LLC DATED 12/08/2023.

APPROXIMATE WETLAND LOCATIONS BASED ON WETLAND DELINEATION COMPLETED BY ATWELL, LLC. ON 05/09/2023 IN THE FIELD AND A WETLAND REPORT PREPARED BY ATWELL, LLC DATED 09/01/2023.

THE FLOODPLAIN ON THE PROPERTY IS ASSOCIATED WITH ROB ROY CREEK AND WAS IDENTIFIED IN THE INTERIM HYDROLOGIC & HYDRAULIC ANALYSIS OF ROB ROY CREEK, 2005. THE FLOOD ELEVATION IS BETWEEN 644 AND 645 FT

STORMWATER SUMMARY

- THE DRAINAGE AREA WILL NOT BE ALTERED BETWEEN THE EXISTING CONDITIONS AND THE PROPOSED CONDITIONS.
- THE DIFFERENCE BETWEEN THE TIME OF CONCENTRATION OF THE EXISTING CONDITIONS AND THE PROPOSED CONDITIONS WILL BE NEGLIGIBLE.
- DUE TO THE LARGE REDUCTION IN CURVE NUMBER BETWEEN THE EXISTING AND PROPOSED CONDITIONS USING FAVORABLE GROUND COVER PLANTINGS, THE PROPOSED RUNOFF WILL BE REDUCED; THUS, CAUSING NO NEGATIVE IMPACTS ON THE DOWNSTREAM TRIBUTARY AREAS.

EROSION CONTROL AND SEDIMENTATION NOTES:

1. AN EROSION CONTROL BARRIER SHALL BE INSTALLED AS INDICATED IN THE PLAN PRIOR TO THE COMMENCEMENT OF DEMOLITION OR CONSTRUCTION OPERATIONS.
2. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES DURING THE ENTIRE CONSTRUCTION PERIOD.
3. ANY SEDIMENT TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE SWEPT AT THE END OF EACH WORKING DAY.
4. ALL STOCKPILE AREAS SHALL BE LOCATED WITHIN LIMIT OF WORK LINE AND STABILIZED TO PREVENT EROSION.
5. ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF OFF-SITE.
6. SITE ELEMENTS TO REMAIN MUST BE PROTECTED FOR THE DURATION OF THE PROJECT.
7. ALL TOPSOIL ENCOUNTERED WITHIN THE LIMITS OF THE PROPOSED PERMANENT AND TEMPORARY GRAVEL ROADS, EQUIPMENT PAD AREA, AND AREAS OF CUT AND FILL SHALL BE STRIPPED AS NEEDED AND STOCKPILED FOR REUSE. EXCESS TOPSOIL SHALL BE DISPOSED OF ON SITE AS DIRECTED BY OWNER. TOPSOIL PILES SHALL REMAIN SEGREGATED FROM EXCAVATED SUBSURFACE SOIL MATERIALS.
8. ADDITIONAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
9. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS.
10. TEMPORARY DIVERSION DITCHES, PERMANENT DITCHES, CHANNELS, EMBANKMENTS, AND ANY DENUDED SURFACE WHICH WILL BE EXPOSED FOR AN EXTENDED PERIOD OF TIME SHALL BE STABILIZED AS REQUIRED.
11. SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS DURING CONSTRUCTION TO ENSURE THAT CHANNELS, DITCHES, AND PIPES ARE CLEAR OF DEBRIS AND THAT THE EROSION CONTROL BARRIERS ARE IN TACT.
12. DUST SHALL BE CONTROLLED AS NEEDED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER OR REPRESENTATIVE.
13. CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM MIGRATING OUTSIDE THE LIMIT OF WORK.
14. ADDITIONAL EROSION CONTROL SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR REPRESENTATIVE.
15. CLEAN AND MAINTAIN EROSION CONTROL BARRIER AS REQUIRED DURING CONSTRUCTION OPERATIONS TO ENSURE ITS CONTINUED FUNCTIONALITY.
16. OVERALL SITE DEVELOPMENT WILL MAINTAIN EXISTING TOPOGRAPHY AND STORMWATER DRAINAGE PATTERNS.
17. THE OVERALL DEVELOPMENT WILL BE RE-SEEDED AS NEEDED TO DEVELOP A PERMANENT VEGETATIVE COVER AS INDICATED ON THE LANDSCAPE PLAN. COVER CROP OR OTHER TEMPORARY STABILIZATION WILL BE IMPLEMENTED IN THE INTERIM.
18. NO CONSTRUCTION ACTIVITIES, AS PART OF THE SITE DEVELOPMENT, SHALL OCCUR WITHIN ANY DELINEATED WETLANDS OR WETLAND BUFFERS, AS REQUIRED BY THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES.

SOIL LEGEND

SOIL TYPE	SOIL NAME	SOIL RATING
67A	HARPSTER SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES	B/D
149A	BRENTON SILT LOAM, 0 TO 2 PERCENT SLOPES	B/D
152A	DRUMMER SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES	B/D
191A*	KNIGHT SILT LOAM, 0 TO 2 PERCENT SLOPES	C/D
791B	RUSH SILT LOAM, 2 TO 4 PERCENT SLOPES	B
330A	PEOTONE SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES	C/D
663A*	CLARE SILT LOAM, 0 TO 2 PERCENT SLOPES	C
663B*	CLARE SILT LOAM, 2 TO 5 PERCENT SLOPES	C
865	PITS, GRAVEL	UNRATED

*OUTSIDE OF LIMITS OF DISTURBANCE

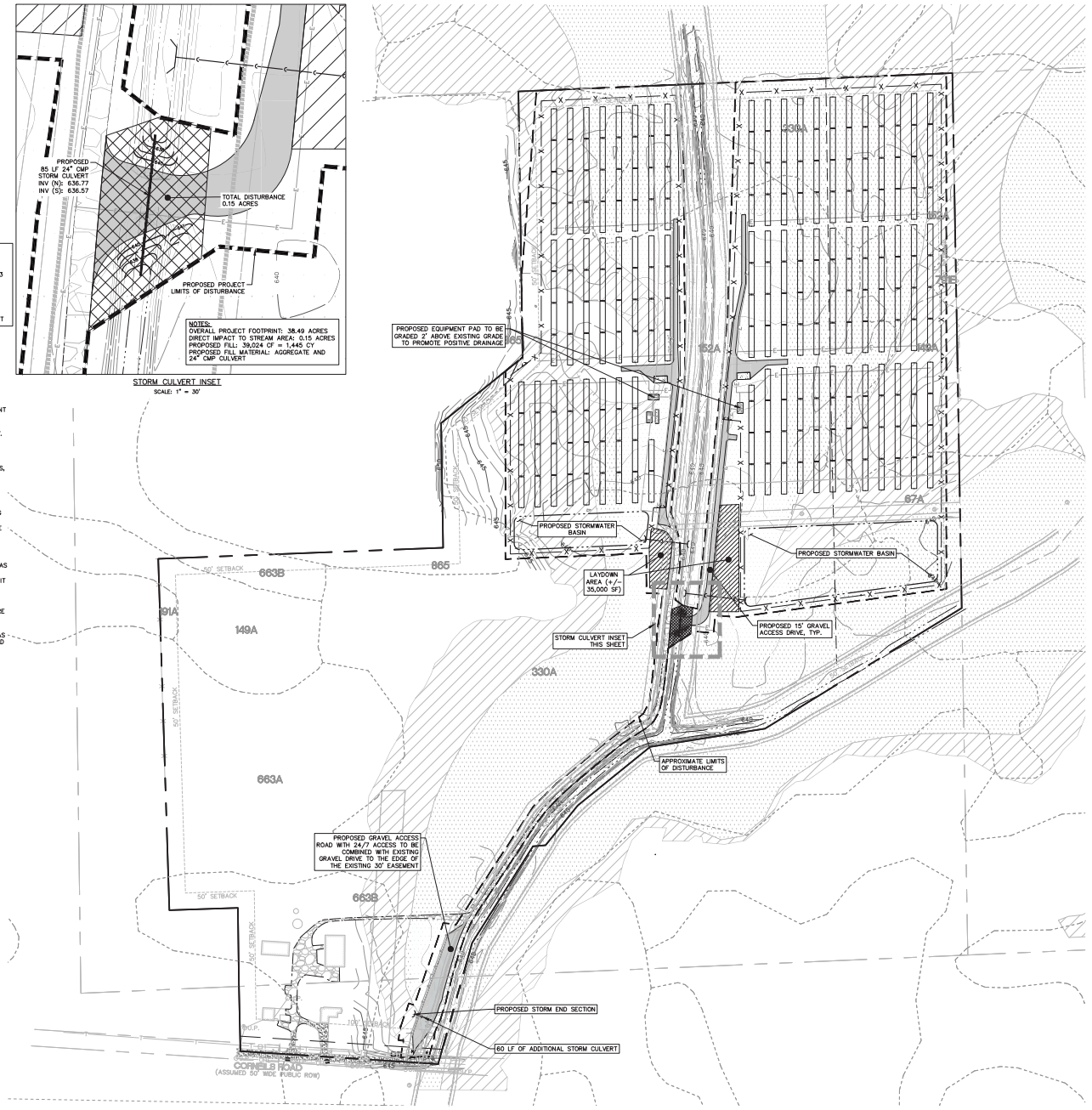
EXISTING CURVE NUMBER (HYDROLOGIC SOIL GROUP B WAS USED WHERE INDICATED)

SOIL RATING	COVER DESCRIPTION	CN (TR-55 TABLE 2-2)	AREA
B	ROW CROPS; STRAIGHT ROW (SR) GOOD	89	12.8
C	ROW CROPS; STRAIGHT ROW (SR) GOOD	85	29.3
D	STREETS AND ROADS; GRAVEL (W/ RIGHT-OF-WAY)	98	0.8
		COMBINED CN= 88	

PROPOSED CURVE NUMBER (HYDROLOGIC SOIL GROUP B AND C WERE USED WHERE INDICATED)

SOIL RATING	COVER DESCRIPTION	CN (TR-55 TABLE 2-2)	AREA
B	MEADOW -CONT. GRASS (NON GRAZED)	58	28.5
C	MEADOW -CONT. GRASS (NON GRAZED)	71	12.3
D	STREETS AND ROADS; GRAVEL (W/ RIGHT-OF-WAY)	98	2.1
		COMBINED CN= 64	

STORM CULVERT INSET
SCALE: 1" = 30'



SCALE 0 75 150
1" = 150 FEET

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CORNELLS ROAD SOLAR, LLC
SPECIAL USE APPLICATION PLANS
10791 CORNELLS ROAD
UNITED CITY OF YORKVILLE, KENDALL COUNTY, IL

Drawing Title:
STORMWATER MANAGEMENT PLAN

Drawn by: LH/CMP Scale: As Noted Approved by: MBK

Dwg No: C-300 Size: ARCH D Sheet Rev: C

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CAD FILE: 23003931C-300-GDWG

LEGEND

- BOUNDARY LINE
- BOUNDARY ADJACENT LINE
- EXISTING ROW
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- EXISTING WATERCOURSE CENTERLINE
- EXISTING WATERCOURSE EDGE
- EXISTING WATERCOURSE BUFFER
- EXISTING CONTOUR
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING OVERHEAD ELECTRIC
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED OVERHEAD ELECTRIC
- EXISTING OVERHEAD CABLE
- EXISTING FENCE
- PROPOSED FENCE
- LIMITS OF DISTURBANCE
- EXISTING VEGETATION LINE
- PROPOSED POLLINATOR FRIENDLY SEED MIX
- PROPOSED IDOT CLASS 7 SEED MIX
- PROPOSED IDOT SEED MIX IN ROW
- APPROXIMATE FLOOD ZONE AE
- APPROXIMATE FLOODWAY
- PROPOSED SHRUBS
- PROPOSED EVERGREEN TREE
- PROPOSED SHADE TREE

PLANTING NOTES:

1. ALL STOCKPILE AREAS SHALL BE LOCATED WITHIN LIMIT OF WORK LINE AND STABILIZED TO PREVENT EROSION.
2. ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF OFF SITE.
3. PROVIDE CRIBBING AS NECESSARY TO PROTECT EXISTING UTILITY LINES DURING CONSTRUCTION.
4. PLANTING SEED SHALL BE SOWN IN SEASONAL CONDITIONS AS APPROPRIATE FOR GOOD SEED SURVIVAL, OR AT SUCH TIMES AS APPROVED BY THE OWNER.
5. PROTECT NEWLY TOPSOILED, GRADED, AND/OR SEEDED AREAS FROM TRAFFIC AND EROSION. KEEP AREAS FREE OF TRASH AND DEBRIS RESULTING FROM LANDSCAPE CONTRACTOR OPERATIONS.
6. REPAIR AND RE-ESTABLISH GRADES IN SETTLED, ERODED, AND RUTTED AREAS TO THE SPECIFIED GRADE AND TOLERANCES.
7. ALL PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
8. ANY PROPOSED SUBSTITUTIONS OF PLANT MATERIAL SHALL BE MADE WITH MATERIAL EQUIVALENT TO THE DESIRED MATERIAL IN OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT, AND CULTURE. PROPOSED SUBSTITUTIONS WILL ONLY BE CONSIDERED IF SUBMITTED WITH ENUMERATED REASONS WHY SUBSTITUTIONS ARE PROPOSED.
9. THE LANDSCAPE CONTRACTOR SHALL CLEAN UP AND REMOVE ANY DEBRIS FROM THE SITE CAUSED BY THE LANDSCAPE CONTRACTOR.

Natural Resource Services

Nexamp Representative Pollinator Friendly Seed Mix

Common Name	Scientific Name	% of Mix	lbs/acre
Grasses			
Prairie Dropseed	Sporobolus heterolepis	0.50%	0.25
Forbs			
Common Yarrow	Achillea millefolium	0.44%	0.55
Wooly Blue Star	Amsonia tomentosa	0.25%	0.09
Lead Plant	Amorpha canescens	1.33%	0.66
Canada Anemone	Anemone canadensis	0.54%	0.02
Wild Columbine	Aquilegia canadensis	0.54%	0.07
Common Milkweed	Asclepias syriaca	0.34%	0.05
Butterfly Milkweed	Asclepias tuberosa	0.32%	0.08
Showy Milkweed	Asclepias speciosa	1.05%	0.63
Calico Aster	Symphyotrichum lateriflorum	0.06%	0.06
Partridge Pea	Chamaecrista fasciculata	0.11%	0.55
White Prairie Clover	Dalea candida	4.26%	2.55
Purple Prairie Clover	Dalea purpurea	5.32%	4.26
Creeping Rosinweed	Silphium integrifolium	0.04%	0.07
Prairie Blazing Star	Liatris pycnostachya	0.04%	0.12
Virginia Mountain Mint	Pycnanthemum virginianum	0.05%	0.05
Prairie Wild Rose	Rosa pinnata	0.05%	0.03
Black-eyed Susan	Rudbeckia hirta	1.60%	0.13
Grey Goldenrod	Solidago nemoralis	0.04%	0.02
Stiff Goldenrod	Solidago rigida	0.04%	0.01
Sky Blue Aster	Symphyotrichum oolentangiense	0.10%	0.02
Ohio Goldenrod	Solidago ohiensis	0.04%	0.02
Wavy-leaved Aster	Symphyotrichum undulatum	0.10%	0.02
Golden Alexanders	Zizia aurea	0.40%	1.01

Seeding rate: 12.5 lbs./acre (75 seeds/square foot)

2885 Quail Road NE, Sauk Rapids MN 56379

EXISTING CONDITIONS BASED ON BOUNDARY SURVEY PREPARED BY ATWELL, LLC DATED 12/08/2023.

APPROXIMATE WETLAND LOCATIONS BASED ON WETLAND DELINEATION COMPLETED BY ATWELL, LLC. ON 08/09/2023 IN THE FIELD AND A WETLAND REPORT PREPARED BY ATWELL, LLC DATED 09/01/2023.

THE FLOODPLAIN ON THE PROPERTY IS ASSOCIATED WITH ROB ROY CREEK AND WAS IDENTIFIED IN THE INTERIM HYDROLOGIC & HYDRAULIC ANALYSIS OF ROB ROY CREEK, 2005. THE FLOOD ELEVATION IS BETWEEN 644 AND 645 FT

PLANT CALCULATIONS

ORDINANCE COMPLIANCE MATRIX

Acres: 42.5 acres
Street Frontage (Cornells Rd): 596.60 feet
USDA Zone: 5 (-20 degrees to -10 degrees)

Ch. 13 LANDSCAPE ORDINANCE
Section 8-13-3 GENERAL STANDARDS

A. Parkway landscaping

requirement	required		provided	
1. For all development other than single-family detached and duplex residential development, the minimum required number of parkway trees is one (1) tree per fifty (50) linear feet of frontage	12	trees along Cornells Road	12	trees along Cornells Road

B. Lot landscaping

requirement	required		provided	
3. Nonresidential: Two (2) shade trees and fifteen (15) shrubs shall be provided for every twenty thousand (20,000) square feet of lot area	187	trees	20	*trees
	1402	shrubs	140	*shrubs
*Assume City of Yorkville can administratively approve less total trees and shrubs on the basis that a solar development would be hindered by more plant material.				

PLANT SCHEDULE

SHADE TREES

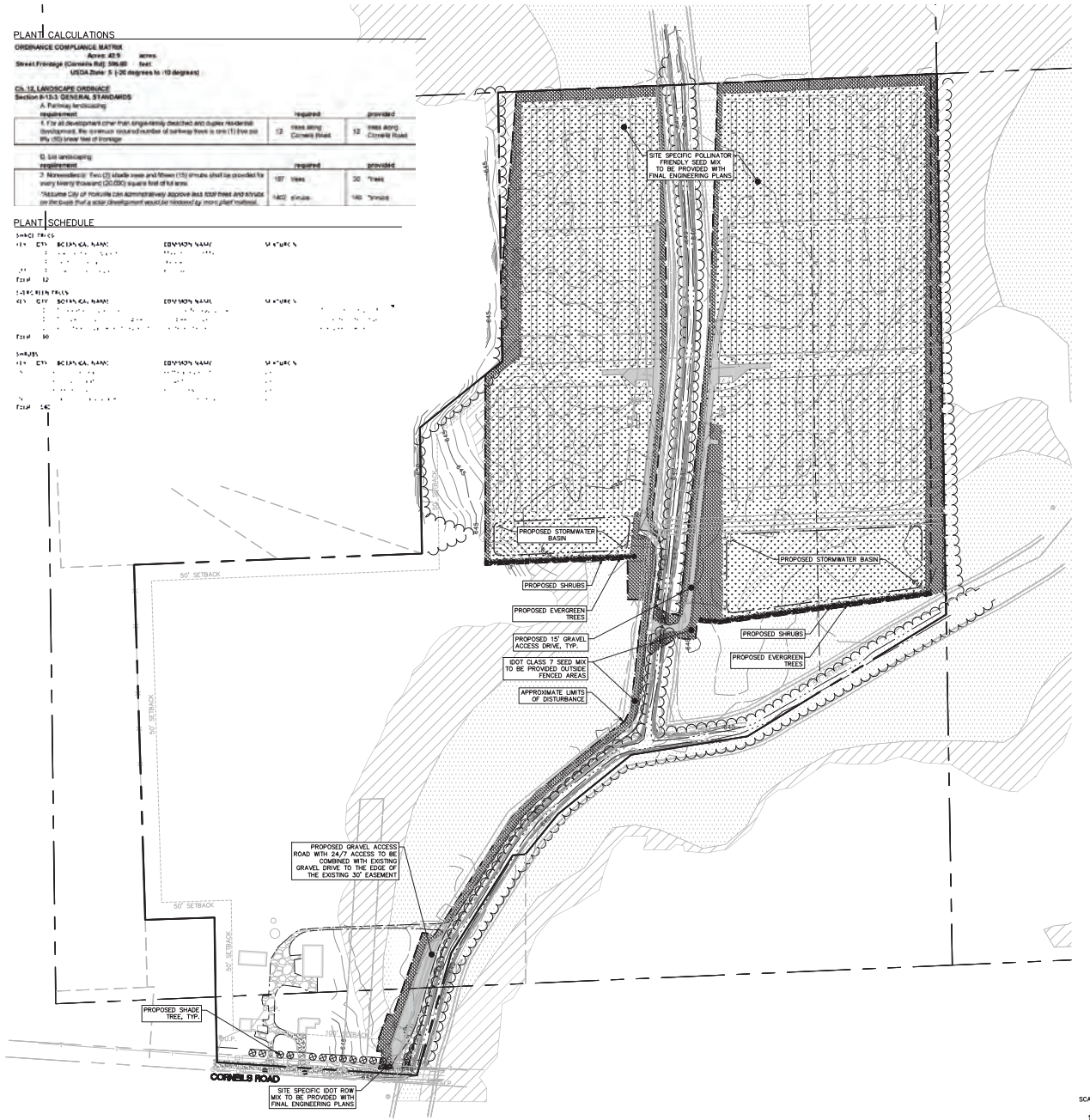
KEY	QTY	BOTANICAL NAME	COMMON NAME	MATURE H
TOTAL	12			

EVERGREEN TREES

KEY	QTY	BOTANICAL NAME	COMMON NAME	MATURE H
TOTAL	90			

SHRUBS

KEY	QTY	BOTANICAL NAME	COMMON NAME	MATURE H
TOTAL	140			



SCALE 0 75 150
1" = 150 FEET

nexamp
101 Summer Street, 2nd Flr, Boston, MA 02110
Tel: (617) 431-1440 Fax: (978) 416-2525 Web: nexamp.com

ATWELL
1255 E. DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
DESIGN FIRM #184-003878

Rev	Issued For	Date
A	CLIENT REVIEW SET	10/30/23
B	CLIENT REVIEW SET	12/10/23
C	CLIENT REVIEW SET	02/28/24

P.E. seal/Consultant

Project:
CORNELIS ROAD SOLAR, LLC
SPECIAL USE APPLICATION PLANS
10791 CORNELIS ROAD
UNITED CITY OF YORKVILLE, KENDALL COUNTY, IL

Drawing Title:
LANDSCAPE PLAN

Drawn by: LH/CMP Scale: As Noted Approved by: MBK

Dwg No: C-400 Size: ARCH D Sheet Rev: C

CAD FILE: 23003931C-400-LS.DWG

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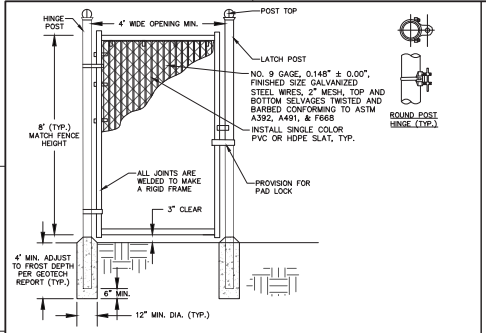
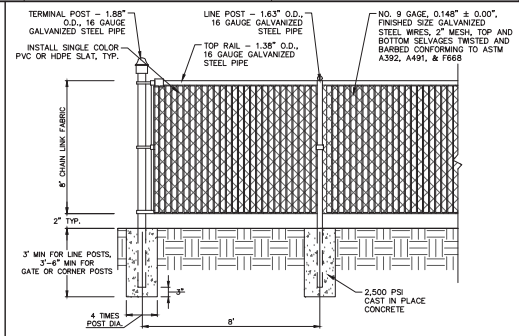


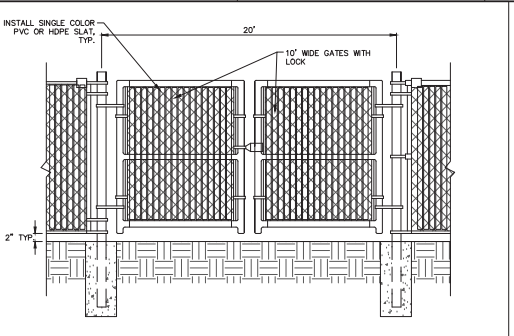
CHAIN LINK FENCE – PERSONNEL GATE

NOT TO SCALE



CHAIN LINK FENCE DETAIL

NOT TO SCALE



CHAIN LINK FENCE WITH GATE

NOT TO SCALE

IN THE EVENT OF AN EMERGENCY

PLEASE DIAL 9-1-1

FOLLOWED BY A SECOND CALL TO:

857-239-0057

YOUR LOCATION IS:

TBD

nexamp

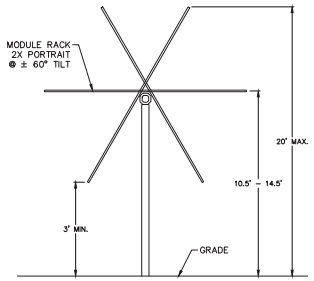
8 1/2"

11"

NOTES:
1. WHITE LABEL WITH BLACK LETTERING AND NEXAMP LOGO.
2. INSTALL ON SITE ENTRANCE AND AT EQUIPMENT PADS IN A CONSPICUOUS PLACE.

EMERGENCY CONTACT SIGN

NOT TO SCALE



NOTES:
1. TRACKER HEIGHT RANGES ACCOUNT FOR ELEVATION CHANGE.

SOLAR ARRAY RACK DETAIL

NOT TO SCALE

"DANGER" WARNING SIGN

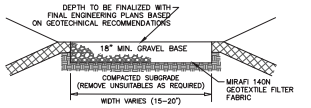
NOT TO SCALE

ENTRANCE LEFT SIGN

NOT TO SCALE

ENTRANCE RIGHT SIGN

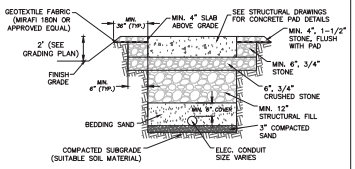
NOT TO SCALE



NOTES:
1. REMOVE TOPSOIL AND ALL UNSUITABLE MATERIAL AS REQUIRED AND REPLACE WITH GRAVEL.
2. ACCESS DRIVES TO SLOPE IN THE DIRECTION OF THE EXISTING GRADE AT A MINIMUM OF 2.0% DRIVEWAY SHALL BE GRADED TO ALLOW STORMWATER TO SHEET ACROSS IT AND TO PREVENT PUDDLING.
3. ROAD SECTION SHALL COMPLY WITH RECOMMENDATIONS FROM GEOTECHNICAL REPORT.
4. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE, TABLE 1 OR 2, CLASS I, II, OR IV AND SHALL BE PLACED OVER THE CLEARED AREA PRIOR TO THE PLACING OF ROCK.

ACCESS DRIVE/TEMPORARY LAYDOWN AREA CROSS SECTION

NOT TO SCALE



SUBSOIL EQUIPMENT FOUNDATION DETAIL

NOT TO SCALE

nexamp
101 Summer Street, 2nd Flr. Boston, MA 02110
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ATWELL
1500 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
DESIGN FIRM #184-003876

Rev	Issued For	Date
A	CLIENT REVIEW SET	10/30/23
B	CLIENT REVIEW SET	12/10/23
C	CLIENT REVIEW SET	02/28/24

P.E. seal/Consultant:

Project:
CORNEILS ROAD SOLAR, LLC
SPECIAL USE APPLICATION PLANS
10791 CORNEILS ROAD
UNITED CITY OF YORKVILLE, KENDALL COUNTY, IL

Drawing Title:
STANDARD DETAILS

Drawn by: LH/CMP | Scale: As Noted | Approved by: MBK

Dwg No:	Size: ARCH D	Sheet Rev:
C-500		C

CAD FILE: 23003931C-500-DTL.DWG

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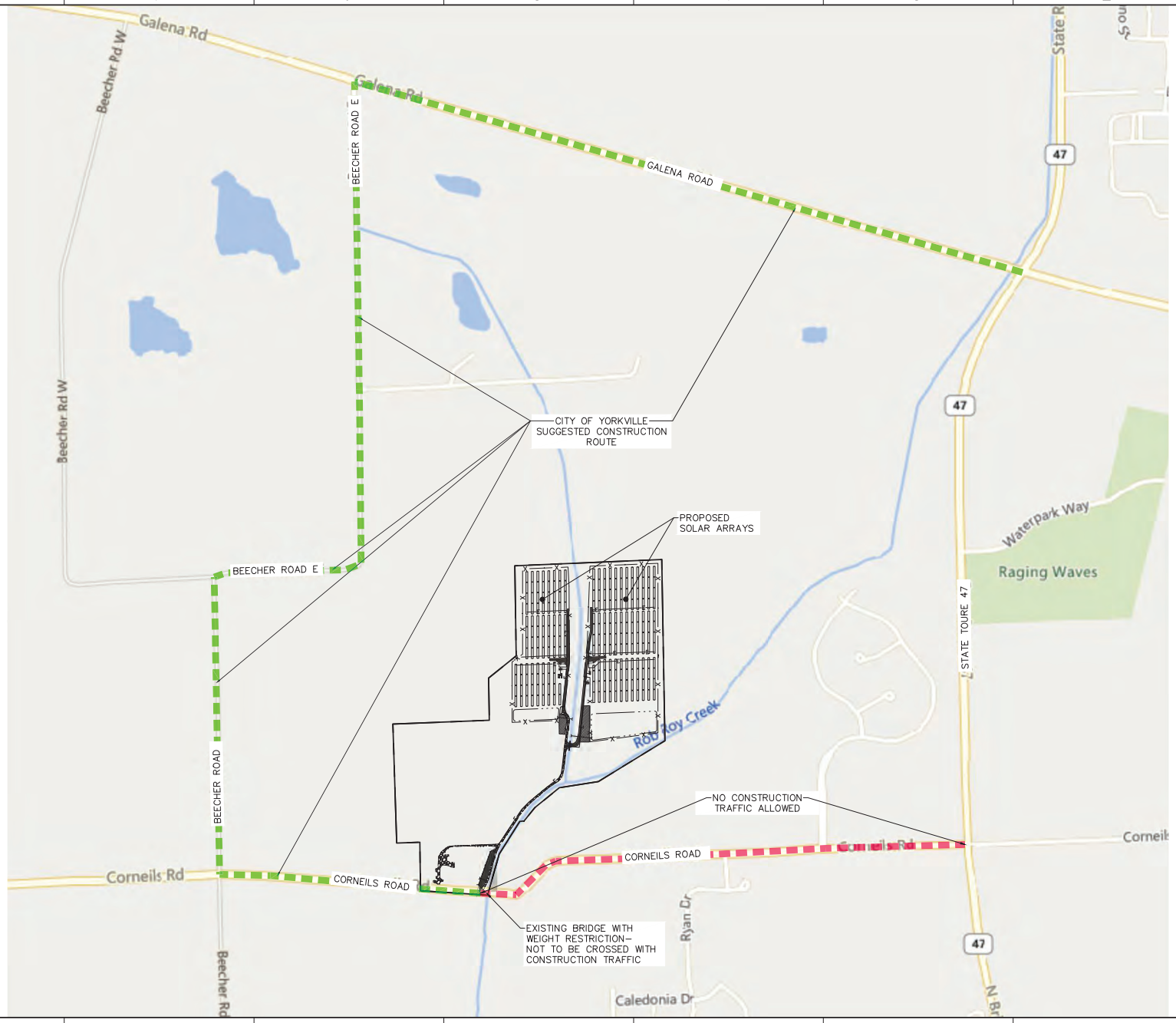

CAD FILE: 23003931EX003 CONSTRUCTION TRAFFIC EXHIBIT 2024-02-27.DWG

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ATWELL
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DESIGN FIRM #184-003876

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P.E. seal/Consultant:

Project:
CORNEILS ROAD SOLAR, LLC
SPECIAL USE APPLICATION PLANS
10791 CORNEILS ROAD
UNITED CITY OF YORKVILLE, KENDALL COUNTY, IL

Drawing Title:
CONSTRUCTION TRAFFIC EXHIBIT

Drawn by: LJH/CMP Scale: As Noted Approved by: MBK

Dwg No: EX-01 Size: ARCH D Sheet Rev: C

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Atwell, L.L.C.

1250 East Diehl Road, Suite 300

(630) 577-0800

Project Corneils Solar

Location Corneils Road, City of Yorkville, Kendall County, Bristol Township, Illinois

Site: 4.99 MWAC

Parcel ID: 02-08-300-011, 02-08-300-012, 02-08-300-008

Date 2/26/2024

Engineer's Opinion of Probable Decommissioning Cost for Yorkville Solar During First 5 Years of Operation

					Salvage Value based on 5-year projections				
	Estimated Quantity	Unit	Unit Cost	Removal Cost	Estimated Quantity	Unit	Unit Cost	Salvage Value	Net Cost
Erosion Control/Contractor Fees									
Mobilization	1	LUMP SUM	$10,000.00	$10,000.00				$0.00	$10,000.00
Electrical Disconnect	1	EACH	$500.00	$500.00				$0.00	$500.00
Permitting (NPDES)	1	LUMP SUM	$750.00	$750.00				$0.00	$750.00
Silt Fence	5,096	LF	$2.50	$12,740.78				$0.00	$12,740.78
Seeding	2	ACRES	$1,000.00	$2,000.00				$0.00	$2,000.00
Sub-Total				$25,990.78				$0.00	$25,990.78
Site Demolition									
Remove Existing 12" Storm Pipe	308	LF	$10.00	$3,080.00				$0.00	
Remove Existing Storm Structure	4	EACH	$500.00	$2,000.00	4.00	EACH	$0.00	$0.00	$2,000.00
Remove Existing Fence (8' Chainlink Fence)	8,200	LF	$3.85	$31,570.00	45,920	LB	$0.09	$4,132.80	$27,437.20
Remove Existing Trees	30	EACH	$500.00	$15,000.00				$0.00	$15,000.00
Remove Existing Shrub	140	EACH	$200.00	$28,000.00				$0.00	$28,000.00
Remove Existing Concrete Parking Pad	178	SY	$5.00	$890.00					
Haul off for Existing Concrete Parking Pad	178	SY	$10.00	$1,780.00					
Remove Existing Gravel Entrance (12" depth)	2,237	CY	$4.00	$8,948.00				$0.00	$8,948.00
Haul off for Existing Gravel Entrance (12" depth)	2,237	CY	$10.00	$22,370.00				$0.00	$22,370.00
Sub-Total				$113,638.00				$4,132.80	$109,505.20
Racking and Module Removal									
Pile Removal	862	EACH	$6.00	$5,172.00	452,550	LB	$0.04	$16,970.63	($11,798.63)
Assembly Removal	148	EACH	$1.25	$185.00	22,200	LB	$0.04	$832.50	($647.50)
PV Module Removal	11,256	EACH	$1.00	$11,256.00	11,256	EACH	$165.00	$1,857,240.00	($1,845,984.00)
PV Module Haul Off	360	TON	$45.00	$16,208.64				$0.00	$16,208.64
Sub-Total				$32,821.64				$1,875,043.13	($1,842,221.49)
Wiring Removal									
Underground MV Wire (AL)	6,910	LF	$2.00	$13,820.00	1,382.00	LB	$0.30	$414.60	$13,405.40
Utility Pole Removal	7	EACH	$750.00	$5,250.00				$0.00	
Underground PV Wire (~400kcmil)	17,800	LF	$2.00	$35,600.00	925.60	LB	$0.30	$277.68	$35,322.32
Underground GND Wire (DC side, ~2 AWG)	5,755	LF	$2.00	$11,510.00	299.26	LB	$0.30	$89.78	$11,420.22
Underground LV Wire	3,482	LF	$2.00	$6,964.00	696.40	LB	$0.30	$208.92	$6,755.08
Above Ground MV Wire	425	LF	$0.10	$42.50	22.10	LB	$0.30	$6.63	$35.87
Combiner Box Removal	28	EACH	$80.00	$2,240.00	28.00	EACH	$20.00	$560.00	$1,680.00
Sub-Total				$75,426.50				$1,557.61	$73,868.89

Atwell, L.L.C.

1250 East Diehl Road, Suite 300

(630) 577-0800

Project Corneils Solar

Location Corneils Road, City of Yorkville, Kendall County, Bristol Township, Illinois

Site: 4.99 MWAC

Parcel ID: 02-08-300-011, 02-08-300-012, 02-08-300-008

Date 2/26/2024

Engineer's Opinion of Probable Decommissioning Cost for Yorkville Solar During First 5 Years of Operation

					Salvage Value based on 5-year projections				
	Estimated Quantity	Unit	Unit Cost	Removal Cost	Estimated Quantity	Unit	Unit Cost	Salvage Value	Net Cost
Power Conditioning Equipment Removal									
PCU Station (inverters, etc.)	2	EACH	$400.00	$800.00	2.00	EACH	$5,625.00	$11,250.00	($10,450.00)
Scada Equipment	2	EACH	$280.00	$560.00	2.00	EACH	$2,000.00	$4,000.00	($3,440.00)
Battery Storage System Removal	1	EACH	$2,500.00	$2,500.00				$0.00	
Transformer	2	EACH	$1,800.00	$3,600.00	2.00	EACH	$93,750.00	$187,500.00	($183,900.00)
Sub-Total				$7,460.00				$202,750.00	($195,290.00)
Equipment Pad Removal									
Remove Pad	4	EACH	$750.00	$3,000.00				$0.00	$3,000.00
Sub-Total				$3,000.00				$0.00	$3,000.00
Decommisioning Total (Present Value)				**$258,336.92**				**$2,083,483.53**	**($1,825,146.62)**
Decommisioning Total (3% Inflation over 25 Years)				**$540,900.13**				**$4,362,351.84**	**($3,821,451.71)**

Assumptions:

1. Cost Estimate based on 5-year projections. Estimate to be redone in 5-years based on new fees at that time.
2. Cost Estimate is based on the Special Use Plans prepared by **Atwell, LLC** dated 2/26/2024.
3. Refer to Decommissioning Plan for further information.

Note: This Engineer's Opinion of Probable Cost is made on the basis of Engineer's experience and qualifications using estimated quantities and represents Engineer's best judgment as an experienced and qualified professional Engineer generally familiar with the construction industry. However, since Engineer has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, or over quantities of work actually performed, Engineer cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from Opinions of Probable Construction Cost prepared by Engineer. This Opinion of Probable Construction Cost is limited to those items stated herein.

January 10, 2024
Revised: February 15, 2024

Ms. Krysti Barksdale-Noble
Community Development Director
United City of Yorkville
651 Prairie Pointe
Yorkville, IL 60560

Re: ***Corneils Road Solar***
Special Use & Rezoning Request – 1st Submittal
United City of Yorkville

Dear Krysti:

We have reviewed the following items for the above-referenced project:

- Special Use & Rezoning Permit Applications
- Special Use Application Plans
- Other Supporting Documentation

Our review of these plans and reports are to generally determine their compliance with local ordinances and whether the improvements will conform to existing local systems and equipment. This review and our comments do not relieve the designer from his duties to conform to all required codes, regulations, and acceptable standards of engineering practice. Engineering Enterprises, Inc.'s review is not intended as an in-depth quality assurance review, we cannot and do not assume responsibility for design errors or omissions in the plans. As such, we offer the following comments (Revised items noted in bold):

General

1. The following permits may be required during final engineering and should be provided to the City when obtained. The City and EEI should be copied on all correspondence with the agencies. Acknowledged.
   - IEPA NPDES General Construction Permit is required. The Notice of Intent must be filed with IEPA 30 days prior to start of construction. Noted, to be addressed during final emgineering.
   - Stormwater permit application in accordance with the Yorkville Storm Water Management Ordinance (Kendall Countywide Ordinance) Noted, to be addressed during final emgineering.
2. Since the project is a non-residential development on more than 3 acres it must meet the stormwater detention requirements per the Stormwater Ordinance. SUP plans show holding places for detention facilities.
3. Any impacts to wetlands should be designed in accordance with the United City of Yorkville's Wetland Protection Regulations.
Noted. No wetlands present, just the Rob Roy Creek watercourse. Will provide delineation report. JD is currently processing.
4. A field tile survey will be required.
Noted - will be provided with Final Engineering.
5. There is a floodplain on the property associated with Rob Roy Creek that was identified in the Interim Hydrologic & Hydraulic Analysis of Rob Roy Creek, 2005. The property will have to be developed in accordance with the floodplain provisions of the City's stormwater ordinance. The flood elevation is between 644 and 645. Please see the attached exhibit.
This has been added and labeled on sheet C-200 of the SUP plans.

6. A good portion of the site is in the floodway of Rob Roy Creek. Any work in the floodway will require a permit from IDNR. Since solar fields do not fit the conditions of a statewide permit, an individual permit would likely be needed. We will pursue an IDNR permit.

7. **The City will require a 20' public utility easement along the frontage of Corneils Road. This is needed for possible City utility extensions. Additional easements may be required for stormwater, wetlands, or comp storage as necessary based on the final plans.** This has been added and labeled in the SUP plans.

8. **No solar equipment will be allowed with existing sanitary sewer easements. It is our understanding that there are not any units proposed within the easements.**
No equipment is proposed within the sanitary sewer easements.

9. **It is our understanding that the annexation will include portions of Corneils Road, therefore a 40' right-of-way dedication will be required. In addition, Cornels Road is currently not constructed to City standards and per code, improvements will be required. In place of constructing the improvements, the developer may choose to pay the value of the roadway improvements to the City.**
Noted - will be provided with Final Engineering.

10. The decommissioning bond or letter of credit will need to be 120% of the approved estimate.
Noted - provided with this submittal.

11. The following will need to be submitted with Final Engineering Plans:

    a. Additional information as shown in the provided checklist. - Noted

    b. Truck turning exhibits for delivery and emergency vehicles - Noted

    c. Photometric plan - No lighting proposed.

    d. Decommissioning cost estimate - Provided

    e. Stormwater management submittal - Noted

    f. Landscape plan - Noted

If you have any questions or require additional information, please contact our office.

Respectfully Submitted,

ENGINEERING ENTERPRISES, INC.

Bradley P. Sanderson, P.E.
Chief Operating Officer / President

BPS/tnp/pgw2

pc: Mr. Bart Olson, City Administrator (via email)
Ms. Erin Willrett, Assistant City Administrator (via email)
Mr. Eric Dhuse, Director of Public Works (via email)
Mr. Pete Ratos, Building Department (via email)
Ms. Dee Weinert, Admin Assistant (via email)
Ms. Gina Nelson, Admin Assistant (via email
Ms. Jori Behland, City Clerk (via email)
Mr. Matt Kwiatkowski, NexAmp (via email)
Mr. Dan Kramer, Attorney (via email)

March 13, 2024

Ms. Krysti Barksdale-Noble
Community Development Director
United City of Yorkville
651 Prairie Pointe
Yorkville, IL 60560

Re: Corneils Road Solar
Special Use & Rezoning Request – 3rd Submittal
United City of Yorkville

Dear Krysti:

We have reviewed the following items for the above-referenced project:

- Special Use Application Plans dated February 26, 2024, prepared by Atwell
- Construction Traffic Exhibit
- Engineer's Opinion of Probable Decommissioning Costs dated February 26, 2024, prepared by Atwell
- Other Supporting Documentation

Our review of these plans and reports is to generally determine their compliance with local ordinances and whether the improvements will conform to existing local systems and equipment. This review and our comments do not relieve the designer from his duties to conform to all required codes, regulations, and acceptable standards of engineering practice. Engineering Enterprises, Inc.'s review is not intended as an in-depth quality assurance review, we cannot and do not assume responsibility for design errors or omissions in the plans. As such, we offer the following comments (Revised items noted in bold):

General

1. The following permits may be required during final engineering and should be provided to the City when obtained. The City and EEI should be copied on all correspondence with the agencies.
    - IEPA NPDES General Construction Permit is required. The Notice of Intent must be filed with IEPA 30 days prior to start of construction.
    - Stormwater permit application in accordance with the Yorkville Stormwater Management Ordinance (Kendall Countywide Ordinance)
    - IDNR Floodway Permit will be required if floodways are impacted.
2. Any impacts to wetlands should be designed in accordance with the United City of Yorkville's Wetland Protection Regulations.
3. No solar equipment will be allowed within existing sanitary sewer easements. It is our understanding that there are not any units proposed within the easements.

4. It is our understanding that the annexation will include portions of Corneils Road, therefore a 40' right-of-way dedication will be required. In addition, Corneils Road is currently not constructed to City standards and per code, improvements will be required. In place of constructing the improvements, the developer may choose to pay the value of the roadway improvements to the City.

5. The decommissioning estimate has been provided and note that the value is acceptable. It should be noted that a performance guarantee will be required in the amount of 120% of the approved removal cost value. It is also noted that the estimate will need to be revised every three (3) years.

6. The following will need to be submitted with Final Engineering Plans:

    a. Additional information as shown in the provided checklist.

    b. Truck turning exhibits for delivery and emergency vehicles

    c. Stormwater management submittal

    d. Field tile survey

    e. Engineer's Estimate of Probable Costs that includes all public improvements within the ROW including utility connections and all soil erosion and sediment control items. This cost estimate will be used to determine the construction guarantee amount. In addition, a cost estimate needs to be provided for all site improvements which will be used to calculate the building permit fees.

7. Comments on the landscape plan will be forthcoming.

If you have any questions or require additional information, please contact our office.

Respectfully Submitted,

ENGINEERING ENTERPRISES, INC.

Bradley P. Sanderson, P.E.
Chief Operating Officer / President

BPS/tnp/pgw2

pc: Mr. Bart Olson, City Administrator (via email)
Ms. Erin Willrett, Assistant City Administrator (via email)
Mr. Eric Dhuse, Director of Public Works (via email)
Mr. Pete Ratos, Building Department (via email)
Ms. Dee Weinert, Admin Assistant (via email)
Ms. Gina Nelson, Admin Assistant (via email
Ms. Jori Behland, City Clerk (via email)
Mr. Matt Kwiatkowski, NexAmp (via email)
Mr. Dan Kramer, Attorney (via email)
TNP, PGW2, EEI (via e-mail)

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

8755 W. Higgins Road, Suite 835
Chicago, Illinois 60631
Phone (773) 693-9200
Fax (773) 693-9200

March 14, 2024

Pamela Whitfield, PE, CFM
Senior Project Engineer II
Engineering Enterprises, Inc.
52 Wheeler Road
Sugar Grove, IL 60554

Project No.: 21-0275 AF

Re: Landscape Plan and Wetland Review
YO2402-DR Corneils Road Solar, LLC

Dear Pamela:

We have completed our first landscape plan review of the proposed Corneils Road Solar facility, located at 10791 Corneils Road in Yorkville.

Landscape Plan – NOT RECOMMENDED FOR APPROVAL

For reasons described below, this landscape plan is not recommended for approval at this time. Wetland comments are also included. A response letter from the petitioner which addresses all review comments should be provided with their next submittal.

Review Comments

Comments must be addressed before landscape plan approval can be recommended. If there are any changes to the proposed project, additional comments may be provided. Please note that the requirements of each section are in addition to the requirements of all other sections of the ordinance (i.e., trees and other plant materials cannot be "double counted" to meet multiple requirements).

Building Foundation Landscape Zone

No buildings are proposed, so therefore building foundation landscape zone requirements do not apply.

Parking Area Perimeter Landscape Zone

No off-street parking areas abut a public or private right-of-way (excluding alleys), so therefore parking area perimeter landscape zone requirements do not apply.

Parking Area Interior Landscape Zone

No off-street parking areas consisting of 10 or more spaces are proposed, so therefore parking area interior landscape zone requirements do not apply.

Transition Zone

Because adjacent land use is agricultural, transition zone requirements do not apply.

Species Diversity Requirements

The landscape plan indicates a "Pollinator Friendly Seed Mix" will be installed. A representative species mix is included but so is a note reading seed mix to be provided with final engineering plans. Therefore, the pollinator mix shall be subject to review and approval after submittal of final engineering. Depending upon hydrology (e.g., depth and duration of flooding), the pollinator seed mix may not be appropriate for the detention basins.

Tree Preservation and Removal

No live tree with a 4" or greater DBH may be removed without approval. A review of Google Earth imagery reveals trees are present on the site throughout the creek corridor. It is not clear from the plans whether any trees are to be removed. A tree survey is required; tree replacement may also be required.

Street Trees

Requirements appear to be met.

General

The landscape plan indicates a "Pollinator Friendly Seed Mix" will be installed. A maintenance plan should also be submitted describing how this landscape will be maintained to ensure that desired species become established, persist, and the area is not overtaken by weeds.

The plans should indicate what is proposed on the southern portion of the site that appears vacant.

Wetlands

A valid wetland delineation and jurisdictional determination of the proposed project area are required.

A linear buffer along all watercourses is required. Buffer width shall be calculated per City or USACE requirements, whichever is more stringent.

Any impacts to wetlands or waters must be clearly identified on the plans.

Additional comments may be provided after complete information is submitted.

SUMMARY

This review was based upon the following documents, pursuant to requirements of the City's Unified Development Ordinance and Wetland Ordinance.

- Special Use Application Plans, 6 sheets, prepared by Atwell, most recently dated 8/18/22

Let us know if there are any questions or comments.

Sincerely,

Tim Pollowy, PLA, ASLA
Senior Landscape Architect

BYD - MC Cube

MC10C-B5365-U-R4M01
MC10C-B4659-U-R2M01

System Features

High Energy Density

- Compact mechanical design, minimized footprint

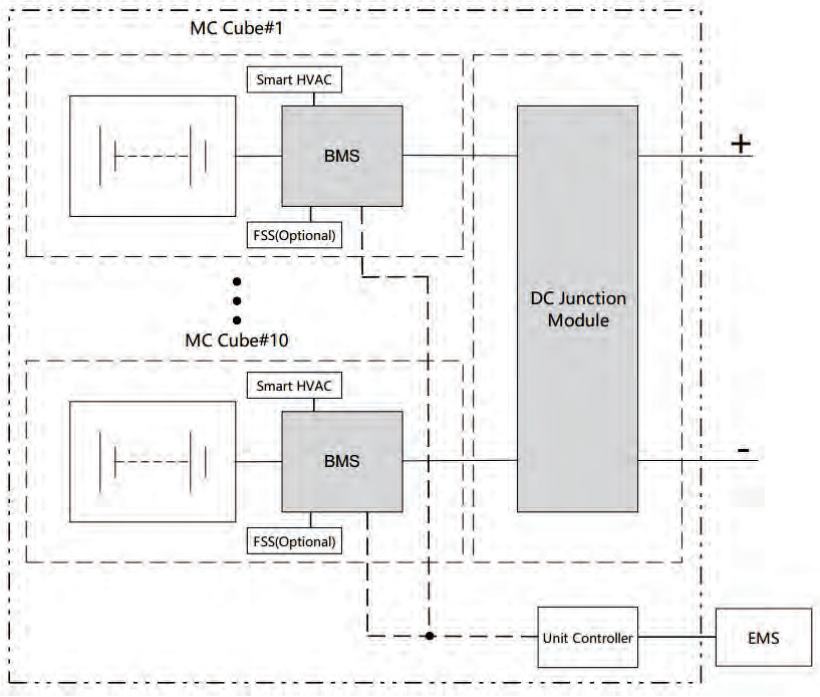
Safe & Long Lifecycle

- High efficient system with safe and long lifecycle LFP battery

Highly Integrated

- Highly integrated system to allow flexible transportation and on-site installation
- ALL IN ONE design, integrated local controller, HVAC and FSS to ensure system safety

Circuit Diagram



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V1.2 2023-01-05

System Parameter

System Type	MC10C-B5365-U-R4M01	MC10C-B4659-U-R2M01
DC Data		
Cell type	LFP	LFP
Pack type	1P416S	1P416S
System configuration	10 × 1P416S	10 × 1P416S
Battery capacity (BOL)	5365kWh	4659kWh
DC usable energy (BOL)@FAT	5099kWh	4428kWh
DC usable energy (BOL)@SAT	4946kWh	4295kWh
Battery voltage range	1081.6 ~ 1497.6	1081.6 ~ 1497.6
Nominal power	1236kW	2147kW
General Data		
Dimensions (W×D×H)	6058×2438×2896mm	6058×2438×2896mm
Weight	~41035kg	~41385kg
IP rating	IP55	IP55
Ambient operating temperature range	-30℃ ~ +55℃【1】	-30℃ ~ +55℃【1】
Relative humidity	5% ~ 100%	5% ~ 100%
Max. working altitude	＜2000m【2】	＜2000m【2】
Cooling concept	Smart air cooling	Liquid cooling
Noise	≤75dBA	≤75dBA
Fire suppression system	With fire alarm system	With fire alarm system
Auxiliary power interface	AC480V/60Hz, 3P4W	AC480V/60Hz, 3P4W
Auxiliary system peak power requirement @45℃, PF0.8	39kVA	76kVA
Communication interfaces	Ethernet	Ethernet
Communication protocols	Modbus TCP/IP	Modbus TCP/IP
Standard color	RAL 9003	RAL 9003
Compliance	UL1973, NFPA69, NFPA72, NFPA855, CFC UN3536, UL9540A, UL9540	

Note:

【1】Power derating is performed when the ambient temperature is below -15℃ or above +45℃.

【2】Power derating is performed when the altitude is between 2000-3000m.

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United City of Yorkville
800 Game Farm Road
Yorkville, Illinois, 60560
Telephone: 630-553-4350
Fax: 630-553-7575
Website: www.yorkville.il.us

APPLICATION FOR REZONING

INTENT AND PURPOSE

Rezoning is a type of map amendment which allows for the reclassification of a property's zoning district. A request for rezoning must not be arbitrary. There are several land use factors which are considered during the review process for a rezoning request including the suitability of surrounding land uses and zoning districts, local development trends, potential traffic impacts, and the overall public health and safety of the community.

This packet explains the process to successfully submit and complete an Application for Rezoning. It includes a detailed description of the process, outlines required submittal materials, and contains the application for rezoning.

For a complete explanation of what is legally required throughout the Special Use process, please refer to "Title 10, Chapter 4, Section 7: Amendments" of the Yorkville, Illinois City Code.

APPLICATION PROCEDURE

STEP 1

APPLICATION SUBMITTAL

SUBMIT APPLICATION, FEES, AND PLANS TO THE COMMUNITY DEVELOPMENT DEPT.

The following must be submitted:

- ☒ One (1) original signed and notarized application.
- ☑ Legal description of the property in Microsoft Word.
- ☒ Three (3) copies each of the exhibits, proposed drawings, location map, and site plan. All exhibits and plans must be an appropriate size for all details and descriptions to be legible.
- ☒ Appropriate application and filing fee. Checks may be written to the United City of Yorkville.
- ☒ Signed Applicant Deposit Account/Acknowledgment of Financial Responsibility form.
- ☒ One (1) electronic copy (PDF) of all materials submitted including application and exhibits.

Within one (1) week of submittal, the Community Development Department will determine if the application is complete or if additional information is needed. An incomplete submittal could delay the scheduling of the project.

The petitioner is responsible for payment of recording fees and public hearing costs, including written transcripts of the public hearing and outside consultant costs (i.e. legal review, land planner, zoning coordinator, environmental, etc.). The petitioner will be required to establish a deposit account with the City to cover these fees.

Once a submitted and complete, Community Development staff will provide a tentative schedule of meetings as well as all needed documents for the process.

STEP 2

PLAN COUNCIL

MEETS ON THE 2ND & 4TH THURSDAY OF THE MONTH

The petitioner must present the proposed request to the Plan Council. The members of the Council include the Community Development Director, City Engineer, the Building Department Official, the Public Works Director, the Director of Parks and Recreation, a Fire Department Representative, and a Police Department Representative. This meeting is held to provide the petitioner with guidance from all City staff departments to ensure the petitioner is aware of all requirements and regulations for their development. Upon recommendation by the Plan Council, the petitioner will move forward to the Economic Development Committee.

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APPLICATION FOR REZONING

STEP 3

ECONOMIC DEVELOPMENT COMMITTEE

MEETS ON THE 1ST TUESDAY OF THE MONTH

The petitioner must present the proposed plan to the Economic Development Committee. The committee consists of four alderman who will provide feedback to the petitioner regarding their request. This feedback allows the petitioner to gather comments and concerns prior to full City Council considerations. It also allows the City Council members to review the request prior to its arrival at City Council.

STEP 4

PLANNING & ZONING COMMISSION

MEETS ON THE 2ND WEDNESDAY OF THE MONTH

The petitioner will attend and present their request at a public hearing conducted by the Planning and Zoning Commission. The Planning and Zoning Commission will conduct a public hearing on the request, take public comments, discuss the request, and make a recommendation to City Council. No rezoning request shall be recommended by the Planning and Zoning Commission unless it follows the standards set forth in City's Zoning Ordinance.

The petitioner is responsible for sending certified public hearing notices to adjacent property owners within five hundred (500) feet of the subject property no less than fifteen (15) days and no more than thirty (30) days prior to the public hearing date. The public hearing notice will be drafted by the City as well as published in a local newspaper. Additionally, a public hearing notice sign must be placed on the property no less than fifteen (15) days prior to the public hearing.

A certified affidavit must be filed by the petitioner with the Community Development Department containing the names, addresses and permanent parcel numbers of all parties that were notified. The Certified Mailing Affidavit form is attached to this document.

STEP 5

CITY COUNCIL

MEETS ON THE 2ND & 4TH TUESDAY OF THE MONTH

The petitioner will attend the City Council meeting where the recommendation of the special use will be considered. City Council will make the final approval of the special use. If approved, City staff will have a drafted ordinance to be signed by the Council and must be recorded with the County Clerk before any further steps may be taken by the petitioner.

SUMMARY OF RESPONSIBILITIES

Below is a summary breakdown of what will be required by the petitioner and what will be completed by the City:

PETITIONER

- ☐ Signed and Notarized Application
- ☐ Required Plans, Exhibits, and Fees
- ☐ Certified Mailing of Public Notice
- ☐ Signed Certified Affidavit of Mailings
- ☐ Attendance at All Meetings

CITY STAFF

- ☐ Detailed Schedule After Complete Submission
- ☐ Public Hearing Notice Language
- ☐ Posting of the Public Notice in a Local Newspaper
- ☐ Public Hearing Sign Application
- ☐ Draft Ordinance & Signatures for Recording

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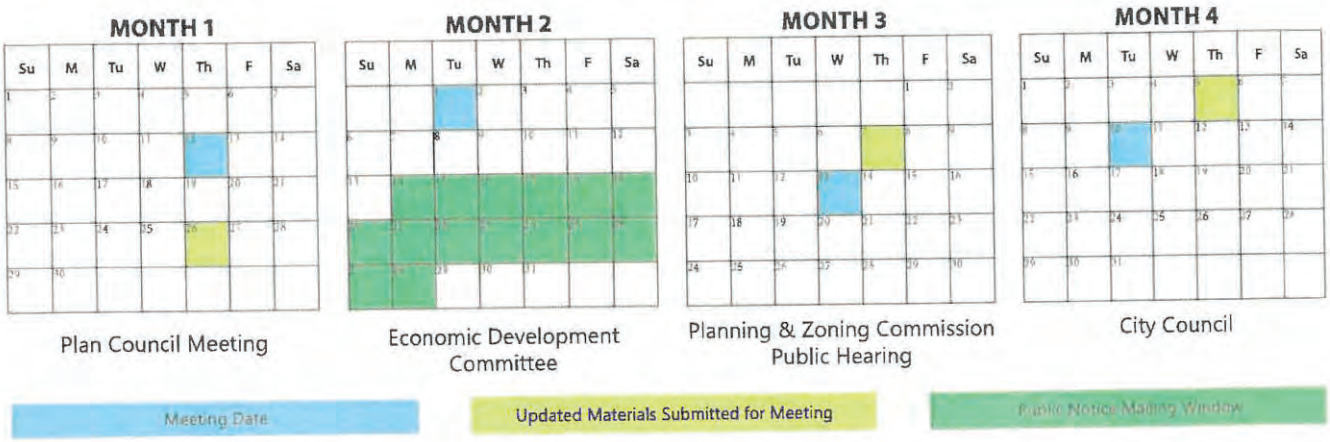
APPLICATION FOR REZONING

SAMPLE MEETING SCHEDULE



This is a sample of what a schedule may look like after submission. The Step 1 Submission must be completed before the Plan Council Meeting can be scheduled. This timeline represents an ideal schedule. Throughout the review process, there may be requests or changes to the submission requested by the committees which may delay the meeting schedule. As illustrated, there is a small amount of time between meeting dates and the deadline for updated materials to be submitted for review. Depending on the complexity and nature of the request, this timeline may be extended to give the petitioner and staff enough time to review requested updates to the submission.

DORMANT APPLICATIONS

The Community Development Director shall determine if an application meets or fails to meet the submission requirements. If the Director determines that the application is incomplete it will become dormant under these circumstances:

- The applicant has been notified of such deficiencies and has not responded or provided a time line for completing the application within ninety (90) days from the time of notification.
- The applicant has not responded in writing to a request for information or documentation from the initial planning and zoning commission review within six (6) months from the date of that request.
- The applicant has not responded to a request for legal or engineering deposit replenishment for city incurred costs and fees within ninety (90) days from the date of the request.

If the Community Development Director has sent the required notice and the applicant has not withdrawn their application or brought it into compliance, then the director shall terminate the application. After termination, the application shall not be reconsidered except after the filing of a completely new application.

Withdrawal or termination of an application shall not affect the applicant's responsibility for payment of any costs and fees, or any other outstanding debt owed to the city. The balance of any funds deposited with the city that is not needed to pay for costs and fees shall be returned to the applicant. (Ord. 2011-34, 7-26-2011)

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APPLICATION FOR REZONING

INVOICE & WORKSHEET PETITION APPLICATION			
CONCEPT PLAN REVIEW	☐ Engineering Plan Review deposit	$500.00	Total: $
AMENDMENT	☑ Annexation ☐ Plan ☐ Plat ☐ P.U.D.	$500.00 $500.00 $500.00 $500.00	Total: $
ANNEXATION	☐ $250.00 + $10 per acre for each acre over 5 acres _____ - 5 = _____ x $10 = _____ + $250 = $ _____ # of Acres / Acres over 5 / Amount for Extra Acres / Total Amount		Total: $
REZONING	☑ $200.00 + $10 per acre for each acre over 5 acres *If annexing and rezoning, charge only 1 per acre fee; if rezoning to a PUD, charge PUD Development Fee - not Rezoning Fee* _____ - 5 = _____ x $10 = _____ + $200 = $ _____ # of Acres / Acres over 5 / Amount for Extra Acres / Total Amount		Total: $ 200.00
SPECIAL USE	☐ $250.00 + $10 per acre for each acre over 5 acres _____ - 5 = _____ x $10 = _____ + $250 = $ _____ # of Acres / Acres over 5 / Amount for Extra Acres / Total Amount		Total: $
ZONING VARIANCE	☐ $85.00 + $500.00 outside consultants deposit		Total: $
PRELIMINARY PLAN FEE	☐ $500.00		Total: $
PUD FEE	☐ $500.00		Total: $
FINAL PLAT FEE	☐ $500.00		Total: $
ENGINEERING PLAN REVIEW DEPOSIT	☐ Less than 1 acre ☐ Over 1 acre, less than 10 acres ☐ Over 10 acres, less than 40 acres ☐ Over 40 acres, less than 100 acres ☐ Over 100 acres	$5,000.00 $10,000.00 $15,000.00 $20,000.00 $25,000.00	Total: $
OUTSIDE CONSULTANTS DEPOSIT *Legal, land planner, zoning coordinator, environmental services*	For Annexation, Subdivision, Rezoning, and Special Use: ☐ Less than 2 acres ☐ Over 2 acres, less than 10 acres ☐ Over 10 acres	$1,000.00 $2,500.00 $5,000.00	Total: $
	TOTAL AMOUNT DUE:		200.00

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APPLICATION FOR REZONING

DATE: 1/ /2024	PZC NUMBER:	DEVELOPMENT NAME: Corneils Road Solar, LLC

PETITIONER INFORMATION

NAME: Matt Kwiatkowski	COMPANY: Corneils Road Solar, LLC
MAILING ADDRESS: 101 Summer Street, Second Floor	
CITY, STATE, ZIP: Boston, MA 02110	TELEPHONE: ◉ BUSINESS ○ HOME 317-760-3190
EMAIL: mkwiatkowski@nexamp.com	FAX:

PROPERTY INFORMATION

NAME OF HOLDER OF LEGAL TITLE: Gary L. Bennett and Betty S. Bennett

IF LEGAL TITLE IS HELD BY A LAND TRUST, LIST THE NAMES OF ALL HOLDERS OF ANY BENEFICIAL INTEREST THEREIN:

PROPERTY STREET ADDRESS: vacant land at 10791 Corneils Road, Plano, Illinois 60545

DESCRIPTION OF PROPERTY'S PHYSICAL LOCATION:
vacant land at 10791 Corneils Road, Plano, Illinois 60545

CURRENT ZONING CLASSIFICATION: Kendall County A-1/R-1	REQUESTED ZONING CLASSIFICATION: United City of Yorkville A-1
COMPREHENSIVE PLAN FUTURE LAND USE DESIGNATION: A-1	TOTAL ACREAGE: 39.95

ZONING AND LAND USE OF SURROUNDING PROPERTIES

NORTH: A-1/R-2

EAST: A-1/R-2

SOUTH: A-1

WEST: County of Kendall A-1/M-1/Special Use

KENDALL COUNTY PARCEL IDENTIFICATION NUMBER(S)

02-08-300-008			
02-08-300-011			
02-08-300-012			

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APPLICATION FOR REZONING

ATTORNEY INFORMATION	
NAME: Daniel J. Kramer	COMPANY: Law Offices of Daniel J. Kramer
MAILING ADDRESS: 1107A S. Bridge Street	
CITY, STATE, ZIP: Yorkville, IL 60560	TELEPHONE: 630-553-9500
EMAIL: dkramer@dankramerlaw.com	FAX: 630-553-5764
ENGINEER INFORMATION	
NAME: Michael Keith	COMPANY: Atwell
MAILING ADDRESS: 1250 E. Diehl Road, Suite 300	
CITY, STATE, ZIP: Naperville, IL 60563	TELEPHONE: 630-281-8424
EMAIL: mkeith@atwell-group.com	FAX:
LAND PLANNER/SURVEYOR INFORMATION	
NAME: Michael Keith	COMPANY: Atwell
MAILING ADDRESS: 1250 E. Diehl Road, Suite 300	
CITY, STATE, ZIP: Naperville, IL 60563	TELEPHONE: 630-281-8424
EMAIL: mkeith@atwell-group.com	FAX:

ATTACHMENTS

Petitioner must attach a legal description of the property to this application and title it as "Exhibit A".

Petitioner must list the names and addresses of any adjoining or contiguous landowners within five hundred (500) feet of the property that are entitled notice of application under any applicable City Ordinance or State Statute. Attach a separate list to this application and title it as "Exhibit B"

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APPLICATION FOR REZONING

REZONING STANDARDS

PLEASE STATE THE EXISTING ZONING CLASSIFICATION(S) AND USES OF THE PROPERTY WITHIN THE GENERAL AREA OF THE PROPOSED REZONED PROPERTY:

A-1 Agricultural District

PLEASE STATE THE TREND OF DEVELOPMENT, IF ANY, IN THE GENERAL AREA OF THE PROPERTY IN QUESTION, INCLUDING CHANGES, IF ANY, WHICH HAVE TAKEN PLACE SINCE THE DAY THE PROPERTY IN QUESTION WAS PLACED IN ITS PRESENT ZONING CLASSIFICATION:

The majority of Land in the area is A-1 Agirultural District and this project is the same zoning.

PLEASE STATE THE EXTENT TO WHICH PROPERTY VALUES ARE DIMINISHED BY THE PARTICULAR ZONING RESTRICTIONS:

The proposed solar array will be an enhancement to the United City of Yorkville in that it will provide a source of solar collection through the solar array being constructed by Corneils Road Solar, LLC which will hook directly to the Commonwealth Edison Grid. It dovetails perfectly with the Federal Government's Green Energy Plans and the Build Back America Program; and is environmentally friendly. The panels contain no toxic materials and the landscaping under them will be an environmentally friendly grass. Applicant further intends to introduce other environmentally friendly development methods on the site. There is no harm to surrounding property owners, no detrimental effect to public health, safety, or morals. The encouragement of using solar energy in lieu of fossil fuels is an excellent alternative source of green energy.

PLEASE STATE THE EXTENT TO WHICH THE DESTRUCTION OF PROPERTY VALUES OF PETITIONER PROMOTES THE HEALTH, SAFETY, MORALS, AND GENERAL WELFARE OF THE PUBLIC:

The proposed solar array will be an enhancement to the United City of Yorkville in that it will provide a source of solar collection through the solar array being constructed by Corneils Road Solar, LLC which will hook directly to the Commonwealth Edison Grid. It dovetails perfectly with the Federal Government's Green Energy Plans and the Build Back America Program; and is environmentally friendly. The panels contain no toxic materials and the landscaping under them will be an environmentally friendly grass. Applicant further intends to introduce other environmentally friendly development methods on the site. There is no harm to surrounding property owners, no detrimental effect to public health, safety, or morals. The encouragement of using solar energy in lieu of fossil fuels is an excellent alternative source of green energy.

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APPLICATION FOR REZONING

REZONING STANDARDS

PLEASE STATE THE LENGTH OF TIME THE PROPERTY HAS BEEN VACANT AS ZONED CONSIDERED IN THE CONTEXT OF LAND DEVELOPMENT IN THE AREA IN THE VICINITY OF THE SUBJECT PROPERTY:

The property and adjoining property is Zoned A-1 Agricutrual District.

PLEASE STATE THE COMMUNITY NEED FOR THE PROPOSED LAND USE:

The proposed solar array will be an enhancement to the United City of Yorkville in that it will provide a source of solar collection through the solar array being constructed by Corneils Road Solar, LLC which will hook directly to the Commonwealth Edison Grid. It dovetails perfectly with the Federal Government's Green Energy Plans and the Build Back America Program; and is environmentally friendly. The panels contain no toxic materials and the landscaping under them will be an environmentally friendly grass. Applicant further intends to introduce other environmentally friendly development methods on the site. There is no harm to surrounding property owners, no detrimental effect to public health, safety, or morals. The encouragement of using solar energy in lieu of fossil fuels is an excellent alternative source of green energy.

WITH RESPECT TO THE SUBJECT PROPERTY, PLEASE STATE THE CARE WITH WHICH THE COMMUNITY HAS UNDERTAKEN TO PLAN ITS LAND USE DEVELOPMENT:

The Special Use complies with all United City of Yorkville requirements for solar arrays, as well as all State requirements for the use of such facilities and all materials are in compliance with Federal and State Laws.

PLEASE STATE THE IMPACT THAT SUCH RECLASSIFICATION WILL HAVE UPON TRAFFIC AND TRAFFIC CONDITIONS ON SAID ROUTES; THE EFFECT, IF ANY, SUCH RECLASSIFICATION AND/OR ANNEXATION WOULD HAVE UPON EXISTING ACCESSES TO SAID ROUTES; AND THE IMPACT OF ADDITIONAL ACCESSES AS REQUESTED BY THE PETITIONER UPON TRAFFIC AND TRAFFIC CONDITIONS AND FLOW ON SAID ROUTES (ORD. 1976-43, 11-4-1976):

There will be a minimum amount of traffic in and out during the construction phase of the solar array. There will be virtually no traffic in an out on a daily basis once the system is operational. The only traffic in and once the system is operational will be regular maintenance checks and maintenance of the underlying site itself.

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APPLICANT DEPOSIT ACCOUNT/ ACKNOWLEDGMENT OF FINANCIAL RESPONSIBILITY

PROJECT NUMBER:

FUND ACCOUNT NUMBER:

PROPERTY ADDRESS: 10791 Corneils Road, Plano, IL 60545

PETITIONER DEPOSIT ACCOUNT FUND:

It is the policy of the United City of Yorkville to require any petitioner seeking approval on a project or entitlement request to establish a Petitioner Deposit Account Fund to cover all actual expenses occurred as a result of processing such applications and requests. Typical requests requiring the establishment of a Petitioner Deposit Account Fund include, but are not limited to, plan review of development approvals/engineering permits. Deposit account funds may also be used to cover costs for services related to legal fees, engineering and other plan reviews, processing of other governmental applications, recording fees and other outside coordination and consulting fees. Each fund account is established with an initial deposit based upon the estimated cost for services provided in the **INVOICE & WORKSHEET PETITION APPLICATION**. This initial deposit is drawn against to pay for these services related to the project or request. Periodically throughout the project review/approval process, the Financially Responsible Party will receive an invoice reflecting the charges made against the account. At any time the balance of the fund account fall below ten percent (10%) of the original deposit amount, the Financially Responsible Party will receive an invoice requesting additional funds equal to one-hundred percent (100%) of the initial deposit if subsequent reviews/fees related to the project are required. In the event that a deposit account is not immediately replenished, review by the administrative staff, consultants, boards and commissions may be suspended until the account is fully replenished. If additional funds remain in the deposit account at the completion of the project, the city will refund the balance to the Financially Responsible Party. A written request must be submitted by the Financially Responsible Party to the city by the 15th of the month in order for the refund check to be processed and distributed by the 1st of the following month. All refund checks will be made payable to the Financially Responsible Party and mailed to the address provided when the account was established.

ACKNOWLEDGMENT OF FINANCIAL RESPONSIBILITY

NAME: Nexamp Matt Kwiatkowski

COMPANY: Corneils Road Solar, LLC

MAILING ADDRESS: 101 Summer Street, Second Floor

CITY, STATE, ZIP: Boston, MA 02110

TELEPHONE: 317-760-3190

EMAIL: mkwiatkowski@nexamp.com

FAX:

FINANCIALLY RESPONSIBLE PARTY:

I acknowledge and understand that as the Financially Responsible Party, expenses may exceed the estimated initial deposit and, when requested by the United City of Yorkville, I will provide additional funds to maintain the required account balance. Further, the sale or other disposition of the property does not relieve the individual or Company/Corporation of their obligation to maintain a positive balance in the fund account, unless the United City of Yorkville approves a Change of Responsible Party and transfer of funds. Should the account go into deficit, all City work may stop until the requested replenishment deposit is received.

Corneils Road Solar, LLC

Matthew Walsh

PRINT NAME

SIGNATURE*

VP of Business Development

TITLE

1/15/24

DATE

The name of the individual and the person who signs this declaration must be the same. If a corporation is listed, a corporate officer must sign the declaration (President, Vice-President, Chairman, Secretary or Treasurer)

INITIAL ENGINEERING/LEGAL DEPOSIT TOTALS

ENGINEERING DEPOSITS:	
Up to one (1) acre	$5,000
Over one (1) acre, but less than ten (10) acres	$10,000
Over ten (10) acres, but less than forty (40) acres	$15,000
Over forty (40) acres, but less than one hundred (100)	$20,000
In excess of one hundred (100.00) acres	$25,000

LEGAL DEPOSITS:	
Less than two (2) acres	$1,000
Over two (2) acres, but less than ten (10) acres	$2,500
Over ten (10) acres	$5,000

United City of Yorkville
800 Game Farm Road
Yorkville, Illinois, 60560
Telephone: 630-553-4350
Fax: 630-553-7575
Website: www.yorkville.il.us

APPLICATION FOR REZONING

REZONING STANDARDS

PLEASE STATE THE RELATIVE GAIN TO THE PUBLIC AS COMPARED TO THE HARDSHIP IMPOSED UPON THE INDIVIDUAL PROPERTY OWNER:

The proposed solar array will be an enhancement to the United City of Yorkville in that it will provide a source of solar collection through the solar array being constructed by Corneils Road, LLC which will hook directly to the Commonwealth Edison Grid. It dovetails perfectly with the Federal Government's Green Energy Plans and the Build Back America Program; and is environmentally friendly. The panels contain no toxic materials and the landscaping under them will be an environmentally friendly grass. Applicant further intends to introduce other environmentally friendly development methods on the site. There is no harm to surrounding property owners no detrimental effect to public health, safety, or morals. The encouragement of using solar energy in lieu of fossil fuels is an excellent alternative source of green energy.

PLEASE STATE THE SUITABILITY OF THE SUBJECT PROPERTY FOR THE ZONED PURPOSES:

THe subject property is already zoned A-1 with Kendall County and will be re-zoned to A-1 Special Use with the United City of Yorkville.

AGREEMENT

I VERIFY THAT ALL THE INFORMATION IN THIS APPLICATION IS TRUE TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND AND ACCEPT ALL REQUIREMENTS AND FEES AS OUTLINED AS WELL AS ANY INCURRED ADMINISTRATIVE AND PLANNING CONSULTANT FEES WHICH MUST BE CURRENT BEFORE THIS PROJECT CAN PROCEED TO THE NEXT SCHEDULED COMMITTEE MEETING.

I UNDERSTAND ALL OF THE INFORMATION PRESENTED IN THIS DOCUMENT AND UNDERSTAND THAT IF AN APPLICATION BECOMES DORMANT IT IS THROUGH MY OWN FAULT AND I MUST THEREFORE FOLLOW THE REQUIREMENTS OUTLINED ABOVE.

Corneils Road Solar, LLC

PETITIONER SIGNATURE Matthew Walsh, VP — DATE 1/15/24

OWNER HEREBY AUTHORIZES THE PETITIONER TO PURSUE THE APPROPRIATE ENTITLEMENTS ON THE PROPERTY.

OWNER SIGNATURE — DATE

THIS APPLICATION MUST BE NOTARIZED PLEASE NOTARIZE HERE: 1/15/24 Colleen Hanson

"OFFICIAL SEAL"
COLLEEN T HANSON
NOTARY PUBLIC, STATE OF ILLINOIS
COMMISSION NO. 979188
MY COMMISSION EXPIRES 10/6/2027

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APPLICATION FOR ANNEXATION

INTENT AND PURPOSE

The purpose of this application is to allow unincorporated land that is contiguous and adjacent to the Yorkville corporate limits to annex into the City. All newly annexed land is automatically zoned to the most restrictive classification under the city's zoning ordinance (R-1 Single-Family Suburban Residence District). Therefore, all voluntary annexation petitions which are seeking a different zoning classification will have to adhere to the rezoning process outlined in "Title 10, Chapter 4, Section 10 Amendments."

This packet explains the process to successfully submit and complete an Application for Annexation. It includes a detailed description of the process, outlines required submittal materials, and contains the application.

For a complete explanation of what is legally required throughout the process, please refer to "Title 10, Chapter 4, Section 11 Annexations" of the Yorkville, Illinois City Code.

APPLICATION PROCEDURE

STEP 1
APPLICATION SUBMITTAL

SUBMIT APPLICATION, FEES, AND PLANS TO THE COMMUNITY DEVELOPMENT DEPT.

The following must be submitted:

- [x] One (1) original signed and notarized application.
- [x] Legal description of the property in Microsoft Word.
- [x] Three (3) copies each of the exhibits, proposed drawings, location map, and site plan. All exhibits and plans must be an appropriate size for all details and descriptions to be legible.
- [x] Appropriate application and filing fee. Checks may be written to the United City of Yorkville.
- [x] Signed Applicant Deposit Account/Acknowledgment of Financial Responsibility form.
- [x] One (1) electronic copy (PDF) of all materials submitted including application and exhibits.

Within one (1) week of submittal, the Community Development Department will determine if the application is complete or if additional information is needed. An incomplete submittal could delay the scheduling of the project.

The petitioner is responsible for payment of recording fees and public hearing costs, including written transcripts of the public hearing and outside consultant costs (i.e. legal review, land planner, zoning coordinator, environmental, etc.). The petitioner will be required to establish a deposit account with the City to cover these fees.

Once a submitted and complete, Community Development staff will provide a tentative schedule of meetings as well as all needed documents for the process.

STEP 2
PLAN COUNCIL

MEETS ON THE 2ND & 4TH THURSDAY OF THE MONTH

This step is dependent on the complexity of requests and may be skipped at the discretion of staff.

The petitioner must present the proposed request to the Plan Council. The members of the Council include the Community Development Director, City Engineer, the Building Department Official, the Public Works Director, the Director of Parks and Recreation, a Fire Department Representative, and a Police Department Representative. This meeting is held to provide the petitioner with guidance from all City staff departments to ensure the petitioner is aware of all requirements and regulations for their development. Upon recommendation by the Plan Council, the petitioner will move forward to the Economic Development Committee.

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APPLICATION FOR ANNEXATION

STEP 3

ECONOMIC DEVELOPMENT COMMITTEE

MEETS ON THE 1ST TUESDAY OF THE MONTH

The petitioner must present the proposed plan to the Economic Development Committee. The committee consists of four alderman who will provide feedback to the petitioner regarding their request. This feedback allows the petitioner to gather comments and concerns prior to full City Council considerations. It also allows the City Council members to review the request prior to its arrival at City Council.

STEP 4

CITY COUNCIL PUBLIC HEARING

MEETS ON THE 2ND & 4TH TUESDAY OF THE MONTH

If there is not a request for rezoning or PUD agreement, then the request will go directly to the City Council for a public hearing. The petitioner will attend and present their request at a public hearing conducted by the City Council. The City Council will conduct a public hearing on the request, take public comments, and discuss the request.

The petitioner is responsible for sending certified public hearing notices to adjacent property owners within five hundred (500) feet of the subject property no less than fifteen (15) days and no more than thirty (30) days prior to the public hearing date. The public hearing notice will be drafted by the City as well as published in a local newspaper. Additionally, a public hearing notice sign must be placed on the property no less than fifteen (15) days prior to the public hearing.

A certified affidavit must be filed by the petitioner with the Community Development Department containing the names, addresses and permanent parcel numbers of all parties that were notified. The Certified Mailing Affidavit form is attached to this document.

STEP 5

CITY COUNCIL

MEETS ON THE 2ND & 4TH TUESDAY OF THE MONTH

The petitioner will attend the City Council meeting where the annexation request will be reviewed. Depending on the complexity of the request this meeting may be held at the same meeting of the public hearing. If approved, City staff will have a drafted ordinance to be signed by the Council and must be recorded with the County Clerk before any further steps may be taken by the petitioner.

NECESSARY NOTIFICATIONS

The entities listed below must be notified in writing, by certified or registered mail, of the proposed annexations at least ten (10) days prior to the action taken at City Council. Notices must be delivered to the individual board members at their respective home addresses:

- ☐ Trustees of the fire protection district
- ☐ Trustees of the public library district
- ☐ Township Highway Commissioner, Township Trustees, Township Supervisor, and Township Clerk if land to be annexed includes any highway under township jurisdiction

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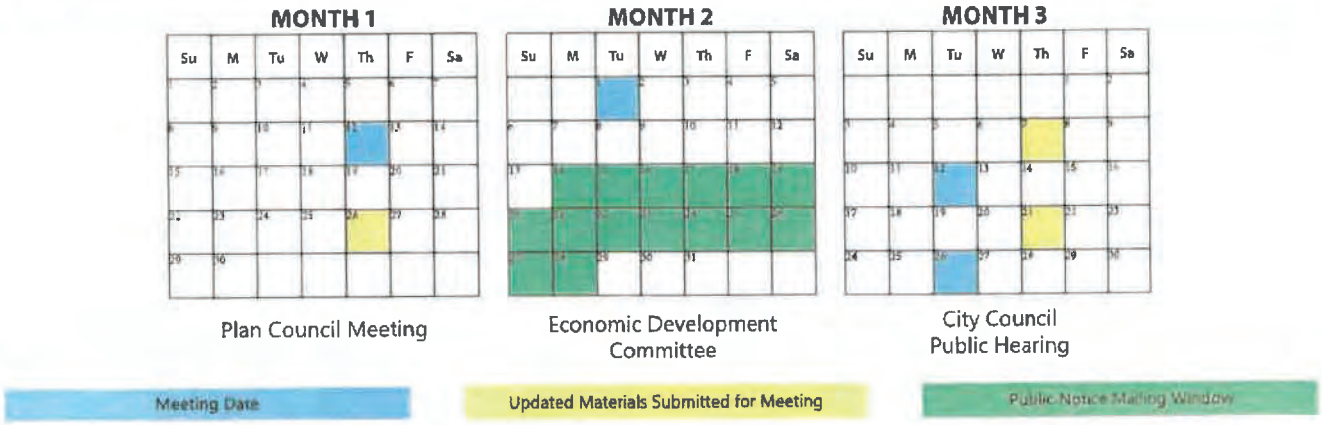
APPLICATION FOR ANNEXATION

SAMPLE MEETING SCHEDULE



This is a sample of what a schedule may look like after submission. The Step 1 Submission must be completed before the Plan Council Meeting can be scheduled. This timeline represents an ideal schedule. Throughout the review process, there may be requests or changes to the submission requested by the committees which may delay the meeting schedule. As illustrated, there is a small amount of time between meeting dates and the deadline for updated materials to be submitted for review. Depending on the complexity and nature of the request, this timeline may be extended to give the petitioner and staff enough time to review requested updates to the submission.

DORMANT APPLICATIONS

The Community Development Director shall determine if an application meets or fails to meet the submission requirements. If the Director determines that the application is incomplete it will become dormant under these circumstances:

- The applicant has been notified of such deficiencies and has not responded or provided a time line for completing the application within ninety (90) days from the time of notification.
- The applicant has not responded in writing to a request for information or documentation from the initial planning and zoning commission review within six (6) months from the date of that request.
- The applicant has not responded to a request for legal or engineering deposit replenishment for city incurred costs and fees within ninety (90) days from the date of the request.

If the Community Development Director has sent the required notice and the applicant has not withdrawn their application or brought it into compliance, then the director shall terminate the application. After termination, the application shall not be reconsidered except after the filing of a completely new application.

Withdrawal or termination of an application shall not affect the applicant's responsibility for payment of any costs and fees, or any other outstanding debt owed to the city. The balance of any funds deposited with the city that is not needed to pay for costs and fees shall be returned to the applicant. (Ord. 2011-34, 7-26-2011)

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APPLICATION FOR SPECIAL USE

INVOICE & WORKSHEET PETITION APPLICATION

CONCEPT PLAN REVIEW	☒ Engineering Plan Review deposit	$500.00	Total: $ 500.00
AMENDMENT	☐ Annexation	$500.00	Total: $
	☐ Plan	$500.00	
	☐ Plat	$500.00	
	☐ P.U.D.	$500.00	
ANNEXATION	☐ $250.00 + $10 per acre for each acre over 5 acres		Total: $ 600.00
39.95 (# of Acres) - 5 = 35 (Acres over 5) x $10 = $350.00 (Amount for Extra Acres) + $250 = $ $600.00 (Total Amount)			
REZONING	☐ $200.00 + $10 per acre for each acre over 5 acres		Total: $
If annexing and rezoning, charge only 1 per acre fee; If rezoning to a PUD, charge PUD Development Fee - not Rezoning Fee			
_____ (# of Acres) - 5 = _____ (Acres over 5) x $10 = _____ (Amount for Extra Acres) + $200 = $ _____ (Total Amount)			
SPECIAL USE	☐ $250.00 + $10 per acre for each acre over 5 acres		Total: $ 600.00
39.95 (# of Acres) - 5 = 35 (Acres over 5) x $10 = $350.00 (Amount for Extra Acres) + $250 = $ $600.00 (Total Amount)			
ZONING VARIANCE	☐ $85.00 + $500.00 outside consultants deposit		Total: $
PRELIMINARY PLAN FEE	☐ $500.00		Total: $
PUD FEE	☐ $500.00		Total: $
FINAL PLAT FEE	☐ $500.00		Total: $
ENGINEERING PLAN REVIEW DEPOSIT	☐ Less than 1 acre	$5,000.00	Total: $ 15,000.00
	☐ Over 1 acre, less than 10 acres	$10,000.00	
	☒ Over 10 acres, less than 40 acres	$15,000.00	
	☐ Over 40 acres, less than 100 acres	$20,000.00	
	☐ Over 100 acres	$25,000.00	
OUTSIDE CONSULTANTS DEPOSIT *Legal, land planner, zoning coordinator, environmental services*	For Annexation, Subdivision, Rezoning, and Special Use:		Total: $ 5,000.00
	☐ Less than 2 acres	$1,000.00	
	☐ Over 2 acres, less than 10 acres	$2,500.00	
	☒ Over 10 acres	$5,000.00	
	TOTAL AMOUNT DUE:		$21,700.00

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APPLICATION FOR ANNEXATION

DATE:	PZC NUMBER:	DEVELOPMENT NAME: 126612 Corneils Road Solar, LLC
PETITIONER INFORMATION		
NAME: Matt Kwiatkowski		COMPANY: 126612 Corneils Road Solar, LLC
MAILING ADDRESS:		
CITY, STATE, ZIP:		TELEPHONE: ○ BUSINESS ○ HOME 317-760-3190
EMAIL: mkwiatkowski@nexamp.com		FAX:
PROPERTY INFORMATION		
NAME OF HOLDER OF LEGAL TITLE: Gary L. Bennett and Betty S. Bennett		
IS THE PROPERTY OCCUPIED OR VACANT: the 39.95 acres being annexed and a special sue request is vacant farmland		
IF OCCUPIED, PLEASE LIST ALL NAMES OF ELECTORS (THOSE REGISTERED TO VOTE) RESIDING ON THE PROPERTY:		
IF LEGAL TITLE IS HELD BY A LAND TRUST, LIST THE NAMES OF ALL HOLDERS OF ANY BENEFICIAL INTEREST THEREIN:		
PROPERTY STREET ADDRESS: 10791 Corneils Road, Plano, Illinios 60545		
DESCRIPTION OF PROPERTY'S PHYSICAL LOCATION: vacant land adjacent to 10791 Corneils Road, Plano, IL 60545		
CURRENT ZONING CLASSIFICATION: A-1 /R-1		
ZONING AND LAND USE OF SURROUNDING PROPERTIES		
NORTH: A-1/R-2		
EAST: A-1/R-2		
SOUTH: A-1		
WEST: County of Kendall A-1/M-1/Special Use		
KENDALL COUNTY PARCEL IDENTIFICATION NUMBER(S)		

02-08-300-008			
02-08-300-011			
02-08-300-012			

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APPLICATION FOR ANNEXATION

PLEASE DESCRIBE IN DETAIL ANY ADDITIONAL REQUESTS TO BE MADE UPON ANNEXATION APPROVAL.

Special Use for a solar array

ATTORNEY INFORMATION	
NAME: Daniel J. Kramer	COMPANY: Law Offices of Daniel J. Kramer
MAILING ADDRESS: 1107A S. Bridge Street	
CITY, STATE, ZIP: Yorkville, IL 60560	TELEPHONE: 630-553-9500
EMAIL: dkramer@dankramerlaw.com	FAX:
ENGINEER INFORMATION	
NAME: Michael Keith	COMPANY: Atwell
MAILING ADDRESS: 1250 E. Diehl Road, Suite 300	
CITY, STATE, ZIP: Naperville, IL 60560	TELEPHONE: 630-281-8424
EMAIL: mkeith@atwell-group.com	FAX:
LAND PLANNER/SURVEYOR INFORMATION	
NAME: Michael Keith	COMPANY: Atwell
MAILING ADDRESS: 1250 E. Diehl Road, Suite 300	
CITY, STATE, ZIP: Naperville, IL 60560	TELEPHONE: 630-281-8424
EMAIL: mkeith@atwell-group.com	FAX:

ATTACHMENTS

Petitioner must attach a legal description of the property to this application and title it as "Exhibit A".

Petitioner must list the names and addresses of any adjoining or contiguous landowners within five hundred (500) feet of the property that are entitled notice of application under any applicable City Ordinance or State Statute. Attach a separate list to this application and title it as "Exhibit B".

Petitioner must provide a written petition signed by a majority of the owners of record of land in the territory and also by a majority of the electors, if any, residing in the territory. Attach as a separate petition titled as "Exhibit C".

United City of Yorkville
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APPLICATION FOR ANNEXATION

AGREEMENT

I VERIFY THAT ALL THE INFORMATION IN THIS APPLICATION IS TRUE TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND AND ACCEPT ALL REQUIREMENTS AND FEES AS OUTLINED AS WELL AS ANY INCURRED ADMINISTRATIVE AND PLANNING CONSULTANT FEES WHICH MUST BE CURRENT BEFORE THIS PROJECT CAN PROCEED TO THE NEXT SCHEDULED COMMITTEE MEETING.

I UNDERSTAND ALL OF THE INFORMATION PRESENTED IN THIS DOCUMENT AND UNDERSTAND THAT IF AN APPLICATION BECOMES DORMANT IT IS THROUGH MY OWN FAULT AND I MUST THEREFORE FOLLOW THE REQUIREMENTS OUTLINED ABOVE.

PETITIONER SIGNATURE _____ DATE _____

OWNER HEREBY AUTHORIZES THE PETITIONER TO PURSUE THE APPROPRIATE ENTITLEMENTS ON THE PROPERTY.

X Daryl Bennett Betty Bennett 12-15-2023
OWNER SIGNATURE DATE

Colleen Hanson 12/15/2023

THIS APPLICATION MUST BE NOTARIZED PLEASE NOTARIZE HERE:

"OFFICIAL SEAL"
COLLEEN T HANSON
NOTARY PUBLIC, STATE OF ILLINOIS
COMMISSION NO. 979188
MY COMMISSION EXPIRES 10/6/2027

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APPLICATION FOR ANNEXATION

AGREEMENT

I VERIFY THAT ALL THE INFORMATION IN THIS APPLICATION IS TRUE TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND AND ACCEPT ALL REQUIREMENTS AND FEES AS OUTLINED AS WELL AS ANY INCURRED ADMINISTRATIVE AND PLANNING CONSULTANT FEES WHICH MUST BE CURRENT BEFORE THIS PROJECT CAN PROCEED TO THE NEXT SCHEDULED COMMITTEE MEETING.

I UNDERSTAND ALL OF THE INFORMATION PRESENTED IN THIS DOCUMENT AND UNDERSTAND THAT IF AN APPLICATION BECOMES DORMANT IT IS THROUGH MY OWN FAULT AND I MUST THEREFORE FOLLOW THE REQUIREMENTS OUTLINED ABOVE.

[signature] 12-14-23

PETITIONER SIGNATURE — DATE

OWNER HEREBY AUTHORIZES THE PETITIONER TO PURSUE THE APPROPRIATE ENTITLEMENTS ON THE PROPERTY.

OWNER SIGNATURE — DATE

Colleen Hanson 12/14/2023

THIS APPLICATION MUST BE NOTARIZED PLEASE NOTARIZE HERE:

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NOTARY PUBLIC, STATE OF ILLINOIS
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APPLICANT DEPOSIT ACCOUNT/ ACKNOWLEDGMENT OF FINANCIAL RESPONSIBILITY

PROJECT NUMBER:	FUND ACCOUNT NUMBER:	PROPERTY ADDRESS: 10791 Cornells Road, PLano, IL 60545

PETITIONER DEPOSIT ACCOUNT FUND:
It is the policy of the United City of Yorkville to require any petitioner seeking approval on a project or entitlement request to establish a Petitioner Deposit Account Fund to cover all actual expenses occurred as a result of processing such applications and requests. Typical requests requiring the establishment of a Petitioner Deposit Account Fund include, but are not limited to, plan review of development approvals/engineering permits. Deposit account funds may also be used to cover costs for services related to legal fees, engineering and other plan reviews, processing of other governmental applications, recording fees and other outside coordination and consulting fees. Each fund account is established with an initial deposit based upon the estimated cost for services provided in the **INVOICE & WORKSHEET PETITION APPLICATION**. This initial deposit is drawn against to pay for these services related to the project or request. Periodically throughout the project review/approval process, the Financially Responsible Party will receive an invoice reflecting the charges made against the account. At any time the balance of the fund account fall below ten percent (10%) of the original deposit amount, the Financially Responsible Party will receive an invoice requesting additional funds equal to one-hundred percent (100%) of the initial deposit if subsequent reviews/fees related to the project are required. In the event that a deposit account is not immediately replenished, review by the administrative staff, consultants, boards and commissions may be suspended until the account is fully replenished. If additional funds remain in the deposit account at the completion of the project, the city will refund the balance to the Financially Responsible Party. A written request must be submitted by the Financially Responsible Party to the city by the 15th of the month in order for the refund check to be processed and distributed by the 15th of the following month. All refund checks will be made payable to the Financially Responsible Party and mailed to the address provided when the account was established.

ACKNOWLEDGMENT OF FINANCIAL RESPONSIBILITY

NAME: Matt Kwiatowski	COMPANY: 126612 Cornells Road Solar, LLC
MAILING ADDRESS:	
CITY, STATE, ZIP:	TELEPHONE: 317-760-3190
EMAIL: mkwiatkowski@nexamp.com	FAX:

FINANCIALLY RESPONSIBLE PARTY:
I acknowledge and understand that as the Financially Responsible Party, expenses may exceed the estimated initial deposit and, when requested by the United City of Yorkville, I will provide additional funds to maintain the required account balance. Further, the sale or other disposition of the property does not relieve the individual or Company/Corporation of their obligation to maintain a positive balance in the fund account, unless the United City of Yorkville approves a Change of Responsible Party and transfer of funds. Should the account go into deficit, all City work may stop until the requested replenishment deposit is received.

MATTHEW WALSH
PRINT NAME

VP OF BUSINESS DEVELOPMENT
TITLE

SIGNATURE*

12-14-23
DATE

**The name of the individual and the person who signs this declaration must be the same. If a corporation is listed, a corporate officer must sign the declaration (President, Vice-President, Chairman, Secretary or Treasurer)*

INITIAL ENGINEERING/LEGAL DEPOSIT TOTALS

ENGINEERING DEPOSITS:		LEGAL DEPOSITS:	
Up to one (1) acre	$5,000	Less than two (2) acres	$1,000
Over one (1) acre, but less than ten (10) acres	$10,000	Over two (2) acres, but less than ten (10) acres	$2,500
Over ten (10) acres, but less than forty (40) acres	$15,000	Over ten (10) acres	$5,000
Over forty (40) acres, but less than one hundred (100)	$20,000		
In excess of one hundred (100.00) acres	$25,000		

CERTIFIED MAILING
AFFIDAVIT

STATE OF ILLINOIS)
) SS
COUNTY OF KENDALL)

I/We, _____, petitioner, being first duly sworn, do hereby state under oath that to the best of my knowledge the **attached** list is a true, correct and **complete list of all permanent parcel numbers, and names and addresses of owners**, of all lots and parts of lots located within 500 feet (exclusively of any public streets and alleys) of the property legally described on the attached application for annexation, rezoning, special use permit, planned unit development, variation, or other zoning amendment. I further state that said list was obtained from the current tax rolls of the Kendall County Treasurer's Office. I further state that I mailed by U.S. Certified Mail, Return Receipt Requested, a copy of the Public Notice of Public Hearing before the United City of Yorkville Planning and Zoning Commission for the Public Hearing held on Wednesday, _____, at the United City of City Council Chambers, Yorkville, Illinois. The notice was mailed to the attached list of all of the permanent parcel numbers and names and addresses of owners at the U.S. Post office on _____, 20_____.

_____
Signature of Petitioner(s)

Subscribed and sworn to before me this

_____ day of _____, 20_____

_____
Notary Public

United City of Yorkville
800 Game Farm Road
Yorkville, Illinois, 60560
Telephone: 630-553-4350
Fax: 630-553-7575
Website: www.yorkville.il.us

APPLICATION FOR PUBLIC HEARING SIGN

PERMIT NUMBER:	**DATE/TIME RECEIVED:**
SITE ADDRESS: 10791 Corneils Road, PLano, IL 60545	PARCEL NUMBER: 02-08-300-008
SUBDIVISION: N/A	LOT/UNIT:
APPLICANT INFORMATION	
NAME: 126612 Corneils Road Solar, LLC	TELEPHONE: ○ HOME ◉ BUSINESS 317-760-3190
ADDRESS:	E-MAIL: ○ HOME ○ BUSINESS
CITY, STATE, ZIP:	FAX:
SIGN INFORMATION	
DATE OF PICK UP:	NUMBER OF SIGNS:
DATE OF PUBLIC HEARING:	SIGN RETURN DATE:

The undersigned hereby states that they have acquired Public Hearing Signs from the United City of Yorkville's Community Development Department and agrees to return said sign/s to Yorkville City Hall, 800 Game Farm Road, Yorkville, Illinois, immediately following the date of the public hearing.

Petitioner or Representative agrees to pay to the United City of Yorkville a deposit of $50 for each sign. The deposit will be returned to the petitioner when the public hearing sign/s have been returned to the City.

Petitioner or Representative further agrees to pay to the United City of Yorkville the full amount of the purchase price for each sign not returned to the United City of Yorkville within seven (7) days after the date of the public hearing.

M W — 12-14-23

SIGNATURE/AUTHORIZED AGENT — DATE

DATE RETURNED: _____

RECEIVED BY: _____ PZC# _____

United City of Yorkville
800 Game Farm Road
Yorkville, Illinois, 60560
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Fax: 630-553-7575
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APPLICATION FOR SPECIAL USE

INTENT AND PURPOSE

The purpose of the zoning code is based upon the authority of the City to divide its land into districts by use, bulk, and structures, in a substantially uniform manner. It is recognized that while some uses are permitted under the zoning code to keep uniformity, a case-by-case analysis must be conducted for certain permitted uses to discover the impact of those uses on neighboring land. In these cases a special use must be granted.

This packet explains the process to successfully submit and complete an Application for Special Use. It includes a detailed description of the process, outlines required submittal materials, and contains the application for special use.

For a complete explanation of what is legally required throughout the Special Use process, please refer to "Title 10, Chapter 4, Section 9: Special Uses" of the Yorkville, Illinois City Code.

APPLICATION PROCEDURE

STEP 1
APPLICATION SUBMITTAL

SUBMIT APPLICATION, FEES, AND PLANS TO THE COMMUNITY DEVELOPMENT DEPT.

The following must be submitted:

- ☒ One (1) original signed and notarized application.
- ☒ Legal description of the property in Microsoft Word.
- ☒ Three (3) copies each of the exhibits, proposed drawings, location map, and site plan. All exhibits and plans must be an appropriate size for all details and descriptions to be legible.
- ☒ Appropriate application and filing fee. Checks may be written to the United City of Yorkville.
- ☒ Signed Applicant Deposit Account/Acknowledgment of Financial Responsibility form.
- ☒ One (1) electronic copy (PDF) of all materials submitted including application and exhibits.

Within one (1) week of submittal, the Community Development Department will determine if the application is complete or if additional information is needed. An incomplete submittal could delay the scheduling of the project.

The petitioner is responsible for payment of recording fees and public hearing costs, including written transcripts of the public hearing and outside consultant costs (i.e. legal review, land planner, zoning coordinator, environmental, etc.). The petitioner will be required to establish a deposit account with the City to cover these fees.

Once a submitted and complete, Community Development staff will provide a tentative schedule of meetings as well as all needed documents for the process.

STEP 2
PLAN COUNCIL

MEETS ON THE 2ND & 4TH THURSDAY OF THE MONTH

The petitioner must present the proposed request to the Plan Council. The members of the Council include the Community Development Director, City Engineer, the Building Department Official, the Public Works Director, the Director of Parks and Recreation, a Fire Department Representative, and a Police Department Representative. This meeting is held to provide the petitioner with guidance from all City staff departments to ensure the petitioner is aware of all requirements and regulations for their development. Upon recommendation by the Plan Council, the petitioner will move forward to the Economic Development Committee.

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Yorkville, Illinois, 60560
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Fax: 630-553-7575
Website: www.yorkville.il.us

APPLICATION FOR SPECIAL USE

STEP 3

ECONOMIC DEVELOPMENT COMMITTEE

MEETS ON THE 1ST TUESDAY OF THE MONTH

The petitioner must present the proposed plan to the Economic Development Committee. The committee consists of four alderman who will provide feedback to the petitioner regarding their request. This feedback allows the petitioner to gather comments and concerns prior to full City Council considerations. It also allows the City Council members to review the request prior to its arrival at City Council.

STEP 4

PLANNING & ZONING COMMISSION

MEETS ON THE 2ND WEDNESDAY OF THE MONTH

The petitioner will attend and present their request at a public hearing conducted by the Planning and Zoning Commission. The Planning and Zoning Commission will conduct a public hearing on the request, take public comments, discuss the request, and make a recommendation to City Council. No special use shall be recommended by the Planning and Zoning Commission unless it follows the standards set forth in City's Zoning Ordinance.

The petitioner is responsible for sending certified public hearing notices to adjacent property owners within five hundred (500) feet of the subject property no less than fifteen (15) days and no more than thirty (30) days prior to the public hearing date. The public hearing notice will be drafted by the City as well as published in a local newspaper. Additionally, a public hearing notice sign must be placed on the property no less than fifteen (15) days prior to the public hearing.

A certified affidavit must be filed by the petitioner with the Community Development Department containing the names, addresses and permanent parcel numbers of all parties that were notified. The Certified Mailing Affidavit form is attached to this document.

STEP 5

CITY COUNCIL

MEETS ON THE 2ND & 4TH TUESDAY OF THE MONTH

The petitioner will attend the City Council meeting where the recommendation of the special use will be considered. City Council will make the final approval of the special use. If approved, City staff will have a drafted ordinance to be signed by the Council and must be recorded with the County Clerk before any further steps may be taken by the petitioner.

SUMMARY OF RESPONSIBILITIES

Below is a summary breakdown of what will be required by the petitioner and what will be completed by the City:

PETITIONER

- ☐ Signed and Notarized Application
- ☐ Required Plans, Exhibits, and Fees
- ☐ Certified Mailing of Public Notice
- ☐ Signed Certified Affidavit of Mailings
- ☐ Attendance at All Meetings

CITY STAFF

- ☐ Detailed Schedule After Complete Submission
- ☐ Public Hearing Notice Language
- ☐ Posting of the Public Notice in a Local Newspaper
- ☐ Public Hearing Sign Application
- ☐ Draft Ordinance & Signatures for Recording

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800 Game Farm Road
Yorkville, Illinois, 60560
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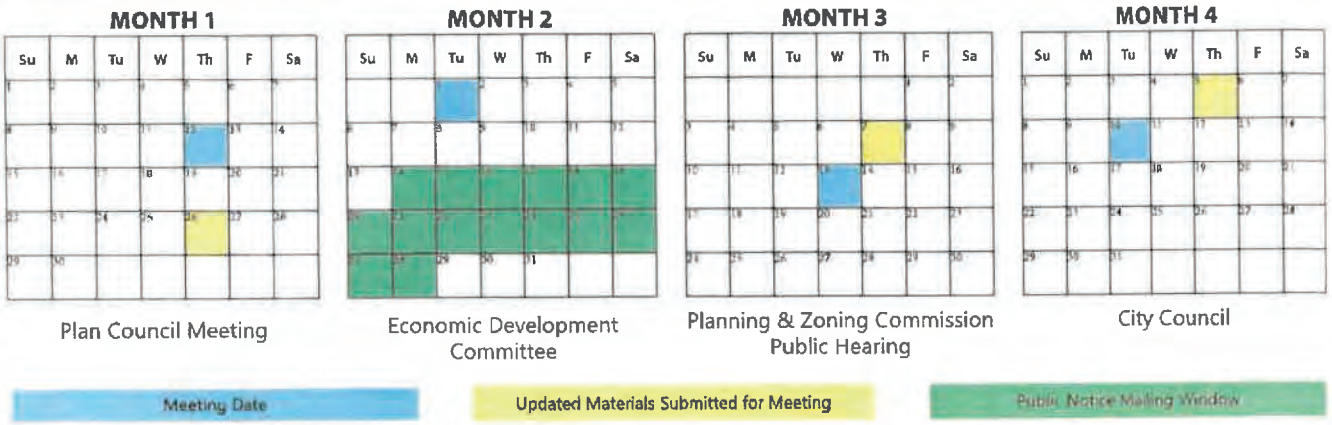
APPLICATION FOR SPECIAL USE

SAMPLE MEETING SCHEDULE



This is a sample of what a schedule may look like after submission. The Step 1 Submission must be completed before the Plan Council Meeting can be scheduled. This timeline represents an ideal schedule. Throughout the review process, there may be requests or changes to the submission requested by the committees which may delay the meeting schedule. As illustrated, there is a small amount of time between meeting dates and the deadline for updated materials to be submitted for review. Depending on the complexity and nature of the request, this timeline may be extended to give the petitioner and staff enough time to review requested updates to the submission.

DORMANT APPLICATIONS

The Community Development Director shall determine if an application meets or fails to meet the submission requirements. If the Director determines that the application is incomplete it will become dormant under these circumstances:

- The applicant has been notified of such deficiencies and has not responded or provided a time line for completing the application within ninety (90) days from the time of notification.
- The applicant has not responded in writing to a request for information or documentation from the initial planning and zoning commission review within six (6) months from the date of that request.
- The applicant has not responded to a request for legal or engineering deposit replenishment for city incurred costs and fees within ninety (90) days from the date of the request.

If the Community Development Director has sent the required notice and the applicant has not withdrawn their application or brought it into compliance, then the director shall terminate the application. After termination, the application shall not be reconsidered except after the filing of a completely new application.

Withdrawal or termination of an application shall not affect the applicant's responsibility for payment of any costs and fees, or any other outstanding debt owed to the city. The balance of any funds deposited with the city that is not needed to pay for costs and fees shall be returned to the applicant. (Ord. 2011-34, 7-26-2011)

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APPLICATION FOR SPECIAL USE

INVOICE & WORKSHEET PETITION APPLICATION

CONCEPT PLAN REVIEW	☒ Engineering Plan Review deposit	$500.00	Total: $ 500.00
AMENDMENT	☐ Annexation	$500.00	Total: $
	☐ Plan	$500.00	
	☐ Plat	$500.00	
	☐ P.U.D.	$500.00	
ANNEXATION	☐ $250.00 + $10 per acre for each acre over 5 acres		Total: $ 600.00
39.95 (# of Acres) - 5 = 35 (Acres over 5) x $10 = $350.00 (Amount for Extra Acres) + $250 = $ $600.00 (Total Amount)			
REZONING	☐ $200.00 + $10 per acre for each acre over 5 acres		Total: $
If annexing and rezoning, charge only 1 per acre fee; if rezoning to a PUD, charge PUD Development Fee - not Rezoning Fee			
_____ (# of Acres) - 5 = _____ (Acres over 5) x $10 = _____ (Amount for Extra Acres) + $200 = $ _____ (Total Amount)			
SPECIAL USE	☐ $250.00 + $10 per acre for each acre over 5 acres		Total: $ 600.00
39.95 (# of Acres) - 5 = 35 (Acres over 5) x $10 = $350.00 (Amount for Extra Acres) + $250 = $ $600.00 (Total Amount)			
ZONING VARIANCE	☐ $85.00 + $500.00 outside consultants deposit		Total: $
PRELIMINARY PLAN FEE	☐ $500.00		Total: $
PUD FEE	☐ $500.00		Total: $
FINAL PLAT FEE	☐ $500.00		Total: $
ENGINEERING PLAN REVIEW DEPOSIT	☐ Less than 1 acre	$5,000.00	Total: $ 15,000.00
	☐ Over 1 acre, less than 10 acres	$10,000.00	
	☒ Over 10 acres, less than 40 acres	$15,000.00	
	☐ Over 40 acres, less than 100 acres	$20,000.00	
	☐ Over 100 acres	$25,000.00	
OUTSIDE CONSULTANTS DEPOSIT *Legal, land planner, zoning coordinator, environmental services*	For Annexation, Subdivision, Rezoning, and Special Use:		Total: $ 5,000.00
	☐ Less than 2 acres	$1,000.00	
	☐ Over 2 acres, less than 10 acres	$2,500.00	
	☒ Over 10 acres	$5,000.00	
	TOTAL AMOUNT DUE:		$21,700.00

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APPLICATION FOR SPECIAL USE

DATE: December 14, 2023	PZC NUMBER:	DEVELOPMENT NAME: 126612 Corneils Road Solar, LLC

PETITIONER INFORMATION

NAME: Matt Kwiatkowski	COMPANY: 126612 Corneils Road Solar, LLC
MAILING ADDRESS:	
CITY, STATE, ZIP:	TELEPHONE: ◉ BUSINESS ○ HOME 317-760-3190
EMAIL: mkwiatkowski@nexamp.com	FAX:

PROPERTY INFORMATION

NAME OF HOLDER OF LEGAL TITLE: Gary L. Bennett and Betty S. Bennett

IF LEGAL TITLE IS HELD BY A LAND TRUST, LIST THE NAMES OF ALL HOLDERS OF ANY BENEFICIAL INTEREST THEREIN:

PROPERTY STREET ADDRESS: 10791 Corneils Road, Plano, Illinois 60545

DESCRIPTION OF PROPERTY'S PHYSICAL LOCATION:

CURRENT ZONING CLASSIFICATION: A-1/R-2	COMPREHENSIVE PLAN FUTURE LAND USE DESIGNATION: A-1/R-2

REQUESTED SPECIAL USE:
A-1 Special Use for a Solar array

ZONING AND LAND USE OF SURROUNDING PROPERTIES

NORTH: A-1 and R-2

EAST: A-1 and R-2

SOUTH: A-1

WEST: COunty of Kendall A-1/M-1/ Special Use

KENDALL COUNTY PARCEL IDENTIFICATION NUMBER(S)

02-08-300-008			
02-08-300-011			
02-08-300-012			

United City of Yorkville
800 Game Farm Road
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APPLICATION FOR SPECIAL USE

ATTORNEY INFORMATION	
NAME: Daniel J. Kramer	COMPANY: Law Offices of Daniel J. Kramer
MAILING ADDRESS: 1107A S. Bridge Street	
CITY, STATE, ZIP: Yorkvile, Illinois 60560	TELEPHONE: 630-553-9500
EMAIL: dkramer@dankramerlaw.com	FAX: 630-553-5764
ENGINEER INFORMATION	
NAME: Michael Keith	COMPANY: Atwell
MAILING ADDRESS: 1250 E. Diehl Road, Suite 300	
CITY, STATE, ZIP: Naperville, IL 60563	TELEPHONE: 630-281-8424
EMAIL: mkeith@atwell-group.com	FAX:
LAND PLANNER/SURVEYOR INFORMATION	
NAME: Michael Keith	COMPANY: Atwell
MAILING ADDRESS: 1250 E. Diehl Road, Suite 300	
CITY, STATE, ZIP: Npaerville, IL 60563	TELEPHONE: 630-281-8424
EMAIL: mkeith@atwellgroup.com	FAX:

ATTACHMENTS

Petitioner must attach a legal description of the property to this application and title it as "Exhibit A".

Petitioner must list the names and addresses of any adjoining or contiguous landowners within five hundred (500) feet of the property that are entitled notice of application under any applicable City Ordinance or State Statute. Attach a separate list to this application and title it as "Exhibit B".

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APPLICATION FOR SPECIAL USE

SPECIAL USE STANDARDS

PLEASE STATE HOW THE ESTABLISHMENT, MAINTENANCE OR OPERATION OF THE SPECIAL USE WILL NOT BE UNREASONABLY DETRIMENTAL TO OR ENDANGER THE PUBLIC HEALTH, SAFETY, MORALS, COMFORT OR GENERAL WELFARE:

The proposed solar array will be an enhancement to the United City of Yorkville in that it will provide a source of solar collection through the solar array being constructed by 126612 Corneils Road, LLC which will hook directly to the Commonwealth Edison Grid. It dovetails perfectly with the Federal Government's Green Energy Plans and the Build Back America Program; and is environmentally friendly. The panels contain no toxic materials and the landscaping under them will be an environmentally friendly grass. Applicant further intends to introduce other environmentally friendly development methods on the site. There is no harm to surrounding property owners, no detrimental effect to public health, safety, or morals. The encouragement of using solar energy in lieu of fossil fuels is an excellent alternative source of green energy.

PLEASE STATE HOW THE SPECIAL USE WILL NOT BE INJURIOUS TO THE USE AND ENJOYMENT OF OTHER PROPERTY IN THE IMMEDIATE VICINITY FOR THE PURPOSE ALREADY PERMITTED, NOR SUBSTANTIALLY DIMINISH AND IMPAIR PROPERTY VALUES WITHIN THE NEIGHBORHOOD:

The proposed solar arrray will be constructed in a manner that will cause no damage to surrounding property owners.

PLEASE STATE HOW THE ESTABLISHMENT OF THE SPECIAL USE WILL NOT IMPEDE THE NORMAL AND ORDERLY DEVELOPMENT AND IMPROVEMENT OF SURROUNDING PROPERTY FOR USES PERMITTED IN THE DISTRICT:

The intended construction and operation of the solar array in no way determinately effects the operation and development of surrounding real property nor does it imped the use of existing property.

PLEASE STATE HOW ADEQUATE UTILITIES, ACCESS ROADS, DRAINAGE OR OTHER NECESSARY FACILITIES HAVE BEEN OR ARE BEING PROVIDED:

The project is suitably located in that there is readily available connection sources to the Commonwealth Edison electrical grid. There is great access for repair and maintenance off of Illinois Route 47. Third, there is an access road planned under the previous City Planned Unit Development accessing the Property off of Galena Road. It is an excellent site for this use and one that is a transitional use to surrounding zoning classifications in a complimentary fashion.

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APPLICANT DEPOSIT ACCOUNT/ ACKNOWLEDGMENT OF FINANCIAL RESPONSIBILITY

PROJECT NUMBER:	FUND ACCOUNT NUMBER:	PROPERTY ADDRESS:

PETITIONER DEPOSIT ACCOUNT FUND:

It is the policy of the United City of Yorkville to require any petitioner seeking approval on a project or entitlement request to establish a Petitioner Deposit Account Fund to cover all actual expenses occurred as a result of processing such applications and requests. Typical requests requiring the establishment of a Petitioner Deposit Account Fund include, but are not limited to, plan review of development approvals/engineering permits. Deposit account funds may also be used to cover costs for services related to legal fees, engineering and other plan reviews, processing of other governmental applications, recording fees and other outside coordination and consulting fees. Each fund account is established with an initial deposit based upon the estimated cost for services provided in the **INVOICE & WORKSHEET PETITION APPLICATION**. This initial deposit is drawn against to pay for these services related to the project or request. Periodically throughout the project review/approval process, the Financially Responsible Party will receive an invoice reflecting the charges made against the account. At any time the balance of the fund account fall below ten percent (10%) of the original deposit amount, the Financially Responsible Party will receive an invoice requesting additional funds equal to one-hundred percent (100%) of the initial deposit if subsequent reviews/fees related to the project are required. In the event that a deposit account is not immediately replenished, review by the administrative staff, consultants, boards and commissions may be suspended until the account is fully replenished. If additional funds remain in the deposit account at the completion of the project, the city will refund the balance to the Financially Responsible Party. A written request must be submitted by the Financially Responsible Party to the city by the 15th of the month in order for the refund check to be processed and distributed by the 15th of the following month. All refund checks will be made payable to the Financially Responsible Party and mailed to the address provided when the account was established.

ACKNOWLEDGMENT OF FINANCIAL RESPONSIBILITY

NAME: Matt Kwiatkowski	COMPANY: 126612 Corneils Road Solar, LLC
MAILING ADDRESS:	
CITY, STATE, ZIP:	TELEPHONE: 317-760-3190
EMAIL: mkwiatkowski@nexamp.com	FAX:

FINANCIALLY RESPONSIBLE PARTY:

I acknowledge and understand that as the Financially Responsible Party, expenses may exceed the estimated initial deposit and, when requested by the United City of Yorkville, I will provide additional funds to maintain the required account balance. Further, the sale or other disposition of the property does not relieve the individual or Company/Corporation of their obligation to maintain a positive balance in the fund account, unless the United City of Yorkville approves a Change of Responsible Party and transfer of funds. Should the account go into deficit, all City work may stop until the requested replenishment deposit is received.

MATTHEW WALSH
PRINT NAME

VP of BUSINESS DEVELOPMENT
TITLE

SIGNATURE*

12-14-23
DATE

**The name of the individual and the person who signs this declaration must be the same. If a corporation is listed, a corporate officer must sign the declaration (President, Vice-President, Chairman, Secretary or Treasurer)*

INITIAL ENGINEERING/LEGAL DEPOSIT TOTALS

ENGINEERING DEPOSITS:		LEGAL DEPOSITS:	
Up to one (1) acre	$5,000	Less than two (2) acres	$1,000
Over one (1) acre, but less than ten (10) acres	$10,000	Over two (2) acres, but less than ten (10) acres	$2,500
Over ten (10) acres, but less than forty (40) acres	$15,000	Over ten (10) acres	$5,000
Over forty (40) acres, but less than one hundred (100)	$20,000		
In excess of one hundred (100.00) acres	$25,000		

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APPLICATION FOR SPECIAL USE

SPECIAL USE STANDARDS

PLEASE STATE HOW ADEQUATE MEASURES HAVE BEEN OR WILL BE TAKEN TO PROVIDE INGRESS OR EGRESS SO DESIGNED AS TO MINIMIZE TRAFFIC CONGESTION IN THE PUBLIC STREETS:

There will be a minimum amount of traffic in and out during the construction phase of the solar array. There will be virtually no traffic in an out on a daily basis once the system is operational. The only traffic in and once the system is operational will be regular maintenance checks and maintenance of the underlying site itself.

PLEASE STATE HOW THE SPECIAL USE SHALL IN ALL OTHER RESPECTS CONFORM TO THE APPLICABLE REGULATIONS OF THE DISTRICT IN WHICH IT IS LOCATED, EXCEPT AS SUCH REGULATIONS MAY IN EACH INSTANCE BE MODIFIED BY THE CITY COUNCIL PURSUANT TO THE RECOMMENDATIONS OF THE PLANNING AND ZONING COMMISSION:

The Special Use complies with all United City of Yorkville requirements for solar arrays, as well as all State requirements for the use of such facilities and all materials are in compliance with Federal and State Laws.

AGREEMENT

I VERIFY THAT ALL THE INFORMATION IN THIS APPLICATION IS TRUE TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND AND ACCEPT ALL REQUIREMENTS AND FEES AS OUTLINED AS WELL AS ANY INCURRED ADMINISTRATIVE AND PLANNING CONSULTANT FEES WHICH MUST BE CURRENT BEFORE THIS PROJECT CAN PROCEED TO THE NEXT SCHEDULED COMMITTEE MEETING.

I UNDERSTAND ALL OF THE INFORMATION PRESENTED IN THIS DOCUMENT AND UNDERSTAND THAT IF AN APPLICATION BECOMES DORMANT IT IS THROUGH MY OWN FAULT AND I MUST THEREFORE FOLLOW THE REQUIREMENTS OUTLINED ABOVE.

PETITIONER SIGNATURE _____ DATE _____

OWNER HEREBY AUTHORIZES THE PETITIONER TO PURSUE THE APPROPRIATE ENTITLEMENTS ON THE PROPERTY.

X Gary Bennett Betty Bennett 12/15/2023
OWNER SIGNATURE DATE

Colleen Hanson 12/15/2023
THIS APPLICATION MUST BE NOTARIZED PLEASE NOTARIZE HERE:

"OFFICIAL SEAL"
COLLEEN T HANSON
NOTARY PUBLIC, STATE OF ILLINOIS
COMMISSION NO. 979188
MY COMMISSION EXPIRES 10/6/2027

United City of Yorkville
800 Game Farm Road
Yorkville, Illinois, 60560
Telephone: 630-553-4350
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Website: www.yorkville.il.us

APPLICATION FOR SPECIAL USE

SPECIAL USE STANDARDS

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AGREEMENT

I VERIFY THAT ALL THE INFORMATION IN THIS APPLICATION IS TRUE TO THE BEST OF MY KNOWLEDGE. I UNDERSTAND AND ACCEPT ALL REQUIREMENTS AND FEES AS OUTLINED AS WELL AS ANY INCURRED ADMINISTRATIVE AND PLANNING CONSULTANT FEES WHICH MUST BE CURRENT BEFORE THIS PROJECT CAN PROCEED TO THE NEXT SCHEDULED COMMITTEE MEETING.

I UNDERSTAND ALL OF THE INFORMATION PRESENTED IN THIS DOCUMENT AND UNDERSTAND THAT IF AN APPLICATION BECOMES DORMANT IT IS THROUGH MY OWN FAULT AND I MUST THEREFORE FOLLOW THE REQUIREMENTS OUTLINED ABOVE.

PETITIONER SIGNATURE

12-14-23
DATE

OWNER HEREBY AUTHORIZES THE PETITIONER TO PURSUE THE APPROPRIATE ENTITLEMENTS ON THE PROPERTY.

OWNER SIGNATURE

DATE

Colleen Hanson 12/14/2023

"OFFICIAL SEAL"
COLLEEN T HANSON
NOTARY PUBLIC, STATE OF ILLINOIS
COMMISSION NO. 979188
MY COMMISSION EXPIRES 10/8/2027

THIS APPLICATION MUST BE NOTARIZED PLEASE NOTARIZE HERE:

CERTIFIED MAILING
AFFIDAVIT

STATE OF ILLINOIS)
) SS
COUNTY OF KENDALL)

I/We, Daniel J. Kramer, petitioner, being first duly sworn, do hereby state under oath that to the best of my knowledge the **attached** list is a true, correct and **complete list of all permanent parcel numbers, and names and addresses of owners**, of all lots and parts of lots located within 500 feet (exclusively of any public streets and alleys) of the property legally described on the attached application for annexation, rezoning, special use permit, planned unit development, variation, or other zoning amendment. I further state that said list was obtained from the current tax rolls of the Kendall County Treasurer's Office. I further state that I mailed by U.S. Certified Mail, Return Receipt Requested, a copy of the Public Notice of Public Hearing before the United City of Yorkville Planning and Zoning Commission for the Public Hearing held on Wednesday, _____, at the United City of City Council Chambers, Yorkville, Illinois. The notice was mailed to the attached list of all of the permanent parcel numbers and names and addresses of owners at the U.S. Post office on _____, 20_____.

_____
Signature of Petitioner(s)

Subscribed and sworn to before me this

_____ day of _____, 20_____

_____
Notary Public

United City of Yorkville
800 Game Farm Road
Yorkville, Illinois, 60560
Telephone: 630-553-4350
Fax: 630-553-7575
Website: www.yorkville.il.us

APPLICATION FOR PUBLIC HEARING SIGN

PERMIT NUMBER:	**DATE/TIME RECEIVED:**
SITE ADDRESS: 10791 Corneils Road, Plano, IL 60545	PARCEL NUMBER: 02-08-300-008
SUBDIVISION: N/A	LOT/UNIT:
APPLICANT INFORMATION	
NAME: 126612 Corneils Road Solar, LLC	TELEPHONE: ◉ HOME ○ BUSINESS 317-760-3190
ADDRESS:	E-MAIL: ○ HOME ○ BUSINESS mkwiatkowski@nexamp.com
CITY, STATE, ZIP:	FAX:
SIGN INFORMATION	
DATE OF PICK UP:	NUMBER OF SIGNS:
DATE OF PUBLIC HEARING:	SIGN RETURN DATE:

The undersigned hereby states that they have acquired Public Hearing Signs from the United City of Yorkville's Community Development Department and agrees to return said sign/s to Yorkville City Hall, 800 Game Farm Road, Yorkville, Illinois, immediately following the date of the public hearing.

Petitioner or Representative agrees to pay to the United City of Yorkville a deposit of $50 for each sign. The deposit will be returned to the petitioner when the public hearing sign/s have been returned to the City.

Petitioner or Representative further agrees to pay to the United City of Yorkville the full amount of the purchase price for each sign not returned to the United City of Yorkville within seven (7) days after the date of the public hearing.

SIGNATURE/AUTHORIZED AGENT

12-14-23
DATE

DATE RETURNED: _____

RECEIVED BY: _____ PZC# _____

Print using Adobe® Reader®'s "Actual size" setting

JOHN MEYER
90 SHORE DR
OGDEN DUNES, IN, 463681007

JOHN MEYER
90 SHORE DR
OGDEN DUNES, IN, 463681007

MCARTHUR JOAN TR MCARTHUR JAMES B & VIRGINIA TR &
10417 CORNEIL RD
PLANO, IL, 60545

VAN THOMPSON CHARLES WALLIS LARRY A &
55 LANE 140B LAKE GEORGE
FREMONT, IN, 46737

JOHN MEYER
90 SHORE DR
OGDEN DUNES, IN, 463681007

GARY & BETTY BENNETT
10791 CORNEILS RD
PLANO, IL, 60545

ROSENWINKEL FAMILY TRUST ET AL
% JOHN ROSENWINKEL
10735 CHICAGO RD
WATERMAN, IL, 60556

VAN THOMPSON CHARLES WALLIS LARRY A &
55 LANE 140 B LAKE GEORGE
FREMONT, IN, 46737

PATRICIA A BAKALA
10711 CORNEILS RD
PLANO, IL, 60545

LORIE P TESKA
1 ROYAL OAKS CT
BRISTOL, IL, 60512

ROSENWINKEL FAMILY TRUST ET AL 501
% JOHN ROSENWINKEL
10735 CHICAGO RD
WATERMAN, IL, 60556

% LARRY WALLIS NELSON LAND COMPANY
55 LANE 140 B
LAKE GEORGE
FREMONT, IN, 46737

CHARLES R & JULIE E BENNETT
10907 CORNEILS RD
PLANO, IL, 60545

GARY L & BETTY S BENNETT
10791 CORNIELS RD
PLANO, IL, 60545

CHARLES R & JULIE E BENNETT
10907 CORNEILS RD
PLANO, IL, 60545

PATRICIA A BAKALA
10711 CORNEILS RD
PLANO, IL, 60545

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10791 CORNEILS RD
PLANO, IL, 60545

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% JOHN ROSENWINKEL
10735 CHICAGO RD
WATERMAN, IL, 60556

LORIE P TESKA
1 ROYAL OAKS CT
BRISTOL, IL, 60512

TEQUILLA SUNRISE ENTERPRISES LLC
1107 S BRIDGE ST STE D
YORKVILLE, IL, 60560

GARY & BETTY BENNETT
10791 CORNEILS RD
PLANO, IL, 60545

% SCOTT BRUMMEL BRUMMEL REALTY TEQUILA SUNRISE ENTERPRISES LLC
1107 S BRIDGE ST STE D
YORKVILLE, IL, 60560

GARY & BETTY BENNETT
10791 CORNEILS RD
PLANO, IL. 60545

% LARRY WALLIS NELSON LAND COMPANY
55 LANE 140 B
LAKE GEORGE
FREMONT, IN, 46737

ROSENWINKEL FAMILY TRUST ET AL 501
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10735 CHICAGO RD
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MCARTHUR JOAN TR MCARTHUR JAMES B & VIRGINIA TR &
10417 CORNEIL RD
PLANO. IL, 60545

PATRICIA A BAKALA
10711 CORNEILS RD
PLANO. IL, 60545

CHICAGO WB INVESTORS LLC
c/o SAM ZABALA
315 FLATBUSH AVE #302
BROOKLYN, NY. 11217

GARY & BETTY BENNETT
10791 CORNEILS RD
PLANO, IL, 60545

JOHN MEYER
90 SHORE DR
OGDEN DUNES, IN, 463681007

% SCOTT BRUNNEL BRUNNEL REALTY TEQUILA SUNRISE ENTERPRISES LLC
1107 S BRIDGE ST STE D
YORKVILLE, IL, 60560

GARY & BETTY BENNETT
10791 CORNEILS RD
PLANO. IL. 60545

% LARRY WALLIS NELSON LAND COMPANY
55 LANE 140 B
LAKE GEORGE
FREMONT, IN, 46737

GARY L & BETTY S BENNETT
10791 CORNIELS RD
PLANO. IL, 60545

December 13, 2023

Krysti Barksdale-Noble, Community Development Director
Village of Yorkville
800 Game Farm Road
Yorkville, IL 60560

Re: Special Use Permit Application – Corneils Road Solar, LLC
Proposed 4.99-MW(AC) Commercial Solar Collector System

Applicant: Corneils Road Solar, LLC.
Project Location: 10791 Corneils Road, Plano, IL 60545

Dear Ms. Barksdale-Noble, Members of the Planning and Zoning Board, and City Council:

On behalf of Corneils Road Solar, LLC., please find enclosed and below is our:

- Project narrative and with project details
- Special Use Permit Application:
  - Special Use Permit Application
  - Special Use Permit Plan Set
  - Electrical Diagram
  - Manufacturer's Specifications
  - Glare Analysis
  - Interconnection Agreement
  - Decommissioning Plan
  - Plat of Survey
  - Legal Description
  - Aerial Map
- Application Fee

Project Narrative:

Corneils Road Solar, LLC is requesting approval of a Special Use Permit to allow for development and operation of a 4.99 (AC) ground-mounted distributed generation solar garden facility on the approximately 94-acre subject property (PINS: 02-08-300-008, 02-08-300-012 and 02-08-300-011). The project intends develop approximately 40 acres of the overall parcel. The arrays would be installed over existing farmland and enclosed with a fenced area for safety and security measures.

Nexamp Background:

In 2007, U.S. Army veterans Will Thompson and Dan Leary realized a vision for making a range of renewable energy options more affordable and accessible to homeowners and businesses throughout the Commonwealth of Massachusetts. The pair launched NexGen Energy Solutions, a turnkey provider of renewable energy and carbon solutions, in their hometown of North Andover, Massachusetts. NexGen became Nexamp later in 2007.

During the early years, Nexamp delivered a variety of energy systems for residential, commercial, municipal and agricultural customers. Energy solutions offered included solar PV, solar thermal, micro-wind, geothermal heating and cooling, and a wide array of energy efficiency services. In 2011, the company began shifting its focus fully toward commercial and industrial solar facilities, working with businesses and municipalities that wanted to offset their traditional utility energy power using on-site renewable solar generation.

2015 marked Nexamp's first Community Solar project and the beginning of a new chapter for the company. Leveraging its integrated approach of developing, building, owning and operating solar plants, Nexamp turned its focus to community solar, and alongside that the mission of making the benefits of solar power available to everyone—homeowners, renters, non-profits, small businesses, farms and more. Nexamp was named NECEC Clean Energy Company of the Year in 2015 and a Solar Power World Top 3 Commercial Solar Developer in 2017.

In 2016, Mitsubishi's Diamond Generating Corporation made a significant investment in Nexamp, and in 2018 the group made an additional investment that gave it a controlling interest. Nexamp secured an additional round of investment in 2021, this time with Generate Capital, a leading clean energy private equity firm. Serving a rapidly expanding network of individuals, property owners, businesses and communities that benefit from its nationally distributed portfolio of solar assets, Nexamp is a Massachusetts-based, nationally headquartered solar company that is laying the groundwork for a cleaner, more secure and resilient energy future.

Nexamp entered the Illinois market in 2018, and has since become a market leader, with a large share of the currently operating community solar projects in the state.

Project Details:

In your review of this Special Use Permit request, we ask that staff, the Planning and Zoning Board, and City Council consider the following:

I. Project components:

- Solar modules (i.e. panels) are mounted on racking that slowly rotate and track the sun; there are approximately 11,592 modules proposed to be installed;
- Battery Energy Storage is proposed;
- At full tilt, the height of the solar array will be more than 20 feet in height;
- The solar modules are treated with anti-reflective coating to minimize glare;
- The racking is mounted to metal piles. Concrete foundations are not anticipated;
- The system will be remotely monitored, meaning there will be little traffic generated;
- Electrical cables will be installed underground for the entire project with exception of a series of poles necessary to interconnect with ComEd along Corneils Road;
- Perimeter security fencing up to 8 ft. height;
- Location of proposed structures is in compliance with City setback requirements;
- Existing drainage patterns will be maintained throughout the site to the maximum extent possible;
- Limited area of gravel driveway for site access and maintenance;
- The inverter and transformer will be located within the fence-on a concrete equipment pad;
- Disturbed areas will be re-vegetated with a pollinator friendly seed mix;

II. Construction:

- Estimated approximately 20 to 30 jobs will be created during construction;
- Most jobs will be local but some may be brought in if the skill set required is not available;
- Typical jobs created include construction jobs - i.e. equipment operators, electricians, fence installers, laborers and construction managers;

III. Development Schedule:

- Anticipated construction start is Spring of 2025, depending on a number of factors;
- Duration of construction is typically +/- 6 months;

IV. Traffic:

- Construction traffic will typically be standard semi-tractor trailers – oversized loads are not anticipated;
- At the start of construction there may be a half dozen deliveries a day and will then taper off to 1 to 2 delivery trucks per day;
- There will be proximately 30 – 40 employees at a time during construction;

V. Maintenance:

- There are typically several site visits per year to maintain the system;
- No employees will be permanently located on-site;
- The site will be remotely monitored;
- Typically, Nexamp relies on rainfall to clean the panel surfaces. As such, it is not anticipated chemicals for cleaning the solar panels will be used, stored or disposed of on this site;
- Typically, any snowfall will slide off the panels. Therefore, we do not anticipate any snow removal unless necessary.

VI. Compliance with Standards for Special Use (10-19-4(C)):

We believe the proposed project wholly meets the Special Use Permit review finding of fact criteria outlined in the City Unified Development Ordinance Section 10-19-4(C).

1. **The City Council shall determine that the application has met all of the general requirements of this chapter.**

   The proposed project meets all the general requirements of the City Zoning Ordinance applicable to the subject property and proposed use.

2. **The proposed energy system shall further the intent of this chapter and provide renewable energy to the property on which it is proposed.**

   The proposed project meets the intent of the City Zoning Ordinance and will provide renewable energy to the northern Illinois community.

3. **The proposed alternative energy system is located in such a manner as to minimize intrusions on adjacent residential uses through siting on the lot, selection of appropriate equipment, and other applicable means.**

   The proposed project will not be injurious to the use and enjoyment nearby residential property in the immediate vicinity for the purposes already permitted by the zoning standards. Care has been taken to locate the proposed solar system over 1,000 feet from the nearest residential structure (from nearest existing residential structure to the nearest proposed module).

4. **The establishment for the proposed alternative energy system will not prevent the normal and orderly use, development or improvement of the adjacent property for uses permitted in the district.**

   The project designed to be setback in excess of ordinance requirements, particularly from the residential properties. The project will protect open space and the underlying farmland as after the project is decommissioned the land can be returned to traditional farming or other uses. This project will not impede normal and orderly development in the City of Yorkville.

On behalf of Corneils Road Solar, LLC we thank you in advance for your consideration of our request for approval. We look forward to review of our submittal at the next Community Development meeting and Planning & Zoning Commission meetings. In the interim, please contact us with any questions regarding our submittal or if any additional information is required.

Sincerely,

Matt Kwiatkowski
Business Development Manager
P: 317-760-3190
E: MKwiatkowski@nexamp.com

nexamp

Corneils Road Solar, LLC - DECOMMISSIONING PLAN

Corneils Road Solar, LLC has prepared this Decommissioning Plan (the "Plan") for its proposed 4.99-Megawatt (AC) solar photovoltaic facility (the "Facility") to be constructed along Corneils Road, Bristol, Illinois. The Plan describes the process for decommissioning the Facility in accordance with applicable federal, state, and local requirements. Decommissioning of the Facility shall be completed within six (6) months after operation of the solar facility stops being operational.

Facility Description

The Facility will consist of a 4.99-megawatt (AC) capacity solar power-generating array secured within a fixed knot fence surrounding the solar panels and equipment, accessed through a locked 20' wide swing gate on the access road. The access road enters the project area off Corneils Road. The Facility will include the following site features:

- An approximate 31-acre area of photovoltaic (PV) modules, mounting system and associated equipment inside the perimeter fence;
- Driven piles supporting the PV modules;
- One or two transformers (filled with biodegradable mineral oil) and two central inverters;
- Perimeter fence with no barbed wire;
- Underground conduit and wires within the system area;
- Electrical interconnection equipment including several above ground poles to connect to the Commonwealth Edison (ComEd) distribution line on Corneils Road;
- A gravel access drive;
- A metal security gate at the entrance to the array area; and

Decommissioning Plan

The Facility will be decommissioned by completing the following major steps: Dismantlement, Demolition, Disposal or Recycle; and Site Stabilization, as further described below.

Dismantlement, Demolition, and Disposal or Recycle

A significant portion of the components that comprise the Facility will include recyclable or re-saleable components, including copper, aluminum, galvanized steel, and modules. Due to their re-sale monetary value, these components will be dismantled, disassembled, and recycled rather than being demolished and disposed of.

Following coordination with ComEd regarding timing and required procedures for disconnecting the Facility from the utility distribution network, all electrical connections to the system will be disconnected and all connections will be tested locally to confirm that no electric current is running through them before proceeding. All electrical connections to the PV modules will be severed at each module, and the modules will then be removed from their framework by cutting or dismantling the connections to the supports. Modules will be removed and sold to a purchaser or recycler. In the event of a total fracture of any modules, the interior materials are silicon-based and are not hazardous. Disposal of these materials at a landfill will be permissible.

The PV mounting system framework will be dismantled and recycled. The metal piles will be removed from their approximated depth of four feet and recycled. All other associated structures will be demolished and removed from the site for recycling or disposal. This will include the site fence and gates, which will likely be reclaimed or recycled.

Grade slabs will be broken and removed to a depth of one foot below grade, and clean concrete will be crushed and disposed of off-site or recycled (reused either on- or off-site).

Aboveground utility poles owned by Corneils Road Solar, LLC will be completely removed and disposed of off-site in accordance with utility best practices. Any overhead wires will be removed from the Facility and will terminate at the utility-owned connections. ComEd will be responsible for dismantling any overhead wires and poles under its ownership. Coordination with ComEd personnel will be conducted to facilitate ComEd's removal of any poles and overhead wires located on the site.

A final site walkthrough will be conducted to remove debris and/or trash generated during the decommissioning process and will include removal and proper disposal of any debris that may have been wind-blown to areas outside the immediate footprint of the facility being removed. Sanitary facilities will be provided on-site for the workers performing the decommissioning of the Facility.

Decommissioning Requirements

The following items shall be implemented during the decommissioning of the Facility:

- If underground drainage tiles are damaged by Deconstruction, they shall be repaired in a manner that assures the tile line's proper operation.
- After the topsoil has been replaced, all areas that are not directly under photovoltaic panels that were traversed by vehicles and Deconstruction equipment shall be ripped at least 18 inches deep, and all pasture and woodland shall be ripped at least 12 inches deep to the extent practicable. The existence of tile lines or underground utilities may necessitate less depth.

- Following the completion of Deconstruction, the disturbed area shall be restored, as closely as practical, to its original pre-construction elevation.
- Weed control shall be provided in a manner that prevents the spread of weeds onto agricultural land affected by Deconstruction. Spraying shall be done by an applicator that is appropriately licensed for doing such work in the State of Illinois.

Site Stabilization

The areas of the Facility that are disturbed during decommissioning will be re-graded to establish a uniform slope and stabilized via hydroseeding with a ground treatment approved by the City of Yorkville.

Permitting Requirements

Given the size and location of the Facility, several approvals will be obtained prior to initiation of the decommissioning process. Table 1 provides a summary of the expected approvals if the decommissioning were to take place at the time of the preparation of this Decommissioning Plan. Noting that the decommissioning is expected to occur at a much later date, the permitting requirements listed in the table below will be reviewed at that time and updated based on then current local, state, and federal regulations.

Table 1. Current Permitting Requirements for Decommissioning

Permit	Agency	Threshold/Trigger
National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activity	Illinois Environmental Protection Agency (IEPA)	Ground disturbance of greater than 1 acre requires preparation of a Stormwater Pollution Prevention Plan, including erosion and sedimentation controls.
Building Permit	City of Yorkville	A building permit must be obtained for any construction, alteration, repair, demolition, or change to the use or occupancy of a building.

Decommissioning Cost Estimate and Surety Proposal

Consistent with the requirements of Illinois Agricultural Mitigation Agreement, Corneils Road Solar, LLC proposes to provide a decommissioning surety fund to be held by the City of Yorkville and co-owned with Corneils Road Solar, LLC. The fund will provide the requisite capital for solar project decommissioning in the unlikely event that Corneils Road Solar, LLC is unable to meet its contractual obligations for solar project removal and restoration.

Before the issuance of a Building Permit by the City, Corneils Road Solar, LLC will submit an Engineer's Opinion of Probable Cost (EOPC) to decommissioning the facility. Corneils Road Solar, LLC will then obtain a bond to be held by the City with the bond value based on the percentage of the EOPC as required by the Agricultural Mitigation Agreement.

Once the decommissioning is complete, and after the City's inspection that the work has been done in accordance with the Decommissioning Plan, the portion of the surety not needed to remediate shall be returned to the applicant/lessee.

ALTA/NSPS LAND TITLE AND TOPOGRAPHIC SURVEY

SOUTHWEST 1/4 OF SECTION 8 AND NORTHWEST 1/4 OF SECTION 17, T37N, R7E OF THE 3RD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS

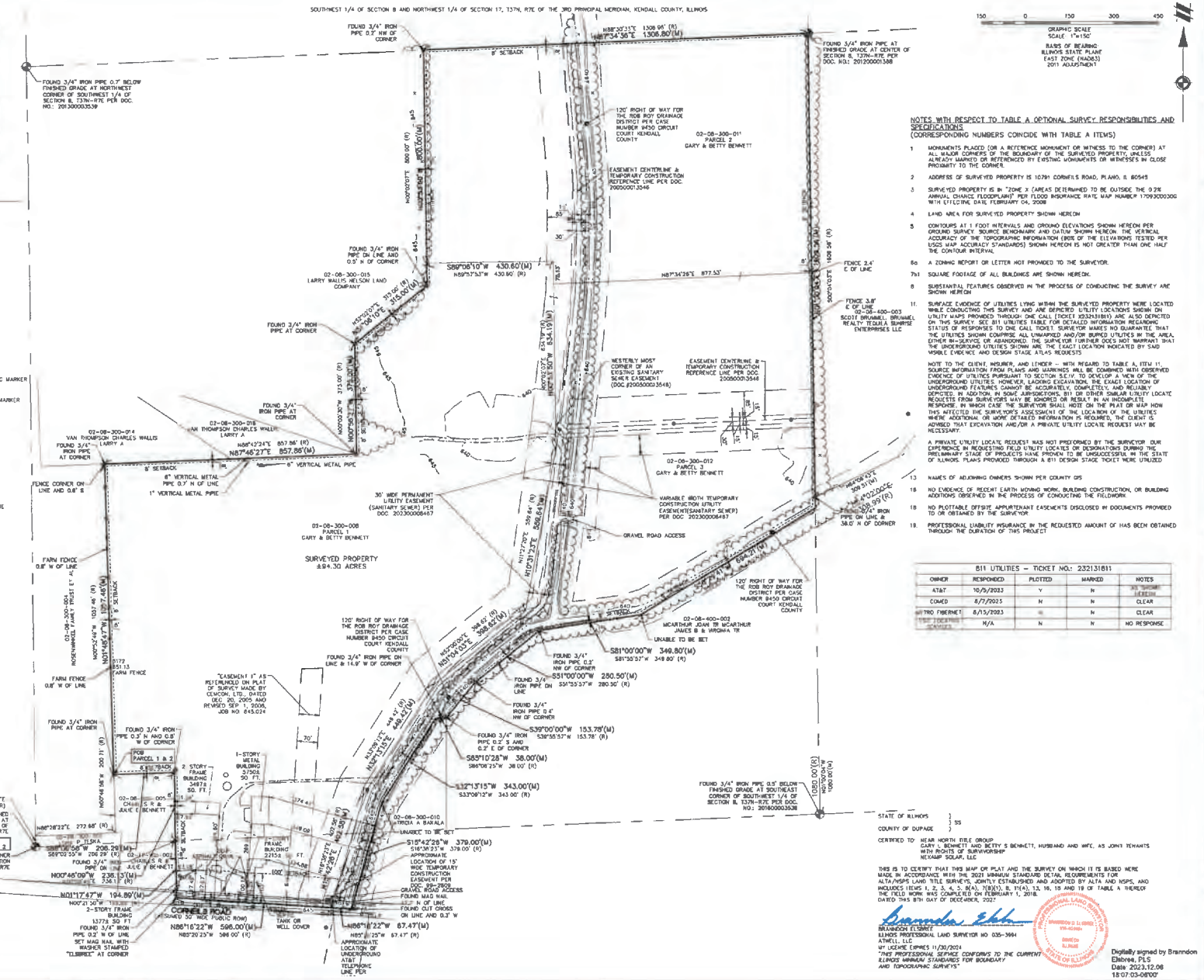
VICINITY MAP
NOT TO SCALE

LEGEND

POC	POINT OF COMMENCEMENT
POB	POINT OF BEGINNING
(R)	RECORD
(M)	MEASURED
DOC	DOCUMENT
	EXISTING SECTION CORNER
●F	FOUND SURVEY MONUMENT
○S	SURVEY MONUMENT TO BE SET
□ T	EXISTING TELEPHONE RISER
	EXISTING SANITARY MANHOLE
	EXISTING CULVERT
O.U.P.	EXISTING UTILITY POLE
	EXISTING GUY WIRE
	EXISTING SIGN
x632.80	EXISTING GROUND ELEVATION
	EXISTING MAILBOX
	EXISTING UNDERGROUND ELECTRIC MARKER
	EXISTING FENCE POST
	EXISTING UNDERGROUND CABLE MARKER
	SAME OWNERSHIP
	EXISTING CROP LINE
	VEGETATION LINE
	EXISTING EDGE OF WATER
	EXISTING EDGE OF GRAVEL
	EXISTING GUARD RAIL
641	EXISTING GROUND CONTOUR
	UNDERGROUND TELEPHONE LINE
	BOUNDARY LINE
	BOUNDARY ADJACENT / ROW LINE
	SECTION LINE
	EASEMENT LINE
	UNDERGROUND STORM LINE
	BUILDING SET BACK LINE
OHE OHE	OVERHEAD ELECTRIC LINE
X X	EXISTING FENCE
	EXISTING TOP/BOTTOM OF BANK
	EXISTING BUILDING
	EXISTING GRAVEL
	EXISTING ASPHALT

GENERAL NOTES

1. COMPARE ALL DISTANCES AND POINTS IN FIELD AND REPORT ANY DISCREPANCIES IN SAME TO SURVEYOR AT ONCE
2. THE INTENDED PLOT SIZE FOR THIS SHEET IS 24"X36", RESPECTIVELY NO DIMENSIONS SHOULD BE ASSUMED BY SCALING
3. UTILITIES SHOWN HEREON ARE BY VISIBLE LOCATION OF ABOVE GROUND STRUCTURES, MARKS IN FIELD AND PROVIDED MAPS. UNDERGROUND UTILITIES MAY EXIST THAT ARE NOT SHOWN HEREON
4. CALL 811 ("COMMON GROUND ALLIANCE" NATIONAL UNDERGROUND UTILITY LOCATOR SERVICE) FOR FIELD LOCATION OF UNDERGROUND UTILITY LINES PRIOR TO ANY DIGGING OR CONSTRUCTION



NOTES WITH RESPECT TO TABLE A OPTIONAL SURVEY RESPONSIBILITIES AND SPECIFICATIONS

(CORRESPONDING NUMBERS COINCIDE WITH TABLE A ITEMS)

1. MONUMENTS PLACED (OR A REFERENCE MONUMENT OR WITNESS TO THE CORNER) AT ALL MAJOR CORNERS OF THE BOUNDARY OF THE SURVEYED PROPERTY, UNLESS ALREADY MARKED OR REFERENCED BY EXISTING MONUMENTS OR WITNESSES IN CLOSE PROXIMITY TO THE CORNER.
2. ADDRESS OF SURVEYED PROPERTY IS 10781 CORNELLS ROAD, PLANO, IL 60545
3. SURVEYED PROPERTY IS IN "ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN)" PER FLOOD INSURANCE RATE MAP NUMBER 17093C0030G WITH EFFECTIVE DATE FEBRUARY 04, 2008
4. LAND AREA FOR SURVEYED PROPERTY SHOWN HEREON
5. CONTOURS AT 1 FOOT INTERVALS AND GROUND ELEVATIONS SHOWN HEREON PER GROUND SURVEY. SOURCE BENCHMARK AND DATUM SHOWN HEREON. THE VERTICAL ACCURACY OF THE TOPOGRAPHIC INFORMATION (80% OF THE ELEVATIONS TESTED PER USGS MAP ACCURACY STANDARDS) SHOWN HEREON IS NOT GREATER THAN ONE HALF THE CONTOUR INTERVAL
6a. A ZONING REPORT OR LETTER NOT PROVIDED TO THE SURVEYOR.
7b1. SQUARE FOOTAGE OF ALL BUILDINGS ARE SHOWN HEREON.
8. SUBSTANTIAL FEATURES OBSERVED IN THE PROCESS OF CONDUCTING THE SURVEY ARE SHOWN HEREON
11. SURFACE EVIDENCE OF UTILITIES LYING WITHIN THE SURVEYED PROPERTY WERE LOCATED WHILE CONDUCTING THIS SURVEY AND ARE DEPICTED. UTILITY LOCATIONS SHOWN ON UTILITY MAPS PROVIDED THROUGH ONE CALL (TICKET #232131811) ARE ALSO DEPICTED ON THIS SURVEY. SEE 811 UTILITIES TABLE FOR DETAILED INFORMATION REGARDING STATUS OF RESPONSES TO ONE CALL TICKET. SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL UNMAPPED AND/OR BURIED UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE THE EXACT LOCATION INDICATED BY SAID VISIBLE EVIDENCE AND DESIGN STAGE ATLAS REQUESTS

NOTE TO THE CLIENT, INSURER, AND LENDER – WITH REGARD TO TABLE A, ITEM 11, SOURCE INFORMATION FROM PLANS AND MARKINGS WILL BE COMBINED WITH OBSERVED EVIDENCE OF UTILITIES PURSUANT TO SECTION 5.E.IV. TO DEVELOP A VIEW OF THE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. IN ADDITION, IN SOME JURISDICTIONS, 811 OR OTHER SIMILAR UTILITY LOCATE REQUESTS FROM SURVEYORS MAY BE IGNORED OR RESULT IN AN INCOMPLETE RESPONSE, IN WHICH CASE THE SURVEYOR SHALL NOTE ON THE PLAT OR MAP HOW THIS AFFECTED THE SURVEYOR'S ASSESSMENT OF THE LOCATION OF THE UTILITIES. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION AND/OR A PRIVATE UTILITY LOCATE REQUEST MAY BE NECESSARY.

A PRIVATE UTILITY LOCATE REQUEST WAS NOT PREFORMED BY THE SURVEYOR. OUR EXPERIENCE IN REQUESTING FIELD UTILITY LOCATES OR DESIGNATIONS DURING THE PRELIMINARY STAGE OF PROJECTS HAVE PROVEN TO BE UNSUCCESSFUL IN THE STATE OF ILLINOIS. PLANS PROVIDED THROUGH A 811 DESIGN STAGE TICKET WERE UTILIZED

13. NAMES OF ADJOINING OWNERS SHOWN PER COUNTY GIS
16. NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELDWORK.
18. NO PLOTTABLE OFFSITE APPURTENANT EASEMENTS DISCLOSED BY DOCUMENTS PROVIDED TO OR OBTAINED BY THE SURVEYOR
19. PROFESSIONAL LIABILITY INSURANCE BY THE REQUESTED AMOUNT OF HAS BEEN OBTAINED THROUGH THE DURATION OF THIS PROJECT

811 UTILITIES – TICKET NO.: 232131811

OWNER	RESPONDED	PLOTTED	MARKED	NOTES
AT&T	10/5/2023	Y	N	AS SHOWN HEREON
ComEd	8/7/2023	N	N	CLEAR
TRD FIBERNET	8/15/2023	N	N	CLEAR
[illegible]	N/A	N	N	NO RESPONSE

STATE OF ILLINOIS } SS
COUNTY OF DUPAGE }

CERTIFIED TO: NEAR NORTH EXLE GROUP
GARY L. BENNETT AND BETTY S BENNETT, HUSBAND AND WIFE, AS JOINT TENANTS WITH RIGHTS OF SURVIVORSHIP
NEXAMP SOLAR, LLC

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 8(A), 7(B)(1), 8, 11(A), 13, 16, 18 AND 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON FEBRUARY 1, 2018.
DATED THIS 8TH DAY OF DECEMBER, 2022

BRANDON ELSBREE
ILLINOIS PROFESSIONAL LAND SURVEYOR NO 035-3994
ATWELL, LLC
MY LICENSE EXPIRES 11/30/2024
"THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR BOUNDARY AND TOPOGRAPHIC SURVEYS"

ILLINOIS PROFESSIONAL LAND SURVEYOR 035-3994 BRANDON L. ELSBREE STATE OF ILLINOIS

Digitally signed by Brandon Elsbree, PLS
Date: 2023.12.08 18:07:03-08'00'

811 Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN AS DETERMINED FROM SURFACE ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR THE OWNER'S SHALL BE CONSULTANTS SHALL BE RESPONSIBLE FOR JOB SITE SAFETY OF THE WORK, OF PERSONS EMPLOYED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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ATWELL
800.800.4200 www.atwell-group.com
1230 EAST DIEHL ROAD, SUITE 300
NAPERVILLE, IL 60563
DESIGN FIRM #184-005878

SECTION 8
TOWN 37 NORTH, RANGE 7 EAST
BRISTOL TOWNSHIP
KENDALL COUNTY, ILLINOIS

CLIENT: NEXAMP SOLAR, LLC
ALTA/NSPS LAND TITLE AND TOPOGRAPHIC SURVEY
CORNELLS ROAD SOLAR
KENDALL COUNTY, IL

DATE: 12/6/2023

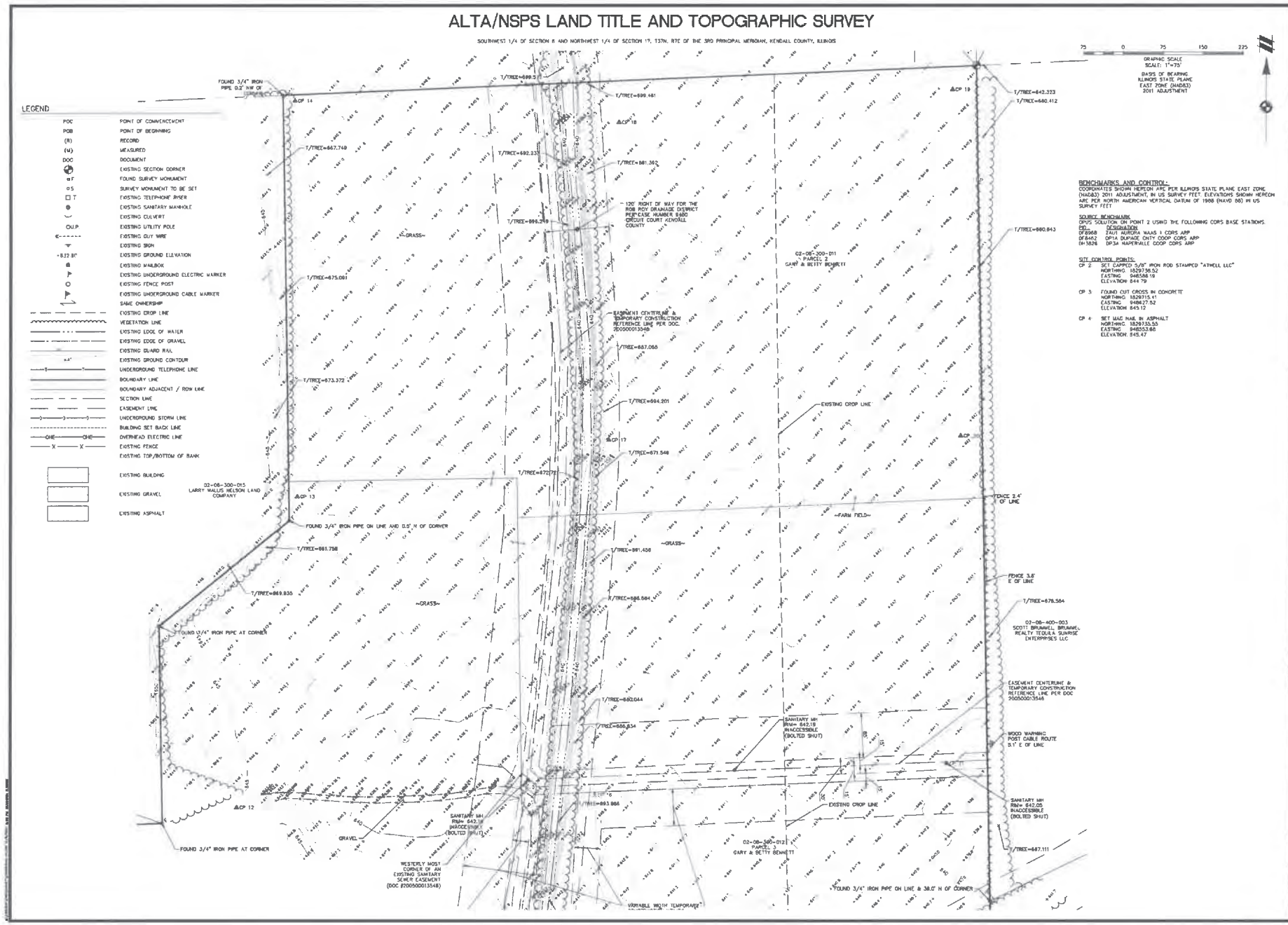
REVISIONS

SCALE: 0 75 150
1" = 150 FEET
DR. JT CH. BDE
P.M. B. ELSBREE
BOOK 295
JOB 23003931
SHEET NO. 1 OF 3

CAD FILE: 23003931ALTA-01.DWG

ALTA/NSPS LAND TITLE AND TOPOGRAPHIC SURVEY

SOUTHWEST 1/4 OF SECTION 8 AND NORTHWEST 1/4 OF SECTION 17, T37N, R7E OF THE 3RD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS



811 Know what's below. Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE

CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR; NEITHER THE OWNER NOR ATWELL LLC SHALL BE CONSIDERED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS

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ATWELL
630.850.4200
1230 EAST DIEHL ROAD, SUITE 200
NAPERVILLE, IL 60563
DESIGN FIRM 184-005878

SECTION 8
TOWN 37 NORTH, RANGE 7 EAST
BRISTOL TOWNSHIP
KENDALL COUNTY, ILLINOIS

NEXAMP SOLAR, LLC

ALTA/NSPS LAND TITLE AND TOPOGRAPHIC SURVEY

CORNELIS ROAD SOLAR
KENDALL COUNTY, IL

DATE 12/6/2023

REVISIONS

SCALE 0 37.5 75
1" = 75 FEET

DR. JT CH. BDE
S-M B. ELSBREE
BOOK 298
JOB 23003931
SHEET NO. 2 OF 3

CAD FILE: 23003931ALTA-01.DWG

ALTA/NSPS LAND TITLE AND TOPOGRAPHIC SURVEY

SOUTHWEST 1/4 OF SECTION 8 AND NORTHWEST 1/4 OF SECTION 17, T37N, R7E OF THE 3RD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS

LEGAL DESCRIPTION PER NEAR NORTH TITLE GROUP AS ISSUING AGENT FOR CHICAGO TITLE INSURANCE COMPANY COMMITMENT NO. IL1808535-166. COMMITMENT DATE: SEPTEMBER 8, 2022 AT 7:00 A.M.

PARCEL 1
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00°09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.43 FEET; THENCE NORTH 88°28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 372.88 FEET; THENCE NORTH 00°46'56" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00°50'50" WEST 1,057.48 FEET; THENCE NORTH 88°42'24" EAST, 857.86 FEET; THENCE NORTH 00°00'30" WEST, 375.0 FEET; THENCE NORTH 52°02'07" EAST, 315.0 FEET; THENCE NORTH 88°30'33" EAST, ALONG SAID NORTH LINE, 1,306.98 FEET TO THE CENTER OF SAID SECTION 8, THENCE SOUTH 00°04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59°23'51" WEST, 684.32 FEET; THENCE SOUTH 81°55'53" WEST, 349.80 FEET; THENCE SOUTH 88°05'25" WEST, 280.50 FEET; THENCE SOUTH 37°09'37" WEST, 153.78 FEET; THENCE SOUTH 18°36'22" WEST, 379.0 FEET TO THE CENTER LINE OF CORNELS ROAD; THENCE NORTH 85°20'25" WEST ALONG SAID CENTER LINE, 286.0 FEET TO A LINE DRAWN SOUTH 00°21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00°21'50" WEST ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00°09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 37.43 FEET; THENCE NORTH 88°28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 372.88 FEET; THENCE NORTH 00°46'56" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00°50'50" WEST, 1,057.48 FEET; THENCE NORTH 88°42'24" EAST, 857.86 FEET; THENCE NORTH 00°00'30" WEST, 375.0 FEET; THENCE NORTH 52°02'07" EAST, 315.0 FEET; THENCE NORTH 88°30'33" EAST, ALONG SAID NORTH LINE, 1,306.98 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00°04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59°23'51" WEST, 684.32 FEET; THENCE SOUTH 81°55'53" WEST 349.80 FEET; THENCE SOUTH 88°05'25" WEST 280.50 FEET; THENCE SOUTH 37°09'37" WEST, 153.78 FEET; THENCE SOUTH 18°36'22" WEST, 379.0 FEET TO THE CENTER LINE OF CORNELS ROAD; THENCE NORTH 85°20'25" WEST ALONG SAID CENTER LINE 286.0 FEET TO A LINE DRAWN SOUTH 00°21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00°21'50" WEST, ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00°09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 37.43 FEET; THENCE NORTH 88°28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 372.88 FEET; THENCE NORTH 00°46'56" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00°50'50" WEST, 1,057.48 FEET; THENCE NORTH 88°42'24" EAST, 857.86 FEET; THENCE NORTH 00°00'30" WEST, 375.0 FEET; THENCE NORTH 52°02'07" EAST, 315.0 FEET; THENCE NORTH 88°30'33" EAST, ALONG SAID NORTH LINE, 1,306.98 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00°04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59°23'51" WEST, 684.32 FEET; THENCE SOUTH 81°55'53" WEST 349.80 FEET; THENCE SOUTH 88°05'25" WEST 280.50 FEET; THENCE SOUTH 37°09'37" WEST, 153.78 FEET; THENCE SOUTH 18°36'22" WEST

ATWELL

CONSULTING. ENGINEERING. CONSTRUCTION.

DECEMBER 6, 2023
ATWELL JOB NUMBER: 23003931
NEXAMP-CORNEILS ROAD SOLAR, KENDALL COUNTY, IL LEGAL DESCRIPTION

LEGAL DESCRIPTION PER NEAR NORTH TITLE GROUP AS ISSUING AGENT FOR CHICAGO TITLE INSURANCE COMPANY COMMITMENT NO. IL1808635-166, COMMITMENT DATE: SEPTEMBER 6, 2022 AT 7:00 A.M.

PARCEL 1:

THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00°09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88°28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.68 FEET; THENCE NORTH 00°46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00°52'50" WEST 1,057.46 FEET; THENCE NORTH 88°42'24" EAST, 857.86 FEET; THENCE NORTH 00°00'30" WEST, 375.0 FEET; THENCE NORTH 52°02'07" EAST, 315.0 FEET, THENCE NORTH 00°02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88°30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00°04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59°25'57" WEST, 694.32 FEET; THENCE SOUTH 81°55'57" WEST, 349.80 FEET;THENCE SOUTH 51°55'57" WEST 280.50 FEET; THENCE SOUTH 39°55'57" WEST, 153.78 FEET; THENCE SOUTH 86°06'25" WEST, 38.0 FEET THENCE SOUTH 33°09'12" WEST, 343.0 FEET; THENCE SOUTH 16°38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85°20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00°21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00°21'50" WEST ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00°09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89°02'55" EAST FROM THE POINT OF BEGINNING;THENCE SOUTH 89°02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING EASTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85°20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16°38'23" EAST, 402.58 FEET; THENCE NORTH 33°09'12" EAST, 449.42 FEET; THENCE NORTH 52° EAST, 398.62 FEET;THENCE NORTH 11°27'20" EAST, 559.64 FEET; THENCE NORTH 00°02'07" EAST, 634.19 FEET; THENCE NORTH 89°57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00°02'07" EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;

1250 E. Diehl Road, Suite 300, Naperville, IL 60563 Tel: 630.577.0800 Fax: 630.577.0900
www.atwell-group.com

PARCEL 2:

THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00°09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88°28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.68 FEET; THENCE NORTH 00°46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING;THENCE NORTH 00°52'50" WEST 1,057.46 FEET; THENCE NORTH 88°42'24" EAST, 857.86 FEET; THENCE NORTH 00°00'30" WEST, 375.0 FEET; THENCE NORTH 52°02'07" EAST, 315.0 FEET, THENCE NORTH 00°02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88°30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00°04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59°25'57" WEST, 694.32 FEET; THENCE SOUTH 81°55'57" WEST, 349.80 FEET; THENCE SOUTH 51°55'57" WEST 280.50 FEET; THENCE SOUTH 39°55'57" WEST, 153.78 FEET; THENCE SOUTH 86°06'25" WEST, 38.0 FEET; THENCE SOUTH 33°09'12" WEST, 343.0 FEET;THENCE SOUTH 16°38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85°20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00°21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00°21'50" WEST, ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE;THENCE NORTH 00°09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89°02'55" EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89°02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING WESTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85°20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16°38'23" EAST, 402.58 FEET; THENCE NORTH 33°09'12" EAST, 449.42 FEET; THENCE NORTH 52°00'00" EAST, 398.62 FEET; THENCE NORTH 11°27'20" EAST, 559.64 FEET; THENCE NORTH 00°02'07" EAST, 634.19 FEET; THENCE NORTH 89°57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT;

THENCE NORTH 00°02'07" EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4 FOR THE TERMINUS OF SAID LINE, AND EXCEPT THAT PART THEREOF LYING SOUTHERLY OF THE SOUTHERLY LINE OF THE NORTHERLY 812.20 FEET, MEASURED ALONG THE EASTERLY LINE, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;

PARCEL 3:

THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00°09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88°26'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.66 FEET; THENCE NORTH 00°46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00°52'50" WEST 1,057.46 FEET; THENCE NORTH 88°42'24" EAST, 857.86 FEET; THENCE NORTH 00°00'30" WEST, 375.0 FEET; THENCE NORTH 52°02'07" EAST, 315.0 FEET, THENCE NORTH

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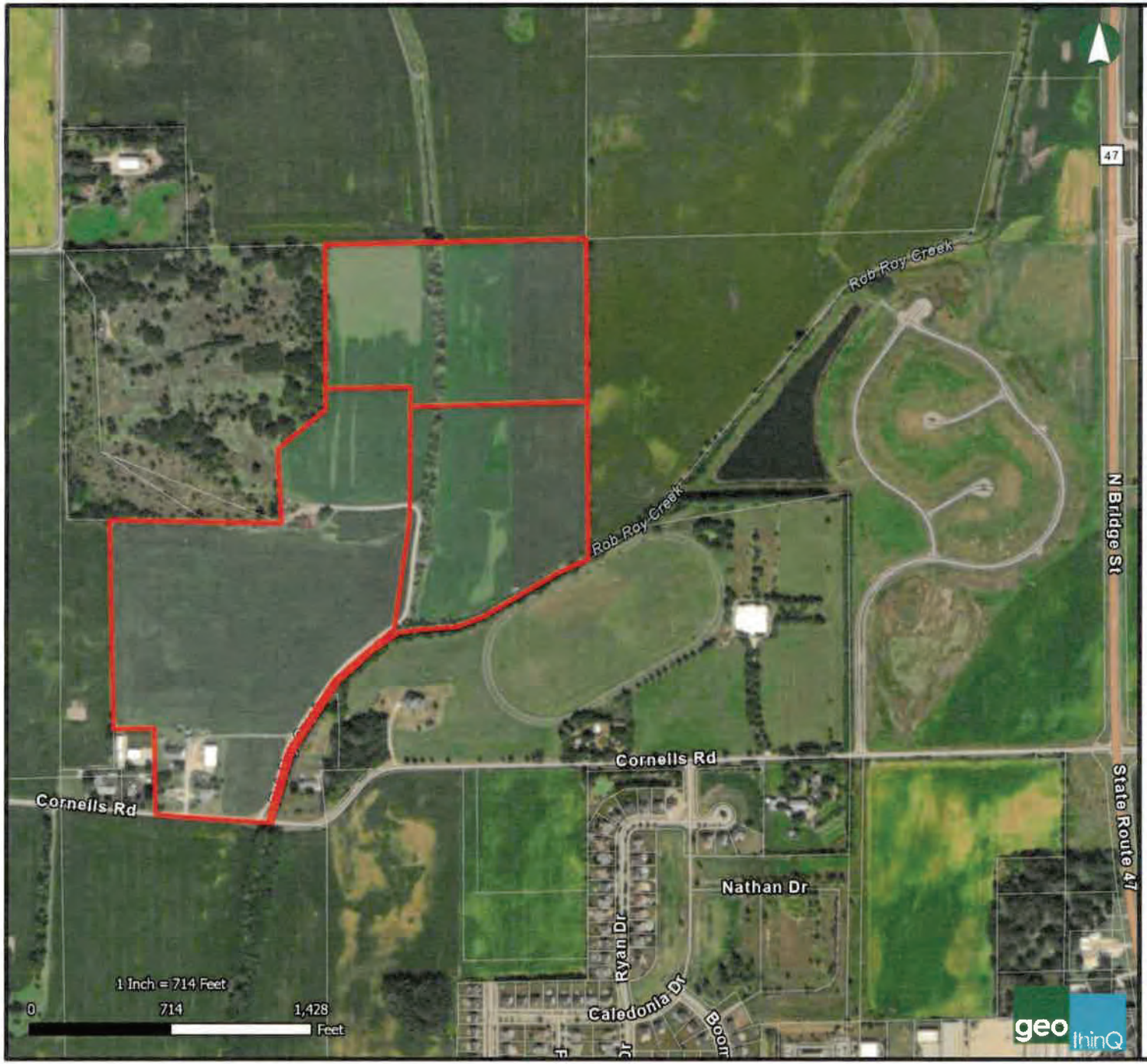


nexamp

Aerial Map

12/06/2023

Parcels

This map was created using geothinQ | www.geothinQ.com | Mapping Smart Land Decisions

Section 466.APPENDIX D Levels 1 to 4 Contract

STANDARD AGREEMENT FOR INTERCONNECTION OF DISTRIBUTED ENERGY RESOURCES FACILITIES WITH A CAPACITY LESS THAN OR EQUAL TO 10 MVA

This agreement (together with all attachments, the "Agreement") is made and entered into this _____ day of _____, by and between Nexamp Solar, LLC ("interconnection customer"), as a limited liability company organized and existing under the laws of the State of Delaware and Commonwealth Edison Company, ("Electric Distribution Company" or "EDC"), a corporation existing under the laws of the State of Illinois. Interconnection customer and EDC each may be referred to as a "Party", or collectively as the "Parties".

Recitals:

Whereas, interconnection customer is proposing to install or direct the installation of a distributed energy (DER) resources or is proposing a generating capacity addition to an existing DER facility, consistent with the interconnection request application form completed by interconnection customer on 3/2/2023; and

Whereas, the interconnection customer will operate and maintain, or cause the operation and maintenance of, the DER facility; and

Whereas, interconnection customer desires to interconnect the DER facility with EDC's electric distribution system.

Now, therefore, in consideration of the premises and mutual covenants set forth in this Agreement, and other good and valuable consideration, the receipt, sufficiency and adequacy of which are hereby acknowledged, the Parties covenant and agree as follows:

Article 1. Scope and Limitations of Agreement

1.1 This Agreement shall be used for all approved interconnection requests for DER facilities that fall under Levels 2, 3 and 4 according to the procedures set forth in Part 466 of the Commission's rules (83 Ill. Adm. Code 466) (referred to as the Illinois Distributed Energy Resources Interconnection Standard).

1.2 This Agreement governs the terms and conditions under which the DER facility will interconnect to, and operate in parallel with, the EDC's electric distribution system.

1.3 This Agreement does not constitute an agreement to purchase or deliver the interconnection customer's power.

1.4 Nothing in this Agreement is intended to affect any other agreement between the EDC and the interconnection customer.

1.5 Terms used in this agreement are defined as in Section 466.30 of the Illinois Distributed Generation Interconnection Standard unless otherwise noted.

1.6 Responsibilities of the Parties

1.6.1 The Parties shall perform all obligations of this Agreement in accordance with all applicable laws and regulations.

1.6.2 The EDC shall construct, own, operate, and maintain its interconnection facilities in accordance with this Agreement.

1.6.3 The interconnection customer shall construct, own, operate, and maintain its DER facility and interconnection facilities in accordance with this Agreement.

1.6.4 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facilities that it now or subsequently may own unless otherwise specified in the attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of its respective lines and appurtenances on its respective sides of the point of interconnection.

1.6.5 The interconnection customer agrees to design, install, maintain and operate its DER facility so as to minimize the likelihood of causing an adverse system impact on the electric distribution system or any other electric system that is not owned or operated by the EDC.

1.7 Parallel Operation Obligations
Once the DER facility has been authorized to commence parallel operation, the interconnection customer shall abide by all operating procedures established in IEEE Standard 1547 and any other applicable laws, statutes or guidelines, including those specified in Attachment 4 of this Agreement.

1.8 Metering
The interconnection customer shall be responsible for the cost to purchase, install, operate, maintain, test, repair, and replace metering and data acquisition equipment specified in Attachments 5 and 6 of this Agreement.

1.9 Reactive Power

1.9.1 Interconnection customers with a DER facility larger than or equal to 1 MVA shall design their DER facilities to maintain a power factor at the point of interconnection between .95 lagging and .95 leading at all times. Interconnection customers with a DER facility smaller than 1 MVA shall design their DER facility to maintain a power factor at the point of interconnection between .90 lagging and .90 leading at all times.

1.9.2 Any EDC requirements for meeting a specific voltage or specific reactive power schedule as a condition for interconnection shall be clearly specified in Attachment 4. Under no circumstance shall the EDC's additional requirements for voltage or reactive power schedules exceed the normal operating capabilities of the DER facility.

1.9.3 If the interconnection customer does not operate the DER facility within the power factor range specified in Attachment 4, or does not operate the distribute generation facility in accordance with a voltage or reactive power schedule specified in Attachment 4, the interconnection customer is in default under this Agreement, and the terms of Article 6.5 apply.

1.10 Standards of Operations

The interconnection customer must obtain all certifications, permits, licenses and approvals necessary to construct, operate and maintain the facility and to perform its obligations under this Agreement. The interconnection customer is responsible for coordinating and synchronizing the DER facility with the EDC's system. The interconnection customer is responsible for any damage that is caused by the interconnection customer's failure to coordinate or synchronize the DER facility with the electric distribution system. The interconnection customer agrees to be primarily liable for any damages resulting from the continued operation of the DER facility after the EDC ceases to energize the line section to which the DER facility is connected. In Attachment 4, the EDC shall specify the shortest reclose time setting for its protection equipment that could affect the DER facility. The EDC shall notify the interconnection customer at least 10 business days prior to adopting a faster reclose time on any automatic protective equipment, such as a circuit breaker or line recloser, that might affect the DER facility.

Article 2. Inspection, Testing, Authorization, and Right of Access

2.1 Equipment Testing and Inspection
The interconnection customer shall test and inspect its DER facility including the interconnection equipment prior to interconnection in accordance with IEEE Standard 1547 (2003) and IEEE Standard 1547.1 (2005). The interconnection customer shall not operate its DER facility in parallel with the EDC's electric distribution system without prior written authorization by the EDC as provided for in Articles 2.1.1-2.1.3.

2.1.1 The EDC shall perform a witness test after construction of the DER facility is completed, but before parallel operation, unless the EDC specifically waives the witness test. The interconnection customer shall provide the EDC at least 15 business days' notice of the planned commissioning test for the DER facility. If the EDC performs a witness test at a time that is not concurrent with the commissioning test, it shall contact the interconnection customer to schedule the witness test at a mutually agreeable time within 10 business days after the scheduled commissioning test designated on the application. If the EDC does not perform the witness test within 10 business days after the commissioning test, the witness test is deemed waived unless the Parties mutually agree to extend the date for scheduling the witness test, or unless the EDC cannot do so for good cause, in which case, the Parties shall agree to another date for scheduling the test within 10 business days after the original scheduled date. If the witness test is not acceptable to the EDC, the EDC shall deliver in writing a detailed technical description of all deficiencies of the DER facility identified by the EDC during the witness test. The interconnection customer has 30 business days after receipt of the written description to address and resolve any deficiencies. This time period may be extended upon agreement between the EDC and the interconnection customer. If the interconnection customer fails to address and resolve the deficiencies to the satisfaction of the EDC, the applicable cure provisions of Article 6.5 shall apply. The interconnection customer shall, if requested by the EDC, provide a copy of all documentation in its possession regarding testing conducted pursuant to IEEE Standard 1547.1.

2.1.2 If the interconnection customer conducts interim testing of the DER facility prior to the witness test, the interconnection customer shall obtain permission from the EDC before each occurrence of operating the DER facility in parallel with the electric distribution system. The EDC may, at its own expense, send qualified personnel to the DER facility to observe such interim testing, but it cannot mandate that these tests be considered in the final witness test. The EDC is not required to observe the interim testing or precluded from requiring the tests be repeated at the final witness test. During and leading up to the witness test, the EDC shall not limit the interconnection customer's ability to test the DER facility during normal working hours except for safety and reliability reasons.

2.1.3 After the DER facility passes the witness test, the EDC shall affix an authorized signature to the certificate of completion and return it to the interconnection

customer approving the interconnection and authorizing parallel operation. The authorization shall not be conditioned or delayed and the EDC shall return the signed certificate of completion to interconnection customer no more than 10 business days after the date that the DER facility passes the witness test.

2.2 Commercial Operation
The interconnection customer shall not operate the DER facility, except for interim testing as provided in Article 2.1, until such time as the certificate of completion is signed by all Parties.

2.3 Right of Access
The EDC must have access to the disconnect switch and metering equipment of the DER facility at all times. When practical, the EDC shall provide notice to the interconnection customer prior to using its right of access.

Article 3. Effective Date, Term, Termination, and Disconnection

3.1 Effective Date
This Agreement shall become effective upon execution by all Parties.

3.2 Term of Agreement
This Agreement shall become effective on the effective date and shall remain in effect unless terminated in accordance with Article 3.3 of this Agreement.

3.3 Termination

3.3.1 The interconnection customer may terminate this Agreement at any time by giving the EDC 30 calendar days prior written notice.

3.3.2 Either Party may terminate this Agreement after default pursuant to Article 6.5.

3.3.3 The EDC may terminate, upon 60 calendar days' prior written notice, for failure of the interconnection customer to complete construction of the DER facility within 12 months after the in-service date as specified by the Parties in Attachment 2, which may be extended by agreement between the Parties.

3.3.4 The EDC may terminate this Agreement, upon 60 calendar days' prior written notice, if the interconnection customer has abandoned, cancelled, permanently disconnected or stopped development, construction, or operation of the DER facility, or if the interconnection customer fails to operate the DER facility in parallel with the EDC's electric system for three consecutive years.

3.3.5 Upon termination of this Agreement, the DER facility will be disconnected from the EDC's electric distribution system. Terminating this Agreement does not relieve either Party of its liabilities and obligations that are owed or continuing when the Agreement is terminated.

3.3.6 If the Agreement is terminated, the interconnection customer loses its position in the interconnection queue.

3.4 Temporary Disconnection

A Party may temporarily disconnect the DER facility from the electric distribution system in the event one or more of the following conditions or events occurs:

3.4.1 Emergency conditions – shall mean any condition or situation: (1) that in the judgment of the Party making the claim is likely to endanger life or property; or (2) that the EDC determines is likely to cause an adverse system impact, or is likely to have a material adverse effect on the EDC's electric distribution system, interconnection facilities or other facilities, or is likely to interrupt or materially interfere with the provision of electric utility service to other customers; or (3) that is likely to cause a material adverse effect on the DER facility or the interconnection equipment. Under emergency conditions, the EDC or the interconnection customer may suspend interconnection service and temporarily disconnect the DER facility from the electric distribution system. The EDC must notify the interconnection customer when it becomes aware of any conditions that might affect the interconnection customer's operation of the DER facility. The interconnection customer shall notify the EDC when it becomes aware of any condition that might affect the EDC's electric distribution system. To the extent information is known, the notification shall describe the condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2 Scheduled maintenance, construction, or repair – the EDC may interrupt interconnection service or curtail the output of the DER facility and temporarily disconnect the DER facility from the EDC's electric distribution system when necessary for scheduled maintenance, construction, or repairs on EDC's electric distribution system. The EDC shall provide the interconnection customer with notice no less than 5 business days before an interruption due to scheduled maintenance, construction, or repair, or the EDC shall provide notice immediately if the scheduled maintenance, construction, or repair is scheduled less than 5 business days in advance. The EDC shall coordinate the reduction or temporary disconnection with the interconnection customer; however, the interconnection customer is responsible for out-of-pocket costs incurred by the EDC for deferring or rescheduling maintenance, construction or repair at the interconnection customer's request.

3.4.3 Forced outages – The EDC may suspend interconnection service to repair the EDC's electric distribution system. The EDC shall provide the interconnection customer with prior notice, if possible. If prior notice is not possible, the EDC shall, upon written request, provide the interconnection customer with written documentation, after the fact, explaining the circumstances of the disconnection.

3.4.4 Adverse system impact – the EDC must provide the interconnection customer with written notice of its intention to disconnect the DER facility, if the EDC determines that operation of the DER facility creates an adverse system impact. The documentation that supports the EDC's decision to disconnect must be provided to the interconnection customer. The EDC may disconnect the DER facility if, after receipt of the notice, the interconnection customer fails to remedy the adverse system impact, unless emergency conditions exist, in which case, the provisions of Article 3.4.1 apply. The EDC may continue to leave the generating facility disconnected until the adverse system impact is corrected.

3.4.5 Modification of the DER facility – The interconnection customer must receive written authorization from the EDC prior to making any change to the DER facility, other than a minor equipment modification. If the interconnection customer modifies its facility without the EDC's prior written authorization, the EDC has the right to disconnect the DER facility until such time as the EDC concludes the modification poses no threat to the safety or reliability of its electric distribution system.

3.4.6 The EDC's compliance with Article 3 shall preclude any claim for damage for any lost opportunity or other costs incurred by the interconnection customer as a result of an interruption of service under Article 3. Any dispute over whether the EDC complied with Article 3 shall be resolved in accordance with the dispute resolution mechanism set forth in Article 8.

Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1 Interconnection Facilities

4.1.1 The interconnection customer shall pay, or reimburse the EDC, as applicable, for the cost of the interconnection facilities itemized in Attachment 3. The EDC shall identify the additional interconnection facilities necessary to interconnect the DER facility with the EDC's electric distribution system, the cost of those facilities, and the time required to build and install those facilities, as well as an estimated date of completion of the building or installation of those facilities.

4.1.2 The interconnection customer is responsible for its expenses, including overheads, associated with owning, operating, maintaining, repairing, and replacing its interconnection equipment.

4.2 Distribution Upgrades

The EDC shall design, procure, construct, install, and own any distribution upgrades. The actual cost of the distribution upgrades, including overheads, shall be directly assigned to the interconnection customer whose DER facility caused the need for the distribution upgrades.

Article 5. Billing, Payment, Milestones, and Financial Security

5.1 Billing and Payment Procedures and Final Accounting (Applies to additional reviews conducted under a Level 1, 2 or 3 review with EDC construction necessary for accommodating the DER facility and Level 4 reviews)

5.1.1 The EDC shall bill the interconnection customer for the design, engineering, construction, and procurement costs of EDC-provided interconnection facilities and distribution upgrades contemplated by this Agreement as set forth in Attachment 3. The billing shall occur on a monthly basis, or as otherwise agreed to between the Parties. The interconnection customer shall pay each bill within 30 calendar days after receipt, or as otherwise agreed to between the Parties.

5.1.2 Unless waived by the interconnection customer, within 90 calendar days after completing the construction and installation of the EDC's interconnection facilities and distribution upgrades described in Attachments 2 and 3 to this Agreement, the EDC shall provide the interconnection customer with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation of the EDC's interconnection facilities and distribution upgrades; and (2) the interconnection customer's previous deposit and aggregate payments to the EDC for the interconnection facilities and distribution upgrades. If the interconnection customer's cost responsibility exceeds its previous deposit and aggregate payments, the EDC shall invoice the interconnection customer for the amount due and the interconnection customer shall pay the EDC within 30 calendar days. If the interconnection customer's previous deposit and aggregate payments exceed its cost responsibility under this Agreement, the EDC shall refund to the interconnection customer an amount equal to the difference within 30 calendar days after the final accounting report. Upon request from the interconnection customer, if the difference between the budget estimate and the actual cost exceeds 20%, the EDC will provide a written explanation for the difference.

5.1.3 If a Party disputes any portion of its payment obligation pursuant to this Article 5, the Party shall pay in a timely manner all non-disputed portions of its invoice, and the disputed amount shall be resolved pursuant to the dispute resolution provisions contained in Article 8. A Party disputing a portion of an Article 5 payment shall not be considered to be in default of its obligations under this Article.

5.2 Interconnection Customer Deposit
Within 15 business days after signing and returning the interconnection agreement to the EDC, the interconnection customer shall provide the EDC with a deposit equal to 100% of the estimated, non-binding cost to procure, install, or construct any such facilities (the "Security Deposit"). However, when the estimated date of completion of the building or installation of facilities exceeds three months from the date of notification, pursuant to Article 4.1.1 of this Agreement, this deposit may be held in escrow by a mutually agreed-

upon third-party, with any interest to inure to the benefit of the interconnection customer. To the extent that this interconnection agreement is terminated for any reason, the EDC shall return all deposits provided by the interconnection customer, less any actual costs incurred by the EDC.

Article 6. Assignment, Limitation on Damages, Indemnity, Force Majeure, and Default

6.1 Assignment

This Agreement may be assigned by either Party. If the interconnection customer attempts to assign this Agreement, the assignee must agree to the terms of this Agreement in writing and such writing must be provided to the EDC. Any attempted assignment that violates this Article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason of the assignment. An assignee is responsible for meeting the same obligations as the assignor.

6.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate (including mergers, consolidations, or transfers, or a sale of a substantial portion of the Party's assets, between the Party and another entity), of the assigning Party that has an equal or greater credit rating and the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement.

6.1.2 The interconnection customer can assign this Agreement, without the consent of the EDC, for collateral security purposes to aid in providing financing for the DER facility.

6.2 Limitation on Damages

Except for cases of gross negligence or willful misconduct, the liability of any Party to this Agreement shall be limited to direct actual damages and reasonable attorney's fees, and all other damages at law are waived. Under no circumstances, except for cases of gross negligence or willful misconduct, shall any Party or its directors, officers, employees and agents, or any of them, be liable to another Party, whether in tort, contract or other basis in law or equity for any special, indirect, punitive, exemplary or consequential damages, including lost profits, lost revenues, replacement power, cost of capital or replacement equipment. This limitation on damages shall not affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement. The provisions of this Article 6.2 shall survive the termination or expiration of the Agreement.

6.3 Indemnity

6.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in Article 6.2.

6.3.2 The interconnection customer shall indemnify and defend the EDC and the EDC's directors, officers, employees, and agents, from all damages and expenses resulting from a third party claim arising out of or based upon the interconnection customer's (a) negligence or willful misconduct or (b) breach of this Agreement.

6.3.3 The EDC shall indemnify and defend the interconnection customer and the interconnection customer's directors, officers, employees, and agents from all damages and expenses resulting from a third party claim arising out of or based upon the EDC's (a) negligence or willful misconduct or (b) breach of this Agreement.

6.3.4 Within 5 business days after receipt by an indemnified Party of any claim or notice that an action or administrative or legal proceeding or investigation as to which the indemnity provided for in this Article may apply has commenced, the indemnified Party shall notify the indemnifying Party of such fact. The failure to notify, or a delay in notification, shall not affect a Party's indemnification obligation unless that failure or delay is materially prejudicial to the indemnifying Party.

6.3.5 If an indemnified Party is entitled to indemnification under this Article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this Article, to assume the defense of such claim, that indemnified Party may, at the expense of the indemnifying Party, contest, settle or consent to the entry of any judgment with respect to, or pay in full, the claim.

6.3.6 If an indemnifying Party is obligated to indemnify and hold any indemnified Party harmless under this Article, the amount owing to the indemnified person shall be the amount of the indemnified Party's actual loss, net of any insurance or other recovery.

6.4 Force Majeure

6.4.1 As used in this Article, a force majeure event shall mean any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. A force majeure event does not include an act of gross negligence or intentional wrongdoing by the Party claiming force majeure.

6.4.2 If a force majeure event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the force majeure event ("Affected Party") shall notify the other Party of the existence of the force majeure event within one

business day. The notification must specify the circumstances of the force majeure event, its expected duration, and the steps that the Affected Party is taking and will take to mitigate the effects of the event on its performance. If the initial notification is verbal, it must be followed up with a written notification within one business day. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the force majeure event until the event ends. The Affected Party may suspend or modify its obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the force majeure event cannot be otherwise mitigated.

6.5 Default

6.5.1 No default shall exist when the failure to discharge an obligation (other than the payment of money) results from a force majeure event as defined in this Agreement, or the result of an act or omission of the other Party.

6.5.2 A Party shall be in default ("Default") of this Agreement if it fails in any material respect to comply with, observe or perform, or defaults in the performance of, any covenant or obligation under this Agreement and fails to cure the failure within 60 calendar days after receiving written notice from the other Party. Upon a default of this Agreement, the non-defaulting Party shall give written notice of the default to the defaulting Party. Except as provided in Article 6.5.3, the defaulting Party has 60 calendar days after receipt of the default notice to cure the default; provided, however, if the default cannot be cured within 60 calendar days, the defaulting Party shall commence the cure within 20 calendar days after original notice and complete the cure within six months from receipt of the default notice; and, if cured within that time, the default specified in the notice shall cease to exist.

6.5.3 If a Party has assigned this Agreement in a manner that is not specifically authorized by Article 6.1, fails to provide reasonable access pursuant to Article 2.3, and is in default of its obligations pursuant to Article 7, or if a Party is in default of its payment obligations pursuant to Article 5 of this Agreement, the defaulting Party has 30 days from receipt of the default notice to cure the default.

6.5.4 If a default is not cured as provided for in this Article, or if a default is not capable of being cured within the period provided for in this Article, the non-defaulting Party shall have the right to terminate this Agreement by written notice, and be relieved of any further obligation under this Agreement and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due under this Agreement, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this Article shall survive termination of this Agreement.

Article 7. Insurance

For DER facilities with a nameplate capacity of 1 MVA or above, the interconnection customer shall carry sufficient insurance coverage so that the maximum comprehensive/general liability coverage that is continuously maintained by the interconnection customer during the term shall be not less than $2,000,000 for each occurrence, and an aggregate, if any, of at least $4,000,000. The EDC, its officers, employees and agents shall be added as an additional insured on this policy. The interconnection customer agrees to provide the EDC with at least 30 calendar days advance written notice of cancellation, reduction in limits, or non-renewal of any insurance policy required by this Article.

Article 8. Dispute Resolution

8.1 Parties shall attempt to resolve all disputes regarding interconnection as provided in this Article in a good faith manner.

8.2 If there is a dispute between the Parties about implementation or an interpretation of the Agreement, the aggrieved Party shall issue a written notice to the other Party to the agreement that specifies the dispute and the Agreement articles that are disputed.

8.3 A meeting between the Parties shall be held within 10 days after receipt of the written notice. Persons with decision-making authority from each Party shall attend the meeting. If the dispute involves technical issues, persons with sufficient technical expertise and familiarity with the issue in dispute from each Party shall also attend the meeting. The meeting may be conducted by teleconference. The informal process between the parties shall extend 30 days after the receipt of written notice, after which the dispute is deemed resolved and the timeframes for decisions within the interconnection process procedures described in Article 8.4 or files a formal complaint at the Commission prior to the end of the 30-day period.

8.4 If the parties are unable to resolve the dispute through the process outlined in Article 8.3, either party may submit the interconnection dispute to an Ombudsman for non-binding arbitration. The party electing non-binding arbitration shall notify the other party of the request in writing. The non-binding arbitration process is limited to 60 days, absent mutual agreement of the parties and the Ombudsman to a longer period.

8.5 Each party shall bear its own fees, costs and expenses and an equal share of the expenses of the non-binding arbitration.

8.6 Within 10 days after the conclusion of the procedures in Article 8.4, either party may initiate a formal complaint with the Commission and ask for an expedited resolution of the dispute. If the complaint seeks expedited resolution, any written recommendation of the Ombudsman shall be appended to the complaint. The formal complaint shall proceed as a contested hearing pursuant to the Commission's Rules of Practice.

8.7 A party may, after good faith negotiations have failed, decline to pursue non-binding arbitration and instead initiate a formal complaint with the Commission. The formal complaint shall proceed as a contested hearing pursuant to the Commission's Rules of Practice.

8.8 Pursuit of dispute resolution may not affect an interconnection request or an interconnection applicant's position in the EDC's interconnection queue.

8.9 If the Parties fail to resolve their dispute under the dispute resolution provisions of this Article, nothing in this Article shall affect any Party's rights to obtain equitable relief, including specific performance, as otherwise provided in this Agreement.

Article 9. Miscellaneous

9.1 Governing Law, Regulatory Authority, and Rules
The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the State of Illinois, without regard to its conflicts of law principles. This Agreement is subject to all applicable laws and regulations. Each Party expressly reserves the right to seek change in, appeal, or otherwise contest any laws, orders or regulations of a governmental authority. The language in all parts of this Agreement shall in all cases be construed as a whole, according to its fair meaning, and not strictly for or against the EDC or interconnection customer, regardless of the involvement of either Party in drafting this Agreement.

9.2 Amendment
Modification of this Agreement shall be only by a written instrument duly executed by both Parties.

9.3 No Third-Party Beneficiaries
This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations in this Agreement assumed are solely for the use and benefit of the Parties, their successors in interest and, where permitted, their assigns.

9.4 Waiver

9.4.1 Except as otherwise provided in this Agreement, a Party's compliance with any obligation, covenant, agreement, or condition in this Agreement may be waived by the Party entitled to the benefits thereof only by a written instrument signed by the Party granting the waiver, but the waiver or failure to insist upon strict compliance with the obligation, covenant, agreement, or condition shall not operate as a waiver of, or estoppel with respect to, any subsequent or other failure.

9.4.2. Failure of any Party to enforce or insist upon compliance with any of the terms or conditions of this Agreement, or to give notice or declare this Agreement or the

rights under this Agreement terminated, shall not constitute a waiver or relinquishment of any rights set out in this Agreement, but the same shall be and remain at all times in full force and effect, unless and only to the extent expressly set forth in a written document signed by that Party granting the waiver or relinquishing any such rights. Any waiver granted, or relinquishment of any right, by a Party shall not operate as a relinquishment of any other rights or a waiver of any other failure of the Party granted the waiver to comply with any obligation, covenant, agreement, or condition of this Agreement.

9.5 Entire Agreement

Except as provided in Article 9.1, this Agreement, including all attachments, constitutes the entire Agreement between the Parties with reference to the subject matter of this Agreement, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants that constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

9.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original, but all constitute one and the same instrument.

9.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties, or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

9.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other governmental authority, (1) that portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by the ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

9.9 Environmental Releases

Each Party shall notify the other Party of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the DER facility or the interconnection facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided that Party makes a good faith effort to provide the notice no later than 24 hours after that Party becomes aware of the occurrence, and (2) promptly furnish

to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

9.10 Subcontractors

Nothing in this Agreement shall prevent a Party from using the services of any subcontractor it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing services and each Party shall remain primarily liable to the other Party for the performance of the subcontractor.

9.10.1 A subcontract relationship does not relieve any Party of any of its obligations under this Agreement. The hiring Party remains responsible to the other Party for the acts or omissions of its subcontractor. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of the hiring Party.

9.10.2 The obligations under this Article cannot be limited in any way by any limitation of subcontractor's insurance.

Article 10. Notices

10.1 General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to Interconnection Customer:

Interconnection Customer: Nexamp Solar, LLC

Attention: Corneils Road Solar c/o Grid Integration Team

Address: 101 Summer Street, 2nd Floor

City: Boston State: Massachusetts Zip: 02110

Phone: 617-431-1440 Fax: E-Mail: interconnections@nexamp.com

If to EDC:

EDC: Commonwealth Edison Company

Attention: DER Interconnection

Address: 2 Lincoln Center

City: Oakbrook Terrace State: IL Zip: 60181

Phone: 630-576-8158 E-Mail: interconnect@comed.com

Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other Party and not required by this Agreement to be in writing may be given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out above.

10.2 Billing and Payment

Billings and payments shall be sent to the addresses set out below:

If to Interconnection Customer

Interconnection Customer: Nexamp Solar, LLC

Attention: Accounts Payable

Address: 101 Summer Street, 2nd Floor

City: Boston State: Massachusetts Zip: 02110

Phone 617-431-1440 Fax Email interconnections@nexamp.com

If to EDC:

EDC: Commonwealth Edison

Attention: DER Interconnection

Address: 2 Lincoln Center

City: Oakbrook Terrace State: IL Zip: 60181

Phone _____ Fax _____ E-Mail _____

10.3 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications that may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative: Nexamp Asset Management

Attention: Conrad St. Pierre and Jeff Patry

Address: 15 Union St, Suite 300

City: Lawrence State: MA Zip: 01840

Phone: 978-337-8939 Fax: _____ Email: cstpierre@nexamp.com

Phone 857-239-0057 Fax _____ E-Mail jpatry@nexamp.com

EDC's Operating Representative: Commonwealth Edison Company

Attention: Customer Operations

Address: ComEd - 2 Lincoln Center – Call Center

City: Oakbrook State: IL Zip: 60181

Phone 1-800-334-7661 Fax _____ E-Mail _____

10.4 Changes to the Notice Information

Either Party may change this notice information by giving five business days written notice before the effective date of the change.

Article 11. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

Project Name: 122612 Corneils Road Solar

For the Interconnection Customer:

Name: MRW Matthew R Walsh

Title: Vice Present of Business Development

Date: 11-27-23

For EDC:

Name: _____

Title: _____

Date: _____

Attachment 1

Definitions

Adverse system impact – A negative effect that compromises the safety or reliability of the electric distribution system or materially affects the quality of electric service provided by the electric distribution company (EDC) to other customers.

Applicable laws and regulations – All duly promulgated applicable federal, State and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any governmental authority, having jurisdiction over the Parties.

Commissioning test – Tests applied to a energy resources facility by the applicant after construction is completed to verify that the facility does not create adverse system impacts. At a minimum, the scope of the commissioning tests performed shall include the commissioning test specified by IEEE Standard 1547 Section 5.4 "Commissioning tests."

Distributed energy resources (DER) facility – The equipment used by an interconnection customer to generate or store electricity that operates in parallel with the electric distribution system. A DER facility typically includes an electric generator, prime mover, and the interconnection equipment required to safely interconnect with the electric distribution system or a local electric power system.

Distribution upgrades – A required addition or modification to the EDC's electric distribution system at or beyond the point of interconnection to accommodate the interconnection of a DER facility. Distribution upgrades do not include interconnection facilities.

Electric distribution company or EDC – Any electric utility entity subject to the jurisdiction of the Illinois Commerce Commission.

Electric distribution system – The facilities and equipment used to transmit electricity to ultimate usage points such as homes and industries from interchanges with higher voltage transmission networks that transport bulk power over longer distances. The voltage levels at which electric distribution systems operate differ among areas but generally carry less than 100 kilovolts of electricity. Electric distribution system has the same meaning as the term Area EPS, as defined in 3.1.6.1 of IEEE Standard 1547.

Facilities study – An engineering study conducted by the EDC to determine the required modifications to the EDC's electric distribution system, including the cost and the time required to build and install the modifications, as necessary to accommodate an interconnection request.

Force majeure event – Any act of God, labor disturbance, act of the public enemy, war, acts of terrorism, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment through no direct, indirect, or contributory act of a Party, any order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any

other cause beyond a Party's control. A force majeure event does not include an act of gross negligence or intentional wrongdoing.

Governmental authority – Any federal, State, local or other governmental regulatory or administrative agency, court, commission, department, board, other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that this term does not include the interconnection customer, EDC or any affiliate of either.

IEEE Standard 1547 – The Institute of Electrical and Electronics Engineers, Inc. (IEEE), 3 Park Avenue, New York NY 10016-5997, Standard 1547 (2003), "Standard for Interconnecting Distributed Resources with Electric Power Systems."

IEEE Standard 1547.1 – The IEEE Standard 1547.1 (2005), "Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems."

Illinois standard distributed energy resources Interconnection Rules – The most current version of the procedures for interconnecting distributed energy resources facilities adopted by the Illinois Commerce Commission. See 83 Ill. Adm. Code 466

Interconnection agreement or Agreement – The agreement between the interconnection customer and the EDC. The interconnection agreement governs the connection of the DER facility to the EDC's electric distribution system and the ongoing operation of the DER facility after it is connected to the EDC's electric distribution system.

Interconnection customer – The entity entering into this Agreement for the purpose of interconnecting a DER facility to the EDC's electric distribution system.

Interconnection equipment – A group of components or an integrated system connecting an electric generator with a local electric power system or an electric distribution system that includes all interface equipment, including switchgear, protective devices, inverters or other interface devices. Interconnection equipment may be installed as part of an integrated equipment package that includes a generator or other electric source.

Interconnection facilities – Facilities and equipment required by the EDC to accommodate the interconnection of a DER facility. Collectively, interconnection facilities include all facilities, and equipment between the DER facility and the point of interconnection, including modification, additions, or upgrades that are necessary to physically and electrically interconnect the DER facility to the electric distribution system. Interconnection facilities are sole use facilities and do not include distribution upgrades.

Interconnection request – An interconnection customer's request, on the required form, for the interconnection of a new DER facility, or to increase the capacity or change the operating

characteristics of an existing DER facility that is interconnected with the EDC's electric distribution system.

Interconnection study – Any of the following studies, as determined to be appropriate by the EDC: the interconnection feasibility study, the interconnection system impact study, and the interconnection facilities study.

Load customer – An EDC customer whose primary business classification is not the production of electricity.

Parallel operation or Parallel – The state of operation that occurs when a DER facility is connected electrically to the electric distribution system.

Point of interconnection – The point where the DER facility is electrically connected to the electric distribution system. Point of interconnection has the same meaning as the term "point of common coupling" defined in 3.1.13 of IEEE Standard 1547.

Witness test – For lab-certified equipment, verification (either by an on-site observation or review of documents) by the EDC that the interconnection installation evaluation required by IEEE Standard 1547 Section 5.3 and the commissioning test required by IEEE Standard 1547 Section 5.4 have been adequately performed. For interconnection equipment that has not been lab-certified, the witness test shall also include verification by the EDC of the on-site design tests required by IEEE Standard 1547 Section 5.1 and verification by the EDC of production tests required by IEEE Standard 1547 Section 5.2. All tests verified by the EDC are to be performed in accordance with the test procedures specified by IEEE Standard 1547.1.

Attachment 2

Construction Schedule, Proposed Equipment & Settings

This attachment is to be completed by the interconnection customer and shall include the following:

1. The construction schedule for the DER facility.

   The proposed construction schedule for the DER facility is identified in Attachment 3, Schedule for Customer Work.

2. A one-line diagram indicating the DER facility, interconnection equipment, interconnection facilities, metering equipment, and distribution upgrades.

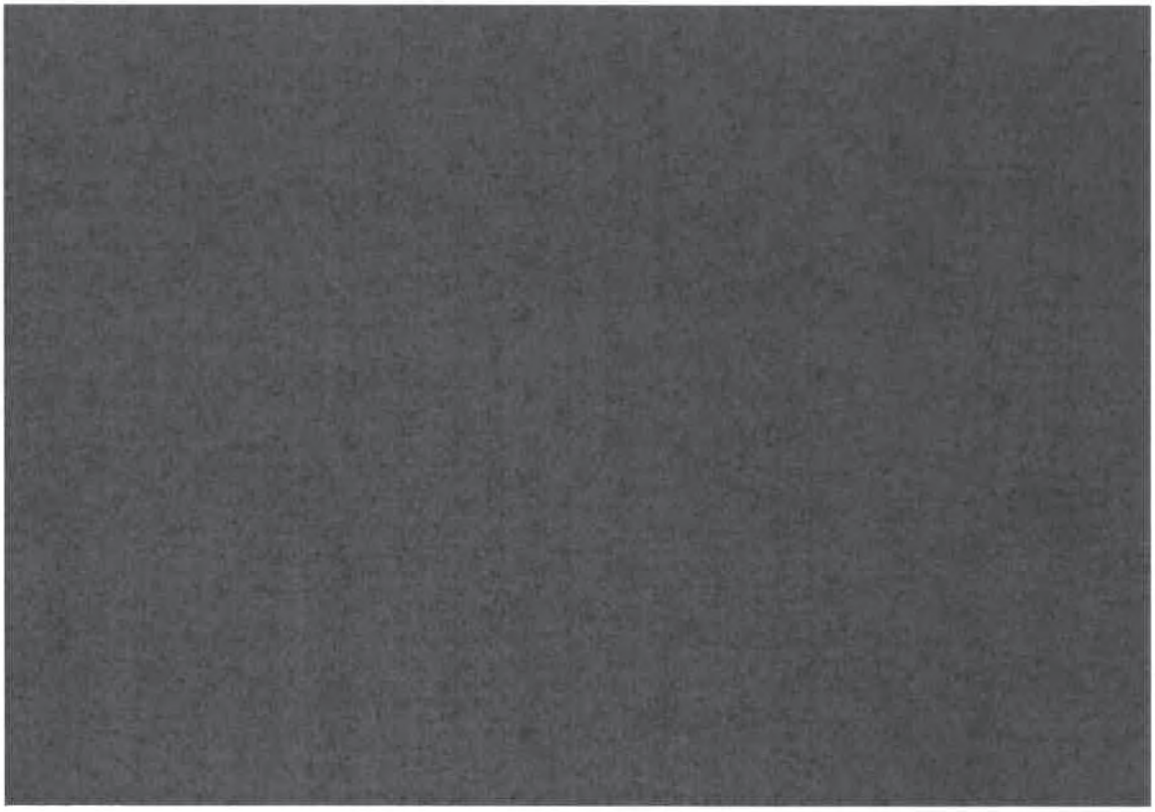
3. Component specifications for equipment identified in the one-line diagram.

4. Component settings.

5. Proposed sequence of operations.

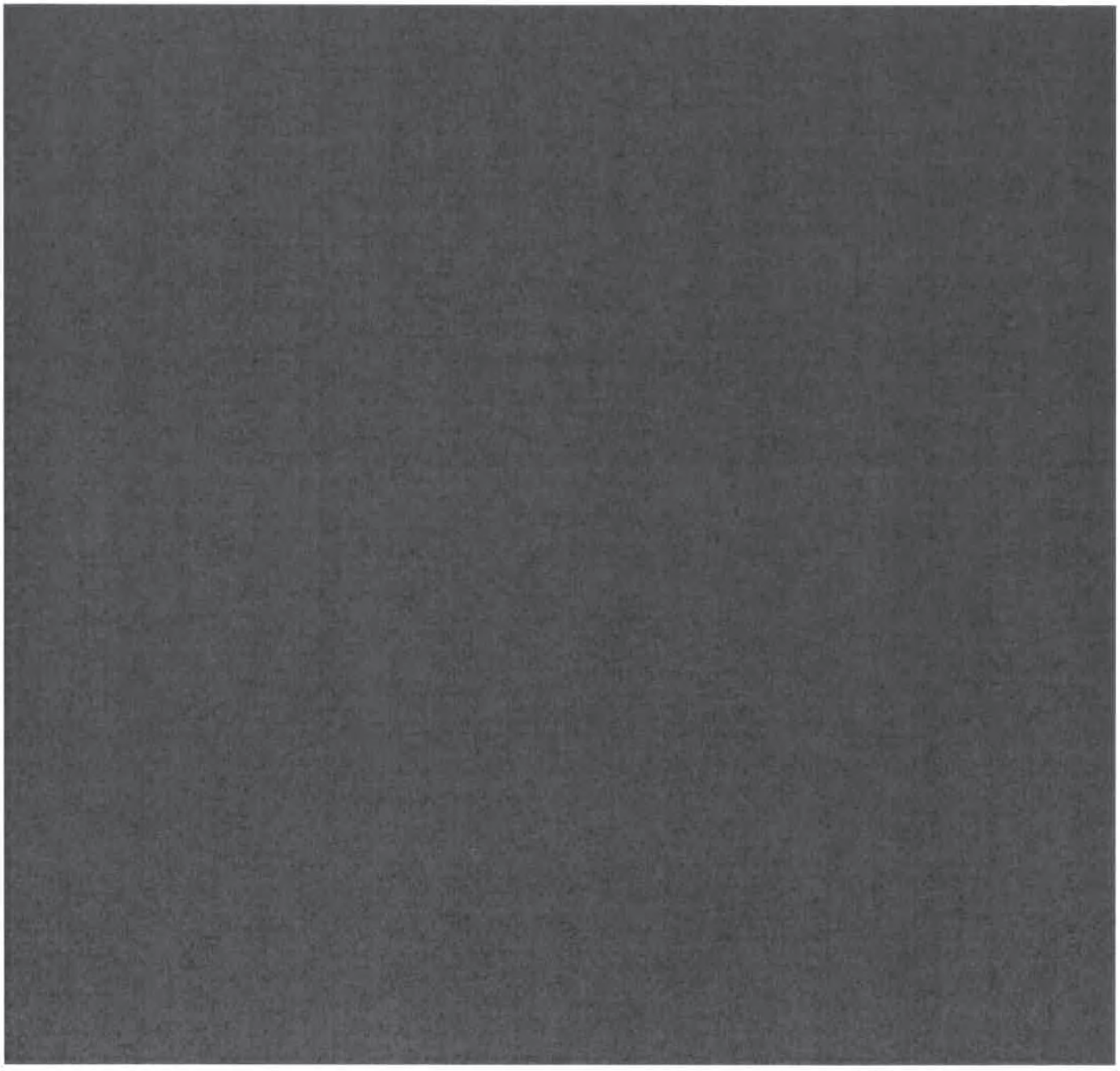
6. A three line diagram showing current potential circuits for protective relays.

7. Relay tripping and control schematic diagram.



Attachment 3

Description, Costs and Time Required to Build and Install the EDC's Interconnection Facilities



4. An estimate of itemized costs charged by the EDC for interconnection, including overheads, is provided below*.

Cost Summary	
Labor	[redacted]
Materials	
Indirects	
AIA	
Tax Gross Up	
Estimated Grand Total*	

**The scope of work and cost provided are intended to be an initial estimate based on information provided by the interconnection customer about its distributed generation system, and ComEd's engineering and design standards. The scope of work may be revised as location-specific conditions are identified during detailed design.*

5. An estimate for the time required to build and install the EDC's interconnection facilities based on results from prior studies and an estimate of the date upon which the facilities will be completed.

Schedule for EDC Work:

Project Authorization:	[redacted]
Deed, Plat of Survey and Demarcation Approval*:	
Project Design:	
Material Procurement:	
Construction – Feeder Tie-In:	
Constructions – Substations Modifications:	
Acceptance Testing:	

**Deed and plat of survey need to be provided within 1 month of Project Authorization to start a site walkdown. The demarcation drawing will be issued by the EDC after the site walkdown and needs to be approved by the customer.*

Project Number: [redacted] 4990kW

Schedule for Customer Work per Attachment 2, Step 1:

Schedule for Customer Work		
Milestone	Description	Schedule (on/before)
2.1	[redacted]	
2.1A		
2.2		
2.3		
2.4		
2.5		

**Construction date means customer has issued a notice to proceed to any contractor performing substantial work at the site AND physical activity has occurred at the site, such as grading, earthwork, equipment installation, or other civil works, signaling construction has begun.*
EDC/ComEd requires a schedule amendment to be reviewed for any change in milestone >90 calendar days.

6. Contingency Projects – Any contingencies noted: No

Other projects in the interconnection queue, upon which the scope, costs and schedule in Attachment 3 are contingent. This project may be required to include additional scope and costs to complete the EDC's interconnection facilities if a contingency project(s) withdraws from the interconnection queue.

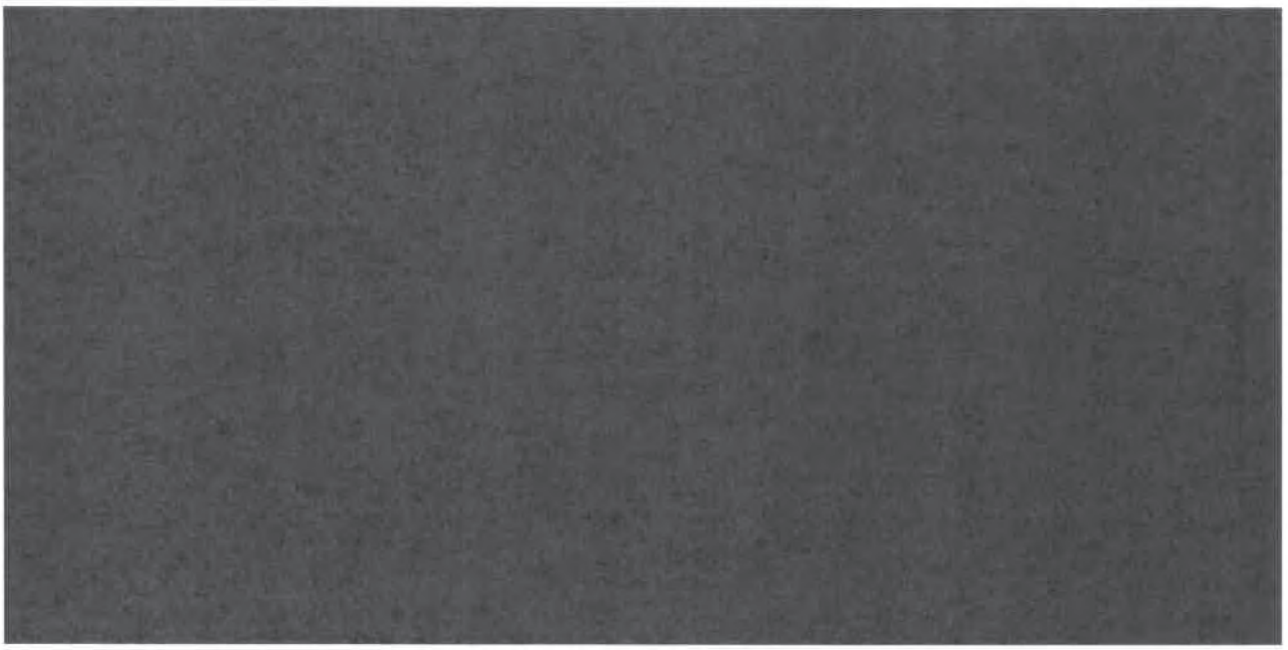
Attachment 4

Operating Requirements for Distributed Energy Resources Facilities Operating in Parallel

The EDC shall list specific operating practices that apply to this DER interconnection and the conditions under which each listed specific operating practice applies.

See Articles 1,7 Parallel Operation Obligations 1.9, Reactive Power, 1.10, Standards of Operation and as identified in the prior studies.

Any additional operational practices listed below:



5) All transformers require a high side protective operating device to operate under fault conditions.

6) ComEd Testing Group resources will be required to verify settings for required system protection prior to customer equipment being placed into service.

9) Customer will be responsible to purchase real estate or obtain the necessary right-of - way/ easements, to install the interconnection facilities.

Attachment 5

Monitoring and Control Requirements

This attachment is to be completed by the EDC and shall include the following:

1. The EDC's monitoring and control requirements must be specified, along with a reference to the EDC's written requirements documents from which these requirements are derived.

2. An internet link to the requirements documents.

3. The If applicable, a copy of any agreement between the interconnection customer and the EDC enabling the EDC to monitor and control the distributed energy resources facility in order to preserve distribution system reliability.

https://www.comed.com/MyAccount/MyService/Pages/DistributionLess10k.aspx

http://standards.ieee.org

Attachment 6

Metering Requirements

This attachment is to be completed by the EDC and shall include the following:

1. The metering requirements for the energy resources facility.

   The specific metering requirements and equipment will be specified as part of the Detailed Engineering.

2. Identification of the appropriate tariffs that establish these requirements.

3. An internet link to these tariffs.

https://www.comed.com/MyAccount/MyService/Pages/DistributionLess10k.aspx

https://www.comed.com/MyAccount/MyBillUsage/Pages/CurrentRatesTariffs.aspx

Attachment 7

As Built Documents

This attachment is to be completed by the interconnection customer and shall include the following:

When it returns the certificate of completion to the EDC, the interconnection customer shall provide the EDC with documents detailing the as-built status of the following:

1. A one-line diagram indicating the distributed energy resources facility, interconnection equipment, interconnection facilities, and metering equipment.

2. Component specifications for equipment identified in the one-line diagram.

3. Component settings.

4. Proposed sequence of operations.

5. A three-line diagram showing current potential circuits for protective relays.

6. Relay tripping and control schematic diagram.

Attachment 8
Other Provisions

The Parties agree to the following terms and conditions in connection with the distributed generation facility.

1.1 Nothing in this Agreement shall constitute an express or implied representation or warranty on the part of EDC with respect to the current or future availability of transmission service or create any obligation on the part of EDC to accept deliveries of energy unless the interconnection customer or a third party taking delivery of such energy has arranged for transmission service with PJM Interconnection LLC, or its successor in interest, the organization that operates the EDC's transmission system ("PJM") in accordance with the PJM tariff and applicable laws and regulations. EDC may charge for service over its electric distribution system to deliver energy or power from the distributed generation facility to or from the facilities controlled or operated by PJM that are used to provide transmission service pursuant to the PJM tariff.

1.2 This Agreement does not constitute an agreement to interconnect the interconnection customer to a PJM point of interconnection.

1.3 The interconnection customer shall not be allowed to construct any facilities or install any equipment which will be owned or operated by the EDC, without the prior written consent of the EDC, which consent may be conditioned on the Parties negotiating and agreeing upon provisions to govern such construction or installation.

1.4 Tax Status. Based on information provided by the interconnection customer, EDC will make the determination as to whether all costs and other amounts payable, and property to be transferred, by interconnection customer to EDC under this Agreement (collectively, the "Paid Amounts") satisfy the tax law provisions for non-taxable status, as referenced in this Section 1.4. For any amounts that EDC determines do not qualify for non-taxable status, the interconnection customer shall comply with this Section 1.4, including without limitation paying the applicable income tax gross-up as set forth herein.

1.4.1 Tax Status

A. To qualify for non-taxable treatment with respect to the Paid Amounts, the interconnection customer must meet all qualifications and requirements as set forth in the tax laws ("Non-Taxable Treatment"). The determination of whether the Paid Amounts qualify for Non-Taxable Treatment shall be made by EDC, based on the information furnished by interconnection customer to determine tax treatment under the relevant tax law provisions.

B. To the extent EDC reasonably determines that all or a portion of the Paid Amounts qualify for Non-Taxable Treatment, both Parties intend to treat such

amounts as non-taxable contributions from interconnection customer to EDC for federal and state income tax purposes. With respect to any such Paid Amounts, interconnection customer agrees to maintain Non-Taxable Treatment for such amounts, and interconnection customer shall remain subject to the terms of this Section 1.4, in any subsequent or interim agreement related to this Agreement. To the extent EDC determines that all or a portion of the Paid Amounts are taxable, interconnection customer agrees to pay the income tax gross-up amount referenced in this Section 1.4.

1.4.2 Tax Indemnity

For any amounts the Parties treat as non-taxable pursuant to Section 1.4.1, interconnection customer shall indemnify and hold harmless EDC for any costs or taxes, penalties, and interest that EDC incurs in the event that the IRS and/or a state taxing authority determines that the Paid Amounts are taxable income to EDC. In such an event, interconnection customer shall pay to EDC, on demand, the amount of any income taxes that the IRS or a state taxing authority assesses EDC in connection with the Paid Amounts, plus any applicable interest and/or penalties assessed EDC. In the event that EDC in its sole discretion chooses to contest such assessment and prevails in reducing or eliminating the tax, interest and/or penalties assessed against it, EDC shall refund to interconnection customer the excess of the amount paid to EDC pursuant to this Section 1.4 over the amount of the tax, interest and penalties for which EDC is finally determined to be liable. Interconnection customer's tax indemnification obligation under this section shall survive any termination of this Agreement or of any subsequent or interim agreement related to this Agreement.

1.4.3 Income Tax Gross-Up

A. In the event that interconnection customer does not establish to EDC's satisfaction within 15 days of the execution of this Agreement (the "Specified Date") that the Paid Amounts are or will be non-taxable, interconnection customer shall increase the amount of the Security Deposit to include any amounts described under this Section 1.4 regarding income tax gross-up.

B. The required increase in the Security Deposit shall equal the amount necessary to permit EDC to pay all applicable income taxes ("Current Taxes") on the amounts to be paid by interconnection customer under this Agreement after taking into account the present value of future tax deductions for depreciation that would be available as a result of the anticipated payments or property transfers (the "Present Value Depreciation Amount"), with respect to such amounts. For this purpose, Current Taxes shall be computed based on the composite federal and state income

tax rates applicable to EDC at the time the Security Deposit is increased, determined using the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting EDC's anticipated tax depreciation deductions associated with such payments or property transfers by its current weighted average cost of capital. EDC may draw on the Security Deposit on a quarterly basis based on the Paid Amounts received by EDC.

C. Interconnection customer must provide the increase in the Security Deposit, in a form and with terms as acceptable to EDC, within 15 days of the Specified Date unless EDC notifies interconnection customer otherwise. The requirement for the increase in the Security Deposit under this Paragraph shall be treated as a milestone for purposes of Attachment 3 of this Agreement.

D. Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect any entity's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

E. In the event, and to the extent, (i) EDC subsequently determines that amounts for which interconnection customer has paid EDC are non-taxable, and (ii) EDC successfully obtains a refund of federal and/or state income tax originally paid with respect to such amounts, EDC shall timely return such amounts to the interconnection customer. For purposes hereof, EDC may make such a determination in light of subsequent IRS guidance, or other relevant authority. In the event of a successful refund claim by EDC, EDC shall return the remaining Security Deposit attributable to this Section 1.4, but no more than it obtains from the relevant taxing authority, less any reasonable fees incurred to secure such tax refund, to interconnection customer.

1.5 If any of EDC's facilities, in addition to those described in Section 2.3, are or will be located on interconnection customer's property, EDC shall have access to such facilities at all times and when practical, the EDC shall provide notice to the interconnection customer prior to using its right of access. Upon EDC's completion of final, detailed engineering, if EDC identifies any facilities which will be located on interconnection customer's property and requests written property rights in order to have such access, the interconnection customer shall provide such rights.

1.6 Interconnection customer shall also be responsible for paying in full to EDC all approved FERC and ICC rates and charges applicable to interconnection customer's connection to and usage of the electric distribution system, if any.

1.7 Interconnection customer shall not disclose any information labeled "CEII" or "Critical Energy Infrastructure Information" or other information labeled "Confidential" obtained pursuant to or in connection with this Agreement to any third party without the express written consent of the EDC, provided that interconnection customer may produce such information in response to a subpoena, discovery request or other compulsory process issued by a judicial body or governmental agency upon reasonable notice to the interconnection customer.

1.8 Each of the Parties shall provide the other party access to areas under its control as reasonably necessary to permit the other Party to perform its obligations under this Agreement, including operation and maintenance obligations. A Party that obtains such access shall comply with all safety rules applicable to the area to which access is obtained. Each Party agrees to inform the other Party's representatives of safety rules applicable to an area.

1.9 Article 5.1.2 of the Interconnection Agreement shall be modified as followed;

The parties agree Article 5 Section 1.2 is stricken in its entirety and replaced with, "Within 120 calendar days after completing the construction and installation of the EDC's interconnection facilities and distribution upgrades described in Attachments 2 and 3 to this Agreement, the EDC shall provide the interconnection customer with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation of the EDC's interconnection facilities and distribution upgrades; and (2) the interconnection customer's previous deposit and aggregate payments to the EDC for the interconnection facilities and distribution upgrades. If the interconnection customer's cost responsibility exceeds its previous deposit and aggregate payments, the EDC shall invoice the interconnection customer for the amount due and the interconnection customer shall make payment to the EDC within 30 calendar days. If the interconnection customer's previous deposit and aggregate payments exceed its cost responsibility under this Agreement, the EDC shall refund to the interconnection customer an amount equal to the difference within 30 calendar days after the final accounting report. Upon request from the interconnection customer, if the difference between the budget estimate and the actual cost exceeds 20%, the EDC will provide a written explanation for the difference."

CABLE SCHEDULE

CIRCUIT ID	VOLTAGE RATING	CONDUCTOR QUANTITY, SIZE AND MATERIAL	WIRE TYPE	QUANTITY OF CONDUITS	SIZE OF CONDUITS	CONDUIT TYPE	NOTES
A	35kV	(1) #1/0 AWG AL	COVERED ACSR	--	--	--	
A1	35kV	(1) #1/0 AWG AL	COVERED ACSR	--	--	--	
B	35kV	(3) #1/0 AWG AL JACKETED CONCENTRIC CONDUCTOR (DIRECT BURIAL)	MV-105	1	5"	PVC	EPR/133%
C	35kV	(1) #1/0 AWG AL	MV-105	1	2"	PVC	EPR/133%
D	--	FLEXIBLE BUSBAR CONNECTION	--	--	--	--	--
E	600V	(6) #1/0 AWG	XHHW-2				
F	600V	(2) #10 AWG, (1) #10 AWG N, (1) #10 AWG G	XHHW-2	1	1"	PVC	
F1	600V	(2) #10 AWG, (1) #10 AWG G	XHHW-2	1	1.5"	PVC	
G	--	(1) CAT5	--	1	1.5"	PVC	
H	--	(1) RS-485	--	1	1.5"	PVC	
I	600V	(2) #10 AWG AL, (1) #10 AWG N, (1) #10 AWG G	XHHW-2	1	1"	PVC	
J	600V	(1) #10 AWG, (1) #10 AWG W, (1) #10 AWG G	XHHW-2	1	1"	PVC	
J1	--	TAVRIDA UMBRICAL CABLE TENA.9956.34.000-02	--	--	--	--	
K	600V	(1) ATI CONTROL CABLE - PN 5000-4600	XHHW-2	1	1.5"	PVC	
K1	-	-	-	-	1"	PVC	SPARE***
K2	-	-	-	-	4"	PVC	SPARE***
K3	-	-	-	-	2"	PVC	SPARE***
L	600V	(3) #8 AWG, (1) #8 AWG G	XHHW-2	-	-	CAB	
M	600V	(3) #1 AWG AL, (1) #8 AWG AL G	XHHW-2	1	1.5"	PVC	
M**	600V	(2) #8 AWG, (1) #8 AWG G	XHHW-2	1	1"	PVC	
O	600V	(2) #12 AWG CONDUCTOR FOR 24VDC FAST STOP MONITORING	THWN-2	1	1"	PVC	
P	600V	(3) #12 AWG CONDUCTOR FOR 24VDC FAST STOP TRIGGER	THWN-2	1	1"	PVC	
Q	-	FIBER	-	1	1.5"	PVC	
R	600V	(3) 300 KCMIL AL, (1) 3/0 AWG AL N, (1) #1 AWG AL G	XHHW-2	1	3"	PVC	

*ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.
** TRANSITIONS BETWEEN PVC AND CAB SYSTEM
*** SPARE CONDUITS TO EXTEND 10' BEYOND THE EDGE OF THE PAD

INVERTER PROTECTION SETTINGS

INVERTER PROTECTIVE FUNCTIONS	VOLTAGE SETTING PU	FREQUENCY SETTING HZ	TOTAL CLEARING CYC/SEC
27 - FAST UNDERVOLTAGE	300 (50%)	-	60 (1.1)
27 - UNDERVOLTAGE	420 (70%)	-	660 (11)
27 - UNDERVOLTAGE	538 (88%)	-	1200 (21)
59P1 - FAST OVERVOLTAGE	660 (110%)	-	780 (13)
59P2 - OVERVOLTAGE	720 (120%)	-	9.6 (0.16)
81U/P1 - UNDERFREQUENCY		57.0	9.6 (0.16)
81U/P2 - UNDERFREQUENCY		56.5	10000 (300)
81O/P1 - OVERFREQUENCY	-	60.5	10000 (300)
81O/P2 - OVERFREQUENCY		62.0	9.6 (0.16)

1. ALL VOLTAGE VALUES ARE L-G, AS DELTA CONFIGURATION IS IMPLEMENTED
2. SETTINGS ARE BASED ON NPCC DIRECTIVE 12 FIGURE 1 CURVE

PROTECTIVE RELAY SETTINGS

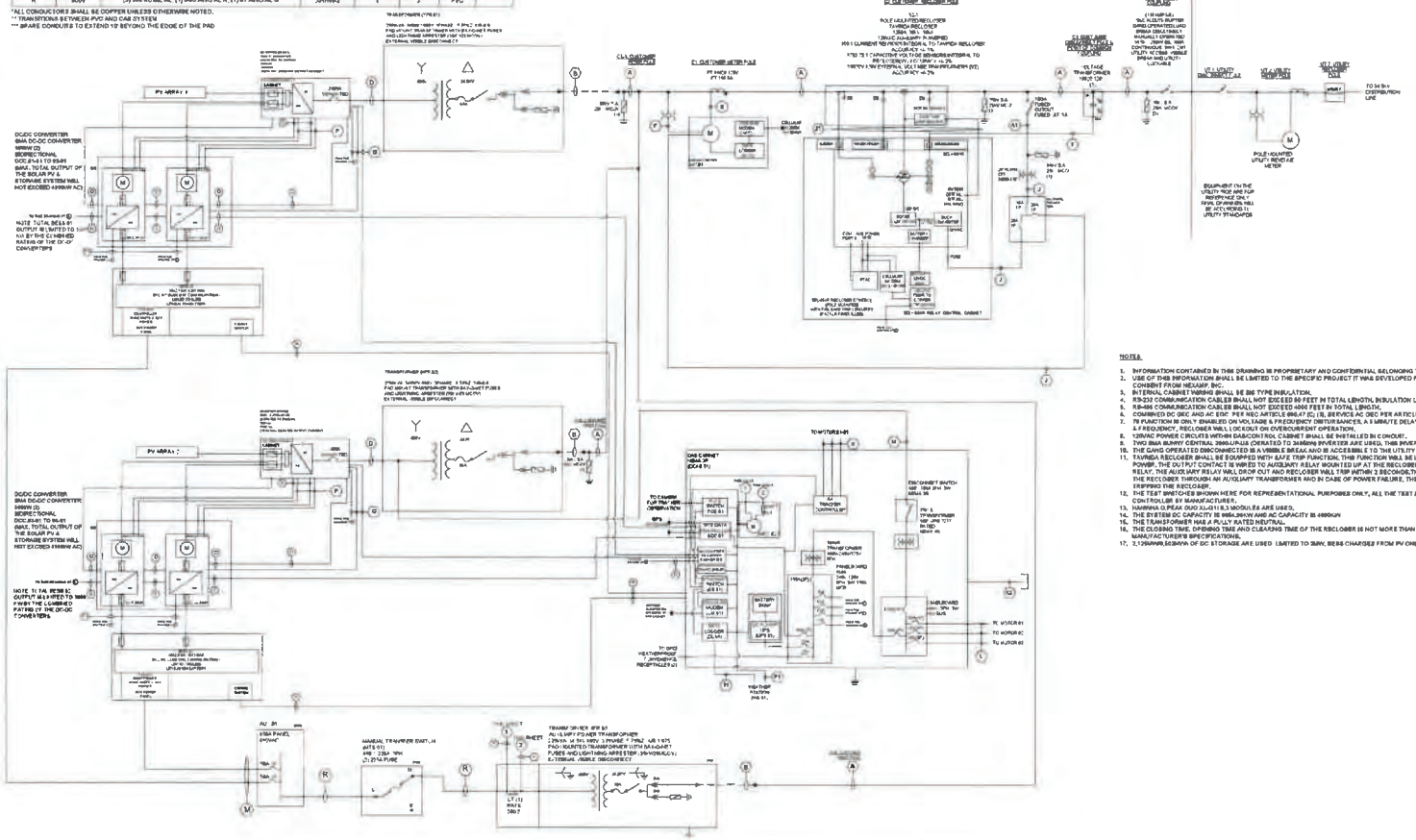
IEEE-ANSI PROTECTIVE FUNCTIONS	TRIP OUTPUT	VOLTAGE SETTING SEC (PRI) (PU)	FREQUENCY SETTING HZ	TOTAL CLEARING TIME CYC/SEC	CURRENT SETTING SEC (PRI)
27P1 - FAST UNDERVOLTAGE	X	60(9600.3)(50%)		60 / 1.1	-
27P2 - UNDERVOLTAGE	X	105.6(17630.4)(88%)		120 / 2	-
59P1 - OVERVOLTAGE	X	132(21910.4)(110%)		120 / 2	-
59P2 - OVERVOLTAGE	X	144(23903.3)(120%)	-	9.6 / 0.16	-
59N - NEUTRAL VOLTAGE DISPLACEMENT	X	12(1991.9)(10%)	-	120 / 2	
81U/P1 - UNDERFREQUENCY	X	-	56.5	9.6 / 0.16	-
81U/P2 - UNDERFREQUENCY	X	-	58.5	10000 / 300	-
81O/P1 - OVERFREQUENCY	X	-	61.2	10000 / 300	
81O/P2 - OVERFREQUENCY	X	-	62.0	9.6 / 0.16	
51 - PHASE OVERCURRENT	X	-	-	CURVE U4 T.D. 1.8	1.26A/105A
51G - GROUND OVERCURRENT	X	-	-	CURVE U4 T.D. 1.8	0.41A (41.5A)
79 - RECLOSER	X	114(9507.7)(95%, 114*1.73=197.2 L-L)(95 %)	59.3 - 60.5	10000 (300)	SEE NOTE 7
ALARM	X			<1.00	-

1. ALL VOLTAGE SETTING VALUES ARE L-G AS GROUNDED WYE CONFIGURATION IS IMPLEMENTED
2. CLEARING TIME INCLUDES THE DELAY TIME AND THE FAULT CLEARING TIME (3 CYC / 0.06SEC).

ONE LINE DIAGRAM LEGEND

- kWh METER
- kW INVERTER
- POTENTIAL TRANSFORMER
- CURRENT TRANSFORMER
- TRANSFER TRIP
- CIRCUIT BREAKER
- CABLE TERMINATION
- R RECLOSER
- FUSE
- REMOVABLE CONNECTOR
- SURGE ARRESTER
- FUSED CUT OUT
- GANG OPERATED DISCONNECT
- POWER TRANSFORMER
- SOLID BLADE DISCONNECTS

OWNER COMED



NOTES:

1. INFORMATION CONTAINED IN THIS DRAWING IS PROPRIETARY AND CONFIDENTIAL BELONGING TO NEXAMP, INC. OF BOSTON MA.
2. USE OF THIS INFORMATION SHALL BE LIMITED TO THE SPECIFIC PROJECT IT WAS DEVELOPED FOR AND SHALL NOT BE S REPRODUCED WITHOUT CONSENT FROM NEXAMP, INC.
3. INTERNAL CABINET WIRING SHALL BE 90C TYPE INSULATION.
4. RS-232 COMMUNICATION CABLES SHALL NOT EXCEED 50 FEET IN TOTAL LENGTH, INSULATION LEVEL SHALL BE 600V.
5. RS-485 COMMUNICATION CABLES SHALL NOT EXCEED 4000 FEET IN TOTAL LENGTH.
6. COMBINED DC OCC AND AC EOC PER NEC ARTICLE 690.47 (C; 1), SERVICES AC OCC PER ARTICLE 240.12).
7. TS FUNCTION IS ONLY ENABLED ON VOLTAGE & FREQUENCY DISTURBANCES, A 5 MINUTE DELAY WILL BE SET FOR RECLOSING UPON GOOD VOLTAGE & FREQUENCY, RECLOSER WILL LOCKOUT ON OVERCURRENT OPERATION.
8. 120VAC POWER CIRCUITS WITHIN SUBCONTROL CABINET SHALL BE INSTALLED IN CONDUIT.
9. TWO SMA SUNNY CENTRAL 2660-US-US (DERATED TO 2660KW) INVERTER ARE USED. THIS INVERTER IS UL LISTED 1741 AND IEEE 1547 COMPLIANT.
10. THE GANG OPERATED DISCONNECTED IS A VISIBLE BREAK AND IS ACCESSIBLE TO THE UTILITY 24/7.
11. THE RECLOSER SHALL BE EQUIPPED WITH SAFE TRIP FUNCTION, THIS FUNCTION WILL BE USED TO TRIP THE RECLOSER ON LOSS OF DC POWER. THE OUTPUT CONTACT IS WIRED TO AUXILIARY RELAY MOUNTED UP AT THE RECLOSER BY MANUFACTURER UPON LOSS OF POWER TO THE RELAY, THE AUXILIARY RELAY WILL DROP OUT AND RECLOSER WILL TRIP WITHIN 2 SECONDS.THE BATTERY IS CHARGED FROM THE UTILITY SIDE OF THE RECLOSER THROUGH AN AUXILIARY TRANSFORMER AND IN CASE OF POWER FAILURE, THE BATTERY POWER WILL BE RESPONSIBLE FOR TRIPPING THE RECLOSER.
12. THE TEST SWITCHES SHOWN HERE FOR REPRESENTATIONAL PURPOSES ONLY, ALL THE TEST SWITCHES WILL BE HARDWIRED INTO THE RECLOSER CONTROLLER BY MANUFACTURER.
13. HANWHA Q.PEAK DUO XL-G11.3 MODULES ARE USED.
14. THE SYSTEM DC CAPACITY IS 9954.2KWDC AND AC CAPACITY IS 5999KW
15. THE TRANSFORMER HAS A FULLY RATED NEUTRAL.
16. THE CLOSING TIME, OPENING TIME AND CLEARING TIME OF THE RECLOSER IS NOT MORE THAN 77ms, 43ms AND 61ms RESPECTIVELY PER MANUFACTURER'S SPECIFICATIONS.
17. 2,125kWh/5.83kWh OF DC STORAGE ARE USED LIMITED TO 3MW, BESS CHARGED FROM PV ONLY.

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Rev	Issued For	Date Issued
A	Interconnection Application	07/03/2023

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Project: 122612 Comells Road - Storage Addition
100791 Comells Road, Plano, IL 60545-9777 (41.6925, -88.4640)

Drawing Title: AC Electrical Diagram
Drawn by: J. Abdulkadim Scale: N.T.S. Approved by: Indu Nekkalapu

Drwg No	Size	Sheet Rev
E-602	D	A

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Efficient

- Up to 4 inverters can be transported in one standard shipping container
- Overdimensioning up to 150% is possible
- Full power at ambient temperatures of up to 35°C

Robust

- Intelligent air cooling system OptiCool for efficient cooling
- Suitable for outdoor use in all climatic ambient conditions worldwide

Flexible

- One device for all applications
- PV application, optionally available with DC-coupled storage system

Easy to Use

- Improved DC connection area
- Connection area for customer equipment
- Integrated voltage support for internal and external loads

SUNNY CENTRAL UP

The new Sunny Central: more power per cubic meter

With an output of up to 3067 kVA and system voltages of 1500 V DC, the SMA central inverter allows for more efficient system design and a reduction in specific costs for PV and battery power plants. A separate voltage supply and additional space are available for the installation of customer equipment. True 1500 V technology and the intelligent cooling system OptiCool ensure smooth operation even in extreme ambient temperature as well as a long service life of 25 years.

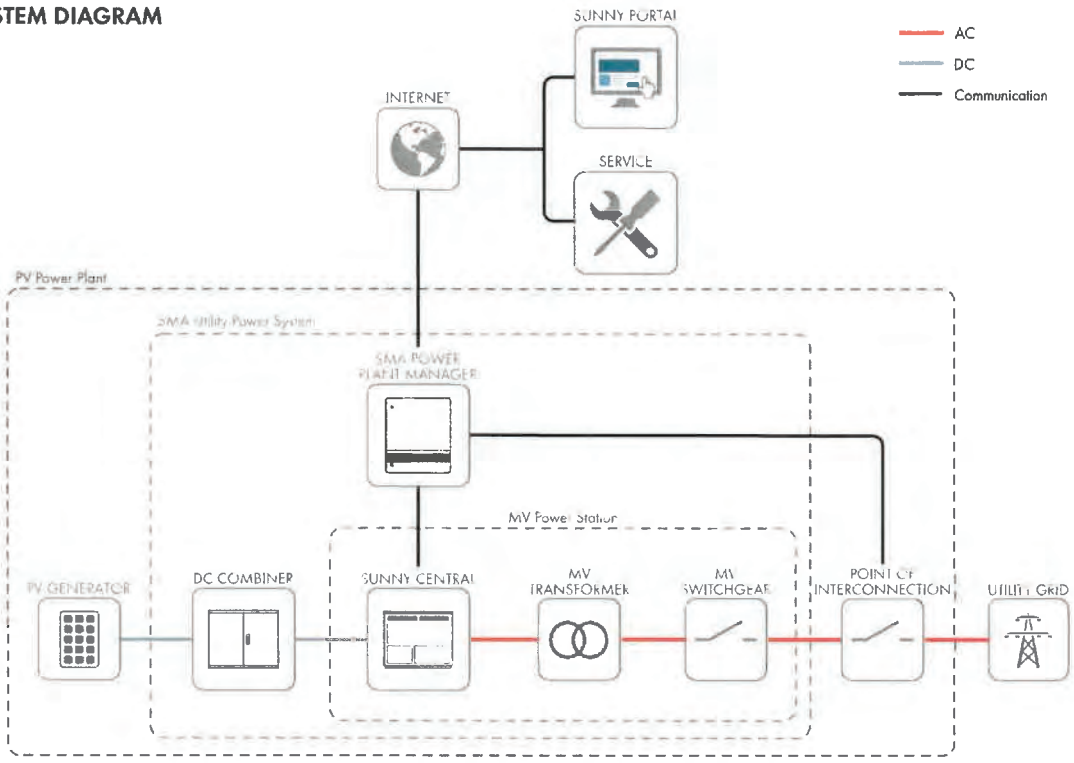
SUNNY CENTRAL UP

Technical Data	Sunny Central 2660 UP	Sunny Central 2800 UP
DC side		
MPP voltage range V_{DC} (at 35 °C / at 50 °C)	880 V to 1325 V / 1100 V	921 V to 1325 V / 1100 V
Min. DC voltage $V_{DC, min}$ / Start voltage $V_{DC, Start}$	849 V / 1030 V	891 V / 1071 V
Max. DC voltage $V_{DC, max}$	1500 V	1500 V
Max. DC current $I_{DC, max}$ / with DC coupling	3200 A / 4800 A	3200 A / 4800 A
Max. short-circuit current $I_{DC, SC}$	8400 A	8400 A
Number of DC inputs	Busbar with 26 connections per terminal, 24 double pole fused (32 single pole fused)	
Number of DC inputs with optional DC battery coupling	18 double pole fused (36 single pole fused) for PV and 6 double pole fused for batteries	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil, 2 x 400 mm²	
Integrated zone monitoring	o	
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	
Available battery fuse size (per input)	750 A	
AC side		
Nominal AC power at cos φ =1 (at 35°C / at 50°C)	2667 kVA / 2400 kVA	2800 kVA / 2520 kVA
Nominal AC active power at cos φ =0.8 (at 35°C / at 50°C)	2134 kW / 1920 kW	2240 kW / 2016 kW
Nominal AC current $I_{AC, nom}$ (at 35°C / at 50°C)	2566 A / 2309 A	2566 A / 2309 A
Max. total harmonic distortion	< 3% at nominal power	< 3% at nominal power
Nominal AC voltage / nominal AC voltage range[1) 8)]	600 V / 480 V to 720 V	630 V / 504 V to 756 V
AC power frequency / range	50 Hz / 47 Hz to 53 Hz 60 Hz / 57 Hz to 63 Hz	
Min. short-circuit ratio at the AC terminals[9)]	> 2	
Power factor at rated power / displacement power factor adjustable[8) 10)]	1 / 0.8 overexcited to 0.8 underexcited	
Efficiency		
Max. efficiency[2)] / European efficiency[2)] / CEC efficiency[3)]	98.7%* / 98.6%* / 98.5%*	98.7%* / 98.6%* / 98.5%*
Protective Devices		
Input-side disconnection point	DC load break switch	
Output-side disconnection point	AC circuit breaker	
DC overvoltage protection	Surge arrester, type I & II	
AC overvoltage protection (optional)	Surge arrester, class I & II	
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	
Ground-fault monitoring / remote ground-fault monitoring	o / o	
Insulation monitoring	o	
Degree of protection: electronics / air duct / connection area (as per IEC 60529)	IP54 / IP34 / IP34	
General Data		
Dimensions (W / H / D)	2815 / 2318 / 1588 mm (110.8 / 91.3 / 62.5 inch)	
Weight	< 3400 kg / < 7500 lb	
Self-consumption (max.[4)] / partial load[5)] / average[6)])	< 8100 W / < 1800 W / < 2000 W	
Self-consumption (standby)	< 370 W	
Internal auxiliary power supply	o Integrated 8.4 kVA transformer	
Operating temperature range[6)]	−25°C to 60°C / −13°F to 140°F	
Noise emission[7)]	67.0 dB(A)*	
Temperature range (standby)	−40°C to 60°C / −40°F to 140°F	
Temperature range (storage)	−40°C to 70°C / −40°F to 158°F	
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 month/year) / 0% to 95%	
Maximum operating altitude above MSL[8)] 1000 m / 2000 m[11)] / 3000 m[11)]	● / o / o	● / o / –
Fresh air consumption	6500 m³/h	
Features		
DC connection	Terminal lug on each input (without fuse)	
AC connection	With busbar system (three busbars, one per line conductor)	
Communication	Ethernet, Modbus Master, Modbus Slave	
Enclosure / roof color	RAL 9016 / RAL 7004	
Supply for external loads	o (2.5 kVA)	
Standards and directives complied with	CE, IEC / EN 62109-1, IEC / EN 62109-2, AR-N 4110, IEEE1547, UL 840 Cat. IV, Arrêté du 23/04/08	
EMC standards	IEC 55011, FCC Part 15 Class A	
Quality standards and directives complied with	VDI/VDE 2862 page 2, DIN EN ISO 9001	
● Standard features o Optional – not available * preliminary		
Type designation	SC 2660 UP	SC 2800 UP

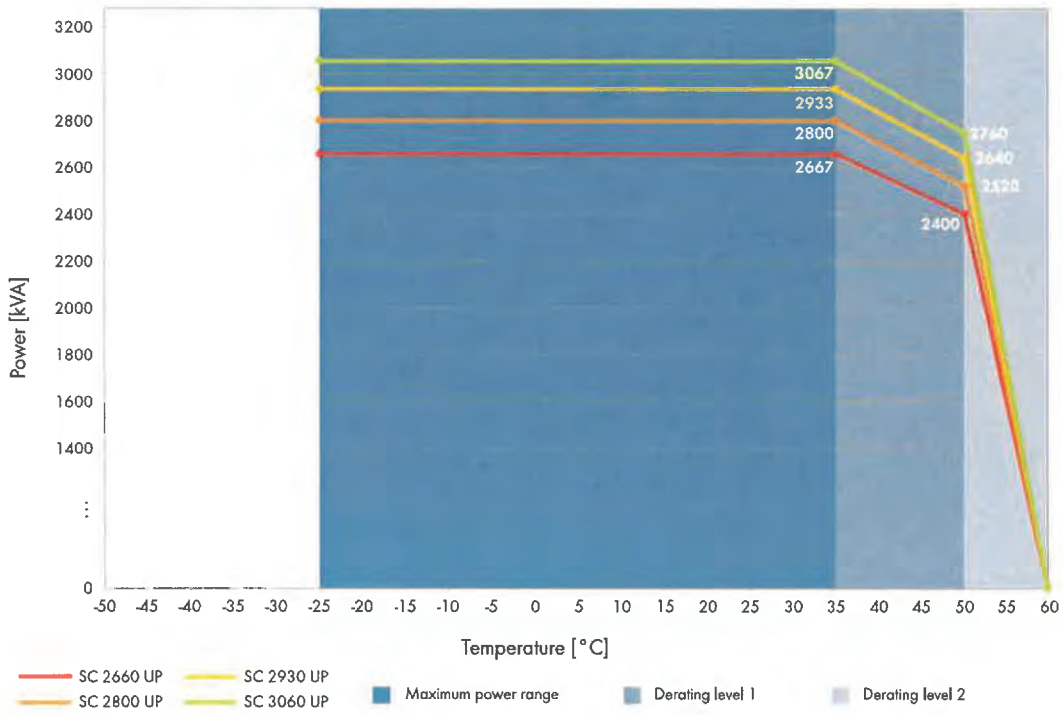
1) At nominal AC voltage, nominal AC power decreases in the same proportion
2) Efficiency measured without internal power supply
3) Efficiency measured with internal power supply
4) Self-consumption at rated operation
5) Self-consumption at < 75% Pn at 25 °C
6) Self-consumption averaged out from 5% to 100% Pn at 25 °C
7) Sound pressure level at a distance of 10 m
8) Values apply only to inverters. Permissible values for SMA MV solutions from SMA can be found in the corresponding data sheets.
9) A short-circuit ratio of < 2 requires a special approval from SMA
10) Depending on the DC voltage
11) Earlier temperature-dependent de-rating and reduction of DC open-circuit voltage

Technical Data	Sunny Central 2930 UP	Sunny Central 3060 UP
DC side		
MPP voltage range V_{DC} (at 35 °C / at 50 °C)	962 V to 1325 V / 1100 V	1003 V to 1325 V / 1100 V
Min. DC voltage $V_{DC, min}$ / Start voltage $V_{DC, Start}$	934 V / 1112 V	976 V / 1153 V
Max. DC voltage $V_{DC, max}$	1500 V	1500 V
Max. DC current $I_{DC, max}$ / with DC coupling	3200 A / 4800 A	3200 A / 4800 A
Max. short-circuit current $I_{DC, SC}$	8400 A	8400 A
Number of DC inputs	Busbar with 26 connections per terminal, 24 double pole fused (32 single pole fused)	
Number of DC inputs with optional DC battery coupling	18 double pole fused (36 single pole fused) for PV and 6 double pole fused for batteries	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil, 2 x 400 mm²	
Integrated zone monitoring	○	
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	
Available battery fuse size (per input)	750 A	
AC side		
Nominal AC power at cos φ =1 (at 35 °C / at 50 °C)	2933 kVA / 2640 kVA	3067 kVA / 2760 kVA
Nominal AC active power at cos φ =0.8 (at 35 °C / at 50 °C)	2346 kW / 2112 kW	2454 kW / 2208 kW
Nominal AC current $I_{AC, nom}$ (at 35 °C / at 50 °C)	2566 A / 2309 A	2566 A / 2309 A
Max. total harmonic distortion	< 3% at nominal power	< 3% at nominal power
Nominal AC voltage / nominal AC voltage range[1) 8)]	660 V / 528 V to 759 V	690 V / 552 V to 759 V
AC power frequency / range	50 Hz / 47 Hz to 53 Hz 60 Hz / 57 Hz to 63 Hz	
Min. short-circuit ratio at the AC terminals[9)]	> 2	
Power factor at rated power / displacement power factor adjustable[8) 10)]	● 1 / 0.8 overexcited to 0.8 underexcited	
Efficiency		
Max. efficiency[2)] / European efficiency[2)] / CEC efficiency[3)]	98.7%* / 98.6%* / 98.5%	98.7%* / 98.6%* / 98.5%*
Protective Devices		
Input-side disconnection point	DC load break switch	
Output-side disconnection point	AC circuit breaker	
DC overvoltage protection	Surge arrester, type I & II	
AC overvoltage protection (optional)	Surge arrester, class I & II	
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	
Ground-fault monitoring / remote ground-fault monitoring	○ / ○	
Insulation monitoring	○	
Degree of protection: electronics / air duct / connection area (as per IEC 60529)	IP54 / IP34 / IP34	
General Data		
Dimensions (W / H / D)	2815 / 2318 / 1588 mm (110.8 / 91.3 / 62.5 inch)	
Weight	< 3400 kg / < 7500 lb	
Self-consumption (max.[4)] / partial load[5)] / average[6)])	< 8100 W / < 1800 W / < 2000 W	
Self-consumption (standby)	< 370 W	
Internal auxiliary power supply	○ Integrated 8.4 kVA transformer	
Operating temperature range[8)]	−25 °C to 60 °C / −13 °F to 140 °F	
Noise emission[7)]	67.0 dB(A)*	
Temperature range (standby)	−40 °C to 60 °C / −40 °F to 140 °F	
Temperature range (storage)	−40 °C to 70 °C / −40 °F to 158 °F	
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 month/year) / 0% to 95%	
Maximum operating altitude above MSL[8)] 1000 m / 2000 m[11)] / 3000 m[11)]	● / ○ / –	
Fresh air consumption	6500 m³/h	
Features		
DC connection	Terminal lug on each input (without fuse)	
AC connection	With busbar system (three busbars, one per line conductor)	
Communication	Ethernet, Modbus Master, Modbus Slave	
Enclosure / roof color	RAL 9016 / RAL 7004	
Supply for external loads	○ (2.5 kVA)	
Standards and directives complied with	CE, IEC / EN 62109-1, IEC / EN 62109-2, AR-N 4110, IEEE1547, UL 840 Cat. IV, Arrêté du 23/04/08	
EMC standards	IEC 55011, FCC Part 15 Class A	
Quality standards and directives complied with	VDI/VDE 2862 page 2, DIN EN ISO 9001	
● Standard features ○ Optional – not available * preliminary		
Type designation	SC 2930 UP	SC 3060 UP

SYSTEM DIAGRAM



TEMPERATURE BEHAVIOR (at 1000 m)



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powered by Q.ANTUM DUO Z

Q.PEAK DUO XL-G11.3 / BFG
570-585

BIFACIAL DOUBLE GLASS MODULE
WITH EXCELLENT RELIABILITY
AND ADDITIONAL YIELD

EUPD RESEARCH TOP BRAND PV MODULES EUROPE 2021

Q CELLS

BIFACIAL ENERGY YIELD GAIN OF UP TO 20 %
Bifacial Q.ANTUM solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.

LOW ELECTRICITY GENERATION COSTS
Q.ANTUM DUO Z combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology for higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 21.5%.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti LID and Anti PID Technology[1], Hot-Spot Protect and Traceable Quality Tra.Q™.

FRAME FOR VERSATILE MOUNTING OPTIONS
High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (2400 Pa).

A RELIABLE INVESTMENT
Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty[2].

[1] APT test conditions according to IEC / TS 62804-1:2015 method B (–1500 V, 168 h) including post treatment according to IEC 61215-1-1 Ed. 2.0 (CD)
[2] See data sheet on rear for further information.

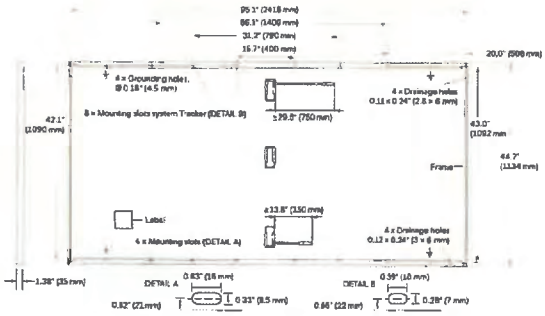
THE IDEAL SOLUTION FOR:
Ground-mounted solar power plants

Engineered in Germany

Q CELLS

MECHANICAL SPECIFICATION

Format	95.1 in × 44.7 in × 1.38 in (including frame) (2416 mm × 1134 mm × 35 mm)
Weight	75.8 lbs (34.4 kg)
Front Cover	0.08 in (2.0 mm) thermally pre-stressed glass with anti-reflection technology
	0.08 in (2.0 mm) semi-tempered glass
Frame	Anodized aluminum
Cell	6 × 26 monocrystalline Q.ANTUM solar half cells
on Box	2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 29.5 in (750 mm), (–) > 13.8 in (350 mm)
	Stäubli MC4-Evo2, Hanwha Q CELLS HQC4, IP68



ELECTRICAL CHARACTERISTICS

POWER CLASS				570		575		580		585	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] AND BSTC[2] (POWER TOLERANCE +5 W / –0 W)					BSTC[2]		BSTC[2]		BSTC[2]		BSTC[2]
Minimum	Power at MPP[3]	P_{MPP}	[W]	570	623.5	575	629.0	580	634.4	585	639.9
	Short Circuit Current[3]	I_{SC}	[A]	13.50	14.77	13.52	14.80	13.55	14.83	13.57	14.86
	Open Circuit Voltage[3]	V_{OC}	[V]	53.50	53.69	53.53	53.72	53.56	53.75	53.59	53.78
	Current at MPP	I_{MPP}	[A]	12.83	14.03	12.87	14.09	12.92	14.14	12.97	14.19
	Voltage at MPP	V_{MPP}	[V]	44.44	44.43	44.66	44.65	44.88	44.87	45.10	45.09
	Efficiency[3]	η	[%]	≥ 20.8	≥ 22.8	≥ 21.0	≥ 23.0	≥ 21.2	≥ 23.2	≥ 21.4	≥ 23.4

Bifaciality of P_{MPP} and I_{SC} 70% ±5% • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2

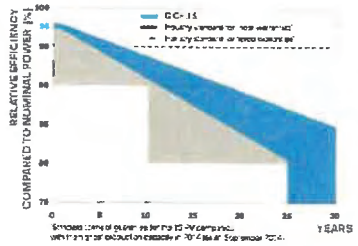
[1] Measurement tolerances P_{MPP} ±3%; I_{SC}, V_{OC} ±5% at STC: 1000 W/m², 25±2 °C, AM 1.5 according to IEC 60904-3

[2] at BSTC: 1000 W/m² + φ × 135 W/m², φ = 70% ±5%, 25±2 °C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT[4]							
Minimum	Power at MPP	P_{MPP}	[W]	429.1	432.9	436.6	440.4
	Short Circuit Current	I_{SC}	[A]	10.87	10.89	10.91	10.93
	Open Circuit Voltage	V_{OC}	[V]	50.60	50.63	50.66	50.68
	Current at MPP	I_{MPP}	[A]	10.09	10.14	10.18	10.22
	Voltage at MPP	V_{MPP}	[V]	42.51	42.71	42.89	43.08

[4] 800 W/m², NMOT, spectrum AM 1.5

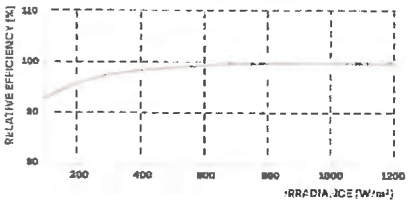
Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year. Thereafter max. 0.45% degradation per year. At least 94% of nominal power up to 10 years. At least 85% of nominal power up to 30 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²)

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	–0.27
Temperature Coefficient of P_{MPP}	γ	[%/K]	–0.34	Nominal Module Operating Temperature	NMOT	[°F]	108±5.4 (42±3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS}	[V]	1500	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	25	Fire Rating based on ANSI / UL 61730	TYPE 29[4]
Max. Design Load, Push / Pull[3]	[lbs/ft²]	75 (3600 Pa) / 33 (1600 Pa)	Permitted Module Temperature on Continuous Duty	–40 °F up to +185 °F (–40 °C up to +85 °C)
Max. Test Load, Push / Pull[3]	[lbs/ft²]	113 (5400 Pa) / 50 (2400 Pa)		

[3] See Installation Manual

[4] New Type is similar to Type 3 but with metallic frame

QUALIFICATIONS AND CERTIFICATES

UL 61730, CE-compliant,
IEC 61215:2016,
IEC 61730:2016,
U.S. Patent No. 9,893,215
(solar cells)

Note: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS America Inc.
400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL inquiry@us.q-cells.com | WEB www.q-cells.us

Specifications subject to technical changes © Q CELLS Q PEAK DUO XL-G11.3/BFG 570-585 2021-05_Rev01_NA

VOYAGER
ER

Voyager+

Next-generation single-axis tracker providing industry-leading ease of installation, performance, and reliability

Superior Design Flexibility

Lowest Installed Cost

Yield Enhancement Software

Designed for Reliability

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Voyager+ Design Specifications

Wind Speed Configurations	Up to 120mph
Module Architecture	2 modules in portrait orientation
Modules Supported	All Large frame, Mono,Poly,Bifacial
Module Attachment	6 mechanical fasteners per module
String Architecture	1500V systems; 4 strings per row, up to 30 modules per string, 1000V Systems; 6 strings per row up to 20 modules per string
Power	Two 60W Power Modules Onboard Lithium-ion Battery; 24V DC self powered drive system with up to 3-day battery backup
Drive Type	70kN, 100 kN Slew Drives
Posts per Row (typical)	7 posts per row (1 drive, 6 typical)
Post Size	W6 and W8 Compatible
Post Type	Driven (primary) w/ alternative foundation options available
Operating Range of Motion	+/- 52° (60° optional)
Stow Conditions	Wind Stow (0°), Snow Stow (40°), Flood Stow (0°), Hail Stow (50°)
Backtracking	Individual Row Level (standard) Terrain-Based Backtracking (included with SunPath)
Diffuse Light Capture	Included with SunPath
Ground Clearance	300mm (minimum)
Ground Coverage	20-60% GCR supported
Slope Tolerances	10° (17.5%) – North-South Unlimited – East-West
Snow Load	0psf - 60psf (Higher available upon request)
Operating Temperature	0°C to 60°C (-20°C to 60°C with Cold Weather Package)
Sensor Package	Wind, Snow, Flood
Communication Architecture	Wireless Zigbee Mesh Network Row to Row; One Zone Controller for up to 99 rows. Connection to SCADA/DAS through Modbus TCP/IP interface
Special Installation Tools	None
Certifications	UL 2703, 3703 and IEC EC 62817 (pending)
Warranty	5 yr drive and control + 10 yr structure Additional warranty options available.

FTC SOLAR

FTC Solar integrates engineering, software, and lean construction to lower installation costs and deploy durable solar tracking solutions to advanced projects around the world.

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January 25, 2023

SMA America, LLC
6020 West Oaks Blvd, Ste 300
Rocklin, CA 95765-3714
Tel.: +1 916 625 0870
Fax: +1 916 625 0871

To whom it may concern

RE: Nexamp Solar Project
SC2660-UP-US – Inverter Power Limiting

Dear Sir/Madam,

This letter is to confirm that **(2) SMA Sunny Central 2660-UP-US** inverters will be output power limited to meet grid requirements. For this project, the output power of the inverters will be limited to **2495** kVA and **2495** kVA, respectively. The output power limit is only accessible by SMA Service after commissioning.

SMA will submit a letter to the customer stating the inverter power limit by inverter serial number as documented proof that the power limit has been completed. A secondary label will be installed near the inverter label indicating the unit is power limited.

Sincerely,

Ryan J. LeBlanc
Principal Applications Engineer
SMA America, LLC
Rocklin, CA

BYD - MC Cube

MC10C-B5365-U-R4M01
MC10C-B4659-U-R2M01

System Features

High Energy Density

- Compact mechanical design, minimized footprint

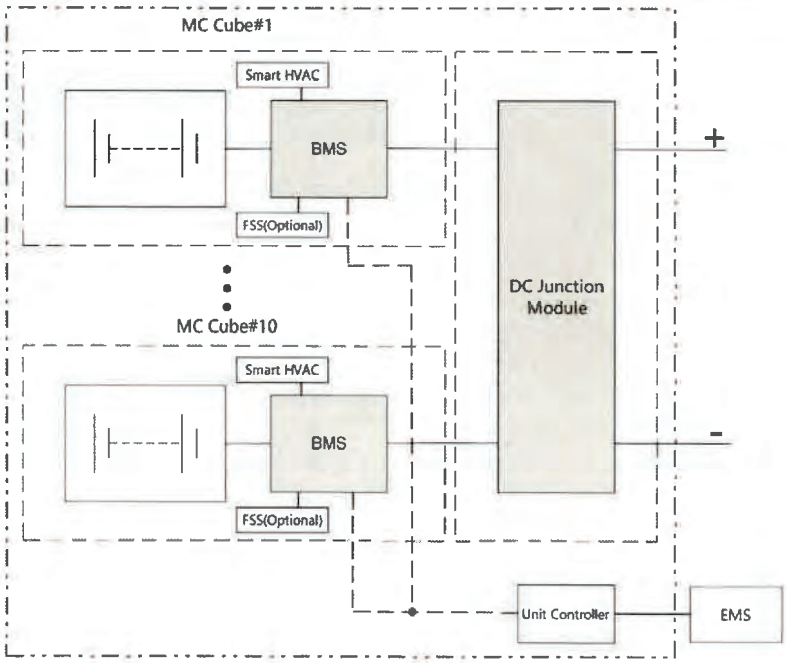
Safe & Long Lifecycle

- High efficient system with safe and long lifecycle LFP battery

Highly Integrated

- Highly integrated system to allow flexible transportation and on-site installation
- ALL IN ONE design, integrated local controller, HVAC and FSS to ensure system safety

Circuit Diagram



System Parameter

System Type	MC10C-B5365-U-R4M01	MC10C-B4659-U-R2M01
DC Data		
Cell type	LFP	LFP
Pack type	1P416S	1P416S
System configuration	10 × 1P416S	10 × 1P416S
Battery capacity (BOL)	5365kWh	4659kWh
DC usable energy (BOL)@FAT	5099kWh	4428kWh
DC usable energy (BOL)@SAT	4946kWh	4295kWh
Battery voltage range	1081.6 ~ 1497.6	1081.6 ~ 1497.6
Nominal power	1236kW	2147kW
General Data		
Dimensions (W×D×H)	6058×2438×2896mm	6058×2438×2896mm
Weight	~41035kg	~41385kg
IP rating	IP55	IP55
Ambient operating temperature range	-30℃ ~ +55℃【1】	-30℃ ~ +55℃【1】
Relative humidity	5% ~ 100%	5% ~ 100%
Max. working altitude	< 2000m【2】	< 2000m【2】
Cooling concept	Smart air cooling	Liquid cooling
Noise	≤75dBA	≤75dBA
Fire suppression system	With fire alarm system	With fire alarm system
Auxiliary power interface	AC480V/60Hz 3P4W	AC480V/60Hz 3P4W
Auxiliary system peak power requirement @45℃ PF0.8	39kVA	76kVA
Communication interfaces	Ethernet	Ethernet
Communication protocols	Modbus TCP/IP	Modbus TCP/IP
Standard color	RAL 9003	RAL 9003
Compliance	UL1973, NFPA69, NFPA72, NFPA855, CFC UN3536, UL9540A, UL9540	

Note.

【1】Power derating is performed when the ambient temperature is below -15℃ or above +45℃

【2】Power derating is performed when the altitude is between 2000-3000m.

Efficient

- Up to 4 inverters can be transported in one standard shipping container
- Overdimensioning up to 150% is possible
- Full power at ambient temperatures of up to 35°C

Robust

- Intelligent air cooling system OptiCool for efficient cooling
- Suitable for outdoor use in all climatic ambient conditions worldwide

Flexible

- One device for all applications
- PV application, optionally available with DC-coupled storage system

Easy to Use

- Improved DC connection area
- Connection area for customer equipment
- Integrated voltage support for internal and external loads

SUNNY CENTRAL UP

The new Sunny Central: more power per cubic meter

With an output of up to 3067 kVA and system voltages of 1500 V DC, the SMA central inverter allows for more efficient system design and a reduction in specific costs for PV and battery power plants. A separate voltage supply and additional space are available for the installation of customer equipment. True 1500 V technology and the intelligent cooling system OptiCool ensure smooth operation even in extreme ambient temperature as well as a long service life of 25 years.

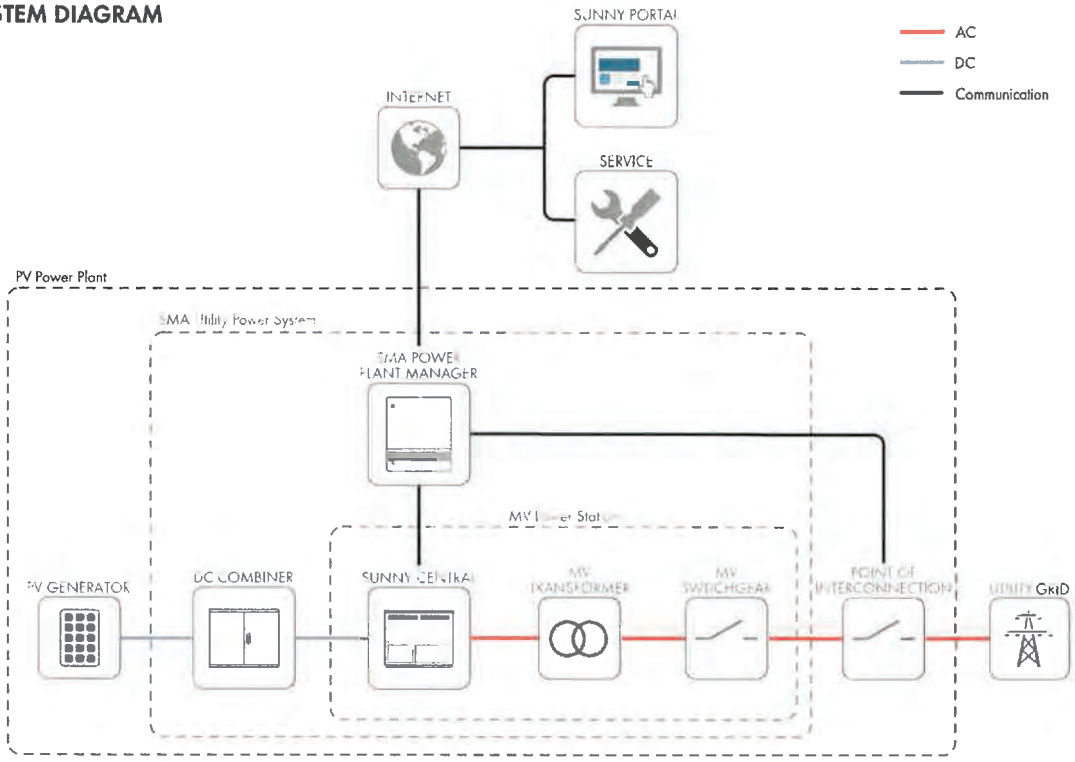
SUNNY CENTRAL UP

Technical Data	Sunny Central 2660 UP	Sunny Central 2800 UP
DC side		
MPP voltage range V_{DC} (at 35 °C / at 50 °C)	880 V to 1325 V / 1100 V	921 V to 1325 V / 1100 V
Min. DC voltage $V_{DC, min}$ / Start voltage $V_{DC, Start}$	849 V / 1030 V	891 V / 1071 V
Max. DC voltage $V_{DC, max}$	1500 V	1500 V
Max. DC current $I_{DC, max}$ / with DC coupling	3200 A / 4800 A	3200 A / 4800 A
Max. short-circuit current $I_{DC, SC}$	8400 A	8400 A
Number of DC inputs	Busbar with 26 connections per terminal, 24 double pole fused (32 single pole fused)	
Number of DC inputs with optional DC battery coupling	18 double pole fused (36 single pole fused) for PV and 6 double pole fused for batteries	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil, 2 x 400 mm²	
Integrated zone monitoring	o	
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	
Available battery fuse size (per input)	750 A	
AC side		
Nominal AC power at cos φ =1 (at 35°C / at 50°C)	2667 kVA / 2400 kVA	2800 kVA / 2520 kVA
Nominal AC active power at cos φ =0.8 (at 35°C / at 50°C)	2134 kW / 1920 kW	2240 kW / 2016 kW
Nominal AC current $I_{AC, nom}$ (at 35°C / at 50°C)	2566 A / 2309 A	2566 A / 2309 A
Max. total harmonic distortion	< 3% at nominal power	< 3% at nominal power
Nominal AC voltage / nominal AC voltage range[1) 8)]	600 V / 480 V to 720 V	630 V / 504 V to 756 V
AC power frequency / range	50 Hz / 47 Hz to 53 Hz 60 Hz / 57 Hz to 63 Hz	
Min. short-circuit ratio at the AC terminals[9)]	> 2	
Power factor at rated power / displacement power factor adjustable[8) 10)]	1 / 0.8 overexcited to 0.8 underexcited	
Efficiency		
Max. efficiency[2)] / European efficiency[2)] / CEC efficiency[3)]	98.7%* / 98.6%* / 98.5%*	98.7%* / 98.6%* / 98.5%*
Protective Devices		
Input-side disconnection point	DC load break switch	
Output-side disconnection point	AC circuit breaker	
DC overvoltage protection	Surge arrester, type I & II	
AC overvoltage protection (optional)	Surge arrester, class I & II	
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	
Ground-fault monitoring / remote ground-fault monitoring	o / o	
Insulation monitoring	o	
Degree of protection: electronics / air duct / connection area (as per IEC 60529)	IP54 / IP34 / IP34	
General Data		
Dimensions (W / H / D)	2815 / 2318 / 1588 mm (110.8 / 91.3 / 62.5 inch)	
Weight	< 3400 kg / < 7500 lb	
Self-consumption (max.[4)] / partial load[5)] / average[6)])	< 8100 W / < 1800 W / < 2000 W	
Self-consumption (standby)	< 370 W	
Internal auxiliary power supply	o Integrated 8.4 kVA transformer	
Operating temperature range[8)]	−25°C to 60°C / −13°F to 140°F	
Noise emission[7)]	67.0 dB(A)*	
Temperature range (standby)	−40°C to 60°C / −40°F to 140°F	
Temperature range (storage)	−40°C to 70°C / −40°F to 158°F	
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 month/year) / 0% to 95%	
Maximum operating altitude above MSL[8)] 1000 m / 2000 m[11)] / 3000 m[11)]	● / o / o	● / o / –
Fresh air consumption	6500 m³/h	
Features		
DC connection	Terminal lug on each input (without fuse)	
AC connection	With busbar system (three busbars, one per line conductor)	
Communication	Ethernet, Modbus Master, Modbus Slave	
Enclosure / roof color	RAL 9016 / RAL 7004	
Supply for external loads	o (2.5 kVA)	
Standards and directives complied with	CE, IEC / EN 62109-1, IEC / EN 62109-2, AR-N 4110, IEEE1547, UL 840 Cat. IV, Arrêté du 23/04/08	
EMC standards	IEC 55011, FCC Part 15 Class A	
Quality standards and directives complied with	VDI/VDE 2862 page 2, DIN EN ISO 9001	
● Standard features o Optional – not available * preliminary		
Type designation	SC 2660 UP	SC 2800 UP

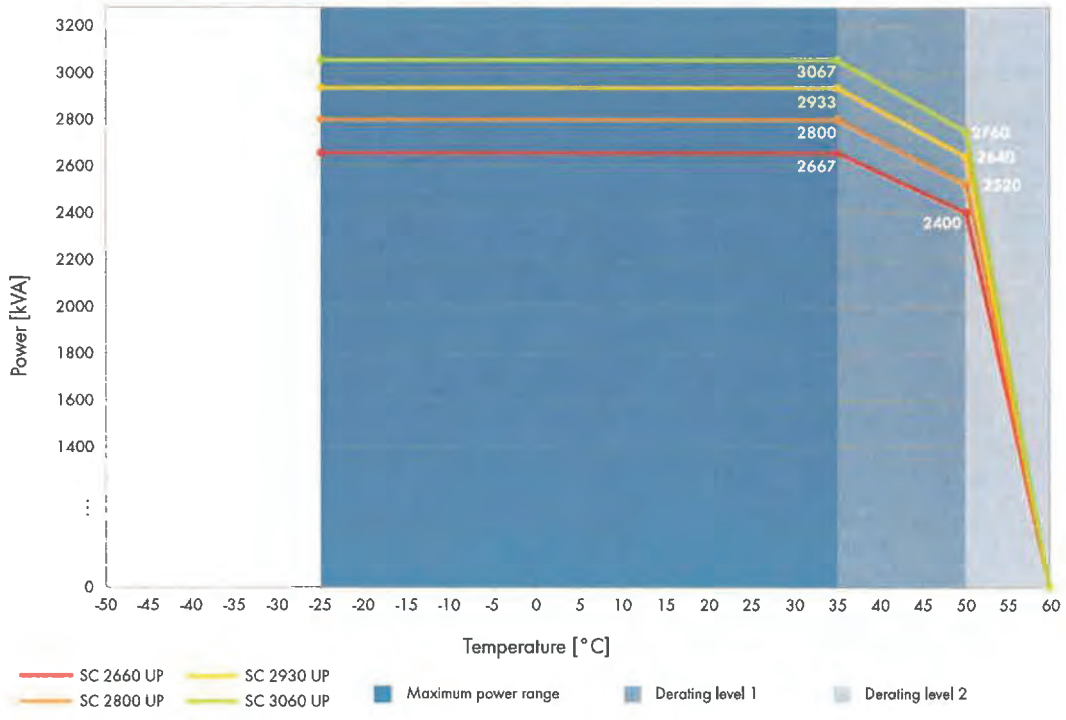
1) At nominal AC voltage, nominal AC power decreases in the same proportion
2) Efficiency measured without internal power supply
3) Efficiency measured with internal power supply
4) Self-consumption at rated operation
5) Self-consumption at < 75% Pn at 25°C
6) Self-consumption averaged out from 5% to 100% Pn at 25°C
7) Sound pressure level at a distance of 10 m
8) Values apply only to inverters. Permissible values for SMA MV solutions from SMA can be found in the corresponding data sheets.
9) A short-circuit ratio of < 2 requires a special approval from SMA
10) Depending on the DC voltage
11) Earlier temperature-dependent de-rating and reduction of DC open-circuit voltage

Technical Data	Sunny Central 2930 UP	Sunny Central 3060 UP
DC side		
MPP voltage range V_{DC} (at 35 °C / at 50 °C)	962 V to 1325 V / 1100 V	1003 V to 1325 V / 1100 V
Min. DC voltage $V_{DC, min}$ / Start voltage $V_{DC, Start}$	934 V / 1112 V	976 V / 1153 V
Max. DC voltage $V_{DC, max}$	1500 V	1500 V
Max. DC current $I_{DC, max}$ / with DC coupling	3200 A / 4800 A	3200 A / 4800 A
Max. short-circuit current $I_{DC, SC}$	8400 A	8400 A
Number of DC inputs	Busbar with 26 connections per terminal, 24 double pole fused (32 single pole fused)	
Number of DC inputs with optional DC battery coupling	18 double pole fused (36 single pole fused) for PV and 6 double pole fused for batteries	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil, 2 x 400 mm²	
Integrated zone monitoring	o	
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	
Available battery fuse size (per input)	750 A	
AC side		
Nominal AC power at cos φ =1 (at 35°C / at 50°C)	2933 kVA / 2640 kVA	3067 kVA / 2760 kVA
Nominal AC active power at cos φ =0.8 (at 35°C / at 50°C)	2346 kW / 2112 kW	2454 kW / 2208 kW
Nominal AC current $I_{AC, nom}$ (at 35°C / at 50°C)	2566 A / 2309 A	2566 A / 2309 A
Max. total harmonic distortion	< 3% at nominal power	< 3% at nominal power
Nominal AC voltage / nominal AC voltage range[1] [8]	660 V / 528 V to 759 V	690 V / 552 V to 759 V
AC power frequency / range	50 Hz / 47 Hz to 53 Hz 60 Hz / 57 Hz to 63 Hz	
Min. short-circuit ratio at the AC terminals[9]	> 2	
Power factor at rated power / displacement power factor adjustable[8] [10]	● 1 / 0.8 overexcited to 0.8 underexcited	
Efficiency		
Max. efficiency[2] / European efficiency[2] / CEC efficiency[3]	98.7%* / 98.6%* / 98.5%*	98.7%* / 98.6%* / 98.5%*
Protective Devices		
Input-side disconnection point	DC load break switch	
Output-side disconnection point	AC circuit breaker	
DC overvoltage protection	Surge arrester, type I & II	
AC overvoltage protection (optional)	Surge arrester, class I & II	
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	
Ground-fault monitoring / remote ground-fault monitoring	o / o	
Insulation monitoring	o	
Degree of protection: electronics / air duct / connection area (as per IEC 60529)	IP54 / IP34 / IP34	
General Data		
Dimensions (W / H / D)	2815 / 2318 / 1588 mm (110.8 / 91.3 / 62.5 inch)	
Weight	< 3400 kg / < 7500 lb	
Self-consumption (max.[4] / partial load[5] / average[6])	< 8100 W / < 1800 W / < 2000 W	
Self-consumption (standby)	< 370 W	
Internal auxiliary power supply	o Integrated 8.4 kVA transformer	
Operating temperature range[8]	−25°C to 60°C / −13°F to 140°F	
Noise emission[7]	67.0 dB(A)*	
Temperature range (standby)	−40°C to 60°C / −40°F to 140°F	
Temperature range (storage)	−40°C to 70°C / −40°F to 158°F	
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 month/year) / 0% to 95%	
Maximum operating altitude above MSL[8] 1000 m / 2000 m[11] / 3000 m[11]	● / o / –	
Fresh air consumption	6500 m³/h	
Features		
DC connection	Terminal lug on each input (without fuse)	
AC connection	With busbar system (three busbars, one per line conductor)	
Communication	Ethernet, Modbus Master, Modbus Slave	
Enclosure / roof color	RAL 9016 / RAL 7004	
Supply for external loads	o (2.5 kVA)	
Standards and directives complied with	CE, IEC / EN 62109-1, IEC / EN 62109-2, AR-N 4110, IEEE1547, UL 840 Cat. IV, Arrêté du 23/04/08	
EMC standards	IEC 55011, FCC Part 15 Class A	
Quality standards and directives complied with	VDI/VDE 2862 page 2, DIN EN ISO 9001	
● Standard features o Optional – not available * preliminary		
Type designation	SC 2930 UP	SC 3060 UP

SYSTEM DIAGRAM



TEMPERATURE BEHAVIOR (at 1000 m)



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powered by Q.ANTUM DUO Z

Q.PEAK DUO XL-G11.3 / BFG
570-585

BIFACIAL DOUBLE GLASS MODULE
WITH EXCELLENT RELIABILITY
AND ADDITIONAL YIELD

EUPD RESEARCH TOP BRAND PV MODULES EUROPE 2021

Q CELLS

BIFACIAL ENERGY YIELD GAIN OF UP TO 20%
Bifacial Q.ANTUM solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.

LOW ELECTRICITY GENERATION COSTS
Q.ANTUM DUO Z combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology for higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 21.5%.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti LID and Anti PID Technology[1], Hot-Spot Protect and Traceable Quality Tra.Q™.

FRAME FOR VERSATILE MOUNTING OPTIONS
High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (2400 Pa).

A RELIABLE INVESTMENT
Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty[2].

[1] APT test conditions according to IEC / TS 62804-1:2015 method B (–1500 V, 168 h) including post treatment according to IEC 61215-1-1 Ed. 2.0 (CD)
[2] See data sheet on rear for further information.

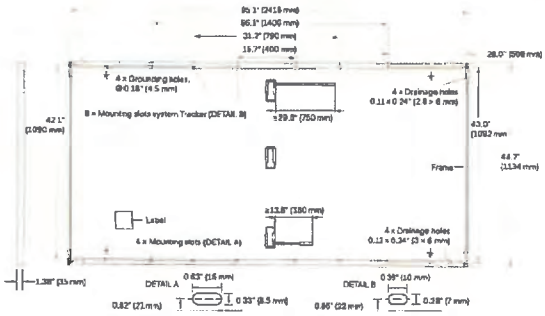
THE IDEAL SOLUTION FOR:
Ground-mounted solar power plants

Engineered in Germany

Q CELLS

MECHANICAL SPECIFICATION

Format	95.1 in × 44.7 in × 1.38 in (including frame) (2416 mm × 1134 mm × 35 mm)
Weight	75.8 lbs (34.4 kg)
Front Cover	0.08 in (2.0 mm) thermally pre-stressed glass with anti-reflection technology
	0.08 in (2.0 mm) semi-tempered glass
Frame	Anodized aluminum
Cell	6 × 26 monocrystalline Q.ANTUM solar half cells
on Box	2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥29.5 in (750 mm), (–) >13.8 in (350 mm)
	Stäubli MC4-Evo2, Hanwha Q CELLS HQC4, IP68



ELECTRICAL CHARACTERISTICS

POWER CLASS				570		575		580		585	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] AND BSTC[2] (POWER TOLERANCE +5 W / –0 W)											
					BSTC[2]		BSTC[2]		BSTC[2]		BSTC[2]
Minimum	Power at MPP[1]	P_{MPP}	[W]	570	623.5	575	629.0	580	634.4	585	639.9
	Short Circuit Current[1]	I_{SC}	[A]	13.50	14.77	13.52	14.80	13.55	14.83	13.57	14.86
	Open Circuit Voltage[1]	V_{OC}	[V]	53.50	53.69	53.53	53.72	53.56	53.75	53.59	53.78
	Current at MPP	I_{MPP}	[A]	12.83	14.03	12.87	14.09	12.92	14.14	12.97	14.19
	Voltage at MPP	V_{MPP}	[V]	44.44	44.43	44.66	44.65	44.88	44.87	45.10	45.09
	Efficiency[1]	η	[%]	≥20.8	≥22.8	≥21.0	≥23.0	≥21.2	≥23.2	≥21.4	≥23.4

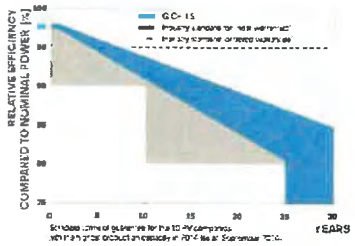
Bifaciality of P_{MPP} and I_{SC} 70% ±5% • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2

[1] Measurement tolerances P_{MPP} ±3%; I_{SC}, V_{OC} ±5% at STC: 1000 W/m² + φ × 135 W/m², φ = 70% ±5%, 25±2 °C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT[3]							
Minimum	Power at MPP	P_{MPP}	[W]	429.1	432.9	436.6	440.4
	Short Circuit Current	I_{SC}	[A]	10.87	10.89	10.91	10.93
	Open Circuit Voltage	V_{OC}	[V]	50.60	50.63	50.66	50.68
	Current at MPP	I_{MPP}	[A]	10.09	10.14	10.18	10.22
	Voltage at MPP	V_{MPP}	[V]	42.51	42.71	42.89	43.08

[3] 800 W/m², NMOT, spectrum AM 1.5

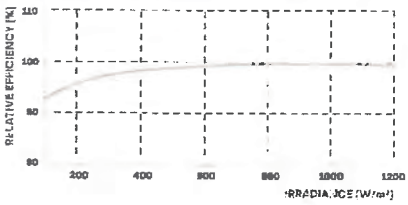
Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year. Thereafter max. 0.45% degradation per year. At least 94% of nominal power up to 10 years. At least 85% of nominal power up to 30 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²)

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	–0.27
Temperature Coefficient of P_{MPP}	γ	[%/K]	–0.34	Nominal Module Operating Temperature	NMOT	[°F]	108±5.4 (42±3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS}	[V]	1500	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	25	Fire Rating based on ANSI / UL 61730	TYPE 29[4]
Max. Design Load, Push / Pull[3]	[lbs/ft²]	75 (3600 Pa) / 33 (1600 Pa)	Permitted Module Temperature on Continuous Duty	–40 °F up to +185 °F (–40 °C up to +85 °C)
Max. Test Load, Push / Pull[3]	[lbs/ft²]	113 (5400 Pa) / 50 (2400 Pa)		

[3] See Installation Manual

[4] New Type is similar to Type 3 but with metallic frame

QUALIFICATIONS AND CERTIFICATES

UL 61730, CE-compliant,
IEC 61215:2016,
IEC 61730:2016,
U.S. Patent No. 9,893,215
(solar cells)

Note: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Hanwha Q CELLS America Inc.
400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL inquiry@us.q-cells.com | WEB www.q-cells.us

Specifications subject to technical changes © Q CELLS Q PEAK DUO XL-G11.3/BFG 570-585 2021-05_Rev01_NA

VOYAGER ER

Voyager+

Next-generation single-axis tracker providing industry-leading ease of installation, performance, and reliability

Superior Design Flexibility

Lowest Installed Cost

Yield Enhancement Software

Designed for Reliability

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Voyager+ Design Specifications

Wind Speed Configurations	Up to 120mph
Module Architecture	2 modules in portrait orientation
Modules Supported	All Large frame, Mono,Poly,Bifacial
Module Attachment	6 mechanical fasteners per module
String Architecture	1500V systems; 4 strings per row, up to 30 modules per string, 1000V Systems; 6 strings per row up to 20 modules per string
Power	Two 60W Power Modules Onboard Lithium-ion Battery; 24V DC self powered drive system with up to 3-day battery backup
Drive Type	70kN, 100 kN Slew Drives
Posts per Row (typical)	7 posts per row (1 drive, 6 typical)
Post Size	W6 and W8 Compatible
Post Type	Driven (primary) w/ alternative foundation options available
Operating Range of Motion	+/- 52° (60° optional)
Stow Conditions	Wind Stow (0°), Snow Stow (40°), Flood Stow (0°), Hail Stow (50°)
Backtracking	Individual Row Level (standard) Terrain-Based Backtracking (included with SunPath)
Diffuse Light Capture	Included with SunPath
Ground Clearance	300mm (minimum)
Ground Coverage	20-60% GCR supported
Slope Tolerances	10° (17.5%) – North-South Unlimited – East-West
Snow Load	0psf - 60psf (Higher available upon request)
Operating Temperature	0°C to 60°C (-20°C to 60°C with Cold Weather Package)
Sensor Package	Wind, Snow, Flood
Communication Architecture	Wireless Zigbee Mesh Network Row to Row; One Zone Controller for up to 99 rows. Connection to SCADA/DAS through Modbus TCP/IP interface
Special Installation Tools	None
Certifications	UL 2703, 3703 and IEC EC 62817 (pending)
Warranty	5 yr drive and control + 10 yr structure Additional warranty options available.

FTC SOLAR

FTC Solar integrates engineering software, and lean construction to lower installation costs and deploy reliable solar tracking solutions to advanced projects around the world.

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January 25, 2023

SMA America, LLC
6020 West Oaks Blvd, Ste 300
Rocklin, CA 95765-3714
Tel.: +1 916 625 0870
Fax: +1 916 625 0871

To whom it may concern

RE: Nexamp Solar Project
SC2660-UP-US – Inverter Power Limiting

Dear Sir/Madam,

This letter is to confirm that **(2) SMA Sunny Central 2660-UP-US** inverters will be output power limited to meet grid requirements. For this project, the output power of the inverters will be limited to **2495** kVA and **2495** kVA, respectively. The output power limit is only accessible by SMA Service after commissioning.

SMA will submit a letter to the customer stating the inverter power limit by inverter serial number as documented proof that the power limit has been completed. A secondary label will be installed near the inverter label indicating the unit is power limited.

Sincerely,

Ryan J. LeBlanc
Principal Applications Engineer
SMA America, LLC
Rocklin, CA

BYD - MC Cube

MC10C-B5365-U-R4M01
MC10C-B4659-U-R2M01

System Features

High Energy Density

- Compact mechanical design, minimized footprint

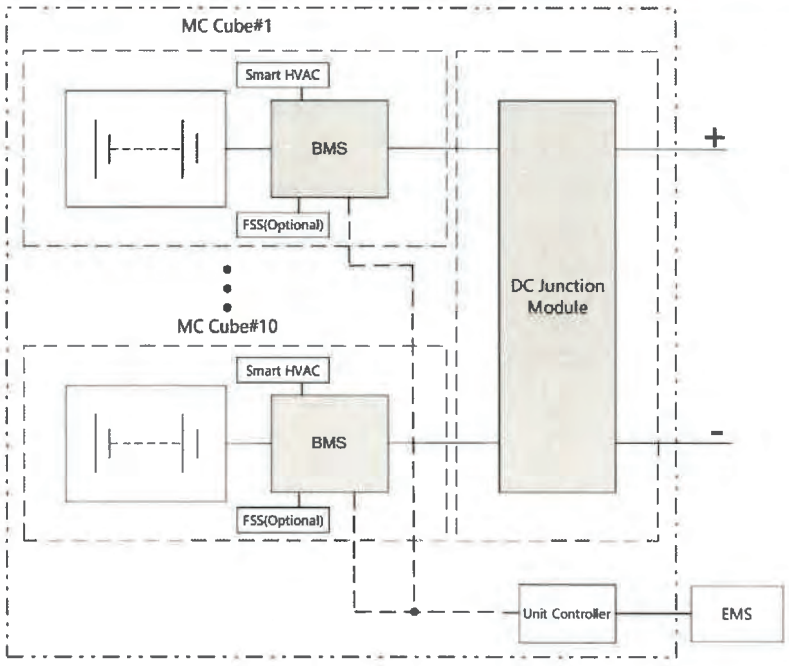
Safe & Long Lifecycle

- High efficient system with safe and long lifecycle LFP battery

Highly Integrated

- Highly integrated system to allow flexible transportation and on-site installation
- ALL IN ONE design, integrated local controller, HVAC and FSS to ensure system safety

Circuit Diagram



System Parameter

System Type	MC10C-B5365-U-R4M01	MC10C-B4659-U-R2M01
DC Data		
Cell type	LFP	LFP
Pack type	1P416S	1P416S
System configuration	10 × 1P416S	10 × 1P416S
Battery capacity (BOL)	5365kWh	4659kWh
DC usable energy (BOL)@FAT	5099kWh	4428kWh
DC usable energy (BOL)@SAT	4946kWh	4295kWh
Battery voltage range	1081.6 ~ 1497.6	1081.6 ~ 1497.6
Nominal power	1236kW	2147kW
General Data		
Dimensions (W×D×H)	6058×2438×2896mm	6058×2438×2896mm
Weight	~41035kg	~41385kg
IP rating	IP55	IP55
Ambient operating temperature range	-30℃ ~ +55℃【1】	-30℃ ~ +55℃【1】
Relative humidity	5% ~ 100%	5% ~ 100%
Max. working altitude	＜2000m【2】	＜2000m【2】
Cooling concept	Smart air cooling	Liquid cooling
Noise	≤75dBA	≤75dBA
Fire suppression system	With fire alarm system	With fire alarm system
Auxiliary power interface	AC480V/60Hz, 3P4W	AC480V/60Hz, 3P4W
Auxiliary system peak power requirement @45℃ PF0.8	39kVA	76kVA
Communication interfaces	Ethernet	Ethernet
Communication protocols	Modbus TCP/IP	Modbus TCP/IP
Standard color	RAL 9003	RAL 9003
Compliance	UL1973, NFPA69, NFPA72, NFPA855, CFC UN3536, UL9540A, UL9540	

Note.

【1】Power derating is performed when the ambient temperature is below -15℃ or above +45℃

【2】Power derating is performed when the altitude is between 2000-3000m.

FORGESOLAR GLARE ANALYSIS

Project: **Corneils Road Solar**
Site configuration: **Corneils Road Solar West**

Created 14 Dec, 2023
Updated 14 Dec, 2023
Time-step 1 minute
Timezone offset UTC-6
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 500 kW to 1 MW
(1,000 kW / 8 acre limit)
Site ID 107945.18727

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor: may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.33
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.698112	-88.462591	640.42	10.04	650.46
2	41.697251	-88.462564	640.43	10.04	650.47
3	41.697265	-88.461349	640.51	10.04	650.55
4	41.697712	-88.461373	640.32	10.04	650.36
5	41.697708	-88.461481	640.39	10.04	650.43
6	41.698143	-88.461513	640.32	10.04	650.36

Name: PV array 2
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.33
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.697050	-88.462532	640.57	10.04	650.61
2	41.697070	-88.461363	640.64	10.04	650.68
3	41.696014	-88.461357	642.41	10.04	652.45
4	41.696008	-88.462634	642.23	10.04	652.27
5	41.696505	-88.462657	642.73	10.04	652.77
6	41.696513	-88.462524	642.57	10.04	652.61

Name: PV array 3
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.33
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.695756	-88.462768	641.09	10.04	651.13
2	41.695778	-88.461617	642.84	10.04	652.88
3	41.695347	-88.461580	641.04	10.04	651.08
4	41.695343	-88.461354	640.67	10.04	650.71
5	41.694875	-88.461352	638.75	10.04	648.79
6	41.694853	-88.462739	640.64	10.04	650.68

Route Receptors

Name: Car Route 1
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.709861	-88.468127	667.15	3.00	670.15
2	41.698350	-88.467891	668.07	3.00	671.07
3	41.698118	-88.467977	667.97	3.00	670.97
4	41.698062	-88.468277	667.49	3.00	670.49
5	41.697966	-88.472408	668.17	3.00	671.17
6	41.697870	-88.472708	667.15	3.00	670.15
7	41.690651	-88.472515	657.85	3.00	660.85

Name: Car Route 2
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.690595	-88.472520	658.17	3.00	661.17
2	41.690599	-88.472247	657.21	3.00	660.21
3	41.690167	-88.463025	643.19	3.00	646.19
4	41.690255	-88.462687	643.99	3.00	646.99
5	41.690451	-88.462451	644.82	3.00	647.82
6	41.690808	-88.462049	649.60	3.00	652.60
7	41.690904	-88.461883	650.84	3.00	653.84
8	41.690996	-88.461571	649.94	3.00	652.94
9	41.691008	-88.461287	649.69	3.00	652.69
10	41.691403	-88.448216	644.51	3.00	647.51

Name: Car Route 3
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.709946	-88.468102	667.93	3.00	670.93
2	41.705357	-88.446537	649.81	3.00	652.81

Name: Truck Route 4
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.691475	-88.448178	644.38	7.00	651.38
2	41.699646	-88.448402	649.71	7.00	656.71
3	41.701664	-88.448423	650.90	7.00	657.90
4	41.702217	-88.448338	651.24	7.00	658.24
5	41.702778	-88.448187	651.57	7.00	658.57
6	41.703443	-88.447876	651.47	7.00	658.47
7	41.704189	-88.447433	652.14	7.00	659.14
8	41.704982	-88.446736	650.85	7.00	657.85
9	41.705358	-88.446382	650.38	7.00	657.38

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	41.698902	-88.467401	672.39	6.00
OP 2	2	41.698894	-88.467460	672.48	20.00
OP 3	3	41.690580	-88.464952	650.88	6.00
OP 4	4	41.690568	-88.464987	651.34	20.00
OP 5	5	41.690582	-88.465628	655.57	6.00
OP 6	6	41.690570	-88.465668	655.61	20.00
OP 7	7	41.690604	-88.466325	656.48	6.00
OP 8	8	41.690592	-88.466392	656.40	20.00
OP 9	9	41.690889	-88.465676	651.98	6.00
OP 10	10	41.690899	-88.465719	651.93	20.00
OP 11	11	41.690722	-88.463015	642.75	6.00
OP 12	12	41.690738	-88.463117	642.89	20.00
OP 13	13	41.691892	-88.461106	646.20	6.00
OP 14	14	41.691904	-88.461175	646.08	20.00
OP 15	15	41.691392	-88.457917	648.18	6.00
OP 16	16	41.691386	-88.457952	648.06	20.00
OP 17	17	41.691398	-88.458070	648.18	6.00
OP 18	18	41.691394	-88.458111	648.04	20.00
OP 19	19	41.706754	-88.454692	661.58	6.00
OP 20	20	41.706770	-88.454746	661.72	20.00

Obstruction Components

Name: Barn Obstruction 5
Top height: 32.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.691136	-88.465766	649.94
2	41.691124	-88.465444	649.27

Name: Barn Obstruction 6
Top height: 32.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.691242	-88.464937	646.57
2	41.690980	-88.464935	646.34

Name: Barn Obstruction 8
Top height: 32.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.691124	-88.466214	652.64
2	41.691130	-88.466455	651.88

Name: Obstruction 1
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.698178	-88.462982	641.48
2	41.696119	-88.462939	644.23
3	41.695791	-88.463164	643.06
4	41.695486	-88.463765	650.48

Name: Obstruction 10
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.697034	-88.454142	643.01
2	41.694855	-88.456459	643.74
3	41.693028	-88.460085	635.75
4	41.692772	-88.461673	634.97
5	41.692196	-88.462543	635.46
6	41.691716	-88.462961	634.97

Name: Obstruction 10
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.698761	-88.467076	668.81
2	41.698733	-88.466762	668.00
3	41.698935	-88.466842	670.50
4	41.699188	-88.467078	668.51
5	41.699186	-88.467661	670.57
6	41.699034	-88.467856	671.02
7	41.698837	-88.467830	669.28
8	41.698757	-88.467639	668.90
9	41.698761	-88.467416	670.85

Name: Obstruction 3
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.698351	-88.460955	636.43
2	41.697526	-88.460869	636.26
3	41.696549	-88.460794	635.68
4	41.695244	-88.460919	635.98
5	41.693778	-88.461110	636.08
6	41.692934	-88.461295	636.43

Name: Obstruction 4
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.690736	-88.464697	644.31
2	41.690782	-88.465123	650.02
3	41.690704	-88.465231	651.74

Name: Obstruction 7
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.690864	-88.465415	650.94
2	41.690938	-88.465560	650.39

Name: Obstruction 9
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.690730	-88.465667	653.88
2	41.690912	-88.466115	653.05

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV array 1 and Route: Car Route 1

No glare found

PV array 1 and Route: Car Route 2

No glare found

PV array 1 and Route: Car Route 3

No glare found

PV array 1 and Route: Truck Route 4

No glare found

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV array 1 and OP 14

No glare found

PV array 1 and OP 15

No glare found

PV array 1 and OP 16

No glare found

PV array 1 and OP 17

No glare found

PV array 1 and OP 18

No glare found

PV array 1 and OP 19

No glare found

PV array 1 and OP 20

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV array 2 and Route: Car Route 1

No glare found

PV array 2 and Route: Car Route 2

No glare found

PV array 2 and Route: Car Route 3

No glare found

PV array 2 and Route: Truck Route 4

No glare found

PV array 2 and OP 1

No glare found

PV array 2 and OP 2

No glare found

PV array 2 and OP 3

No glare found

PV array 2 and OP 4

No glare found

PV array 2 and OP 5

No glare found

PV array 2 and OP 6

No glare found

PV array 2 and OP 7

No glare found

PV array 2 and OP 8

No glare found

PV array 2 and OP 9

No glare found

PV array 2 and OP 10

No glare found

PV array 2 and OP 11

No glare found

PV array 2 and OP 12

No glare found

PV array 2 and OP 13

No glare found

PV array 2 and OP 14

No glare found

PV array 2 and OP 15

No glare found

PV array 2 and OP 16

No glare found

PV array 2 and OP 17

No glare found

PV array 2 and OP 18

No glare found

PV array 2 and OP 19

No glare found

PV array 2 and OP 20

No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV array 3 and Route: Car Route 1

No glare found

PV array 3 and Route: Car Route 2

No glare found

PV array 3 and Route: Car Route 3

No glare found

PV array 3 and Route: Truck Route 4

No glare found

PV array 3 and OP 1

No glare found

PV array 3 and OP 2

No glare found

PV array 3 and OP 3

No glare found

PV array 3 and OP 4

No glare found

PV array 3 and OP 5

No glare found

PV array 3 and OP 6

No glare found

PV array 3 and OP 7

No glare found

PV array 3 and OP 8

No glare found

PV array 3 and OP 9

No glare found

PV array 3 and OP 10

No glare found

PV array 3 and OP 11

No glare found

PV array 3 and OP 12

No glare found

PV array 3 and OP 13

No glare found

PV array 3 and OP 14

No glare found

PV array 3 and OP 15

No glare found

PV array 3 and OP 16

No glare found

PV array 3 and OP 17

No glare found

PV array 3 and OP 18

No glare found

PV array 3 and OP 19

No glare found

PV array 3 and OP 20

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: **Corneils Road Solar**
Site configuration: **Corneils Road Solar NE**

Created 14 Dec, 2023
Updated 14 Dec, 2023
Time-step 1 minute
Timezone offset UTC-6
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 500 kW to 1 MW
(1,000 kW / 8 acre limit)
Site ID 107946.18727

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.33
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.698174	-88.460490	640.64	10.04	650.68
2	41.697277	-88.460474	642.30	10.04	652.34
3	41.697329	-88.458372	640.85	10.04	650.89
4	41.698254	-88.458409	641.69	10.04	651.73

Name: PV array 5
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.33
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.697247	-88.460473	642.33	10.04	652.37
2	41.696584	-88.460487	641.92	10.04	651.96
3	41.696628	-88.458373	641.27	10.04	651.31
4	41.697289	-88.458371	640.80	10.04	650.84

Route Receptors

Name: Car Route 1
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.709861	-88.468127	667.15	3.00	670.15
2	41.698350	-88.467891	668.07	3.00	671.07
3	41.698118	-88.467977	667.97	3.00	670.97
4	41.698062	-88.468277	667.49	3.00	670.49
5	41.697966	-88.472408	668.17	3.00	671.17
6	41.697870	-88.472708	667.15	3.00	670.15
7	41.690651	-88.472515	657.85	3.00	660.85

Name: Car Route 2
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.690595	-88.472520	658.17	3.00	661.17
2	41.690599	-88.472247	657.21	3.00	660.21
3	41.690167	-88.463025	643.19	3.00	646.19
4	41.690255	-88.462687	643.99	3.00	646.99
5	41.690451	-88.462451	644.82	3.00	647.82
6	41.690808	-88.462049	649.60	3.00	652.60
7	41.690904	-88.461883	650.84	3.00	653.84
8	41.690996	-88.461571	649.94	3.00	652.94
9	41.691008	-88.461287	649.69	3.00	652.69
10	41.691403	-88.448216	644.51	3.00	647.51

Name: Car Route 3
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.709946	-88.468102	667.93	3.00	670.93
2	41.705357	-88.446537	649.81	3.00	652.81

Name: Truck Route 4
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.691475	-88.448178	644.38	7.00	651.38
2	41.699646	-88.448402	649.71	7.00	656.71
3	41.701664	-88.448423	650.90	7.00	657.90
4	41.702217	-88.448338	651.24	7.00	658.24
5	41.702778	-88.448187	651.57	7.00	658.57
6	41.703443	-88.447876	651.47	7.00	658.47
7	41.704189	-88.447433	652.14	7.00	659.14
8	41.704982	-88.446736	650.85	7.00	657.85
9	41.705358	-88.446382	650.38	7.00	657.38

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	41.698902	-88.467401	672.39	6.00
OP 2	2	41.698894	-88.467460	672.48	20.00
OP 3	3	41.690580	-88.464952	650.88	6.00
OP 4	4	41.690568	-88.464987	651.34	20.00
OP 5	5	41.690582	-88.465628	655.57	6.00
OP 6	6	41.690570	-88.465668	655.61	20.00
OP 7	7	41.690604	-88.466325	656.48	6.00
OP 8	8	41.690592	-88.466392	656.40	20.00
OP 9	9	41.690889	-88.465676	651.98	6.00
OP 10	10	41.690899	-88.465719	651.93	20.00
OP 11	11	41.690722	-88.463015	642.75	6.00
OP 12	12	41.690738	-88.463117	642.89	20.00
OP 13	13	41.691892	-88.461106	646.20	6.00
OP 14	14	41.691904	-88.461175	646.08	20.00
OP 15	15	41.691392	-88.457917	648.18	6.00
OP 16	16	41.691386	-88.457952	648.06	20.00
OP 17	17	41.691398	-88.458070	648.18	6.00
OP 18	18	41.691394	-88.458111	648.04	20.00
OP 19	19	41.706754	-88.454692	661.58	6.00
OP 20	20	41.706770	-88.454746	661.72	20.00

Obstruction Components

Name: Barn Obstruction 5
Top height: 32.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.691136	-88.465766	649.94
2	41.691124	-88.465444	649.27

Name: Barn Obstruction 6
Top height: 32.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.691242	-88.464937	646.57
2	41.690980	-88.464935	646.34

Name: Barn Obstruction 8
Top height: 32.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.691124	-88.466214	652.64
2	41.691130	-88.466455	651.88

Name: Obstruction 1
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.698178	-88.462982	641.48
2	41.696119	-88.462939	644.23
3	41.695791	-88.463164	643.06
4	41.695486	-88.463765	650.48

Name: Obstruction 10
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.698761	-88.467076	668.81
2	41.698733	-88.466762	668.00
3	41.698935	-88.466842	670.50
4	41.699188	-88.467078	668.51
5	41.699186	-88.467661	670.57
6	41.699034	-88.467856	671.02
7	41.698837	-88.467830	669.28
8	41.698757	-88.467639	668.90
9	41.698761	-88.467416	670.85

Name: Obstruction 10
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.697034	-88.454142	643.01
2	41.694855	-88.456459	643.74
3	41.693028	-88.460085	635.75
4	41.692772	-88.461673	634.97
5	41.692196	-88.462543	635.46
6	41.691716	-88.462961	634.97

Name: Obstruction 3
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.698351	-88.460955	636.43
2	41.697526	-88.460869	636.26
3	41.696549	-88.460794	635.68
4	41.695244	-88.460919	635.98
5	41.693778	-88.461110	636.08
6	41.692934	-88.461295	636.43

Name: Obstruction 4
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.690736	-88.464697	644.31
2	41.690782	-88.465123	650.02
3	41.690704	-88.465231	651.74

Name: Obstruction 7
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.690864	-88.465415	650.94
2	41.690938	-88.465560	650.39

Name: Obstruction 9
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.690730	-88.465667	653.88
2	41.690912	-88.466115	653.05

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 5	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor: may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV array 4 and Route: Car Route 1

No glare found

PV array 4 and Route: Car Route 2

No glare found

PV array 4 and Route: Car Route 3

No glare found

PV array 4 and Route: Truck Route 4

No glare found

PV array 4 and OP 1

No glare found

PV array 4 and OP 2

No glare found

PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

PV array 4 and OP 14

No glare found

PV array 4 and OP 15

No glare found

PV array 4 and OP 16

No glare found

PV array 4 and OP 17

No glare found

PV array 4 and OP 18

No glare found

PV array 4 and OP 19

No glare found

PV array 4 and OP 20

No glare found

PV: PV array 5 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV array 5 and Route: Car Route 1

No glare found

PV array 5 and Route: Car Route 2

No glare found

PV array 5 and Route: Car Route 3

No glare found

PV array 5 and Route: Truck Route 4

No glare found

PV array 5 and OP 1

No glare found

PV array 5 and OP 2

No glare found

PV array 5 and OP 3

No glare found

PV array 5 and OP 4

No glare found

PV array 5 and OP 5

No glare found

PV array 5 and OP 6

No glare found

PV array 5 and OP 7

No glare found

PV array 5 and OP 8

No glare found

PV array 5 and OP 9

No glare found

PV array 5 and OP 10

No glare found

PV array 5 and OP 11

No glare found

PV array 5 and OP 12

No glare found

PV array 5 and OP 13

No glare found

PV array 5 and OP 14

No glare found

PV array 5 and OP 15

No glare found

PV array 5 and OP 16

No glare found

PV array 5 and OP 17

No glare found

PV array 5 and OP 18

No glare found

PV array 5 and OP 19

No glare found

PV array 5 and OP 20

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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FORGESOLAR GLARE ANALYSIS

Project: **Corneils Road Solar**
Site configuration: **Corneils Road Solar SE-temp-0**

Created 14 Dec, 2023
Updated 14 Dec, 2023
Time-step 1 minute
Timezone offset UTC-6
Minimum sun altitude 0.0 deg
DNI peaks at 1,000.0 W/m^2
Category 500 kW to 1 MW
(1,000 kW / 8 acre limit)
Site ID 107947.18727

Ocular transmission coefficient 0.5
Pupil diameter 0.002 m
Eye focal length 0.017 m
Sun subtended angle 9.3 mrad
PV analysis methodology V2

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 4
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.33
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.696576	-88.460487	641.92	10.04	651.96
2	41.696628	-88.458362	641.19	10.04	651.23
3	41.695991	-88.458357	642.05	10.04	652.09
4	41.695927	-88.460481	641.18	10.04	651.22

Name: PV array 6
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 60.0°
Resting angle: 0.0°
Ground Coverage Ratio: 0.33
Rated power: -
Panel material: Smooth glass with AR coating
Reflectivity: Vary with sun
Slope error: correlate with material

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.695863	-88.460485	641.31	10.04	651.35
2	41.695923	-88.458366	642.31	10.04	652.35
3	41.694921	-88.458334	641.02	10.04	651.06
4	41.694889	-88.460490	640.37	10.04	650.41

Route Receptors

Name: Car Route 1
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.709861	-88.468127	667.15	3.00	670.15
2	41.698350	-88.467891	668.07	3.00	671.07
3	41.698118	-88.467977	667.97	3.00	670.97
4	41.698062	-88.468277	667.49	3.00	670.49
5	41.697966	-88.472408	668.17	3.00	671.17
6	41.697870	-88.472708	667.15	3.00	670.15
7	41.690651	-88.472515	657.85	3.00	660.85

Name: Car Route 2
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.690595	-88.472520	658.17	3.00	661.17
2	41.690599	-88.472247	657.21	3.00	660.21
3	41.690167	-88.463025	643.19	3.00	646.19
4	41.690255	-88.462687	643.99	3.00	646.99
5	41.690451	-88.462451	644.82	3.00	647.82
6	41.690808	-88.462049	649.60	3.00	652.60
7	41.690904	-88.461883	650.84	3.00	653.84
8	41.690996	-88.461571	649.94	3.00	652.94
9	41.691008	-88.461287	649.69	3.00	652.69
10	41.691403	-88.448216	644.51	3.00	647.51

Name: Car Route 3
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.709946	-88.468102	667.93	3.00	670.93
2	41.705357	-88.446537	649.81	3.00	652.81

Name: Truck Route 4
Path type: Two-way
Observer view angle: 50.0°

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.691475	-88.448178	644.38	7.00	651.38
2	41.699646	-88.448402	649.71	7.00	656.71
3	41.701664	-88.448423	650.90	7.00	657.90
4	41.702217	-88.448338	651.24	7.00	658.24
5	41.702778	-88.448187	651.57	7.00	658.57
6	41.703443	-88.447876	651.47	7.00	658.47
7	41.704189	-88.447433	652.14	7.00	659.14
8	41.704982	-88.446736	650.85	7.00	657.85
9	41.705358	-88.446382	650.38	7.00	657.38

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	41.698902	-88.467401	672.39	6.00
OP 2	2	41.698894	-88.467460	672.48	20.00
OP 3	3	41.690580	-88.464952	650.88	6.00
OP 4	4	41.690568	-88.464987	651.34	20.00
OP 5	5	41.690582	-88.465628	655.57	6.00
OP 6	6	41.690570	-88.465668	655.61	20.00
OP 7	7	41.690604	-88.466325	656.48	6.00
OP 8	8	41.690592	-88.466392	656.40	20.00
OP 9	9	41.690889	-88.465676	651.98	6.00
OP 10	10	41.690899	-88.465719	651.93	20.00
OP 11	11	41.690722	-88.463015	642.75	6.00
OP 12	12	41.690738	-88.463117	642.89	20.00
OP 13	13	41.691892	-88.461106	646.20	6.00
OP 14	14	41.691904	-88.461175	646.08	20.00
OP 15	15	41.691392	-88.457917	648.18	6.00
OP 16	16	41.691386	-88.457952	648.06	20.00
OP 17	17	41.691398	-88.458070	648.18	6.00
OP 18	18	41.691394	-88.458111	648.04	20.00
OP 19	19	41.706754	-88.454692	661.58	6.00
OP 20	20	41.706770	-88.454746	661.72	20.00

Obstruction Components

Name: Barn Obstruction 5
Top height: 32.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.691136	-88.465766	649.94
2	41.691124	-88.465444	649.27

Name: Barn Obstruction 6
Top height: 32.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.691242	-88.464937	646.57
2	41.690980	-88.464935	646.34

Name: Barn Obstruction 8
Top height: 32.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.691124	-88.466214	652.64
2	41.691130	-88.466455	651.88

Name: Obstruction 1
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.698178	-88.462982	641.48
2	41.696119	-88.462939	644.23
3	41.695791	-88.463164	643.06
4	41.695486	-88.463765	650.48

Name: Obstruction 10
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.698761	-88.467076	668.81
2	41.698733	-88.466762	668.00
3	41.698935	-88.466842	670.50
4	41.699188	-88.467078	668.51
5	41.699186	-88.467661	670.57
6	41.699034	-88.467856	671.02
7	41.698837	-88.467830	669.28
8	41.698757	-88.467639	668.90
9	41.698761	-88.467416	670.85

Name: Obstruction 10
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.697034	-88.454142	643.01
2	41.694855	-88.456459	643.74
3	41.693028	-88.460085	635.75
4	41.692772	-88.461673	634.97
5	41.692196	-88.462543	635.46
6	41.691716	-88.462961	634.97

Name: Obstruction 3
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.698351	-88.460955	636.43
2	41.697526	-88.460869	636.26
3	41.696549	-88.460794	635.68
4	41.695244	-88.460919	635.98
5	41.693778	-88.461110	636.08
6	41.692934	-88.461295	636.43

Name: Obstruction 4
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.690736	-88.464697	644.31
2	41.690782	-88.465123	650.02
3	41.690704	-88.465231	651.74

Name: Obstruction 7
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.690864	-88.465415	650.94
2	41.690938	-88.465560	650.39

Name: Obstruction 9
Top height: 70.0 ft

Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.690730	-88.465667	653.88
2	41.690912	-88.466115	653.05

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 6	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV array 4 and Route: Car Route 1

No glare found

PV array 4 and Route: Car Route 2

No glare found

PV array 4 and Route: Car Route 3

No glare found

PV array 4 and Route: Truck Route 4

No glare found

PV array 4 and OP 1

No glare found

PV array 4 and OP 2

No glare found

PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

PV array 4 and OP 14

No glare found

PV array 4 and OP 15

No glare found

PV array 4 and OP 16

No glare found

PV array 4 and OP 17

No glare found

PV array 4 and OP 18

No glare found

PV array 4 and OP 19

No glare found

PV array 4 and OP 20

No glare found

PV: PV array 6 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Car Route 1	0	0.0	0	0.0
Car Route 2	0	0.0	0	0.0
Car Route 3	0	0.0	0	0.0
Truck Route 4	0	0.0	0	0.0
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0
OP 15	0	0.0	0	0.0
OP 16	0	0.0	0	0.0
OP 17	0	0.0	0	0.0
OP 18	0	0.0	0	0.0
OP 19	0	0.0	0	0.0
OP 20	0	0.0	0	0.0

PV array 6 and Route: Car Route 1

No glare found

PV array 6 and Route: Car Route 2

No glare found

PV array 6 and Route: Car Route 3

No glare found

PV array 6 and Route: Truck Route 4

No glare found

PV array 6 and OP 1

No glare found

PV array 6 and OP 2

No glare found

PV array 6 and OP 3

No glare found

PV array 6 and OP 4

No glare found

PV array 6 and OP 5

No glare found

PV array 6 and OP 6

No glare found

PV array 6 and OP 7

No glare found

PV array 6 and OP 8

No glare found

PV array 6 and OP 9

No glare found

PV array 6 and OP 10

No glare found

PV array 6 and OP 11

No glare found

PV array 6 and OP 12

No glare found

PV array 6 and OP 13

No glare found

PV array 6 and OP 14

No glare found

PV array 6 and OP 15

No glare found

PV array 6 and OP 16

No glare found

PV array 6 and OP 17

No glare found

PV array 6 and OP 18

No glare found

PV array 6 and OP 19

No glare found

PV array 6 and OP 20

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.
Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.
The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.
Several V1 calculations utilize the PV array centroid, rather than the actual glare spot location, due to algorithm limitations. This may affect results for large PV footprints. Additional analyses of array sub-sections can provide additional information on expected glare. This primarily affects V1 analyses of path receptors.
Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.
The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.
The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)
The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.
The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.
The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.
Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.
Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.
Refer to the Help page at **www.forgesolar.com/help/** for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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Vegetation Management Plan for Solar Sites Utilizing Native Vegetation

Natural Resource Services

35-Year Solar Site Habitat Management

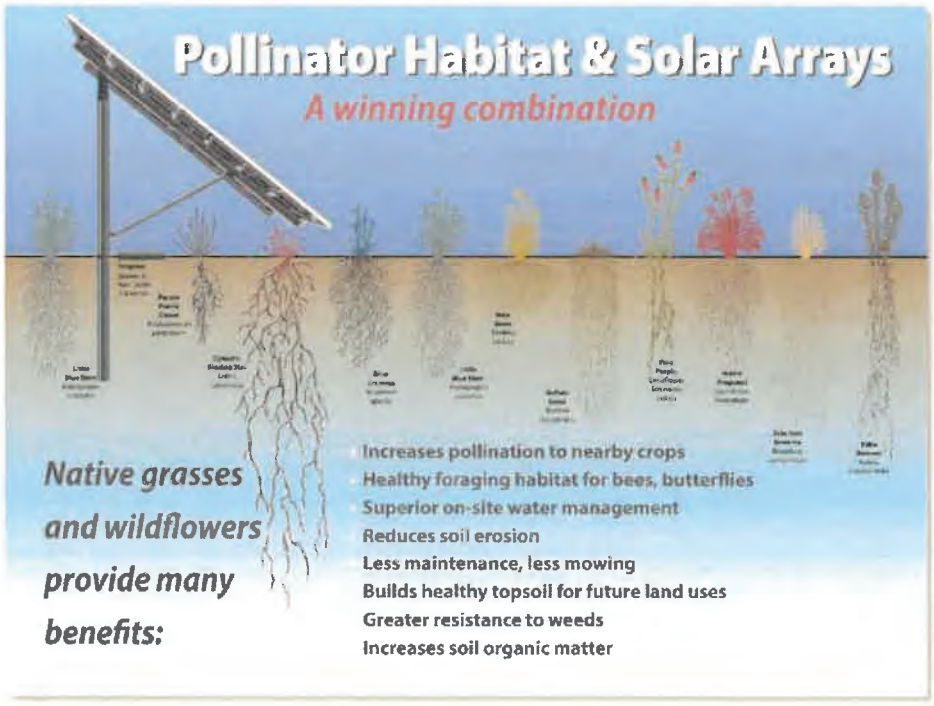
Economical production of power is the foremost goal on solar sites. There is a parallel opportunity to provide critically important native pollinator friendly habitat throughout the array while capitalizing on the long-term low maintenance needs of native vegetation.

Establishing prairies and other native plant communities within the confines of solar sites provides a tremendous opportunity to restore ecosystems that have been severely degraded and eliminated across all areas of the country.

Native plants have profound root systems, many reaching 10 or more feet deep into the soil. Rainwater follows those roots into the ground, helping reduce water runoff and promote the drainage of standing water into the aquafer. Those deep roots also stabilize the soil, preventing erosion from rain and wind. The plants provide seeds for songbirds, cover for game birds and, of course, provide the blossoms and host plants for our beloved butterflies and other nectar loving insects.

Native grasses and forbs will be selected based on their ecological appropriateness to the specific conditions of this site, with consideration to their mature height as to not interfere with panel productivity. These species will not require irrigation, fertilizer or other soil amendments.

The contribution to habitat restoration cannot be overstated given the acreage impacted and lifespan of the project.



Recommended Vegetation Management Procedures

Establishment Phase (growing seasons 1, 2 and 3)

Year 1: Complete site mowings to control annual/biennial weed canopy and prevent production of viable seed.

- 2-3 mowings are typical depending on soils, weather patterns and planting dates.
- Mowing to be done using specialized zero-radius mowers, orchard mowers and/or flail mowers
- Target mowing height of 4-6 inches.
- Reporting to your designated contact following each visit including a recap of activities, site conditions and recommendations for future management.

Year 2: Complete site mowing to control annual/biennial weed canopy and prevent production of viable seed.

- 2 mowings likely in the late spring or early summer.
- Mowing to be done using specialized zero-radius mowers, orchard mowers and/or flail mowers
- Target mowing height of 4-6 inches.
- Reporting to your designated contact following each visit including a recap of activities, site conditions and recommendations for future management.

Integrated Vegetation Management (IVM)

- 1 site visit is typical depending on growth and weed populations.
- Includes spot mowing, spot herbicide application, herbicide wicking, etc.
- Equipment used includes tractor and/or ATV mounted sprayers.
- Reporting to your designated contact following each visit including a recap of activities, site conditions and recommendations for future management.

Year 3: Integrated Vegetation Management (IVM)

- 3 site visits are typical depending on growth and weed populations.
- Includes spot mowing, spot herbicide application, herbicide wicking, etc.
- Equipment used includes tractor and/or ATV mounted sprayers.
- Reporting to your designated contact following each visit including a recap of activities, site conditions and recommendations for future management.

Development and Maturations Phases (growing seasons 4 through 9, 10 through 34)

Years 4 - 9: Integrated Vegetation Management (IVM)

- Two partial site visits are typical depending on vegetation status
- Includes spot herbicide applications and/or herbicide wicking.
- Equipment used includes tractor and/or ATV mounted sprayers.
- **Includes a complete site mowing once every 3 years to mulch up biomass and recycle nutrients. On years when a mowing occurs, only one IVM visit will be necessary.**
- Reporting to your designated contact following each visit including a recap of activities, site conditions and recommendations for future management.

Years 10 – 34: Integrated Vegetation Management

- Two partial site visits are typical depending on vegetation status
- Includes spot herbicide applications and/or herbicide wicking.
- Equipment used includes tractor and/or ATV mounted sprayers.
- **Includes a complete site mowing once every 3 years to mulch up biomass and recycle nutrients. On years when a mowing occurs, only one IVM visit will be necessary.**
- Reporting to your designated contact following each visit including a recap of activities, site conditions and recommendations for future management.

Notes:

- The Partial Site Visits referred to in years 4-34 imply that only portions of the site will need treatment. The entire project area will be assessed during these visits.
- For projects located outside of the Upper Midwest, the recommended vegetation management procedures may need to be adjusted.

Monitoring

Consistent monitoring of the project is essential in order to evaluate vegetative establishment, weed presence and possible erosion concerns. This information helps determine which management technique to use, the proper timing of the implementation and whether or not any other remedial action is required.

It is important to note that management activities may need to be implemented in a phased approach based on when a particular area of the site was seeded. This is mainly true on large-scale sites where the initial seeding may take several months. For example, this project may have areas that are newly seeded and other areas that are in their full 1st growing season. Careful management of project will be required to ensure that right management techniques are implemented in the right areas at the right time.

Other Notes on Vegetation Management:

- Establishing a successful native landscape is important but the vegetation also needs to be managed so that the array can function to its full capacity. It is likely, that as the potential vegetation management contractor, we would be responsible for general "weed" control throughout the project site. This would include controlling vegetation along roads, combiner boxes, power panels, etc. These responsibilities would need to be further defined prior to finalizing an agreement.
- Solar crews will mechanically control weed growth underneath the panel. Mowing/trimming around every post is not included and not necessary from a plant community health standpoint.
- On larger scale sites, solar crews will utilize GPS units to ensure complete and consistent coverage.
- After establishment, the site should be mowed once every 3-4 years. This mulching mowing most closely replicates the beneficial aspects of a prescribed burn which cannot be used on a solar site for obvious reasons. These mowings would typically occur during the winter (snow-free) or spring, often before the ground thaws. Depending on the geographic area of the country and the target plant community, mowings may be needed more or less often.
- Additional mowing or trimming may be needed if shading of the panels occurs, either by native or non-native vegetation. As a general rule, this type of mowing, if needed, should be limited to the areas immediately in front of the panel's lower edge. Mowing the entire aisles would entail potentially mowing flowers in bloom which would defeat the purpose of the pollinator planting.

Illinois Department of Agriculture

JB Pritzker, Governor
Jerry Costello II, Director

Bureau of Land and Water Resources
State Fairgrounds • P.O. Box 19281 • Springfield, IL 62794-9281 • 217/782-6297 • TDD 866/287-2999 • Fax 217/557-0993

December 5, 2023

Dear Landowner:

As the landowner across which the Corneils Road Solar, LLC is planning to construct a community scale solar farm and related ±4.99 MW Commercial Solar Energy Facility, that will consist of solar panel arrays, racking systems, access roads, an onsite underground collection system, inverters and transformers, the Illinois Department of Agriculture would like to inform you of the following matter.

Effective December 4, 2023, Corneils Road Solar, LLC and the Illinois Department of Agriculture (IDOA) entered into an Agricultural Impact Mitigation Agreement (AIMA) establishing standards and policies that Corneils Road Solar, LLC will follow as it constructs a ±4.99 MW community scale commercial Solar Energy Facility over agricultural land in Kendall County. The enclosed AIMA will provide a high level of protection to such land, but it may not address specific concerns that you may have. Such concerns must be addressed individually in your own easement contract to accomplish your specific goals.

As you review the AIMA, you may identify procedures that you would like to change. Your right to negotiate changes is preserved by Paragraph B. on page one of the AIMA. It states, "Except for Section 17B. through F., all actions set forth in this AIMA are subject to modification through negotiation by Landowners and the Facility Owner, provided such changes are negotiated in advance of the respective Construction or Deconstruction activities." It is your decision as to whether you discuss the changes you desire with the right-of-way agent that is assigned to you. Of course, you also have the option to seek your own attorney to make sure your interests are protected.

As you consider your personal interests, you may want to include the owner indemnification clause in your individual easement agreement to protect yourself, your family and future heirs against future claims or expenses arising from the commercial solar energy facility's construction, repairs and maintenance. This item is covered in Section 16 of the AIMA. We feel it is best that such issues are left to landowners to address in their individual easement contracts if specific items are of concern.

Please note that although the IDOA has entered the AIMA with the Corneils Road Solar, LLC it does not constitute our endorsement of the project. The AIMA's sole purpose is to provide a high level of protection to landowners and agricultural land that will be impacted by the construction of the Solar Farm.

If you have questions, feel free to contact Jeffrey Evers of my staff at 217-785-5594, the address listed above or agr.aima@illinois.gov.

Sincerely,

Brian Rennecker, Chief
Bureau of Land and Water Resources

Enclosure
BR:JE

cc: Jerry Costello II, IDOA Director
Tess Feagans, IDOA
Bill Bodine, Laura Harmon - IL Farm Bureau
Garrett W. Thalgott – IL Farm Bureau
Kendall Co. Farm Bureau Manager
Kendall Co. Soil and Water Conservation District (SWCD)
Regional Representatives

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT
between
Corneils Road Solar, LLC

and the
ILLINOIS DEPARTMENT OF AGRICULTURE
Pertaining to the Construction of a Commercial Solar Energy Facility
in
Kendall County, Illinois

Pursuant to the Renewable Energy Facilities Agricultural Impact Mitigation Act (505 ILCS 147), the following standards and policies are required by the Illinois Department of Agriculture (IDOA) to help preserve the integrity of any Agricultural Land that is impacted by the Construction and Deconstruction of a Commercial Solar Energy Facility. They were developed with the cooperation of agricultural agencies, organizations, Landowners, Tenants, drainage contractors, and solar energy companies to comprise this Agricultural Impact Mitigation Agreement (AIMA).

Corneils Road Solar, LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 4.99MWac Commercial Solar Energy Facility in Kendall County [GPS Coordinates: 41.6967, -88.46004], which will consist of up to 36 acres that will be covered by solar facility related components, such as solar panel arrays, racking systems, access roads, an onsite underground collection system, inverters and transformers and any affiliated electric transmission lines. This AIMA is made and entered between the Facility Owner and the IDOA.

If Construction does not commence within four years after this AIMA has been fully executed, this AIMA shall be revised, with the Facility Owner's input, to reflect the IDOA's most current Solar Farm Construction and Deconstruction Standards and Policies. This AIMA, and any updated AIMA, shall be filed with the County Board by the Facility Owner prior to the commencement of Construction.

The below prescribed standards and policies are applicable to Construction and Deconstruction activities occurring partially or wholly on privately owned agricultural land.

Conditions of the AIMA

The mitigative actions specified in this AIMA shall be subject to the following conditions:

A. All Construction or Deconstruction activities may be subject to County or other local requirements. However, the specifications outlined in this AIMA shall be the minimum standards applied to all Construction or Deconstruction activities. IDOA may utilize any legal means to enforce this AIMA.

B. Except for Section 17. B. through F., all actions set forth in this AIMA are subject to modification through negotiation by Landowners and the Facility Owner, provided such changes are negotiated in advance of the respective Construction or Deconstruction activities.

C. The Facility Owner may negotiate with Landowners to carry out the actions that Landowners wish to perform themselves. In such instances, the Facility Owner shall offer Landowners the area commercial rate for their machinery and labor costs.

D. All provisions of this AIMA shall apply to associated future Construction, maintenance, repairs, and Deconstruction of the Facility referenced by this AIMA.

E. The Facility Owner shall keep the Landowners and Tenants informed of the Facility's Construction and Deconstruction status, and other factors that may have an impact upon their farming operations.

F. The Facility Owner shall include a statement of its adherence to this AIMA in any environmental assessment and/or environmental impact statement.

G. Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. Not less than 30 days prior to the commencement of Construction, a copy of this AIMA shall be provided by the Facility Owner to each Landowner that is party to an Underlying Agreement. In addition, this AIMA shall be incorporated into each Underlying Agreement.

H. The Facility Owner shall implement all actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Facility Owner for the Facility.

I. No later than 45 days prior to the Construction and/or Deconstruction of a Facility, the Facility Owner shall provide the Landowner(s) with a telephone number the Landowner can call to alert the Facility Owner should the Landowner(s) have questions or concerns with the work which is being done or has been carried out on his/her property.

J. If there is a change in ownership of the Facility, the Facility Owner assuming ownership of the Facility shall provide written notice within 90 days of ownership transfer, to the Department, the County, and to Landowners of such change. The Financial Assurance requirements and the other terms of this AIMA shall apply to the new Facility Owner.

K. The Facility Owner shall comply with all local, state and federal laws and regulations, specifically including the worker protection standards to protect workers from pesticide exposure.

L. Within 30 days of execution of this AIMA, the Facility Owner shall use Best Efforts to provide the IDOA with a list of all Landowners that are party to an Underlying Agreement and known Tenants of said Landowner who may be affected by the Facility. As the list of Landowners and Tenants is updated, the Facility Owner shall notify the IDOA of any additions or deletions.

M. If any provision of this AIMA is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the AIMA shall be interpreted as if it did not contain the unenforceable provision.

Definitions

Abandonment	When Deconstruction has not been completed within 12 months after the Commercial Solar Energy Facility reaches the end of its useful life. For purposes of this definition, a Commercial Solar Energy Facility shall be presumed to have reached the end of its useful life if the Commercial Solar Energy Facility Owner fails, for a period of 6 consecutive months, to pay the Landowner amounts owed in accordance with an Underlying Agreement.

Aboveground Cable	Electrical power lines installed above ground surface to be utilized for conveyance of power from the solar panels to the solar facility inverter and/or point of interconnection to utility grid or customer electric meter.
Agricultural Impact Mitigation Agreement (AIMA)	The Agreement between the Facility Owner and the Illinois Department of Agriculture (IDOA) described herein.
Agricultural Land	Land used for Cropland, hayland, pastureland, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government conservation programs used for purposes as set forth above.
Best Efforts	Diligent, good faith, and commercially reasonable efforts to achieve a given objective or obligation.
Commercial Operation Date	The calendar date of which the Facility Owner notifies the Landowner, County, and IDOA in writing that commercial operation of the facility has commenced. If the Facility Owner fails to provide such notifications, the Commercial Operation Date shall be the execution date of this AIMA plus 6 months.
Commercial Solar Energy Facility (Facility)	A solar energy conversion facility equal to or greater than 500 kilowatts in total nameplate capacity, including a solar energy conversion facility seeking an extension of a permit to construct granted by a county or municipality before June 29, 2018. "Commercial solar energy facility" does not include a solar energy conversion facility: (1) for which a permit to construct has been issued before June 29, 2018; (2) that is located on land owned by the commercial solar energy facility owner; (3) that was constructed before June 29, 2018; or (4) that is located on the customer side of the customer's electric meter and is primarily used to offset that customer's electricity load and is limited in nameplate capacity to less than or equal to 2,000 kilowatts.
Commercial Solar Energy Facility Owner deemed (Facility Owner)	A person or entity that owns a commercial solar energy facility. A Commercial Solar Energy Facility Owner is not nor shall it be to be a public utility as defined in the Public Utilities Act.
County	The County or Counties where the Commercial Solar Energy Facility is located.
Construction	The installation, preparation for installation and/or repair of a Facility.
Cropland	Land used for growing row crops, small grains or hay; includes land which was formerly used as cropland, but is currently enrolled in a government conservation program; also includes pastureland that is classified as Prime Farmland.

Deconstruction	The removal of a Facility from the property of a Landowner and the restoration of that property as provided in the AIMA.
Deconstruction Plan	A plan prepared by a Professional Engineer, at the Facility's expense, that includes: (1) the estimated Deconstruction cost, in current dollars at the time of filing, for the Facility, considering among other things: i. the number of solar panels, racking, and related facilities involved; ii. the original Construction costs of the Facility; iii. the size and capacity, in megawatts of the Facility; iv. the salvage value of the facilities (if all interests in salvage value are subordinate to that of the Financial Assurance holder if abandonment occurs); v. the Construction method and techniques for the Facility and for other similar facilities; and (2) a comprehensive detailed description of how the Facility Owner plans to pay for the Deconstruction of the Facility.
Department	The Illinois Department of Agriculture (IDOA).
Financial Assurance	A reclamation or surety bond or other commercially available financial assurance that is acceptable to the County, with the County or Landowner as beneficiary.
Landowner	Any person with an ownership interest in property that is used for agricultural purposes and that is party to an Underlying Agreement.
Prime Farmland	Agricultural Land comprised of soils that are defined by the USDA Natural Resources Conservation Service (NRCS) as "Prime Farmland" (generally considered to be the most productive soils with the least input of nutrients and management).
Professional Engineer	An engineer licensed to practice engineering in the State of Illinois.
Soil and Water Conservation District (SWCD)	A unit of local government that provides technical and financial assistance to eligible Landowners for the conservation of soil and water resources.
Tenant	Any person, apart from the Facility Owner, lawfully residing or leasing/renting land that is subject to an Underlying Agreement.
Topsoil	The uppermost layer of the soil that has the darkest color or the highest content of organic matter; more specifically, it is defined as the "A" horizon.
Underlying Agreement	The written agreement between the Facility Owner and the Landowner(s) including, but not limited to, an easement, option, lease, or license under the terms of which another person has constructed, constructs, or intends to construct a Facility on the property of the Landowner.

Underground Cable	Electrical power lines installed below the ground surface to be utilized for conveyance of power within a Facility or from a Commercial Solar Energy Facility to the electric grid.
USDA Natural Resources Conservation Service (NRCS)	An agency of the United States Department of Agriculture that provides America's farmers with financial and technical assistance to aid with natural resources conservation.

Construction and Deconstruction Standards and Policies

1. Support Structures

A. Only single pole support structures shall be used for the Construction and operation of the Facility on Agricultural Land. Other types of support structures, such as lattice towers or H-frames, may be used on nonagricultural land.

B. Where a Facility's Aboveground Cable will be adjacent and parallel to highway and/or railroad right-of-way, but on privately owned property, the support structures shall be placed as close as reasonably practicable and allowable by the applicable County Engineer or other applicable authorities to the highway or railroad right-of-way. The only exceptions may be at jogs or weaves on the highway alignment or along highways or railroads where transmission and distribution lines are already present.

C. When it is not possible to locate Aboveground Cable next to highway or railroad right-of-way, Best Efforts shall be expended to place all support poles in such a manner to minimize their placement on Cropland (i.e., longer than normal above ground spans shall be utilized when traversing Cropland).

2. Aboveground Facilities

Locations for facilities shall be selected in a manner that is as unobtrusive as reasonably possible to ongoing agricultural activities occurring on the land that contains or is adjacent to the Facility.

3. Guy Wires and Anchors

Best Efforts shall be made to place guy wires and their anchors, if used, out of Cropland, pastureland and hayland, placing them instead along existing utilization lines and on land other than Cropland. Where this is not feasible, Best Efforts shall be made to minimize guy wire impact on Cropland. All guy wires shall be shielded with highly visible guards.

4. Underground Cabling Depth

A. Underground electrical cables located outside the perimeter of the (fence) of the solar panels shall be buried with:

1. a minimum of 5 feet of top cover where they cross Cropland.
2. a minimum of 5 feet of top cover where they cross pastureland or other non-Cropland classified as Prime Farmland.
3. a minimum of 3 feet of top cover where they cross pastureland and other Agricultural Land not classified as Prime Farmland.

4. a minimum of 3 feet of top cover where they cross wooded/brushy land.

B. Provided that the Facility Owner removes the cables during Deconstruction, underground electric cables may be installed to a minimum depth of 18 inches:

1. Within the fenced perimeter of the Facility; or

2. When buried under an access road associated with the Facility provided that the location and depth of cabling is clearly marked at the surface.

C. If Underground Cables within the fenced perimeter of the solar panels are installed to a minimum depth of 5 feet, they may remain in place after Deconstruction.

5. Topsoil Removal and Replacement

A. Any excavation shall be performed in a manner to preserve topsoil. Best Efforts shall be made to store the topsoil near the excavation site in such a manner that it will not become intermixed with subsoil materials.

B. Best Efforts shall be made to store all disturbed subsoil material near the excavation site and separate from the topsoil.

C. When backfilling an excavation site, Best Efforts shall be used to ensure the stockpiled subsoil material will be placed back into the excavation site before replacing the topsoil.

D. Refer to Section 7 for procedures pertaining to rock removal from the subsoil and topsoil.

E. Refer to Section 8 for procedures pertaining to the repair of compaction and rutting of the topsoil.

F. Best Efforts shall be performed to place the topsoil in a manner so that after settling occurs, the topsoil's original depth and contour will be restored as close as reasonably practicable. The same shall apply where excavations are made for road, stream, drainage ditch, or other crossings. In no instance shall the topsoil materials be used for any other purpose unless agreed to explicitly and in writing by the Landowner.

G. Based on the mutual agreement of the landowner and Facility Owner, excess soil material resulting from solar facility excavation shall either be removed or stored on the Landowner's property and reseeded per the applicable National Pollution Discharge Elimination System (NPDES) permit/Stormwater Pollution Prevention Plan (SWPPP). After the Facility reaches the end of its Useful Life, the excess subsoil material shall be returned to an excavation site or removed from the Landowner's property, unless otherwise agreed to by Landowner.

6. Rerouting and Permanent Repair of Agricultural Drainage Tiles

The following standards and policies shall apply to underground drainage tile line(s) directly or indirectly affected by Construction and/or Deconstruction:

A. Prior to Construction, the Facility Owner shall work with the Landowner to identify drainage tile lines traversing the property subject to the Underlying Agreement to the extent reasonably practicable. All drainage tile lines identified in this manner shall be shown on the Construction and Deconstruction Plans.

B. The location of all drainage tile lines located adjacent to or within the footprint of the Facility shall be recorded using Global Positioning Systems (GPS) technology. Within 60 days after Construction is complete, the Facility Owner shall provide the Landowner, the IDOA, and the respective County Soil and Water Conservation District (SWCD) with "as built" drawings (strip maps) showing the location of all drainage tile lines by survey station encountered in the Construction of the Facility, including any tile line repair location(s), and any underground cable installed as part of the Facility.

C. **Maintaining Surrounding Area Subsurface Drainage**

If drainage tile lines are damaged by the Facility, the Facility Owner shall repair the lines or install new drainage tile line(s) of comparable quality and cost to the original(s), and of sufficient size and appropriate slope in locations that limit direct impact from the Facility. If the damaged tile lines cause an unreasonable disruption to the drainage system, as determined by the Landowner, then such repairs shall be made promptly to ensure appropriate drainage. Any new line(s) may be located outside of, but adjacent to the perimeter of the Facility. Disrupted adjacent drainage tile lines shall be attached thereto to provide an adequate outlet for the disrupted adjacent tile lines.

D. **Re-establishing Subsurface Drainage Within Facility Footprint**

Following Deconstruction and using Best Efforts, if underground drainage tile lines were present within the footprint of the facility and were severed or otherwise damaged during original Construction, facility operation, and/or facility Deconstruction, the Facility Owner shall repair existing drainage tiles or install new drainage tile lines of comparable quality and cost to the original, within the footprint of the Facility with sufficient capacity to restore the underground drainage capacity that existed within the footprint of the Facility prior to Construction. Such installation shall be completed within 12 months after the end of the useful life of the Facility and shall be compliant with Figures 1 and 2 to this Agreement or based on prudent industry standards if agreed to by Landowner.

E. If there is any dispute between the Landowner and the Facility Owner on the method of permanent drainage tile line repair, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

F. During Deconstruction, all additional permanent drainage tile line repairs beyond those included above in Section 6.D. must be made within 30 days of identification or notification of the damage, weather and soil conditions permitting. At other times, such repairs must be made at a time mutually agreed upon by the Facility Owner and the Landowner. If the Facility Owner and Landowner cannot agree upon a reasonable method to complete this restoration, the Facility Owner may implement the recommendations of the appropriate County SWCD and such implementation constitutes compliance with this provision.

G. Following completion of the work required pursuant to this Section, the Facility Owner shall be responsible for correcting all drainage tile line repairs that fail due to Construction and/or Deconstruction for one year following the completion of Construction or Deconstruction, provided those repairs were made by the Facility Owner. The Facility Owner shall not be responsible for drainage tile repairs that the Facility Owner pays the Landowner to perform.

7. Rock Removal

With any excavations, the following rock removal procedures pertain only to rocks found in the uppermost 42 inches of soil, the common freeze zone in Illinois, which emerged or were brought to the site as a result of Construction and/or Deconstruction.

A. Before replacing any topsoil, Best Efforts shall be taken to remove all rocks greater than 3 inches in any dimension from the surface of exposed subsoil which emerged or were brought to the site as a result of Construction and/or Deconstruction.

B. If trenching, blasting, or boring operations are required through rocky terrain, precautions shall be taken to minimize the potential for oversized rocks to become interspersed in adjacent soil material.

C. Rocks and soil containing rocks removed from the subsoil areas, topsoil, or from any excavations, shall be removed from the Landowner's premises or disposed of on the Landowner's premises at a location that is mutually acceptable to the Landowner and the Facility Owner.

8. Repair of Compaction and Rutting

A. Unless the Landowner opts to do the restoration work on compaction and rutting, after the topsoil has been replaced post-Deconstruction, all areas within the boundaries of the Facility that were traversed by vehicles and Construction and/or Deconstruction equipment that exhibit compaction and rutting shall be restored by the Facility Owner. All prior Cropland shall be ripped at least 18 inches deep or to the extent practicable, and all pasture and woodland shall be ripped at least 12 inches deep or to the extent practicable. The existence of drainage tile lines or underground utilities may necessitate less ripping depth. The disturbed area shall then be disked.

B. All ripping and disking shall be done at a time when the soil is dry enough for normal tillage operations to occur on Cropland adjacent to the Facility.

C. The Facility Owner shall restore all rutted land to a condition as close as possible to its original condition upon Deconstruction, unless necessary earlier as determined by the Landowner.

D. If there is any dispute between the Landowner and the Facility Owner as to what areas need to be ripped/disked or the depth at which compacted areas should be ripped/disked, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

9. Construction During Wet Weather

Except as provided below, construction activities are not allowed on agricultural land during times when normal farming operations, such as plowing, disking, planting or harvesting, cannot take place due to excessively wet soils. With input from the landowner, wet weather conditions may be determined on a field by field basis.

A. Construction activities on prepared surfaces, surfaces where topsoil and subsoil have been removed, heavily compacted in preparation, or otherwise stabilized (e.g. through cement mixing) may occur at the discretion of the Facility Owner in wet weather conditions.

B. Construction activities on unprepared surfaces will be done only when work will not result in rutting which may mix subsoil and topsoil. Determination as to the potential of subsoil and topsoil mixing will be made in consultation with the underlying Landowner, or, if approved by the Landowner, his/her designated tenant or designee.

10. Prevention of Soil Erosion

A. The Facility Owner shall work with Landowners and create and follow a SWPPP to prevent excessive erosion on land that has been disturbed by Construction or Deconstruction of a Facility.

B. If the Landowner and Facility Owner cannot agree upon a reasonable method to control erosion on the Landowner's property, the Facility Owner shall consider the recommendations of the appropriate County SWCD to resolve the disagreement.

C. The Facility Owner may, per the requirements of the project SWPPP and in consultation with the Landowner, seed appropriate vegetation around all panels and other facility components to prevent erosion. The Facility Owner must utilize Best Efforts to ensure that all seed mixes will be as free of any noxious weed seeds as possible. The Facility Owner shall consult with the Landowner regarding appropriate varieties to seed.

11. Repair of Damaged Soil Conservation Practices

Consultation with the appropriate County SWCD by the Facility Owner shall be carried out to determine if there are soil conservation practices (such as terraces, grassed waterways, etc.) that will be damaged by the Construction and/or Deconstruction of the Facility. Those conservation practices shall be restored to their preconstruction condition as close as reasonably practicable following Deconstruction in accordance with USDA NRCS technical standards. All repair costs shall be the responsibility of the Facility Owner.

12. Compensation for Damages to Private Property

The Facility Owner shall reasonably compensate Landowners for damages caused by the Facility Owner. Damage to Agricultural Land shall be reimbursed to the Landowner as prescribed in the applicable Underlying Agreement.

13. Clearing of Trees and Brush

A. If trees are to be removed for the Construction or Deconstruction of a Facility, the Facility Owner shall consult with the Landowner to determine if there are trees of commercial or other value to the Landowner.

B. If there are trees of commercial or other value to the Landowner, the Facility Owner shall allow the Landowner the right to retain ownership of the trees to be removed and the disposition of the removed trees shall be negotiated prior to the commencement of land clearing.

14. Access Roads

A. To the extent practicable, access roads shall be designed to not impede surface drainage and shall be built to minimize soil erosion on or near the access roads.

B. Access roads may be left intact during Construction, operation or Deconstruction through mutual agreement of the Landowner and the Facility Owner unless otherwise restricted by federal, state, or local regulations.

C. If the access roads are removed, Best Efforts shall be expended to assure that the land shall be restored to equivalent condition(s) as existed prior to their construction, or as otherwise agreed to by the Facility Owner and the Landowner. All access roads that are removed shall be ripped to a depth of 18 inches. All ripping shall be performed consistent with Section 8.

15. Weed/Vegetation Control

A. The Facility Owner shall provide for weed control in a manner that prevents the spread of weeds. Chemical control, if used, shall be done by an appropriately licensed pesticide applicator.

B. The Facility Owner shall be responsible for the reimbursement of all reasonable costs incurred by owners of agricultural land where it has been determined by the appropriate state or county entity that weeds have spread from the Facility to their property. Reimbursement is contingent upon written notice to the Facility Owner. Facility Owner shall reimburse the property owner within 45 days after notice is received.

C. The Facility Owner shall ensure that all vegetation growing within the perimeter of the Facility is properly and appropriately maintained. Maintenance may include, but not be limited to, mowing, trimming, chemical control, or the use of livestock as agreed to by the Landowner.

D. The Deconstruction plans must include provisions for the removal of all weed control equipment used in the Facility, including weed-control fabrics or other ground covers.

16. Indemnification of Landowners

The Facility Owner shall indemnify all Landowners, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and reasonable expenses resulting from or arising out of the Commercial Solar Energy Facility, including Construction and Deconstruction thereof, and also including damage to such Facility or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Landowners, and/or the Landowners heirs, successors, legal representatives, and assigns.

17. Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities

A. Deconstruction of a Facility shall include the removal/disposition of all solar related equipment/facilities, including the following utilized for operation of the Facility and located on Landowner property:

1. Solar panels, cells and modules;
2. Solar panel mounts and racking, including any helical piles, ground screws, ballasts, or other anchoring systems;
3. Solar panel foundations, if used (to depth of 5 feet);

4. Transformers, inverters, energy storage facilities, or substations, including all components and foundations; however, Underground Cables at a depth of 5 feet or greater may be left in place;
5. Overhead collection system components;
6. Operations/maintenance buildings, spare parts buildings and substation/switching gear buildings unless otherwise agreed to by the Landowner;
7. Access Road(s) unless Landowner requests in writing that the access road is to remain;
8. Operation/maintenance yard/staging area unless otherwise agreed to by the Landowner; and
9. Debris and litter generated by Deconstruction and Deconstruction crews.

B. The Facility Owner shall, at its expense, complete Deconstruction of a Facility within twelve (12) months after the end of the useful life of the Facility.

C. During the County permit process, or if none, then prior to the commencement of construction, the Facility Owner shall file with the County a Deconstruction Plan. The Facility Owner shall file an updated Deconstruction Plan with the County on or before the end of the tenth year of commercial operation.

D. The Facility Owner shall provide the County with Financial Assurance to cover the estimated costs of Deconstruction of the Facility. Provision of this Financial Assurance shall be phased in over the first 11 years of the Project's operation as follows:

1. On or before the first anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover ten (10) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
2. On or before the sixth anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover fifty (50) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
3. On or before the eleventh anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover one hundred (100) percent of the estimated costs of Deconstruction of the Facility as determined in the updated Deconstruction Plan provided during the tenth year of commercial operation.

The Financial Assurance shall not release the surety from liability until the Financial Assurance is replaced. The salvage value of the Facility may only be used to reduce the estimated costs of Deconstruction if the County agrees that all interests in the salvage value are subordinate or have been subordinated to that of the County if Abandonment occurs.

E. The County may, but is not required to, reevaluate the estimated costs of Deconstruction of any Facility after the tenth anniversary, and every five years thereafter, of the Commercial Operation Date. Based on any reevaluation, the County may require changes in the level of Financial Assurance used to calculate the phased Financial Assurance levels described in Section 17.D. required from the Facility Owner. If the County is unable to its satisfaction to perform the investigations necessary to approve the Deconstruction Plan filed by the Facility Owner, then the County and Facility may mutually agree on the selection of a Professional Engineer independent of the Facility Owner to conduct any necessary investigations. The Facility Owner shall be responsible for the cost of any such investigations.

F. Upon Abandonment the County may take all appropriate actions for Deconstruction including drawing upon the Financial Assurance.

Concurrence of the Parties to this AIMA

The Illinois Department of Agriculture and Corneils Road Solar, LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the Construction and Deconstruction of the solar farm project in Kendall County within the State of Illinois.

The effective date of this AIMA commences on the date of execution.

STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE

Jerry Costello II

By: Jerry Costello II, Director 4

Clay Nordsiek

By ~~Tess Feagans, General Counsel~~ Clay Nordsiek, Deputy General Counsel

801 E. Sangamon Avenue, 62702
State Fairgrounds, POB 19281 Springfield,
IL 62794-9281

12/4, 2023

Corneils Road Solar, LLC

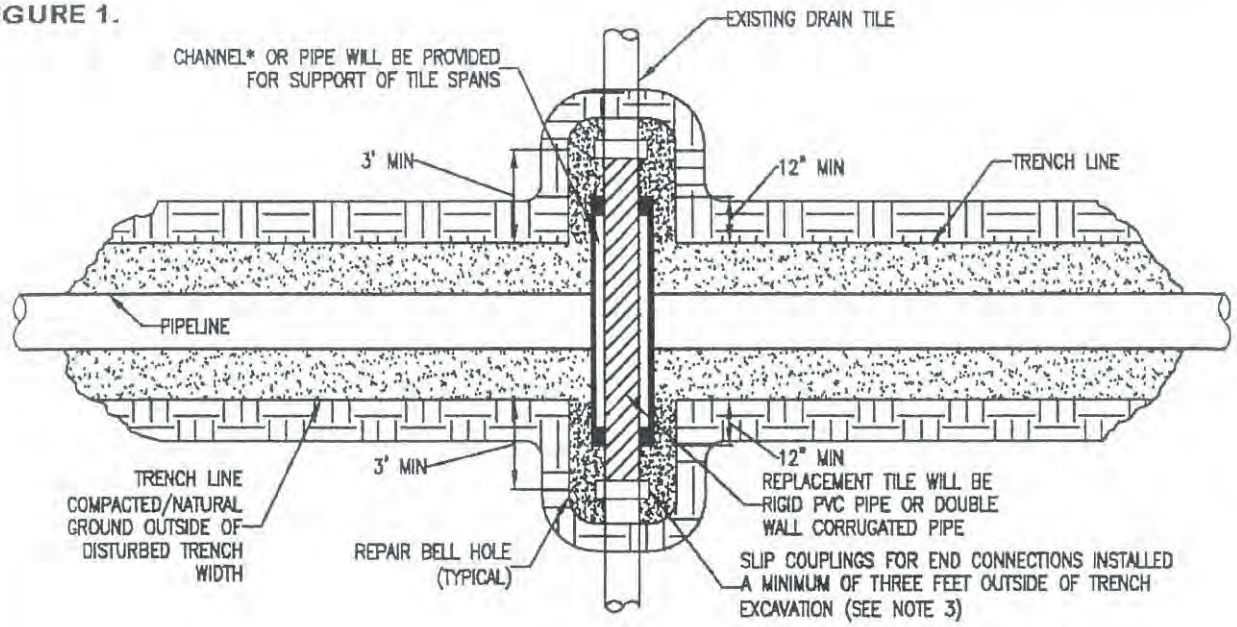
By Matthew Walsh, VP of Business Devel

101 N. Wacker Suite 200
Chicago, IL 60606

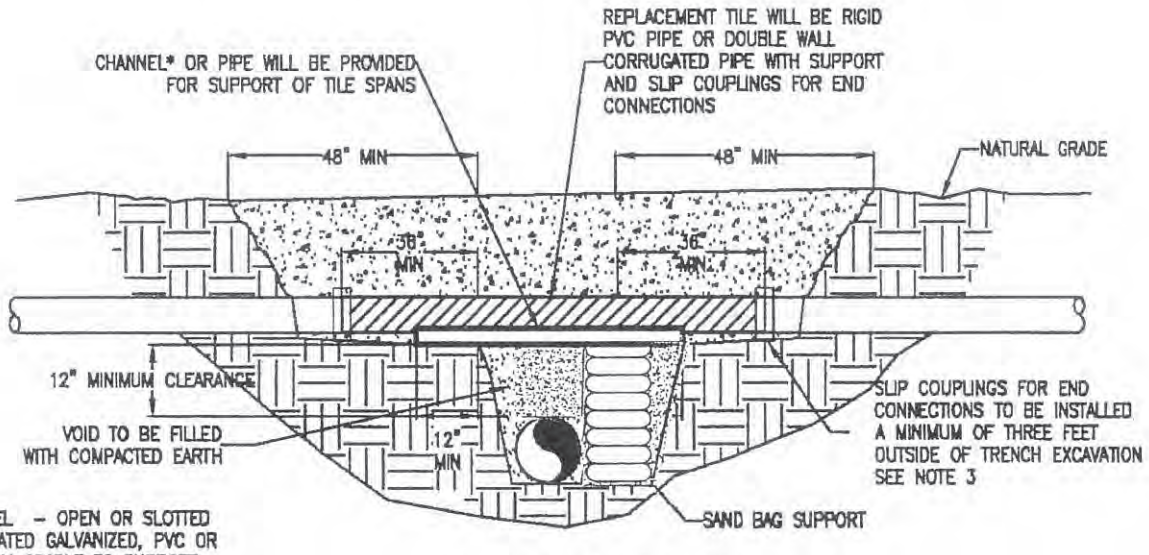
Address

November 22, 2023

FIGURE 1.



PLAN
N.T.S.



*CHANNEL – OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

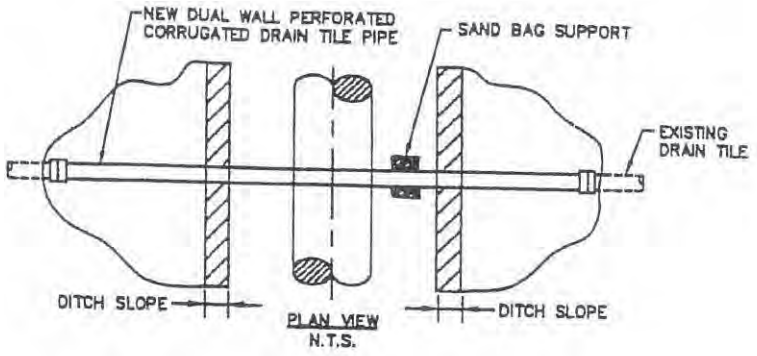
CROSS SECTION
N.T.S.

NOTE:

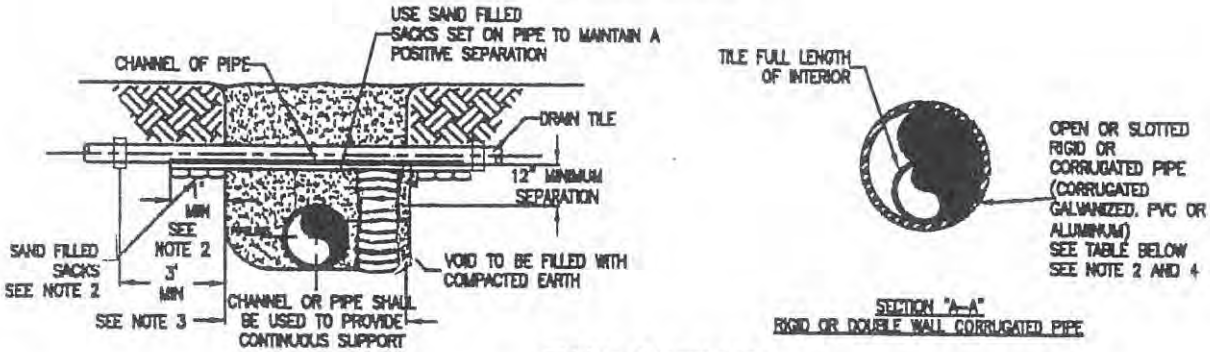
1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE 'NIGHT CAP' SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.
2. CHANNEL OR PIPE (OPEN OR SLOTTED) MADE OF CORRUGATED GALVANIZED PIPE, PVC OR ALUMINUM WILL BE USED FOR SUPPORT OF DRAIN TILE SPANS.
3. INDUSTRY STANDARDS SHALL BE FOLLOWED TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES.

TEMPORARY DRAIN TILE REPAIR

FIGURE 2.



PLAN VIEW



END VIEWS

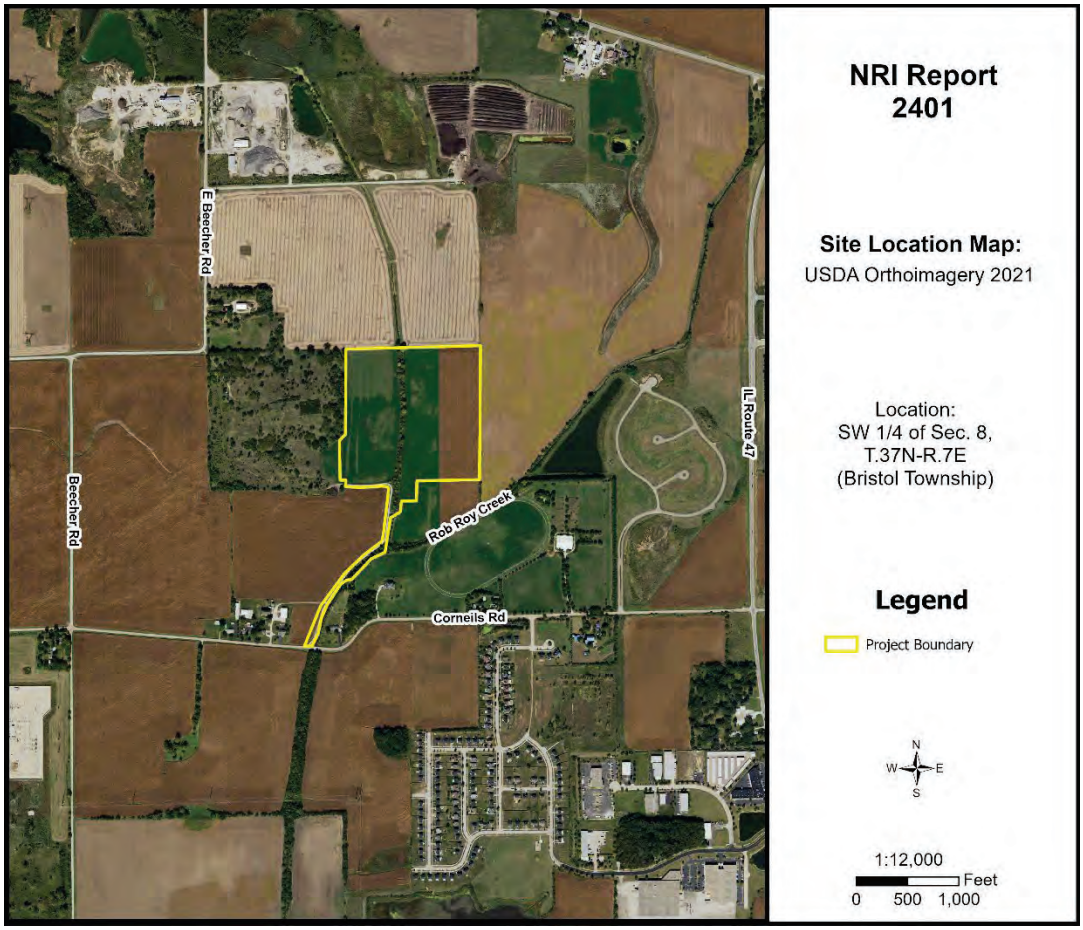
MINIMUM SUPPORT TABLE			
TILE SIZE	CHANNEL SIZE	PIPE SIZE	
3"	4" @ 5.4 #/ft	4"	STD. WT.
4"-5"	5" @ 6.7 #/ft	6"	STD. WT.
6"-9"	7" @ 9.8 #/ft	9"-10"	STD. WT.
10"	10" @ 15.3 #/ft	12"	STD. WT.

NOTE:

1. TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
2. 1'-0" MINIMUM LENGTH OF CHANNEL OR RIGID PIPE (OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE) SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHIM WITH SAND BAGS TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).
3. DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
4. DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
5. OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH TO THE CHANNEL/PIPE SECTIONS SHOWN AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THEN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.
6. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
7. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

PERMANENT DRAIN TILE REPAIR

NATURAL RESOURCE INFORMATION (NRI) REPORT: #2401



Jan. 2024

Petitioner: Corneils Road Solar, LLC
Contact: Matt Kwiatkowski (Nexamp)

Prepared By:

Kendall County Soil & Water Conservation District

7775A Route 47
Yorkville, Illinois 60560
Phone: (630) 553-5821 x3
www.kendallswcd.org

KENDALL COUNTY SOIL AND WATER CONSERVATION DISTRICT NATURAL RESOURCE INFORMATION (NRI) REPORT

Natural Resource Information Report Number	2401
Date District Board Reviews Application	January 2024
Applicant's Name	Corneils Road Solar, LLC
Size of Parcel	(+/-) 41.0 acres
Current Zoning & Use	A-1 Agricultural Special Use (Kendall County), R-1 Single-Family Residence (City of Yorkville); Agricultural field
Proposed Zoning & Use	A-1 Agricultural Special Use; Solar Facility
Parcel Index Number(s)	02-08-300-008, 02-08-300-011, 02-08-300-012
Contact Person	Matt Kwiatkowski (Nexamp)

Copies of this report or notification of the proposed land-use change was provided to:	**Yes**	**No**
The Applicant	X	
The Applicant's Legal Representation		X
The Local/Township Planning Commission	X	
The Village/**City**/County Planning and Zoning Department or Appropriate Agency	X	
The Kendall County Soil and Water Conservation District Files	X	

Report Prepared By: *Alyse Olson* Position: *Resource Conservationist*

PURPOSE AND INTENT

The purpose of this report is to provide officials of the local governing body and other decision-makers with natural resource information. This information may be useful when undertaking land use decisions concerning variations, amendments or relief of local zoning ordinances, proposed subdivision of vacant or agricultural lands and the subsequent development of these lands. This report is a requirement under Section 22.02a of the Illinois Soil and Water Conservation Districts Act.

The intent of this report is to present the most current natural resource information available in a readily understandable manner. It contains a description of the present site conditions, the present resources, and the potential impacts that the proposed change may have on the site and its resources. The natural resource information was gathered from standardized data, on-site investigations and information furnished by the petitioner. This report must be read in its entirety so that the relationship between the natural resource factors and the proposed land use change can be fully understood.

Due to the limitations of scale encountered with the various resource maps, the property boundaries depicted in the various exhibits in this report provide a generalized representation of the property location and may not precisely reflect the legal description of the PIQ (Parcel in Question).

This report, when used properly, will provide the basis for proper land use change decisions and development while protecting the natural resource base of the county. It should not be used in place of detailed environmental and/or engineering studies that are warranted under most circumstances, but in conjunction with those studies.

The conclusions of this report in no way indicate that a certain land use is not possible, but it should alert the reader to possible problems that may occur if the capabilities of the land are ignored. Any questions on the technical data supplied in this report or if anyone feels that they would like to see more additional specific information to make the report more effective, please contact:

Kendall County Soil and Water Conservation District
7775A Route 47, Yorkville, IL 60560
Phone: (630) 553-5821 ext. 3
E-mail: Alyse.Olson@il.nacdnet.net

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1
PARCEL LOCATION 8
ARCHAEOLOGIC/CULTURAL RESOURCES INFORMATION 10
ECOLOGICALLY SENSITIVE AREAS 11
SOILS INFORMATION 13
SOILS INTERPRETATIONS EXPLANATION 15
BUILDING LIMITATIONS 16
SOIL WATER FEATURES 21
SOIL EROSION AND SEDIMENT CONTROL 23
PRIME FARMLAND SOILS 24
LAND EVALUATION AND SITE ASSESSMENT (LESA) 25
LAND USE PLANS 27
DRAINAGE, RUNOFF, AND FLOOD INFORMATION 27
WATERSHED PLANS 31
WETLAND INFORMATION 32
HYDRIC SOILS 34
WETLAND AND FLOODPLAIN REGULATIONS 36
GLOSSARY 37
REFERENCES 40

LIST OF FIGURES

FIGURE 1: Soil Map 2
FIGURE 2: Soil Limitations 4
FIGURE 3: 2021 Plat Map 8
FIGURE 4: 2021 Aerial Map with NRI Site Boundary 9
FIGURE 5: Soil Map 14
FIGURE 6A-6C: Maps of Building Limitations 18-20

FIGURE 7: Prime Farmland Soils 24
FIGURE 8: Flood Map 29
FIGURE 9: Topographic Map 30
FIGURE 10: Wetland Map 33
FIGURE 11: Hydric Soils Map 35

LIST OF TABLES

TABLE 1: Soils Information 2
TABLE 2: Soil Limitations 4
TABLE 3: Soil Map Unit Descriptions 14
TABLE 4: Building Limitations 17
TABLE 5: Water Features 22
TABLE 6: Soil Erosion Potential 23
TABLE 7: Prime Farmland Soils 24
TABLE 8: Land Evaluation Computation 25
TABLE 9: Hydric Soils 34

EXECUTIVE SUMMARY

Natural Resource Information Report Number	#2401
Petitioner	Corneils Road Solar, LLC
Contact Person	Matt Kwiatkowski (Nexamp)
County or Municipality the Petition is Filed With	United City of Yorkville
Location of Parcel	Southwest ¼ of Section 8, Township 37 North, Range 7 East (Bristol Township) of the 3rd Principal Meridian
Project or Subdivision Name	Corneils Road Solar
Existing Zoning & Land Use	A-1 Agricultural Special Use (Kendall County), R-1 Single-Family Residence (City of Yorkville); Agricultural field
Proposed Zoning & Land Use	A-1 Agricultural Special Use; Solar Facility
Proposed Water Source	Not applicable
Proposed Type of Sewage Disposal System	Not applicable
Proposed Type of Storm Water Management	Not indicated
Size of Site	(+/-) 41.0 acres
Land Evaluation Site Assessment (LESA) Score	(Land Evaluation: 95; Site Assessment: N/A)

NATURAL RESOURCE CONSIDERATIONS

SOIL INFORMATION

Based on information from the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) 2008 Kendall County Soil Survey, this project area contains the soil types shown in Figure 1 and Table 1. Please note this does not replace the need for or results of onsite soil testing. If completed, please refer to onsite soil test results for planning/engineering purposes.

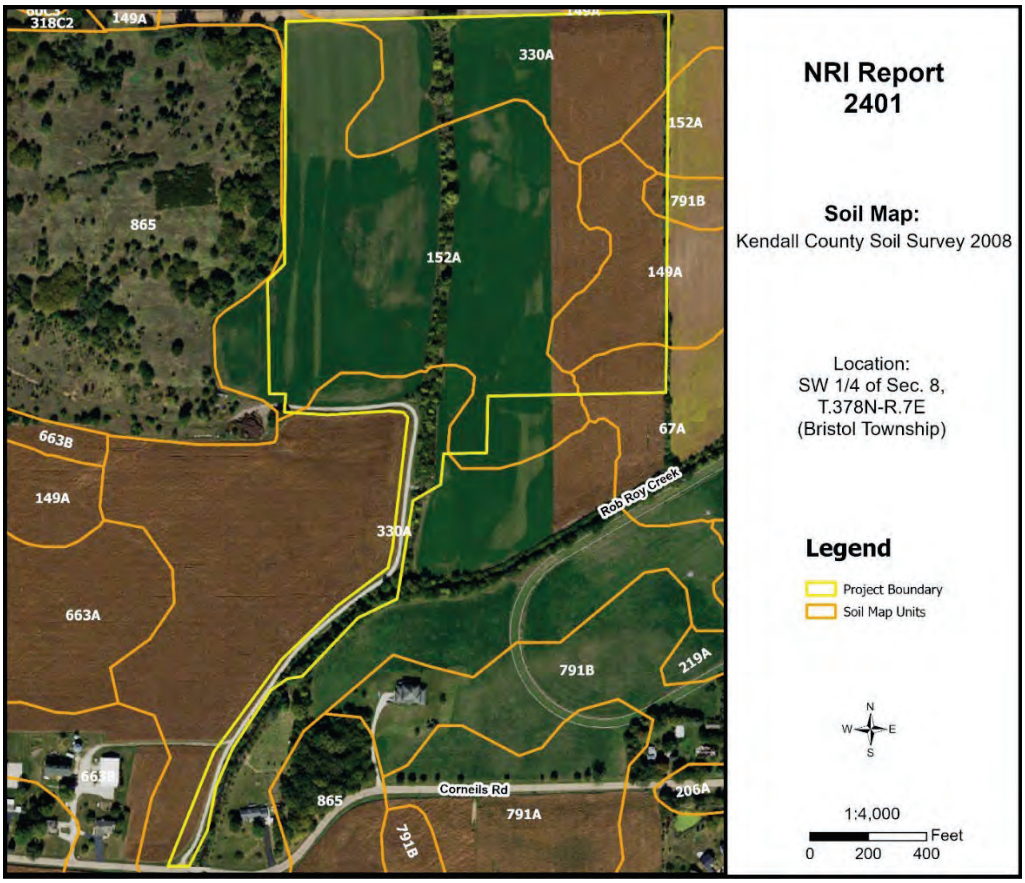


Figure 1: Soil Map

Table 1: Soils Information

Soil Type	Soil Name	Drainage Class	Hydrologic Group	Hydric Designation	Farmland Designation	Acres	% Area
67A	Harpster silty clay loam, 0-2% slopes	Poorly Drained	B/D	Hydric	Prime Farmland if Drained	0.6	1.4%
149A	Brenton silt loam, 0-2% slopes	Somewhat Poorly Drained	B/D	Non-Hydric with Hydric Inclusions	Prime Farmland	4.3	10.1%
152A	Drummer silty clay loam, 0-2% slopes	Poorly Drained	B/D	Hydric	Prime Farmland if Drained	23.4	54.5%
330A	Peotone silty clay loam, 0-2% slopes	Very Poorly Drained	C/D	Hydric	Prime Farmland if Drained	14.4	33.5%
791B	Rush silt loam, 2-4% slopes	Well Drained	B	Non-Hydric	Prime Farmland	0.2	0.5%

Hydrologic Soil Groups – Soils have been classified into four (A, B, C, D) hydrologic groups based on runoff characteristics due to rainfall. If a soil is assigned to a dual hydrologic group (A/D, B/D or C/D), the first letter is for drained areas and the second letter is for undrained areas.

- **Hydrologic group A:** Soils have a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
- **Hydrologic group B:** Soils have a moderate infiltration rate when thoroughly wet, consist chiefly of moderately deep to deep, moderately well drained to well drained soils that have a moderately fine to moderately coarse texture. These soils have a moderate rate of water transmission.
- **Hydrologic group C:** Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
- **Hydrologic group D:** Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Hydric Soils – A hydric soil is one that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the soil profile that supports the growth or regeneration of hydrophytic vegetation. Soils with hydric inclusions have map units dominantly made up of non-hydric soils that may have inclusions of hydric soils in the lower positions on the landscape. Of the soils found onsite, three are classified as hydric soil (67A Harpster silty clay loam, 152A Drummer silty clay loam, and 330A Peotone silty clay loam), one is classified as non-hydric soil (791B Rush silt loam), and one is classified as non-hydric soil with hydric inclusions likely (149A Brenton silt loam).

Prime Farmland – Prime farmland is land that has the best combination of physical and chemical characteristics for agricultural production. Prime farmland soils are an important resource to Kendall County and some of the most productive soils in the United States occur locally. Of the soils found onsite, two are designated as prime farmland (149A Brenton silt loam and 791B Rush silt loam) and three are designated as prime farmland if drained (67A Harpster silty clay loam, 152A Drummer silty clay loam, and 330A Peotone silty clay loam).

Soil Limitations – The USDA-NRCS Web Soil Survey rates the limitations of soils for dwellings, small commercial buildings, solar arrays, shallow excavations, lawns/landscaping, local roads and streets, etc. Soils have different properties which influence the development of building sites. The USDA-NRCS classifies soils as Not Limited, Somewhat Limited, and Very Limited. Soils that are Not Limited indicates that the soil has properties that are favorable for the specified use. They will perform well and will have low maintenance. Soils that are Somewhat Limited are moderately favorable, and their limitations can be overcome through special planning, design, or installation. Soils that are Very Limited have features that are unfavorable for the specified use, and their limitations cannot easily be overcome.

Table 2: Soil Limitations

Soil Type	Solar Arrays, Soil-Penetrating Anchor Systems	Solar Arrays, Ballast Anchor Systems	Shallow Excavations	Lawns/ Landscaping
67A	Very Limited	Very Limited	Very Limited	Very Limited
149A	Very Limited	Very Limited	Very Limited	Somewhat Limited
152A	Very Limited	Very Limited	Very Limited	Very Limited
330A	Very Limited	Very Limited	Very Limited	Very Limited
791B	Very Limited	Very Limited	Somewhat Limited	Somewhat Limited

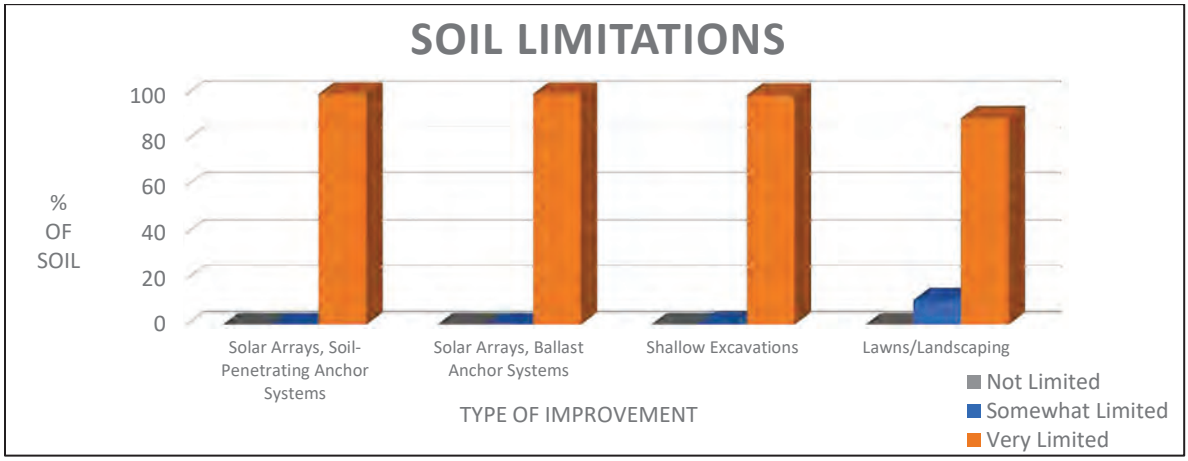


Figure 2: Soil Limitations

KENDALL COUNTY LAND EVALUATION AND SITE ASSESSMENT (LESA)

Decision-makers in Kendall County use the Land Evaluation and Site Assessment (LESA) system to determine the suitability of a land use change and/or a zoning request as it relates to agricultural land. The LESA system was developed by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land-uses, and urban growth factors. The LESA system is a two-step procedure that includes:

- **Land Evaluation (LE)**: The soils of a given area are rated and placed in groups ranging from the best to worst suited for a stated agriculture use, cropland, or forestland. The best group is assigned a value of 100 and all other groups are assigned lower values. The Land Evaluation is based on data from the Kendall County Soil Survey. The Kendall County Soil and Water Conservation District is responsible for this portion of the LESA system.
    - The Land Evaluation score for this site is **95**, indicating that the soils are **well suited** for agricultural uses.
- **Site Assessment (SA)**: The site is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives. The Site Assessment value is based on a 200-point scale and accounts for 2/3 of the total score. The Kendall County LESA Committee is responsible for this portion of the LESA system. **Please Note**: A land evaluation (LE) score will be compiled for every project parcel. However, when a parcel is located within municipal planning boundaries, a site assessment

(SA) score is not compiled as the scoring factors are not applicable. As a result, only the LE score is available, and a full LESA score is unavailable for the parcel.

- The Site Assessment score for this site is **not applicable**.

WETLANDS

The U.S. Fish & Wildlife Service's National Wetlands Inventory map indicates the presence of wetland(s)/waters on the proposed project site. To determine if a wetland is present, a wetland delineation specialist, who is recognized by the U.S. Army Corps of Engineers, should determine the exact boundaries and value of the wetlands. A Wetland Determination/Delineation Report dated September 1, 2023, was prepared by Atwell, LLC. The results of their review indicated the presence of two watercourses on the site (Rob Roy Creek and an unnamed tributary of Rob Roy Creek).

FLOODPLAIN

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) for Kendall County, Community Panel No. 17093C0030G (effective date February 4, 2009) was reviewed to determine the presence of floodplain and floodway areas within the project site. According to the map, the site does not likely contain areas of regulated floodplain or floodway.

SEDIMENT AND EROSION CONTROL

Development on this site should include an erosion and sediment control plan in accordance with local, state, and federal regulations. Soil erosion on construction sites is a resource concern as suspended sediment from areas undergoing development is a primary nonpoint source of water pollution. Please consult the *Illinois Urban Manual* (https://illinoisurbanmanual.org/) for appropriate best management practices.

STORMWATER POLLUTION

A National Pollutant Discharge Elimination System (NPDES) permit (Permit No. ILR10) from the Illinois Environmental Protection Agency (IEPA) is required for stormwater discharges from construction sites that will disturb 1 or more acres of land. Conditions of the NPDES ILR10 permit require the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) to reduce stormwater pollutants on the construction site before they can cause environmental issues.

ECOLOGICAL CONSIDERATIONS

Developers of solar project sites are encouraged to plant native groundcover. Native shrubs, grasses, and wildflowers offer benefits such as improved erosion control, pesticide avoidance, stormwater infiltration, wildlife habitat, and reduced overall maintenance. Naturalized areas, once established, are more drought tolerant, require little to no fertilization, and only need to be mowed once or twice a year. Native fruiting and flowering plants also provide a food source and habitat for native pollinators which offer the ecological service of pollinating our agricultural crops.

The District recognizes two potential sources of water pollution from solar farms including cracked panels and oil leaks or spills from transformers. Cracked panels can leach toxic materials if many broken panels are exposed to precipitation over a long period of time. To prevent this issue, solar farm operators should regularly inspect for cracked panels. Cracked or broken panels must be immediately stored under protective cover and should be periodically transported offsite for recycling or proper offsite storage.

Electrical transformers are used to increase output voltage from solar farms to the electrical grid. These transformers contain oil, which can leak or spill resulting in environmental damage. To reduce environmental damage, biodegradable oil can be used in the transformers. Larger transformers typically use mineral-based oil unless biodegradable oil is specifically requested. Leaks and spills of biodegradable oil must still be prevented, but the risk for groundwater contamination would be reduced and clean-up efforts simplified in the event of a release. Secondary containment systems such as trays, membranes, or vaults can also be used in the event of a leak or spill. Containment systems must be designed to manage stormwater so adequate containment volume is maintained. This would be the responsibility of the solar developer.

LAND USE FINDINGS:

The Kendall County Soil and Water Conservation District (SWCD) Board has reviewed the proposed site plans for Corneils Road Solar, LLC. The petitioner is requesting a change in zoning from R-1 Single Family Residence to A-1 Agricultural and a Special Use Permit on three parcels (Parcel Index Number 02-08-300-008, 02-08-300-011, 02-08-300-012) to construct a (+/-) 41.0-acre solar development within Bristol Township of Kendall County, IL located in Section 8, Township 37 North, and Range 7 East of the 3rd Principal Meridian. Based on the information provided by the petitioner and a review of natural resource related data available to the Kendall County SWCD, the SWCD Board presents the following information.

The Kendall County SWCD has always had the opinion that prime farmland soils should be preserved whenever feasible due to their highly productive qualities for growing agriculturally important grain and fiber crops in our community. Of the soils found onsite, 100% are designated as prime farmland or prime farmland if drained. A land evaluation (LE), which is a part of the Land Evaluation and Site Assessment (LESA), was conducted on this parcel. The soils on this parcel scored a 95 out of a possible 100 points indicating that the soils are well suited for agricultural uses. A site assessment (SA) was not completed on this parcel. When a parcel is located within municipal planning boundaries, a site assessment score is not compiled as the scoring factors are not applicable.

Soils found on the project site are rated for specific uses and can have potential limitations for development. Soil types with severe limitations do not preclude the ability to develop the site for the proposed use, but it is important to note that the limitation may require soil reclamation, special design/engineering, or maintenance to obtain suitable soil conditions to support development with significant limitations. This report indicates that for soils located on the parcel, 100% are considered very limited for solar arrays (soil-penetrating & ballast anchor systems), 99.5% are very limited for shallow excavations, and 89.4% are very limited for lawns/landscaping. The remaining soils are considered somewhat limited for these types of developments/uses. This information is based on the soil in an undisturbed state.

This site is located within the Lower Fox River watershed and the Rob Roy Creek sub watershed. This development should include a soil erosion and sediment control plan to be implemented during construction. It is critical to have vegetative cover during and after construction to protect the soil from erosion. Sediment may become a primary non-point source of pollution; eroded soils during the construction phase can create unsafe conditions on roadways, degrade water quality and destroy aquatic ecosystems lower in the watershed.

The Kendall County SWCD strongly recommends the use of native ground cover, specifically plant varieties beneficial to pollinator species, be used to vegetate the site. Native vegetation benefits soil health, creates habitat, provides resiliency to drought and prolonged wet conditions, and reduces maintenance needs after successful establishment.

For intense use, it is recommended that a drainage tile survey be completed on the parcel to locate the subsurface drainage tile and should be taken into consideration during the land use planning process. Drainage tile expedites drainage and facilitates farming. It is imperative that these drainage tiles remain undisturbed. Impaired tile may affect a few acres or hundreds of acres of drainage.

The information that is included in this Natural Resources Information Report is to assure that the Land Developers take into full consideration the limitations of that land that they wish to develop. Guidelines and recommendations are also a part of this report and should be considered in the planning process. The Natural Resource Information Report is required by the Illinois Soil and Water Conservation District Act (Ill. Complied Statues, Ch. 70, Par 405/22.02a).

SWCD Board Representative

1/8/24
Date

PARCEL LOCATION

Southwestern ¼ of Section 8, Township 37 North, Range 7 East (Bristol Township). These parcels contain approximately 41.0 acres and are located north of Corneils Road, east of Beecher Road, south of Galena Road, and west of Illinois Route 47.

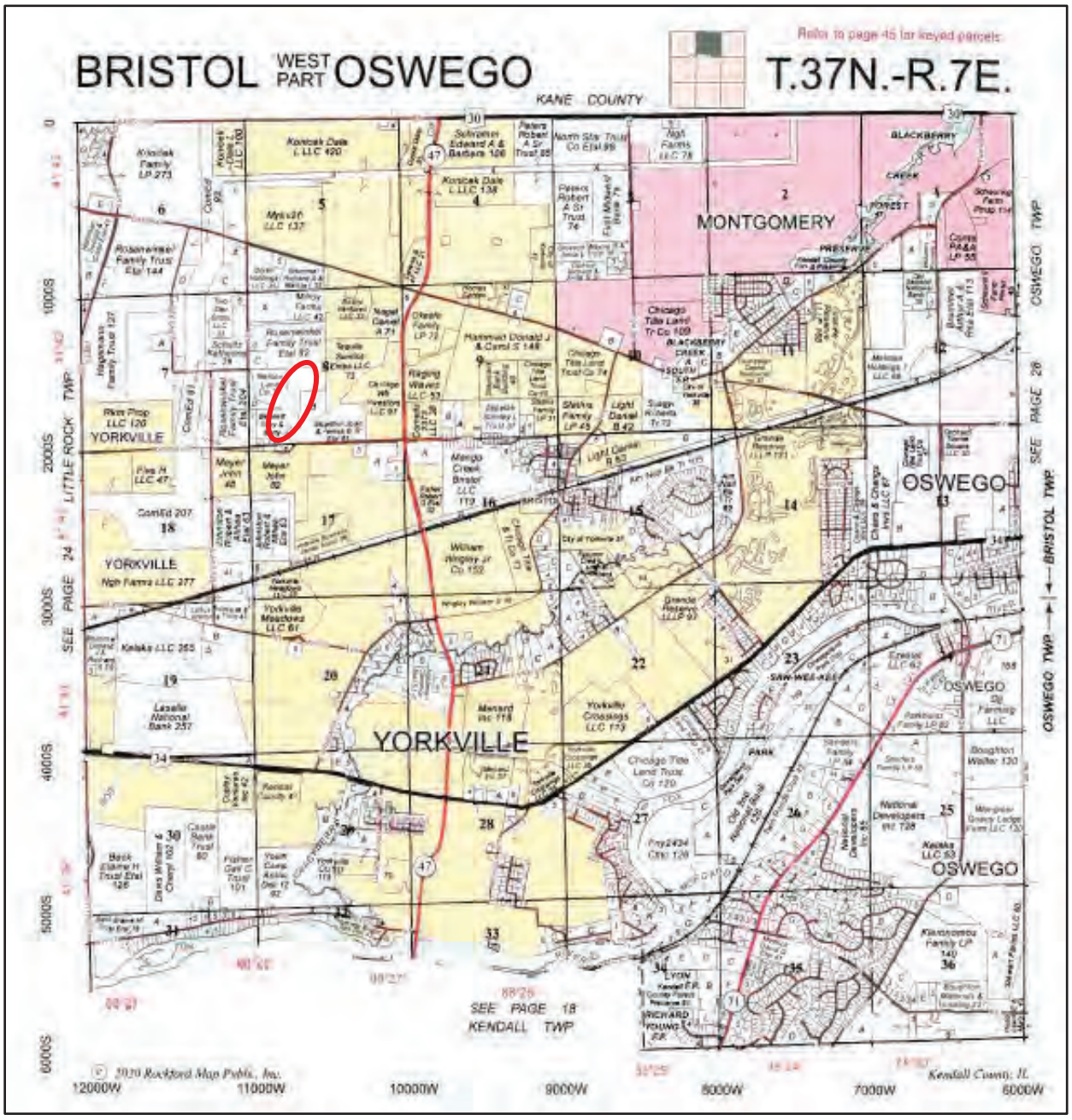


Figure 3: 2021 Plat Map

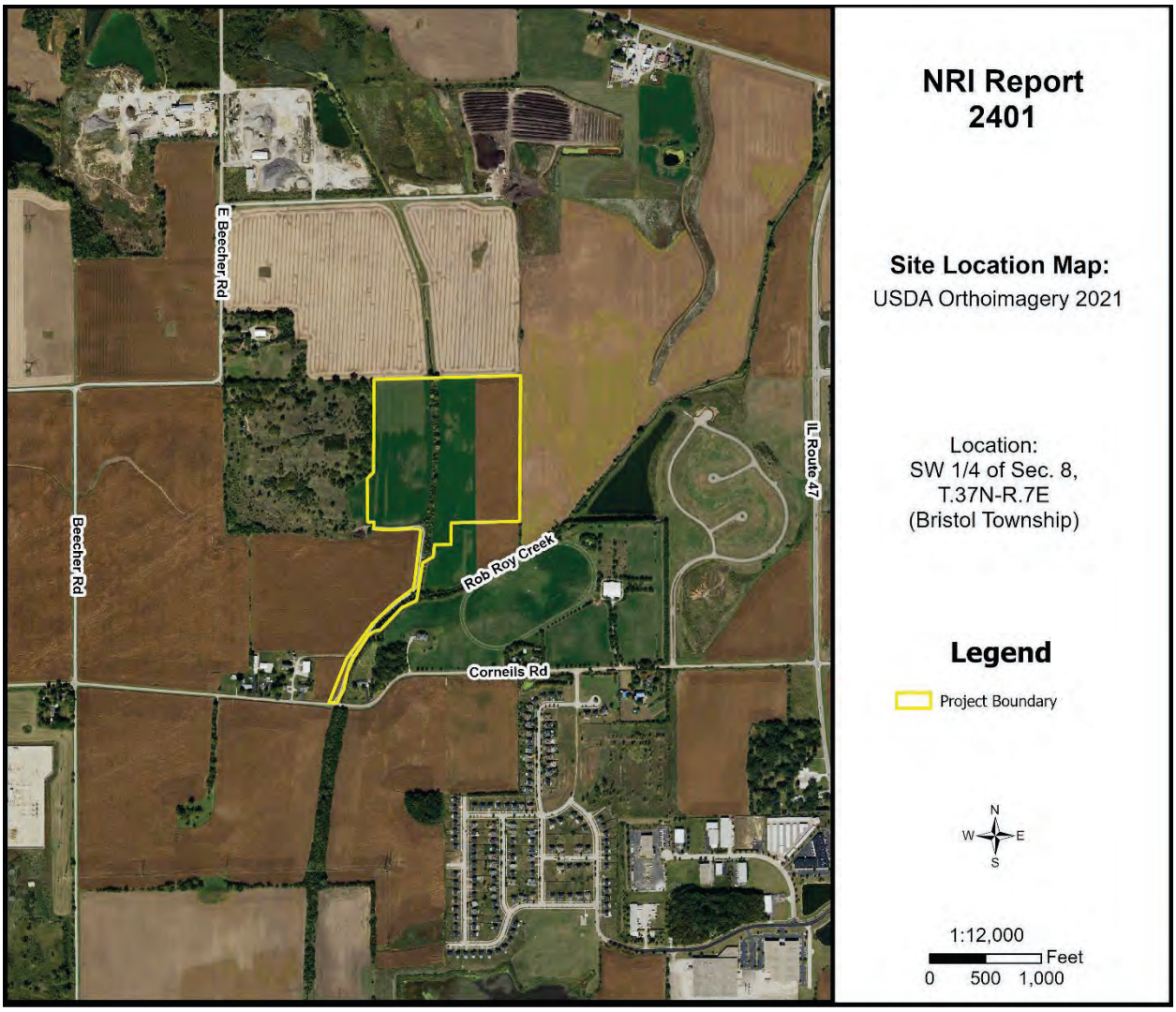


Figure 4: 2021 Aerial Map with NRI Project Boundary

ARCHAEOLOGIC/CULTURAL RESOURCES INFORMATION

Simply stated, cultural resources are all the past activities and accomplishments of people. They include the following: buildings; objects made or used by people; locations; and less tangible resources, such as stories, dance forms, and holiday traditions.

The Soil and Water Conservation District most often encounters cultural resources as historical properties. These may be prehistoric or historical sites, buildings, structures, features, or objects. The most common type of historical property that the Soil and Water Conservation District may encounter is non-structural archaeological sites. These sites often extend below the soil surface and must be protected against disruption by development or other earth moving activity if possible. Cultural resources are *non-renewable* because there is no way to "grow" a site to replace a disrupted site.

Landowners with historical properties on their land have ownership of that historical property. However, the State of Illinois owns all the following: human remains, grave markers, burial mounds, and artifacts associated with graves and human remains.

Non-grave artifacts from archaeological sites and historical buildings are the property of the landowner. The landowner may choose to disturb a historical property but may not receive federal or state assistance to do so. If an earth moving activity disturbs human remains, the landowner must contact the county coroner within 48 hours.

The Illinois State Historic Preservation Office has not been notified of the proposed land use change by the Kendall County SWCD. The applicant may need to contact them according to current Illinois law.

ECOLOGICALLY SENSITIVE AREAS

WHAT IS BIOLOGICAL DIVERSITY AND WHY SHOULD IT BE CONSERVED?[1]

Biological diversity, or biodiversity, is the range of life on our planet. A more thorough definition is presented by botanist Peter H. Raven: "At the simplest level, biodiversity is the sum total of all the plants, animals, fungi and microorganisms in the world, or in a particular area; all of their individual variation; and all of the interactions between them. It is the set of living organisms that make up the fabric of the planet Earth and allow it to function as it does, by capturing energy from the sun and using it to drive all of life's processes; by forming communities of organisms that have, through the several billion years of life's history on Earth, altered the nature of the atmosphere, the soil and the water of our Planet; and by making possible the sustainability of our planet through their life activities now" (Raven 1994).

It is not known how many species occur on our planet. Presently, about 1.4 million species have been named. It has been estimated that there are perhaps 9 million more that have not been identified. What is known is that they are vanishing at an unprecedented rate. Reliable estimates show extinction occurring at a rate several orders of magnitude above "background" in some ecological systems (Wilson 1992, Hoose 1981).

The reasons for protecting biological diversity are complex, but they fall into four major categories. First, loss of diversity generally weakens entire natural systems. Healthy ecosystems tend to have many natural checks and balances. Every species plays a role in maintaining this system. When simplified by the loss of diversity, the system becomes more susceptible to natural and artificial perturbations. The chances of a system-wide collapse increase. In parts of the midwestern United States, for example, it was only the remnant areas of natural prairies that kept soil intact during the dust bowl years of the 1930s (Roush 1982).

Simplified ecosystems are almost always expensive to maintain. For example, when synthetic chemicals are relied upon to control pests, the target species are not the only ones affected. Their predators are almost always killed or driven away, exasperating the pest problem. In the meantime, people are unintentionally breeding pesticide-resistant pests. A process has begun where people become perpetual guardians of the affected area, which requires the expenditure of financial resources and human ingenuity to keep the system going.

A second reason for protecting biological diversity is that it represents one of our greatest untapped resources. Great benefits can be reaped from a single species. About 20 species provide 90% of the world's food. Of these 20, just three, wheat, maize, and rice-supply over one half of that food. American wheat farmers need new varieties every five to 15 years to compete with pests and diseases. Wild strains of wheat are critical genetic reservoirs for these new varieties.

Further, every species is a potential source of human medicine. In 1980, a published report identified the market value of prescription drugs from higher plants at over $3 billion. Organic alkaloids, a class of

chemical compounds used in medicines, are found in an estimated 20% of plant species. Yet only 2% of plant species have been screened for these compounds (Hoose 1981).

The third reason for protecting diversity is that humans benefit from natural areas and depend on healthy ecosystems. The natural world supplies our air, our water, our food and supports human economic activity. Further, humans are creatures that evolved in a diverse natural environment between forest and grasslands. People need to be reassured that such places remain. When people speak of "going to the country," they generally mean more than getting out of town. For reasons of their own sanity and wellbeing, they need a holistic, organic experience. Prolonged exposure to urban monotony produces neuroses, for which cultural and natural diversity cure.

Historically, the lack of attention to biological diversity, and the ecological processes it supports, has resulted in economic hardships for segments of the basin's human population.

The final reason for protecting biological diversity is that species and natural systems are intrinsically valuable. The above reasons have focused on the benefits of the natural world to humans. All things possess intrinsic value simply because they exist.

BIOLOGICAL RESOURCES CONCERNING THE SUBJECT PARCEL

As part of the Natural Resources Information Report, staff checks office maps to determine if any nature preserves or ecologically sensitive areas are in the general vicinity of the parcel in question. If there is a nature preserve in the area, then that resource will be identified as part of the report. The SWCD recommends that every effort be made to protect that resource. Such efforts should include, but are not limited to erosion control, sediment control, stormwater management, and groundwater monitoring.

Office maps indicate that ecologically sensitive area(s) are located on or near the parcel in question (PIQ). Rob Roy Creek and an unnamed tributary of Rob Roy Creek flow through the PIQ. Rob Roy Creek is a tributary of the Fox River.

[1]Taken from *The Conservation of Biological Diversity in the Great Lakes Ecosystem: Issues and Opportunities*, prepared by the Nature Conservancy Great Lakes Program 79W. Monroe Street, Suite 1309, Chicago, IL 60603, January 1994.

SOILS INFORMATION

IMPORTANCE OF SOILS INFORMATION

Soils information comes from the Natural Resources Conservation Service Soil Maps and Descriptions for Kendall County. This information is important to all parties involved in determining the suitability of the proposed land use change.

Each soil polygon is given a number, which represents its soil type. The letter found after the soil type number indicates the soils slope class.

Each soil map unit has limitations for a variety of land uses such as septic systems, buildings with basements, and buildings without basements. It is important to remember that soils do not function independently of each other. The behavior of a soil depends upon the physical properties of adjacent soil types, the presence of artificial drainage, soil compaction, and its position in the local landscape.

The limitation categories (not limited, somewhat limited, or very limited) indicate the potential for difficulty in using that soil unit for the proposed activity and, thus, the degree of need for thorough soil borings and engineering studies. A limitation does not necessarily mean that the proposed activity cannot be done on that soil type. It does mean that the reasons for the limitation need to be thoroughly understood and dealt with to complete the proposed activity successfully. Very limited indicates that the proposed activity will be more difficult and costly to do on that soil type than on a soil type with a somewhat limited or not limited rating.

Soil survey interpretations are predictions of soil behavior for specified land uses and specified management practices. They are based on the soil properties that directly influence the specified use of the soil. Soil survey interpretations allow users of soil surveys to plan reasonable alternatives for the use and management of soils.

Soil interpretations do not eliminate the need for on-site study and testing of specific sites for the design and construction for specific uses. They can be used as a guide for planning more detailed investigations and for avoiding undesirable sites for an intended use. The scale of the maps and the range of error limit the use of the soil delineation.

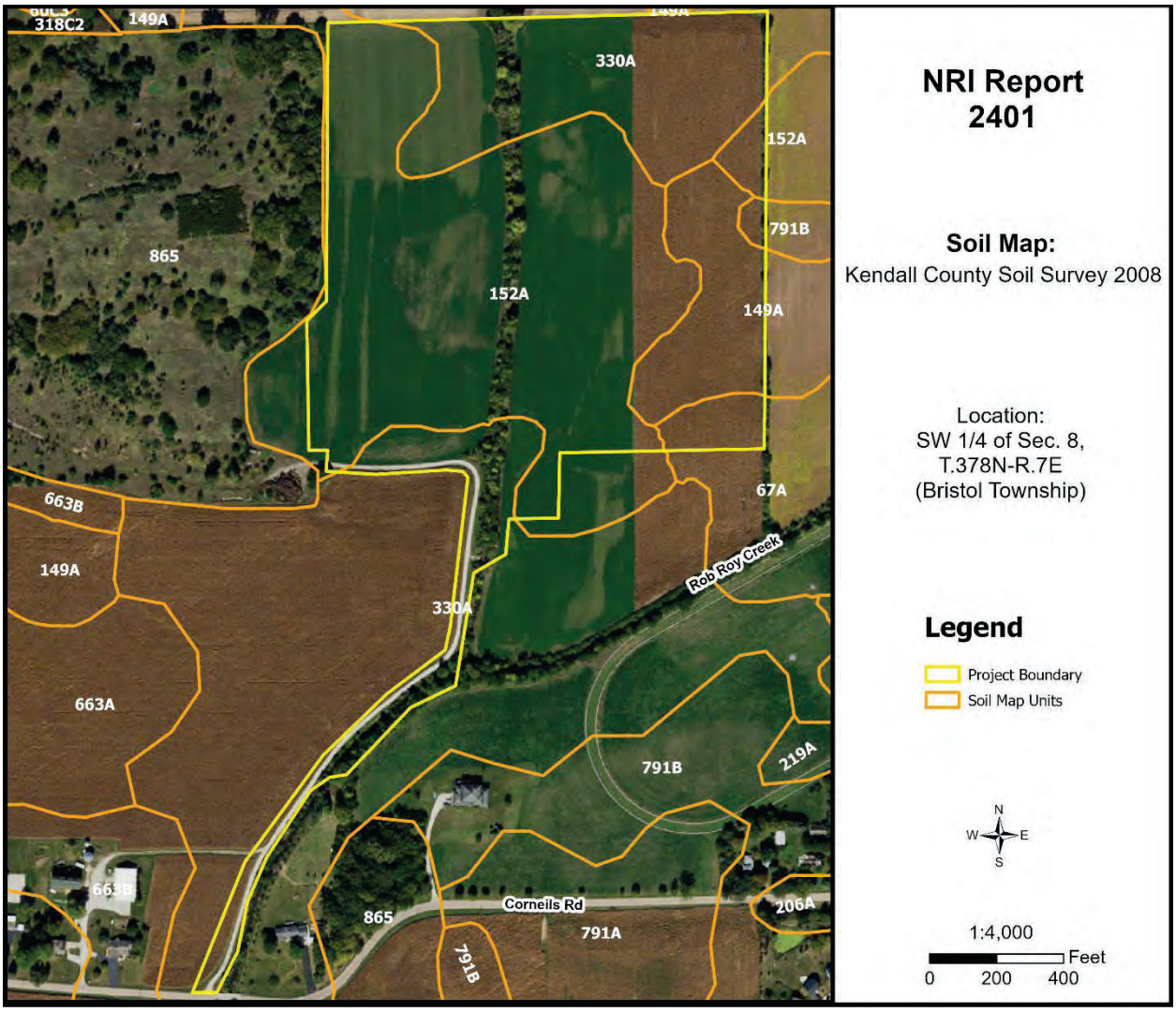


Figure 5: Soil Map

Table 3: Soil Map Unit Descriptions

Soil Type	Soil Name	Acres	Percent
67A	Harpster silty clay loam, 0-2% slopes	0.6	1.4%
149A	Brenton silt loam, 0-2% slopes	4.3	10.1%
152A	Drummer silty clay loam, 0-2% slopes	23.4	54.5%
330A	Peotone silty clay loam, 0-2% slopes	14.4	33.5%
791B	Rush silt loam, 2-4% slopes	0.2	0.5%

Source: National Cooperative Soil Survey – USDA-NRCS

SOILS INTERPRETATIONS EXPLANATION

GENERAL – NONAGRICULTURAL

These interpretative ratings help engineers, planners, and others to understand how soil properties influence behavior when used for nonagricultural uses such as building site development or construction materials. This report gives ratings for proposed uses in terms of limitations and restrictive features. The tables list only the most restrictive features.

Other features may need treatment to overcome soil limitations for a specific purpose. Ratings come from the soil's "natural" state, that is, no unusual modification occurs other than that which is considered normal practice for the rated use. Even though soils may have limitations, an engineer may alter soil features or adjust building plans for a structure to compensate for most degrees of limitations. Most of these practices, however, are costly. The final decision in selecting a site for a particular use generally involves weighing the costs for site preparation and maintenance. Soil properties influence development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Soil limitation ratings of not limited, somewhat limited, and very limited are given for the types of proposed improvements that are listed or inferred by the petitioner as entered on the report application and/or zoning petition. The most common types of building limitation that this report gives limitations ratings for is septic systems. It is understood that engineering practices can overcome most limitations for buildings with and without basements, and small commercial buildings. Limitation ratings for these types of buildings are not commonly provided. Organic soils, when present on the parcel, are referenced in the hydric soils section of the report. This type of soil is considered unsuitable for all types of construction.

LIMIATIONS RATINGS

- **Not Limited:** This soil has favorable properties for the use. The degree of limitation is minor. The people involved can expect good performance and low maintenance.
- **Somewhat Limited**: This soil has moderately favorable properties for the use. Special planning, design, or maintenance can overcome this degree of limitation. During some part of the year, the expected performance is less desirable than for soils rated slight.
- **Very Limited**: This soil has one or more properties that are unfavorable for the rated use. These may include the following: steep slopes, bedrock near the surface, flooding, high shrink-swell potential, a seasonal high water table, or low strength. This degree of limitation generally requires major soil reclamation, special design, or intensive maintenance, which in most situations is difficult and costly.

BUILDING LIMITATIONS

BUILDING ON POORLY SUITED OR UNSUITABLE SOILS

Building on poorly suited or unsuitable soils can present problems to future property owners such as cracked foundations, wet basements, lowered structural integrity and high maintenance costs associated with these problems. The staff of the Kendall County SWCD strongly urges scrutiny by the plat reviewers when granting parcels with these soils exclusively.

Solar Arrays, Soil-Penetrating Anchor Systems – Ground-based solar arrays are sets of photovoltaic panels that are not situated on a building or pole. These installations consist of a racking system that holds the panel in the desired orientation and the foundation structures that hold the racking system to the ground. Two basic methods are used to hold the systems to the ground, based on site conditions and cost. One method employs driven piles, screw augers, or concrete piers that penetrate the soil to provide a stable foundation.

Solar Arrays, Ballast Anchor Systems Ground-based solar arrays are sets of photovoltaic panels that are not situated on a building or pole. These installations consist of a racking system that holds the panel in the desired orientation and the foundation structures that hold the racking system to the ground. Ballast anchor systems can be used in some places where soil-penetrating systems cannot, such as in shallow or stony soil. Also, since they do not penetrate the soil, ballast systems can be used where the soil is contaminated, and disturbance is to be avoided. The soil in the area must have sufficient strength to be able to support the vehicles that haul the ballast and the machinery to install it.

Shallow Excavations – Trenches or holes dug to a maximum depth of 5 or 6 feet for utility lines, open ditches, or other purposes. Ratings are based on soil properties that influence the ease of digging and the resistance to sloughing.

Lawns and Landscaping – Require soils on which turf and ornamental trees and shrubs can be established and maintained (irrigation is not considered in the ratings). The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established.

Table 4: Building Limitations

Soil Type	Solar Arrays, Soil-Penetrating Anchor Systems	Solar Arrays, Ballast Anchor Systems	Shallow Excavations	Lawns & Landscaping	Acres	%
67A	**Very Limited:** Ponding Depth to saturated zone Frost action Low strength Steel corrosion Shrink-swell	**Very Limited:** Ponding Depth to saturated zone Frost action Low strength Slope shape across Hillslope position	**Very Limited:** Ponding Depth to saturated zone Dusty Unstable excavation walls	**Very Limited:** Ponding Depth to saturated zone Dusty	0.6	1.4%
149A	**Very Limited**: Frost action Low strength Steel corrosion Depth to saturated zone Hillslope position Ponding	**Very Limited**: Frost action Low strength Depth to saturated zone Hillslope position Ponding Slope shape across	**Very Limited**: Depth to saturated zone Dusty Unstable excavation walls Ponding	**Somewhat Limited**: Depth to saturated zone Dusty	4.3	10.1%
152A	**Very Limited:** Ponding Depth to saturated zone Frost action Low strength Steel corrosion Shrink-swell	**Very Limited:** Ponding Depth to saturated zone Frost action Low strength Slope shape across	**Very Limited:** Ponding Depth to saturated zone Dusty Unstable excavation walls Too clayey	**Very Limited:** Ponding Depth to saturated zone Dusty	23.4	54.5%
330A	**Very Limited**: Ponding Depth to saturated zone Shrink-swell Frost action, Low strength	**Very Limited**: Ponding Depth to saturated zone Frost action, Low strength, Slope shape across	**Very Limited**: Ponding Depth to saturated zone Unstable excavation walls Dusty, Too clayey	**Very Limited**: Ponding Depth to saturated zone Dusty	14.4	33.5%
791B	**Very Limited:** Frost action, Steel corrosion, Shrink-swell, Low strength, Hillslope position	**Very Limited:** Frost action, Low strength, Hillslope position, Slope shape across	**Somewhat Limited:** Dusty Unstable excavation walls	**Somewhat Limited:** Dusty	0.2	0.5%
% Very Limited	**100%**	**100%**	**99.5%**	**89.4%**		

Figure 6A: Map of Building Limitations - Solar Arrays

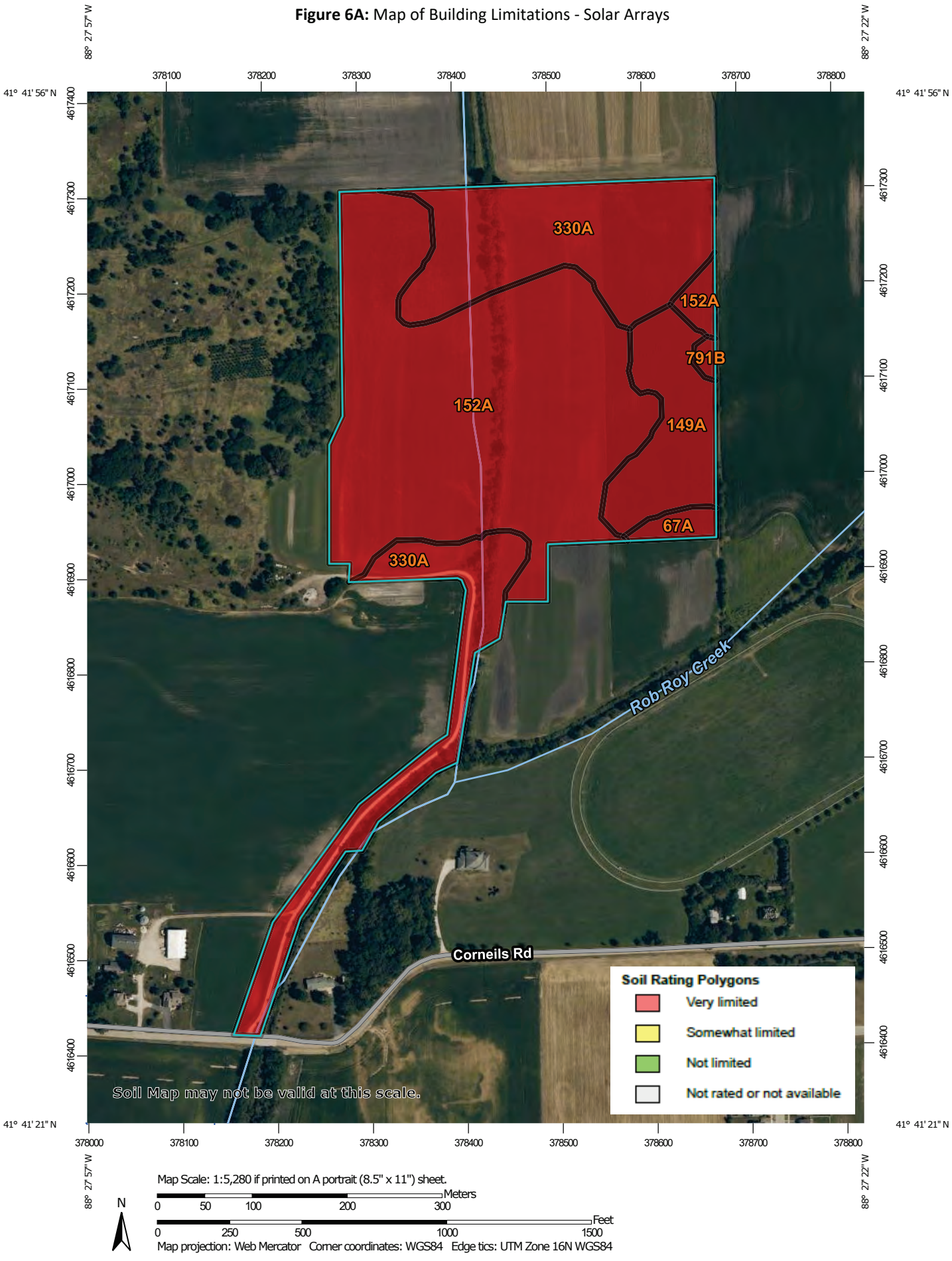


Figure 6B: Map of Building Limitations - Shallow Excavations

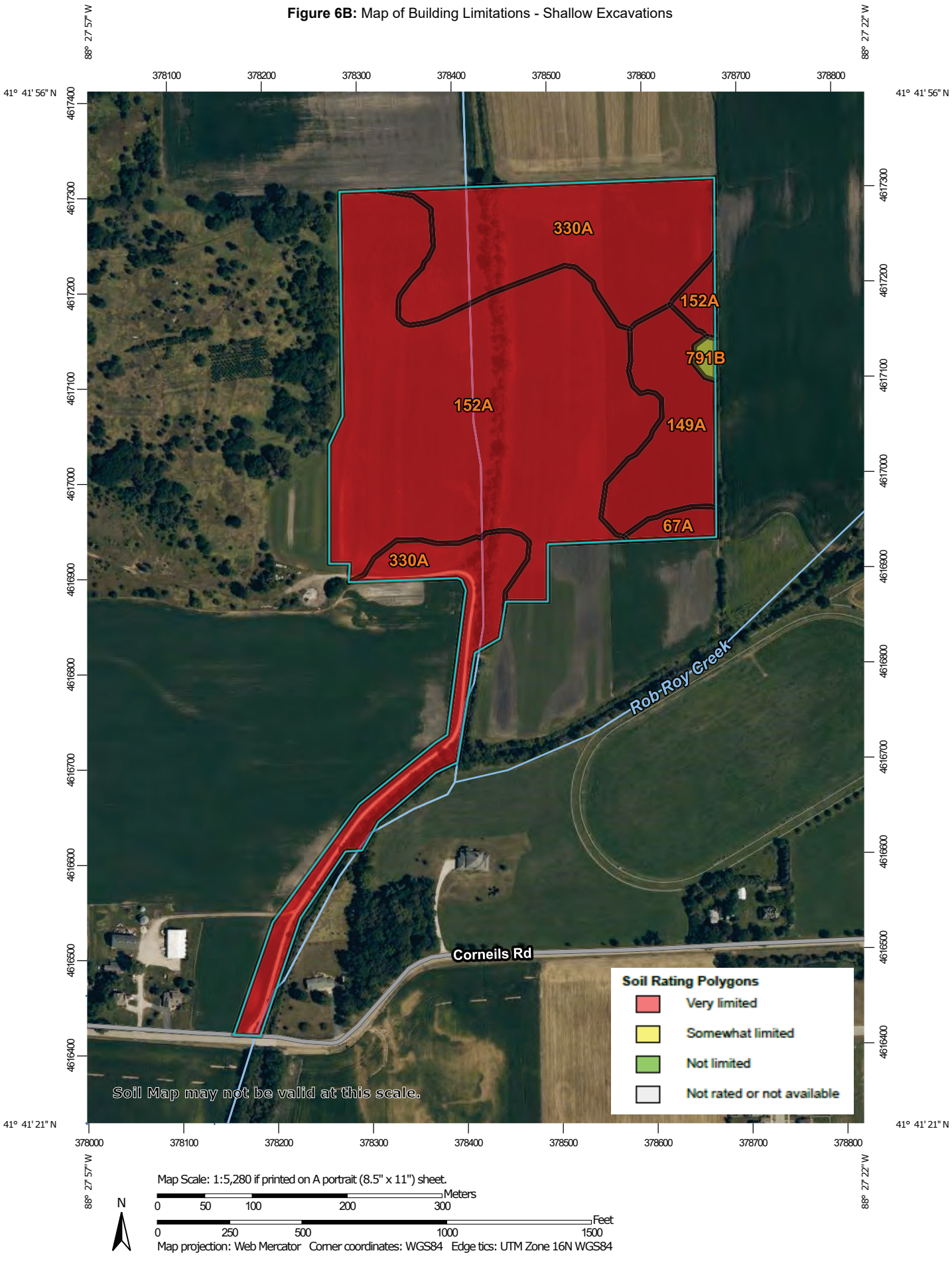
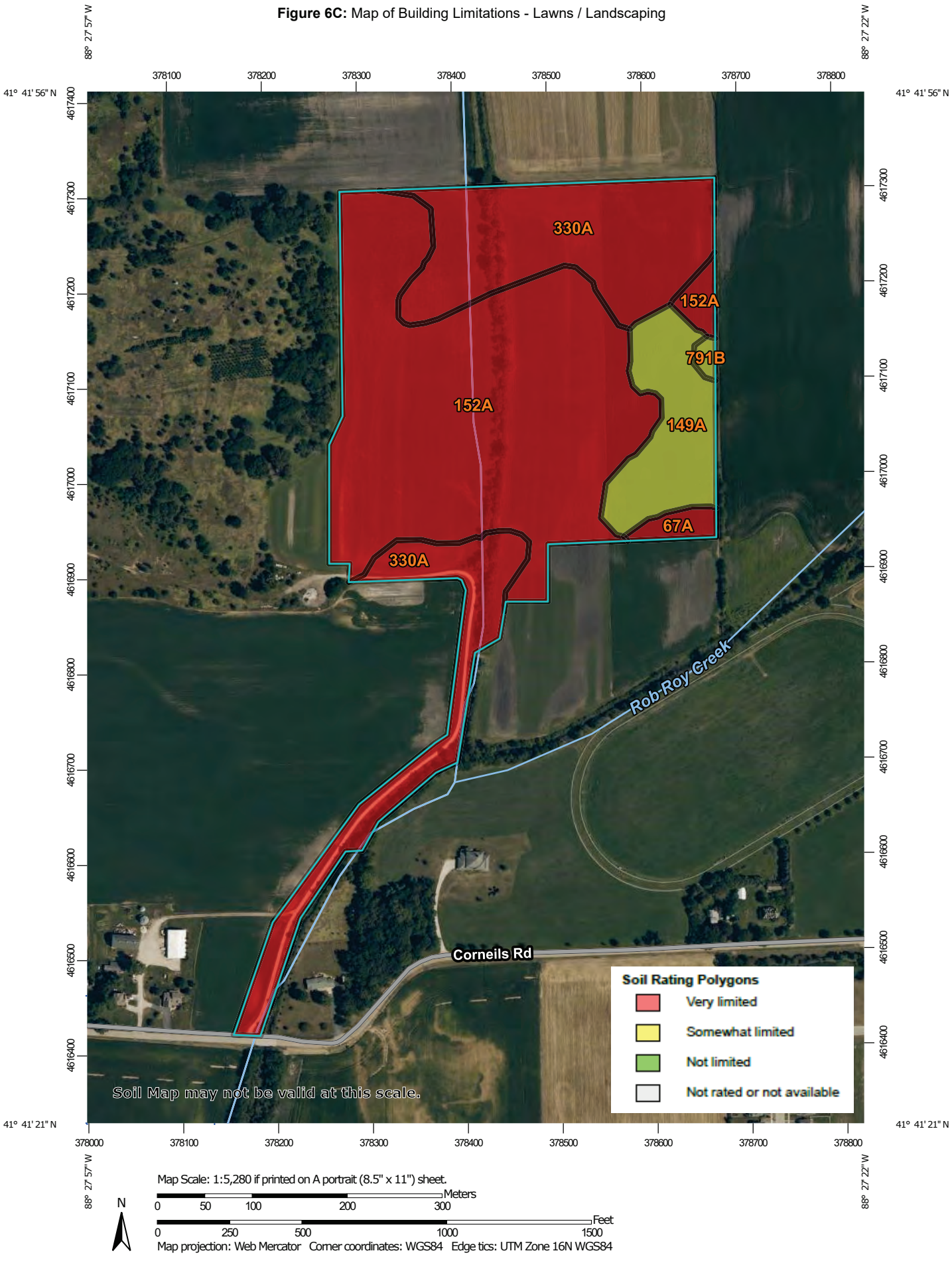


Figure 6C: Map of Building Limitations - Lawns / Landscaping



SOIL WATER FEATURES

Table 5, below, gives estimates of various soil water features that should be taken into consideration when reviewing engineering for a land use project.

HYDROLOGIC SOIL GROUPS (HSGs) – The groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

- **Group A:** Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.
- **Group B:** Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained, or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.
- **Group C:** Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
- **Group D:** Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

Note: If a soil is assigned to a dual hydrologic group (A/D, B/D or C/D) the first letter is for drained areas and the second is for undrained areas.

SURFACE RUNOFF – Surface runoff refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based upon slope, climate and vegetative cover and indicates relative runoff for very specific conditions (it is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal). The classes are negligible, very low, low, medium, high, and very high.

MONTHS – The portion of the year in which a water table, ponding, and/or flooding is most likely to be a concern.

WATER TABLE – Water table refers to a saturated zone in the soil and the data indicates, by month, depth to the top (upper limit) and base (lower limit) of the saturated zone in most years. These estimates are based upon observations of the water table at selected sites and on evidence of a saturated zone (grayish colors or mottles (redoximorphic features)) in the soil. Note: A saturated zone that lasts for less than a month is not considered a water table.

PONDING – Ponding refers to standing water in a closed depression, and the data indicates surface water depth, duration, and frequency of ponding.

- **Duration:** Expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days and *very long* if more than 30 days.
- **Frequency:** Expressed as: *none* meaning ponding is not possible; *rare* means unlikely but possible under unusual weather conditions (chance of ponding is 0-5% in any year); *occasional* means that it occurs, on the average, once or less in 2 years (chance of ponding is 5 to 50% in any year); and *frequent* means that it occurs, on the average, more than once in 2 years (chance of ponding is more than 50% in any year).

FLOODING – The temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

- **Duration:** Expressed as: *extremely brief* if 0.1 hour to 4 hours; *very brief* if 4 hours to 2 days; *brief* if 2 to 7 days; *long* if 7 to 30 days; and *very long* if more than 30 days.
- **Frequency:** Expressed as: *none* means flooding is not probable; *very rare* means that it is very unlikely but possible under extremely unusual weather conditions (chance of flooding is less than 1% in any year); *rare* means that it is unlikely but possible under unusual weather conditions (chance of flooding is 1 to 5% in any year); *occasional* means that it occurs infrequently under normal weather conditions (chance of flooding is 5 to 50% in any year but is less than 50% in all months in any year); and *very frequent* means that it is likely to occur very often under normal weather conditions (chance of flooding is more than 50% in all months of any year).

Note: The information is based on evidence in the soil profile. In addition, consideration is also given to local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

Table 5: Water Features

Soil Type	Hydrologic Group	Surface Runoff	Water Table	Ponding	Flooding
67A	B/D	Negligible	January – May **Upper Limit:** 0.0’-1.0’ **Lower Limit:** 6.0’	January – May **Surface Water Depth**: 0.0’-0.5’ **Duration**: Brief (2-7 days) **Frequency**: Frequent	January – December **Frequency**: None
149A	B/D	Low	January – May **Upper Limit:** 1.0’-2.0’ **Lower Limit:** 6.0’	January – December **Frequency**: None	January – December **Frequency**: None
152A	B/D	Negligible	January – May **Upper Limit:** 0.0’-1.0’ **Lower Limit:** 6.0’	January – May **Surface Water Depth**: 0.0’-0.5’ **Duration**: Brief (2-7 days) **Frequency**: Frequent	January – December **Frequency**: None
330A	C/D	Negligible	January – June **Upper Limit:** 0.0’-1.0’ **Lower Limit:** 6.0’	January – June **Surface Water Depth**: 0.0’-0.5’ **Duration**: Brief (2-7 days) **Frequency**: Frequent	January – December **Frequency**: None
791B	B	Low	January – December **Upper/Lower Limit:** --	January – December **Frequency**: None	January – December **Frequency**: None

SOIL EROSION AND SEDIMENT CONTROL

Erosion is the wearing away of the soil by water, wind, and other forces. Soil erosion threatens the Nation's soil productivity and contributes the most pollutants in our waterways. Water causes about two thirds of erosion on agricultural land. Four properties, mainly, determine a soil's erodibility: texture, slope, structure, and organic matter content.

Slope has the most influence on soil erosion potential when the site is under construction. Erosivity and runoff increase as slope grade increases. The runoff then exerts more force on the particles, breaking their bonds more readily and carrying them farther before deposition. The longer water flows along a slope before reaching a major waterway, the greater the potential for erosion.

Soil erosion during and after this proposed construction can be a primary non-point source of water pollution. Eroded soil during the construction phase can create unsafe conditions on roadways, decrease the storage capacity of lakes, clog streams and drainage channels, cause deterioration of aquatic habitats, and increase water treatment costs. Soil erosion also increases the risk of flooding by choking culverts, ditches, and storm sewers and by reducing the capacity of natural and man-made detention facilities.

The general principles of erosion and sedimentation control measures include:

- Reducing/diverting flow from exposed areas, storing flows, or limiting runoff from exposed areas
- Staging construction to keep disturbed areas to a minimum
- Establishing or maintaining temporary or permanent groundcover
- Retaining sediment on site
- Properly installing, inspecting, and maintaining control measures

Erosion control practices are useful controls only if they are properly located, installed, inspected, and maintained. Soil erosion and sedimentation control plans, including maintenance responsibilities, should be clearly communicated to all contractors working on the site.

The SWCD recommends an erosion and sediment control plan for all building sites, especially if there is a wetland or stream nearby. Additionally, a National Pollutant Discharge Elimination System (NPDES) permit (Permit No. ILR10) from the Illinois Environmental Protection Agency (IEPA) is required for stormwater discharges from construction sites that will disturb 1 or more acres of land. Conditions of the NPDES ILR10 permit require the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) to reduce stormwater pollutants on the construction site before they can cause environmental issues.

Table 6: Soil Erosion Potential

Soil Type	Slope	Rating	Acreage	Percent of Project Area
67A	0-2%	Slight	0.6	1.4%
149A	0-2%	Slight	4.3	10.1%
152A	0-2%	Slight	23.4	54.5%
330A	0-2%	Slight	14.4	33.5%
791B	2-4%	Slight	0.2	0.5%

PRIME FARMLAND SOILS

Prime farmland soils are an important resource to Kendall County. Some of the most productive soils in the United States occur locally. Each soil map unit in the United States is assigned a prime or non-prime rating. Prime agricultural land does not need to be in the production of food & fiber.

Section 310 of the NRCS general manual states that urban or built-up land on prime farmland soils is not prime farmland. The percentages of soil map units on the parcel reflect the determination that urban or built-up land on prime farmland soils is not prime farmland.

Table 7: Prime Farmland Soils

Soil Type	Prime Designation	Acreage	Percent
67A	Prime Farmland if Drained	0.6	1.4%
149A	Prime Farmland	4.3	10.1%
152A	Prime Farmland if Drained	23.4	54.5%
330A	Prime Farmland if Drained	14.4	33.5%
791B	Prime Farmland	0.2	0.5%
% Prime Farmland	**100%**		

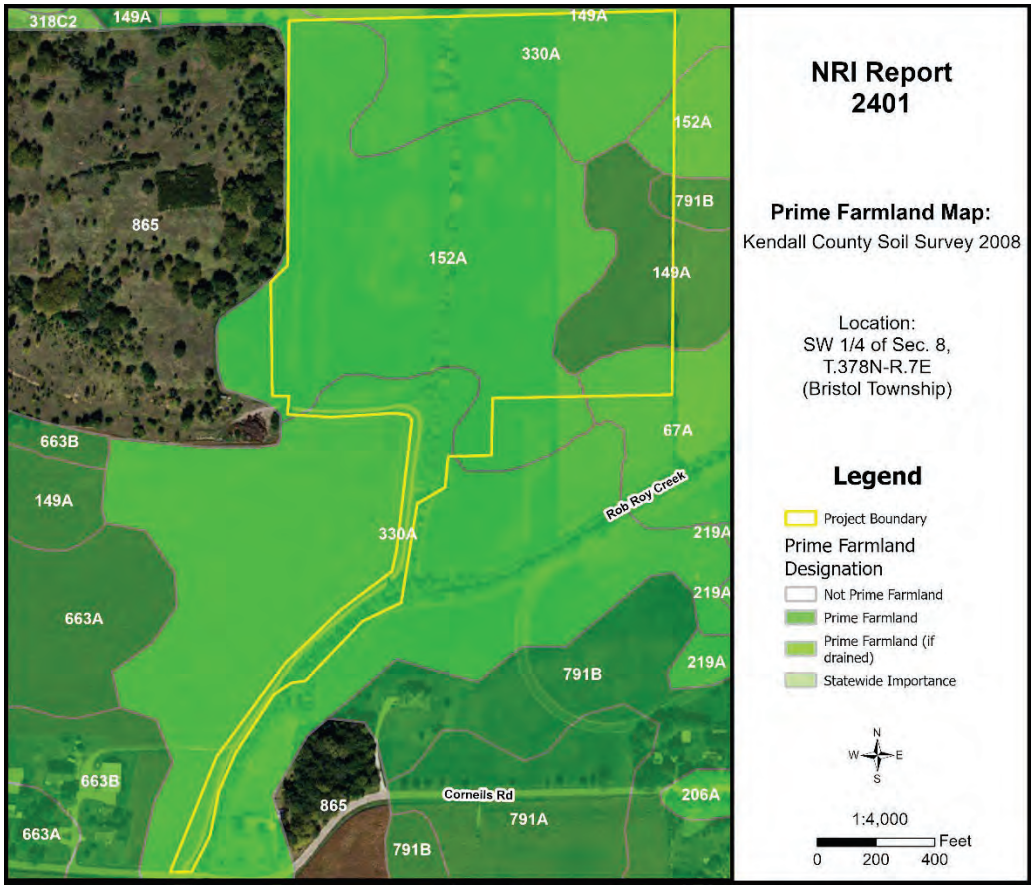


Figure 7: Prime Farmland Soils

LAND EVALUATION AND SITE ASSESSMENT (LESA)

Decision-makers in Kendall County use the Land Evaluation and Site Assessment (LESA) system to determine the suitability of a land use change and/or a zoning request as it relates to agricultural land. The LESA system was developed by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS) and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land-uses, and urban growth factors. The LESA system is a two-step procedure that includes:

LAND EVALUATION (LE)

The soils of a given area are rated and placed in groups ranging from the best to worst suited for a stated agriculture use, cropland, or forestland. The best group is assigned a value of 100, and all other groups are assigned lower values. The Land Evaluation is based on data from the Kendall County Soil Survey. The LE score is calculated by multiplying the relative value of each soil type by the number of acres of that soil. The sum of the products is then divided by the total number of acres; the answer is the Land Evaluation score on this site. The Kendall County Soil and Water Conservation District is responsible for this portion of the LESA system.

SITE ASSESSMENT (SA)

The site is numerically evaluated according to important factors that contribute to the quality of the site. Each factor selected is assigned values in accordance with the local needs and objectives. The value group is a predetermined value based upon prime farmland designation. The Kendall County LESA Committee is responsible for this portion of the LESA system.

Please Note: A land evaluation (LE) score will be compiled for every project parcel. However, when a parcel is located within municipal planning boundaries, a site assessment (SA) score is not compiled as the scoring factors are not applicable. As a result, only the LE score is available, and a full LESA score is unavailable for the parcel.

Table 8: Land Evaluation Computation

Soil Type	Value Group	Relative Value	Acres*	Product (Relative Value x Acres)
67A	2	94	0.6	56.4
149A	1	100	4.3	430.0
152A	1	100	23.4	2,340.0
330A	3	87	14.4	1,252.8
791B	4	79	0.2	15.8
			43.0	**4,095.0**
LE Calculation			(Product of relative value / Total Acres) 4,095.0 / 43.0 = 95.2	
LE Score			**LE = 95**	

*Acreage listed in this chart provides a generalized representation and may not precisely reflect exact acres of each soil type.

The Land Evaluation (LE) score for this site is 95 out of 100, indicating that the soils are well suited for agricultural uses considering the Land Evaluation score is above 80. The full LESA Score is not applicable for the proposed project site since it is within municipal planning boundaries. Selecting the project site with the lowest total points will generally protect the best farmland and maintain and promote the agricultural industry in Kendall County.

LAND USE PLANS

Many counties, municipalities, villages, and townships have developed land-use plans. These plans are intended to reflect the existing and future land-use needs of a given community. Please contact the United City of Yorkville's Community Development Department for information regarding their comprehensive land use plan and map.

DRAINAGE, RUNOFF, AND FLOOD INFORMATION

U.S.G.S Topographic maps give information on elevations, which are important mostly to determine slopes, drainage directions, and watershed information.

Elevations determine the area of impact of floods of record. Slope information determines steepness and erosion potential. Drainage directions determine where water leaves the PIQ, possibly impacting surrounding natural resources.

Watershed information is given for changing land use to a subdivision type of development on parcels greater than 10 acres.

WHAT IS A WATERSHED?
Simply stated, a watershed is the area of land that contributes water to a certain point. The watershed boundary is important because the area of land in the watershed can now be calculated using an irregular shape area calculator such as a dot counter or planimeter.

Using regional storm event information, and site-specific soils and land use information, the peak stormwater flow through the point marked "○" for a specified storm event can be calculated. This value is called a "Q" value (for the given storm event) and is measured in cubic feet per second (CFS).

When construction occurs, the Q value naturally increases because of the increase in impermeable surfaces. This process decreases the ability of soils to accept and temporarily hold water. Therefore, more water runs off and increases the Q value.

Theoretically, if each development, no matter how large or small, maintains their preconstruction Q value after construction by the installation of stormwater management systems, the streams and wetlands and lakes will not suffer damage from excessive urban stormwater.

For this reason, the Kendall County SWCD recommends that the developer for intense uses, such as a subdivision, calculate the preconstruction Q value for the exit point(s). A stormwater management system

should be designed, installed, and maintained to limit the postconstruction Q value to be at or below the preconstruction value.

IMPORTANCE OF FLOOD INFORMATION

A floodplain is defined as land adjoining a watercourse (riverine) or an inland depression (non-riverine) that is subject to periodic inundation by high water. Floodplains are important areas demanding protection since they have water storage and conveyance functions which affect upstream and downstream flows, water quality and quantity, and suitability of the land for human activity. Since floodplains play distinct and vital roles in the hydrologic cycle, development that interferes with their hydrologic and biologic functions should be carefully considered.

Flooding is both dangerous to people and destructive to their properties. The following maps, when combined with wetland and topographic information, can help developers and future homeowners to "sidestep" potential flooding or ponding problems.

Flood Insurance Rate Maps (FIRMs), produced by the Federal Emergency Management Agency (FEMA), define flood elevation adjacent to tributaries and major bodies of water and superimpose that onto a simplified USGS topographic map. The scale of the FIRM maps is generally dependent on the size and density of parcels in that area. This is to correctly determine the parcel location and floodplain location. The FIRM map has three (3) zones. Zone A includes the 100-year flood (1% annual chance flood), Zone B or Zone X (shaded) is the 100 to 500-year flood (between limits of the 1% and the 0.2% annual chance flood), and Zone C or Zone X (unshaded) is outside the floodplain (outside the 0.2% annual chance flood).

The Hydrologic Atlas (H.A.) Series of the Flood of Record Map is also used for the topographic information. This map is different from the FIRM map mainly because it will show isolated or pocketed flooded areas. Kendall County uses both these maps in conjunction with each other for flooded area determinations. The Flood of Record maps show the areas of flood for various years. Both maps stress that the recurrence of flooding is merely statistical. A 100-year flood may occur twice in one year, or twice in one week, for that matter.

It should be noted that greater floods than those shown on the two maps are possible. The flood boundaries indicated provide a historic record only until the map publication date. Additionally, these flood boundaries are a function of the watershed conditions existing when the maps were produced. Cumulative changes in runoff characteristics caused by urbanization can result in an increase in flood height of future flood episodes.

Floodplains play a vital role in reducing the flood damage potential associated with an urbanizing area and, when left in an undisturbed state, also provide valuable wildlife habitat benefits. If it is the petitioner's intent to conduct floodplain filling or modification activities, the petitioner, and the Unit of Government responsible need to consider the potentially adverse effects this type of action could have on adjacent properties. The change or loss of natural floodplain storage often increases the frequency and severity of flooding on adjacent property.

If the available maps indicate the presence of a floodplain on the PIQ, the petitioner should contact the IDNR-OWR and FEMA to delineate a floodplain elevation for the parcel. If a portion of the property is indeed floodplain, applicable state, county, and local regulations will need to be reflected in the site plans.

Another indication of flooding potential can be found in the soils information. Hydric soils indicate the presence of drainage ways, areas subject to ponding, or a naturally occurring high water table. These need to be considered along with the floodplain information when developing the site plan and the stormwater management plan. Development on hydric soils can contribute to the loss of water storage within the soil and the potential for increased flooding in the area.

This parcel is located on minimal topography (slopes 0 to 4%) and an elevation range of approximately 638'-644' above sea level. The lowest point is along the unnamed tributary, and the highest point is in the northwest portion of the site. According to the FEMA Flood Map (Figure 8), the parcel does not likely contain areas of regulated floodplain or floodway. The parcel is mapped as Zone X, an Area of Minimal Flood Hazard.

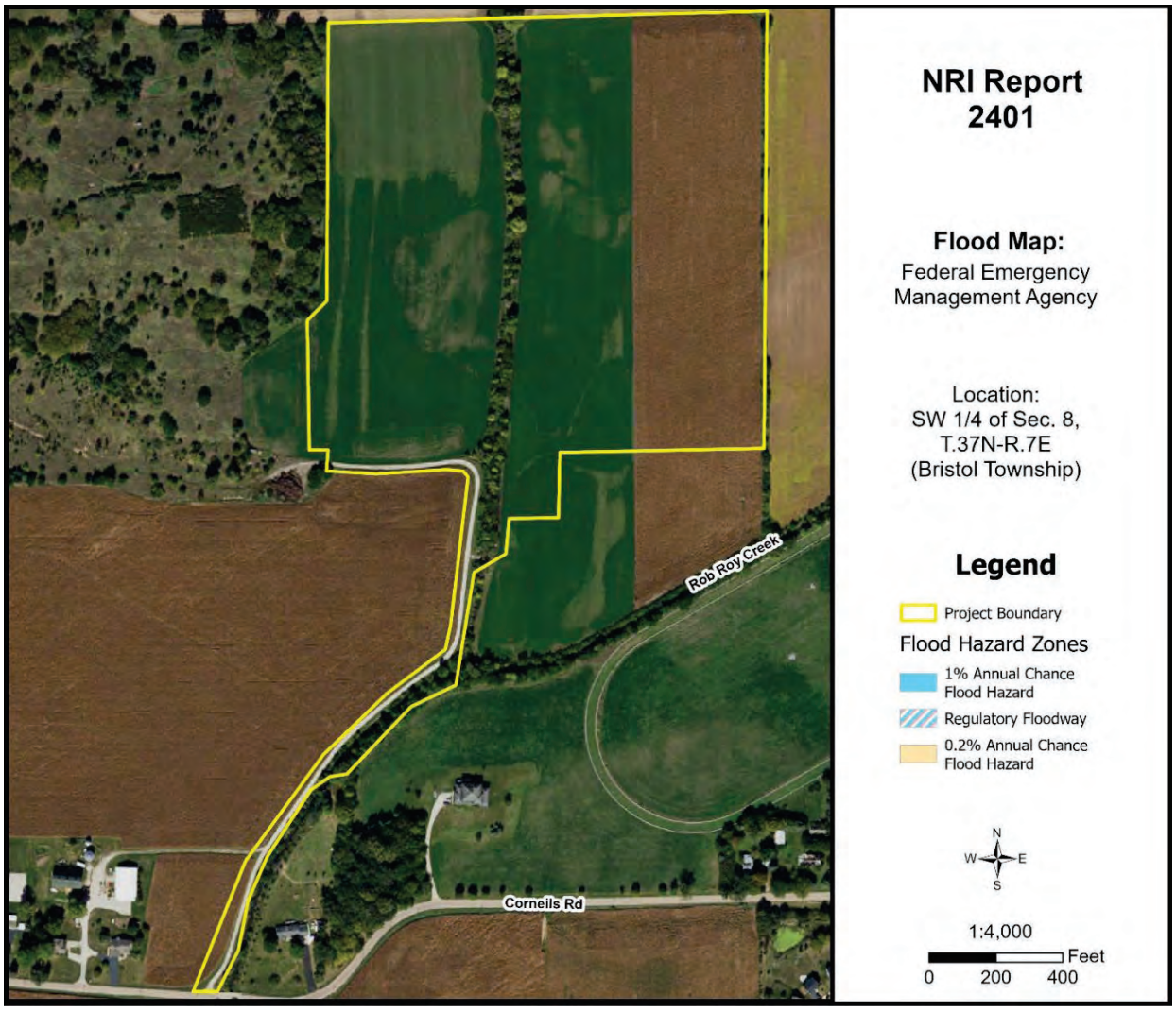


Figure 8: Flood Map

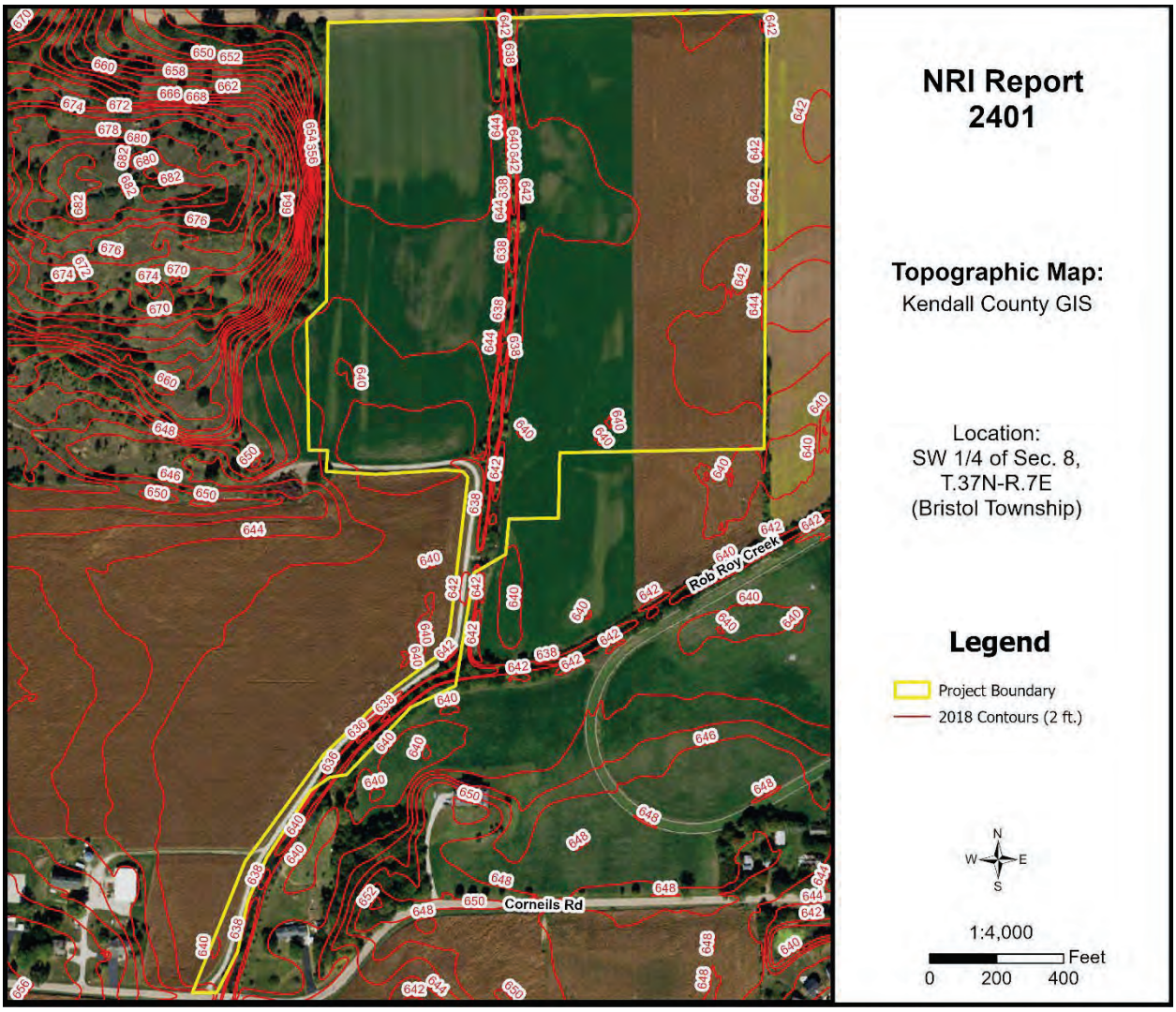


Figure 9: Topographic Map

WATERSHED PLANS

WATERSHED AND SUB WATERSHED INFORMATION

A watershed is the area of land that drains into a specific point including a stream, lake, or other body of water. High points on the Earth's surface, such as hills and ridges define watersheds. When rain falls in the watershed, it flows across the ground towards a stream or lake. Rainwater carries pollutants such as oils, pesticides, and soil.

Everyone lives in a watershed. Their actions can impact natural resources and people living downstream. Residents can minimize this impact by being aware of their environment and the implications of their activities, implementing practices recommended in watershed plans, and educating others about their watershed.

The following are recommendations to developers for protection of this watershed:

- Preserve open space
- Maintain wetlands as part of development
- Use natural water management
- Prevent soil from leaving a construction site
- Protect subsurface drainage
- Use native vegetation
- Retain natural features
- Mix housing styles and types
- Decrease impervious surfaces
- Reduce area disturbed by mass grading
- Shrink lot size and create more open space
- Maintain historical and cultural resources
- Treat water where it falls
- Preserve views
- Establish and link trails

This parcel is located within the Lower Fox River watershed and the Rob Roy Creek sub watershed (HUC 12 – 071200070601). The Rob Roy Creek sub watershed comprises 13,393.76 acres of Kendall County.

WETLAND INFORMATION

IMPORTANCE OF WETLAND INFORMATION

Wetlands function in many ways to provide numerous benefits to society. They control flooding by offering a slow release of excess water downstream or through the soil. They cleanse water by filtering out sediment and some pollutants and can function as rechargers of our valuable groundwater. They also are essential breeding, rearing, and feeding grounds for many species of wildlife.

These benefits are particularly valuable in urbanizing areas as development activity typically adversely affects water quality, increases the volume of stormwater runoff, and increases the demand for groundwater. In an area where many individual homes rely on shallow groundwater wells for domestic water supplies, activities that threaten potential groundwater recharge areas are contrary to the public good. The conversion of wetlands, with their sediment trapping and nutrient absorbing vegetation, to biologically barren stormwater detention ponds can cause additional degradation of water quality in downstream or adjacent areas.

It has been estimated that over 95% of the wetlands that were historically present in Illinois have been destroyed while only recently has the true environmental significance of wetlands been fully recognized. America is losing 100,000 acres of wetland a year and has saved 5 million acres total (since 1934). One acre of wetland can filter 7.3 million gallons of water a year. These are reasons why our wetlands are high quality and important.

This section contains the National Wetlands Inventory, which is the most comprehensive inventory to date. The National Wetlands Inventory is reproduced from an aerial photo at a scale of 1” equals 660 feet. The NRCS developed these maps in cooperation with U.S. EPA (Environmental Protection Agency,) and the U.S. Fish and Wildlife Service, using the National Food Security Act Manual, 3rd Edition. The main purpose of these maps is to determine wetland areas on agricultural fields and areas that may be wetlands but are in a non-agriculture setting.

The National Wetlands Inventory in no way gives an exact delineation of the wetlands, but merely an outline, or the determination that there is a wetland within the outline. For the final, most accurate wetland **determination** of a specific wetland, a wetland ***delineation*** must be certified by NRCS staff using the National Food Security Act Manual (on agricultural land.) On urban land, a certified wetland delineator must perform the delineation using the ACOE 1987 Manual. *See the glossary section for the definitions of “delineation” and “determination.”*

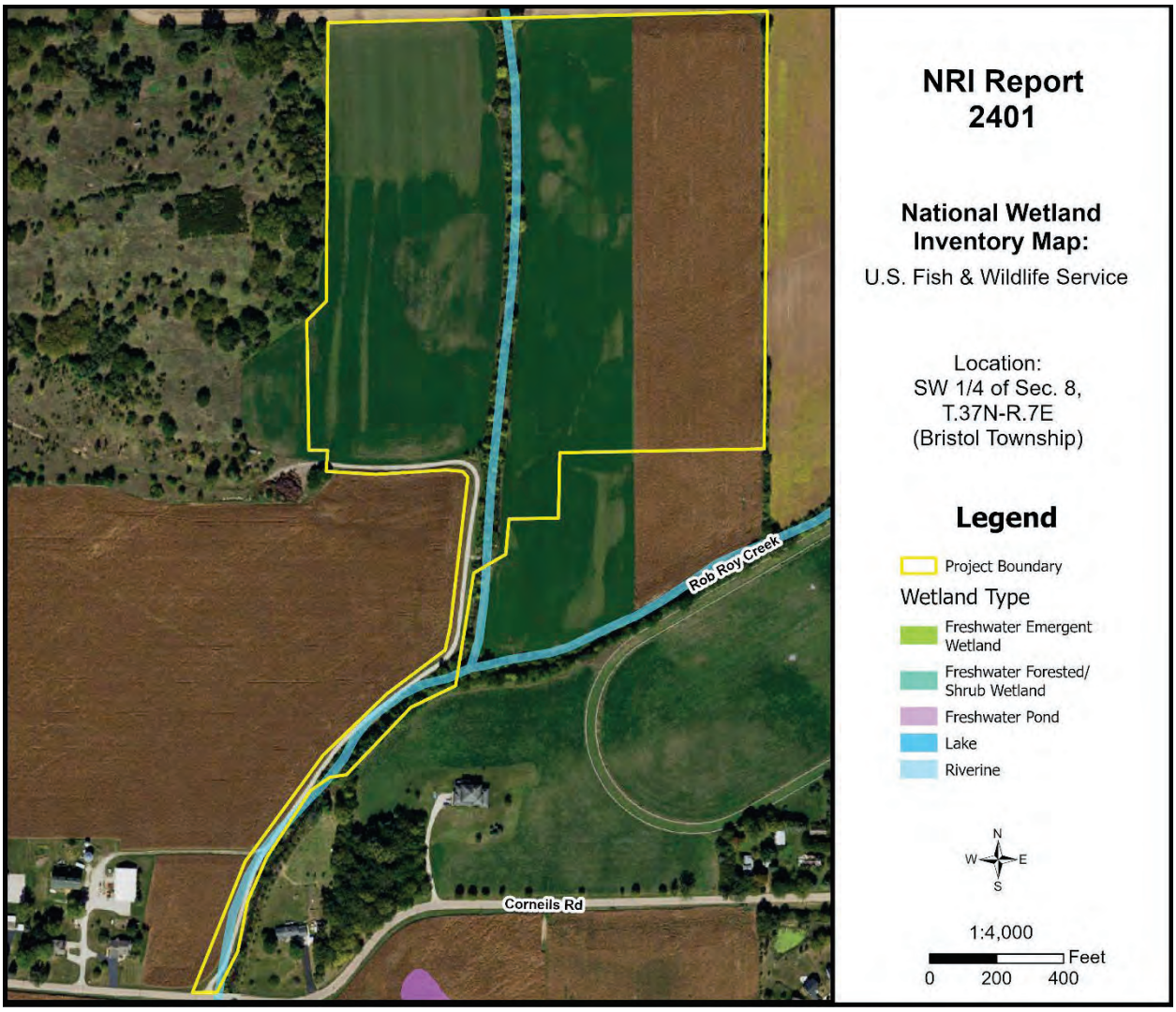


Figure 10: Wetland Map

Office maps indicate that mapped wetlands/waters are present on the parcel in question (PIQ). To determine the presence of wetlands, a wetland delineation specialist, who is recognized by the U.S. Army Corps of Engineers, should determine the exact boundaries and value of the wetlands. A Wetland Determination/Delineation Report dated September 1, 2023, was prepared by Atwell, LLC. The results of their review indicated the presence of two watercourses on the site (Rob Roy Creek and an unnamed tributary of Rob Roy Creek). Please see their report for more information.

HYDRIC SOILS

Soils information gives another indication of flooding potential. The soils map on the following page indicates the soil(s) on the parcel that the Natural Resources Conservation Service indicates as hydric. Hydric soils, by definition, have seasonal high water at or near the soil surface and/or have potential flooding or ponding problems. All hydric soils range from poorly suited to unsuitable for building. One group of the hydric soils are the organic soils, which formed from dead organic material. Organic soils are unsuitable for building because of not only the high water table but also their subsidence problems.

It is important to add the possibility of hydric inclusions in a soil type. An inclusion is a soil polygon that is too small to appear on these maps. While relatively insignificant for agricultural use, hydric soil inclusions become more important to more intense uses such as a residential subdivision.

While considering hydric soils and hydric inclusions, it is noteworthy to mention that subsurface agriculture drainage tile occurs in almost all poorly drained and somewhat poorly drained soils. Drainage tile expedites drainage and facilitates farming. It is imperative that these drainage tiles remain undisturbed. A damaged subsurface drainage tile may return original hydrologic conditions to all the areas that drained through the tile (ranging from less than one acre to many square miles.)

For an intense land use, the Kendall County SWCD recommends the following: a topographical survey with 1 foot contour intervals to accurately define the flood area on the parcel, an intensive soil survey to define most accurately the locations of the hydric soils and inclusions, and a drainage tile survey on the area to locate the tiles that must be preserved to maintain subsurface drainage.

Table 9: Hydric Soils

Soil Types	Drainage Class	Hydric Designation	Hydric Inclusions Likely	Hydric Rating %	Acres	% Area
67A	Poorly Drained	Hydric	N/A	98%	0.6	1.4%
149A	Somewhat Poorly Drained	Non-Hydric	Yes	3%	4.3	10.1%
152A	Poorly Drained	Hydric	N/A	100%	23.4	54.5%
330A	Very Poorly Drained	Hydric	N/A	100%	14.4	33.5%
791B	Well Drained	Non-Hydric	No	0%	0.2	0.5%

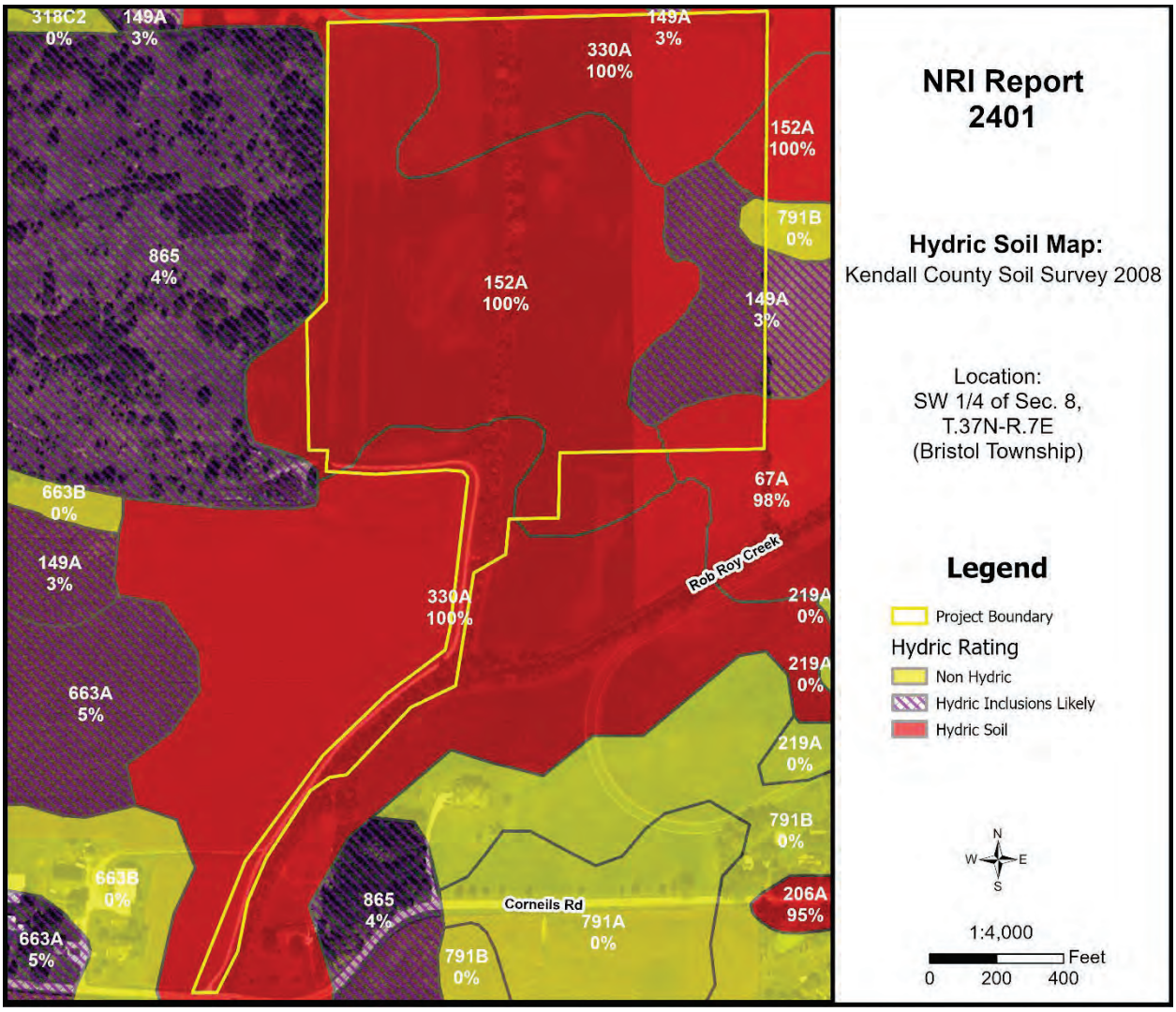


Figure 11: Hydric Soil Map

WETLAND AND FLOODPLAIN REGULATIONS

PLEASE READ THE FOLLOWING IF YOU ARE PLANNING TO DO ANY WORK NEAR A STREAM (THIS INCLUDES SMALL UNNAMED STREAMS), LAKE, WETLAND OR FLOODWAY.

The laws of the United States and the State of Illinois assign certain agencies specific and different regulatory roles to protect the waters within the State's boundaries. These roles, when considered together, include protection of navigation channels and harbors, protection against floodway encroachments, maintenance and enhancement of water quality, protection of fish and wildlife habitat and recreational resources, and, in general, the protection of total public interest. Unregulated use of the waters within the State of Illinois could permanently destroy or alter the character of these valuable resources and adversely impact the public. Therefore, please contact the proper regulatory authorities when planning any work associated with Illinois waters so that proper consideration and approval can be obtained.

WHO MUST APPLY?

Anyone proposing to dredge, fill, rip rap, or otherwise alter the banks or beds of, or construct, operate, or maintain any dock, pier, wharf, sluice, dam, piling, wall, fence, utility, floodplain or floodway subject to State or Federal regulatory jurisdiction should apply for agency approvals.

REGULATORY AGENCIES

- **Wetland or U.S. Waters**: U.S. Army Corps of Engineers, Chicago District, 231 South LaSalle Street, Suite 1500, Chicago, IL 60604. Phone: (312) 846-5530
- **Floodplains**: Illinois Department of Natural Resources - Office of Water Resources, One Natural Resources Way, Springfield, IL 62702-1270. Phone: (217) 782-6302
- **Water Quality/Erosion Control**: Illinois Environmental Protection Agency, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, IL 62794-9276. Phone: (217) 782-3397

COORDINATION

We recommend early coordination with the regulatory agencies BEFORE finalizing work plans. This allows the agencies to recommend measures to mitigate or compensate for adverse impacts. Also, the agency can make possible environmental enhancement provisions early in the project planning stages. This could reduce time required to process necessary approvals.

CAUTION: Contact with the United States Army Corps of Engineers is strongly advised before commencement of any work in or near a Waters of the United States. This could save considerable time and expense. Persons responsible for willful and direct violation of Section 10 of the River and Harbors Appropriation Act of 1899 or Section 404 of the Clean Water Act are subject to fines ranging up to $16,000 per day of violation, with a maximum cap of $187,500 in any single enforcement action, as well as criminal enforcement.

GLOSSARY

AGRICULTURAL PROTECTION AREAS (AG AREAS) - Allowed by P.A. 81-1173. An AG AREA consists of a minimum of 350 acres of farmland, as contiguous and compact as possible. Petitioned by landowners, AG AREAS protect for a period of ten years initially, then reviewed every eight years thereafter. AG AREA establishment exempts landowners from local nuisance ordinances directed at farming operations, and designated land cannot receive special tax assessments on public improvements that do not benefit the land, e.g. water and sewer lines.

AGRICULTURE - The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year around hired farm workers.

BEDROCK - Indicates depth at which bedrock occurs. Also lists hardness as rippable or hard.

FLOODING - Indicates frequency, duration, and period during year when floods are likely to occur.

HIGH WATER TABLE - A seasonal high water table is a zone of saturation at the highest average depth during the wettest part of the year. May be apparent, perched, or artesian kinds of water tables.

- **Water table, Apparent**: A thick zone of free water in the soil. An apparent water table is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil.
- **Water table, Artesian**: A water table under hydrostatic head, generally beneath an impermeable layer. When this layer is penetrated, the water level rises in an uncased borehole.
- **Water table, Perched**: A water table standing above an unsaturated zone. In places an upper, or perched, water table is separated from a lower one by a dry zone.

DELINEATION - For Wetlands: A series of pink or orange flags placed on the ground by a certified professional that outlines the wetland boundary on a parcel.

DETERMINATION - A polygon drawn on a map using map information that gives an outline of a wetland.

HYDRIC SOIL - This type of soil is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (USDA Natural Resources Conservation Service 1987).

INTENSIVE SOIL MAPPING - Mapping done on a smaller more intensive scale than a modern soil survey to determine soil properties of a specific site, e.g. mapping for septic suitability.

LAND EVALUATION AND SITE ASSESSMENT (L.E.S.A.) - LESA is a systematic approach for evaluating a parcel of land and to determine a numerical value for the parcel for farmland preservation purposes.

MODERN SOIL SURVEY - A soil survey is a field investigation of the soils of a specific area, supported by information from other sources. The kinds of soil in the survey area are identified and their extent shown on a map, and an accompanying report describes, defines, classifies, and interprets the soils. Interpretations predict the behavior of the soils under different used and the soils' response to management. Predictions are made for areas of soil at specific places. Soils information collected in a soil survey is useful in developing land-use plans and alternatives involving soil management systems and in evaluating and predicting the effects of land use.

PERMEABILITY - Values listed estimate the range (in rate and time) it takes for downward movement of water in the major soil layers when saturated but allowed to drain freely. The estimates are based on soil texture, soil structure, available data on permeability and infiltration tests, and observation of water movement through soils or other geologic materials.

PIQ - Parcel in question

POTENTIAL FROST ACTION - Damage that may occur to structures and roads due to ice lens formation causing upward and lateral soil movement. Based primarily on soil texture and wetness.

PRIME FARMLAND - Prime farmland soils are lands that are best suited to food, feed, forage, fiber and oilseed crops. It may be cropland, pasture, woodland, or other land, but it is not urban and built up land or water areas. It either is used for food or fiber or is available for those uses. The soil qualities, growing season, and moisture supply are those needed for a well-managed soil economically to produce a sustained high yield of crops. Prime farmland produces in highest yields with minimum inputs of energy and economic resources and farming the land results in the least damage to the environment. Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooded during the growing season. The slope ranges mainly from 0 to 5 percent (USDA Natural Resources Conservation Service).

SEASONAL - When used in reference to wetlands indicates that the area is flooded only during a portion of the year.

SHRINK-SWELL POTENTIAL - Indicates volume changes to be expected for the specific soil material with changes in moisture content.

SOIL MAPPING UNIT - A map unit is a collection of soil areas of miscellaneous areas delineated in mapping. A map unit is generally an aggregate of the delineations of many different bodies of a kind of soil or miscellaneous area but may consist of only one delineated body. Taxonomic class names and accompanying phase terms are used to name soil map units. They are described in terms of ranges of soil properties within the limits defined for taxa and in terms of ranges of taxadjuncts and inclusions.

SOIL SERIES - A group of soils, formed from a particular type of parent material, having horizons that, except for texture of the A or surface horizon, are similar in all profile characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, consistence, and mineralogical and chemical composition.

SUBSIDENCE - Applies mainly to organic soils after drainage. Soil material subsides due to shrinkage and oxidation.

TOPSOIL - That portion of the soil profile where higher concentrations of organic material, fertility, bacterial activity and plant growth take place. Depths of topsoil vary between soil types.

WATERSHED - An area of land that drains to an associated water resource such as a wetland, river or lake. Depending on the size and topography, watersheds can contain numerous tributaries, such as streams and ditches, and ponding areas such as detention structures, natural ponds and wetlands.

WETLAND - An area that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient enough to support, and under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

REFERENCES

Association of Illinois Soil & Water Conservation Districts. 2020. Illinois Urban Manual.

Berg, R. C., and J. P. Kempton. 1984. Potential for contamination of shallow aquifers from land burial of municipal wastes: Champaign, Illinois, Illinois State Geological Survey map, scale 1:500,000.

Clean Water Act of 1972, Sections 309 and 404.

Federal Emergency Management Agency. National Flood Hazard Layer (NFHL) Viewer. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd. Accessed January 2024.

Illinois State Geological Survey, Department of Natural Resources. 2021. Geologic Road Map of Illinois.

Kendall County Department of Planning Building and Zoning and Kendall County Soil and Water Conservation District In cooperation with NRCS, USDA. Land Evaluation and Site Assessment System.

Kendall County. 2023. Land Resource Management Plan Map.

Natural Resources Conservation Service, United States Department of Agriculture. General Manual, Title 310, Land Use.

Natural Resources Conservation Service, United States Department of Agriculture. 2007. Hydric Soils of the United States.

Natural Resources Conservation Service, United States Department of Agriculture. Hydrologic Unit Map for Kendall County.

Natural Resources Conservation Service, United States Department of Agriculture. 1987. Soil Erosion by Water. Agriculture Information Bulletin 513.

Natural Resources Conservation Service, United States Department of Agriculture. 2008. Soil Survey of Kendall County.

Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. http://websoilsurvey.sc.egov.usda.gov/. Accessed January 2024.

Rivers and Harbors Appropriation Act of 1899, Section 10.

Rockford Map Publishers, Inc. 2021. Land Atlas and Plat Book, Kendall County, Illinois, 21st Edition.

United City of Yorkville. 2016. United City of Yorkville Comprehensive Plan Update.

United States Fish & Wildlife Service. 2018. National Wetlands Inventory. https://data.nal.usda.gov/dataset/national-wetlands-inventory. Accessed January 2024.

Nature Conservancy (U.S.) Great Lakes Program. 1994. *The Conservation of Biological Diversity in the Great Lakes Ecosystem: Issues and Opportunities*. The Program, 1994.

United City of Yorkville
651 Prairie Pointe Drive
Yorkville, Illinois 60560
Telephone: 630-553-4350
Fax: 630-553-7575

PLAN COUNCIL AGENDA

Thursday, February 8, 2023
9:00 a.m.
City Hall
Community Development
2nd Floor - Conference Room
Remote Access via Zoom

1. Minutes for approval: November 9, 2023
2. PZC 2024-05 Corneils Solar Farm/Nexamp (Bennett) – Annexation, Rezone, and Special Use

Adjournment

UNITED CITY OF YORKVILLE
PLAN COUNCIL
Community Development
City Hall Conference Room, 2nd floor
651 Prairie Pointe Drive, Yorkville, IL
Thursday, November 9, 2023 9:00am

IN ATTENDANCE:
Krysti Barksdale Noble, Community Development Director
Bart Olson, City Administrator
Michael Keith, Atwell, LLC
Dan Nagel, property owner
Matt Walsh, Nexamp
Dan Kramer, Attorney

Ms. Noble called the meeting to order at 9:01am. She said the Engineer and Public Works Director were unable to be present, however, she did have comments from them.

1. Minutes for approval: October 12, 2023
The minutes were approved as presented.

2. PZC 2024-01 Yorkville Renewables/Nexamp-Solar Farm
Ms. Noble said the purpose of the meeting was to review comments from staff members regarding this solar project proposal. Introductions of meeting participants were made.

Mr. Walsh gave a PowerPoint presentation and an overview of the proposal. He discussed the equipment necessary for the site and their function. A camera system will be utilized and will feed to a monitoring center. The landscaping will include pollinator plants and they are also open to fencing. Com Ed will install power poles to ensure not too much power is sent through the system. He said the site is part of the original Westbury PUD which is currently being dismantled. Mr. Nagel's property was determined to be the most favorable for this proposed project and the current recycling center is nearby. An existing easement intended for future roads will be used for access and approval from Kendall County has already been given for Galena Road access. Mr. Walsh discussed some of the setback distances and said the project had generous buffers for the site.

Attorney Kramer noted another proposed solar project farther north and that Aldermen had expressed they did not want solar fields visible at city entrances. He said his client has been mindful of these wishes.

Staff Comments:
Ms. Noble gave an overview and shared staff comments. The facility is a 5 megawatt and permitted in an agriculture district for which the petitioner is seeking rezoning. It is part of a PUD now, which the city is dismantling and this parcel would be excluded from the PUD. A variance might be needed concerning the clearance from the ground. A Unified Development Ordinance is in the process of being passed and if approved by January 1, a variance will not be needed. She also addressed the setbacks. She asked the petitioner if the setback is the distance to the solar field or to the array. Mr.

Walsh will re-measure and provide the information. The distance to neighboring properties was also unclear.

Other Staff Items Discussed:

1. Total number of arrays will need to be verified and Ms. Noble noted the $7.00 per array cost for the building permit.

2. Discussed the inverters, transformers and tracking motors. Some systems require a motor for each row of arrays, while others need one motor per several rows, said Mr. Walsh. An estimate of the number will be needed. He noted that the motors only run a few seconds when turning the arrays.

3. Ms. Noble said the lease length is needed and if there is an option to extend.

4. Glare and lighting studies were provided and a rendering of view sheds is needed.

5. An 8-foot tall galvanized fence with slats is required to obscure the view.

6. BKFD needs a Knox box and key.

7. The driveway will not be paved, but staff needs to know the composition of the road.

8. Regarding decommissioning plan, engineer needs a construction estimate for the the life of the lease and a 3% annual inflation rate is needed as part of the special lease application. A total cost for this process is needed.

9. Solar is an accessory use and the proposed 23 acres is only 31% of the overall area, meeting the requirements of being an accessory to the ag use criteria.

10. A small sign with contact information is preferred and Mr. Walsh added that it will provide shutdown information as well.

11. The city requires a blanket easement as part of the decommissioning plan. Ms. Noble said staff will work with the petitioner's attorney for a special license agreement so as not to encumber the title.

Comments from Mr. Michael Keith:

Mr. Michael Keith asked about requirement for stormwater detention and said there is a study that shows there is generally no detention needed in solar fields. There is no increase in water runoff with no surface change and in addition, the pollinator mix pulls water into the soil. He said the site is not being cleared and the gravel road also allows for water absorption. A stormwater storage basin will be discussed with the Engineer.

Mr. Keith also addressed the flood plain. He said the FEMA maps do not show a flood plain on this site. Mr. Walsh said they are adding steel piles, but it has minimal impact on flooding. He asked for direction on what the engineer wishes.

The petitioner is OK with the delineation report that has already been done. Mr. Walsh added there is a wetland near the roadway but is isolated and does not impact the Rob Roy creek. It was created when the sewer was put in and probably not regulated by the Army Corps.

Perimeter Easement: Mr. Walsh said the perimeter easement is OK for future improvements. He said there was a road dedication previously done along Galena Rd. & Rt. 47 for the property owner, but not for this project. Ms. Noble will discuss with Engineer Sanderson.

Decommission Bond: This requires a 3% annual increase with the 120% estimate. The lease is for 20 years with options and the bond will need to be updated if the lease extends beyond 20 years.

Photometric Plan: There will be no lighting on the site.

Landscaping Comments: Native pollinators will be used and Ms. Noble will work with the petitioner for an approved plan. Shrubs and trees will be around the solar field, said Mr. Walsh, but there is not enough area to comply with the levels suggested and the buffering is the most important part for a solar field. Shrubs or trees are not needed along the access path. Ms. Noble said a preliminary plan for the pollinator mix would be helpful for the Planning and Zoning Commission meeting and she added that some projects have an agreement with the state for that plan. Some plants may be changed depending on site conditions. Mr. Walsh said a soil analysis will be done to see what plants are appropriate.

Police Department:
The petitioners said in general, there is low criminal activity on their sites and signage at the entrance is not an issue. The gate at the entrance is just into the solar farm, but there is free access on the sides of the gate. A breakable chain for the Fire Department could be installed. There will be an easement through the middle of the property, which is non-exclusive so only the owner needs to give consent.

Other Comments:
Mr. Walsh asked for any other input and Ms. Noble said to make sure the decommissioning estimate is relative to the area. Mr. Kramer said the drainage issue is non-existent. Ms. Noble said EDC has not narrowed the distance requirements from the road. The existing right-of-way of the road is there and approved already, said Mr. Nagel. Mr. Nagel asked if the ComEd line is underground from the solar farm to the Com Ed infrastructure nearby. He asked if it could be re-positioned, which it can be and a new pole is proposed for there.

Comments from Mr. Bart Olson:
Mr. Olson said the City Council does not want anything within 1,000 feet from the commercial corridor. He said to definitely focus on limiting the view shed from Raging Waves into the solar farm. Mr. Olson asked if any roadway improvements will be made or if just interior to the site—it will only be to the interior. The petitioners should make sure there is public benefit, improvements or donations, which is a concern of the Aldermen and should be a component of the proposal to the Council.

Ms. Noble said a map will be provided at the next meeting to show the bufferings at various distances. She will also give the questions to the Engineer and will follow up via email to the meeting participants.

When the Westbury PUD is resolved, meetings can then be scheduled.

Adjournment
There was no further business and the meeting adjourned at 9:57am.

Minutes respectfully transcribed by
Marlys Young, Minute Taker

Memorandum

To: Plan Council
From: Krysti J. Barksdale-Noble, Community Development Director
CC: Sara Mendez, Planner I
Date: January 24, 2024
Subject: **PZC 2024-05 Corneils Road Solar, LLC/Nexamp, Inc. (Bennett)**

I have reviewed the applications for Annexation, Rezoning and Special Use request dated January 17, 2024 as submitted by Daniel Kramer on behalf of Nexamp dba Corneils Road Solar, LLC, petitioner. The following supplemental materials were included with the applications:

1) Application for Annexation, as prepared by 126612 Corneils Road Solar, LLC
2) Application for Rezoning, as prepared by 126612 Corneils Road Solar, LLC
3) Application for Special Use, as prepared by 126612 Corneils Road Solar, LLC
4) List of Property Owners within 500 feet of subject parcel
5) Cover Letter of Project Narrative/System Design Summary dated December 3, 2023, as prepared by Nexamp
6) Decommissioning Plan Narrative, as prepared by Nexamp
7) ALTA Survey/NSPS Land Title Survey dated 11/23/2022, as prepared by Atwell Group
8) Legal Description dated December 6, 2023, as prepared by Atwell Group
9) Special Use Application Plans dated last revised 12/10/23, as prepared by Atwell Group and submitted by Nexamp
10) Property Aerial dated 12/06/23, as prepared by Nexamp
11) Standard Agreement for Interconnection with ComEd, as submitted by Nexamp
12) Electrical Diagram dated 07/03/2023, as submitted by Nexamp
13) Manufactures Cut Sheets, as submitted by Nexamp
14) Glare Study dated December 14, 2023 prepared by Forge Solar
15) Vegetation Management Plan for Solar Sites Utilizing Native Vegetation, as prepared by Natural Resource Services
16) Letter from Illinois Department of Agriculture dated December 5, 2023

The petitioner is seeking to construct a 4.99-megawatt (MW) alternating current (AC) freestanding commercial solar collector system. The proposed 40-acre solar farm will be situated on approximately 94 acres of existing farmland located in unincorporated Kendall County immediately north of Corneils Road, east of Beecher Road and west of IL Route 47 (N. Bridge Street). The property also consists of an existing farm homestead with accessory buildings.

Upon annexation, the petitioner seeks to rezone the parcel from the default R-1 Single-Family to A-1 Agricultural District zoning and requests special use authorization for a solar farm.

Based upon my review of the application documents and preliminary plans, I have compiled the following comments (requests to the petitioner are underlined):

ANNEXATION COMMENTS:

1. Contiguity of the subject parcel and Yorkville's current corporate boundary is established immediately south of Corneils Road (Westbury South Village) and abutting to the east is the Westbury East Village. Both are undeveloped but entitled mixed-use planned unit developments.
2. Per Section 10-3-4 of the Yorkville Unified Development Ordinance (UDO), any territory annexed to the city shall automatically be classified within the R-1 Single-Family Suburban Residential District.

3. **Any approval of the requested rezoning and special use for the solar farm is contingent upon the approval of the annexation petition**.

REZONING COMMENTS:

1. Per Table 10-3-12(B) Alternative Energy Uses of the United City of Yorkville's Unified Development Ordinance, solar farms are special uses in the A-1 Agricultural District.
2. Section 10-8-12 of the Unified Development Ordinance states specific standards for rezoning which all recommendation bodies will review. The petitioner has provided responses to the established standards for each of the criteria provided in the application.

SPECIAL USE COMMENTS:

Zoning

The subject property consists of three (3) parcels (#02-08-300-008, 02-08-300-011, and 02-08-300-012) which are currently unincorporated and zoned A-1 Special Use in Kendall County. The following are the current immediate surrounding zoning and land uses:

	Zoning	Land Use
North	A-1 SU/ M-3 SU (Unincorporated Kendall County)	Agriculture/ Trans/Communication/Utility
South	Corneils Road R-4 (Westbury South Village PUD)	Transportation/Agriculture
East	R-2, R-4, B-3 (Westbury East Village) Rob Roy Creek	Agriculture/Undeveloped Residential/Tributary
West	A-1 (Unincorporated Kendall County)	Residential/Agriculture

- The proposed commercial solar farm will consist of approximately 11,592 modules installed over 40-acres of the existing farmland and enclosed within a fenced area, per the project narrative. However, the Site Layout Plan (Sheet C-200 B) prepared by Nexamp, date last revised December 10, 2023 states the area to be fenced is approximately 31.09-acres. **Petitioner must verify the accurate area proposed for the solar farm use.**
- The system will include two (2) central inverters and 1-2 transformers, per the Decommissioning Plan. Additionally, the inverters and transformers will be located within the fence and mounted on a concrete pad. **Please verify and the total number of proposed tracker motors**.
- The proposal also includes a Battery Energy Storage system.
    - **Per Table 10-3-12(B) Permitted and Special Uses in the Unified Development Ordinance, battery energy storage systems as primary uses are only permitted in the manufacturing districts. This seems like an accessory use, but staff requests more information on the system**.
- **The petitioner must provide the total amount of time proposed for the lease of the property to operate the proposed community solar farm. This includes any options to extend the lease term**.

Location on Site

Section 10-4-13 Alternative Energy Use Standards in the City's Unified Development Ordinance provides setbacks specific for solar farm uses in the A-1 Agricultural District. The following compares the yard setbacks required, excluding fences, for ground-mounted solar farm uses:

	Minimum Setback for Equipment to Property Line	Proposed Setback
Front (South)	100 feet	~1,698.6 feet
Rear (North)	50 feet from nonresidential/100 feet from residential	~ 36 feet
Side (East)	50 feet from nonresidential/100 feet from residential	~ 59 feet
Side (West)	50 feet from nonresidential/100 feet from residential	~37 feet

- The location of the solar panels meets the minimum front (south) yard setback for ground-mounted solar farm uses in the A-1 District. **However, the solar panels appear to encroach into the required rear and interior side yards to the north, east, and west.**
    - **The minimum distances required for the rear and west is 50 feet, excluding the fence, and the east minimum setback is 100 feet, excluding the fence.**
    - **The Site Plan should be revised to reflect the accurate distances from the property lines to the proposed solar panels and/or fence line.**
- **The Site Plan should also indicate the distance of the proposed nearest solar module to the nearest residential structure to the northwest along E. Beecher Road and to N. Bridge Street to the east.**
    - It is noted within the project narrative there is a reference to the proposed solar system being over 1,000 feet from the nearest residential structure (from nearest existing residential structure to nearest proposed module.
- Per Section10-4-13B.3 of the Unified Development Ordinance, a certified professional engineer shall certify that the foundation and design on the solar panels are within accepted professional standards, given local soil and climate conditions

Height

The maximum height for solar systems, equipment, and structures shall not exceed thirty feet (30') in height when ground mounted, per Section 10-4-13B.6 in the Unified Development Ordinance.

- The petitioner's exhibit (Sheet C-500 B Standard Details) appears to indicate a maximum solar array height as approx. 20 feet at maximum tilt.
- The petitioner's exhibit (Sheet C-06 A Standard Details) appears to indicate a minimum solar array clearance as 3 feet.

Glare/Lighting

Solar panels shall be placed such that concentrated solar radiation or glare shall not be directed onto nearby properties or roadways.

- The petitioner has submitted a glare study and analysis which concludes that there was no potential for glint or glare identified by the analysis.
- It is also noted the solar modules will be treated with anti-reflective coating to minimize glare.
- **Staff requests the petitioner provides a viewshed from angles around the solar farm which illustrate how far away the panels will be from the public rights-of-way (Corneils Road), as well as from the residential land uses to the northwest.**

Noise

The transformer is the greatest source of noise on the property.

- It is noted the transformer will be centrally located within the fenced area on either side of the 100' water course buffer.
- **Please verify the distance of the transformer to the nearest residences located to the northwest on E. Beecher Road.**

Fencing

The petitioner has proposed an eight (8) foot tall, fixed knot farm fence to surround the perimeter of the solar farm with a 20-foot-wide double swinging vehicle access gate. As stated in Section 10-4-13B.9 of the Unified Development Ordinance, states that systems, equipment, and structures in solar farms shall be fully enclosed and secured by fence or wall with a height of eight (8) feet in height.

- **Staff recommends an 8' tall, galvanized chain link fence with slats.**
- **A Knox box and keys shall be provided to the City's building department and Bristol Kendall Fire District (BKFD).**

Access Road

The proposed site access is via Corneils Road through an existing gravel driveway. The plan proposes to connect a new 15' wide gravel access drive into the fenced area with the solar system.

- The path provides access to the equipment, however, no formal parking stalls are provided, as no buildings, employees are planned on the site except for the occasional mowing or maintenance visits.
- Per Section 10-4-13B.5 of the Unified Development Ordinance, off street parking provided on-site shall be on a paved and gravel roads are not permitted.
    - Petitioner has provided details regarding the proposed material for the access road.
    - **Staff defers to the City Public Works Director and City Engineer for comment on the road composition.**

Decommissioning Estimate/Plan
The petitioner has provided a decommission plan.

- **In addition to the decommissioning plan narrative, a construction estimate for the life of the lease must be provided with a 3% annual inflation rate which must be reviewed and approved by the City Engineer.**
    - It is noted the Petitioner stated that an Engineers Estiamte

Maximum Lot Coverage
Section 10-4-13B.2 of the Unified Development Ordinance states a solar farm use may occupy up to eighty-percent (80%) of a given parcel in this district.

- As proposed, the solar farm will occupy approximately 42.5% (40-acres) of the overall existing 94 acres of existing farmland.
- **Is the petitioner proposing to consolidate all or some of the three (3) existing parcels? If so, which parcels and what is the total area occupied by the proposed solar use. If not, the petitioner must provide, on a parcel basis, the total area occupied by the proposed solar use**.

Signage
Per Section 10-4-13B.9.a.(1) and (2) of the Yorkville Unified Development Ordinance, warning signs shall be provided at the entrance to the facility and along the perimeter of the solar farm.

- Additionally, signs shall be less than four (4) square feet and made with letters and numbers at least three (3) inches in height and shall include the 911 address and an emergency phone number of the operator which shall be answered twenty-four (24) hours a day by a live operator. A nonemergency phone number for the operator shall also be displayed.
- **The petitioner has provided signage information. The emergency contact sign (8.5” x 11”) appears to be compliant with this regulation.**

Landscaping
Defer to Engineering Comments related to landscaping.

- It is noted that the petitioner will provide IDOT class 7 seed mix outside fenced areas and site-specific pollinator friendly seed mix within the fenced areas beneath the solar panels.

Utilities
Per Section 1-4-13B.4 of the Unified Development Ordinance, power and communication lines running between banks of solar panels and to electric substations or interconnections with buildings shall be buried underground.

- The proposed community solar farm will not require public utilities such as water or sanitary sewer. The routing of the electrical infrastructure required to connect to the ComEd system includes electrical cables installed underground for the entire project with the exception of a series of overhead poles (approx. 4) for a wire connection near Corneils Road.

Utility Service Provider
The petitioner has provided evidence that the electric utility service has been notified of the owner’s intent to install an interconnected customer owned electricity generator.

- A copy of an Interconnection Agreement, as prepared by ComEd dated 03/2/2023.

Special Use Standards
The petitioner has provided answers to each of the criteria in the application as well as providing an additional attachment to these standards.

Easement Requirements
An easement for City access to the solar field will be required in the event the project is abandoned and requires decommissioning by the City.

Economic Development Committee Comments
The City's Economic Development Committee has provided guidance at their January 2, 2024 meeting to staff regarding the acceptable locations of solar fam developments within Yorkville which are as follows:

- **1,000-foot buffer from**
- **1,000-foot buffer from Fox River**
- **Maximum of five (5) solar farms citywide**
    - These recommendations have not been approved, as an amendment to the Yorkville Unified Development Ordinance will be required. Staff is anticipating formal review of the proposed amendment will occur in March 2024.

UNITED CITY OF YORKVILLE
KENDALL COUNTY, ILLINOIS

ORDINANCE NO. 2023-60

AN ORDINANCE OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS, AUTHORIZING THE ADOPTION OF A NEW UNIFIED DEVELOPMENT ORDINANCE WITHIN THE YORKVILLE CITY CODE

Passed by the City Council of the
United City of Yorkville, Kendall County, Illinois
This 12th day of December, 2023

Published in pamphlet form by the
authority of the Mayor and City Council
of the United City of Yorkville, Kendall
County, Illinois on December 20, 2023.

Ordinance No. 2023-60

AN ORDINANCE OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS, AUTHORIZING THE ADOPTION OF A NEW UNIFIED DEVELOPMENT ORDINANCE WITHIN THE YORKVLLE CITY CODE

WHEREAS, the United City of Yorkville (the "*City*") is a duly organized and validly existing non home-rule municipality created in accordance with the Constitution of the State of Illinois of 1970 and the laws of the State; and,

WHEREAS, Section 11-13-14 of the Illinois Municipal Code (65 ILCS 5/11-13-14) provides that a municipality may amend its zoning regulations by ordinance after holding a hearing before a commission or committee designated by the corporate authorities; and,

WHEREAS, pursuant to Section 11-13-2 of the Illinois Municipal Code (65 ILCS 5/11-13-2), the Mayor and City Council of the City (the "*Corporate Authorities*") appointed and confirmed an advisory committee (the "*Advisory Committee*") to recommend the boundaries of districts and appropriate regulations to be enforced therein; and,

WHEREAS, the Advisory Committee prepared a tentative report and a proposed new Unified Development Ordinance (the *"UDO"*) for the City; and,

WHEREAS, the Planning and Zoning Commission convened and held a public hearing on the 13th day of September, 2023 (the "*Hearing*"), to consider the tentative report of the Advisory Committee and the proposed new UDO; and,

WHEREAS, due notice in respect to the Hearing was given pursuant to 65 ILCS 5/11-13-2 and 65 ILCS 5/11-13-14 of the Illinois Municipal Code; and,

WHEREAS, within 30 days after the final adjournment of the Hearing, the Planning and Zoning Commission made a final report and submitted a proposed new UDO for the City to the Corporate Authorities; and,

WHEREAS, the Corporate Authorities have reviewed the Planning and Zoning Commission's final report and the proposed new UDO and hereby approves said new amended ordinance.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1. The above recitals are incorporated and made a part of this Ordinance.

Section 2. That Title 10 - Zoning and Title 11 – Subdivision Control of the Yorkville City Code is hereby amended by deleting said Titles in their entirety and replacing said Title 10: UDO with the language set forth in Exhibit A, attached hereto and made a part hereof.

Section 3. That Title 8 – Building Regulations of the Yorkville City Code is hereby amended by deleting Chapter 7 – Stormwater and Flooding Regulations, Chapter 12 – Landscape Ordinance, and Chapter 15 – Appearance Code, in their entirety, and which are now included within the new Title 10: UDO.

Section 4. The Advisory Committee shall cease to exist upon the passage, approval, and publication of this Ordinance.

Section 5. This Ordinance shall be in full force and effect on January 1, 2024 upon its passage, approval, and publication as provided by law.

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this 12th day of December, A.D. 2023.

Jori Behrend
CITY CLERK

KEN KOCH	AYE	DAN TRANSIER	ABSENT
ARDEN JOE PLOCHER	AYE	CRAIG SOLING	AYE
CHRIS FUNKHOUSER	ABSENT	MATT MAREK	AYE
SEAVER TARULIS	AYE	RUSTY CORNEILS	AYE

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this 20th day of December, A.D. 2023.

MAYOR

Attest:

CITY CLERK

10-4-13. Alternative Energy Use Standards

A. General Requirements for all Alternative Energy Uses.

1. Applicability. The provisions of this Section are to establish zoning parameters by which solar and wind energy systems may be installed in the City. Additional renewable energy solutions not mentioned herein may be authorized subject to compliance with the applicable codes and standards of the City.

2. Use. Alternative energy systems shall be an accessory to the principal permitted use of a site.

3. Abandoned Systems. All alternative energy systems inactive or inoperable for twelve (12) continuous months shall be deemed abandoned. If the system is deemed abandoned, the owner is required to repair or remove the system from the property at the owner's expense within ninety (90) days after notice from the City. If the owner does not comply with said notice, the Building Code Official shall enforce this as a violation of the Yorkville Zoning Ordinance.

4. Signage. No attention getting device is permitted on any alternative energy system. One (1) sign shall be permitted to indicate the emergency contact information of the property owner or operator. Said sign shall not exceed two (2) square feet in size. Graphics, colors, corporate logos, and text on wind energy systems located within business or manufacturing zoned properties are permitted, subject to the discretion of the City Council.

5. Safety. All wind energy systems shall be equipped with manual and/or automatic controls and mechanical brakes to limit rotation of blades to prevent uncontrolled rotation.

6. Lighting. Alternative energy systems shall not be illuminated, except as required by the FAA or those used in commercial applications such as streetlights.

7. Shadow Flicker. No habitable portion of an existing adjacent structure shall be subject to shadow flicker from a wind turbine. Shadow flicker onto an adjacent roof and/or exterior wall which does not contain any windows, doors, and like openings shall be acceptable. If shadow flicker occurs, the operation of the wind turbine shall cease during those times which cause the shadow flicker.

8. Screening. There shall be no required mechanical screening for alternative energy systems.

9. Design. Wind energy systems and associated tower shall be a nonreflective color. The City Council may impose such conditions as are necessary to eliminate, if at all possible, any adverse effects such system may have on surrounding properties.

10. Compliance. Wind energy systems shall meet or exceed current standards of the international building code and Federal Aviation Administration (FAA) requirements, any other agency of the state or federal government with the authority to regulate wind energy systems, and all City codes.

11. Building Code/Safety Standards. Any owner or operator of an alternative energy system shall maintain said system in compliance with the standards contained in the current and applicable state or local building codes and any applicable standards for said energy systems that are published by the International Building Code, as amended from time to time. If, upon inspection, the United City of Yorkville concludes that an alternative energy system fails to comply with such codes and standards and constitutes a danger to persons or property, the City Code Official shall require immediate removal of the system at the owner's expense.

B. Solar Farm.

1. No solar farm shall be erected on any lot less than three (3) acres in size.

2. A solar farm use may occupy up to eight-five (85) percent of a given parcel in the M-1 or M-2 District or up to eighty (80) percent of a given parcel in any other District.

3. A certified professional engineer shall certify that the foundation and design on the solar panels are within accepted professional standards, given local soil and climate conditions.

4. Power and communication lines running between banks of solar panels and to electric substations or interconnections with buildings shall be buried underground.

5. Off-street parking provided on site shall be paved. Gravel or other unpaved materials shall be prohibited.

6. Systems, equipment, and structures shall not exceed thirty feet (30) in height when ground mounted.

7. Groundcover as specified in Section 10-5-3(A)(7) shall be provided beneath all solar panels.

8. Ground mounted solar energy collection systems as part of a solar farm shall have a minimum setback for all equipment, excluding fences, of:

   a. *Front and Corner Yards*: one hundred (100) feet,

   b. *Side and Rear Yards*: fifty (50) feet from nonresidential property lines and one hundred (100) feet from residential property lines.

9. Systems equipment and structures shall be fully enclosed and secured by a fence or wall with a height of eight (8) feet. Knox boxes and keys shall be provided at locked entrances for emergency personnel access.

   a. Warnings.

      (1) Warning signs shall be provided at the entrance to the facility and along the perimeter of the solar farm in locations determined necessary by the Zoning Officer.

      (2) The signs shall be less than four (4) square feet and made with letters and numbers at least three (3) inches in height and shall include the 911 address and an emergency phone number of the operator which shall be answered twenty-four (24) hours a day by a live operator. A nonemergency phone number for the operator shall also be displayed.

10. Outdoor Storage. Only the outdoor storage of materials, vehicles, and equipment that directly support the operation and maintenance of the wind farm shall be allowed except for outdoor storage that is expressly allowed in the zoning district specified elsewhere in this title.

11. Materials Handling, Storage, and Disposal.

   a. All solid wastes related to the construction, operation, and maintenance of the solar farm shall be removed from the site promptly and disposed of in accordance with all federal, state, and local laws.

   b. A list of hazardous fluids that may be used on site shall be provided. All hazardous materials related to the construction, operation, and maintenance of the solar farm shall be handled, stored, transported, and disposed of in accordance with all applicable local, state, and federal laws.

12. Decommissioning Plan. Prior to receiving approval, the applicant shall submit a decommissioning plan to ensure that the solar farm project is properly decommissioned, which shall include:

    a. Provisions describing the triggering events for decommissioning the solar farm project. Any nonfunctioning solar panel/array of the project shall be decommissioned within thirty (30) days unless the operator has shown to the Zoning Administrator that it is diligently repairing such solar panel/array or component.

    b. Procedures for the removal of structures, debris, and cabling, including those below the soil surface,

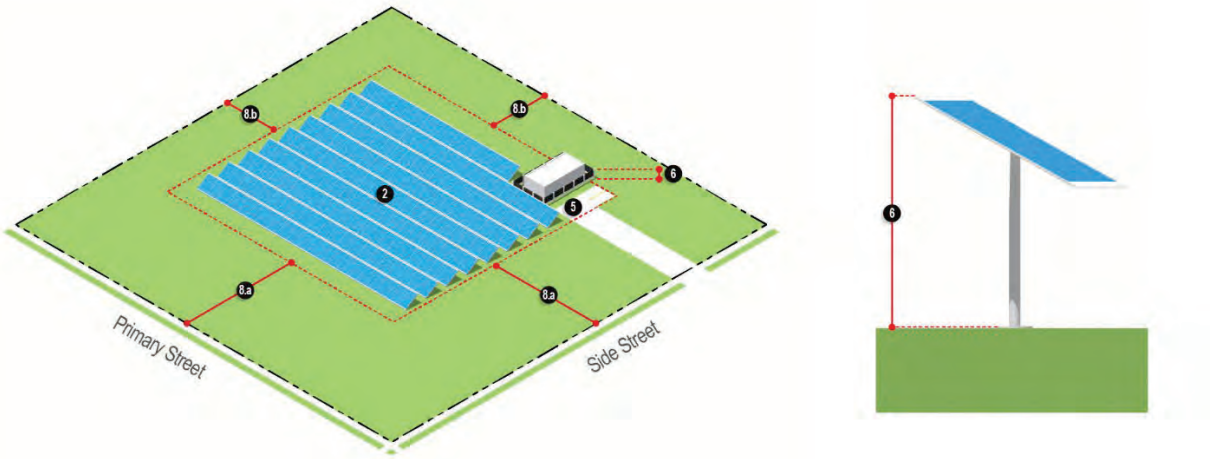
    c. Provisions for the restoration of the natural soil and vegetation,

    d. An estimate of the decommissioning costs certified by a professional engineer, to be updated every three (3) years or as determined necessary by the Zoning Administrator. The Zoning Administrator may request an independent third-party verification of the decommissioning costs at any time. The costs for this verification shall be reimbursed by the applicant and/or operator.

    e. Financial assurance, secured by the owner or operator, for the purpose of performing the decommissioning, in an amount equal to one-hundred and twenty (120) percent of the professional engineer's certified estimate of the decommissioning cost.

    f. A provision that the terms of the decommissioning plan shall be binding upon the owner or operator and any of his successors, assigns, or heirs.

Figure 4.4. Solar Farm Standards



January 10, 2024

Ms. Krysti Barksdale-Noble
Community Development Director
United City of Yorkville
651 Prairie Pointe
Yorkville, IL 60560

Re: Corneils Road Solar
Special Use & Rezoning Request – 1st Submittal
United City of Yorkville

Dear Krysti:

We have reviewed the following items for the above-referenced project:

- Special Use & Rezoning Permit Applications
- Special Use Application Plans
- Other Supporting Documentation

Our review of these plans and reports are to generally determine their compliance with local ordinances and whether the improvements will conform to existing local systems and equipment. This review and our comments do not relieve the designer from his duties to conform to all required codes, regulations, and acceptable standards of engineering practice. Engineering Enterprises, Inc.'s review is not intended as an in-depth quality assurance review, we cannot and do not assume responsibility for design errors or omissions in the plans. As such, we offer the following comments:

General

1. The following permits may be required during final engineering and should be provided to the City when obtained. The City and EEI should be copied on all correspondence with the agencies.
    - IEPA NPDES General Construction Permit is required. The Notice of Intent must be filed with IEPA 30 days prior to start of construction.
    - Stormwater permit application in accordance with the Yorkville Storm Water Management Ordinance (Kendall Countywide Ordinance)
2. Since the project is a non-residential development on more than 3 acres it must meet the stormwater detention requirements per the Stormwater Ordinance.
3. Any impacts to wetlands should be designed in accordance with the United City of Yorkville's Wetland Protection Regulations.
4. A field tile survey will be required.

5. There is a floodplain on the property associated with Rob Roy Creek that was identified in the Interim Hydrologic & Hydraulic Analysis of Rob Roy Creek, 2005. The property will have to be developed in accordance with the floodplain provisions of the City's stormwater ordinance. The flood elevation is between 644 and 645. Please see the attached exhibit.

6. A good portion of the site is in the floodway of Rob Roy Creek. Any work in the floodway will require a permit from IDNR. Since solar fields do not fit the conditions of a statewide permit, an individual permit would likely be needed.

7. Perimeter easements will need to be provided. These easements should be a minimum of 20'.

8. No solar equipment will be allowed with existing sanitary sewer easements. It is unclear within the preliminary plans whether this is the case.

9. The decommissioning bond or letter of credit will need to be 120% of the approved estimate.

10. The following will need to be submitted with Final Engineering Plans:

    a. Additional information as shown in the provided checklist.

    b. Truck turning exhibits for delivery and emergency vehicles

    c. Photometric plan

    d. Decommissioning cost estimate

    e. Stormwater management submittal

    f. Landscape plan

If you have any questions or require additional information, please contact our office.

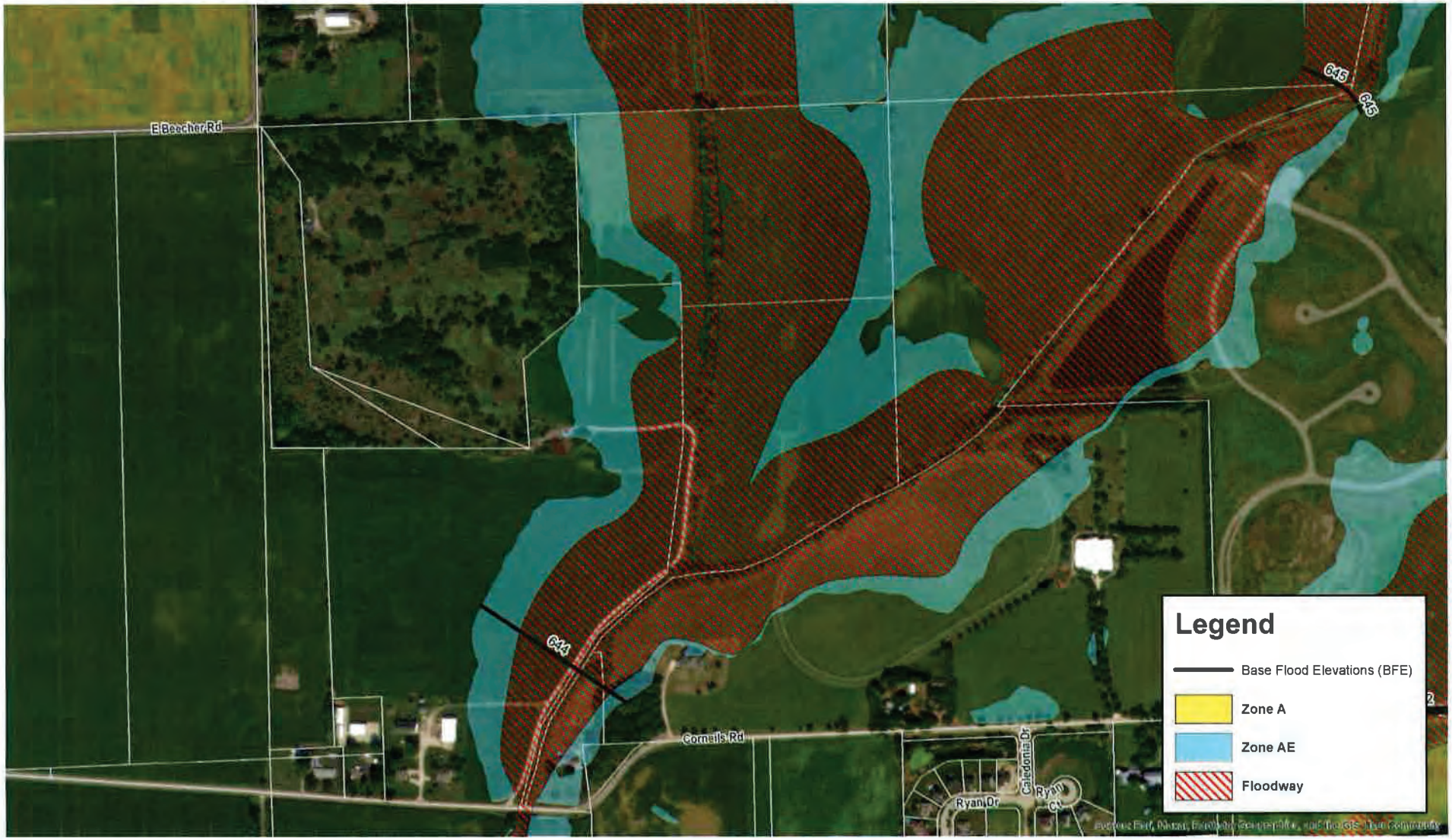
Respectfully Submitted,

ENGINEERING ENTERPRISES, INC.

Bradley P. Sanderson, P.E.
Chief Operating Officer / President

BPS/tnp/pgw2

pc: Mr. Bart Olson, City Administrator (via email)
Ms. Erin Willrett, Assistant City Administrator (via email)
Mr. Eric Dhuse, Director of Public Works (via email)
Mr. Pete Ratos, Building Department (via email)
Ms. Dee Weinert, Admin Assistant (via email)
Ms. Jori Behland, City Clerk (via email)
Mr. Matt Kwiatkowski, NexAmp (via email)
Mr. Dan Kramer, Attorney (via email)
TNP, PGW2, EEI (via e-mail)



Engineering Enterprises, Inc.
52 Wheeler Road
Sugar Grove, Illinois 60554
(630) 466-6700
www.eeiweb.com

United City of Yorkville
800 Game Farm Road
Yorkville, IL 60560
630-553-4350
www.yorkville.il.us

NO.	DATE	REVISIONS

DATE: SEPTEMBER 2023
PROJECT NO: YO2302
BY: MJT
PATH:
FILE:

600 300 0 Feet

CORNEILS ROAD SOLAR
ROB ROY CREEK
FLOODPLAIN EXHIBIT

N

March 23, 2023

UNITED CITY OF YORKVILLE

GENERAL CHECKLIST FOR COMMERCIAL SITE PLANS/SINGLE LOT DEVELOPMENTS

(EXTERNAL USE ONLY)

- Professional engineer signature and seal on drawings and calculations
- Location map and address, J.U.L.I.E. note included on plans
- Benchmarks based on NAVD 88 datum
- Existing utilities and topography to be provided
  - ✓ Existing elevations and contours shown at 1' intervals
- Compliance with subdivision grading plan (if applicable) and/or provide proposed grading plan
  - ✓ Proposed elevations and contours at 1' intervals
  - ✓ Indicate building top of foundation (2 ft. above H.W.L.)
  - ✓ Storm water drainage - safe outlet available and adequate conveyance provided
- Flood plain or flood way requirements to be addressed, if necessary
- Stormwater management
  - ✓ Per Kendall County/Yorkville stormwater management ordinance
  - ✓ Apply for storm water permit, if necessary
- Provide stormwater pollution prevention (SWPP) plan
  - ✓ Apply for NOI permit, if necessary
  - ✓ Note that receipt of NPDES permit required prior to construction
- Provide typical pavement sections
- Pavement markings and signage
- Entrance detail
- Handicap ramp detail (use IDOT standard)
- Show water service and include City standard details and notes
- Show sanitary service with inspection manhole and include YBSD standard notes
- Apply for appropriate IEPA permits – water and sanitary, if necessary
- Provide easements, if necessary
- Provide landscape plan
- Provide photometric plan
- Compliance with zoning code
- Performance guarantee for public improvements
- Overall cost estimate for all site improvements – for building permit fees

Yorkville Police Department Memorandum
651 Prairie Pointe Drive
Yorkville, Illinois 60560
Telephone: 630-553-4340
Fax: 630-553-1141

Date: January 5, 2024
To: Krysti Barksdale-Noble (Community Development Director)
From: James Jensen (Chief of Police)
Reference: Plan Review – Special Use Application

Project Name:	Corneils Road Solar, LLC Nexamp
Applicant Name:	Gary & Betty Bennett
Petitioner Name:	Matt Kwiatkowski (Nexamp, LLC)
Project Number:	N/A
Project Location:	10791 Corneils Road, Yorkville, IL (Parcel # 02-08-300-008)

The comments listed below are referenced to the above project:

Signage

Handicapped Signage Required: ____ Yes __X__ No

Comments: **N/A**

***Signage must meet MUTCD Standards*
***Fine amount must be listed on sign*

Speed Limit Signage Required/Recommended ____ Yes __X__ No
School Zone Special Signage ____ Yes __X__ No
Special Speed Zone Signage Requested ____ Yes __X__ No

No Parking Signage Recommended? ____ Yes __X__ No
____ No Parking After 2” Snow Fall

No Parking Locations:

- **N/A**

Dedicated Parking signage needed? ____ Yes __X__ No
____ Located by Park
____ School
____ Common Parking Area

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Are there Street Name Conflicts? ____ Yes __X__ No
Comments: **N/A**

Pedestrian/Bike Path Crossing Signage? ____ Yes __X__ No
Warning Ahead Signs are Required

NO Construction Traffic Signage being requested? __X__ Yes _____ No
Comment(s): ***Construction traffic on Corneils Road should be limited to one specific entry and exit point on Corneils Road.***

****We request that all signage is posted prior to the first occupancy permit being issued for each POD or phase.****
****All traffic control signage must conform to MUTCH Standards specific to location, size, color, and height levels****

Roadway

Street Width: _____
Should parking be allowed on BOTH sides of road? ____ Yes ____ No
Should parking be restricted to fire hydrant side? ____ Yes ____ No

Center Roadway Medians: ____ Yes ____ No
Limit Parking on Median? ____ Yes ____ No
Signage Needed? ____ Yes ____ No
Room for Emergency Veh. w/ one lane Obstructed? ____ Yes ____ No

Do you have intersection Concerns? __X__ Yes ____ No
Concerns as listed below:

- **Location of the driveway(s) into project site**
- **Driveway(s) clearly marked with signage in both directions**

Landscape

Low Growth or Ground Cover Landscaping? ____ Yes ____ No
Low Growth or Ground Cover Landscaping by windows? ____ Yes ____ No
Low Growth or Ground Cover Landscaping by Entrances ____ Yes ____ No

Comments: **N/A**

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Ingress / Egress

Entrance/Exits match up with adjacent driveways? ____ Yes __X__ No
Total Entrance/Exits for development? __1__

Are vehicle entrance/exits safe? __X__ Yes ____ No
Are warning signs for cross traffic requested? __X__ Yes ____ No

Raised Median & Signage for Right in & Right Out? ____ Yes __X__ No
Concerns: _____

Emergency Contact for after hours during construction: **Information needed**

Is this a gated or controlled access development? _____W Yes ____ No
If yes, will Police & Fire have Access? __X__ Yes ____ No
Comments: **Will police have access in case of emergency?**

Miscellaneous

Individual Mailboxes? ____ Yes __X__ No
Cluster Mailbox Kiosks? ____ Yes __X__ No
Will this cause traffic choke points? ____ Yes __X__ No

Are sidewalks being planned for the development? ____ Yes __X__ No
Are sidewalk crosswalks needed? ____ Yes __X__ No
Are there bike paths planned for this project? ____ Yes __X__ No
Proper Signage needed for bike paths ____ Yes ____ No
____ Stop Signs ____ Yield Signs ____ NO Motorized Vehicles
____ Trespassing ____ Other _____

Are there HOA Controlled Roadway OR Parking Areas? ____ Yes ____ No

Ample Parking on Site? ____ Yes ____ No

Are there other City Ordinance Concerns? ____ Yes ____ No

Yorkville Police Department Memorandum
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Yorkville, Illinois 60560
Telephone: 630-553-4340
Fax: 630-553-1141

____ Noise Ordinance ____ Parking Ordinances
____ Alarm Ordinance

Security

Will security cameras be in use? ____ Yes ____ No
Comments: **Will there be security cameras used on site?**

Will the business/management provide the police department remote access to the camera system (User credentials only)? ____ Yes ____ No
Comments: **If you will have camera access on site would the police department have remote access into the system for emergency purposes only?**

What are the business Hours of Operation? **N/A**

Will the property be alarmed? ____ Yes ____ No
Comments: **Will the gate be alarmed?**

Will you provide Floor Plans/Maps to the police department ____ Yes ____ No
Comments: **N/A**

I hope you find this information helpful, and we look forward to reviewing the revisions. If you should have any questions, comments, or concerns please do not hesitate to contact me.

Chicago Tribune

Order ID: 7602185

* Agency Commission not included

GROSS PRICE * : $919.77

PACKAGE NAME: IL Govt Legal Aurora Beacon

Order ID: 7602185

* Agency Commission not included

GROSS PRICE * : **$919.77**

PACKAGE NAME: IL Govt Legal Aurora Beacon

Product(s): SubTrib_Aurora Beacon News, Publicnotices.com

AdSize(s): 2 Column

Run Date(s): Friday, March 22, 2024

Zone: Full Run

Color Spec. B/W

Preview

PUBLIC NOTICE
NOTICE OF PUBLIC HEARING
BEFORE
UNITED CITY OF YORKVILLE
PLANNING AND ZONING COMMISSION
PZC 2024-05

NOTICE IS HEREBY GIVEN THAT 12661 2 Corneils Road Solar, LLC, petitioner, on behalf of Gary L. and Betty S. Bennett, owners, has filed applications with the United City of Yorkville, Kendall County, Illinois, requesting rezoning classification and special use authorization. The real property is generally located immediately north of Corneils Road, approximately 1,700 feet east of Beecher Road, and approximately 4,300 feet west of IL Route 47 (N. Bridge Street) consisting of 94 acres. The petitioner is requesting rezoning approval from R-1 Single-Family Suburban Residential District to A-1 Agricultural District (contingent on approval of annexation by the City Council). The petitioner is also requesting special use permit approval in pursuant to Section 10-8-5 of the Yorkville City Code for a solar farm.

The legal description is as follows:

PARCEL 1:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF
SAID SOUTHWEST 1/4; THENCE NORTH 00 ° 09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.68 FEET; THENCE NORTH 00°46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52'50" WEST 1,057.46 FEET, THENCE NORTH 88° 42'24" EAST, 857.86 FEET; THENCE NORTH 00° 00'30" WEST, 375.0 FEET; THENCE NORTH 52° 02'07" EAST, 315.0 FEET, THENCE NORTH 00° 02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88° 30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00° 04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25'57" WEST, 694.32 FEET; THENCE SOUTH 81° 55'57" WEST, 349.80 FEET;THENCE SOUTH 51° 55'57" WEST 280.50 FEET; THENCE SOUTH 39° 55'57" WEST, 153.78 FEET; THENCE SOUTH 86° 06'25" WEST, 38.0 FEET THENCE SOUTH 33° 09'12" WEST, 343.0 FEET; THENCE SOUTH 16°38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21'50" WEST ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00° 09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02'55" EAST FROM THE POINT OF BEGINNING;THENCE SOUTH 89° 02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING EASTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38'23" EAST, 402.58 FEET; THENCE NORTH 33° 09'12" EAST, 449.42 FEET, THENCE NORTH 52° EAST, 398.62 FEET, THENCE NORTH 11° 27'20" EAST, 559.64 FEET; THENCE NORTH 00°02'07" EAST, 634.19

GROSS PRICE * : **$919.77**

PACKAGE NAME: IL Govt Legal Aurora Beacon

FEET; THENCE NORTH 89° 57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02'07" EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;

PARCEL 2:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 28'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.68 FEET; THENCE NORTH 00° 46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52'50" WEST 1,057.46 FEET; THENCE NORTH 88° 42'24" EAST, 857.86 FEET; THENCE NORTH 00° 00'30" WEST, 375.0 FEET; THENCE NORTH 52° 02'07" EAST, 315.0 FEET, THENCE NORTH 00° 02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88° 30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00° 04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25'57" WEST, 694.32 FEET; THENCE SOUTH 81° 55'57" WEST, 349.80 FEET; THENCE SOUTH 51° 55'57" WEST 280.50 FEET; THENCE SOUTH 39° 55'57" WEST, 153.78 FEET; THENCE SOUTH 86° 06'25" WEST, 38.0 FEET; THENCE SOUTH 33° 09'12" WEST, 343.0 FEET; THENCE SOUTH 16° 38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21'50" WEST, ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00° 09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02'55" EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89° 02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING WESTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT, THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38'23" EAST, 402.58 FEET; THENCE NORTH 33° 09'12" EAST, 449.42 FEET; THENCE NORTH 52° 00'00" EAST, 398.62 FEET; THENCE NORTH 11° 27'20" EAST, 559.64 FEET; THENCE NORTH 00° 02'07" EAST, 634.19 FEET; THENCE NORTH 89° 57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT, THENCE NORTH 00° 02'07" EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4 FOR THE TERMINUS OF SAID LINE, AND EXCEPT THAT PART THEREOF LYING SOUTHERLY OF THE SOUTHERLY LINE OF THE NORTHERLY 812.20 FEET, MEASURED ALONG THE EASTERLY LINE, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;

PARCEL 3:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 09'48" EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 26'22" EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.66 FEET; THENCE NORTH 00° 46'58" WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52'50" WEST 1,057.46 FEET; THENCE NORTH 88° 42'24" EAST, 857.86 FEET; THENCE NORTH 00° 00'30" WEST, 375.0 FEET; THENCE NORTH 52° 02'07" EAST, 315.0 FEET, THENCE NORTH 00° 02'07" EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88° 30'33" EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00° 04'03" EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25'57" WEST, 694.32 FEET; THENCE SOUTH 81° 55'57" WEST, 349.80 FEET; THENCE SOUTH 51° 55'57" WEST 280.50 FEET; THENCE SOUTH 39° 55'57" WEST, 153.78 FEET; THENCE SOUTH 86°06'25" WEST, 38.0 FEET, THENCE SOUTH 33° 09'12" WEST, 343.0 FEET; THENCE SOUTH 16° 38'23" WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21'50" EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DIS-

Order ID: 7602185

* Agency Commission not included

GROSS PRICE * : **$919.77**

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LINE OF SAID SOUTHWEST 1/4 WHICH IS 473.30 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21'50" WEST, ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00° 09'48" EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02'55" EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89° 02'55" WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING WESTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20'25" WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38'23" EAST, 402.58 FEET; THENCE NORTH 33° 09'12" EAST, 449.42 FEET; THENCE NORTH 52° 00'00" EAST, 398.62 FEET; THENCE NORTH 11° 27'20" EAST, 559.64 FEET; THENCE NORTH 00 ° 02'07" EAST, 634.19 FEET; THENCE NORTH 89° 57'53" WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02'07" EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4, AND EXCEPT THAT PART THEREOF LYING NORTHERLY OF THE SOUTHERLY LINE OF THE NORTHERLY 812.20 FEET, MEASURED ALONG THE EASTERLY LINE, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS.

PINs: 02-08-300-008, 02-08-300-011, and 02-08-300-012

A copy of the application is available for review during normal City business hours at the office of the Community Development Director.

NOTICE IS HEREWITH GIVEN THAT the Planning and Zoning Commission for the United City of Yorkville will conduct a Public Hearing on said applications on **Wednesday, April 10, 2024 at 7 p.m.** at the United City of Yorkville, City Hall, located at 651 Prairie Pointe Drive, Yorkville, Illinois 60560.

The public hearing may be continued from time to time to dates certain without further notice being published.

All interested parties are invited to attend the public hearing and will be given an opportunity to be heard. Any written comments should be addressed to the United City of Yorkville Community Development Department, City Hall, 651 Prairie Pointe Drive, Yorkville, Illinois, and will be accepted up to the date of the public hearing.

By order of the Corporate Authorities of the United City of Yorkville, Kendall County, Illinois.

JORI BEHLAND
City Clerk
3/22/2024 7602185 HSPAXLP

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Yorkville,IL 60560

Certificate of Publication:

Order Number: 7609795
Purchase Order: 7609795 Corneils Road Solar

State of Illinois - Kane

Chicago Tribune Media Group does hereby certify that it is the publisher of the The Beacon-News. The The Beacon-News is a secular newspaper, has been continuously published Daily for more than fifty (50) weeks prior to the first publication of the attached notice, is published in the City of Aurora, Township of Aurora, State of Illinois, is of general circulation throughout that county and surrounding area, and is a newspaper as defined by 715 IL CS 5/5.

This is to certify that a notice, a true copy of which is attached, was published 1 time(s) in the The Beacon-News, namely one time per week or on 1 successive weeks. The first publication of the notice was made in the newspaper, dated and published on 3/29/2024, and the last publication of the notice was made in the newspaper dated and published on 3/29/2024.

This notice was also placed on a statewide public notice website as required by 715 ILCS 5/2. 1.

PUBLICATION DATES: **Mar 29, 2024.**

The Beacon-News
In witness, an authorized agent of The Chicago Tribune Media Group has signed this certificate executed in Chicago, Illinois on this

30th Day of March, 2024, by

Chicago Tribune Media Group

Jeremy Gates

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PUBLIC NOTICE
NOTICE OF PUBLIC HEARING ON AN ANNEXATION AGREEMENT
BEFORE
UNITED CITY OF YORKVILLE
CITY COUNCIL

NOTICE IS HEREBY GIVEN THAT 126612 Corneils Road Solar, LLC, petitioner, on behalf of Gary L. and Betty S. Bennett, owners, has filed an application with the United City of Yorkville, Kendall County, Illinois, requesting annexation pursuant to an annexation agreement of a tract of property into the City's municipal boundary. The property is generally located immediately north of Corneils Road, approximately 1,700 feet east of Beecher Road, and approximately 4,300 feet west of IL. Route 47 (N. Bridge Street). A total of three parcels, consisting of 94 acres, are proposed to be annexed pursuant to the annexation agreement. The land is currently undeveloped and used for farming. The purpose of this annexation is to allow the construction of a solar farm on a portion of the property and permit the existing agricultural use on the remainder within City limits pursuant to the terms of that annexation agreement.

The legal description of the tract of property is as follows:

PARCEL 1:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00 ° 09′ 48″ EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 28′ 22″ EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.68 FEET; THENCE NORTH 00°46′ 58″ WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52′ 50″ WEST 1,057.46 FEET; THENCE NORTH 88° 42′ 24″ EAST, 857.86 FEET; THENCE NORTH 00° 00′ 30″ WEST, 375.0 FEET; THENCE NORTH 52° 02′ 07″ EAST, 315.0 FEET, THENCE NORTH 00° 02′ 07″ EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88° 30′ 33″ EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00° 04′ 03″ EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25′ 57″WEST, 694.32 FEET; THENCE SOUTH 81° 55′ 57″ WEST, 349.80 FEET; THENCE SOUTH 51° 55′ 57″ WEST 280.50 FEET, THENCE SOUTH 39° 55′ 57″ WEST, 153.78 FEET; THENCE SOUTH 86° 06′ 25″ WEST, 38.0 FEET THENCE SOUTH 33° 09′ 12″ WEST, 343.0 FEET, THENCE SOUTH 16°38′ 23″ WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20′ 25″ WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21′ 50″ EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21′ 50″ WEST ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00° 09′ 48″ EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02′ 55″ EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89° 02′ 55″ WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING EASTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20′ 25″ WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38′ 23″ EAST, 402.58 FEET; THENCE NORTH 33° 09′ 12″ EAST, 449.42 FEET; THENCE NORTH 52° EAST, 398.62 FEET; THENCE NORTH 11° 27′ 20″ EAST, 559.64 FEET; THENCE NORTH 00°02′ 07″ EAST, 634.19 FEET, THENCE NORTH 89° 57′ 53″ WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02′ 07″ EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;

PARCEL 2:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 09′ 48″ EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 28′ 22″ EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.68 FEET; THENCE NORTH 00° 46′ 58″ WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52′ 50″ WEST 1,057.46 FEET; THENCE NORTH 88° 42′ 24″ EAST, 857.86 FEET; THENCE NORTH 00° 00′ 30″ WEST, 375.0 FEET; THENCE NORTH 52° 02′ 07″ EAST, 315.0 FEET, THENCE NORTH 00 ° 02′ 07″ EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88° 30′ 33″ EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00° 04′ 03″ EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID

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SOUTHWEST 1/4; THENCE SOUTH 59° 25′ 57″ WEST, 694.32 FEET; THENCE SOUTH 81° 55′ 57″ WEST, 349.80 FEET; THENCE SOUTH 51° 55′ 57″ WEST 280.50 FEET; THENCE SOUTH 39° 55′ 57″ WEST, 153.78 FEET; THENCE SOUTH 86° 06′ 25″ WEST, 38.0 FEET; THENCE SOUTH 33° 09′ 12″ WEST, 343.0 FEET;THENCE SOUTH 16° 38′ 23″ WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20′25″ WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21′ 50″ EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21′ 50″ WEST, ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE;THENCE NORTH 00° 09′ 48″ EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02′ 55″ EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89° 02′ 55″ WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING WESTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20′ 25″ WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38′ 23″ EAST, 402.58 FEET; THENCE NORTH 33° 09′ 12″ EAST, 449.42 FEET; THENCE NORTH 52° 00′ 00″ EAST, 398.62 FEET; THENCE NORTH 11° 27′ 20″ EAST, 559.64 FEET; THENCE NORTH 00° 02′ 07″ EAST, 634.19 FEET; THENCE NORTH 89° 57′ 53″ WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02′ 07″ EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4 FOR THE TERMINUS OF SAID LINE, AND EXCEPT THAT PART THEREOF LYING SOUTHERLY OF THE SOUTHERLY LINE OF THE NORTHERLY 812.20 FEET, MEASURED ALONG THE EASTERLY LINE, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS;

PARCEL 3:
THAT PART OF THE SOUTHWEST 1/4 OF SECTION 8 AND PART OF THE NORTHWEST 1/4 OF SECTION 17, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 09′ 48″ EAST ALONG THE WEST LINE OF SAID SOUTHWEST 1/4, 37.42 FEET; THENCE NORTH 88° 26′ 22″ EAST PARALLEL WITH THE SOUTH LINE OF SAID SOUTHWEST 1/4, 272.66 FEET; THENCE NORTH 00° 46′ 58″ WEST, 200.71 FEET FOR A POINT OF BEGINNING; THENCE NORTH 00° 52′ 50″ WEST 1,057.46 FEET; THENCE NORTH 88° 42′ 24″ EAST, 857.86 FEET; THENCE NORTH 00° 00′ 30″ WEST, 375.0 FEET; THENCE NORTH 52° 02′ 07″ EAST, 315.0 FEET; THENCE NORTH00 °02′ 07″ EAST, 800.0 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 88 ° 30′ 33″ EAST, ALONG SAID NORTH LINE, 1,306.96 FEET TO THE CENTER OF SAID SECTION 8; THENCE SOUTH 00 °04′ 03″ EAST ALONG THE EAST LINE OF SAID SOUTHWEST 1/4, 1,609.56 FEET TO A POINT WHICH IS 1,044.12 FEET NORTHERLY OF THE SOUTHEAST CORNER OF SAID SOUTHWEST 1/4; THENCE SOUTH 59° 25′ 57″ WEST, 694.32 FEET; THENCE SOUTH 81° 55′ 57″ WEST, 349.80 FEET; THENCE SOUTH 51° 55′ 57″ WEST 280.50 FEET; THENCE SOUTH 39° 55′ 57″ WEST, 153.78 FEET; THENCE SOUTH 86°06′ 25″ WEST, 38.0 FEET; THENCE SOUTH 33° 09′ 12″ WEST, 343.0 FEET; THENCE SOUTH 16° 38′ 23″ WEST 379.0 FEET TO THE CENTER LINE OF CORNEILS ROAD; THENCE NORTH 85° 20′ 25″ WEST ALONG SAID CENTER LINE 596.0 FEET TO A LINE DRAWN SOUTH 00° 21′ 50″ EAST, PARALLEL WITH THE WEST LINE OF SAID NORTHWEST 1/4, FROM A POINT ON THE SOUTH LINE OF SAID SOUTHWEST 1/4 WHICH IS 475.50 FEET, NORMALLY DISTANT, EASTERLY OF THE WEST LINE OF SAID SOUTHWEST 1/4; THENCE NORTH 00° 21′ 50″ WEST, ALONG SAID PARALLEL LINE, 194.89 FEET TO SAID SOUTH LINE; THENCE NORTH 00° 09′ 48″ EAST, PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST 1/4, 236.13 FEET TO A LINE DRAWN NORTH 89° 02′ 55″ EAST FROM THE POINT OF BEGINNING; THENCE SOUTH 89° 02′ 55″ WEST, 206.29 FEET TO A POINT OF BEGINNING; EXCEPT THAT PART THEREOF LYING WESTERLY OF THE FOLLOWING DESCRIBED LINE: COMMENCING AT THE SOUTHERNMOST SOUTHEAST CORNER OF THE ABOVE DESCRIBED TRACT; THENCE NORTH 85° 20′ 25″ WEST ALONG SAID CENTER LINE OF CORNEILS ROAD, 67.47 FEET FOR A POINT OF BEGINNING; THENCE NORTH 16° 38′ 23″ EAST, 402.58 FEET; THENCE NORTH 33° 09′ 12″ EAST, 449.42 FEET; THENCE NORTH 52° 00′ 00″ EAST, 398.62 FEET; THENCE NORTH 11° 27′ 20″ EAST, 559.64 FEET; THENCE NORTH 00 ° 02′ 07″ EAST, 634.19 FEET; THENCE NORTH 89° 57′ 53″ WEST, 430.60 FEET TO A WESTERLY LINE OF SAID TRACT; THENCE NORTH 00° 02′ 07″ EAST ALONG SAID WESTERLY LINE 725.68 FEET TO THE NORTH LINE OF SAID SOUTHWEST 1/4, AND EXCEPT THAT PART THEREOF LYING NORTHERLY OF THE SOUTHERLY LINE OF THE NORTHERLY 812.20 FEET, MEASURED ALONG THE EASTERLY LINE, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS.

PINs: 02-08-300-008, 02-08-300-011, and 02-08-300-012

NOTICE IS HEREWITH GIVEN THAT the City Council for the United City of Yorkville will conduct a Public Hearing for the purpose of considering and hearing testimony as to an ordinance authorizing the annexation to the City of the above described tract of property for a

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nexation to the City of the above described tract of property for a solar farm on **Tuesday, April 23, 2024 at 7 p.m.** at the United City of Yorkville, City Hall, located at 651 Prairie Pointe Drive, Yorkville, Illinois 60560. An accurate map of the property proposed to be annexed to the City and form of the proposed annexation agreement are on file in the office of the Community Development Director.

The public hearing may be continued from time to time to dates certain without further notice being published.

All interested parties are invited to attend the public hearing and will be given an opportunity to be heard. Any written comments should be addressed to the United City of Yorkville Community Development Department, City Hall, 651 Prairie Pointe Drive, Yorkville, Illinois, and will be accepted up to the date of the public hearing.

By order of the Corporate Authorities of the United City of Yorkville, Kendall County, Illinois.

JORI BEHLAND
City Clerk
March 29, 2024 - 7609795 HSPAXLP

4/10/2024

Planning & Zoning Commission meeting 4/10/2024
City Council, Yorkville, IL meeting 4/23/2024
Mayor John Percell meeting 4/23/2024
Yorkville, IL

RE: Corneils Road Solar, LLC

Notes on presentation:

My name is Jerome Gawlik (Jerry), I live at [redacted] in Yorkville. I have been representing our community of approx. 205 homes, soon to grow to a total of approx. 290 homes. We are a targeted 55+ community in which the majority of home owners are retired. The board of Directors is still under the developer but preparing document to turn over to its community members within the next few months.

It is my understanding that the P&Z and ultimately City Council are considering annexation of a piece of land South of Corneils Rd. near Rt. 47. We are not opposed to this annexation but just want to raise some questions, concerns and add a few comments.

Is this the best and highest use for this land given its prime location near Rt47?

Did you consider the delta difference between R1 Residential or rezoning to Industrial, commercial vs going back to A1 Agriculture with a special use?

Based on my readings A1 with special use would be a revenue loss to the city vs other land uses. Can the city continue to take these revenue losses? Our taxes are high to begin with.

With 2 other solar farms already approved, this would be the 3rd solar farm if approved by city council with additional proposals forthcoming. Before approving this, given a revenue loss in taxes for the city have you considered how the energy savings revenue generated by these farms will be distributed to its residents?

Has there been thought on splitting revenue savings between Residential, Commercial or Industrial citizens of Yorkville?

Once again, I am a Senior on fixed income and live in a targeted 55+ community of approx. 290 homes when completed which maybe 1 or 2 years from now. There also exits other communities similar to ours within Yorkville.

With taxes high and utilities on the rise, increases well above cost of living, can there be consideration of the distribution of energy with ultimate revenue saving to senior residents on fixed income, or at least have a priority option to sign up which would help offset the continuing rise in water rates due to the installation of Lake Michigan water source to Yorkville. Solar panels installed on residential roofs may not be an option given the expense beyond any rebates and the long payback period involved.

In a memorandum dated March 1, 2024 from Kathleen Field Orr, City Attorney to Krysti Barksdale -Noble, Ms. Orr attempts to address the restriction on number of Solar Farms allowed in Yorkville. Within the memo she states; "What is unclear is the basis for such restriction. Is it because Solar Farms generate minimal real estate taxes? Because Solar Farms do not create much job opportunity? But, with regard to taxes or jobs, how are Solar Farms different from not-for-profit organizations? Are all Solar Farms the same that a prohibition would apply to all? Would the restriction apply to community solar farms?"

Attorney Orr further states; "I would suggest that a study be made of restrictions of the location, size, and proximity to the residential communities to allow the city to prevent a proliferation of Solar Farms which could have negative impact on the community."

Attorney Orr mentions in her memorandum loss of taxes and negative impact on the community.

Can the city afford the revenue loss due to rezoning R1 to A1 special use or can you do the right thing to its residential residents by proper distribution of energy generated by Solar Farms and ultimately dollar savings to Yorkville citizens, with priority to seniors on fixed income and help them offset the increase in water rates due to the influx of Lake Michigan Water.

These important points should all be considered prior to approving the annexation of this and other parcel of land for similar use.

Thank you for your time and consideration.

Jerome (Jerry) Gawlik

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Consent Agenda #1

Tracking Number

Agenda Item Summary Memo

Title: Minutes of the Regular City Council – March 26, 2024

Meeting and Date: City Council – April 23, 2024

Synopsis: Approval of Minutes

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Jori Behland (Name) Administration (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

DRAFT

MINUTES OF THE REGULAR MEETING OF THE CITY COUNCIL OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS, HELD IN THE CITY COUNCIL CHAMBERS, 651 PRAIRIE POINTE DRIVE ON TUESDAY, MARCH 26, 2024

Mayor Purcell called the meeting to order at 7:02 p.m. and led the Council in the Pledge of Allegiance.

ROLL CALL

City Clerk Behland called the roll.

Ward I	Koch	Present
	Transier	Present
Ward II	Plocher	Present
	Soling	Present
Ward III	Funkhouser	Present
	Marek	Present
Ward IV	Tarulis	Present
	Corneils	Present

Staff in attendance at City Hall: City Administrator Olson, City Clerk Behland, Chief of Police Jensen, Attorney Lamb, Public Works Director Dhuse, and EEI Engineer Sanderson.

Staff in attendance electronically: Community Development Director Barksdale-Noble, Finance Director Fredrickson, and Parks and Recreation Director Evans.

Members of the public were able to attend this meeting in person as well as being able to access the meeting remotely via Zoom which allowed for video, audio, and telephonic participation.

A meeting notice was posted on the City's website on the agenda, minutes, and packets webpage with instructions regarding remote meeting access and a link was included for the public to participate in the meeting remotely
https://us02web.zoom.us/j/84315579830?pwd=QjJyOHlQVStYdGlwVjVwbjRwd3p3QT09.
The Zoom meeting ID was 843 1557 9830.

QUORUM

A quorum was established**.**

AMENDMENTS TO THE AGENDA

None.

PRESENTATIONS

None.

PUBLIC HEARINGS

None.

CITIZEN COMMENTS ON AGENDA ITEMS

None.

CONSENT AGENDA

1. Minutes of the Regular City Council – March 12, 2024
2. Bill Payments for Approval
   - $ 1,004,639.63 (vendors)
   - $ 100.00 (wire payments)
   - $ 385,355.30 (payroll period ending 03/15/24)
   - $ 1,390,094.93 (total)
3. 2024 Road to Better Roads – Construction Engineering Agreement – *authorize the Mayor and City Clerk to execute* (PW 2024-23)
4. 2024 Water Main Replacement Contract A – Construction Engineering Agreement – *authorize the Mayor and City Clerk to execute* (PW 2024-26)
5. **Resolution 2024-14** Authorizing the Execution of Certain Contracts (Certificate of Authority for Rock Salt Purchases) – *authorize the Mayor and City Clerk to execute* (PW 2024-27)

6. **Resolution 2024-15** Approving an Intergovernmental Agreement Between the United City of Yorkville and Bristol Township – *authorize the Mayor and City Clerk to execute* (PW 2024-28)
7. Treasurer's Report for February 2024 (ADM 2024-08)
8. Water, Sewer, and Road Infrastructure Fee Renewal (ADM 2024-13)
   a. **Ordinance 2024-08** Amending the Infrastructure Maintenance Fee for Water and Sanitary Sewer Service – *authorize the Mayor and City Clerk to execute*
   b. **Ordinance 2024-09** Amending the Termination Date of the Motor Vehicle Tax in the United City of Yorkville – authorize the Mayor and City Clerk to execute
9. FY25 Travel Authorizations – *approve travel authorizations for elected officials as presented packet materials* (ADM 2024-14)

Mayor Purcell entertained a motion to approve the consent agenda. So moved by Alderman Tarulis; seconded by Alderman Marek.

Motion approved by a roll call vote. Ayes-8 Nays-0
Koch-aye, Plocher-aye, Funkhouser-aye, Tarulis-aye,
Transier-aye, Soling-aye, Marek-aye, Corneils-aye

REPORTS

MAYOR'S REPORT

Appointment to the Library Board
(CC 2024-18)

Mayor Purcell entertained a motion to approve the Mayor's appointment of Wendy Gatz to the Library Board to a term ending May 2024. So moved by Alderman Soling; seconded by Alderman Transier.

Motion approved by a roll call vote. Ayes-8 Nays-0
Plocher-aye, Funkhouser-aye, Tarulis-aye, Transier-aye,
Soling-aye, Marek-aye, Corneils-aye, Koch-aye

Ordinance 2024-10 **Approving the 2024-2025 Fiscal Budget for the United City of Yorkville**
(CC 2024-19)

Mayor Purcell entertained a motion to approve an Ordinance Approving the 2024-2025 Fiscal Budget, incorporating budget adjustments #1 through #4 and authorize the Mayor to execute and City Clerk to execute. So moved by Alderman Transier; seconded by Alderman Plocher.

Motion approved by a roll call vote. Ayes-8 Nays-0
Funkhouser-aye, Tarulis-aye, Transier-aye, Soling-aye,
Marek-aye, Corneils-aye, Koch-aye, Plocher-aye

Resolution 2024-16 **Expressing Official Intent Regarding Certain Capital Expenditures to be Reimbursed from Proceeds of Water Revenue and/or General Obligation Alternate Revenue Bonds to be Issued by the United City of Yorkville, Kendall County, Illinois**
(CC 2024-20)

Mayor Purcell entertained a motion to approve a Resolution Expressing Official Intent Regarding Certain Capital Expenditures to be Reimbursed from Proceeds of Water Revenue and/or General Obligation Alternate Revenue Bonds to be Issued by the United City of Yorkville, Kendall County, Illinois and authorize the Mayor and City Clerk to execute. So moved by Alderman Funkhouser; seconded by Alderman Corneils.

Motion approved by a roll call vote. Ayes-8 Nays-0
Tarulis-aye, Transier-aye, Soling-aye, Marek-aye,
Corneils-aye, Koch-aye, Plocher-aye, Funkhouser-aye

PUBLIC WORKS COMMITTEE REPORT

2024 Road to Better Roads – Contract Award
(PW 2024-22)

Alderman Koch made a motion to approve the bid and award contract to D. Construction, Inc., in an amount not to exceed $1,382,442.77 and authorize the Mayor and City Clerk to execute; seconded by Alderman Marek.

Motion approved by a roll call vote. Ayes-8 Nays-0
Transier-aye, Soling-aye, Marek-aye, Corneils-aye,
Koch-aye, Plocher-aye, Funkhouser-aye, Tarulis-aye

2024 Asphalt Rejuvenation – Contract Award
(PW 2024-24)

Alderman Koch made a motion to approve the bid and award contract to Corrective Asphalt Materials, LLC, in an amount not to exceed $82,748.25 and authorize the Mayor and City Clerk to execute; seconded by Alderman Soling.

Motion approved by a roll call vote. Ayes-8 Nays-0
Soling-aye, Marek-aye, Corneils-aye, Koch-aye,
Plocher-aye, Funkhouser-aye, Tarulis-aye, Transier-aye

2024 Water Main Replacement Contract A – Contract Award
(PW 2024-25)

Alderman Koch made a motion to approve the bid and award contract to Conley Excavating, Inc., in an amount not to exceed $2,312,286.15 and authorize the Mayor and City Clerk to execute; seconded by Alderman Transier.

Motion approved by a roll call vote. Ayes-8 Nays-0
Marek-aye, Corneils-aye, Koch-aye, Plocher-aye,
Funkhouser-aye, Tarulis-aye, Transier-aye, Soling-aye

2024 EEI Hourly Rates
(PW 2024-29)

Alderman Koch made a motion to approve the Engineering Enterprises, Inc. Hourly Rates as specified in the 2024 Standard Schedule of Charges; seconded by Alderman Marek.

Motion approved by a roll call vote. Ayes-8 Nays-0
Corneils-aye, Koch-aye, Plocher-aye, Funkhouser-aye,
Tarulis-aye, Transier-aye, Soling-aye, Marek-aye

Rob Roy Drainage Ditch – Additional Work
(CC 2024-30)

Alderman Koch entertained a motion to approve a quote from Homer Tree Service, Inc. in an amount not to exceed $50,000 for additional work on the Rob Roy Drainage Ditch and authorize the Mayor to execute; seconded by Alderman Corneils.

Motion approved by a roll call vote. Ayes-6 Nays-1 Present-1
Koch-aye, Plocher-aye, Funkhouser-nay, Tarulis-aye,
Transier-aye, Soling-present, Marek-aye, Corneils-aye

ECONOMIC DEVELOPMENT COMMITTEE REPORT

No report.

PUBLIC SAFETY COMMITTEE REPORT

No report.

ADMINISTRATION COMMITTEE REPORT

Health Insurance Proposal
(ADM 2024-12)

Alderman Marek made a motion to approve a contract for the renewal of existing HMO and PPO plans with Blue Cross Blue Shield; to approve a contract with Blue Cross Blue Shield for the dental plan; to approve a contract with Dearborn National (BCBS) for vision plan, to approve a contract with Blue Cross Blue Shield for the life and AD&D plans; and to authorize non-union employee contribution percentages in the amounts of 10.5% for HMO coverage and 12.5% for PPO coverage and with union employee contributions rates in the amount as authorized by the Police Department and Public Works union contract; seconded by Alderman Koch.

Motion approved by a roll call vote. Ayes-8 Nays-0
Plocher-aye, Funkhouser-aye, Tarulis-aye, Transier-aye,
Soling-aye, Marek-aye, Corneils-aye, Koch-aye

PARK BOARD

St. Patrick's Day Celebration

Parks and Recreation Director Evans thanked everyone who helped and attended the St. Patrick's Day Celebration. He stated that there was a great turnout, and the weather was amazing. This event has grown every year.

PLANNING AND ZONING COMMISSION

Ordinance 2024-11 **Approving an Amendment to the Yorkville Unified Ordinance Development Regarding Alternative Energy Use Standards (Solar Farms)**
(PZC 2024-06 & EDC 2024-18)

Mayor Purcell entertained a motion to approve an Ordinance Approving an Amendment to the Yorkville Unified Ordinance Development Regarding Alternative Energy Use Standards (Solar Farms) and authorize the Mayor and City Clerk to execute. So moved by Alderman Plocher; seconded by Alderman Marek.

Motion approved by a roll call vote. Ayes-7 Nays-1
Funkhouser-aye, Tarulis-nay, Transier-aye, Soling-aye,
Marek-aye, Corneils-aye, Koch-aye, Plocher-aye

CITY COUNCIL REPORT

No report.

CITY CLERK'S REPORT

No report.

COMMUNITY & LIAISON REPORT

Aurora Area Convention & Visitors Bureau

Alderman Funkhouser reported that their Go Guide, their brochure, won the Excellence in Tourism award for Best Printed Collateral. Alderman Funkhouser shared that they strive to do this, and it's a high honor. They print over 24,000 copies of their Go Guide annually, which are circulated throughout the Midwest area.

Yorkville Educational Foundation

Alderman Marek reported that the Yorkville Educational Foundation's 6th Annual Fostering Our Future event is coming up on April 3, 2024. Please check out their Facebook page, where you can see the list of nominees for staff, support staff, and community members. They hit a record of 160 nominations this year.

STAFF REPORT

No report.

MAYOR'S REPORT (cont'd)

City Buildings Updates
(CC 2021-04)

No report.

Water Study Update
(CC 2021-38)

No report.

ADDITIONAL BUSINESS

None.

CITIZEN COMMENTS

None.

EXECUTIVE SESSION

Mayor Purcell entertained a motion to go into executive session for the following:

- For litigation, when an action against, affecting, or on behalf of the particular public body has been filed and is pending before a court or administrative tribunal, or when the public body finds that an action is probable or imminent, in which case the basis for the finding shall be recorded and entered into the minutes of the closed meeting.
- For the appointment, employment, compensation, discipline, performance, or dismissal of specific employees of the public body or legal counsel for the public body, including hearing testimony on a complaint lodged against an employee of the public body or against legal counsel for the public body to determine its validity.
- For collective negotiating matters between the public body and its employees or their representatives, or deliberations concerning salary schedules for one or more classes of employees.
- For the setting of a price for sale or lease of property owned by the public body.
- For the purchase or lease of real property for the use of the public body.
- For the discussion of minutes of meetings lawfully closed under the Open Meetings Act, whether for purposes of approval by the body of the minutes or semi-annual review of the minutes.

So moved by Alderman Marek seconded by Alderman Koch.

Motion approved by a roll call vote. Ayes-8 Nays-0
Tarulis-aye, Transier-aye, Soling-aye, Marek-aye,
Corneils-aye, Koch-aye, Plocher-aye, Funkhouser-aye

The City Council entered executive session at 7:29 p.m.

The City Council returned to regular session at 7:50 p.m.

ADJOURNMENT

Mayor Purcell entertained a motion to adjourn the City Council meeting.

Motion unanimously approved by a viva voce vote.

Meeting adjourned at 7:51 p.m.

Minutes submitted by:

Jori Behland,
City Clerk, City of Yorkville, Illinois

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Consent Agenda #2

Tracking Number

Agenda Item Summary Memo

Title: Minutes of the Regular City Council – April 9, 2024

Meeting and Date: City Council – April 23, 2024

Synopsis: Approval of Minutes

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Jori Behland (Name) Administration (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
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DRAFT

MINUTES OF THE REGULAR MEETING OF THE CITY COUNCIL OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS, HELD IN THE CITY COUNCIL CHAMBERS, 651 PRAIRIE POINTE DRIVE ON TUESDAY, APRIL 9, 2024

Mayor Purcell called the meeting to order at 7:02 p.m. and led the Council in the Pledge of Allegiance.

ROLL CALL

City Clerk Behland called the roll.

Ward I	Koch	Present
	Transier	Present
Ward II	Plocher	Present
	Soling	Present
Ward III	Funkhouser	Present
	Marek	Present
Ward IV	Tarulis	Present
	Corneils	Present

Staff in attendance at City Hall: City Administrator Olson, City Clerk Behland, Chief of Police Jensen, Attorney Lamb, Public Works Director Dhuse, Community Development Director Barksdale-Noble, Finance Director Fredrickson, Assistant City Administrator Willrett, and EEI Engineer Sanderson.

Staff in attendance electronically: none

Members of the public were able to attend this meeting in person as well as being able to access the meeting remotely via Zoom which allowed for video, audio, and telephonic participation.

A meeting notice was posted on the City's website on the agenda, minutes, and packets webpage with instructions regarding remote meeting access and a link was included for the public to participate in the meeting remotely:
https://us02web.zoom.us/j/84330595787?pwd=V1ZxanpYQzRXVjZIcmM3QnQ0bkVVZz09.
The Zoom meeting ID was 843 3059 5787.

QUORUM

A quorum was established**.**

AMENDMENTS TO THE AGENDA

None.

PRESENTATIONS

None.

PUBLIC HEARINGS

None.

CITIZEN COMMENTS ON AGENDA ITEMS

None.

CONSENT AGENDA

1. Bill Payments for Approval

   $ 576,404.41 (vendors)
   $ 2,736,513.56 (wire payments)
   $ 377,667.87 (payroll period ending 03/28/24)
   $ 3,690,585.84 (total)

Mayor Purcell entertained a motion to approve the consent agenda. So moved by Alderman Tarulis; seconded by Alderman Funkhouser.

Motion approved by a roll call vote. Ayes-8 Nays-0
Koch-aye, Plocher-aye, Funkhouser-aye, Tarulis-aye,
Transier-aye, Soling-aye, Marek-aye, Corneils-aye

REPORTS

MAYOR'S REPORT

Resolution 2024-17 **Approving an Intergovernmental Agreement Between the United City of Yorkville and Yorkville Community Unit School District No. 115 (Well No. 10 Site)**
(CC 2024-21)

Mayor Purcell entertained a motion to approve a Resolution Approving an Intergovernmental Agreement Between the United City of Yorkville and Yorkville Community Unit School District No. 115 (Well No. 10 Site). So moved by Alderman Tarulis; seconded by Alderman Plocher.

Motion approved by a roll call vote. Ayes-8 Nays-0
Plocher-aye, Funkhouser-aye, Tarulis-aye, Transier-aye,
Soling-aye, Marek-aye, Corneils-aye, Koch-aye

Settlement Agreement
(CC 2024-22)

City Administrator Olson reported that there is a memo within the packet that explains the history of the matter in brief detail. The insurance company is paying out the settlement, and the City has no financial responsibility for the cost; therefore, the city does not have to vote on the matter. Due to it being a public document and for transparency purposes, this was added to the agenda as an informational item.

PUBLIC WORKS COMMITTEE REPORT

No report.

ECONOMIC DEVELOPMENT COMMITTEE REPORT

No report.

PUBLIC SAFETY COMMITTEE REPORT

No report.

ADMINISTRATION COMMITTEE REPORT

No report.

PARK BOARD

No report.

PLANNING AND ZONING COMMISSION

No report.

CITY COUNCIL REPORT

No report.

CITY CLERK'S REPORT

No report.

COMMUNITY & LIAISON REPORT

No report.

STAFF REPORT

No report.

MAYOR'S REPORT (cont'd)

City Buildings Updates
(CC 2021-04)

No report.

Water Study Update
(CC 2021-38)

No report.

ADDITIONAL BUSINESS

None.

CITIZEN COMMENTS

None.

EXECUTIVE SESSION

None.

ADJOURNMENT

Mayor Purcell entertained a motion to adjourn the City Council meeting. So moved by Alderman Plocher; seconded by Alderman Transier.

Motion unanimously approved by a viva voce vote.

Meeting adjourned at 7:05 p.m.

Minutes submitted by:

Jori Behland,
City Clerk, City of Yorkville, Illinois

Reviewed By:	
Legal	☐
Finance	■
Engineer	☐
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Consent Agenda #3

Tracking Number

Agenda Item Summary Memo

Title: Bills for Payment

Meeting and Date: City Council – April 23, 2024

Synopsis:

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Amy Simmons (Name) Finance (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

UNITED CITY OF YORKVILLE
MANUAL CHECK REGISTER

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	CHECK DATE	ACCOUNT #	ITEM AMT
131234	KCR KENDALL COUNTY RECORDER'S				04/03/24		
	4003160	04/03/24	01	ORDINANCE AMMENDING COMP PLAN		01-220-54-00-5462	57.00
			02	GREEN DOOR PERMANENT		90-191-00-00-0011	57.00
			03	EASEMENT		** COMMENT **	
			04	GREEN DOOR TEMPORARY		90-191-00-00-0011	57.00
			05	CONSTRUCTION EASEMENT		** COMMENT **	
						INVOICE TOTAL:	171.00 *
						CHECK TOTAL:	171.00
						TOTAL AMOUNT PAID:	171.00

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
540331	AACVB AURORA AREA CONVENTION						
	02/24-HOLIDAY	04/08/24	01	FEB 2024 HOLIDAY HOTEL TAX	01-640-54-00-5481		4,165.87
					INVOICE TOTAL:		4,165.87 *
	03/24-ALL	04/08/24	01	MAR 2024 ALL SEASON HOTEL TAX	01-640-54-00-5481		40.84
					INVOICE TOTAL:		40.84 *
	03/24-SUPER	04/08/24	01	MAR 2024 SUPER 8 HOTEL TAX	01-640-54-00-5481		331.94
					INVOICE TOTAL:		331.94 *
					CHECK TOTAL:		4,538.65
540332	ALTORFER ALTORFER INDUSTRIES, INC						
	P6AC0097325	03/28/24	01	RADIATOR HOSES	01-410-56-00-5628		217.59
					INVOICE TOTAL:		217.59 *
	TM500496285	03/14/24	01	OIL & FILTERS CHANGED	01-410-54-00-5490		3,088.76
					INVOICE TOTAL:		3,088.76 *
					CHECK TOTAL:		3,306.35
540333	AMEHOIST AMERICAN HOIST & MANLIFT, INC						
	29268	04/04/24	01	MAR 2024 ELEVATOR MAINTENANCE	24-216-54-00-5446		165.00
					INVOICE TOTAL:		165.00 *
					CHECK TOTAL:		165.00
D003392	ANTPLACE ANTHONY PLACE YORKVILLE LP						
	MAY 2024	04/08/24	01	CITY OF YORKVILLE HOUSING	01-000-14-00-1400		946.00
			02	ASSISTANCE PROGRAM RENT	** COMMENT **		
			03	REIMBURSEMENT FOR MAY 2024	** COMMENT **		
					INVOICE TOTAL:		946.00 *
					DIRECT DEPOSIT TOTAL:		946.00

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL	84-840	LIBRARY CAPITAL
				87-870	COUNTRYSIDE TIF
				88-880	DOWNTOWN TIF
				89-890	DOWNTOWN II TIF
				90-XXX	DEVELOPER ESCROW
				95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
540334	ARCHITEC ARCHITECTURAL BRONZE						
	18674	03/25/24	01	BRONZE MEMORIAL PLAQUE	79-790-56-00-5620		390.80
					INVOICE TOTAL:		390.80 *
					CHECK TOTAL:		390.80
540335	ATT AT&T						
	6305536805-0324	03/25/24	01	03/25-04/24 RIVERFRONT PARK	79-795-54-00-5440		124.11
					INVOICE TOTAL:		124.11 *
					CHECK TOTAL:		124.11
540336	BATTERYS BATTERY SERVICE CORPORATION						
	0107998	03/21/24	01	TRACTOR BATTERY	01-410-56-00-5628		46.97
					INVOICE TOTAL:		46.97 *
	0108175	03/28/24	01	BATTERY, STUD HARNESSES	01-410-56-00-5628		128.97
					INVOICE TOTAL:		128.97 *
					CHECK TOTAL:		175.94
540337	COMED COMMONWEALTH EDISON						
	3260462000-0324	04/02/24	01	03/05-04/02 RT47 & RIVER RD	23-230-54-00-5482		388.38
					INVOICE TOTAL:		388.38 *
	3852534000-0324	03/29/24	01	03/01-03/29 RT126 & SCHLHS RD	23-230-54-00-5482		119.67
					INVOICE TOTAL:		119.67 *
					CHECK TOTAL:		508.05
540338	COREMAIN CORE & MAIN LP						
	U599872	03/27/24	01	8 100CF METERS, COUPLING	51-510-56-00-5664		1,895.32
					INVOICE TOTAL:		1,895.32 *
					CHECK TOTAL:		1,895.32

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540339	DEVELOP DEVELOPMENTAL SERVICES CENTER							
	131951	03/12/24	01	STANDARD PTI TARGETS	01-210-56-00-5620		390.54	
					INVOICE TOTAL:		390.54	*
					CHECK TOTAL:		390.54	
540340	DIRENRGY DIRECT ENERGY BUSINESS							
	1704718-240850053994	03/25/24	01	02/05-03/11 RT34 & CANNONBALL	23-230-54-00-5482		21.04	
					INVOICE TOTAL:		21.04	*
	1704722-240820053977	03/22/24	01	01/31-03/03 2921 BRISTOL RDG	51-510-54-00-5480		6,497.06	
					INVOICE TOTAL:		6,497.06	*
					CHECK TOTAL:		6,518.10	
540341	DRHCAMBR DR HORTON-MIDWEST							
	20220739-2810 BERRYW	04/03/24	01	SECURITY GUARANTEE REFUND	01-000-24-00-2415		5,000.00	
					INVOICE TOTAL:		5,000.00	*
	20220909-2802 BERRYW	04/03/24	01	SECURITY GUARANTEE REFUND	01-000-24-00-2415		5,000.00	
					INVOICE TOTAL:		5,000.00	*
	20220910-2798 BERRYW	04/03/24	01	SECURITY GUARANTEE REFUND	01-000-24-00-2415		5,000.00	
					INVOICE TOTAL:		5,000.00	*
	20220913-2806 BERRYW	04/03/24	01	SECURITY GUARANTEE REFUND	01-000-24-00-2415		5,000.00	
					INVOICE TOTAL:		5,000.00	*
					CHECK TOTAL:		20,000.00	
540342	DYNEGY DYNEGY ENERGY SERVICES							
	386643524031	04/04/24	01	01/29-03/04 420 FAIRHAVEN	52-520-54-00-5480		151.91	

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL	84-840	LIBRARY CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS	87-870	COUNTRYSIDE TIF
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS	88-880	DOWNTOWN TIF
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT	89-890	DOWNTOWN II TIF
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT	90-XXX	DEVELOPER ESCROW
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS	95-000	ESCROW DEPOSIT
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL				

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
540342	DYNEGY DYNEGY ENERGY SERVICES						
	386643524031	04/04/24	02	01/30-03/05 6780 RT47	51-510-54-00-5480		206.91
			03	03/04-03/31 456 KENNEDY RD	51-510-54-00-5480		141.96
			04	02/12-03/17 4600 N BRIDGE	51-510-54-00-5480		114.10
			05	03/01-03/28 1107 PRAIRIE CR	52-520-54-00-5480		167.88
			06	03/04-03/31 301 E HYDRAULIC	79-795-54-00-5480		59.35
			07	01/31-03/06 FOXHILL 7 LIFT	52-520-54-00-5480		117.16
			08	03/01-03/28 872 PRAIRIE CR	79-795-54-00-5480		91.79
			09	02/12-03/17 9257 GALENA PK	79-795-54-00-5480		51.81
			10	01/29-03/04 101 BRUELL ST	52-520-54-00-5480		605.12
			11	03/01-03/28 1908 RAINTREE	51-510-54-00-5480		331.27
			12	03/04-03/31 PRESTWICK LIFT	52-520-54-00-5480		159.99
			13	03/04-03/31 1991 CANNONBALL TR	51-510-54-00-5480		323.61
			14	01/29-03/04 610 TOWER	51-510-54-00-5480		275.07
			15	03/04-03/31 276 WINDHAM LIFT	52-520-54-00-5480		177.10
			16	03/04-03/31 133 E HYDRAULIC	79-795-54-00-5480		142.83
			17	01/29-03/04 1975 BRIDGE LIFT	52-520-54-00-5480		667.70
					INVOICE TOTAL:		3,785.56 *
					CHECK TOTAL:		3,785.56
540343	EEI ENGINEERING ENTERPRISES, INC.						
	79807	03/27/24	01	TRAFFIC CONTROL SIGNAGE &	01-640-54-00-5465		4,593.75
			02	MARKINGS	** COMMENT **		
					INVOICE TOTAL:		4,593.75 *
	79808	03/27/24	01	UTILITY PERMIT REVIEWS	01-640-54-00-5465		1,111.50
					INVOICE TOTAL:		1,111.50 *
	79809	03/27/24	01	GRANDE RESERVE-AVANTI	01-640-54-00-5465		121.50
					INVOICE TOTAL:		121.50 *
	79810	03/27/24	01	PRESTWICK	01-640-54-00-5465		1,947.50
					INVOICE TOTAL:		1,947.50 *

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540343	EEI — ENGINEERING ENTERPRISES, INC.							
	79811	03/27/24	01	HEARTLAND MEADOWS	90-064-64-00-0111		81.00	
						INVOICE TOTAL:	81.00	*
	79812	03/27/24	01	GRANDE RESERVE-UNIT 8	01-640-54-00-5465		40.50	
						INVOICE TOTAL:	40.50	*
	79813	03/27/24	01	WINDETT RIDGE-UNIT 2	90-048-48-00-0111		1,073.25	
						INVOICE TOTAL:	1,073.25	*
	79814	03/27/24	01	WHISPERING MEADOWS-TRG	01-640-54-00-5465		3,570.00	
						INVOICE TOTAL:	3,570.00	*
	79815	03/27/24	01	GRANDE RESERVE-UNIT 3	01-640-54-00-5465		40.50	
						INVOICE TOTAL:	40.50	*
	79816	03/27/24	01	UNIFIED DEVELOPMENT ORDINANCE	01-640-54-00-5465		41.25	
						INVOICE TOTAL:	41.25	*
	79817	03/27/24	01	GRANDE RESERVE-UNITS 26 & 27	90-147-00-00-0111		1,514.50	
						INVOICE TOTAL:	1,514.50	*
	79818	03/27/24	01	GRANDE RESERVE-UNIT 7	01-640-54-00-5465		571.50	
						INVOICE TOTAL:	571.50	*
	79819	03/27/24	01	GRANDE RESERVE-UNITS 15 & 22	01-640-54-00-5465		1,113.75	
						INVOICE TOTAL:	1,113.75	*
	79820	03/27/24	01	KENDALL MARKETPLACE-LOT 52	90-154-00-00-0111		732.50	
			02	PHASE 2 & 3	** COMMENT **			
						INVOICE TOTAL:	732.50	*
	79821	03/27/24	01	GRANDE RESERVE-UNIT 20	01-640-54-00-5465		40.50	
						INVOICE TOTAL:	40.50	*
	79822	03/27/24	01	BRIGHT FARMS	90-173-00-00-0111		1,539.00	
						INVOICE TOTAL:	1,539.00	*

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540343	EEI — ENGINEERING ENTERPRISES, INC.							
	79823	03/27/24	01	KENDALLWOOD ESTATES-RALLY	90-174-00-00-0111		3,232.00	
						INVOICE TOTAL:	3,232.00	*
	79824	03/27/24	01	WELL MONITORING DASHBOARDS	01-640-54-00-5465		468.00	
						INVOICE TOTAL:	468.00	*
	79825	03/27/24	01	NORTH CENTRAL EWST REHAB	51-510-60-00-6015		835.50	
						INVOICE TOTAL:	835.50	*
	79826	03/27/24	01	BRISTOL BAY-UNIT 13	90-179-00-00-0111		1,052.00	
						INVOICE TOTAL:	1,052.00	*
	79827	03/27/24	01	2023 WATER MAIN REPLACEMENT-A	51-510-60-00-6025		544.50	
						INVOICE TOTAL:	544.50	*
	79828	03/27/24	01	KENNEDY RD & FREEDOM PLACE	23-230-60-00-6087		3,643.50	
			02	INTERSECTION IMPROVEMENTS	** COMMENT **			
						INVOICE TOTAL:	3,643.50	*
	79829	03/27/24	01	CALEDONIA-UNIT 3	90-188-00-00-0111		483.00	
						INVOICE TOTAL:	483.00	*
	79830	03/27/24	01	GENERAL LAKE MICHIGAN/DWC	01-640-54-00-5465		1,811.50	
			02	COORDINATION	** COMMENT **			
						INVOICE TOTAL:	1,811.50	*
	79831	03/27/24	01	BRISTOL BAY-UNIT 10	90-186-00-00-0111		483.00	
						INVOICE TOTAL:	483.00	*
	79832	03/27/24	01	BRISTOL BAY-UNIT 12	90-186-00-00-0111		687.00	
						INVOICE TOTAL:	687.00	*
	79833	03/27/24	01	STATION 1 BBQ	90-185-00-00-0111		51.00	
						INVOICE TOTAL:	51.00	*

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL	84-840	LIBRARY CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS	87-870	COUNTRYSIDE TIF
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS	88-880	DOWNTOWN TIF
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT	89-890	DOWNTOWN II TIF
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT	90-XXX	DEVELOPER ESCROW
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS	95-000	ESCROW DEPOSIT
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL				

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540343	EEI	ENGINEERING ENTERPRISES, INC.							
	79834		03/27/24	01	LAKE MICHIGAN	51-510-60-00-6011		9,289.69	
				02	CONNECTION-PRELIMINARY	** COMMENT **			
				03	ENGINEERING	** COMMENT **			
						INVOICE TOTAL:		9,289.69	*
	79835		03/27/24	01	LAKE MICHIGAN	51-510-60-00-6011		118.25	
				02	CONNECTION-CORROSION CONTROL	** COMMENT **			
				03	STUDY	** COMMENT **			
						INVOICE TOTAL:		118.25	*
	79836		03/27/24	01	WATER AUDIT & NON-REVENUE	51-510-54-00-5465		1,390.50	
				02	WATER REDUCTION	** COMMENT **			
						INVOICE TOTAL:		1,390.50	*
	79837		03/27/24	01	NEW LEAF ENERGY-SOLAR FARM	90-196-00-00-0111		204.00	
						INVOICE TOTAL:		204.00	*
	79838		03/27/24	01	2023 WATER MAIN REPLACEMENT-B	51-510-60-00-6025		836.50	
						INVOICE TOTAL:		836.50	*
	79839		03/27/24	01	MUNICIPAL ENGINEERING SERVICES	01-640-54-00-5465		1,900.00	
						INVOICE TOTAL:		1,900.00	*
						CHECK TOTAL:			45,162.44
540344	EEI	ENGINEERING ENTERPRISES, INC.							
	79840		03/27/24	01	WELL #10 AND RAW WATER MAIN	51-510-60-00-6029		32,550.58	
						INVOICE TOTAL:		32,550.58	*
						CHECK TOTAL:			32,550.58
540345	EEI	ENGINEERING ENTERPRISES, INC.							
	79841		03/27/24	01	2023 SANITARY SEWER LINING	52-520-60-00-6025		241.25	
						INVOICE TOTAL:		241.25	*

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL		

84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540345	EEI ENGINEERING ENTERPRISES, INC.							
	79842	03/27/24	01	YORKVILLE HIGH SCHOOL STADIUM	01-640-54-00-5465		88.50	
			02	PROJECT ** COMMENT **				
						INVOICE TOTAL:	88.50	*
	79843	03/27/24	01	2024 WATER MAIN REPLACEMENT-A	51-510-60-00-6025		65,386.60	
						INVOICE TOTAL:	65,386.60	*
	79844	03/27/24	01	2024 WATER MAIN REPLACEMENT-B	51-510-60-00-6025		24,866.31	
						INVOICE TOTAL:	24,866.31	*
	79845	03/27/24	01	KENDALL COUNTY BUILDING-FOX	01-640-54-00-5465		254.50	
						INVOICE TOTAL:	254.50	*
	79846	03/27/24	01	ELDAMAIN WATER MAIN LOOP-LP	51-510-60-00-6024		6,560.82	
						INVOICE TOTAL:	6,560.82	*
	79847	03/29/24	01	GREEN DOOR KELAKA	90-220-00-00-0111		3,093.00	
						INVOICE TOTAL:	3,093.00	*
	79848	03/29/24	01	SOUTHERN SANITARY SEWER-LP	52-520-60-00-6024		239.00	
						INVOICE TOTAL:	239.00	*
	79849	03/29/24	01	QUIKTRIP GAS STATION	90-208-00-00-0111		212.50	
						INVOICE TOTAL:	212.50	*
	79850	03/29/24	01	DWC TRANSMISSION MAIN	51-510-60-00-6011		3,346.00	
						INVOICE TOTAL:	3,346.00	*
	79851	03/29/24	01	CENTER ST WATER MAIN EXTENSION	51-510-60-00-6025		6,789.30	
						INVOICE TOTAL:	6,789.30	*
						CHECK TOTAL:		111,077.78
540346	EEI ENGINEERING ENTERPRISES, INC.							

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540346	EEI	ENGINEERING ENTERPRISES, INC.							
	79852		03/29/24	01	WELL #7 WTP STANDBY GENERATOR	51-510-60-00-6060		1,936.50	
						INVOICE TOTAL:		1,936.50	*
						CHECK TOTAL:		1,936.50	
540347	EEI	ENGINEERING ENTERPRISES, INC.							
	79853		03/29/24	01	DOWNTOWN RIVERWALK-FEASIBILITY	01-640-54-00-5465		2,376.00	
				02	STUDY	** COMMENT **			
						INVOICE TOTAL:		2,376.00	*
	79854		03/29/24	01	LOT 1-FOUNTAIN VILLAGE	90-211-00-00-0111		161.00	
						INVOICE TOTAL:		161.00	*
	79855		03/29/24	01	2024 ROAD PROGRAM	23-230-60-00-6025		4,249.50	
						INVOICE TOTAL:		4,249.50	*
	79856		03/29/24	01	FY 2025 BUDGET	01-640-54-00-5465		3,465.50	
						INVOICE TOTAL:		3,465.50	*
	79857		03/29/24	01	LAKE MICHIGAN-WIFIA LOAN	51-510-60-00-6011		6,725.28	
				02	APPLICATION	** COMMENT **			
						INVOICE TOTAL:		6,725.28	*
	79858		03/29/24	01	RT47 WATER MAIN	51-510-60-00-6035		19,539.36	
				02	RELOCATION-WATER PRK WAY TO	** COMMENT **			
				03	BERTRAM	** COMMENT **			
						INVOICE TOTAL:		19,539.36	*
	79859		03/29/24	01	NEXAMP SOLAR	90-212-00-00-0111		255.00	
						INVOICE TOTAL:		255.00	*
	79860		03/29/24	01	CITY OF YORKVILLE	01-640-54-00-5465		1,967.50	
						INVOICE TOTAL:		1,967.50	*

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540347	EEI	ENGINEERING ENTERPRISES, INC.							
	79861		03/29/24	01	CORNEILS RD SOLAR	90-216-00-00-0111		301.25	
						INVOICE TOTAL:		301.25	*
	79862		03/29/24	01	GRANDE RESERVE-UNIT 21	90-222-00-00-0111		4,590.50	
						INVOICE TOTAL:		4,590.50	*
	79863		03/29/24	01	724 E VETERAN'S PKWY	90-217-00-00-0111		2,057.00	
						INVOICE TOTAL:		2,057.00	*
						CHECK TOTAL:		45,687.89	
540348	FIRSTNON	FIRST NONPROFIT UNEMPLOYEMENT							
	122719N-040124		04/01/24	01	2ND QTR 2024 UNEMPLOY INS	01-640-52-00-5230		5,308.00	
				02	2ND QTR 2024 UNEMPLOY INS-P	01-640-52-00-5230		1,345.11	
				03	2ND QTR 2024 UNEMPLOY INS	51-510-52-00-5230		654.96	
				04	2ND QTR 2024 UNEMPLOY INS	52-520-52-00-5230		344.55	
				05	2ND QTR 2024 UNEMPLOY INS	82-820-52-00-5230		413.88	
						INVOICE TOTAL:		8,066.50	*
						CHECK TOTAL:		8,066.50	
540349	FRNKMRSH	FRANK MARSHALL							
	91968		03/21/24	01	COUNTRYSIDE & BRUELL LIFT	52-520-54-00-5444		2,588.00	
				02	STATION PREVENTATIVE	** COMMENT **			
				03	MAINTENANCE	** COMMENT **			
						INVOICE TOTAL:		2,588.00	*
						CHECK TOTAL:		2,588.00	
540350	FULTON	J & D INGENUITIES, LLC							
	2644		04/09/24	01	ANNUAL SIREN TESTING	25-205-54-00-5495		4,357.72	
						INVOICE TOTAL:		4,357.72	*
						CHECK TOTAL:		4,357.72	

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540351	GARDKOCH	GARDINER KOCH & WEISBERG							
	18977		04/11/24	01	KIMBALL HILL I MATTERS	01-640-54-00-5461		9,751.64	
						INVOICE TOTAL:		9,751.64	*
						CHECK TOTAL:		9,751.64	
540352	HACH	HACH COMPANY							
	13964623		03/19/24	01	CHEMICALS	51-510-56-00-5638		464.58	
						INVOICE TOTAL:		464.58	*
						CHECK TOTAL:		464.58	
540353	HARRIS	HARRIS COMPUTER SYSTEMS							
	MSIXT0000514		03/26/24	01	MAR 2024 MYGOVHUB FEES	01-120-54-00-5462		319.72	
				02	MAR 2024 MYGOVHUB FEES	51-510-54-00-5462		479.58	
				03	MAR 2024 MYGOVHUB FEES	52-520-54-00-5462		141.05	
						INVOICE TOTAL:		940.35	*
						CHECK TOTAL:		940.35	
D003393	HORNERR	RYAN HORNER							
	OPSI TRAINING-LODGE		03/15/24	01	OPSI TRAINING LODGING	79-790-54-00-5412		145.12	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		145.12	*
						DIRECT DEPOSIT TOTAL:		145.12	
540354	IAPD	ILLINOIS ASSOCIATION OF PARK							
	DUES2024		04/01/24	01	ANNUAL MEMBERSHIP DUES	79-795-54-00-5460		696.73	
						INVOICE TOTAL:		696.73	*
						CHECK TOTAL:		696.73	

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL	84-840	LIBRARY CAPITAL
				87-870	COUNTRYSIDE TIF
				88-880	DOWNTOWN TIF
				89-890	DOWNTOWN II TIF
				90-XXX	DEVELOPER ESCROW
				95-000	ESCROW DEPOSIT

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540355	ILPHLEBO ILLINOIS PHLEBOTOMY SERVICES							
	1943	04/10/24	01	PHLEBOTOMY SERVICES ON 2/26/24	01-210-54-00-5462		425.00	
					INVOICE TOTAL:		425.00	*
					CHECK TOTAL:		425.00	
540356	IMPERINV IMPERIAL INVESTMENTS							
	FEB 2024-REBATE	04/08/24	01	FEB 2024 BUSINESS DIST REBATE	01-000-24-00-2488		1,206.40	
					INVOICE TOTAL:		1,206.40	*
	JAN 2024-REBATE	04/08/24	01	JAN 2024 BUSINESS DIST REBATE	01-000-24-00-2488		1,700.41	
					INVOICE TOTAL:		1,700.41	*
					CHECK TOTAL:		2,906.81	
540357	INTERDEV INTERDEV, LLC							
	CW1043769	03/27/24	01	REAL TIME INFO CENTER PROJECT	25-205-60-00-6060		4,200.00	
			02	LABOR	** COMMENT **			
					INVOICE TOTAL:		4,200.00	*
	LIC-1043800	03/31/24	01	MAR 2024 TIMED ACTIVE STORAGE	01-640-54-00-5450		270.00	
					INVOICE TOTAL:		270.00	*
	MSP-1043798	03/31/24	01	MAR 2024 MONTHLY IT SUPPORT	01-640-54-00-5450		18,298.00	
					INVOICE TOTAL:		18,298.00	*
	SEC-1043805	03/31/24	01	MAR 2024 DUO & SENTINEL ONE	01-640-54-00-5450		1,225.54	
			02	BILLING	** COMMENT **			
					INVOICE TOTAL:		1,225.54	*
					CHECK TOTAL:		23,993.54	
540358	IPRF ILLINOIS PUBLIC RISK FUND							

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540358	IPRF	ILLINOIS PUBLIC RISK FUND							
	90506		03/18/24	01	MAY 2024 WORK COMP INS	01-000-14-00-1400		11,668.76	
				02	MAY 2024 WORK COMP INS-PR	01-000-14-00-1400		2,373.71	
				03	MAY 2024 WORK COMP INS-LIB	01-000-14-00-1400		943.16	
				04	MAY 2024 WORK COMP INS	51-000-14-00-1400		1,106.54	
				05	MAY 2024 WORK COMP INS	52-000-14-00-1400		499.83	
						INVOICE TOTAL:		16,592.00	*
						CHECK TOTAL:		16,592.00	
540359	JETCOLTD	JETCO, LTD							
	3439		04/02/24	01	ENGINEER'S PAYMENT ESTIMATE 4	51-510-60-00-6015		138,829.12	
				02	AND FINAL-NORTH CENTRAL TANK	** COMMENT **			
				03	REHAB	** COMMENT **			
						INVOICE TOTAL:		138,829.12	*
						CHECK TOTAL:		138,829.12	
540360	KENDCPA	KENDALL COUNTY CHIEFS OF							
	1126		03/29/24	01	MAR 2024 MONTHLY MEETING FOR	01-210-54-00-5415		55.50	
				02	3 STAFF	** COMMENT **			
						INVOICE TOTAL:		55.50	*
						CHECK TOTAL:		55.50	
540361	KENDCROS	KENDALL CROSSING, LLC							
	BD REBATE 01/24		04/04/23	01	JAN 2024 BUSINESS DIST REBATE	01-000-24-00-2487		3,133.34	
						INVOICE TOTAL:		3,133.34	*
	BD REBATE 02/24		04/08/24	01	FEB 2024 BUSINESS DIST REBATE	01-000-24-00-2487		3,880.29	
						INVOICE TOTAL:		3,880.29	*
						CHECK TOTAL:		7,013.63	

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540362	KLUBER	KLUBER, INC							
	8930		03/31/24	01	CITY OF YORKVILLE PUBLIC	24-216-60-00-6042		30,654.00	
				02	WORKS AND PARK MAINTENANCE	** COMMENT **			
				03	STUDY	** COMMENT **			
						INVOICE TOTAL:		30,654.00	*
						CHECK TOTAL:		30,654.00	
540363	KONICAMI	KONICA MINOLTA BUSINESS							
	51589135		04/05/24	01	DOCUMENT SCANNING	01-220-54-00-5462		3,534.58	
						INVOICE TOTAL:		3,534.58	*
	51589137		04/05/24	01	DOCUMENT SCANNING	01-220-54-00-5462		2,563.75	
						INVOICE TOTAL:		2,563.75	*
	51589139		04/05/24	01	DOCUMENT SCANNING	01-220-54-00-5462		545.29	
						INVOICE TOTAL:		545.29	*
	51589140		04/05/24	01	DOCUMENT SCANNING	01-220-54-00-5462		155.75	
						INVOICE TOTAL:		155.75	*
	51589141		04/05/24	01	DOCUMENT SCANNING	01-220-54-00-5462		2,648.43	
						INVOICE TOTAL:		2,648.43	*
	51589143		04/05/24	01	DOCUMENT SCANNING	01-220-54-00-5462		563.50	
						INVOICE TOTAL:		563.50	*
	51589145		04/05/24	01	DOCUMENT SCANNING	01-220-54-00-5462		79.08	
						INVOICE TOTAL:		79.08	*
	51589146		04/05/24	01	DOCUMENT SCANNING	01-220-54-00-5462		108.50	
						INVOICE TOTAL:		108.50	*
						CHECK TOTAL:		10,198.88	

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL	84-840	LIBRARY CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS	87-870	COUNTRYSIDE TIF
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS	88-880	DOWNTOWN TIF
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT	89-890	DOWNTOWN II TIF
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT	90-XXX	DEVELOPER ESCROW
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS	95-000	ESCROW DEPOSIT
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL				

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540364	LANEMUCH	LANER, MUCHIN, LTD							
	662621		03/01/24	01	GENERAL COUNSELING SERVICES	01-640-54-00-5463		1,473.75	
				02	THROUGH 02/20/24	** COMMENT **			
						INVOICE TOTAL:		1,473.75	*
						CHECK TOTAL:		1,473.75	
540365	LOBDELLT	TYLER LOBDELL							
	FIELD OP-PER DIEM		03/18/24	01	FIELD OPERATIONS TRAINING MEAL	01-210-54-00-5415		20.00	
				02	PER DIEM	** COMMENT **			
						INVOICE TOTAL:		20.00	*
						CHECK TOTAL:		20.00	
540366	LRS	LRS, LLC							
	PS594042		04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		210.00	
				02	TOWN SQUARE	** COMMENT **			
						INVOICE TOTAL:		210.00	*
	PS594043		04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		302.00	
				02	RIVERFRONT PARK	** COMMENT **			
						INVOICE TOTAL:		302.00	*
	PS594045		04/04/24	01	4/5-5/2 PORTOLET FEES FOR VAN	79-795-56-00-5620		92.00	
				02	EMMON PARK	** COMMENT **			
						INVOICE TOTAL:		92.00	*
	PS594046		04/04/24	01	4/5-5/2 PORTOLET FEES FOR FOX	79-795-56-00-5620		92.00	
				02	HILL WEST	** COMMENT **			
						INVOICE TOTAL:		92.00	*
	PS594047		04/04/24	01	4/5-5/2 PORTOLET FEES FOR FOX	79-795-56-00-5620		92.00	
				02	HILL EAST	** COMMENT **			
						INVOICE TOTAL:		92.00	*

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL	84-840	LIBRARY CAPITAL
				87-870	COUNTRYSIDE TIF
				88-880	DOWNTOWN TIF
				89-890	DOWNTOWN II TIF
				90-XXX	DEVELOPER ESCROW
				95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
540366	LRS LRS, LLC						
	PS594048	04/04/24	01	04/04-05/02 PORTOLET FEES FOR	79-795-56-00-5620		302.00
			02	BEECHER	** COMMENT **		
					INVOICE TOTAL:		302.00 *
	PS594049	04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		36.15
			02	ROTARY PARK	** COMMENT **		
					INVOICE TOTAL:		36.15 *
	PS594050	04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		92.00
			02	BRISTOL BAY ELEMENTARY	** COMMENT **		
					INVOICE TOTAL:		92.00 *
	PS594051	04/04/24	01	04/05-05/02 PROTOLET FEES FOR	79-795-56-00-5620		184.00
			02	BRIDGE PARK	** COMMENT **		
					INVOICE TOTAL:		184.00 *
	PS594052	04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		92.00
			02	RAINTREE B	** COMMENT **		
					INVOICE TOTAL:		92.00 *
	PS594053	04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		92.00
			02	CANNONBALL	** COMMENT **		
					INVOICE TOTAL:		92.00 *
	PS594054	04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		92.00
			02	GREEN'S PARK	** COMMENT **		
					INVOICE TOTAL:		92.00 *
	PS594055	04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		92.00
			02	BRISTOL STATION	** COMMENT **		
					INVOICE TOTAL:		92.00 *
	PS594056	04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		184.00
			02	RIEMENSCHNEIDER BALL FIELDS	** COMMENT **		
					INVOICE TOTAL:		184.00 *

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL	84-840	LIBRARY CAPITAL
				87-870	COUNTRYSIDE TIF
				88-880	DOWNTOWN TIF
				89-890	DOWNTOWN II TIF
				90-XXX	DEVELOPER ESCROW
				95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

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540366	LRS	LRS, LLC							
	PS594057		04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		662.00	
				02	BRISTOL BAY REGIONAL PARK	** COMMENT **			
						INVOICE TOTAL:		662.00	*
	PS594058		04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		92.00	
				02	GRAND RESERVE ELEMENTARY	** COMMENT **			
						INVOICE TOTAL:		92.00	*
	PS594059		04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		92.00	
				02	PAVILION PARK	** COMMENT **			
						INVOICE TOTAL:		92.00	*
	PS594060		04/04/24	01	4/5-5/2 PORTOLET FEES FOR	79-795-56-00-5620		92.00	
				02	KIWANIS PARK	** COMMENT **			
						INVOICE TOTAL:		92.00	*
						CHECK TOTAL:		2,892.15	
540367	MARTENSO	MARTENSON TURF PRODUCTS							
	93771		03/20/24	01	TURF	79-790-56-00-5620		915.00	
						INVOICE TOTAL:		915.00	*
						CHECK TOTAL:		915.00	
540368	MEADE	MEADE ELECTRIC COMPANY, INC.							
	708178		04/03/24	01	TRAFFIC SIGNAL REPAIR AT RT47	01-410-54-00-5435		805.46	
				02	& RT71	** COMMENT **			
						INVOICE TOTAL:		805.46	*
						CHECK TOTAL:		805.46	
540369	MENINC	MENARDS INC							

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
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88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
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CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

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540369	MENINC	MENARDS INC							
	013124-STREBATE		04/01/24	01	NOV 2023-JAN 2024 SALES TAX	01-640-54-00-5492		119,827.72	
				02	REBATE	** COMMENT **			
						INVOICE TOTAL:		119,827.72	*
						CHECK TOTAL:		119,827.72	
540370	METROWES	METRO WEST COG							
	5327		02/28/24	01	FEB 2024 NETWORKING DINNER	01-110-54-00-5412		50.00	
						INVOICE TOTAL:		50.00	*
						CHECK TOTAL:		50.00	
540371	MIDAM	MID AMERICAN WATER							
	229711A		03/18/24	01	ECLIPSE SAMPLING STATION	51-510-56-00-5630		2,725.00	
						INVOICE TOTAL:		2,725.00	*
						CHECK TOTAL:		2,725.00	
540372	MIDWSALT	MIDWEST SALT							
	P473738		04/10/24	01	BULK ROCK SALT	51-510-56-00-5638		3,236.62	
						INVOICE TOTAL:		3,236.62	*
	P473702		03/28/24	01	BULK ROCK SALT	51-510-56-00-5638		3,270.25	
						INVOICE TOTAL:		3,270.25	*
						CHECK TOTAL:		6,506.87	
540373	MUNCOLLE	MUNICIPAL COLLECTION SERVICES							
	026460		02/29/24	01	COMMISSION ON COLLECTIONS	01-210-54-00-5467		43.76	
						INVOICE TOTAL:		43.76	*

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540373	MUNCOLLE MUNICIPAL COLLECTION SERVICES							
	026461	02/29/24	01	COMMISSION ON COLLECTIONS	01-210-54-00-5467		0.14	
					INVOICE TOTAL:		0.14	*
					CHECK TOTAL:		43.90	
540374	NEMRT NORTH EAST MULTI-REGIONAL							
	346614	02/15/24	01	ADAPTIVE LEADER TRAINING-HART	01-210-54-00-5412		200.00	
					INVOICE TOTAL:		200.00	*
					CHECK TOTAL:		200.00	
540375	NICOR NICOR GAS							
	00-41-22-8748 4-0324	04/01/24	01	03/01-04/01 1107 PRAIRIE LN	01-110-54-00-5480		156.07	
					INVOICE TOTAL:		156.07	*
	12-43-53-5625 3-0324	04/02/24	01	03/04-04/02 609 N BRIDGE	01-110-54-00-5480		63.20	
					INVOICE TOTAL:		63.20	*
	15-64-61-3532 5-0324	04/01/24	01	03/01-04/01 1991 CANNONBALL TR	01-110-54-00-5480		45.73	
					INVOICE TOTAL:		45.73	*
	20-52-56-2042 1-0324	03/28/24	01	02/27-03/28 420 FAIRHAVEN	01-110-54-00-5480		138.15	
					INVOICE TOTAL:		138.15	*
	23-45-91-4862 5-0324	04/02/24	01	03/04-04/02 101 BRUELL ST	01-110-54-00-5480		148.92	
					INVOICE TOTAL:		148.92	*
	37-35-53-1941 1-0324	04/05/24	01	03/07-04/05 185 WOLF ST	01-110-54-00-5480		221.78	
					INVOICE TOTAL:		221.78	*
	40-52-64-8356 1-0324	04/03/24	01	03/06-04/03 102 E VAN EMMON	01-110-54-00-5480		374.82	
					INVOICE TOTAL:		374.82	*

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
82-820	LIBRARY OPERATIONS
84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540375	NICOR	NICOR GAS							
	46-69-47-6727 1-0324		04/05/24	01	03/07-04/05 1975 N BRIDGE ST	01-110-54-00-5480		137.66	
						INVOICE TOTAL:		137.66	*
	61-60-41-1000 9-0324		04/02/24	01	03/04-04/02 610 TOWER LN	01-110-54-00-5480		444.52	
						INVOICE TOTAL:		444.52	*
	66-70-44-6942 9-0324		04/05/24	01	03/07-04/05 1908 RAINTREE RD	01-110-54-00-5480		136.93	
						INVOICE TOTAL:		136.93	*
	80-56-05-1157 0-0324		04/05/24	01	03/07-04/05 2512 ROSEMONT	01-110-54-00-5480		54.34	
						INVOICE TOTAL:		54.34	*
	91-85-68-4012 8-0324		04/02/24	01	03/01-04/01 902 GAME FARM RD	82-820-54-00-5480		1,403.03	
						INVOICE TOTAL:		1,403.03	*
						CHECK TOTAL:		3,325.15	
540376	OMALLEY	O'MALLEY WELDING & FABRICATING							
	21016		11/29/23	01	SHEARING PLATE	79-790-56-00-5640		165.00	
						INVOICE TOTAL:		165.00	*
	21160		03/27/24	01	REPAIR BENCH SIDE	79-790-54-00-5495		120.00	
						INVOICE TOTAL:		120.00	*
	21180		04/09/24	01	REPAIR WELDING OF KAYAK	79-790-54-00-5495		560.00	
				02	LAUNCH	** COMMENT **			
						INVOICE TOTAL:		560.00	*
						CHECK TOTAL:		845.00	
540377	OTTOSEN	OTTOSEN DINOLFO							
	4995		02/29/24	01	MISC CITY ADMIN LEGAL MATERS	01-640-54-00-5456		11,410.18	
						INVOICE TOTAL:		11,410.18	*

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
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88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
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UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

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540377	OTTOSEN	OTTOSEN DINOLFO							
	4997		02/29/24	01	FEB 2024 MEETINGS	01-640-54-00-5456		1,600.00	
						INVOICE TOTAL:		1,600.00	*
	4998		02/29/24	01	WESTBURY MATTERS	90-178-00-00-0011		460.00	
						INVOICE TOTAL:		460.00	*
	4999		02/29/24	01	GREEN DOOR MATTERS	90-191-00-00-0011		1,184.50	
						INVOICE TOTAL:		1,184.50	*
	5002		02/29/24	01	BENNET ANNEXATION MATTERS	90-216-00-00-0011		57.50	
						INVOICE TOTAL:		57.50	*
						CHECK TOTAL:		14,712.18	
540378	PETITEPA	THE PETITE PALETTE							
	SB ART		03/27/24	01	SPRING BREAK CAMP INSTRUCTION	79-795-54-00-5462		1,650.00	
						INVOICE TOTAL:		1,650.00	*
						CHECK TOTAL:		1,650.00	
540379	PRINTSRC	LAMBERT PRINT SOURCE, LLC							
	3936		03/29/24	01	SOCCER FIELD SIGNAGE	79-795-56-00-5606		1,878.00	
						INVOICE TOTAL:		1,878.00	*
						CHECK TOTAL:		1,878.00	
540380	R0001593	LOCAL 150 APPRENTICESHIP FUND							
	YORKVILLECDL012524-0		04/05/24	01	CDL TRAINING-HERNANDEZ	79-790-54-00-5412		3,080.00	
						INVOICE TOTAL:		3,080.00	*
	YORKVILLECDL012524-0		04/05/24	01	CDL TRAINING-ANDERSON	79-790-54-00-5412		3,080.00	
						INVOICE TOTAL:		3,080.00	*
						CHECK TOTAL:		6,160.00	

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL	84-840	LIBRARY CAPITAL
				87-870	COUNTRYSIDE TIF
				88-880	DOWNTOWN TIF
				89-890	DOWNTOWN II TIF
				90-XXX	DEVELOPER ESCROW
				95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
540381	R0001975 RYAN HOMES						
	20240174-RFND	04/03/24	01	CANCELLED PERMIT 20240174 RFND	01-000-42-00-4210		2,749.20
			02	CANCELLED PERMIT 20240174 RFND	51-000-44-00-4430		550.00
			03	CANCELLED PERMIT 20240174 RFND	52-000-44-00-4455		300.00
			04	CANCELLED PERMIT 20240174 RFND	52-000-44-00-4455		200.00
			05	CANCELLED PERMIT 20240174 RFND	25-000-42-00-4208		25.00
			06	CANCELLED PERMIT 20240174 RFND	84-000-42-00-4214		500.00
			07	CANCELLED PERMIT 20240174 RFND	25-000-42-00-4220		50.00
			08	CANCELLED PERMIT 20240174 RFND	25-000-42-00-4218		100.00
			09	CANCELLED PERMIT 20240174 RFND	95-000-24-00-2452		850.00
			10	CANCELLED PERMIT 20240174 RFND	23-000-42-00-4222		2,000.00
					INVOICE TOTAL:		7,324.20 *
					CHECK TOTAL:		7,324.20
540382	R0002208 HARI DEVELOPMENT YORKVILLE LLC						
	013124-STREBATE	04/01/24	01	NOV 2023-JAN 2024 SALES TAX	01-640-54-00-5492		1,158.35
			02	REBATE	** COMMENT **		
					INVOICE TOTAL:		1,158.35 *
					CHECK TOTAL:		1,158.35
540383	R0002640 ABC ROOFING & SIDING						
	20240242-RFND	04/03/24	01	PERMIT CANCELLATION REFUND	01-000-42-00-4210		50.00
					INVOICE TOTAL:		50.00 *
					CHECK TOTAL:		50.00
540384	R0002641 PAT MILLEN						
	032324	04/01/24	01	BEECHER DEPOSIT REFIUND	01-000-24-00-2410		50.00
					INVOICE TOTAL:		50.00 *
					CHECK TOTAL:		50.00

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL	84-840	LIBRARY CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS	87-870	COUNTRYSIDE TIF
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS	88-880	DOWNTOWN TIF
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT	89-890	DOWNTOWN II TIF
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT	90-XXX	DEVELOPER ESCROW
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS	95-000	ESCROW DEPOSIT
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL				

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540385	R0002642	WHITTINI DECKER							
	212926		04/02/24	01	RIEMENSCHNEIDER PARK DEPOSIT	79-000-24-00-2410		100.00	
				02	REFUND FOR 6/11/23 RENTAL	** COMMENT **			
						INVOICE TOTAL:		100.00	*
						CHECK TOTAL:			100.00
540386	R0002643	MATT FREY							
	021224-TOOL		02/12/24	01	REIMBURSEMENT FOR PIPE	51-510-56-00-5630		325.00	
				02	ROUNDING TOOL	** COMMENT **			
						INVOICE TOTAL:		325.00	*
						CHECK TOTAL:			325.00
540387	REINDERS	REINDERS, INC.							
	6949636-00		04/08/24	01	2 TIRES	79-790-56-00-5640		235.29	
						INVOICE TOTAL:		235.29	*
						CHECK TOTAL:			235.29
540388	RUSHTRCK	RUSH TRUCK CENTER							
	3036759458		04/04/24	01	SPEED SENSOR	01-410-56-00-5628		55.00	
						INVOICE TOTAL:		55.00	*
						CHECK TOTAL:			55.00
540389	SOEBBINR	ROMAN SOEBBING							
	LEO'S TROPHIES		04/10/24	01	REIMBURSEMENT FOR TROPHY	01-210-56-00-5650		91.50	
						INVOICE TOTAL:		91.50	*
						CHECK TOTAL:			91.50

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
25-205	POLICE CAPITAL
25-212	GENERAL GOVERNMENT CAPITAL
25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
51-510	WATER OPERATIONS
52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
79-795	RECREATION DEPARTMENT
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84-840	LIBRARY CAPITAL
87-870	COUNTRYSIDE TIF
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UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
540390	STROUPS STROUP, SAMUEL						
	INTERNAL AFFAIRS PER	04/10/24	01	INTERNAL AFFAIRS TRAINING MEAL	01-210-54-00-5415		32.00
			02	PER DIEMS	** COMMENT **		
					INVOICE TOTAL:		32.00 *
					CHECK TOTAL:		32.00
540391	SUBURLAB SUBURBAN LABORATORIES INC.						
	223725	03/29/24	01	WATER TESTING	51-510-54-00-5429		860.90
					INVOICE TOTAL:		860.90 *
					CHECK TOTAL:		860.90
540392	TRAFFIC TRAFFIC CONTROL CORPORATION						
	150173	04/03/24	01	GREEN ARROW LED	01-410-54-00-5435		846.00
					INVOICE TOTAL:		846.00 *
					CHECK TOTAL:		846.00
540393	TROTSKY TROTSKY INVESTIGATIVE						
	YORKVILLE PD 24-01	03/31/24	01	POLYGRAPH EXAMS FOR 3	01-210-54-00-5411		55.00
			02	APPLICANTS	** COMMENT **		
					INVOICE TOTAL:		55.00 *
					CHECK TOTAL:		55.00
540394	UMBBANK UMB BANK						
	013124-STREBATE	04/01/24	01	NOV 2023-JAN 2024 SALES TAX	01-640-54-00-5492		173,881.23
			02	REBATE	** COMMENT **		
					INVOICE TOTAL:		173,881.23 *
					CHECK TOTAL:		173,881.23

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
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12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
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25-215	PUBLIC WORKS CAPITAL
25-225	PARK & RECREATION CAPITAL
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UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 04/23/2024

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
540395	VIRTRA	VIRTRA, INC							
	SO231036		03/13/24	01	EQUIPMENT FOR VIRTRA	01-210-56-00-5620		6,138.27	
						INVOICE TOTAL:		6,138.27	*
						CHECK TOTAL:		6,138.27	
540396	VITOSH	CHRISTINE M. VITOSH							
	2173		03/18/24	01	MAR 2024 ADMIN HEARINGS	01-210-54-00-5467		350.00	
						INVOICE TOTAL:		350.00	*
						CHECK TOTAL:		350.00	
540397	WARRENK	KEVIN WARREN							
	CRISIS PER DIEM		04/10/24	01	CRISIS INTERVENTION TRAINING	01-210-54-00-5415		75.00	
				02	MEAL PER DIEMS	** COMMENT **			
						INVOICE TOTAL:		75.00	*
						CHECK TOTAL:		75.00	
540398	WATERSYS	WATER SOLUTIONS UNLIMITED, INC							
	122303		03/21/24	01	CHEMICALS	51-510-56-00-5638		4,107.19	
						INVOICE TOTAL:		4,107.19	*
						CHECK TOTAL:		4,107.19	
540399	WINNINGE	WINNINGER EXCAVATING INC.							
	040424-1		04/04/24	01	ENGINEERS PAY ESTIMATE 1 FOR	51-510-60-00-6025		1,003,223.43	
				02	2024 WATER MAIN IMPROVEMENTS	** COMMENT **			
				03	CONTRACT B	** COMMENT **			
						INVOICE TOTAL:		1,003,223.43	*
						CHECK TOTAL:		1,003,223.43	

01-110	ADMIN	12-112	SUNFLOWER SSA	25-225	PARK & RECREATION CAPITAL
01-120	FINANCE	15-155	MOTOR FUEL TAX (MFT)	51-510	WATER OPERATIONS
01-210	POLICE	23-230	CITY WIDE CAPITAL	52-520	SEWER OPERATIONS
01-220	COMMUNITY DEVELOPMENT	24-216	BUILDING & GROUNDS	79-790	PARKS DEPARTMENT
01-410	STREETS OPERATIONS	25-205	POLICE CAPITAL	79-795	RECREATION DEPARTMENT
01-640	ADMINISTRATIVE SERVICES	25-212	GENERAL GOVERNMENT CAPITAL	82-820	LIBRARY OPERATIONS
11-111	FOX HILL SSA	25-215	PUBLIC WORKS CAPITAL	84-840	LIBRARY CAPITAL
				87-870	COUNTRYSIDE TIF
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UNITED CITY OF YORKVILLE
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D003394	YBSD YORKVILLE BRISTOL							
	2024-007	04/05/24	01	APR 2024 LANDFILL EXPENSE	51-510-54-00-5445		21,510.81	
					INVOICE TOTAL:		21,510.81	*
					DIRECT DEPOSIT TOTAL:		21,510.81	
540400	YOUNGM MARLYS J. YOUNG							
	032024-ADMIN	04/03/24	01	03/20/24 ADMIN MEETING MINUTES	01-110-54-00-5462		85.00	
					INVOICE TOTAL:		85.00	*
	040224-EDC	04/05/24	01	04/02/24 EDC MEETING MINUTES	01-110-54-00-5462		85.00	
					INVOICE TOTAL:		85.00	*
					CHECK TOTAL:		170.00	

TOTAL CHECKS PAID: 1,898,906.15

TOTAL DIRECT DEPOSITS PAID: 22,601.93

TOTAL AMOUNT PAID: 1,921,508.08

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
11-111	FOX HILL SSA
12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
24-216	BUILDING & GROUNDS
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89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
PAYROLL SUMMARY
April 12, 2024

	REGULAR	OVERTIME	TOTAL	IMRF	FICA	TOTALS
ADMINISTRATION	19,897.90	-	19,897.90	1,160.05	1,475.10	22,533.05
FINANCE	13,682.94	-	13,682.94	797.71	1,011.00	15,491.65
POLICE	141,436.77	3,316.66	144,753.43	310.88	10,801.04	155,865.35
COMMUNITY DEV.	28,344.80	-	28,344.80	1,675.82	2,112.16	32,132.78
STREETS	23,708.05	-	23,708.05	1,388.00	1,759.55	26,855.60
BUILDING & GROUNDS	5,938.01	-	5,938.01	354.93	457.22	6,750.16
WATER	17,366.48	785.75	18,152.23	1,058.29	1,323.21	20,533.73
SEWER	10,141.69	-	10,141.69	591.24	741.51	11,474.44
PARKS	29,698.08	79.07	29,777.15	1,706.03	2,211.23	33,694.41
RECREATION	23,218.77	-	23,218.77	1,151.69	1,743.36	26,113.82
LIBRARY	16,793.72	-	16,793.72	640.25	1,234.19	18,668.16
TOTALS	$ 330,227.21	$ 4,181.48	$ 334,408.69	$ 10,834.89	$ 24,869.57	$ 370,113.15

TOTAL PAYROLL **$ 370,113.15**

UNITED CITY OF YORKVILLE

BILL LIST SUMMARY

Tuesday, April 23, 2024

ACCOUNTS PAYABLE	**DATE**		
Clerk's Check #131234 Kendall County Recorder *(Page 1)*	04/03/2024	$	171.00
City Check Register (*Pages 2 - 27)*	04/23/2024		1,921,508.08
SUB-TOTAL:		**$**	**1,921,679.08**
PAYROLL			
Bi - Weekly *(Page 28)*	04/12/2024	$	370,113.15
SUB-TOTAL:		**$**	**370,113.15**
TOTAL DISBURSEMENTS:		**$**	**2,291,792.23**

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	■
Parks and Recreation	☐

Agenda Item Number

Consent Agenda #4

Tracking Number

PW 2024-31

Agenda Item Summary Memo

Title: Water Reports for July 2023 – March 2024

Meeting and Date: City Council – April 23, 2024

Synopsis: Acceptance of the monthly water reports per IEPA regulations.

Council Action Previously Taken:

Date of Action: PW – 4/16/24 Action Taken: Moved forward to CC consent agenda.

Item Number: PW 2024-31

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Eric Dhuse (Name) Public Works (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: Public Works Committee
From: Eric Dhuse, Director of Public Works
CC: Bart Olson, City Administrator
Date: April 9, 2024
Subject: Water Reports

Summary

Monthly water reports need to be approved by the City Council per IEPA regulations.

Background

Each month the Water Department provides a monthly report to the IEPA on each of our wells. This report is summarized in the attached monthly sheets. The IEPA mandates that the governing body approve the water reports as a check to make sure the governing body is given an opportunity to review the data.

Recommendation

Staff recommends approval of the monthly water reports as presented.

United City of Yorkville
WATER DEPARTMENT REPORT

July
2023
MONTH / YEAR

WELLS

NO	WELL DEPTH (FEET)	PUMP DEPTH (FEET)	WATER ABOVE PUMP (FEET)	THIS MONTH'S PUMPAGE (GALLONS)
4	1394	795	392	23,376,000
7	1527	1125	520	15,517,600
8	1384	840	303	16,344,000
9	1368	861	370	15,437,000
			TOTAL PUMPED	70,674,600

CURRENT MONTH'S PUMPAGE IS 11,769,000 GALLONS **LESS THAN LAST MONTH**

4,441,600 GALLONS **MORE THAN LAST YEAR**

DAILY AVERAGE PUMPED: 2,279,826 GALLONS

DAILY MAXIMUM PUMPED: 2,716 GALLONS

DAILY AVERAGE PER CAPITA USE: 92.55 GALLONS (Population 23,000)

WATER TREATMENT:

CHLORINE: 1698 LBS. FED CALCULATED CONCENTRATION: 3.09 MG/L

FLUORIDE: 0 LBS. FED MEASURED CONCENTRATION: 0.75 MG/L

POLYPHOSPHATE: 1678 LBS. FED CALCULATED CONCENTRATION: 1.07 MG/L

WATER QUALITY:

BACTERIOLOGICAL SAMPLES ANALYZED BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
30 SATISFACTORY _____ UNSATISFACTORY (EXPLAIN)

FLOURIDE: 3 SAMPLE(S) TAKEN CONCENTRATION: 0.75 MG/L

MAINTENANCE:

NUMBER OF METERS REPLACED: 4 NUMBER OF LEAKS OR BREAKS REPAIRED: ____

MXU'S: ____ BATTERIES REPLACED: _____

NEW CUSTOMERS:

RESIDENTIAL: 35 COMMERCIAL: 0 INDUSTRIAL/GOVERNMENTAL: _____

COMMENTS:

United City of Yorkville
WATER DEPARTMENT REPORT

August
2023
MONTH / YEAR

WELLS

NO	WELL DEPTH (FEET)	PUMP DEPTH (FEET)	WATER ABOVE PUMP (FEET)	THIS MONTH'S PUMPAGE (GALLONS)
4	1394	795	393	29,546,000
7	1527	1125	510	13,028,000
8	1384	840	301	16,750,000
9	1368	861	374	15,042,000
			TOTAL PUMPED	74,366,000

CURRENT MONTH'S PUMPAGE IS 3,691,400 GALLONS **LESS THAN LAST MONTH**

12,153,300 GALLONS **MORE THAN LAST YEAR**

DAILY AVERAGE PUMPED: 2,398,903 GALLONS

DAILY MAXIMUM PUMPED: 2,970 GALLONS

DAILY AVERAGE PER CAPITA USE: 100.23 GALLONS (Population 23,000)

WATER TREATMENT:

CHLORINE: 1733 LBS. FED CALCULATED CONCENTRATION: 2.91 MG/L

FLUORIDE: 0 LBS. FED MEASURED CONCENTRATION: 0.75 MG/L

POLYPHOSPHATE: 1643 LBS. FED CALCULATED CONCENTRATION: 0.96 MG/L

WATER QUALITY:

BACTERIOLOGICAL SAMPLES ANALYZED BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
30 SATISFACTORY _____ UNSATISFACTORY (EXPLAIN)

FLOURIDE: 3 SAMPLE(S) TAKEN CONCENTRATION: 0.75 MG/L

MAINTENANCE:

NUMBER OF METERS REPLACED: 1 NUMBER OF LEAKS OR BREAKS REPAIRED: 1

MXU'S: 1 BATTERIES REPLACED: _____

NEW CUSTOMERS:

RESIDENTIAL: 44 COMMERCIAL: 0 INDUSTRIAL/GOVERNMENTAL: _____

COMMENTS:

United City of Yorkville
WATER DEPARTMENT REPORT

September
2023
MONTH / YEAR

WELLS

NO	WELL DEPTH (FEET)	PUMP DEPTH (FEET)	WATER ABOVE PUMP (FEET)	THIS MONTH'S PUMPAGE (GALLONS)
4	1394	795	393	7,076,000
7	1527	1125	510	20,475,000
8	1384	840	300	19,864,000
9	1368	861	370	17,557,000
			TOTAL PUMPED	64,972,000

CURRENT MONTH'S PUMPAGE IS 9,394,000 GALLONS **LESS THAN LAST MONTH**

2,987,000 GALLONS **MORE THAN LAST YEAR**

DAILY AVERAGE PUMPED: 2,165,733 GALLONS

DAILY MAXIMUM PUMPED: 3,080 GALLONS

DAILY AVERAGE PER CAPITA USE: 88.57 GALLONS (Population 23,000)

WATER TREATMENT:

CHLORINE: 1425 LBS. FED CALCULATED CONCENTRATION: 2.80 MG/L

FLUORIDE: 0 LBS. FED MEASURED CONCENTRATION: 0.77 MG/L

POLYPHOSPHATE: 1643 LBS. FED CALCULATED CONCENTRATION: 0.84 MG/L

WATER QUALITY:

BACTERIOLOGICAL SAMPLES ANALYZED BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
30 SATISFACTORY _____ UNSATISFACTORY (EXPLAIN)

FLOURIDE: 3 SAMPLE(S) TAKEN CONCENTRATION: 0.75 MG/L

MAINTENANCE:

NUMBER OF METERS REPLACED: 12 NUMBER OF LEAKS OR BREAKS REPAIRED: _____

MXU'S: 1 BATTERIES REPLACED: _____

NEW CUSTOMERS:

RESIDENTIAL: 30 COMMERCIAL: 1 INDUSTRIAL/GOVERNMENTAL: _____

COMMENTS:

United City of Yorkville
WATER DEPARTMENT REPORT

October
2023
MONTH / YEAR

WELLS

NO	WELL DEPTH (FEET)	PUMP DEPTH (FEET)	WATER ABOVE PUMP (FEET)	THIS MONTH'S PUMPAGE (GALLONS)
4	1394	795	392	340,000
7	1527	1125	571	21,932,500
8	1384	840	300	17,199,000
9	1368	861	388	18,279,000
			TOTAL PUMPED	57,750,500

CURRENT MONTH'S PUMPAGE IS 7,221,500 GALLONS **LESS THAN LAST MONTH**

2,469,500 GALLONS **MORE THAN LAST YEAR**

DAILY AVERAGE PUMPED: 1,862,919 GALLONS

DAILY MAXIMUM PUMPED: 2,331,000 GALLONS

DAILY AVERAGE PER CAPITA USE: 76.44 GALLONS (Population 23,000)

WATER TREATMENT:

CHLORINE: 1579 LBS. FED CALCULATED CONCENTRATION: 3.47 MG/L

FLUORIDE: 0 LBS. FED MEASURED CONCENTRATION: 0.77 MG/L

POLYPHOSPHATE: 1139 LBS. FED CALCULATED CONCENTRATION: 0.88 MG/L

WATER QUALITY:

BACTERIOLOGICAL SAMPLES ANALYZED BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
30 SATISFACTORY _____ UNSATISFACTORY (EXPLAIN)

FLOURIDE: 3 SAMPLE(S) TAKEN CONCENTRATION: 0.77 MG/L

MAINTENANCE:

NUMBER OF METERS REPLACED: 24 NUMBER OF LEAKS OR BREAKS REPAIRED: 4

MXU'S: ____ BATTERIES REPLACED: _____

NEW CUSTOMERS:

RESIDENTIAL: 29 COMMERCIAL: 1 INDUSTRIAL/GOVERNMENTAL: _____

COMMENTS:

United City of Yorkville
WATER DEPARTMENT REPORT

November
2023
MONTH / YEAR

WELLS

NO	WELL DEPTH (FEET)	PUMP DEPTH (FEET)	WATER ABOVE PUMP (FEET)	THIS MONTH'S PUMPAGE (GALLONS)
4	1394	795	393	165,000
7	1527	1125	508	22,770,000
8	1384	840	302	16,675,000
9	1368	861	404	15,044,000
			TOTAL PUMPED	54,645,000

CURRENT MONTH'S PUMPAGE IS 3,096,500 GALLONS **LESS THAN LAST MONTH**

5,510,400 GALLONS **MORE THAN LAST YEAR**

DAILY AVERAGE PUMPED: 1,821,800 GALLONS

DAILY MAXIMUM PUMPED: 2,317,000 GALLONS

DAILY AVERAGE PER CAPITA USE: 78.76 GALLONS (Population 23,000)

WATER TREATMENT:

CHLORINE: 1395 LBS. FED CALCULATED CONCENTRATION: 3.08 MG/L

FLUORIDE: 0 LBS. FED MEASURED CONCENTRATION: 0.75 MG/L

POLYPHOSPHATE: 1048 LBS. FED CALCULATED CONCENTRATION: 0.81 MG/L

WATER QUALITY:

BACTERIOLOGICAL SAMPLES ANALYZED BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
30 SATISFACTORY _____ UNSATISFACTORY (EXPLAIN)

FLOURIDE: 3 SAMPLE(S) TAKEN CONCENTRATION: 0.77 MG/L

MAINTENANCE:

NUMBER OF METERS REPLACED: 18 NUMBER OF LEAKS OR BREAKS REPAIRED: 2

MXU'S: 6 BATTERIES REPLACED: _____

NEW CUSTOMERS:

RESIDENTIAL: 29 COMMERCIAL: _____ INDUSTRIAL/GOVERNMENTAL: _____

COMMENTS:

United City of Yorkville
WATER DEPARTMENT REPORT

December
2023
MONTH / YEAR

WELLS

NO	WELL DEPTH (FEET)	PUMP DEPTH (FEET)	WATER ABOVE PUMP (FEET)	THIS MONTH'S PUMPAGE (GALLONS)
4	1394	795	394	14,246,000
7	1527	1125	512	16,308,000
8	1384	840	299	13,664,000
9	1368	861	360	13,521,000
			TOTAL PUMPED	57,739,000

CURRENT MONTH'S PUMPAGE IS 3,085,000 GALLONS **MORE THAN LAST MONTH**

7,348,200 GALLONS **MORE THAN LAST YEAR**

DAILY AVERAGE PUMPED: 1,862,548 GALLONS

DAILY MAXIMUM PUMPED: 2,543,000 GALLONS

DAILY AVERAGE PER CAPITA USE: 94.45 GALLONS (Population 23,000)

WATER TREATMENT:

CHLORINE: 1336 LBS. FED CALCULATED CONCENTRATION: 2.38 MG/L

FLUORIDE: 0 LBS. FED MEASURED CONCENTRATION: 0.71 MG/L

POLYPHOSPHATE: 1095 LBS. FED CALCULATED CONCENTRATION: 0.68 MG/L

WATER QUALITY:

BACTERIOLOGICAL SAMPLES ANALYZED BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
30 SATISFACTORY _____ UNSATISFACTORY (EXPLAIN)

FLOURIDE: 3 SAMPLE(S) TAKEN CONCENTRATION: 0.71 MG/L

MAINTENANCE:

NUMBER OF METERS REPLACED: 12 NUMBER OF LEAKS OR BREAKS REPAIRED: 1

MXU'S: 21 BATTERIES REPLACED: _____

NEW CUSTOMERS:

RESIDENTIAL: 19 COMMERCIAL: _____ INDUSTRIAL/GOVERNMENTAL: _____

COMMENTS:

United City of Yorkville
WATER DEPARTMENT REPORT

January
2024
MONTH / YEAR

WELLS

NO	WELL DEPTH (FEET)	PUMP DEPTH (FEET)	WATER ABOVE PUMP (FEET)	THIS MONTH'S PUMPAGE (GALLONS)
4	1394	795	392	18,844,000
7	1527	1125	508	11,280,500
8	1384	840	328	14,955,000
9	1368	861	365	12,133,000
			TOTAL PUMPED	57,212,500

CURRENT MONTH'S PUMPAGE IS 526,500 GALLONS **LESS THAN LAST MONTH**

7,723,800 GALLONS **MORE THAN LAST YEAR**

DAILY AVERAGE PUMPED: 1,845,565 GALLONS

DAILY MAXIMUM PUMPED: 2,200,000 GALLONS

DAILY AVERAGE PER CAPITA USE: 100.49 GALLONS (Population 23,000)

WATER TREATMENT:

CHLORINE: 1232 LBS. FED CALCULATED CONCENTRATION: 2.06 MG/L

FLUORIDE: 0 LBS. FED MEASURED CONCENTRATION: 0.65 MG/L

POLYPHOSPHATE: 1044 LBS. FED CALCULATED CONCENTRATION: 0.61 MG/L

WATER QUALITY:

BACTERIOLOGICAL SAMPLES ANALYZED BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
30 SATISFACTORY _____ UNSATISFACTORY (EXPLAIN)

FLOURIDE: 3 SAMPLE(S) TAKEN CONCENTRATION: 0.65 MG/L

MAINTENANCE:

NUMBER OF METERS REPLACED: 11 NUMBER OF LEAKS OR BREAKS REPAIRED: 2

MXU'S: 5 BATTERIES REPLACED: _____

NEW CUSTOMERS:

RESIDENTIAL: 21 COMMERCIAL: _____ INDUSTRIAL/GOVERNMENTAL: _____

COMMENTS:

United City of Yorkville
WATER DEPARTMENT REPORT

February
2024
MONTH / YEAR

WELLS

NO	WELL DEPTH (FEET)	PUMP DEPTH (FEET)	WATER ABOVE PUMP (FEET)	THIS MONTH'S PUMPAGE (GALLONS)
4	1394	795	393	15,078,000
7	1527	1125	506	10,846,000
8	1384	840	319	13,619,000
9	1368	861	358	11,269,000
			TOTAL PUMPED	50,812,000

CURRENT MONTH'S PUMPAGE IS 6,400,500 GALLONS **LESS THAN LAST MONTH**

5,450,500 GALLONS **MORE THAN LAST YEAR**

DAILY AVERAGE PUMPED: 1,752,138 GALLONS

DAILY MAXIMUM PUMPED: 1,978,000 GALLONS

DAILY AVERAGE PER CAPITA USE: 71.60 GALLONS (Population 23,000)

WATER TREATMENT:

CHLORINE: 1163 LBS. FED — CALCULATED CONCENTRATION: 2.06 MG/L

FLUORIDE: 0 LBS. FED — MEASURED CONCENTRATION: 0.64 MG/L

POLYPHOSPHATE: 1039 LBS. FED — CALCULATED CONCENTRATION: 0.91 MG/L

WATER QUALITY:

BACTERIOLOGICAL SAMPLES ANALYZED BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
30 SATISFACTORY _____ UNSATISFACTORY (EXPLAIN)

FLOURIDE: 3 SAMPLE(S) TAKEN — CONCENTRATION: 0.65 MG/L

MAINTENANCE:

NUMBER OF METERS REPLACED: 16 — NUMBER OF LEAKS OR BREAKS REPAIRED: 1

MXU'S: 1 — BATTERIES REPLACED: _____

NEW CUSTOMERS:

RESIDENTIAL: 21 — COMMERCIAL: _____ — INDUSTRIAL/GOVERNMENTAL: _____

COMMENTS:

United City of Yorkville
WATER DEPARTMENT REPORT

March
2024
MONTH / YEAR

WELLS

NO	WELL DEPTH (FEET)	PUMP DEPTH (FEET)	WATER ABOVE PUMP (FEET)	THIS MONTH'S PUMPAGE (GALLONS)
4	1394	795	393	16,052,000
7	1527	1125	550	12,431,700
8	1384	840	323	13,384,000
9	1368	861	390	12,290,000
			TOTAL PUMPED	54,157,700

CURRENT MONTH'S PUMPAGE IS 3,345,700 GALLONS **MORE THAN LAST MONTH**

4,017,700 GALLONS **MORE THAN LAST YEAR**

DAILY AVERAGE PUMPED: 1,747,023 GALLONS

DAILY MAXIMUM PUMPED: 2,289,000 GALLONS

DAILY AVERAGE PER CAPITA USE: 71.44 GALLONS (Population 23,000)

WATER TREATMENT:

CHLORINE: 1243 LBS. FED CALCULATED CONCENTRATION: 2.93 MG/L

FLUORIDE: 0 LBS. FED MEASURED CONCENTRATION: 0.66 MG/L

POLYPHOSPHATE: 1123 LBS. FED CALCULATED CONCENTRATION: 0.93 MG/L

WATER QUALITY:

BACTERIOLOGICAL SAMPLES ANALYZED BY ILLINOIS ENVIRONMENTAL PROTECTION AGENCY:
30 SATISFACTORY _____ UNSATISFACTORY (EXPLAIN)

FLOURIDE: 3 SAMPLE(S) TAKEN CONCENTRATION: 0.65 MG/L

MAINTENANCE:

NUMBER OF METERS REPLACED: 7 NUMBER OF LEAKS OR BREAKS REPAIRED: 2

MXU'S: 12 BATTERIES REPLACED: _____

NEW CUSTOMERS:

RESIDENTIAL: 16 COMMERCIAL: _____ INDUSTRIAL/GOVERNMENTAL: _____

COMMENTS:

Reviewed By:	
Legal	☐
Finance	☐
Engineer	■
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	☐
Public Works	■
Parks and Recreation	☐

Agenda Item Number

Consent Agenda #5

Tracking Number

PW 2024-37

Agenda Item Summary Memo

Title: Kennedy Rd. & Freedom Pl. – Construction Engineering Agreement

Meeting and Date: City Council – April 23, 2024

Synopsis: Please see the attached memo.

Council Action Previously Taken:

Date of Action: PW – 4/16/24 Action Taken: Moved forward to City Council agenda.

Item Number: PW 2024-37

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Eric Dhuse (Name) Public Works (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: Public Works Committee
From: Eric Dhuse, Director of Public Works
CC: Bart Olson, City Administrator
Date: April 11, 2024
Subject: Kennedy and Freedom Pl. Construction Engineering Agreement

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Summary

A proposed Construction Engineering Agreement for the Kennedy Road and Freedom Place intersection improvements.

Background

A tentative agreement has been reached with Blackberry Oaks which may be in front of the council on April 23rd, and bids have been opened and will soon be awarded. With the passage of this construction engineering agreement, we will have our items in place to be able to get this project completed in a timely manner.

The agreement is structured as an hourly rate with an estimated cost of $88,621. This money is included in the approved FY25 budget in the City-Wide Capital fund.

Recommendation

Staff recommends approval of the construction engineering agreement with EEI for the Kennedy Road and Freedom Place Intersection Improvements.

Kennedy Road & Freedom Place Intersection Improvements
United City of Yorkville
Professional Services Agreement – Construction Engineering

THIS AGREEMENT, by and between the United City of Yorkville, hereinafter referred to as the "City" or “OWNER” and Engineering Enterprises, Inc. hereinafter referred to as the "Contractor" or “ENGINEER” agrees as follows:

A. Services:

ENGINEER agrees to furnish to the City the following services: The ENGINEER shall provide any and all necessary engineering services to the City as indicated on the Scope of Services (Attachment B). Construction Engineering for all roadways indicated on Attachment E will be provided. Engineering will be in accordance with all City and Illinois Department of Transportation requirements.

B. Term:

Services will be provided beginning on the date of execution of this agreement and continuing, until terminated by either party upon 7 days written notice to the non-terminating party or upon completion of the Services. Upon termination the Contractor shall be compensated for all work performed for the City prior to termination.

C. Compensation and maximum amounts due to Contractor:

ENGINEER shall receive as compensation for all work and services to be performed herein, an amount based on the Estimated Level of Effort and Associated Cost included in Attachment C. Construction Engineering will be paid for as an Hourly Rate in the amount of $88,621. The hourly rates for this project are shown in the attached 2024 Standard Schedule of Charges (Attachment F). All payments will be made according to the Illinois State Prompt Payment Act and not less than once every thirty days.

D. Changes in Rates of Compensation:

In the event that this contract is designated in Section B hereof as an Ongoing Contract, ENGINEER, on or before February 1st of any given year, shall provide written notice of any change in the rates specified in Section C hereof (or on any attachments hereto) and said changes shall only be effective on and after May 1st of that same year.

E. Ownership of Records and Documents:

Contractor agrees that all books and records and other recorded information developed specifically in connection with this agreement shall remain the property of the City. Contractor agrees to keep such information confidential and not to disclose or disseminate the information to third parties without the consent of the City. This confidentiality shall not apply to material or information, which would otherwise be subject to public disclosure through the freedom of information act or if already previously disclosed by a third party. Upon termination of this agreement, Contractor agrees to return all such materials to the City. The City agrees not to modify any original documents produced by Contractor without contractors consent. Modifications of any signed duplicate original document not authorized by ENGINEER will be at OWNER's sole risk and without legal liability to the ENGINEER. Use of any incomplete, unsigned document will, likewise, be at the OWNER's sole risk and without legal liability to the ENGINEER.

F. Governing Law:

This contract shall be governed and construed in accordance with the laws of the State of Illinois. Venue shall be in Kendall County, Illinois.

G. Independent Contractor:

Contractor shall have sole control over the manner and means of providing the work and services performed under this agreement. The City's relationship to the Contractor under this agreement shall be that of an independent contractor. Contractor will not be considered an employee to the City for any purpose.

H. Certifications:

Employment Status: The Contractor certifies that if any of its personnel are an employee of the State of Illinois, they have permission from their employer to perform the service.

Anti-Bribery: The Contractor certifies it is not barred under 30 Illinois Compiled Statutes 500/50-5(a) - (d) from contracting as a result of a conviction for or admission of bribery or attempted bribery of an officer or employee of the State of Illinois or any other state.

Loan Default: If the Contractor is an individual, the Contractor certifies that he/she is not in default for a period of six months or more in an amount of $600 or more on the repayment of any educational loan guaranteed by the Illinois State Scholarship Commission made by an Illinois institution of higher education or any other loan made from public funds for the purpose of financing higher education (5 ILCS 385/3).

Felony Certification: The Contractor certifies that it is not barred pursuant to 30 Illinois Compiled Statutes 500/50-10 from conducting business with the State of Illinois or any agency as a result of being convicted of a felony.

Barred from Contracting: The Contractor certifies that it has not been barred from contracting as a result of a conviction for bid-rigging or bid rotating under 720 Illinois Compiled Statutes 5/33E or similar law of another state.

Drug Free Workplace: The Contractor certifies that it is in compliance with the Drug Free Workplace Act (30 Illinois Compiled Statutes 580) as of the effective date of this contract. The Drug Free Workplace Act requires, in part, that Contractors, with 25 or more employees certify and agree to take steps to ensure a drug free workplace by informing employees of the dangers of drug abuse, of the availability of any treatment or assistance program, of prohibited activities and of sanctions that will be imposed for violations; and that individuals with contracts certify that they will not engage in the manufacture, distribution, dispensation, possession, or use of a controlled substance in the performance of the contract.

Non-Discrimination, Certification, and Equal Employment Opportunity: The Contractor agrees to comply with applicable provisions of the Illinois Human Rights Act (775 Illinois Compiled Statutes 5), the U.S. Civil Rights Act, the Americans with Disabilities Act, Section 504 of the U.S. Rehabilitation Act and the rules applicable to each. The equal opportunity clause of Section 750.10 of the Illinois Department of Human Rights Rules is specifically incorporated herein. The Contractor shall comply with Executive Order 11246, entitled Equal Employment Opportunity, as amended by Executive Order 11375, and as supplemented by U.S. Department of Labor regulations (41 C.F.R. Chapter 60). The Contractor agrees to incorporate this clause into all subcontracts under this Contract.

International Boycott: The Contractor certifies that neither it nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act (30 ILCS 582).

Record Retention and Audits: If 30 Illinois Compiled Statutes 500/20-65 requires the Contractor (and any subcontractors) to maintain, for a period of 3 years after the later of the date of completion of this Contract or the date of final payment under the Contract, all books and records relating to the performance of the Contract and necessary to support amounts charged to the City under the Contract. The Contract and all books and records related to the Contract shall be available for review and audit by the City and the Illinois Auditor General. If this Contract is funded from contract/grant funds provided by the U.S. Government, the Contract, books, and records shall be available for review and audit by the Comptroller General of the U.S. and/or the Inspector General of the federal

sponsoring agency. The Contractor agrees to cooperate fully with any audit and to provide full access to all relevant materials.

United States Resident Certification: (This certification must be included in all contracts involving personal services by non-resident aliens and foreign entities in accordance with requirements imposed by the Internal Revenue Services for withholding and reporting federal income taxes.) The Contractor certifies that he/she is a: _x_ United States Citizen ___ Resident Alien ___ Non-Resident Alien The Internal Revenue Service requires that taxes be withheld on payments made to non resident aliens for the performance of personal services at the rate of 30%.

Tax Payer Certification : Under penalties of perjury, the Contractor certifies that its Federal Tax Payer Identification Number or Social Security Number is (provided separately) and is doing business as a (check one): ___ Individual ___ Real Estate Agent ___ Sole Proprietorship ___ Government Entity ___ Partnership ___ Tax Exempt Organization (IRC 501(a) only) _x_ Corporation ___ Not for Profit Corporation ___ Trust or Estate ___ Medical and Health Care Services Provider Corp.

I. Indemnification:

Contractor shall indemnify and hold harmless the City and City's agents, servants, and employees against all loss, damage, and expense which it may sustain or for which it will become liable on account of injury to or death of persons, or on account of damage to or destruction of property resulting from the performance of work under this agreement by Contractor or its Subcontractors, or due to or arising in any manner from the wrongful act or negligence of Contractor or its Subcontractors of any employee of any of them. In the event that the either party shall bring any suit, cause of action or counterclaim against the other party, the non-prevailing party shall pay to the prevailing party the cost and expenses incurred to answer and/or defend such action, including reasonable attorney fees and court costs. In no event shall the either party indemnify any other party for the consequences of that party's negligence, including failure to follow the ENGINEER's recommendations.

J. Insurance:

The ENGINEER agrees that it has either attached a copy of all required insurance certificates or that said insurance is not required due to the nature and extent of the types of services rendered hereunder. (Not applicable as having been previously supplied)

K. Additional Terms or Modification:

The terms of this agreement shall be further modified as provided on the attached Exhibits. Except for those terms included on the Exhibits, no additional terms are

included as a part of this agreement. All prior understandings and agreements between the parties are merged into this agreement, and this agreement may not be modified orally or in any manner other than by an agreement in writing signed by both parties. In the event that any provisions of this agreement shall be held to be invalid or unenforceable, the remaining provisions shall be valid and binding on the parties. The list of Attachments are as follows:

Attachment A:	Standard Terms and Conditions
Attachment B:	Scope of Services
Attachment C:	Estimate of Level of Effort and Associated Cost
Attachment D:	Estimated Schedule
Attachment E:	Location Map
Attachment F:	2024 Standard Schedule of Charges

L. Notices:

All notices required to be given under the terms of this agreement shall be given mail, addressed to the parties as follows:

For the City:

City Administrator and City Clerk
United City of Yorkville
651 Prairie Pointe Drive
Yorkville, IL 60560

For the ENGINEER:

Engineering Enterprises, Inc.
52 Wheeler Road
Sugar Grove Illinois 60554

Either of the parties may designate in writing from time to time substitute addresses or persons in connection with required notices.

Agreed to this _____day of _____, 2024.

United City of Yorkville:

_____
John Purcell
Mayor

_____
Jori Behland
City Clerk

Engineering Enterprises, Inc.:

_____
Brad Sanderson, PE
Chief Operating Officer / President

_____
Angie Smith
Executive Assistant

STANDARD TERMS AND CONDITIONS

Agreement: These Standard Terms and Conditions, together with the Professional Services Agreement, constitute the entire integrated agreement between the OWNER and Engineering Enterprises, Inc. (EEI) (hereinafter "Agreement"), and take precedence over any other provisions between the Parties. These terms may be amended, but only if both parties consent in writing.

Standard of Care: In providing services under this Agreement, the ENGINEER will endeavor to perform in a matter consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under same circumstances in the same locality. ENGINEER makes no other warranties, express or implied, written or oral under this Agreement or otherwise, in connection with ENGINEER'S service.

Construction Engineering and Inspection: The ENGINEER shall not supervise, direct, control, or have authority over any contractor work, nor have authority over or be responsible for the means, methods, techniques sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety of the site, nor for any failure of a contractor to comply with laws and regulations applicable to such contractor's furnishing and performing of its work.

The ENGINEER neither guarantees the performance of any contractor nor assumes responsibility for contractor's failure to furnish and perform the work in accordance with the contract documents.

The ENGINEER is not responsible for the acts or omissions of any contractor, subcontractor, or supplies, or any of their agents or employees or any other person at the site or otherwise furnishing or performing any work.

Shop drawing and submittal review by the ENGINEER shall apply to only the items in the submissions and only for the purpose of assessing if upon installation or incorporation in the project work they are generally consistent with the construction documents. OWNER agrees that the contractor is solely responsible for the submissions and for compliance with the construction documents. OWNER further agrees that the ENGINEER'S review and action in relation to these submissions shall not constitute the provision of means, methods, techniques, sequencing or procedures of construction or extend or safety programs or precautions. The ENGINEER'S consideration of a component does not constitute acceptance of the assembled items.

The ENGINEER'S site observation during construction shall be at the times agreed upon in the Project Scope. Through standard, reasonable means the ENGINEER will become generally familiar with observable completed work. If the ENGINEER observes completed work that is inconsistent with the construction documents, that information shall be communicated to the contractor and OWNER for them to address.

Opinion of Probable Construction Costs: ENGINEER'S opinion of probable construction costs represents ENGINEER'S best and reasonable judgment as a professional engineer. OWNER acknowledges that ENGINEER has no control over construction costs of contractor's methods of determining pricing, or over competitive bidding by contractors, or of market conditions or changes thereto. ENGINEER cannot and does not guarantee that proposals, bids or actual construction costs will not vary from ENGINEER'S opinion of probable construction costs.

Copies of Documents & Electronic Compatibility: Copies of Documents that may be relied upon by OWNER are limited to the printed copies (also known as hard copies) that are signed or sealed by the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by ENGINEER to OWNER are only for convenience of OWNER. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. When transferring documents in electronic media format, ENGINEER makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by ENGINEER at the beginning of the project.

Changed Conditions: If, during the term of this Agreement, circumstances or conditions that were not originally contemplated by or known to the ENGINEER are revealed, to the extent that they affect the scope of services, compensation, schedule, allocation of risks, or other material terms of this Agreement, the ENGINEER may call for renegotiation of appropriate portions of this Agreement. The ENGINEER shall notify the OWNER of the changed conditions necessitating renegotiation, and the ENGINEER and the OWNER shall promptly and in good faith enter into renegotiation of this Agreement to address the changed conditions. If terms cannot be agreed to, the parties agree that either party has the absolute right to terminate this Agreement, in accordance with the termination provision hereof.

Hazardous Conditions: OWNER represents to ENGINEER that to the best of its knowledge no Hazardous Conditions (environmental or otherwise) exist on the project site. If a Hazardous Condition is encountered or alleged, ENGINEER shall have the obligation to notify OWNER and, to the extent of applicable Laws and Regulations, appropriate governmental officials. It is acknowledged by both parties that ENGINEER's scope of services does not include any services related to a Hazardous Condition. In the event ENGINEER or any other party encounters a Hazardous Condition, ENGINEER may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the project affected thereby until OWNER: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Hazardous Condition; and (ii) warrants that the project site is in full compliance with applicable Laws and Regulations.

Consequential Damages: Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither the OWNER nor the ENGINEER, their respective officers, directors, partners, employees, contractors, or subcontractors shall be liable to the other or shall make any claim for any incidental, indirect, or consequential damages arising out of or connected in any way to the Project or to this Agreement. This mutual waiver of consequential damages shall include, but is not limited to, loss of use, loss of

profit, loss of business, loss of income, loss of reputation, or any other consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract, and breach of strict or implied warranty. Both the OWNER and the ENGINEER shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in this project.

Termination: This Agreement may be terminated for convenience, without cause, upon fourteen (14) days written notice of either party. In the event of termination, the ENGINEER shall prepare a final invoice and be due compensation as set forth in the Professional Services Agreement for all costs incurred through the date of termination.

Either party may terminate this Agreement for cause upon giving the other party not less than seven (7) calendar days' written notice for the following reasons:

(a) Substantial failure by the other party to comply with or perform in accordance with the terms of the Agreement and through no fault of the terminating party;

(b) Assignment of the Agreement or transfer of the project without the prior written consent of the other party;

(c) Suspension of the project or the ENGINEER'S services by the OWNER for a period of greater than ninety (90) calendar days, consecutive or in the aggregate.

(d) Material changes in the conditions under which this Agreement was entered into, the scope of services or the nature of the project, and the failure of the parties to reach agreement on the compensation and schedule adjustments necessitated by such changes.

Payment of Invoices: Invoices are due and payable within 30 days of receipt unless otherwise agreed to in writing.

Third Party Beneficiaries: Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the OWNER or the ENGINEER. The ENGINEER'S services under this Agreement are being performed solely and exclusively for the OWNER'S benefit, and no other party or entity shall have any claim against the ENGINEER because of this Agreement or the performance or nonperformance of services hereunder. The OWNER and ENGINEER agree to require a similar provision in all contracts with contractors, subcontractors, vendors and other entities involved in this Project to carry out the intent of this provision.

Force Majeure: Each Party shall be excused from the performance of its obligations under this Agreement to the extent that such performance is prevented by force majeure (defined below) and the nonperforming party promptly provides notice of such prevention to the other party. Such excuse shall be continued so long as the condition constituting force majeure continues. The party affected by such force majeure also shall notify the other party of the anticipated duration of such force majeure, any actions being taken to avoid or minimize its effect after such occurrence, and shall take reasonable efforts to remove the condition constituting such force majeure. For purposes of this Agreement, "force majeure" shall include conditions beyond the control of the parties, including an act of God, acts of terrorism, voluntary or involuntary compliance with any regulation, law or order of any government, war, acts of war (whether war be declared or not), labor strike or lock-out, civil commotion, epidemic, failure or default of public utilities or common carriers, destruction of production facilities or materials by fire, earthquake, storm or like catastrophe. The payment of invoices due and owing hereunder shall in no event be delayed by the payer because of a force majeure affecting the payer.

Additional Terms or Modification: All prior understandings and agreements between the parties are merged into this Agreement, and this Agreement may not be modified orally or in any manner other than by an Agreement in writing signed by both parties. In the event that any provisions of this Agreement shall be held to be invalid or unenforceable, the remaining provisions shall be valid and binding on the parties.

Assignment: Neither party to this Agreement shall transfer or assign any rights or duties under or interest in this Agreement without the prior written consent of the other party. Subcontracting normally contemplated by the ENGINEER shall not be considered an assignment for purposes of this Agreement.

Waiver: A party's waiver of, or the failure or delay in enforcing any provision of this Agreement shall not constitute a waiver of the provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

Attorney's Fees: In the event of any action or proceeding brought by either party against the other under this Agreement, the prevailing party shall be entitled to recover from the other all costs and expenses including without limitation the reasonable fees of its attorneys in such action or proceeding, including costs of appeal, if any, in such amount as the Court may adjudge reasonable.

Fiduciary Duty: Nothing in this Agreement is intended to create, nor shall it be construed to create, a fiduciary duty owed to either party to the other party. EEI makes no warranty, express or implied, as to its professional services rendered.

Headings: The headings used in this Agreement are inserted only as a matter of convenience only, and in no way define, limit, enlarge, modify, explain or define the text thereof nor affect the construction or interpretation of this Agreement.

Kennedy Road and Freedom Place Intersection Improvements
United City of Yorkville, IL
Professional Services Agreement - Construction Engineering

Attachment B – Scope of Services

The United City of Yorkville intends to widen and resurface Kennedy Road at Freedom Place.

Our proposed scope of services for **Construction Engineering** will include the following:

3.1 Construction Administration

- Prepare for, Attend and Facilitate the Preconstruction Meeting with the Contractor Including Preparation of Meeting Minutes
- Shop Drawing Review
- Coordinate with City Services (Garbage, Mail, Etc.)
- Review Engineering Plans, Specifications and Prepare Field Book
- Prepare/Verify Pay Estimates and Change Orders
- Gather Invoices and Waivers of Lien
- Provide Weekly Updates to City or as Required Based on Onsite Activities

3.2 Construction Layout and Record Drawings

- Stake Proposed Storm Sewer, Roadway Excavation and Widening
- Perform Post Construction Field Survey for Record Drawings
- Prepare and Review Record Drawings

3.3 Construction Observation and Documentation

- Review Construction Layout
- Take Pre-Construction Videos and Photos of Pre-Existing Conditions
- Provide Resident Engineering Services for Construction
- Monitor Adherence to Specifications
- Monitor Adherence to Construction Schedule and Make Recommendations When Appropriate.
- Monitor Traffic Control on a Regular Basis.
- Coordinate Any Required Testing on Behalf of the City and Review Test Reports
- Provide Daily Quantity Tracking, Documentation and Daily Field Reports
- Perform Punch Walks, Prepare Punch List Letters and Provide Follow Up Inspections and Recommend Acceptance When Appropriate (2 Each)
- Prepare project Closeout Paperwork

The following scope of services will be provided by EEI's Subconsultant:
Rubino Engineering – Material Testing for Quality Assurance

ATTACHMENT C: ESTIMATED LEVEL OF EFFORT AND ASSOCIATED COST
PROFESSIONAL ENGINEERING SERVICES

CLIENT	PROJECT NUMBER	
United City of Yorkville	YO2219-P	
PROJECT TITLE	**DATE**	**PREPARED BY**
Kennedy Road and Freedom Place Intersection Improvements	4/3/24	CJO

TASK NO.	TASK DESCRIPTION	ROLE	PIC	SPM	PM	SPE 1	SPT 2	SPT 1	ADMIN	HOURS	COST
		PERSON									
		RATE	$246	$234	$210	$186	$175	$164	$72		
CONSTRUCTION ENGINEERING											
3.1	Contract Administration		2	4	10				2	18	$ 3,672
3.2	Construction Layout and Record Drawings			2	4	8	16	16		46	$ 8,220
3.3	Observation and Documentation				8	372			2	382	$ 71,016
	Insert Task Subtotal:		**2**	**6**	**22**	**380**	**16**	**16**	**4**	446	$ 82,908
	PROJECT TOTAL:		**2**	**6**	**22**	**380**	**16**	**16**	**4**	**446**	**82,908**

EEI STAFF

PIC	Principal In Charge
SPM	Senior Project Manager
PM	Project Manager
SPE 1	Senior Project Engineer I
SPT T 2	Senior Project Technician II
SPT 1	Senior Project Technician II
ADMIN	Adminstrative Assistant

DIRECT EXPENSES		
Printing/Scanning =	$	-
Rubino (Material Testing) =	$	2,788
Vehicle Charges ($65/day) =	$	2,925
DIRECT EXPENSES =	**$**	**5,713**

LABOR SUMMARY		
EEI Labor Expenses =	$	82,908
TOTAL LABOR EXPENSES	**$**	**82,908**

TOTAL COSTS	**$**	**88,621**

ATTACHMENT D: ESTIMATED SCHEDULE

CLIENT	PROJECT NUMBER	
United City of Yorkville	YO2210-P	
PROJECT TITLE	**DATE**	**PREPARED BY**
Kennedy Road and Freedom Place Intersection Improvements	4/3/24	CJO

TASK NO.	TASK DESCRIPTION	2024							
		APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
CONSTRUCTION ENGINEERING									
3.1	Contract Administration								
3.2	Construction Layout								
3.3	Observation and Documentation								

52 Wheeler Road Sugar Grove, IL 60554 Tel: 630.466.6700 Fax: 630.466.6701 www.eeiweb.com

Engineering Enterprises, Inc.
52 Wheeler Road
Sugar Grove, Illinois 60554
(630) 466-6700
www.eeiweb.com

DATE:	JUNE 2022
PROJECT NO.:	YO2219
BY:	MJT
PATH:	H:\GIS\PUBLIC\ELGIN\2022\
FILE:	YO2219_Kennedy Road & Freedom Place Intersection Improvements

ATTACHMENT E
KENNEDY ROAD & FREEDOM PLACE INTERSECTION IMPROVEMENTS
LOCATION MAP

N

Engineering Enterprises, Inc.

STANDARD SCHEDULE OF CHARGES ~ JANUARY 1, 2024

50 Years

EMPLOYEE DESIGNATION	CLASSIFICATION	HOURLY RATE
Senior Principal	E-4	$246.00
Principal	E-3	$241.00
Senior Project Manager	E-2	$234.00
Project Manager	E-1	$210.00
Senior Project Engineer/Surveyor II	P-6	$200.00
Senior Project Engineer/Surveyor I	P-5	$186.00
Project Engineer/Surveyor	P-4	$168.00
Senior Engineer/Surveyor	P-3	$155.00
Engineer/Surveyor	P-2	$140.00
Associate Engineer/Surveyor	P-1	$127.00
Senior Project Technician II	T-6	$175.00
Senior Project Technician I	T-5	$164.00
Project Technician	T-4	$153.00
Senior Technician	T-3	$140.00
Technician	T-2	$127.00
Associate Technician	T-1	$111.00
GIS Technician II	G-2	$125.00
GIS Technician I	G-1	$114.00
Engineering/Land Surveying Intern	I-1	$ 82.00
Executive Administrative Assistant	A-4	$ 77.00
Administrative Assistant	A-3	$ 72.00

VEHICLES. REPROGRAPHICS, DIRECT COSTS, DRONE AND EXPERT TESTIMONY

Vehicle for Construction Observation		$ 20.00
In-House Scanning and Reproduction	$0.25/Sq. Ft. (Black & White) $1.00/Sq. Ft. (Color)	
Reimbursable Expenses (Direct Costs)	Cost	
Services by Others (Direct Costs)	Cost + 10%	
Unmanned Aircraft System / Unmanned Aerial Vehicle / Drone		$ 225.00
Expert Testimony		$ 275.00

Reviewed By:	
Legal	☐
Finance	■
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Consent Agenda #6

Tracking Number

ADM 2024-16

Agenda Item Summary Memo

Title: Treasurer's Report for March 2024

Meeting and Date: City Council – April 23, 2024

Synopsis:

Council Action Previously Taken:

Date of Action: ADM – 4/17/24 Action Taken: Moved forward to CC consent agenda.

Item Number: ADM 2024-16

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Rob Fredrickson (Name) Finance (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

UNITED CITY OF YORKVILLE

TREASURER'S REPORT - for the month ended March 31, 2024

Cash Basis

	Beginning Fund Balance	March Revenues	YTD Revenues	Revenue Budget	% of Budget	March Expenses	YTD Expenses	Expense Budget	% of Budget	Projected Ending Fund Balance
General Fund										
01 - General	$ 10,996,607	$ 1,559,804	$ 22,573,500	$ 23,017,965	98%	$ 1,821,593	$ 19,487,695	$ 23,017,965	85%	$ 14,082,412
Special Revenue Funds										
15 - Motor Fuel Tax	319,840	77,720	1,024,614	999,400	103%	-	1,099,892	1,240,000	89%	244,561
79 - Parks and Recreation	261,118	278,509	3,320,294	3,370,030	99%	300,010	2,906,478	3,409,293	85%	674,935
87 - Countryside TIF	(1,175,044)	-	226,795	228,000	99%	1,739	226,118	227,436	99%	(1,174,367)
88 - Downtown TIF	(1,614,928)	-	121,458	122,000	100%	2,677	67,462	81,857	82%	(1,560,932)
89 - Downtown TIF II	87,577	-	145,465	146,000	100%	-	2,549	11,000	23%	230,492
11 - Fox Hill SSA	37,034	-	24,017	24,000	100%	-	9,217	60,640	15%	51,834
12 - Sunflower SSA	11,786	-	21,015	21,000	100%	-	14,715	18,640	79%	18,086
Capital Project Funds										
25 - Vehicle & Equipment	1,432,503	148,852	1,768,217	2,051,830	86%	71,548	1,639,718	3,099,341	53%	1,561,001
23 - City-Wide Capital	4,785,053	66,628	1,626,687	3,573,795	46%	77,368	2,157,036	4,896,994	44%	4,254,705
24 - Buildings & Grounds	1,865,907	44,026	1,378,301	33,174,623	4%	74,795	1,685,176	4,617,909	36%	1,559,032
Enterprise Funds										
* 51 - Water	3,955,973	166,799	16,734,033	16,264,301	103%	2,959,092	12,651,451	15,421,998	82%	8,038,554
* 52 - Sewer	2,517,832	126,451	3,154,999	3,036,752	104%	74,071	2,650,204	2,845,033	93%	3,022,627
Library Funds										
82 - Library Operations	793,959	4,308	1,885,425	1,866,778	101%	90,126	1,707,550	1,909,000	89%	971,834
84 - Library Capital	251,559	14,029	158,808	50,150	317%	3,835	64,160	114,500	56%	346,207
Total Funds	**$ 24,526,776**	**$ 2,487,126**	**$ 54,163,628**	**$ 87,946,624**	**62%**	**$ 5,476,853**	**$ 46,369,423**	**$ 60,971,606**	**76%**	**$ 32,320,981**

* Fund Balance Equivalency

As Treasurer of the United City of Yorkville, I hereby attest, to the best of my knowledge, that the information contained in this Treasurer's Report is accurate as of the date detailed herein. Further information is available in the Finance Department.

Rob Fredrickson, Finance Director/Treasurer

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	■
Parks and Recreation	☐

Agenda Item Number

Consent Agenda #7

Tracking Number

ADM 2024-21

Agenda Item Summary Memo

Title: YBSD Intergovernmental Agreement Amendment

Meeting and Date: City Council – April 23, 2024

Synopsis:

Council Action Previously Taken:

Date of Action: ADM – 4/17/24 Action Taken: Moved forward to CC consent agenda.

Item Number: ADM 2024-21

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Rob Fredrickson (Name) Finance (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: Administration Committee
From: Rob Fredrickson, Finance Director
Date: April 10, 2024
Subject: YBSD Intergovernmental Agreement Amendment

Summary

Approval of an ordinance approving the third amendment to the amended intergovernmental agreement between the City and the Yorkville-Bristol Sanitary District (YBSD) regarding billing services performed by the City on behalf of the District.

Background

For over thirty years the City has performed utility billing and collection services for the Yorkville-Bristol Sanitary District. As compensation for these services, the District pays the City a monthly service fee equal to 5% of the funds collected on their behalf. The City currently bills and collects funds on behalf of the YBSD for all types of customer accounts – residential, commercial, industrial and governmental. However, recently the YBSD has notified staff that it intends to begin billing commercial, industrial and governmental customers directly effective May 1, 2024. Residential accounts (which encompass ~90% of all YBSD accounts) would continue to be billed and collected by the City on behalf of the YBSD. Even though the City would no longer facilitate the billing of non-residential accounts, the YBSD would still need meter read information from the City. In exchange for the meter read information, staff recommends charging the YBSD a fee of $0.50 per read, which mirrors the current agreement for meter reading services between the City and the Fox Metro Water Reclamation District.

The attached intergovernmental agreement incorporates all the revisions noted in the preceding paragraph. Moreover, it extends the agreement between the City and the YBSD for a period of twenty (20) years through April 30, 2044, but includes a 90-day out clause that can be exercised upon written notice by either party, at any time. The revenue reduction from these billing changes is projected to be around $15,000 and has been incorporated into the UB Collection Fee (01-000-44-00-4405) line item in the Adopted FY 2025 Budget (FY 24 Proj - ~$200,000 v. FY 25 Adopted - $185,000).

Recommendation

Staff recommends the approval of the third amendment to the amended intergovernmental agreement between the City and the YBSD, and both documents have been attached for your review and consideration. In addition, a copy of the amended intergovernmental agreement has been sent to the YBSD for their review and is expected to be adopted at their upcoming board meeting.

Ordinance No. 2024-_____

AN ORDINANCE OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS, APPROVING THE THIRD AMENDMENT TO THE AMENDED INTERGOVERNMENTAL COOPERATIVE AGREEMENT BETWEEN THE UNITED CITY OF YORKVILLE AND THE YORKVILLE BRISTOL SANITARY DISTRICT REGARDING BILLING FOR DISTRICT SERVICES

WHEREAS, the United City of Yorkville, Kendall County, Illinois (the "*City*") is a duly organized and validly existing non home-rule municipality created in accordance with the Constitution of the State of Illinois of 1970 and the laws of the State; and

WHEREAS, the City previously entered into an *Amended Intergovernmental Cooperative Agreement* (the "Agreement") dated April 9, 2013 with Yorkville-Bristol Sanitary District (the "District"); and

WHEREAS, the City and the District desire to amend the Agreement for the billing and collection services provided by the City.

NOW, THEREFORE, BE IT ORDAINED, by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1. That the *Third Amendment to the Amended Intergovernmental Cooperative Agreement Between the United City of Yorkville and the Yorkville-Bristol Sanitary District Regarding Billing for District Services*, attached hereto and made a part hereof by reference, is hereby approved.

Section 2. Each section, clause, and provision of this Ordinance shall be considered as separable, and the invalidity of one or more shall not have any effect upon the validity of other sections, clauses, or provisions of this Ordinance.

Section 3. This ordinance shall be in full force and effect upon its passage, approval, and publication as provided by law.

[Remainder of Page Intentionally Left Blank. Roll Call Vote to Follow.]

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

CITY CLERK

KEN KOCH	_____	DAN TRANSIER	_____
ARDEN JOE PLOCHER	_____	CRAIG SOLING	_____
CHRIS FUNKHOUSER	_____	MATT MAREK	_____
SEAVER TARULIS	_____	RUSTY CORNEILS	_____

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

MAYOR

Attest:

_____

CITY CLERK

THIRD AMENDMENT TO THE AMENDED INTERGOVERNMENTAL COOPERATIVE AGREEMENT BETWEEN THE UNITED CITY OF YORKVILLE AND THE YORKVILLE-BRISTOL SANITARY DISTRICT REGARDING BILLING FOR DISTRICT SERVICES

THIS THIRD AMENDMENT is made and entered into this ___ day of _____ 2024, by and between the United City of Yorkville, an Illinois municipal corporation (hereinafter "City"), and the Yorkville-Bristol Sanitary District (hereinafter "District").

WHEREAS, the District and the City are units of local government and public agencies within the meaning of the Illinois Intergovernmental Cooperation Act (5 ILCS 220/1 *et seq.*) (the "Act") and are authorized by the Act and by Article VII, Section 10 of the 1970 Constitution of the State of Illinois to enter into intergovernmental agreements of cooperation; and

WHEREAS, the District and the City entered into an AMENDED INTERGOVERNMENTAL COOPERATIVE AGREEMENT (the "Amended Agreement") dated April 9, 2013, further amended by Ordinance 2015-11 dated March 10, 2015, regarding the City providing billing and collection services for the District's services to residents in the District; and

WHEREAS, the City and the District desire to further amend the Agreement for the billing and collection services provided by the City.

NOW, THEREFORE, in consideration of the mutual covenants contained herein the City and District agree as follows:

Section 1. The above recitals are incorporated herein by reference as though fully set forth.

Section 2. That paragraph 3 of the Agreement shall be amended to read as follows:

> "3. The City agrees to provide billing and collection services for residential properties located within the Sanitary District. These services shall be a part of the City's bi-monthly utility billing program. The City shall forward the funds received from the billing and collection of the Sanitary District's fees and charges not less than 45 days after its receipt by the City. The City shall be entitled to a collection services fee of five percent (5.0%) of the Sanitary District fees and charges collected for these residential properties.

The City shall invoice the Sanitary District on a monthly basis for the service fee. In the event that an invoice is over sixty (60) days past due, the City shall deduct the amount due from any Sanitary District fees and charges collected but not yet forwarded to the Sanitary District.

The Sanitary District shall be responsible for billing and collection of Sanitary District fees imposed upon commercial, industrial and governmental users located within the District. The City shall provide meter reading services to the District at these properties. The District agrees to pay to the City a fee of fifty cents ($0.50) for each meter read by the City each time a meter is read. This meter reading rate shall be reviewed annually and amended if it is determined that said rate no longer reasonably reflects the expense incurred by the City for such service.

This Amended Agreement shall terminate on April 30, 2044, or it may be terminated by either party upon 90 days written notice to the other party."

Section 3. All other terms contained in the Amended Agreement not amended by this Third Amendment shall remain in full force and effect.

Section 4. Any term or condition of this Amended Agreement may be amended, deleted or altered only by written agreement approved by and duly executed by the City and the District.

Section 5. This Second Amendment may be executed in several counterparts that shall be an original and shall constitute but one and the same Agreement.

[Remainder of Page Intentionally Left Blank. Signature Page to Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement effective on the day and date first above written.

United City of Yorkville, an Illinois municipal corporation

By: _____
Mayor

Attest:

_____ Date: _____
City Clerk

Yorkville-Bristol Sanitary District

By: _____
President

Attest:

_____ Date: _____
Secretary

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #1

Tracking Number

CC 2024-23

Agenda Item Summary Memo

Title: Poppy Days Proclamation

Meeting and Date: City Council – April 23, 2024

Synopsis:

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: None

Council Action Requested:

Submitted by: Mayor John Purcell

Name Department

Agenda Item Notes:

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UNITED CITY OF YORKVILLE

Proclamation

Whereas, America is the land of freedom, preserved and protected willingly and freely by citizen soldiers;

Whereas, millions who have answered the call to arms have died on the field of battle;

Whereas, a nation of peace must be reminded of the price of war and the debt owed to those who have died in war;

Whereas, the red poppy has been designated as a symbol of sacrifice of lives in all wars;

Whereas, the America Legion Post 489 and America Legion Auxiliary Unit 489 have pledged to remind America annually of this debt through the distribution of the memorial flower, so that May 9 - 15, 2024 may serve as “Poppy Awareness Days”.

Therefore, I, John Purcell, Mayor of the United City of Yorkville, do hereby proclaim “Poppy Awareness Days” in the United City of Yorkville, and request all citizens to observe these days by wearing a Poppy and making contributions for this worthy cause.

Dated this 23rd day of April, 2024, A.D.

_____

John Purcell, Mayor

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #2

Tracking Number

CC 2024-24

Agenda Item Summary Memo

Title: Motorcycle Awareness Month Proclamation

Meeting and Date: City Council – April 23, 2024

Synopsis:

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: None

Council Action Requested:

Submitted by: Mayor John Purcell

Name Department

Agenda Item Notes:

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UNITED CITY OF YORKVILLE

Motorcycle Awareness Month Proclamation

WHEREAS, safety is the highest priority for the highways and streets of our City and State; and

WHEREAS, the great State of Illinois is proud to be a national leader in motorcycle safety, education and awareness; and

WHEREAS, motorcycles are a common and economical means of transportation that reduces fuel consumption and road wear, and contributes in a significant way to the relief of traffic and parking congestion; and

WHEREAS, it is especially meaningful that the citizens of our City and State be aware of motorcycles on the roadways and recognize the importance of motorcycle safety; and

WHEREAS, the members of A.B.A.T.E. of Illinois, Inc. (A Brotherhood Aimed Toward Education), continually promote motorcycle safety, education and awareness in high school drivers' education programs and to the general public in our City and State, presenting motorcycle awareness programs to over 120,000 participants in Illinois over the past nine years; and

WHEREAS, all motorcyclists should join A.B.A.T.E. of Illinois, Inc. in actively promoting the safe operation of motorcycles as well as promoting motorcycle safety, education, awareness and respect of the citizens of our City and State; and

WHEREAS, the motorcyclists of Illinois have contributed extensive volunteerism and money to national and community charitable organizations; and

WHEREAS, during the month of May, all roadway users should unite in the safe sharing of the roadways within the United City of Yorkville and throughout the State of Illinois.

NOW, THEREFORE, I, John Purcell, Mayor of the United City of Yorkville, in the great state of Illinois, in recognition of 37 years of A.B.A.T.E. of Illinois, Inc., and over 352,318 registered motorcyclists statewide, and in recognition of the continued role Illinois serves as a leader in motorcycle safety, education and awareness, do hereby proclaim the Month of May 2024 as Motorcycle Awareness Month in the United City of Yorkville, and urge all motorists to join in an effort to improve safety and awareness on our roadways.

Dated this 23rd day of April, 2024, A.D.

_____

John Purcell, Mayor

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #3

Tracking Number

CC 2024-25

Agenda Item Summary Memo

Title: Appointment of Freedom of Information Officer for Police Department – Crystal Bieritz

Meeting and Date: City Council – April 23, 2024

Synopsis: Appointment of the Police Department's FOIA Officer, Crystal Bieritz

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: James Jensen (Name) Police (Department)

Agenda Item Notes:

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Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	■
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #4

Tracking Number

CC 2024-26

Agenda Item Summary Memo

Title: Axon Taser 10 Lease Purchase

Meeting and Date: City Council – April 23, 2024

Synopsis: Consideration for approval of a five (5) year lease with Axon Enterprise, Inc. for the lease purchase of eight (8) less lethal Taser 10 conducted electrical weapons.

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Supermajority (6 out of 9)

Council Action Requested: Approval

Submitted by: James Jensen (Name) Police (Department)

Agenda Item Notes:

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Memorandum

To: City Council
From: James Jensen, Police Chief
CC: Bart Olson, City Administrator
Date: April 23, 2024
Subject: Axon Taser 10 Lease Purchase

Summary

Consideration for approval of a five (5) year lease with Axon Enterprise, Inc. for the lease purchase of eight (8) less lethal Taser 10 conducted electrical weapons.

Background

Yorkville Police Officers who are exposed to combative, resisting or violent persons during the course of their duties shall take the necessary and reasonable actions to protect/defend themselves and other persons in accordance with Illinois Law and Yorkville Police Department policy. Any Officer's decision to use any level of force must be justified under the parameters established by Graham v Connor, 490 U.S. 386 (1989).

Currently, the Yorkville Police Department deploys three less lethal weapon options, each utilized for a specific purpose. One of the options and perhaps the most effective is the Taser X2 less lethal conducted electrical weapon. Our current batch of eight (8) Taser X2's were purchased through a five (5) year lease agreement with Axon Enterprises Inc. on April 12, 2019. This lease agreement is set to expire on April 12, 2024. While these X2 Tasers are still active and in good working order we are being informed by Taser that these less lethal weapons are outside of there warranty coverage, will no longer be repaired and/or serviced by Taser and are past their 5-year useful life recommendation (Exhibit #1 & #2).

Current Yorkville Police Department policy (Exhibit #3) mandates that officers on patrol carry two less lethal weapon options. One of the less lethal options must be a Taser, the second option is an ASP (expandable baton, impact weapon) or Oleoresin Capsicum (OC). Both are effective weapons if used in the right circumstances, however, both offer disadvantages which could be dangerous to the Officer. Taser, as a less lethal option, is the most effective and safest tool in the field. Please refer to the Taser 10 Product Card (Exhibit #4) for details. With the lease purchase of the newest Taser 10 technology we would see several benefits to include:

- 45-Foot Maximum Range: Taser 10 nearly doubles the range of our current Taser models creating more time and space to de-escalate and resolve conflict.
- 10 Single Probe Cartridges: 10 single probe cartridges provides officers with up to 9 opportunities to achieve an effective connection as compared to our current model with 2 opportunities.
- Individually Targeted Probes: Intuitive single probe deployment allows users to choose their preferred target area with precision and accuracy regardless of distance to the subject. Our current Taser model fires two probes at one time, depending on the distance the spread of each probe could be limited and inaccurate.

- Audible and Visual Warning Alert: A bright pulsing light and loud alert sound emit whenever the weapon's warning alert is initiated, allowing the user the opportunity to de-escalate without deploying cartridge probes.

We propose to enter into a lease agreement with Axon Enterprises, Inc. (Exhibit #5) for the lease/purchase of eight (8) Taser 10 less lethal weapons and associated equipment for a five-year total price of $37,702.86. The first year payment of $30,000 was recently approved in our FY25 budget. Attorney Orr has reviewed and approved the Lease Agreement. The five-year breakdown of cost is as follows:

Fiscal Year	**Annual Cost**
Year 1 (FY25)	$30,000
Year 2 (FY26)	$1,925.72
Year 3 (FY27)	$1,925.72
Year 4 (FY28)	$1,925.72
Year 5 (FY29)	$1,925.72
Total Program Cost	**$37,702.86**

Normally, we would present this information to the Public Safety Committee for review and approval prior to City Council. While general discussion did occur at the November 2, 2023 Public Safety meeting (Exhibit #6), approval was not requested or provided. Due to the timeliness in the ordering process and the extended lead time to get the product (4 months) we are asking direct City Council approval thereby bypassing Public Safety. It should be noted that I did speak with each Public Safety Committee member prior to this meeting, all were supportive of direct City Council approval.

Recommendation

Staff recommends entering into a purchasing/lease agreement with Axon Enterprise, Inc. for the lease of 8 Taser 10's for a total price of $37,702.86. The FY25 budget, which was just approved, included $30,000 for year 1 payment. The remaining amount ($7,702.86) will be spread out over the remaining four (4) years and taken from the Police Department operating budget. Because this is a sole source purchase a super majority vote is required.

Attachments

Exhibit #1: Axon Five (5) Year Recommended Useful Life for Taser Energy Weapons
Exhibit #2: Axon Five (5) Year Useful Life – Legal Letter
Exhibit #3: Department Authorized Less Lethal Policy – 305
Exhibit #4: Taser 10 Product Card
Exhibit #5: Axon Enterprise, Inc. Lease Agreement

Resolution No. 2024-_____

RESOLUTION OF THE UNITED CITY OF YORKVILLE, ILLINOIS, AUTHORIZING THE LEASE/PURCHASE OF EIGHT TASERS FROM AXON ENTERPRISES, INC.

WHEREAS, the United City of Yorkville (the *"City"*) is a duly organized and validly existing non-home rule municipality created in accordance with the Constitution of the State of Illinois of 1970 and the laws of the State; and

WHEREAS, in 2019, the Yorkville Police Department (*"YPD"*) approved a lease/purchase order of eight (8) X2 Tasers which have a useful life of five years and can no longer be repaired or serviced, and the YPD has requested that the Tasers be replaced with "T10 Basic" Tasers from Axon Enterprises, Inc. (*"Axon"*) pursuant to the same terms (other than cost) as agreed per the purchase order with Axon in 2019; and

WHEREAS, the T10 Basic Tasers manufactured by Axon are the newest technology and are the most compatible with the City's cloud-based evidence storage system and therefore the YPD has recommended the new T10 Basic Tasers be purchased from Axon with all appurtenances and training as itemized in the Contract; and

WHEREAS, in order to permit the purchase of Axon's Tasers, the YPD further requests the Mayor and City Council to waive public biddings as permitted by the Illinois Municipal Code (65 ILCS 5/8-9-1) and Section 1-7-3 E of the Yorkville City Code upon a 2/3rds vote of the members City Council currently holding office.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois:

Section 1. The foregoing recitals are hereby incorporated in this Resolution as the findings of the Corporate Authorities.

Section 2. The Chief of the YPD is hereby authorized to acquire eight T10 Basic Tasers from Axon Enterprises, Inc., in accordance with the terms as set forth in Exhibit A attached hereto.

Section 3. The bidding requirements for purchases over $25,000 are hereby waived as permitted by the Illinois Municipal Code and the Yorkville City Code upon the affirmation of 2/3rds of the City Council holding office.

Section 4. This Resolution shall be in full force and effect upon its passage and approval as provided by law.

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

CITY CLERK

KEN KOCH	_____	DAN TRANSIER	_____
ARDEN JOE PLOCHER	_____	CRAIG SOLING	_____
CHRIS FUNKHOUSER	_____	MATT MAREK	_____
SEAVER TARULIS	_____	RUSTY CORNEILS	_____

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

MAYOR

Attest:

_____

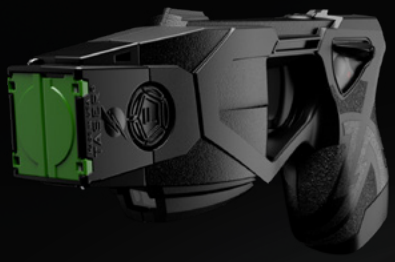
CITY CLERK

Exhibit #1

AXON

5-YEAR USEFUL LIFE RECOMMENDATION

TASER X2
Released 2011



TASER X26P
Released 2013

TASER 7
Released 2018

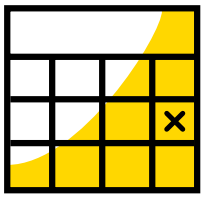
WHY WE HAVE IT

AXON RECOMMENDS A 5-YEAR USEFUL LIFE FOR ALL TASER ENERGY WEAPONS

Electronic components are directly and adversely affected by the use and usage environments that energy weapons are exposed to.

Energy weapons that are past their 5-year useful life may not be effective in the field when needed in potentially dangerous situations.

WHAT IT MEANS FOR YOU



This recommendation is NOT an expiration date, but guidance only.

5-year useful life recommendations are common in the industry for other products like body armor.

HOW YOU CAN STAY CURRENT

We offer several plans to upgrade to new weapons and follow the 5-year guidelines.

Contact your TASER sales representative or the customer service team if you have any questions.

AXON, Axon, X26P, and X2, TASER, and TASER 7 are trademarks of Axon Enterprise, Inc., some of which are registered in the US and other countries. For more information, visit www.axon.com/legal. All rights reserved. © 2023 Axon Enterprise, Inc.

Exhibit #2

17800 N 85TH STREET
SCOTTSDALE, ARIZONA 85255

AXON.COM

Five (5) Year Recommended Useful Life for TASER® Energy Weapons

Axon Enterprise, Inc. recommends a 5-year useful life for all TASER energy weapons. As with all electronic devices, there is a multitude of factors that cause degradation of energy weapons over time. Specifically, there are several electronic components used in the assembly of a TASER energy weapon that are particularly affected by their serviceable life. While most of these components are rated to live much longer than our specified service life, they are directly and adversely affected by the use and usage environments that energy weapons are exposed to. The list below details these conditions along with a technical explanation of how they adversely impact the useful life:

- Thermal Shock: Our energy weapons are exposed to extreme temperature variation. On a daily basis, an officer may be getting in and out of a heated or air conditioned vehicle and operating in the exact opposite environment. These regular, sudden changes of temperature stress the mechanical and electronic components inside the weapon, including the capacitors, microprocessors, battery contacts and high voltage coils.
- Electromigration: The movement of ions in an electrical circuit physically builds up between opposing polarities at the microscopic level. This build up may impact the operation of integrated circuits and memory chips, and eventually impact connections on the printed circuit board itself.
- Electrical Overstress: There are some components in a TASER energy weapon - such as the high voltage transformers and capacitors - that operate in or at the upper end of its normal operating range, which can shorten the service life of those components.
- Humidity: Humidity (water in the atmosphere) can be absorbed by electronic components, such as the microprocessors and battery contacts, and have an adverse effect on their performance.
- Galvanic Corrosion: Electronic components - particularly battery contacts, electrical connectors or other metallic terminations - can be affected by water and particulates in the air. This causes a chemical reaction that can build up over time and lead to component failure.

A picture of the internal components of the TASER X26P can be seen below in Figure 1, which depicts several of the components that experience wear over time.

March 22, 2021

17800 N 85TH STREET
SCOTTSDALE, ARIZONA 85255

AXON.COM

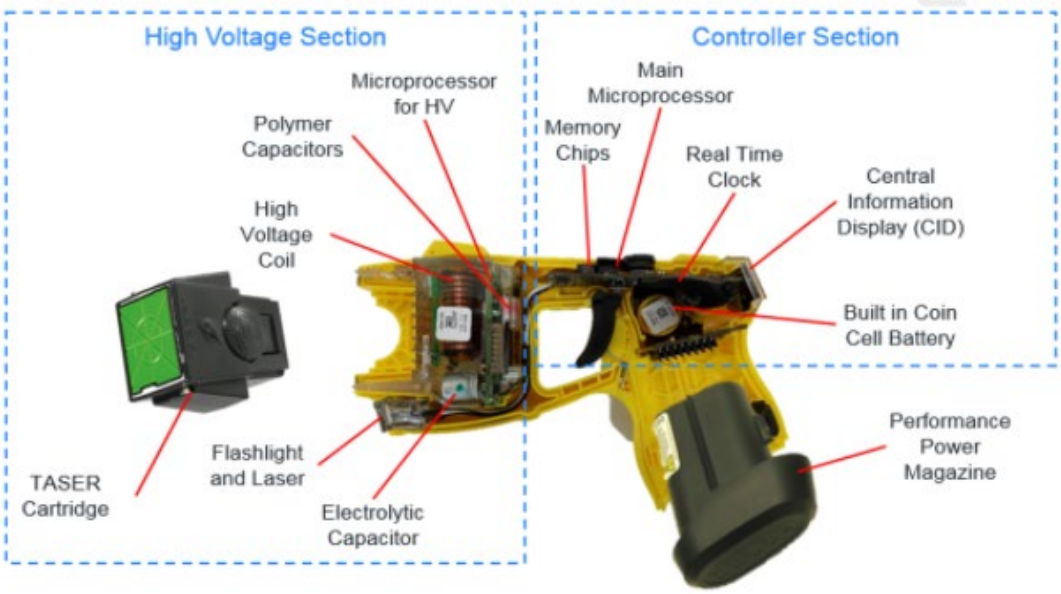


Figure 1: Cutaway View of TASER X26P with Labeled Internal Components

The main concern with using energy weapons that are past their 5-year useful life is the potential that they will not be effective in the field when needed in potentially dangerous situations. This may lead to injury to the officer and/or suspect or an escalation of use of force which may, in turn, lead to worker's compensation claims and/or litigation against the agency. Axon, therefore, strongly recommends that energy weapons be removed from the field after 5 years of use. Additionally, Axon will not service energy weapons that are past their 5-year useful life and will not provide its product liability insurance certificate.

March 22, 2021

Exhibit #3

YORKVILLE POLICE DEPARTMENT
305 – Department Authorized Less-Lethal

SUBJECT: Department Authorized Less-Lethal
EFFECTIVE DATE: October 08, 2019
DISTRIBUTION: **All Personnel**

PURPOSE

The purpose of this Policy is to establish the procedures for use of less-lethal weapons authorized for use by the department. Members of Special Response Teams may use weapons other than authorized by this Policy only during the performance of their Special Response Team duties and only as authorized by the Special Response Team and in accordance with the policies and procedures of that team.

POLICY

It is the policy of the Yorkville Police Department to use only that level of response to resistance/aggression that reasonably appears necessary to control or otherwise subdue violent or potentially violent individuals.

DEFINITIONS

A. *Less-Lethal Weapons*: A weapon, which by its design is not intended to cause death or great bodily harm.

B. *Conducted Electrical Weapon (CEW):* Weapons designed to disrupt a subject's central nervous system by means of deploying battery powered electrical energy sufficient to cause uncontrolled muscle contractions and override an individual's voluntary motor responses.

C. *Weapon of Necessity:* An item an officer uses as a weapon that is not issued or approved as a weapon by the department. Weapons of necessity can be used in extreme, rapidly evolving circumstances where there is an immediate need for the officer to defend himself/herself or another to prevent injury or death.

D. *TASER X2:* The TASER® X2™ CEW is a 2-shot weapon manufactured by TASER International, Inc. The X2 CEW uses 2 replaceable Smart™ cartridges containing compressed nitrogen to deploy two small probes that are attached to the X2 CEW by insulated conductive wires. The X2 CEW deploys Smart cartridges one at a time. It is possible to apply energy beyond the initial burst to a deployed cartridge without deploying the remaining cartridges. It also is possible to apply a Warning Arc display or drive-stun without deploying any of the cartridges loaded in the CEW.

E. *Cartridge:* A replaceable vessel that generally contains compressed gas, probes, connecting wires and confetti tags.

F. *Confetti Tags/AFID:* (Anti-Felon Identification Tracking System) Small identifying cards expelled from the TASER cartridge when probes are discharged. Each confetti tag contains a serial number unique to the specific cartridge used.

G. D*rive Stun:* A use of the TASER wherein direct contact of the TASER is made with the skin of a person. A drive stun is effective as pain compliance technique only.

H. *Conducted Electrical Weapon (CEW)*: A weapon designed primarily to discharge electrical charges into a subject that will cause involuntary muscle contractions and override the subject's voluntary motor responses.

I. *Laser Painting:* The TASER X2 is equipped with top and bottom lasers that are aligned to the approximate trajectories of the top and bottom probes. The laser is activated and pointed in the direction of the subject in an effort to obtain voluntary compliance.

J. *Probe Deployment:* Occurs when the TASER is fired. Compressed nitrogen gas propels two darts on wires, sending an electronic signal via the wires which causes motor skill disruption.

K. *Securing Under Power:* A technique used to secure a subject during the activation cycle, as instructed through training.

L. *Spark Demonstration/ARC Display:* A demonstration of the TASER's capability to conduct electricity in an effort to obtain voluntary compliance.

M. *Spark Test:* An approximate one second test that is conducted with the cartridges removed, of the TASER's ability to conduct electricity, to verify that the TASER is functioning properly.

O. *Kinetic Impact Projectile:* A projectile that does not contain an explosive charge and is designed to transfer the kinetic energy of the projectile onto the target, greatly minimizing the chance of penetrating human skin. The forced delivered by a kinetic energy projectile is similar to that delivered by a baton strike.

TASER Applications: DEFINED

ARC Display/Spark Demonstration: A non-contact demonstration of the TASER ability to discharge electricity. Pressing and holding the ARC switch displays a Warning Arc discharge across the front of the X2. The purpose of the display is to convince the subject to comply with a lawful order and avoid the TASER being deployed in the Drive Stun or Probe mode.

Drive Stun: Contact is made by pressing the front of the TASER into the body of a subject resisting lawful order and pressing the ARC switch on the TASER. The Drive Stun causes significant localized pain in the area touched by the TASER but does not have a significant effect on the central nervous system. The Drive Stun is primarily a pain compliance option. It does not incapacitate a subject but may assist in taking a subject into custody.

Probe: The TASER is most effective when the cartridge is fired, and the probes make direct contact with the subject. Proper application will result in temporary immobilization of the subject and provide the officer a "window of opportunity" in which to take the subject safely into custody. Optimum range for

probe deployment is 7 feet to 15 feet with a 35-foot maximum distance depending on the cartridge. Deploying a cartridge up to its maximum allowable distance, is not prohibited but, is discouraged, as the probe spread increases at greater distances.

INDEX

I. Less-Lethal Weapons
II. Conducted Electrical Weapon (CEW) (Taser)
III. Oleoresin Capsicum (OC)
IV. Impact Weapons
V. Kinetic Impact Projectile Guidelines
VI. Weapons of Necessity
VII. Duty to Intervene
VIII. Duty to Render Medical Aid
IX. Supervisor Response
X. Removal of Unsafe Weapons
XI. Approved Less-Lethal Weapons
XII. Attachments
XIII. Compliance
XIV. Effective Date

I. LESS-LETHAL WEAPONS

1. Members who are exposed to combative, resisting, or violent persons during the course of their duties shall take the necessary and reasonable action to protect/defend themselves and other persons in accordance with Illinois Law and Yorkville Police Department Policy. Any officer's decision to use any level of force must be justifiable under the parameters established by Graham v Connor, 490 U.S. 386 (1989).
2. Only weapons and ammunition authorized by the Department shall be used by personnel in the performance of their responsibilities. Department authorized less-lethal weapons shall include those outlined in Section VII - Approved Less-Lethal Weapons:
    1. Conducted Electrical Weapon (CEW);
    2. Oleoresin Capsicum Spray (OC); and
    3. Impact Weapons
        1. "ASP" Expandable Baton
        2. Weapon of Necessity, as defined by this Policy.
        3. Kinetic Impact Projectile (Less Lethal Shotgun)
3. All personnel authorized to carry less-lethal weapons shall be issued copies of and receive instruction on this Policy and Policy 303 - Response to Resistance, before being authorized to carry any less-lethal weapon. Such instruction will be documented in the officer's training proficiency file.
4. All uniformed personnel will carry 1) a Taser and 2) an additional less-lethal weapon of their choice, each being from a separate category as outlined in Section VII - Approved Less-Lethal Weapons, unless authorized for less, or unless otherwise approved by the Chief of Police, or his/her designee.
5. Less-Lethal weapons will not be carried by Department personnel until successful completion of a training course, to include demonstration of proficiency.
6. The Chief of Police may authorize the use of less-lethal weapons by a qualified Community Service Officer.
7. All personnel who carry and use any authorized less-lethal weapons, other than an CEW and Kinetic Energy Weapon, are required to demonstrate proficiency through attendance at in-service refresher training conducted by a certified instructor at least

biennially. This training shall include training on authorized weaponless control techniques. All personnel who are authorized to carry and use CEWs are required to demonstrate proficiency through attending documented refresher training, conducted by a certified instructor, at least annually.

8. If an employee is unable to successfully demonstrate proficiency with any less-lethal weapon, the instructor conducting the training shall advise the Chief of Police, or his/her designee, through the chain of command of the deficiency. The Chief of Police, or his/her designee shall determine the appropriate course of action. Such action may include, but shall not be limited to:
    1. Remedial training;
    2. Reassignment to a position not requiring use of the less-lethal weapon; and/or
    3. Removing the Employee's authorization to carry the less-lethal weapon.
9. All employees carrying and/or using less-lethal weapon(s) shall follow the guidelines in Policy 303 - Response to Resistance regarding appropriate medical aid and reporting requirements.
10. The department training coordinator shall ensure that all Conducted Electrical Weapon (CEW) training includes de-escalation techniques.

II. CONDUCTED ELECTRICAL WEAPON (CEW)(TASER)

1. Authorized Users

1. The Yorkville Police Department shall own and maintain all Department authorized TASERs.

2. The TASER International Brand, Model X2, black in color, is the only CEW authorized for use by Yorkville Police Department Officers in the performance of their duties. Officers assigned to multi-jurisdictional task forces may use other CEWs authorized by the unit or team provided they have successfully completed training in their use.

3. Only those who have satisfactorily completed the agency's approved training course shall be authorized to carry a TASER. Members will be required to demonstrate their understanding and proficiency in the use of the TASER. If a member is unable to show proficiency with the TASER, he/she will be afforded the opportunity to repeat the training or have specialized training designed to assist him/her in establishing the necessary skills needed to carry the weapon. Agency members will complete an annual retraining by a certified trainer on the use of a TASER and demonstrate proficiency in the deployment of the TASER.

4. Officers may carry the Department owned TASER and accompanying equipment only with approval from the Training Coordinator or designee.

5. The only cartridges authorized to be utilized with the TASER will be the original manufacturer cartridges provided by the Department.

6. All repairs to a TASER shall be completed by an authorized vendor.

2. Weapon Readiness

1. When the TASER is carried as part of a uniformed officer's equipment or plain clothes (e.g. detectives), the TASER shall be carried on the side opposite from the duty weapon utilizing a departmental approved holster.

2. Only departmental authorized holsters (X2 Right-Handed or Left-Handed) may be used. The holster is to be worn on the duty belt opposite the duty weapon, however, subject to the inspection and approval of a certified TASER instructor it may be attached to the outer vest cover utilizing an optional Modular Lightweight Load-Carrying Equipment (MOLLE). The department does not provide the MOLLE system and the officer would be responsible for the purchase of a MOLLE if so desired.

3. Each TASER that is placed into service on a shift will include a TASER CAM HD Recorder and rechargeable battery. It will be the responsibility of the authorized trained personnel to ensure that the battery is fully charged, and the camera is operational prior to deploying the intermediate weapon for duty.

4. The officer shall carry the TASER:
    i) With the safety engaged,
    ii) With both cartridges installed on the front of the TASER, and
    iii) In a holster provided by the Department.

5. TASERs will be signed out by the officer who will log their name, badge number, TASER number and condition. The TASER will be turned in at the end of the officer's tour of duty and logged in. At the beginning of every shift, officers shall inspect their assigned TASER to ensure proper functioning. The daily inspection shall include:
    i) A spark test,
    ii) A visual inspection of the TASER/cartridges,
    iii) A visual inspection of the battery capacity reading.
    iv) The officer will log this inspection on the TASER Sign-out Sheet (**Attachment B**).

6. TASERS that fail the spark test, have 20% or less remaining battery capacity or have cartridges with any visible damage shall be removed from service and the TASER instructor notified.

7. Officers shall handle, secure, and protect the TASER as if it were a loaded firearm. Officers shall point the TASER in a safe direction, with the safety engaged, during loading, unloading or when handling other than during a deployment.

3. Verbal and Visual Warnings

1. Unless it would otherwise endanger officer safety or it is impractical due to circumstances, a verbal announcement of the intended use of the TASER should precede the application of a TASER in order to:
    i) Provide the individual with a reasonable opportunity to voluntarily comply.
    ii) Warn other officers and individuals that a TASER may be deployed.

2. If after a verbal warning, an individual continues to express an unwillingness to voluntarily comply with an officer's lawful order and it appears both reasonable and practical under the circumstance, the officer may, but is not required, to display the electrical arc/spark demonstration or laser in further attempt to gain compliance prior to the application of the TASER. The aiming laser should never be intentionally directed into the eyes of another as it may permanently impair their vision.

3. The fact that a verbal and/or other warning was given, or reasons it was not given, shall be documented in the police report.

4. TASER Deployment Considerations

1. Use of the TASER, as with all Response to Resistance, must be objectively reasonable and necessary when considering the totality of the circumstances.

2. Officers may use the TASER when circumstances known to the individual officer at the time indicate that the application of the TASER is reasonable to subdue or control:
    i) A violent or physically resisting subject, or
    ii) A potentially violent or physically resisting subject if:
        (1) The subject has verbally or physically demonstrated an intention to resist, and
        (2) The officer has given the subject a verbal warning of the intended use of the TASER, followed by a reasonable opportunity to voluntarily comply, and
        (3) Other available options reasonably appear ineffective or would present a great danger to the officer, the subject or others.

3. When time and circumstances permit, officers should have a deadly response to resistance cover officer when deploying the TASER.

4. The TASER device may be deployed against an animal as part of a plan to deal with a potentially dangerous animal, such as a dog, if the animal reasonably appears to pose an imminent threat to human safety and alternative methods are not reasonably available or would likely be ineffective.

5. Restrictions on TASER Use

1. Although not absolutely prohibited, officers shall consider the unique circumstances involved prior to applying the TASER to any of the following individuals:
    i) Pregnant females
    ii) Elderly individuals or obvious juveniles
    iii) Individuals who have been recently sprayed with alcohol-based Pepper Spray or who are otherwise in close proximity to any combustible material (gasoline, natural gas, propane, etc).
    iv) Passively resisting subjects
    v) When the subject is holding a firearm
    vi) When a person is handcuffed, unless that person is actively resisting, exhibiting aggression, or to prevent that person from harming him/herself or another.
    vii) Officers should consider the location and environment of the subject. Officers shall avoid using the TASER in cases when the subject is in an elevated position (i.e. roof, stairwell) where a fall may cause substantial injury or death.
    viii) Subjects in bodies of water (e.g. lakes, pools); the subject may not be able to prevent himself from drowning.

2. The TASER shall not be used against subjects in physical control of a motor vehicle, including ATVs, motorcycles, bicycles, or scooters, in motion unless exigent circumstances exist.

3. The TASER shall not be used to torture, psychologically torment, elicit statements or inflict undue pain on any individual.

4. Officers should never hold a firearm and the TASER at the same time unless deadly force is justified.

5. Officers are not authorized to carry department TASER devices while off-duty. Officers shall ensure that TASER devices are secured while in their homes, vehicles, or any other area under their control, in a manner that will keep the device inaccessible to others.

6. TASER Deployment

1. Prior to deploying a TASER, the deploying officer shall visually and physically confirm that the weapon selected is in fact the TASER and not a firearm.

2. Officers should give a warning, when practical, to the subject and other officers before firing the TASER at the subject.

3. Officers should generally not intentionally activate more than one TASER against the same person at a time.

4. The TASER can be used in four modes:
   i) Laser sight activation
   ii) Spark demonstration/ARC Display
   iii) Drive Stun
   iv) Probe deployment

5. In preparation of deployment, the TASER shall be pointed in a safe direction, taken off safe, and then aimed. Lower center mass should be the primary target while center mass of the chest or the legs are the secondary targets. Officers will not intentionally target the head, neck, groin, chest/breast, or anterior pelvis areas of subjects they intend to deploy the TASER against unless deadly force is justified. It should be noted however, that deploying officers cannot predict the sudden movements of actively aggressive or resisting subjects that may result in the unintentional probe deployment to such sensitive areas.

6. When encountering subjects wearing heavy or loose clothing the upper body and the legs should be considered as a target.

7. Use of the Drive Stun is discouraged except in situations where the Probe deployment is not possible, and the immediate application of the Drive Stun will bring a subject displaying active or aggressive resistance safely under control. Multiple Drive Stuns are discouraged and must be justified and articulated in the police report.

8. Officers should deploy the TASER for the standard five second cycle and shall not purposely deploy the TASER for more than five seconds per cycle. After the initial deployment, officers shall reassess the situation and deploy the TASER for additional cycles as necessary. Officers should consider other force options should the TASER be ineffective.

9. Potential Causes of Reduced or No Effectiveness
    i. Loose or Thick Clothing. If the probes lodge in clothing and are too far away from the attacker, TASER effectiveness is reduced and can be eliminated.
    ii. Miss or Single Probe Hit. The electrical current must pass between a positive probe and a negative one (top and bottom probe) in a completed and maintained circuit. If one probe misses, a second cartridge may be deployed, to complete the electrical circuit. Also, using the X2 TASER in the drive-stun mode may complete the circuit between the single probe and the TASER electrode.
    iii. Low Nerve or Muscle Mass. If the probes impact in an area where there is very little muscle mass (e.g., the side of the rib cage), the effectiveness can be significantly diminished.
    iv. Limited Probe Spread. Probe spreads of less than 4 inches (including drive-stun) may result in little or no incapacitation effect and become primarily a pain compliance option.
    v. Wires Break. If a wire breaks (e.g., during a struggle), the current will not flow to the probes and an additional deployment may be required. Deploying the second cartridge or drive-stun may still be available.

10. Back up officers shall attempt to handcuff the person against whom the TASER is being deployed during the TASER deployment cycle.

11. Any deployment of the TASER will be reported to the shift supervisor as soon as feasible.

7. Medical Treatment/Evidence Collection

1. The TASER probes shall be removed from the subject after being restrained following the procedures outlined in training. When practical, the darts should be removed by a person of the same sex. Only medical personnel should remove probes that have penetrated a person's head, neck, breast, or genital area.

2. If possible, photograph the affected area after the darts are removed in accordance with guidelines in Section H of this policy.

3. Used TASER probes shall be handled in accordance with Policy *Blood Borne Pathogens Plan*. TASER probes that have struck a person's body shall be considered a biological hazard.

4. After a discharge, the air cartridge, wire leads, probes, and a minimum of two AFID tags shall be placed in evidence and retained as evidence pending the ensuing inspection and/or investigation. The sharp end of the probes should be inverted into the portals of the fired cartridge. Tape should be placed over the portals to ensure the probe is in the cartridge. The probes are to be treated as a biohazard and shall be packaged and handled as such. The evidence shall be placed in a biohazard container that is suitable for sharp materials, i.e. a rigid puncture-resistant container such as an arson can, marked "biohazard" and sealed.

5. The TASER CAM Recorder video downloaded from the TASER and any photographs shall be transferred to appropriate storage media and entered into evidence.

6. If any item is not recoverable, the circumstances must be documented in the report.

7. Subjects who have been struck by a TASER probe or who have been subject to the electric discharge of the device shall be checked for injuries and monitored for potential health risks. Additionally, any such individual who falls under any of the following categories should, as soon as practicable, be examined by paramedics or other qualified medical personal:
    i) The subject is suspected of being under the influence of a controlled substance and/or alcohol.
    ii) The subject may be pregnant.
    iii) The subject reasonably appears to need medical attention.
    iv) The TASER probes are lodged in a sensitive area.
    v) The subject requests medical treatment.

8. Subjects who exhibit extreme agitation, violent irrational behavior accompanied by profuse sweating, extraordinary strength beyond physical characteristics, imperviousness to pain or who require a physical encounter with multiple officers to bring under control ("Excited Delirium") may be at an increased risk of sudden death and should examined by qualified medical personnel as soon as practical.

9. Subjects who have been exposed to prolonged application (more than 15 seconds) should be transported to an emergency department for evaluation.

10. All subjects who have been the subject of a TASER deployment shall be monitored for a period of time with focus on symptoms of physical distress. Any person who appears to be having any form of physical distress followed by the deployment shall be transported to the hospital for medical examination. It should be noted that studies indicate that persons who suffer from excited delirium may not be immediately impacted and the onset of the difficulty may occur a period of time after the police control event.

11. If an individual refuses medical attention, such refusal should be witnessed by another officer and/or medical personnel and shall be fully documented in the police report.

12. All subjects should be regularly monitored while in police custody following TASER device activation. Records personnel monitoring cameras/audio located in the holding facility should be notified of deployment of the TASER device if the person is in custody.

8. Documentation

1. Officers shall notify the shift supervisor as soon as practical after each intentional or unintentional discharge, with the exception of function tests and training exercises. The deployment of a TASER is a response to resistance that must be reported and investigated in accordance with Policy 303 - *Response to Resistance* in the following circumstances:
    1. Any TASER cartridge deployment whether or not the probes make contact with the subject or penetrate the skin
    2. Any TASER Drive Stun deployment

2. Officers will complete the Response to Resistance Reporting Checklist (see Section IV.).

3. A supervisor shall respond to the scene of every discharge, to include Drive Stun, which resulted in contact with the subject and conduct a review of the deployment to ensure compliance with agency policy.
    1. The supervisor shall complete the SUPERVISORY TASER® CEW USE REPORT form (**Attachment C**) and forward it to the TASER Officer/Instructor for review, with a copy forwarded to the Training Coordinator.

4. Photographs of the affected area shall be taken following the removal of the probes from the subject to document any injury. When the Drive stun method has been used, photographs are extremely important due to the increased potential for this method to cause scarring.

5. A scale in the field of view should be used to determine the exact size of any injury.

6. All photographs and videotapes will be submitted and entered into evidence.

7. Note the presence or absence of any injuries on the police report.

8. Accidental discharges of the TASER cartridge will be documented in memo form to the Chief of Police or his designee.

9. Downloading Data

The data port on the TASER stores the time and date the TASER was fired, and video/audio records are stored in the TASER CAM HD recorder.

1. When a TASER is deployed the TASER shall be placed out of service until the data is downloaded by the Training Coordinator or his designee.
2. The Training Coordinator or his designee shall download the data information prior to sending any TASER to the factory for repairs/maintenance.
3. Only the Training Coordinator or his designee may download the information from the device.
4. Supervisors may request a download at any time. Any officer issued such an order will immediately respond to this request as instructed by the supervisor.

5. The Training Coordinator or designated in house certified TASER instructor shall prepare an annual report on the product reliability, recommended training needs and/or policy modifications related to Response to Resistance, which will include a section on the use of the TASER.

III. OLEORESIN CAPSICUM (OC)

1. Guidelines for Certification
    1. Members must successfully complete an OC training course provided by a certified instructor as authorized by the Department prior to carrying OC.
    2. Only employees who are properly trained in the use of OC shall be permitted to carry it.
    3. Properly trained employees shall be authorized to carry OC as a less-lethal force alternative.
    4. Employees are required to complete training biennially to be authorized to carry OC. If a member is unable to show proficiency with OC, he/she will be afforded the opportunity to repeat the training or have specialized training

designed to assist him/her in establishing the necessary skills to carry the weapon.
5. The Defensive Tactics Instructor shall oversee the OC training program, approve course curriculums, and ensure that training and certification records are kept.

2. Carrying OC
    1. Members shall be limited to carrying only Department issued OC spray. No other OC shall be carried or used by any member at any time.
    2. Authorized members shall carry OC spray canisters in secure holsters.
    3. It shall be the responsibility of the individual member to maintain control of his/her OC spray.
3. Guidelines for use of OC
    1. Members, who find it reasonable and necessary to use OC shall, if practical, alert the offender of your intention to use OC spray directly into the face of the offender.
    2. Members shall cease the use of OC as soon as the offender stops all aggressive/resistance actions or when the effects of the spray become apparent. OC shall never be used for any unlawful purpose. The improper use of OC spray, excessive, unnecessary or unreasonable, will not be tolerated.
    3. It shall be the responsibility of Supervisors to monitor the use of OC to ensure Department policy is followed.
    4. The use of OC is prohibited on a handcuffed/secured prisoner, absent overtly assaultive behavior that cannot be reasonably dealt with in any other less intrusive fashion.
4. Securing/Transporting an Arrestee Exposed to OC
    1. Upon being sprayed with OC, the person should be ordered to a standing or prone handcuffing position. The subject is to be handcuffed in accordance with Department policy, assured that he/she will receive medical treatment if necessary, and advised that the effects of the spray will dissipate. The arrestee shall be handcuffed using extreme caution since OC is not fail-safe.
    2. Any subject who loses consciousness during any physical altercation with police should receive immediate medical attention, including CPR, if necessary.
    3. If practical, Officers should wait a reasonable period of time after contamination before transporting the arrestee to allow for natural evaporation of OC and to reduce the potential for the transporting officer from being overcome by spray through association with the arrestee.
5. Decontamination
    1. Decontamination may be rendered to individuals who have been sprayed with OC. The appropriate level of assistance includes:
        1. Allow as much fresh air to the person as possible;
        2. Flushing exposed areas with cool water;
        3. Washing with soap and water; and
        4. Medical treatment when necessary.
    2. Universal precautions will apply when rendering decontamination and personal protective equipment will be utilized when appropriate.
6. Use of OC Spray on Animals
    1. Officers are authorized to use OC spray on animals under the following circumstances:
        1. When routine capture techniques have failed, and the animal is dangerous, aggressive or uncontrollable;
        2. When the animal is attacking and/or threatening to attack the officer or another person, or other animal; and/or

3. When the supervisor, after assessing the situation, commands or authorized the action.
2. When practical, animals shall not be released until the effects of OC spray have dissipated and the animal is controllable.
3. Standard decontamination procedures, including access to water and proper ventilation, should be made available to sprayed animals.

7. Use of OC spray Against an Officer
    1. A citizen's use of OC spray against an officer shall be deemed aggravated battery and the use of force necessary to overcome that battery may be used.
8. Care and Maintenance of OC Spray
    1. After any use of an OC canister, it shall be promptly exchanged by the officer for replacement with the Defensive Tactics Instructor.
    2. Routine OC canister maintenance shall include inspections of the canister for signs of erosion, leakage, dirt in the nozzle, fullness of canister contents, other damage to the unit and the expiration date written on the canister or 3 years after the manufacturer's date.
9. Post-Application Procedure
    1. After any use of an OC canister, it shall be promptly exchanged by the officer for replacement with the Defensive Tactics Instructor.
    2. Routine OC canister maintenance shall include inspections of the canister for signs of erosion, leakage, dirt in the nozzle, fullness of canister contents, other damage to the unit and the expiration date written on the canister or 3 years after the manufacturer's date.

IV. IMPACT WEAPONS

1. Officers shall carry the ASP in an approved holder.
2. It shall be the responsibility of the individual officer to maintain control of his/her ASP.
3. Guidelines for Certification/Training
    1. Members must successfully complete an ASP training course conducted by a certified instructor as authorized by the Department prior to being authorized to carry the weapon.
    2. It shall be the responsibility of the Defensive Tactics Instructor to ensure that biannual training be conducted in the use of the ASP.
        1. If an officer is unable to show proficiency with the baton, he/she shall be afforded the opportunity to repeat the training or have specialized training designed to assist him/her in establishing the necessary skills needed to carry the weapon.
    3. An officer that has taken extended leave or suffered an illness or injury that could affect his/her use of the ASP, shall be required to be re-certified before returning to enforcement duties.
    4. The Defensive Tactics Instructor, or designee, shall ensure that training and certification records are maintained.
4. Guidelines for Use of ASP
    1. If a suspect resists arrest in an actively aggressive manner, or attacks an officer or another person, or attempts to flee or defeat a lawful arrest, officers are permitted to use the ASP in accordance with the training and target areas given by certified instructors concerning non-lethal use of force situations.
    2. A very important aspect of both training and techniques concerns verbal commands to the aggressive/resistant subject. Profanity and specific threats should be avoided; they give the impression that we are unprofessional, and the situation is out of control. LOUD, CLEAR, and REPETITIVE commands that communicate exactly what orders we want the subject to comply with should be used whenever practical.

3. Officers shall cease the use of the ASP as soon as the offender stops all aggressive/resistance actions. The ASP will only be used as a compliance and control measure and shall never be used for any unlawful purpose. The improper use of the ASP including excessive, unnecessary, or unreasonable use will not be tolerated.
4. A handcuffed or restrained person shall not be struck with the ASP.
5. If an officer faces a lethal force situation and the ASP is the most reasonably available weapon at his/her disposal, the strikes shall not be limited to the target areas taught in the non-lethal force impact weapons training, i.e. deadly force may be met with deadly force.
6. It shall be the responsibility of Supervisors to monitor the use of the ASP to ensure Department policy is followed.

5. Medical Assistance
    1. All persons subject to an ASP strike are to be placed under observation. This should be documented in your report narrative.
    2. If after an individual is struck by the ASP, an Officer observes the individual is clearly injured or needs medical attention shall call EMS immediately.
    3. Whenever medical attention is obtained for a subject who has been struck by the ASP, the Shift Supervisor will ensure that the appropriate case, investigative, memo and other necessary reports are completed expediently.
    4. Once a member of the Yorkville Police Department has relinquished control of a person that has been struck, the Officer is no longer responsible for medical attention of the individual. However, other personnel assuming control of the subject shall be informed that the individual was stuck
    5. EMS should evaluate any person that requests medical attention.
6. Reporting Response to Resistance.
    1. Officers will report immediately the use of the ASP to the Shift Supervisor.
    2. It will be the responsibility of each Yorkville Police Officer to make a detailed report regarding the response to resistance as prescribed in our policies and procedures.
7. Maintenance
    1. All ASP and other batons approved for use by the Department shall be maintained in factory condition and will not be altered or modified in any way without prior approval from the Defensive Tactics Instructor.
        1. Officers shall be responsible for the care and cleaning of their batons.
    2. It is recommended that officers clean and lubricate their ASP regularly. Any unsafe weapons shall be removed from service.

V. KINETIC IMPACT PROJECTILE GUIDELINES

1. Deployment and Use

a. Only department approved kinetic impact munitions shall be carried and deployed. Approved munitions may be used to compel an individual to cease his/her actions when such munitions present a reasonable option

b. Officers are not required or compelled to use approved munitions in lieu of other reasonable tactics if the involved officer determines that deployment of these munitions cannot be done safely. The safety of hostages, innocent persons and officers takes priority over the safety of subjects engaged in criminal or suicidal behavior.

c. Circumstances appropriate for deployment include, but are not limited to, situations in which:

1. The suspect is armed with a weapon and the tactical circumstances allow for the safe application of approved munitions.

2. The suspect has made credible threats to harm him/herself or others.

3. The suspect is engaged in riotous behavior or is throwing rocks, bottles, or other dangerous projectiles at people and/or officers.

4. There is probable cause to believe that the suspect has already committed a crime of violence and is refusing to comply with lawful orders.

2. Deployment Considerations

a. Before discharging projectiles, the officer should consider the following factors:

1. Distance and angle to target

2. Type of munitions deployed

3. Type and thickness of subject's clothing

4. The subject's proximity to others

5. The location of the subject

6. Whether the subject's actions dictate the need for an immediate response and the use of control devices appears appropriate.

b. A verbal warning of the intended use of the device should precede its application unless it would otherwise endanger the safety of officers or when it is not practicable due to the circumstances. The purpose of the warning is to give the individual a reasonable opportunity to voluntarily comply and to warn other officers and individuals that the device is being deployed.

c. Officers should keep in mind the manufacturer's recommendations and their training regarding effective distances and target areas. However, officers are not restricted solely to use according to manufacturer recommendations. Each situation must be evaluated on the totality of circumstances at the time of the deployment.

d. The need to immediately incapacitate the subject must be weighed against the risk of causing serious injury or death. The head, neck, groin, anterior pelvis, or back should not be intentionally targeted, except when the officer reasonably believes the suspect poses an imminent threat of serious bodily injury or death to the officer or others.

3. Safety Procedures

a. Shotguns specifically designated for use with kinetic energy projectiles will be specially marked in a manner that makes them readily identifiable as such. Shotguns will only be carried in approved, orange in color, soft cases that readily identify them as less lethal weapons systems.

b. Officers will inspect the shotgun and projectiles at the beginning of each shift to ensure that the shotgun is in proper working order and the projectiles are of the approved type and appear to be free from defects.

c. Two shotguns will be deployed on each patrol shift and assigned to two different patrol officers as assigned by the supervisor.

c. When it is not deployed, the shotgun will be unloaded and properly and securely stored in the vehicle. When deploying the kinetic impact projectile shotgun, the officer shall visually inspect the kinetic impact projectiles to ensure that conventional ammunition is not being loaded into the shotgun. Shotguns will be carried with an empty chamber, four (4) rounds loaded in the magazine tube and six (6) rounds in the equipped side saddle, for a total of ten (10) rounds.

VI. WEAPONS OF NECESSITY

1. The use of Department-authorized handcuffs, knives and flashlights as weapons is not acceptable unless circumstances indicate that their use is necessary to prevent death or great bodily harm to an officer or others.
2. The use of unauthorized firearms is not acceptable unless circumstances indicate their use is necessary to prevent death or great bodily harm to an officer or others.
3. Employees are prohibited from carrying or using blackjacks, saps, weighted gloves, and metal knuckles.
4. Choke holds or carotid holds which are designed to reduce or stop the flow of blood to the brain should not be used as a control Technique unless it is necessary to prevent death or great bodily harm to an officer or others.

VII. DUTY TO INTERVENE

A. An Officer shall, if the officer has a reasonable opportunity, intervene to prevent or stop another peace officer in his or her presence from using any unauthorized force or force that exceeds the degree of force permitted, if any, without regard for chain of command. An officer who observes another employee use force that exceeds the degree of force permitted by law, should promptly (in no event more than 5 days after the incident) report these observations to a supervisor, including the following details:

1. Date, time, and place of occurrence;
2. Identity, if known, and description of participants; and
3. Intervention actions taken and whether they were successful.

A. Officers must notify supervisors whenever they observe unreasonable, unauthorized, or excessive force, anytime a choke hold is applied, and when any of the following has occurred or is alleged:

1. The application of force caused a visible injury.
2. The application of force would lead a reasonable officer to conclude that the individual may have experienced more than momentary discomfort.
3. The individual subjected to the force complained of injury or continuing pain.
4. The individual indicates intent to pursue litigation.
5. Any application of the conducted energy device (e.g., TASER), kinetic impact projectile, or control device.
6. Any application of a restraint device other than handcuffs, shackles, or belly chains.

7. The individual subjected to the force was rendered unconscious.
8. An individual was struck or kicked.

VIII. DUTY TO RENDER MEDICAL AID

A. Officers must, as soon as reasonably practical, determine if a person is injured, whether as a result of a use of force or otherwise, and render medical aid and assistance consistent with training and request emergency medical assistance if necessary. Rendering medical aid and assistance includes, but is not limited to:

1. performing emergency life-saving procedures such as cardiopulmonary resuscitation or the administration of an automated external defibrillator; and

2. the making of arrangements for the carrying, of such person to a physician, surgeon, or hospital for medical or surgical treatment if it is apparent that treatment is necessary, or if such carrying is requested by the injured person.

An officer does not violate this duty if the failure to render aid is due to circumstances such as lack of appropriate specialized training, lack of resources or equipment, or if it is unsafe or impracticable to render aid.

B. If any department member, other than an Officer, observes the individual is clearly injured after any application of response to resistance; the individual complains of being injured, or the member reasonably believes the person is injured or needs medical attention, once it is safe and appropriate to do so the member shall:

1. Render appropriate first aid within the limits of the member's training and available equipment.

2. Immediately summon medical assistance from rescue personnel.

B. Both Officers and department members shall further:

1. Notify the on-duty Supervisor.

2. Complete the appropriate incident reports regarding the injury and the circumstances.

3. If possible, photograph the injured area.

IX. SUPERVISOR RESPONSE

A supervisor shall respond to the following:

1. Any Kinetic Impact Projectile system incidents where an individual has been hit and will ensure all, medical assistance and notifications and reports are completed as required.
2. Any calls where they reasonably believe there is a likelihood the conducted electrical weapon (e.g., Taser) may be used. A supervisor should respond to all incidents where the conducted electrical weapon was activated and review each incident where a person has been exposed to an activation of the conducted electrical weapon.

X. REMOVAL OF UNSAFE WEAPONS

1. All weapons carried in the performance of duty shall be kept in proper working condition. Less than lethal weapons shall be inspected during training by the Defensive Tactics Instructor.
2. Weapons shall also be inspected by shift supervisors for cleanliness and periodically checked by the Defensive Tactics Instructor to ensure:
    1. All safety mechanisms are in working order.
    2. There is no obvious damage or evidence of misuse.
3. Any weapon found to be unsafe will be immediately removed from service and the on-duty supervisor shall be notified. The on-duty supervisor shall notify the Range Master of any dedicated less-lethal shotgun taken out of service and the Defensive Tactics Instructor of any other less-lethal weapon taken out of service so that prompt action can be taken to service and/or replace the weapon.

XI. APPROVED LESS-LETHAL WEAPONS

1. DEPARTMENT AUTHORIZED OLEORESIN AEROSOL PROJECTORS

   First Defense MK-3 1.3% Stream

2. DEPARTMENT AUTHORIZED BATONS

   "ASP" Expandable Baton (16", 18", 21", and 26")

3. DEPARTMENT AUTHORIZED CONDUCTED ELECTRICAL WEAPONS

   X2 Manufactured by Taser International

4. DEPARTMENT AUTHORIZED KINETIC IMPACT PROJECTILES

   CTS Super-Sock 12-gauge Bean Bag Direct Impact Munition

   Safariland Drag Stabilized 12-gauge Bean Bag Round

XII. ATTACHMENTS

Attachment A: Response to Resistance Reporting Checklist
Attachment B: TASER Sign Out Sheet
Attachment C: SUPERVISORY TASER® CEW USE REPORT
Attachment D: Subject Resistance Reporting Form Supervisory Form

XIII. COMPLIANCE

It is the responsibility of all Officers, Supervisors, and Administrative Personnel to comply with all sections of this directive. This Policy supersedes all previous written and unwritten policies and procedures of the Yorkville Police Department on the above subject.

XIV. EFFECTIVE DATE

This Policy shall be effective as of: **October 08, 2019**

By order of,

James Jensen
Chief of Police

Exhibit #4

TASER 10

A NEW ERA IN LESS-LETHAL TECHNOLOGY

Through extensive research and customer feedback, Axon has developed our most capable and sophisticated TASER energy weapon to date. TASER 10 has a maximum range of 45 feet and 10 probes, featuring individually targeted probes and any-probe connect. These new capabilities significantly increase accuracy and effectiveness, decreasing the likelihood of escalation to lethal force.

FEATURES AND BENEFITS

/ 45-FOOT MAXIMUM RANGE
At nearly double the range of previous TASER energy weapons, TASER 10 creates more time and space to de-escalate and resolve conflicts.

/ 10 SINGLE-PROBE CARTRIDGES
10 single-probe cartridges provide users with up to 9 opportunities to achieve an effective connection and induce neuromuscular incapacitation (NMI).

/ INDIVIDUALLY TARGETED PROBES
Intuitive single probe deployment allows users to place each probe with precision and accuracy regardless of distance to the subject. Users can also create their own spread up close and at a long range, choosing their preferred target area.

/ ANY-PROBE CONNECT
Intelligent, any-probe connect with spread optimizer energizes up to 4 probes at once to maximize the effectiveness of the probe deployment.

/ VR INTEGRATION
Integration with Axon VR allows officers to enhance TASER proficiency, use-of-force decision-making, confidence and accuracy under stress.

/ AUDIBLE AND VISUAL WARNING ALERT
A bright pulsing light and loud alert sound emit whenever the weapon's Warning Alert is initiated, allowing the user the opportunity to de-escalate without deploying cartridges.

LIVE STANDARD

LIVE STANDARD
(Training)

HALT
(Hook and Loop Training)

INERT

LIVE

HALT
(Hook and Loop Training)

INERT

/ MULTIPLE MAGAZINES
Multiple magazine and cartridge types allow officers to train more efficiently and differentiate between training and duty weapon use in Axon Evidence.

/ INVENTORY MANAGEMENT
Axon Device Manager mobile application allows agencies to quickly assign weapons and accessories and efficiently manage devices in the field.

/ DOCK AND WALK FUNCTIONALITY
Automatic firmware updates and weapon log upload saves agencies time and ensure weapons are always up to date.

/ RECHARGEABLE BATTERY
One battery for the life of the weapon; TASER 7 battery and dock compatibility.

/ DAYLIGHT GREEN LASER
A more visible green LASER improves user aim in daylight scenarios.

/ ENHANCED DATA MANAGEMENT
Full integration with Axon Evidence allows agencies to manage newly designed pulse graphs, weapon logs, and weapon evidence PDFs.

/ ENHANCED DATA TRACKING
Automatically tracks when TASER 10 is inserted or removed from a holster, estimates deployment distance, and tracks which probes make a connection.

SPECIFICATIONS

WEATHER RESISTANCE
Dust and Water Ingress Protection to International Ingress Protection IP67

HOUSING
High Impact Polymer

OPERATING TEMPERATURE
-4 to 122 degrees F
[-20 to 50 degrees C]

DROP TEST
5-foot [1.5 M] drop

HUMIDITY
95% non-condensing

LASER
Class 3R Green LASER or Class 2 Green Available

ILLUMINATION
210 Lumen LED in normal flashlight operation, 1000 Lumen Strobing LED in warning mode

WARRANTY
1 Year Manufacturer with additional warranties available

USEFUL LIFE
5 Years (Recommended)

AXON, Axon, Axon Device Manager, Axon Evidence, Axon VR, TASER, TASER 7, and TASER 10 are trademarks of Axon Enterprise, Inc., some of which are registered in the US and other countries. For more information visit www.axon.com/legal.
All rights reserved. © 2023 Axon Enterprise, Inc.

Exhibit #5

Axon Enterprise, Inc.
17800 N 85th St.
Scottsdale, Arizona 85255
United States
VAT: 86-0741227
Domestic: (800) 978-2737
International: +1.800.978.2737

Q-515101-45384.616MM

Issued: 04/02/2024

Quote Expiration: 04/30/2024

Estimated Contract Start Date: 10/01/2024

Account Number: 139264

Payment Terms: N30

Delivery Method:

SHIP TO	BILL TO
Yorkville Police Department - IL 651 Prairie Pointe Dr Yorkville, IL 60560-6500 USA	**Yorkville Police Dept. - IL** **651 Prairie Pointe Dr** Yorkville IL 60560-6500 USA Email:

SALES REPRESENTATIVE	PRIMARY CONTACT
Matthew Moore Phone: (480) 905-2068 Email: mmoore@axon.com Fax: (480) 905-2068	James Jensen Phone: (630) 553-4340 Email: jjensen@yorkville.il.us Fax:

Quote Summary

Program Length	60 Months
TOTAL COST	$37,702.86
ESTIMATED TOTAL W/ TAX	$37,702.86

Discount Summary

Average Savings Per Year	$1,212.16
TOTAL SAVINGS	$6,060.80

Payment Summary

Date	Subtotal	Tax	Total
Sep 2024	$30,000.00	$0.00	$30,000.00
Sep 2025	$1,925.72	$0.00	$1,925.72
Sep 2026	$1,925.72	$0.00	$1,925.72
Sep 2027	$1,925.71	$0.00	$1,925.71
Sep 2028	$1,925.71	$0.00	$1,925.71
Total	**$37,702.86**	**$0.00**	**$37,702.86**

Quote Unbundled Price:	$43,763.66
Quote List Price:	$40,989.26
Quote Subtotal:	$37,702.86

Pricing

All deliverables are detailed in Delivery Schedules section lower in proposal

Item	Description	Qty	Term	Unbundled	List Price	Net Price	Subtotal	Tax	Total
Program									
T10Basic	TASER 10 Basic Bundle	8	60	$65.36	$59.58	$56.25	$27,000.00	$0.00	$27,000.00
A la Carte Hardware									
100401	AXON TASER 10 - CARTRIDGE - INERT	10			$1.00	$1.00	$10.00	$0.00	$10.00
100399	TASER 10 LIVE CARTRIDGE	4			$22.00	$22.00	$88.00	$0.00	$88.00
80090	AXON TASER - TARGET FRAME - PROFESSIONAL 27.5 IN X 75 IN	1			$88.97	$88.97	$88.97	$0.00	$88.97
80087	AXON TASER - TARGET - CONDUCTIVE PROFESSIONAL RUGGEDIZED	1			$177.89	$89.89	$89.89	$0.00	$89.89
100396	AXON TASER 10 - MAGAZINE - INERT RED	1			$160.00	$160.00	$160.00	$0.00	$160.00
100394	AXON TASER 10 - MAGAZINE - HALT TRAINING BLUE	3			$160.00	$160.00	$480.00	$0.00	$480.00
100395	AXON TASER 10 - MAGAZINE - LIVE TRAINING PURPLE	3			$160.00	$160.00	$480.00	$0.00	$480.00
100623	AXON TASER - TRAINING - ENHANCED HALT SUIT V2	1			$750.00	$750.00	$750.00	$0.00	$750.00
100400	AXON TASER 10 - CARTRIDGE - HALT	145			$22.00	$22.00	$3,190.00	$0.00	$3,190.00
100399	TASER 10 LIVE CARTRIDGE	203			$22.00	$22.00	$4,466.00	$0.00	$4,466.00
A la Carte Services									
101208	AXON TASER 10 - 2 DAY INSTRUCTOR COURSE - INSIDE SALES	1			$2,500.00	$900.00	$900.00	$0.00	$900.00
Total							**$37,702.86**	**$0.00**	**$37,702.86**

Delivery Schedule

Hardware

Bundle	Item	Description	QTY	Shipping Location	Estimated Delivery Date
TASER 10 Basic Bundle	100390	AXON TASER 10 - HANDLE - YELLOW CLASS 3R	8		09/01/2024
TASER 10 Basic Bundle	100393	AXON TASER 10 - MAGAZINE - LIVE DUTY BLACK	8		09/01/2024
TASER 10 Basic Bundle	100399	TASER 10 LIVE CARTRIDGE	80		09/01/2024
TASER 10 Basic Bundle	100616	AXON TASER 10 - HOLSTER - BLACKHAWK - RH	6		09/01/2024
TASER 10 Basic Bundle	100617	AXON TASER 10 - HOLSTER - BLACKHAWK - LH	2		09/01/2024
TASER 10 Basic Bundle	20018	AXON TASER - BATTERY PACK - TACTICAL	1		09/01/2024
TASER 10 Basic Bundle	20018	AXON TASER - BATTERY PACK - TACTICAL	8		09/01/2024
TASER 10 Basic Bundle	70033	AXON - DOCK WALL MOUNT - BRACKET ASSY	1		09/01/2024
TASER 10 Basic Bundle	71019	AXON BODY - DOCK POWERCORD - NORTH AMERICA	1		09/01/2024
TASER 10 Basic Bundle	74200	AXON TASER - DOCK - SIX BAY PLUS CORE	1		09/01/2024
A la Carte	100394	AXON TASER 10 - MAGAZINE - HALT TRAINING BLUE	3		09/01/2024
A la Carte	100395	AXON TASER 10 - MAGAZINE - LIVE TRAINING PURPLE	3		09/01/2024
A la Carte	100396	AXON TASER 10 - MAGAZINE - INERT RED	1		09/01/2024
A la Carte	100399	TASER 10 LIVE CARTRIDGE	203		09/01/2024
A la Carte	100399	TASER 10 LIVE CARTRIDGE	4		09/01/2024
A la Carte	100400	AXON TASER 10 - CARTRIDGE - HALT	145		09/01/2024
A la Carte	100401	AXON TASER 10 - CARTRIDGE - INERT	10		09/01/2024
A la Carte	100623	AXON TASER - TRAINING - ENHANCED HALT SUIT V2	1		09/01/2024
A la Carte	80087	AXON TASER - TARGET - CONDUCTIVE PROFESSIONAL RUGGEDIZED	1		09/01/2024
A la Carte	80090	AXON TASER - TARGET FRAME - PROFESSIONAL 27.5 IN X 75 IN	1		09/01/2024

Software

Bundle	Item	Description	QTY	Estimated Start Date	Estimated End Date
TASER 10 Basic Bundle	20248	AXON TASER - EVIDENCE.COM LICENSE	8	10/01/2024	09/30/2029
TASER 10 Basic Bundle	20248	AXON TASER - EVIDENCE.COM LICENSE	1	10/01/2024	09/30/2029

Services

Bundle	Item	Description	QTY
A la Carte	101208	AXON TASER 10 - 2 DAY INSTRUCTOR COURSE - INSIDE SALES	1

Warranties

Bundle	Item	Description	QTY	Estimated Start Date	Estimated End Date
TASER 10 Basic Bundle	100704	AXON TASER 10 - EXT WARRANTY - HANDLE	8	09/01/2025	09/30/2029
TASER 10 Basic Bundle	80374	AXON TASER 7 - EXT WARRANTY - BATTERY PACK	1	09/01/2025	09/30/2029
TASER 10 Basic Bundle	80374	AXON TASER 7 - EXT WARRANTY - BATTERY PACK	8	09/01/2025	09/30/2029
TASER 10 Basic Bundle	80396	AXON TASER 7 - EXT WARRANTY - DOCK SIX BAY	1	09/01/2025	09/30/2029

Shipping Locations

Location Number	Street	City	State	Zip	Country
	651 Prairie Pointe Dr	Yorkville	IL	60560-6500	USA
	651 Prairie Pointe Dr	Yorkville	IL	60560-6500	USA

Payment Details

Sep 2024

Invoice Plan	Item	Description	Qty	Subtotal	Tax	Total
Upfront Cartridges and Training	100394	AXON TASER 10 - MAGAZINE - HALT TRAINING BLUE	3	$480.00	$0.00	$480.00
Upfront Cartridges and Training	100395	AXON TASER 10 - MAGAZINE - LIVE TRAINING PURPLE	3	$480.00	$0.00	$480.00
Upfront Cartridges and Training	100396	AXON TASER 10 - MAGAZINE - INERT RED	1	$160.00	$0.00	$160.00
Upfront Cartridges and Training	100399	TASER 10 LIVE CARTRIDGE	4	$88.00	$0.00	$88.00
Upfront Cartridges and Training	100399	TASER 10 LIVE CARTRIDGE	203	$4,466.00	$0.00	$4,466.00
Upfront Cartridges and Training	100400	AXON TASER 10 - CARTRIDGE - HALT	145	$3,190.00	$0.00	$3,190.00
Upfront Cartridges and Training	100401	AXON TASER 10 - CARTRIDGE - INERT	10	$10.00	$0.00	$10.00
Upfront Cartridges and Training	100623	AXON TASER - TRAINING - ENHANCED HALT SUIT V2	1	$750.00	$0.00	$750.00
Upfront Cartridges and Training	101208	AXON TASER 10 - 2 DAY INSTRUCTOR COURSE - INSIDE SALES	1	$900.00	$0.00	$900.00
Upfront Cartridges and Training	80087	AXON TASER - TARGET - CONDUCTIVE PROFESSIONAL RUGGEDIZED	1	$89.89	$0.00	$89.89
Upfront Cartridges and Training	80090	AXON TASER - TARGET FRAME - PROFESSIONAL 27.5 IN X 75 IN	1	$88.97	$0.00	$88.97
Year 1	T10Basic	TASER 10 Basic Bundle	8	$19,297.14	$0.00	$19,297.14
Total				$30,000.00	$0.00	$30,000.00

Sep 2025

Invoice Plan	Item	Description	Qty	Subtotal	Tax	Total
Year 2	T10Basic	TASER 10 Basic Bundle	8	$1,925.72	$0.00	$1,925.72
Total				$1,925.72	$0.00	$1,925.72

Sep 2026

Invoice Plan	Item	Description	Qty	Subtotal	Tax	Total
Year 3	T10Basic	TASER 10 Basic Bundle	8	$1,925.72	$0.00	$1,925.72
Total				$1,925.72	$0.00	$1,925.72

Sep 2027

Invoice Plan	Item	Description	Qty	Subtotal	Tax	Total
Year 4	T10Basic	TASER 10 Basic Bundle	8	$1,925.71	$0.00	$1,925.71
Total				$1,925.71	$0.00	$1,925.71

Sep 2028

Invoice Plan	Item	Description	Qty	Subtotal	Tax	Total
Year 5	T10Basic	TASER 10 Basic Bundle	8	$1,925.71	$0.00	$1,925.71
Total				$1,925.71	$0.00	$1,925.71

Tax is estimated based on rates applicable at date of quote and subject to change at time of invoicing. If a tax exemption certificate should be applied, please submit prior to invoicing.

Standard Terms and Conditions

Axon Enterprise Inc. Sales Terms and Conditions

Axon Master Services and Purchasing Agreement:

This Quote is limited to and conditional upon your acceptance of the provisions set forth herein and Axon's Master Services and Purchasing Agreement (posted at www.axon.com/legal/sales-terms-and-conditions), as well as the attached Statement of Work (SOW) for Axon Fleet and/or Axon Interview Room purchase, if applicable. In the event you and Axon have entered into a prior agreement to govern all future purchases, that agreement shall govern to the extent it includes the products and services being purchased and does not conflict with the Axon Customer Experience Improvement Program Appendix as described below.

ACEIP:

The Axon Customer Experience Improvement Program Appendix, which includes the sharing of de-identified segments of Agency Content with Axon to develop new products and improve your product experience (posted at www.axon.com/legal/sales-terms-and-conditions), is incorporated herein by reference. By signing below, you agree to the terms of the Axon Customer Experience Improvement Program.

Acceptance of Terms:

Any purchase order issued in response to this Quote is subject solely to the above referenced terms and conditions. By signing below, you represent that you are lawfully able to enter into contracts. If you are signing on behalf of an entity (including but not limited to the company, municipality, or government agency for whom you work), you represent to Axon that you have legal authority to bind that entity. If you do not have this authority, please do not sign this Quote.

Signature

Date Signed

4/2/2024

Exhibit #6

United City of Yorkville
651 Prairie Pointe Drive
Yorkville, Illinois 60560
Telephone: 630-553-4350
www.yorkville.il.us

AGENDA
PUBLIC SAFETY COMMITTEE MEETING
Thursday, November 2, 2023
6:00 p.m.
East Conference Room #337
651 Prairie Pointe Drive, Yorkville, IL

Citizen Comments:

Minutes for Correction/Approval: September 7, 2023

New Business:

1. PS 2023-17 Monthly Report Review for August 2023 – September 2023
2. PS 2023-18 Adjudication Reports for September 2023 – October 2023
3. PS 2023-19 Pre-Order of Police Vehicles for the FY25 Budget
4. PS 2023-20 Taser Lease Agreement – Discussion
5. PS 2023-21 Meeting Schedule for 2024

Old Business:

Additional Business:

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	■

Agenda Item Number

Mayor's Report #5

Tracking Number

CC 2024-27

Agenda Item Summary Memo

Title: Parks and Recreation Vehicle Truck Purchase

Meeting and Date: City Council – April 23, 2024

Synopsis: _____

_____

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

_____

Submitted by: Tim Evans (Name) Parks and Recreation (Department)

Agenda Item Notes:

_____

_____

_____

_____

_____

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: Yorkville City Council
From: Tim Evans, Director of Parks and Recreation
CC: Bart Olson, City Administrator
Date: April 11, 2024
Subject: Parks & Recreation Truck Purchase Approval

Subject

Parks & Recreation Truck Purchase Approval

Background

As part of the of the approved Fiscal Year 25 City budget, the City designated $94,000 in Parks & Recreation capital funds for two new Parks trucks. Recently, Riverview Ford informed P&R staff that one (1) new Ford F-150 truck will be available to purchase in late April. The quote is attached.

The truck purchase amount is $40,031.03. Price also includes all associated purchase fees, registration and license plates. This new Parks truck is expected to be used for one of the potential two (2), new full-time Parks staff members that have been requested in the City FY 25 budget.

Recommendation

Since P&R is able to receive the new truck on May 1st and the purchase quote is similar to the Ford F-150 truck that P&R purchased last year, staff seeks City Council approval to place an order for one (1) new Parks & Recreation 2024 Ford 150 from Riverview Ford in total amount of $40,031.03

Hennessy's

River View

OSWEGO/AURORA **FORD** ILLINOIS

www.RiverViewFord.com

(630) 897-8900
FAX (630) 897-3366

2200 U.S. HWY. 30 • **OSWEGO, ILLINOIS** • **60543**

RETAIL BUYER'S ORDER

Salesman FLEET Date 4.2.24

Purchaser CITY of YORKVILLE Phone 630-878-7291

Address 800 GAME FARM Rd County KENDALL

City YORKVILLE State IL Zip Code 60560

WHAT BROUGHT YOU TO RIVER VIEW FORD, INC.?

I hereby agree to purchase from you under the terms and conditions specified the following:

New or Used Year 2024 Make FORD Model F150

Ser. # 1FTMF1KP8RKD75426 Ext. Color WHITE Int. Color Stock # IN-BOUND

Delivery of this purchase is to be made _____, _____, or as soon thereafter as possible. It is agreed, however, that neither you nor the Manufacturer will be liable for the failure to effect delivery.

CASH DELIVERED PRICE OF CAR		$ 38865-
	BRAKE CONTROLLER	600 -
	WITH BUMPER COVER	
NEW CAR MILES	Vehicle Price	$ 39,465-
	Cook County Use Tax	$
Payment of the net balance due is to be financed by credit arranged for by River View Ford, Inc., and this transaction is entirely contingent upon the terms of such credit plan when disclosure of such terms made to the Buyer.	Drive Away ☐ Lic. App. ☐ Lic. Fees	566.03
	ILLINOIS SALES TAX	0
	LUXURY TAX	
Signed X _____	**Total**	$ 40,031.03

	NEW PLATE	TRANS.
CAR / TRUCK	✓	

	$ 35-
License Fee GOVT	$ 8
Title Fee	$ 165-
Documentary Fee	$ 358.03
Cook County Tax	$
TOTAL	$

SETTLEMENT: $

Deposit - Receipt No.

Used Car Make Series Body Style

Year -

VIN

Allow. $ Gross — NONE Estimated Bal. Due $ — Equity $

Actual Verified

Balance Due To: Good Til: ___ Plan ☐ Rebate $

C.O.D. $ 40,031.03

Net Balance Due $

TRADE-IN MILES **TOTAL** $

Dealer's new car warranty is shown on the back of this order. It is agreed that there are no other warranties, either expressed or implied, covering a new car sold hereunder. If this agreement is for a used vehicle, the information you see on the (Federal Trade Commission) window form is part of this agreement. Information on the window form overrides any contrary provisions in the contract of sale.

This order is not binding on dealer until accepted by the dealer in writing. **MUST BE ACCEPTED BY AN OFFICER OF THE COMPANY ACCEPTED BY RIVER VIEW FORD, INC.**

By _____

Purchaser agrees, upon demand made by Seller, to execute and/or complete any and all documents necessary to consummate the transaction contemplated herein. If Purchaser fails or refuses to consummate the purchase of the motor vehicle contemplated hereby, or is otherwise in default under this Vehicle Purchase Order for Motor vehicle, Purchaser shall reimburse Seller for all fees, costs and expenses, including attorney's fees, incurred by Seller as a result of Purchaser's default hereunder. I have read the matter printed on the back hereof and agree to it as a part of Order the same as if it were printed above my signature, the front and back of Order comprise the entire agreement pertaining to this purchase, and no other agreement of any kind, understanding or promise whatsoever. Receipt of a copy of this Order is hereby acknowledged. I certify that I am 21 years of age or older. I have read, understand, and accept all provisions of the warranty statement covering this new Ford Motor company vehicle. The undersigned warrants the used car traded in to be in good condition, to have never been used commercially, in livery, as a taxicab, or as a police car, not to have a cracked or welded block, or not to have been seriously damaged and does not carry a salvage vehicle title. Purchaser acknowledges that there may have been certain transit and/or storage damage to the vehicle sold by the Seller herein, and Purchaser hereby release the Seller for any and all claims arising out of such transit and/or storage damage.

Buyer's Signature X _____

IBS-077171 **Illiana Business Solutions, Inc.** 708/354-4987 Rev. (5/13)

Park & Recreation Capital (25-225) - Vehicles / Equipment / Park Improvements Summary

Account Number Description	FY 2024 Projected	FY 2025 Proposed	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	Totals
25-225-60-00-6070							
Vehicles	**$ 38,995**	**$ 94,000**	**$ 184,000**	**$ 52,000**	**$ 117,000**	**$ 155,000**	**$ 640,995**
Pickup Truck	38,995	52,000	52,000	52,000	52,000	-	246,995
Pickup Truck	-	42,000	52,000	-	-	-	94,000
Recreation Van	-	-	38,000	-	-	45,000	83,000
Pickup Truck	-	-	42,000	-	-	-	42,000
Dump Truck	-	-	-	-	65,000	-	65,000
Utility Truck	-	-	-	-	-	55,000	55,000
Utility Truck	-	-	-	-	-	55,000	55,000
25-225-60-00-6060							
Equipment	**$ 107,913**	**$ 219,000**	**$ 115,000**	**$ 135,000**	**$ 77,000**	**$ 41,000**	**$ 694,913**
Mower	13,359	15,000	15,000	16,000	16,000	16,000	91,359
Scissor Lift	9,650	-	-	-	-	-	9,650
Generator	2,398	-	-	-	-	-	2,398
Backhoe	13,090	-	-	-	-	-	13,090
Skid Steer	-	55,000	-	-	-	-	55,000
Watering Trailer and Tank	-	15,000	-	-	-	-	15,000
Safety Barriers	-	78,000	-	-	-	-	78,000
Gator	-	-	-	12,000	-	-	12,000
Forrester Attachment	-	31,000	-	-	-	-	31,000
Wing Mower	-	-	-	68,000	-	-	68,000
Fork Truck	-	-	25,000	-	-	-	25,000
Miscellaneous Recreation Equipment	8,000	15,000	15,000	15,000	15,000	15,000	83,000
Utility Brush Mower	-	-	-	8,000	-	-	8,000
Replace Trash Cans	13,500	10,000	10,000	10,000	10,000	10,000	63,500
Trailer	8,127	-	-	6,000	-	-	14,127
Paint Sprayer	-	-	-	-	20,000	-	20,000
Mower	33,199	-	-	-	16,000	-	49,199
Preschool Cabinets	1,500	-	-	-	-	-	1,500
Lighting Detectors	-	-	50,000	-	-	-	50,000
Storage Containers	4,740	-	-	-	-	-	4,740
Traffic Cones	350	-	-	-	-	-	350

Park & Recreation Capital (25-225) - Vehicles / Equipment / Park Improvements Summary (continued)

Account Number / Description	FY 2024 Projected	FY 2025 Proposed	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	Totals
25-225-60-00-6010							
Park Improvements	**$ 417,332**	**$ 186,000**	**$ 160,000**	**$ 220,000**	**$ 185,000**	**$ 560,000**	**$ 1,728,332**
Replace Turf - Baseball Outfields at Br	-	15,000	15,000	15,000	15,000	15,000	75,000
Playgrounds - Rotary Park	-	100,000	-	-	-	-	100,000
Playgrounds - Sleezer Park	76,092	-	-	-	-	-	76,092
Playgrounds - Kiwanis Park	73,726	-	-	-	-	-	73,726
Playgrounds - Countryside Park	27,266	-	-	-	-	-	27,266
Playgrounds - Rice Park	80,751	-	-	-	-	-	80,751
Playgrounds - Prestwick Park	62,763	-	-	-	-	-	62,763
Riverfront Concrete Project	-	25,000	-	-	-	-	25,000
Playground Installation Carry Over fro	-	46,000	-	-	-	-	46,000
Playgrounds - Cannonball Park	-	-	105,000	-	-	-	105,000
Playgrounds - Sunflower Park	-	-	-	85,000	-	-	85,000
Grande Reserve - Park C	-	-	40,000	-	-	-	40,000
Playgrounds - Bridge Park	-	-	-	70,000	-	-	70,000
Playgrounds - Raintree A Park	-	-	-	-	70,000	-	70,000
Playgrounds - Stepping Stones Park	-	-	-	-	100,000	-	100,000
Playgrounds - Bristol Bay Park	-	-	-	50,000	-	-	50,000
Playgrounds - Gilbert Park	-	-	-	-	-	60,000	60,000
Playgrounds - Bristol Station Park	-	-	-	-	-	125,000	125,000
Grande Reserve - Park F	-	-	-	-	-	120,000	120,000
Grande Reserve - Park G	-	-	-	-	-	120,000	120,000
Grande Reserve - Park H	-	-	-	-	-	120,000	120,000
Countryside Shelter	38,000	-	-	-	-	-	38,000
Countryside Installation	43,734	-	-	-	-	-	43,734
Kiwanis Installation	15,000	-	-	-	-	-	15,000
Grand Totals	**$ 564,240**	**$ 499,000**	**$ 459,000**	**$ 407,000**	**$ 379,000**	**$ 756,000**	**$ 3,064,240**

All purchases existing Vehicles and Equipment, unless noted otherwise (highlighted in blue).

New additions.

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	■
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #6

Tracking Number

CC 2024-28

Agenda Item Summary Memo

Title: Patrol Officer Memorandum of Understanding

Meeting and Date: City Council – April 23, 2024

Synopsis: Please see the attached memo.

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Erin Willrett (Name) Administration (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: City Council
From: Erin Willrett, Assistant City Administrator
CC: Bart Olson, City Administrator; James Jensen Chief of Police
Date: April 23, 2024
Subject: Collective Bargaining Memorandum of Understanding with FOP Labor Council

---

Summary

Approval of a collective bargaining agreement memorandum of understanding (MOU) between the City and the Fraternal Order of Police governing the patrol and sergeant officers employed by the City during the period from May 1, 2023 – April 30, 2027.

Background

The last collective bargaining agreement between the City and the Officers employees was approved in 2022 for four years (May 1, 2023 – April 30, 2027). The city was asked to consider a wage increase from the Union based on inflation and comparable communities. When doing so, the City was able to negotiate other items in the CBA as it relates to wages, lateral hires and the health insurance cap.

In general, the bulk of the discussions were changes in wages. The city looked at 5 – 10 communities and compared starting wages, primarily, because we were concerned about the ability to recruit new officers successfully and retain recently hired employees. The data showed that the city was on the lower end of the starting wage rate and staff would recommend an adjustment outlined in the MOU from 3% annual increases to 5.5% beginning on May 1, 2024, and then 5% in FY25 and FY26 until the agreement ends.

The City also negotiated the ability to hire a lateral officer at "four years" instead of "two years" which was previously in the CBA. This should help us with our lateral hire flexibility.

The last item the city negotiated in the MOU relates to the health insurance cap. The City negotiated to remove the 10% employee contribution cap from one fiscal year to the next. This has not been an issue since FY17 where the City had a 12% increase in insurance. This cap was burdensome to negotiate, administer and explain to employee when it did occur.

Recommendation

Staff recommends approval of the MOU between the City and the Fraternal Order of Police Labor Council governing officers during the period from May 1, 2023 – April 30, 2027.

Resolution No. 2024-_____

RESOLUTION APPROVING A MEMORANDUM OF UNDERSTANDING BY AND BETWEEN THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS AND THE ILLINOIS FRATERNAL ORDER OF POLICE LABOR COUNCIL

WHEREAS, the United City of Yorkville, Kendall County, Illinois (the "City"*),* is a duly organized unit of government of the State of Illinois within the meaning of Article VII, Section 10 of the 1970 Illinois Constitution; and

WHEREAS, the Mayor and the City Council (collectively, the "Corporate Authorities") are committed to ensuring that the City operates in a safe, economical and efficient manner; and

WHEREAS, Section 7 of the Illinois Public Labor Relations Act (5 ILCS 315/7) provides that public employers and the exclusive bargaining representative have the authority and the duty to bargain collectively; and

WHEREAS, the Illinois Fraternal Order of Police Labor Council (the "Union") and the City have a current collective bargaining agreement (the "CBA"); and

WHEREAS, the Union and the City desire to amend the CBA in accordance with the Memorandum of Understanding (the "MOU") making certain changes to wage and insurance provisions of the CBA, attached hereto and incorporated herein as Exhibit A; and

WHEREAS, the Corporate Authorities have determined that it is in the best interests of the City and its residents to approve and authorize an agreement with terms substantially the same as the MOU.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1. The recitals set forth above are incorporated into this Resolution as if fully restated herein.

Section 2. *Memorandum of Understanding by and between the United City of Yorkville Police Department and the United City of Yorkville, Illinois and the Illinois Fraternal Order of Police Labor Council*, in the form attached hereto and made a part hereof, is hereby approved, and the Mayor and City Clerk are hereby authorized to execute said Agreement.

Section 3. That this Resolution shall be in full force and effect from and after its passage and approval as provided by law.

[Remainder of page intentionally left blank – roll call vote to follow]

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

CITY CLERK

KEN KOCH	_____	DAN TRANSIER	_____
ARDEN JOE PLOCHER	_____	CRAIG SOLING	_____
CHRIS FUNKHOUSER	_____	MATT MAREK	_____
SEAVER TARULIS	_____	RUSTY CORNEILS	_____

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

MAYOR

Attest:

_____

CITY CLERK

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding ("MOU") is agreed to by and between the United City of Yorkville Police Department and the United City of Yorkville, Illinois ("City") and the Illinois Fraternal Order of Police Labor Council (the "Union"), collectively the "Parties"). The Parties agree to the following:

1. The City and the Union are parties to a collective bargaining agreement covering the period from May 1, 2023 through April 30, 2027 (the "CBA") as to employees in the job classification of "Patrol Officer".

2. Except as expressly provided otherwise by an explicit provision of this MOU, the terms of the CBA will remain in effect.

3. The terms of this MOU are agreed to by the Parties to reflect their good faith negotiations related to these terms. Both the City and the Union acknowledge that they have had adequate opportunity to bargain these terms in good faith prior to the execution of the terms of this MOU.

4. Article 6, Section 6.1, Wage Rates will be revised to remove reference to "two years" and replace it with "four years" which is the maximum step in the pay scale referenced in Appendix B level at which a lateral law enforcement officer may be hired by the City.

5. Article 13 Insurance: Section 13.1 Medical Insurance, will be revised as follows:

"The City retains the right to change insurance carriers, benefit levels, or to self-insure as it deems appropriate. The employee shall be required to pay a monthly contribution towards the monthly insurance premium equal to the following: ten and one-half percent (10.5%) for the premium for single, single plus spouse, or single plus children under the HMO insurance policy or ten and one-half percent (10.5%) of the premium for family coverage under HMO insurance policy or plan offered by the City. The employee shall be required to pay a monthly contribution towards the monthly insurance premium equal to the following: twelve and one-half percent (12.5%) of the premium for single, single plus spouse, or single plus children under the PPO insurance policy or twelve and one-half percent (12.5%) for family coverage under the PPO insurance policy or plan offered by the City, depending on the employee's coverage election. To secure the 10.5% HMO and 12.5% PPO insurance rates, employees must obtain an annual physical and provide the City with proof of receiving the physical. Employees who do not receive an annual physical and submit the proof of the physical prior to March 31st of each calendar year, shall be required to pay a monthly contribution towards the monthly insurance premium equal to the following, beginning on May 1st of each calendar year: twelve percent (12%) for the premium for all HMO plans, and seventeen percent (17%) for all PPO plans.

6. **APPENDIX B ANNUAL SALARY RATES-PATROL OFFICERS,** will be revised to reflect the following revisions on the effective dates indicated for eligible employees:

Appendix B					
Annual salary rates, Patrol Officers					
Associates Degree					
		3.00%	5.50%	5.00%	5.50%
	(As of April 2023)	1-May-23	1-May-24	1-May-25	1-May-26
Less than 1 year	$63,036.40	$64,927.49	$68,498.50	$71,923.43	$75,879.22
After 1 year	$69,174.12	$71,249.34	$75,168.06	$78,926.46	$83,267.42
After 2 years	$72,527.90	$74,703.74	$78,812.44	$82,753.06	$87,304.48
After 3 years	$76,326.45	$78,616.24	$82,940.14	$87,087.14	$91,876.94
After 4 years	$80,142.76	$82,547.04	$87,087.13	$91,441.49	$96,470.77
After 5 years	$87,195.02	$89,810.87	$94,750.47	$99,487.99	$104,959.83
Bachelors Degree					
		3.00%	5.50%	5.00%	5.50%
	(As of April 2023)	1-May-23	1-May-24	1-May-25	1-May-26
Less than 1 year	$64,296.22	$66,225.11	$69,867.49	$73,360.86	$77,395.71
After 1 year	$70,625.89	$72,744.67	$76,745.62	$80,582.90	$85,014.96
After 2 years	$73,977.66	$76,196.99	$80,387.82	$84,407.22	$89,049.61
After 3 years	$77,852.78	$80,188.36	$84,598.72	$88,828.66	$93,714.24
After 4 years	$81,745.43	$84,197.79	$88,828.67	$93,270.11	$98,399.96
After 5 years	$89,314.69	$91,994.13	$97,053.81	$101,906.50	$107,511.36

7. As of the time this MOU was entered into, the Parties agreed that the changes referenced in Paragraph 6 of this MOU would be effective on May 1, 2024, and with no retroactive effect as to any other existing or former employees. Only those employees who are actively employed on May 1, 2024. will receive any increase in their base wages as a result of this MOU.

8. The individuals who sign below acknowledge and represent that they are authorized to bind their respective Party.

9. These terms are freely and voluntarily entered into by the Parties. This document is to be construed as if drafted by both Parties and not in favor or against any one Party.

FOR THE UNITED CITY OF YORKVILLE

John Purcell
Mayor

Date:_____

Jori Behland
City Clerk

Date:_____

James Jensen
Chief of Police

Date:_____

FOR THE ILLINOIS FRATERNAL ORDER OF POLICE, LABOR COUNCIL

Michael Powell
IL FOP Labor Council

Date:_____

Kyle Davis
Unit Steward

Date:_____

Ryan Goldsmith
Unit Steward

Date:_____

Robbie Hart
Unit Steward

Date:_____

City Seal:

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	■
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #7

Tracking Number

CC 2024-29

Agenda Item Summary Memo

Title: Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan

Meeting and Date: City Council – April 23, 2024

Synopsis: Please see the attached memo.

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: James Jensen (Name) Police (Department)

Agenda Item Notes:

Adoption of the 2024 Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan which identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the United City of Yorkville from the impacts of future hazards and disasters.

Memorandum

To: Public Safety Committee
From: James Jensen, Police Chief
CC: Bart Olson, City Administrator
Date: April 23, 2024
Subject: Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan

---

Summary

Adoption of the 2024 Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan which identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the United City of Yorkville from the impacts of future hazards and disaster.

Background

The Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan evaluates damage to life and property from natural and man-made hazards that have impacted Kendall County and the United City of Yorkville and identifies projects and activities to reduce these damages before an event occurs. This plan fulfills federal planning requirements of the Stafford Act as amended by the Disaster Mitigation Act of 2000 and the Disaster Recovery and Reform Act.

The main benefit of updating this plan is that the participating jurisdictions can remain or become eligible to apply for and receive federal hazard mitigation funds to implement the mitigation actions identified in the plan. In order to access certain types of non-emergency disaster assistance, jurisdictions must be a participant of a current, FEMA-approved Hazard Mitigation Plan.

The final step in the update process is having each of the participating jurisdictions adopt the plan by formal resolution. This is a FEMA requirement to access hazard mitigation funds. These funds, made available through FEMA's Hazard Mitigation Assistance grant program, can help provide local government entities with the opportunity to complete mitigation projects that would not otherwise be financially possible. There are three primary Hazard Mitigation Assistance funding programs: Building Resilient Infrastructure and Communities (BRIC), Flood Mitigation Assistance (FMA), and Hazard Mitigation Grant Program (HMGP).

The United City of Yorkville has been a part of FEMA-approved Hazard Mitigation Plans dating back to 2011. Previously, these plans were developed with the involvement of key City officials. Most recently, City Administrator Bart Olson, Public Works Director Eric Dhuse and I participated in the most current plan development, identifying Hazard Mitigation projects for the City. The six (6) projects identified in the plan (**Exhibit A**) are attached for your review. There is no downside to adopting this plan (**Exhibit B**). It ensures our jurisdiction is eligible to apply for mitigation project funding through IEMA/FEMA in the future but does not obligate us to fund or even complete the projects and activities listed in the plan.

Recommendation

Staff recommends City Council approval of the Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan.

Attachments

Exhibit A: Hazard Mitigation Projects
Exhibit B: FEMA Approved Kendall County Hazard Mitigation Plan

Exhibit A

Hazard Mitigation Projects
Multi-Jurisdictional Hazard Mitigation Plan

Participating Jurisdiction: United City of Yorkville

Prepared by: City Administrator Bart Olson, Public Works Director Eric Dhuse & Chief of Police James Jensen

Title

Date: August 9, 2023

	Project Description	**Position/Organization Responsible for Implementation & Administration of the Project** *(i.e. Mayor / City Council; Public Works Director; Fire Chief / Board of Trustees)*	**Time Frame to Complete the Project** *(i.e. 1 year; 5 years; 2-5 years)*
1.	Purchase and install transfer switches at all critical facilities/infrastructure to provide emergency backup power to ensure continued operations of Community Lifelines and maintain continuity of government/operations during extended power outages. (Kendall County Mitigation Strategy No. 14)	Public Works Director with advice and consent of the City Council	2-5 years
2.	Conduct weekly and yearly stream, pond, river, and ditch maintenance within city limits to maximize carrying/storage capacity and reduce flood problems (Kendall County Mitigation Strategy No. 21)	Public Works Director with advice and consent of the City Council	2-5 years
3.	Our current tornado warning system is aging and outdated. Newer technologies will be researched with the goal of replacing all tornado early warning systems to help maximize the early warning of residents to increase safety and security.	Public Works Director with the advice and consent of the City Council	2-5 years
4.	Research, purchase and implement a City Wide Communications System to be utilized by police department and public works personnel. This will improve system resiliency and ensure continuity of government operations during mass outages and critical incidents.	Chief of Police & Public Works Director with the advice and consent of the City Council	2-5 Years

	Project Description	Position/Organization Responsible for Implementation & Administration of the Project *(i.e. Mayor / City Council; Public Works Director; Fire Chief / Board of Trustees)*	Time Frame to Complete the Project *(i.e. 1 year; 5 years; 2-5 years)*
5.	Purchase and maintain specialty equipment for use in emergency situations. these include but are not limited to barricades of all sizes, flares, sandbags, pumps, chainsaws, PPE, and snow removal equipment.	Public Works Director with the advice and consent of the City Council	Ongoing
6.	Train all employees for disaster response with advanced training for key employees.	Chief of Police & Public Works Director with the advice and consent of the City Council	Ongoing
7.			
8.			
9.			

Participating Jurisdiction _____

	Project Description	**Position/Organization Responsible for Implementation & Administration of the Project** *(i.e. Mayor / City Council; Public Works Director; Fire Chief / Board of Trustees)*	**Time Frame to Complete the Project** *(i.e. 1 year; 5 years; 2-5 years)*
10.			
11.			
12.			
13.			
14.			

Questions ? Contact Andrea or Ken at (217) 585-9517

Exhibit B

Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan Update

Kendall County, Illinois

Participants:

Kendall County
Bristol-Kendall Fire Protection District
Kendall Township
Lisbon, Village of
Lisbon Consolidated Community School District #90
Lisbon-Seward Fire Protection District
Montgomery, Village of
Newark, Village of
Newark Community High School District #18
Newark Fire Protection District
Oswego, Village of
Oswego Community Unit School District #308
Oswego Fire Protection District
Oswego Township
Oswegoland Park District
Parkview Christian Academy
Plano, City of
Plano Community Unit School District #88
Plattville, Village of
Sandwich Community Fire Protection District
St. Mary Catholic School
Yorkville, United City of

March 2024

The five year update of this Plan must be completed on or before (date).

Cover photographs from left to right:

- *June 12, 2013 thunderstorm with damaging winds four miles northeast of Plano – Photograph from the Chicago NWS Weather Forecast Office June 12th, 2013: Severe Weather Event*
- *April 17 & 18, 2013 riverine and flash flooding – Photograph courtesy of the Kendall County Sheriff's Office*

KENDALL COUNTY MULTI-JURISDICTIONAL ALL HAZARDS MITIGATION PLAN

KENDALL COUNTY, ILLINOIS

TABLE OF CONTENTS

1.0 INTRODUCTION 1
- 1.1 PARTICIPATING JURISDICTIONS 2
- 1.2 COUNTY PROFILE 3
- 1.3 LAND USE AND DEVELOPMENT TRENDS 5

2.0 PLANNING PROCESS 19
- 2.1 MITIGATION ADVISORY COMMITTEE 20
- 2.2 OUTREACH STRATEGY 24
- 2.3 PARTICIPATION OPPORTUNITIES FOR INTERESTED PARTIES 27
- 2.4 IDENTIFICATION OF EXISTING CAPABILITIES 28
- 2.5 REVIEW & INCORPORATION OF EXISTING PLANS 30

3.0 RISK ASSESSMENT 45
- 3.1 SEVERE STORMS (THUNDERSTORMS, HAIL, LIGHTNING & HEAVY RAIN) 62
- 3.2 FLOODS 81
- 3.3 SEVERE WINTER STORMS 107
- 3.4 EXTREME COLD 117
- 3.5 EXCESSIVE HEAT 126
- 3.6 TORNADOES 136
- 3.7 DROUGHTS 157
- 3.8 EARTHQUAKES 166
- 3.9 MAN-MADE HAZARDS 180
  - 3.9.1 Hazardous Substances 180
    - 3.9.1.1 Generation 181
    - 3.9.1.2 Transportation 181
    - 3.9.1.3 Storage/Handling 186
  - 3.9.2 Waste Disposal 186
    - 3.9.2.1 Solid Waste 186
    - 3.9.2.2 Potentially- Infectious Medical Waste 187
    - 3.9.2.3 Hazardous Waste 187
  - 3.9.3 Hazardous Material Incidents 187
  - 3.9.4 Waste Remediation 188
  - 3.9.5 Nuclear Incidents 189
    - 3.9.5.1 Power Facilities 190
    - 3.9.5.2 Transportation of Spent Nuclear Fuel Rods by Railway 191
  - 3.9.6 Terrorism 191

4.0 MITIGATION STRATEGY 195
4.1 MITIGATION GOALS REVIEW 195
4.2 EXISTING MITIGATION ACTIONS REVIEW 196
4.3 NEW MITIGATION ACTION IDENTIFICATION 197
4.4 MITIGATION ACTION ANALYSIS 197
4.5 MITIGATION ACTION PRIORITIZATION METHODOLOGY & COST/BENEFIT ANALYSIS REVIEW 199
4.6 MITIGATION ACTION IMPLEMENTATION & ADMINISTRATION 201
4.7 RESULTS OF MITIGATION STRATEGY 202

5.0 PLAN MAINTENANCE 270
5.1 MONITORING, EVALUATING & UPDATING THE PLAN 270
5.1.1 Monitoring and Evaluating the Plan 270
5.1.2 Updating the Plan 271
5.2 INCORPORATING THE MITIGATION STRATEGY INTO EXISTING PLANNING MECHANISMS 272
5.3 CONTINUED PUBLIC INVOLVEMENT 273

6.0 PLAN ADOPTION 274
6.1 PLAN ADOPTION PROCESS 274

7.0 REFERENCES 275

APPENDICES

Planning Committee Meeting Attendance Sheets ..... APPENDIX A
Planning Committee Meeting Minutes ..... APPENDIX B
Citizen Questionnaire ..... APPENDIX C
Frequently Asked Questions Fact Sheet ..... APPENDIX D
Media Outlets Serving the County ..... APPENDIX E
News Releases & Social Media Posts Published ..... APPENDIX F
Public Forum – Planning Process Summary Handout ..... APPENDIX G
Public Forum – Plan Comment Surveys ..... APPENDIX H
Hazard Mitigation Planning Memo Sent to Adjacent Counties ..... APPENDIX I
Hazard Event Risk Assessment Tables ..... APPENDIX J
Flood Maps for Participating Jurisdictions ..... APPENDIX K
2011 Kendall County Mitigation Strategies ..... APPENDIX L
2015 Montgomery Mitigation Strategies ..... APPENDIX M
Plan Maintenance Checklist ..... APPENDIX N
Plan Adoption Resolutions ..... APPENDIX O

LIST OF FIGURES

Figure I-1 Federal Emergency & Major Disaster Declarations: Kendall County 1
Figure I-2 State Disaster Proclamations: Kendall County 1
Figure I-3 Participating Jurisdictions Represented in the Plan 3
Figure I-4 Location Map 9
Figure I-5 Kendall County 2020 Census Tract Map 10
Figure I-6 Montgomery-Oswego-Yorkville 2020 Census Tract Map 11
Figure I-7 Township Boundary Map 12

Figure I-8	School District Boundary Map	13
Figure I-9	Fire Protection District Boundary Map	14
Figure I-10	Oswegoland Park District Boundary Map	15
Figure I-11	Kendall County Land Cover Data: 2011 to 2021	4
Figure I-12	2017-2021 Demographic Data by Participating Jurisdiction	16
Figure I-13	2017-2021 Demographic Data by Census Tract	17
Figure I-14	Demographic Data by Participating School District	6
Figure I-15	Demographic Data by Participating Fire Protection District	6
Figure I-16	Demographic Data by Participating Park District	7
Figure PP-1	Description of Planning Process	19
Figure PP-2	Kendall County Planning Committee Member Attendance Record	21
Figure PP-3	County / Municipalities – Planning & Regulatory Capabilities	31
Figure PP-4	County / Municipalities – Administrative & Technical Capabilities	32
Figure PP-5	County / Municipalities – Financial / Education & Outreach Capabilities	33
Figure PP-6	Townships – Planning & Regulatory / Administrative & Technical Capabilities	34
Figure PP-7	Townships – Financial / Education & Outreach Capabilities	35
Figure PP-8	Schools – Planning & Regulatory / Administrative & Technical Capabilities	36
Figure PP-9	Schools – Financial / Education & Outreach Capabilities	37
Figure PP-10	Fire Protection Districts – Planning & Regulatory Capabilities	38
Figure PP-11	Fire Protection Districts – Administrative & Technical Capabilities	39
Figure PP-12	Fire Protection Districts – Financial / Education & Outreach Capabilities	40
Figure PP-13	Park Districts – Planning & Regulatory / Administrative & Technical Capabilities	41
Figure PP-14	Park Districts – Financial / Education & Outreach Capabilities	42
Figure PP-15	Capability Rankings by Participating Jurisdiction	43
Figure PP-16	Select Planning & Regulatory Capabilities Information by County/Municipality	44
Figure R-1	Risk Priority Index Scoring System	53
Figure R-2	Risk Priority Index Hazard Ranking by Participating Jurisdiction	54
Figure R-3	Comparison of 2011 & 2023 Risk Priority Index Hazard Rankings by Participating Jurisdiction	56
Figure R-4	National Risk Index Overall Scores/Ratings by Census Tract	57
Figure R-5	NRI Hazard Scores/Ratings by Hazard by Census Tract	58
Figure R-6	Critical Facilities & Infrastructure by Jurisdiction	61
Figure R-7	U.S. Annual Temperature Compared to 20th Central Average	51
Figure R-8	U.S. Annual Precipitation Compared to 20th Central Average	52
Figure SS-1	Wind Speed Conversions	63
Figure SS-2	Hail Size Descriptions	64
Figure SS-3	TORRO Hailstorm Intensity Scale	65
Figure SS-4	Thunderstorms with Damaging Winds by Month	67
Figure SS-5	Hail Events by Month	68
Figure SS-6	Cloud-to-Ground Lightning Flash Density: Continental U.S.	68
Figure SS-7	Mean Annual Supercell Track Counts	71
Figure SS-8	Average Annual Precipitation Projections Table – Kendall County	72

Figure SS-9 Average Annual Precipitation Projections Graph – Kendall County 72
Figure SS-10 Number of Days with Total Precipitation > 2 Inches Graph – Kendall County 72
Figure SS-11 Verified Severe Storm Events by Participating Municipality 73
Figure SS-12 Verified Severe Storm Events in Unincorporated Kendall County 73
Figure SS-13 Severe Weather Crash Data for Kendall County 78
Figure SS-14 Critical Facilities & Infrastructure Supported by Backup Generators by Jurisdiction 80
Figure F-1 Floodplain Illustration 83
Figure F-2 Example of a Flood Insurance Rate Map (FIRM) 84
Figure F-3 Flood Events by Month 88
Figure F-4 Floodplain Areas in Kendall County 90
Figure F-5 Bodies of Water Subject to Flooding 89
Figure F-6 NFIP Participating Jurisdictions 91
Figure F-7 Non-Participating Jurisdiction NFIP Status 92
Figure F-8 Repetitive Flood Loss Structures 97
Figure F-9 Existing Buildings, Infrastructure and Critical Facilities Located in a Base Floodplain by Participating Municipalities 98
Figure F-10 Existing Buildings, Infrastructure and Critical Facilities Located in a Floodplain by Township 98
Figure F-11 Sample Calculation of Average Assessed Value & Average Market Value – Plano 102
Figure F-12 Average Market Value of Housing Units by Participating Municipality 102
Figure F-13 Average Market Value of Housing Units by Township 103
Figure F-14 FEMA Flood Loss Estimation Tables 103
Figure F-15 *Structure:* Potential Dollar Loss Sample Calculation – Plano 104
Figure F-16 *Content:* Potential Dollar Loss Sample Calculation – Plano 104
Figure F-17 Estimated Potential Dollar Losses to Potentially-Damaged Housing Units from a Riverine Flood Event by Participating Municipality 105
Figure F-18 Estimated Potential Dollar Losses to Potentially-Damaged Structures from a Riverine Flood Event by Township 105
Figure SWS-1 Severe Winter Storms by Month 110
Figure SWS-2 Number of Days Per Year with Minimum Temperature < 32°F Table – Kendall County 110
Figure SWS-3 Number of Days Per Year with Minimum Temperature < 32°F Graph – Kendall County 111
Figure SWS-4 Severe Winter Weather Crash Data for Kendall County 114
Figure SWS-5 Socially Vulnerable Populations by Participating Jurisdictions 115
Figure EC-1 Wind Chill Chart 118
Figure EC-2 Extreme Cold by Month 120
Figure EC-3 Designated Warming Centers by Participating Jurisdiction 121
Figure EC-4 Days with Maximum Temperature < 32°F Projection Table – Kendall County 122
Figure EC-5 Number of Days with Maximum Temperature < 32°F Graph – Kendall County 122
Figure EC-6 Average Number of Annual Days Below 32°F 123

Figure EH-1 Heat Index 127
Figure EH-2 Relationship between Heat Index and Heat Disorders 128
Figure EH-3 Excessive Heat by Month 129
Figure EH-4 Designated Cooling Centers by Participating Jurisdiction 130
Figure EH-5 Annual High Temperature Extreme Projections Table – Kendall County 132
Figure EH-6 Number of Days with Maximum Temperature > 90°F Graph – Kendall County 132
Figure EH-7 Number of Days with Maximum Temperature > 100°F Graph – Kendall County 132
Figure EH-8 Sensitive Populations by Participating Jurisdictions 134
Figure T-1 Fujita & Enhanced Fujita Tornado Measurement Scales 137
Figure T-2 Tornadoes by Magnitude 139
Figure T-3 Tornadoes by Month 139
Figure T-4 Tornado Pathways in Kendall County 140
Figure T-5 Verified Tornadoes In or Near Participating Municipalities & Townships 142
Figure T-6 Calculation of Average Housing Unit Density – Kendall County 147
Figure T-7 Average Housing Unit Density by Participating Jurisdiction 147
Figure T-8 Average Housing Unit Density by Township 148
Figure T-9 Refined Land Area Figures for Participating Municipalities with Large Tracts of Commercial/Industrial and Undeveloped Land Areas 149
Figure T-10 Sample Calculation of Potentially-Damaged Housing Units – Kendall County 149
Figure T-11 Estimated Number of Housing Units by Participating Jurisdiction Potentially Damaged by a Tornado 150
Figure T-12 Estimated Number of Housing Units by Township Potentially Damaged by a Tornado 151
Figure T-13 Sample Calculation of Average Assessed Value & Average Market Value – Yorkville 152
Figure T-14 Average Market Value of Housing Units by Participating Jurisdiction 153
Figure T-15 Average Market Value of Housing Units by Township 153
Figure T-16 *Structure:* Potential Dollar Loss Sample Calculation – Yorkville 154
Figure T-17 *Content:* Potential Dollar Loss Sample Calculation – Yorkville 155
Figure T-18 Estimated Potential Dollar Losses to Potentially-Damaged Housing Units from a Tornado by Participating Jurisdiction 155
Figure T-19 Estimated Potential Dollar Losses to Potentially-Damaged Housing Units from a Tornado by Township 156
Figure DR-1 U.S. Drought Monitor – Drought Intensity Categories 159
Figure DR-2 U. S. Drought Monitor 159
Figure DR-3 Crop Yield Reductions Due to Drought – Kendall County 163
Figure EQ-1 Earthquake Magnitude Classes 168
Figure EQ-2 Comparison of Richter Scale and Modified Mercalli Intensity Scale 169
Figure EQ-3 Approximate Number of Earthquakes Recorded Annually 170
Figure EQ-4 Geological Structures in Northern Illinois 171
Figure EQ-5 Earthquakes Originating in Kendall Illinois 172
Figure EQ-6 Frequency of Damaging Earthquake Shaking Around the U.S. 174
Figure EQ-7 Potential Earthquake Impacts 177

Figure EQ-8 Number of Unreinforced Masonry Buildings Serving as Critical Facilities by Jurisdiction....179
Figure MMH-1 Generators of Solid & Liquid Hazardous Substances – 2021 181
Figure MMH-2 Roadway Incidents* Involving Shipments of Hazardous Substances....182
Figure MMH-3 ICC Hazardous Substances Railroad Accident/Incidents Classification Categories....183
Figure MMH-4 ICC Recorded Railway Accidents/Incidents Involving Hazardous Substances 194
Figure MMH-5 IEMA Recorded Railway Accidents/Incidents Involving Hazardous Substances 183
Figure MMH-6 Pipeline Location Map 185
Figure MMH-7 Nuclear Generating Stations Near Kendall County....190
Figure MMH-8 Locations within Emergency Planning Zones....191
Figure MIT-1 Mitigation Goals....196
Figure MIT-2 Kendall County – Status of Existing Mitigation Actions....203
Figure MIT-3 Lisbon – Status of Existing Mitigation Actions 208
Figure MIT-4 Montgomery – Status of Existing Mitigation Actions 209
Figure MIT-5 Newark – Status of Existing Mitigation Actions....212
Figure MIT-6 Oswego – Status of Existing Mitigation Actions 213
Figure MIT-7 Plano – Status of Existing Mitigation Actions 214
Figure MIT-8 Yorkville – Status of Existing Mitigation Actions 216
Figure MIT-9 Types of Mitigation Activities....198
Figure MIT-10 Community Lifelines....199
Figure MIT-11 Mitigation Action Prioritization Methodology....200
Figure MIT-12 Kendall County Hazard Mitigation Actions....217
Figure MIT-13 Bristol-Kendall Fire Protection District Hazard Mitigation Actions 221
Figure MIT-14 Kendall Township Hazard Mitigation Actions....222
Figure MIT-15 Lisbon Hazard Mitigation Actions 225
Figure MIT-16 Lisbon Consolidated Community School District #90 Hazard Mitigation Actions....230
Figure MIT-17 Lisbon-Seward Fire Protection District Hazard Mitigation Actions 232
Figure MIT-18 Montgomery Hazard Mitigation Actions 235
Figure MIT-19 Newark Hazard Mitigation Actions....240
Figure MIT-20 Newark Community High School District #18 Hazard Mitigation Actions 242
Figure MIT-21 Newark Fire Protection District Hazard Mitigation Actions....244
Figure MIT-22 Oswego Hazard Mitigation Actions 245
Figure MIT-23 Oswego Community Unit School District #308 Hazard Mitigation Actions....248
Figure MIT-24 Oswego Fire Protection District Hazard Mitigation Actions 250
Figure MIT-25 Oswego Township Hazard Mitigation Actions 252
Figure MIT-26 Oswegoland Park District Hazard Mitigation Actions....254
Figure MIT-27 Parkview Christian Academy Hazard Mitigation Actions 256
Figure MIT-28 Plano Hazard Mitigation Actions 259
Figure MIT-29 Plano Community Unit School District #88 Hazard Mitigation Actions....261
Figure MIT-30 Plattville Hazard Mitigation Actions....263
Figure MIT-31 Sandwich Community Fire Protection District Hazard Mitigation Actions 264

Figure MIT-32 St. Mary Catholic School Hazard Mitigation Actions.....265
Figure MIT-33 Yorkville Hazard Mitigation Actions.....267
Figure PA-1 Plan Adoption Dates.....274

Researched and written for the Kendall County Multi-Jurisdictional
Multi-Hazard Mitigation Planning Committee
by American Environmental Corporation

1.0 INTRODUCTION

Each year natural hazards (i.e., severe thunderstorms, tornadoes, severe winter storms, flooding, etc.) cause damage to property and threaten the lives and health of the residents of Kendall County. Since 1973, Kendall County has been included in seven major federally-declared disasters and six emergency declarations. **Figure I-1** identifies each federal declaration including its declaration number, the year the disaster was declared, type of declaration, and the natural hazard that triggered the declaration. Since 2010, the County has been included in nine state disaster proclamations. **Figure I-2** identifies the year the proclamation was issued and the type of natural hazard that triggered the declaration. The natural hazard(s) recognized as contributing to the declaration for Kendall County is identified in bold.

Figure I-1
Federal Emergency & Major Disaster Declarations: Kendall County

Declaration #	Year	Declaration Type	Natural Hazard(s) Covered by Declaration
373	1973	Major	severe storms; **flooding**
438	1974	Major	severe storms; **flooding**
3068	1979	Emergency	**blizzards; snowstorms**
878	1990	Major	**tornadoes**
1129	1996	Major	**severe storms; flooding**
3134	1999	Emergency	**winter storm**
3161	2000	Emergency	**winter snowstorm**
3230	2005	Emergency	**hurricane Katrina evacuation**
3269	2006	Emergency	**snow**
1800	2008	Major	severe storms; **flooding**
4116	2013	Major	severe storms; straight-line winds; **flooding**
3435	2020	Emergency	**COVID-19**
4489	2020	Major	**COVID-19 pandemic**

Figure I-2
State Disaster Proclamations: Kendall County

Year	Hazard(s) Covered by Declaration
2011	**winter weather**
2011	high wind; tornadoes; **torrential rain**
2013	severe storms; straight-line winds; **heavy rainfall**; **flooding**
2014	**heavy snowfall**; **frigid temperatures**
2019	**winter storm (frigid temperatures)**
2020	**COVID-19**
2021	**winter storms**
2022	**winter storms**
2022	**Monkeypox**

In the last 10 years alone (2013 – 2022), there have been 48 thunderstorms with damaging winds, 41 extreme cold events, 30 excessive heat events, 29 severe winter storms, 25 riverine flood events, 20 flash flood events, 10 severe storms with hail one inch in diameter or greater, 6 tornadoes, 2 verified heavy rain events, and 1 lightning strike with verified damages in the County.

While natural hazards cannot be avoided, their impacts can be reduced through effective hazard mitigation planning. This prevention-related concept of emergency management often receives the least amount of attention, yet it is one of the most important steps in creating a hazard-resistant community.

What is hazard mitigation planning?

Hazard mitigation planning is the process of determining how to reduce or eliminate the loss of life and property damage resulting from natural and man-made hazards. This process helps the County and participating jurisdictions reduce their risk from these hazards by identifying vulnerabilities and developing mitigation actions to lessen and sometimes even eliminate the effects of a hazard. The results of this process are documented in an all hazards mitigation plan.

Why update an all mitigation plan?

By updating and adopting an all-hazards mitigation plan, participating jurisdictions become eligible to apply for and receive federal hazard mitigation funds to implement mitigation actions identified in the plan. These funds can help provide local government entities with the opportunity to complete mitigation projects and activities that would not otherwise be financially possible.

The federal hazard mitigation funds are made available through the Disaster Mitigation Act of 2000, an amendment to the Robert T. Stafford Disaster Relief and Emergency Assistance Act, which provides federal aid for mitigation projects, but only if the local government entity has a Federal Emergency Management Agency (FEMA) approved hazard mitigation plan.

How is this plan different from other emergency plans?

An all hazards mitigation plan is aimed at identifying projects and activities that can be conducted prior to a natural or man-made disaster, unlike other emergency plans which provide direction on how to respond to a disaster after it occurs. This is the first time that Kendall County has updated its hazard mitigation plan since the original plan was prepared in 2011. This update describes in detail the actions that can be taken to help reduce or eliminate damages caused by specific types of natural and man-made hazards.

1.1 PARTICIPATING JURISDICTIONS

Recognizing the benefits of having an updated all hazards mitigation plan, the Kendall County Board authorized the update of the Kendall County Multi-Hazard Mitigation Plan (thereto referred to as the Plan). The County then invited all the local government entities within the County to participate. **Figure I-3** identifies the participating jurisdictions represented in the Plan update who sought Plan approval.

While all of the municipalities within the County were invited and encouraged to participate in the Plan update, Millbrook and Millington chose not to engage in the process and therefore are not included as participating jurisdictions in the Plan update. Small portions of Aurora, Joliet, Minooka, Plainfield, and Sandwich are located in Kendall County. Minooka participated in the 2020 update of the Grundy County Hazard Mitigation Plan. Joliet and Plainfield participated in the 2021 update of the Will County Hazard Mitigation Plan while Sandwich participated in the 2021 update of the DeKalb County Hazard Mitigation Plan. Aurora is participating in the 2023

update of the Kane County Hazard Mitigation Plan. Therefore, the risk and/or vulnerability of these municipalities are not discussed in this Plan.

Figure I-3
Participating Jurisdictions Represented in the Plan

- Bristol-Kendall Fire Protection District
- Kendall County
- Kendall Township
- Lisbon, Village of
- Lisbon Consolidated Community School District #90
- Lisbon-Seward Fire Protection District
- Montgomery, Village of
- Newark, Village of
- Newark Community High School District #18
- Newark Fire Protection District
- Oswego, Village of
- Oswego Community Unit School District #308
- Oswego Fire Protection District
- Oswego Township
- Oswegoland Park District
- Parkview Christian Academy
- Plano, City of
- Plano Community Unit School District #88
- Plattville, Village of
- Sandwich Community Fire Protection District
- St. Mary Catholic School
- Yorkville, United City of

1.2 COUNTY PROFILE

Kendall County is located in northeastern Illinois and covers approximately 322 square miles. Located at the end of this section, **Figure I-4** provides a location map of the County and the participating municipalities while **Figures I-5** and **I-6** identify the boundaries of the census tracts located in the County. **Figures I-7, I-8, I-9,** and **I-10** identify the boundaries of the townships, schools, fire protection districts, and park district.

The County is bounded to the north by Kane County, to the northeast by DuPage County, to the east by Will County, to the south by Grundy County, and to the west by LaSalle and DeKalb Counties. The United City of Yorkville is the county seat.

The northern two-thirds of Kendall County is situated in the Bloomington Ridged Plain subsection of the Till Plains section of the Central Lowland Provence while the southern one-third is located in the Kankakee Till Plain subsection of the Till Plains section of the Central Lowland Provence. The topography is nearly level to gently sloping and has a relatively low relief on the glacial lake plains and more rolling topography along the major stream valleys and on glacial moraines. The numerous glacial moraines in the area tend to form elongated ridges tending from northwest to southeast. Soils classified as prime farmland comprise approximately 78% of the total acreage in Kendall County. The northern and western portions of the County are drained by the Fox watershed while the southern and most of the east portion of the County are encompassed but the Illinois River Valley watershed. A small portion of Kendall County along its eastern border with Will County is drained by the Des Plaines watershed.

According to the Multi-Resolution Land Characteristics (MRLC) Consortium, in 2021 approximately 84.8% of the County's land cover was vegetation, including developed open spaces, cultivated crop land, pasture/hay, grassland, and deciduous/evergreen/mixed forest while 13.3%

of the County's land cover was considered developed with 6.3% impervious surfaces. Between 2011 and 2021 approximately 3.2 square miles or approximately 1% of the land cover in the County changed with 0.55 square miles of development and 0.79 square miles of impervious surfaces gained. **Figure I-11** illustrates the changes by land cover type.

Figure I-11
Kendall County Land Cover Data: 2011 to 2021

Land Cover Categories	Area 2011	Area Lost	Area Gained	Area 2021	Net Change	Percent Change
Developed, High Intensity	4.07	0.00	0.43	4.50	0.43	10.50%
Developed, Medium Intensity	12.30	-0.03	0.97	13.23	0.93	7.60%
Developed, Low Intensity	25.41	-0.51	0.36	25.25	-0.16	-0.63%
Developed, Open Space	16.43	-0.82	0.16	15.78	-0.65	-3.98%
Cultivated Crops	230.64	-0.99	0.16	229.81	-0.84	-0.36%
Pasture/Hay	9.05	-0.16	0.29	9.18	0.13	1.44%
Grassland	2.36	-0.12	0.11	2.35	-0.01	-0.57%
Deciduous Forest	16.09	-0.09	0.08	16.08	-0.02	-0.10%
Evergreen Forest	0.08	0.00	0.00	0.07	0.00	-2.77%
Mixed Forest	0.21	0.00	0.01	0.22	0.01	5.21%
Scrub/Shrub	0.07	-0.04	0.02	0.06	-0.02	-20.47%
Woody Wetland	1.97	-0.01	0.03	2.00	0.02	1.14%
Emergent Herbaceous Wetland	0.32	-0.04	0.17	0.45	0.13	39.18%
Barren Land	0.75	-0.16	0.34	0.93	0.18	23.68%
Open Water	2.50	-0.24	0.11	2.37	-0.13	-5.21%
Perennial Snow/Ice	0.00	0.00	0.00	0.00	0.00	0.00%
*All numbers expressed in square miles						

Source: Multi-Resolution Land Characteristics Consortium's National Landcover Database.

Kendall County has traditionally been known for its fertile farmland. According to the 2017 Census of Agriculture, there were 313 farms in Kendall County occupying almost 67% (137,899 acres) of the total land area in the County. The major crops include corn, soybeans, vegetables, melons, potatoes, sweet potatoes, nursery, greenhouse, floriculture, and sod. Major livestock includes cattle and calves, poultry, and horses and ponies. The County ranks 8th in the State for nursey, greenhouse, floriculture and sod, 11th in the State for vegetables, and 71st in the State for grains (corn and soybeans). In terms of livestock, the County ranks 38th for poultry and eggs and 76th for horses and ponies. Kendall County ranks 66th in crop cash receipts and 78th in livestock cash receipts.

The largest employment sectors in Kendall County are health care and social assistance, manufacturing, retail trade, and educational services according to the Illinois Department of Commerce and Economic Opportunity. According to the Kendall County Economic Development Department, major employers in the County include Oswego CUSD #308, Yorkville CUSD #115, Walmart, Performance Food, Menards, Wrigley, Kendall County, Hormann LLC, Plano CUSD #88, United City of Yorkville. Fox Valley Molding, and Radiac Abrasives. According to U.S. Cluster Mapping the top traded economic cluster in Kendall County is distribution and electronic commerce.

Figure I-12, located at the end of this section, provides demographic and socio-economic data for the County and participating townships and municipalities. One of the seven participating

municipalities meets the definition of an Economically Disadvantaged Rural Community (EDRC) while neither of the townships meet the definition. FEMA defines an EDRC as a community of 3,000 or fewer individuals whose residents have an average per capita annual income not exceeding 80 percent of the U.S. per capita income based on best available data.

Figure I-13, also located at the end of this section, provides additional demographic information by census tract with the U.S. Council on Environmental Quality Climate and Economic Justice Screening Tool (CEJST) and the CDC/ATSDR Social Vulnerability Index (SVI) and overall level of vulnerability. CEJST is a geospatial mapping tool that identifies census tracts across the nation where communities are faced with significant burdens, which are grouped into eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. Communities are considered disadvantaged if they are in census tracts that meet the thresholds for at least one of these categories. In Kendall County, none of the participating jurisdictions are considered disadvantaged.

The SVI is a database that uses U.S. Census Bureau American Community Survey data to rank census tracts and counties on 16 social factors within four themes: Socioeconomic Status, Household Characteristics, Racial & Ethnic Minority Status, and Housing Type & Transportation. The goal of the SVI is to help emergency response planners and public health officials identify, map, and plan support for communities that will most likely need support before, during, and after a public health emergency.

The rankings generated by the SVI describe a county's or census tract's relative vulnerability among all other U.S. counties and census tracts. The SVI data used in this document is based on 2020 census tract information. Rankings are based on percentiles ranging from 0 to 1, with higher values indicating greater vulnerability. Each ranking is assigned to one of four levels of vulnerability: Low (0 – 0.2499), Low to Medium (0.2500 – 0.4999), Medium to High (0.5000 – 0.7499), and High (0.7500 – 1). A community with an SVI of 0.6000 or greater is considered an underserved and/or disadvantaged community. In Kendall County, none of the participating jurisdictions that meet this definition.

Figures I-14, I-15, and **I-16** provides basic demographic information about the size and populations served by the participating school districts, fire protection districts, and park district.

1.3 LAND USE AND DEVELOPMENT TRENDS

Population growth and economic development are two major factors that trigger changes in land use. Between 2010 and 2020 the population of Kendall County increased by 14.9% from 114,736 to 131,869. This is a continuation of a larger trend. U.S. Census Bureau records indicates that between 1900 and 2010, the population of Kendall County increased by 1000% from 11,467 to 114,736. Between 2010 and 2020, four of the seven participating municipalities experienced population increases: Yorkville by 27.3%, Oswego by 13.9%, Montgomery by 9.9%, and Plano by 9.1%. During the same time period, the remaining three participating municipalities experienced modest populations decreases: Lisbon by 4.9%, Newark by1.9%, and Plattville by 9.1%.

Figure I-14
Demographic Data by Participating School District

Participating District	Number of Schools in District	Estimated Population Served	Area Served (Sq. Miles) (2020)	Communities / Unincorp. Areas Served in the County	Census Tracts Falling with the District
Lisbon Consolidated Community School District #90	1	500	40.5	Lisbon, Newark	7.03
Newark Community High School District #18	1	3,000	101	Lisbon, Millbrook, Newark, Norway	6.02, 7.03
Oswego Community Unit School District #308	23	17,500	68.8	Aurora, Montgomery, Oswego, Plainfield	1.03, 1.04, 1.05, 1.06, 1.07, 1.08, 2.01, 2.02, 3.01, 3.02, 4.03, 4.04, 7.02
Parkview Christian Academy	2	n/a	n/a	Non-boundaried school	1.03, 1.04, 1.05, 1.06, 1.07, 1.08, 2.01, 2.02, 3.01, 3.02, 4.01, 4.02, 4.03, 4.04, 5.01, 5.02, 6.01, 6.02, 7.01, 7.02, 7.03
Plano Community Unit School District #88	5	12,000	30.9	Plano	4.01, 5.01, 5.02, 6.02
St. Mary Catholic School	1	n/a	n/a	Non-boundaried school	1.03, 1.04, 1.05, 1.06, 1.07, 1.08, 2.01, 2.02, 3.01, 3.02, 4.01, 4.02, 4.03, 4.04, 5.01, 5.02, 6.01, 6.02, 7.01, 7.02, 7.03

Source: Capability Assessment Worksheets – School Districts.

Figure I-15
Demographic Data by Participating Fire Protection District

Participating District	Number of Fire Stations	Estimated Population Served	Area Served (Sq. Miles) (2020)	Communities / Unincorp. Areas Served in the County	Census Tracts Falling with the District
Bristol-Kendall FPD	3	34,000	77	Bristol, Montgomery, Yorkville	1.08, 4.01, 4.02, 4.03, 4.04, 5.01, 6.01, 6.02, 7.02, 7.03
Lisbon-Seward FPD	2	3,000	62	Joliet, Lisbon, Plattville	7.02, 7.03
Newark FPD	1	3,500	64	Helmar, Millington, Newark	6.02, 7.03
Oswego FPD	4	75,000	52	Boulder Hill, Montgomery, Oswego, Plainfield, Yorkville	1.03, 1.04, 1.05, 1.06, 1.07, 1.08, 2.01, 2.02, 3.01, 3.02, 4.02, 4.03, 4.04, 6.02, 7.02
Sandwich Community FPD	1	10,000	69.5	Lake Holliday, Sandwich	5.01, 5.02, 6.02

Source: Capability Assessment Worksheets – Fire Protection Districts.

Figure I-16
Demographic Data by Participating Park District

Participating District	Estimated Population Served	Area Served (Acres)	Communities / Unincorp. Areas Served in the County	Census Tracts Falling with the District
Oswegoland Park District	65,000	24,300	Aurora, Montgomery, Oswego, Plainfield, Yorkville	1.03, 1.04, 1.05, 1.06, 1.07, 1.08, 2.01, 2.02, 3.01, 3.02, 4.03, 7.02

Source: Capability Assessment Worksheets – Park Districts.

Land use in Kendall County is primarily agricultural. As discussed in the previous section, approximately 67% of the land within the County is used for farming practices. Agriculture is and will continue to be an important industry within the County.

According to the Kendall County Planning, Building, and Zoning Director, there has been no large-scale development in unincorporated Kendall County since the original Plan. In terms of small residential development (i.e., new home subdivisions, multi-family use housing, etc.) in unincorporated Kendall County, it occurred prior to the development of original Plan in 2011 and there have been no additional developments in the unincorporated areas.

According to County and municipal officials, changes in development since the original Plan have primarily been contained to Montgomery, Oswego, Plano, and Yorkville. According to the Montgomery Economic Development Manager, there are two sites along Orchard Road that are or will soon be developed. Karis has broken ground on a 500,000 square foot building for Ravago, a Belgium-based plastics resin distributor. Ravago is anticipating a future 300,000 square foot expansion to this building with room to build an additional 300,000 square foot building as needed. There are an additional 100 acres north of the Ravago project for additional industrial tenants. Meanwhile, another site for potential development is a 112-acre property immediately adjacent to Montgomery on the west. The Village anticipates this property will be annexed for commercial or industrial uses in the next five years.

According to the Oswego Director of Public Works, residential growth has been booming in the Village. Between 1990 and 2020, the population grew from 3,900 to 34,600. Local officials are planning for a projected population of 60,000 by 2050. At this time, the development of approximately 5,000 residential units is moving forward. Much of this development has converted open space and agricultural land into single-family homes and town homes along Wolf's Crossing Road on the east side of the Village. Properties north and south of this 2.5 mile-long corridor of Wolf's Crossing Road will be built out over the next few years. Another area of residential growth is occurring along Orchard Road on the west side of Oswego. Development includes not only single-family and town homes, it also includes restaurants, a golf dome, and a cricket pitch. The cricket pitch will be opened in the fall of 2024, with locker rooms and ultimately a stadium that would seat 24,000 planned by 2028.

Oswego has four business parks – the 300-acre Kendall Point Business Center, the 130-acre Stonehill Business Park, the Highland Business Center, and Farmington Lakes Office Campus – that provide commercial and light industrial development. These business parks have been built

out over the past several years, with space still available for development in the coming years. There is a new mixed use residential and commercial development, The Reserve at Hudson Crossing, being developed in the downtown along the riverfront. A six-story apartment building with attached parking was completed in 2021 with another planned for construction, likely within the next five years.

According to Plano's Building, Planning, and Zoning Department, over the past few years there has been some smaller residential and commercial development along US Route 34/Walter Payton Memorial Highway in central Plano. Small residential development in the City over the last 10 years has consisted primarily of build outs of existing subdivisions. In particular the Lakewood Springs subdivision, one on the east side of the City north of US Route 34/Walter Payton Memorial Highway, and one in the northwest portion of the City near the intersection of North Center Street and Little Rock Road. A new crossing of the Fox River was opened in 2023 that allows north-south traffic to cross the River on Eldamain Road. As a result, local officials anticipate commercial and industrial development along its portion of Eldamain Road in the next few years.

According to Yorkville's Community Development Director, the City is a largely residential community; however there are designated areas where industrial and manufacturing is permitted. The North Eldamain Corridor is a new industrial development west of the City and north of the Burlington Northern Santa Fe railway. In this development, Bright Farms is constructing an indoor hydroponic lettuce growing facility to be completed in 2024, an industrial data center is planned, and a solar farm is being discussed. In terms of small residential development, 40 subdivisions have been entitled since 2000; however the economic downturn of 2008 brought a significant reduction to all residential development. Since the recession, the City has seen steady growth and build out in many of these subdivisions, primarily on the southeast and northeast edges of the City, but no new subdivisions have been entitled since the original Plan was completed.

There are no other large-scale economic development initiatives underway in the County. Substantial changes in land use (from forested and agricultural land to residential, commercial, and industrial) are not anticipated within the County in the immediate future. No sizeable increases in commercial or industrial developments are expected within the next five years.

Figure I-4
Location Map

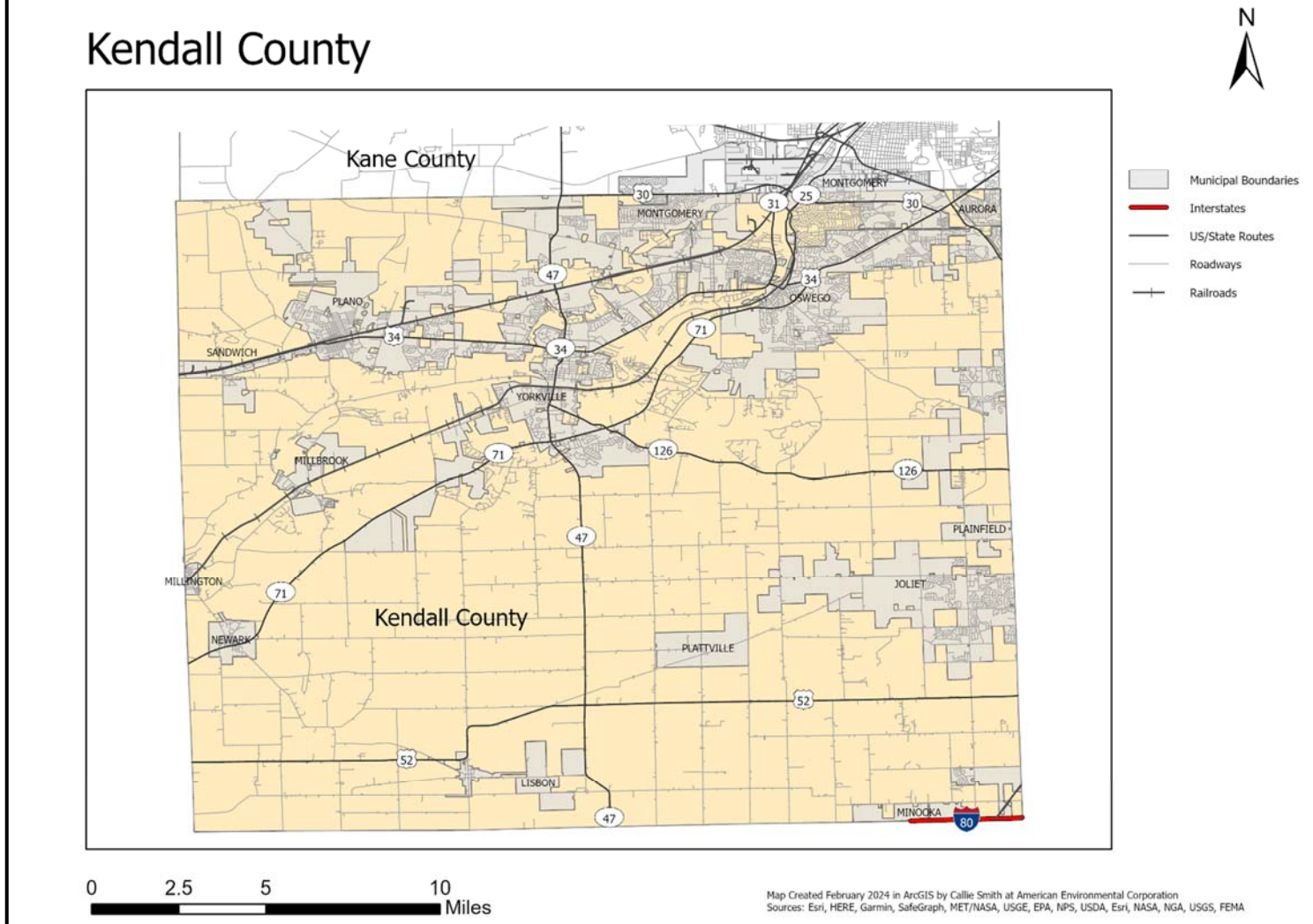


Figure I-5
Kendall County 2020 Census Tract Map

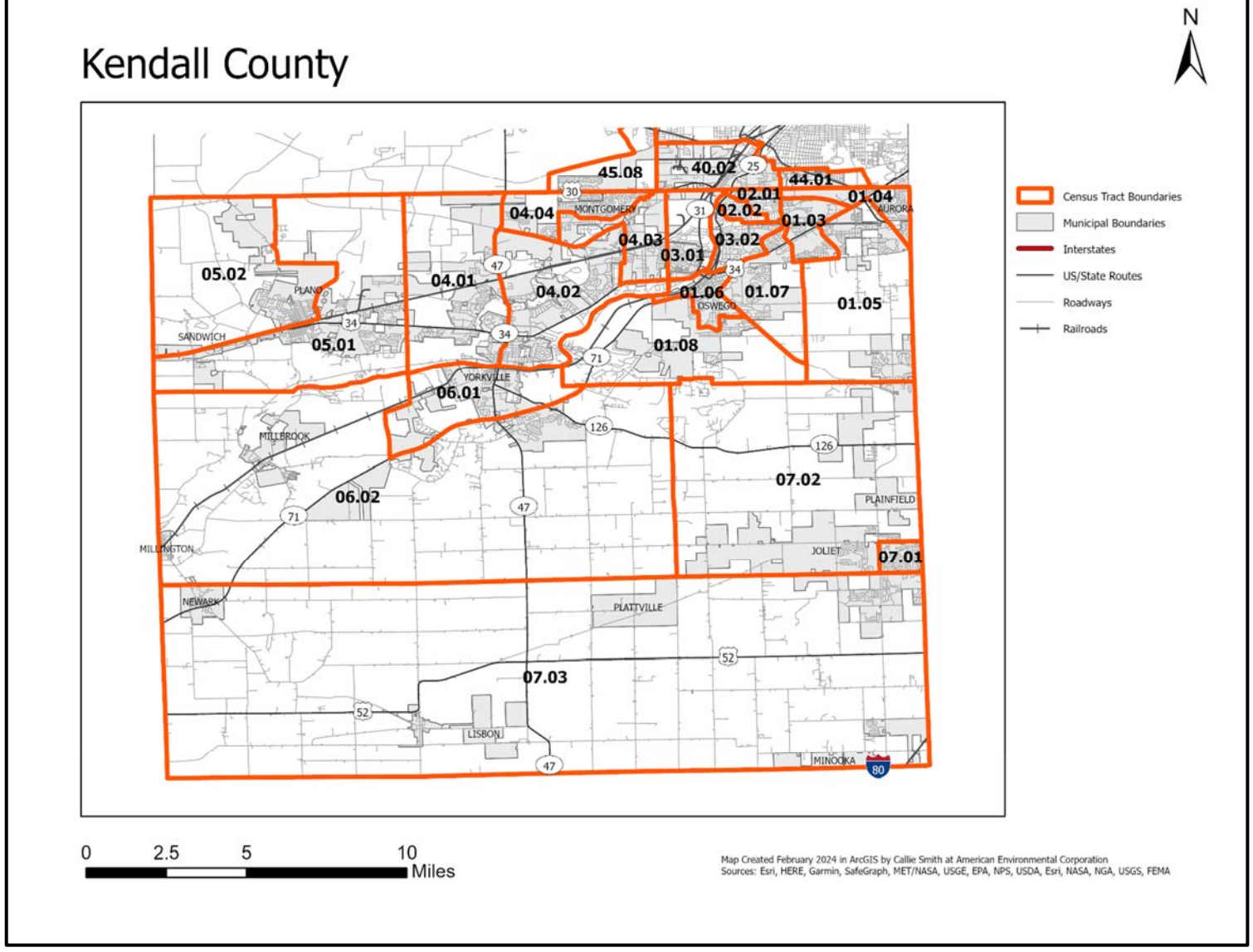


Figure I-6
Montgomery-Oswego-Yorkville 2020 Census Tract Map

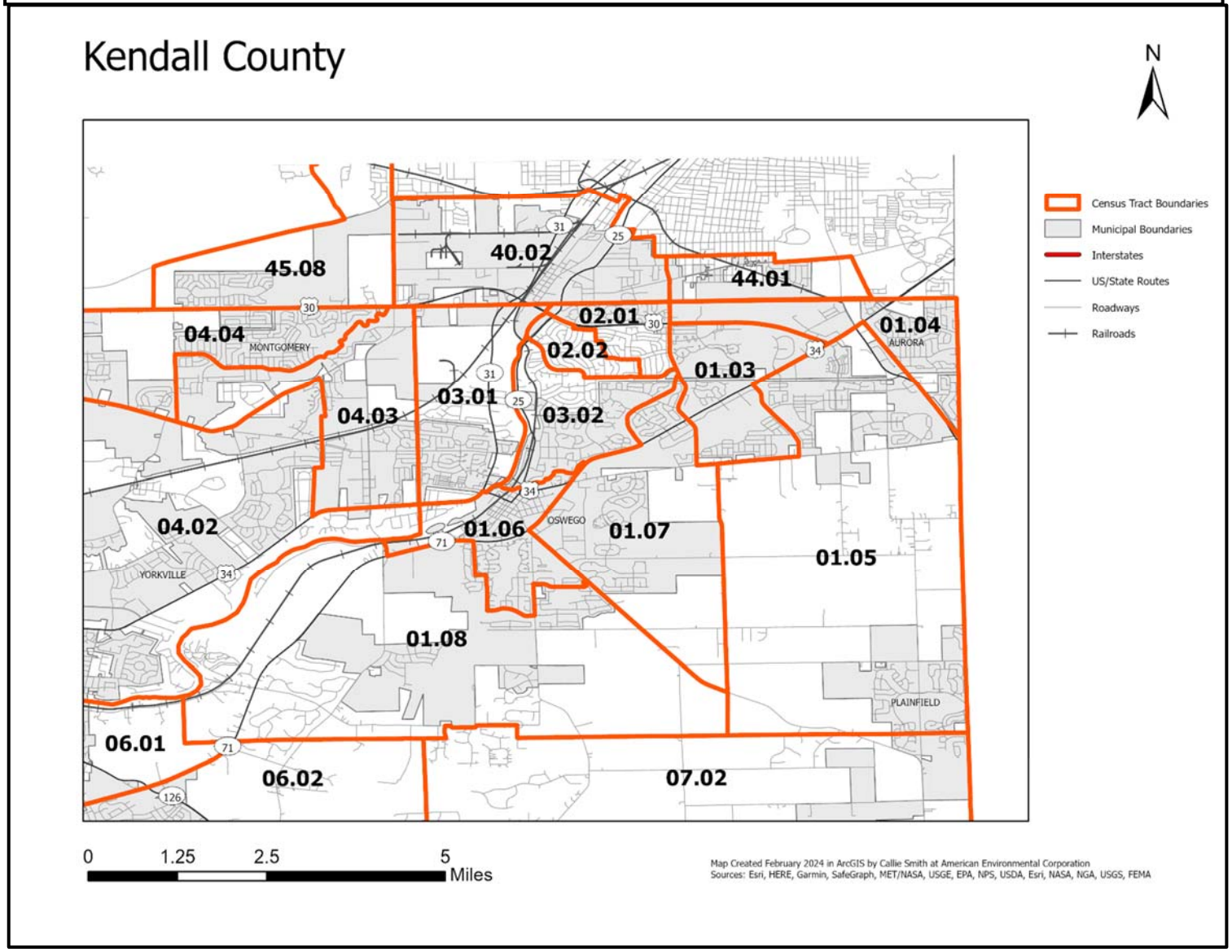


Figure I-7
Township Boundary Map

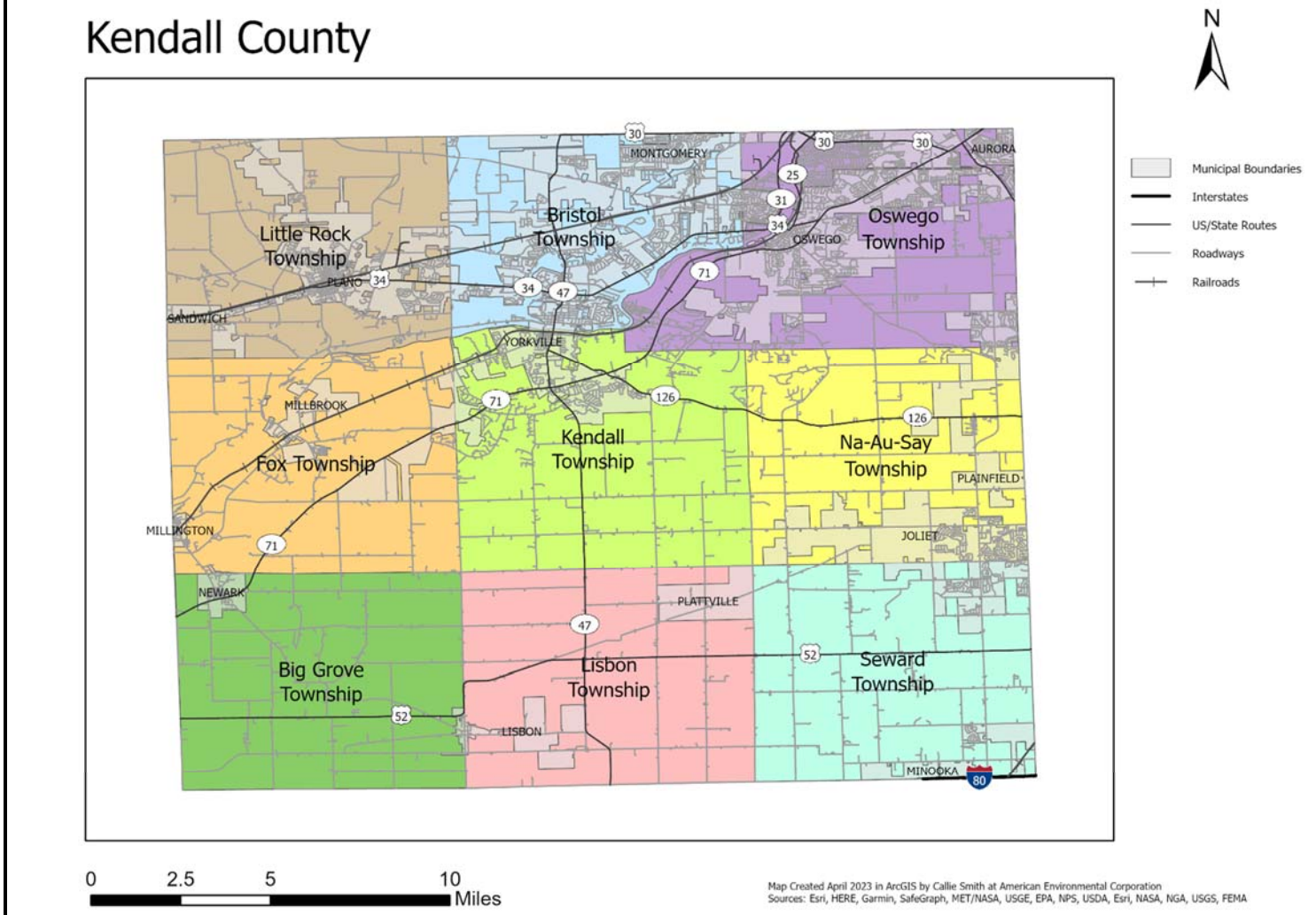


Figure I-8
School District Boundary Map

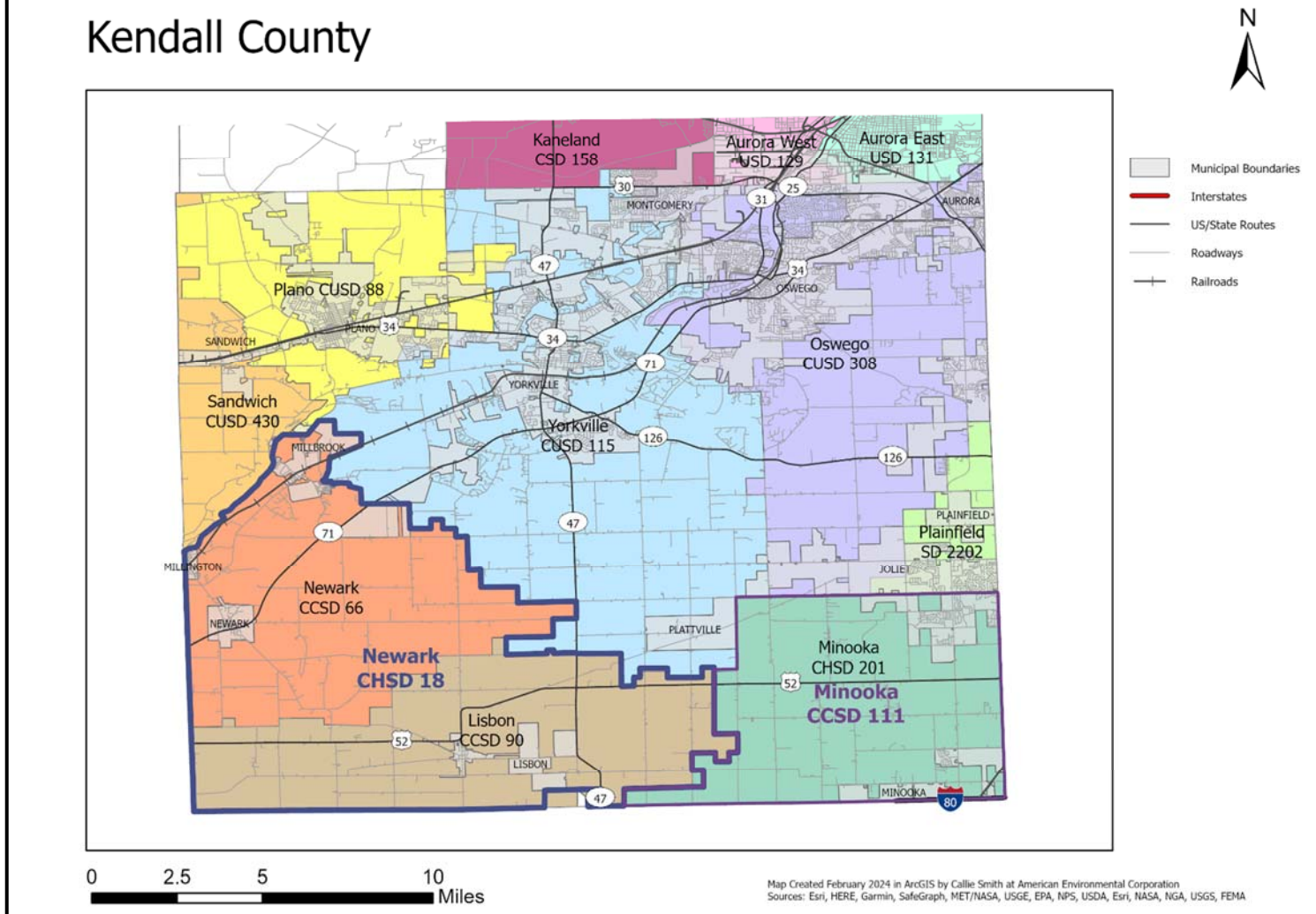


Figure I-9
Fire Protection District Boundary Map

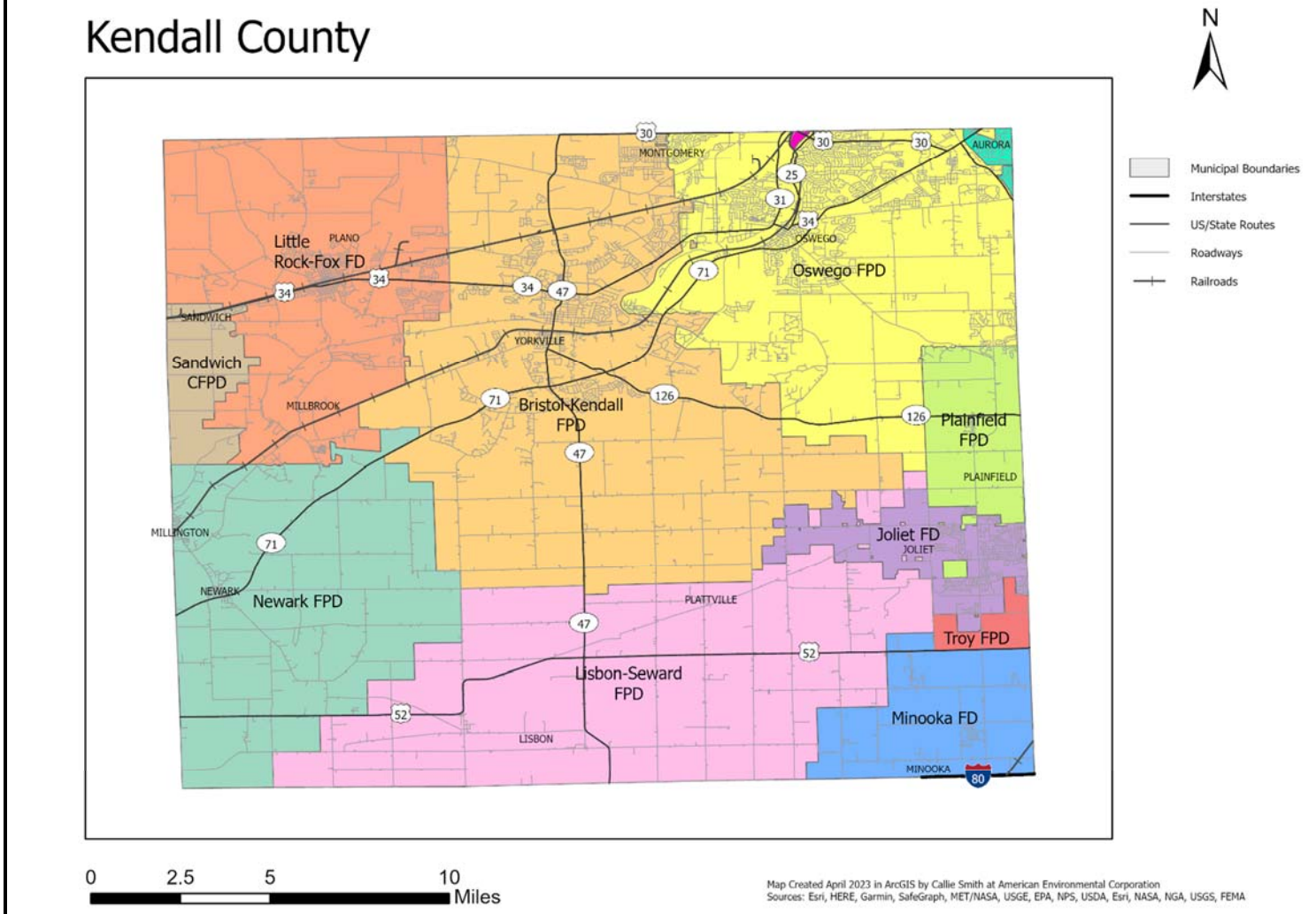
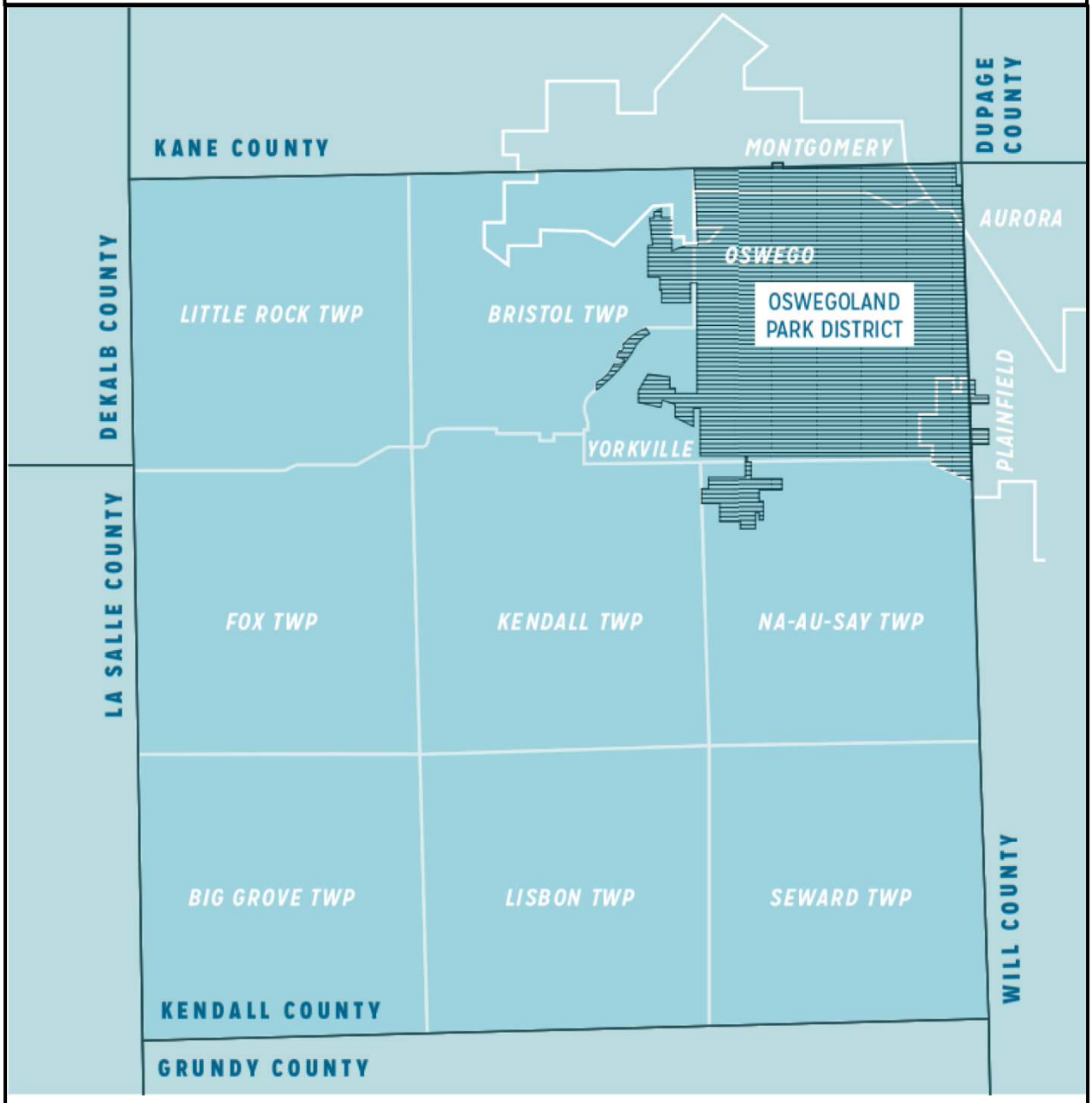


Figure I-10
Oswegoland Park District Boundary Map



MULTI-JURISDICTIONAL

The Oswegoland Park District is located primarily within Kendall County, with small service areas in Will and Kane County. The District services portions of Bristol and Na-Au-Say Townships, as well as the Village of Oswego, the United City of Yorkville. the Village of Montgomery, the City of Aurora, and the Village of Plainfield.

Figure I-12
2017-2021 Demographic Data by Participating Jurisdiction

Participating Jurisdiction	Population (2017-2021)	Projected Population (2030)	Total Area (Sq. Miles) (2020)	Number of Housing Units (2017-2021)	Percent Race								Income			Total Assessed Value of Housing Units (2022)
					White (alone)	Black or African American (alone)	Asian (alone)	Hispanic or Latino (of any race)	American Indian & Alaska Native (alone)	Native Hawaiian & Other Pacific Islander (alone)	Some other Race (alone)	Two or more Races	% of People whose Income is below the Poverty Line	Per Capita Income	EDRC*	
Kendall County (Total)	130,757	158,870	320.238	44,443	76.3%	8.2%	2.9%	20.1%	0.3%	0.0%	4.5%	7.8%	4.4%	$28,449	NA	$3,473,354,672
Kendall County (Unincorp.)	32,251	39,185	267.824	17,322	85.0%	5.7%	2.5%	14.3%	0.0%	0.0%	0.9%	6.3%	1.6%	NA	NA	$700,537,756
Lisbon	273	332	2.117	109	89.7%	1.5%	0.0%	3.7%	0.0%	0.0%	2.2%	6.6%	0.7%	$29,474	Y	$5,164,653
Montgomery	20,084	24,402	9.299	6,653	74.9%	3.8%	0.8%	29.1%	0.5%	0.2%	11.1%	8.8%	9.7%	$31,543	N	$467,806,567
Newark	1,213	1,474	1.124	443	95.0%	0.7%	0.2%	6.3%	0.0%	0.0%	0.7%	3.4%	9.9%	$41,331	N	$20,439,102
Oswego	34,324	41,704	14.888	11,816	74.3%	9.1%	3.3%	17.8%	0.0%	0.0%	2.5%	10.6%	2.2%	$42,024	N	$974,852,538
Plano	10,885	13,225	8.979	4,021	76.4%	3.4%	1.2%	23.6%	0.0%	0.0%	9.9%	9.0%	8.4%	$31,040	N	$219,229,235
Plattville	192	233	2.259	68	96.4%	0.5%	0.0%	4.7%	0.0%	0.0%	0.0%	3.1%	16.7%	$35,560	N	$5,841,124
Yorkville	20,503	24,911	19.997	7,125	78.1%	11.5%	3.5%	17.3%	0.7%	0.0%	2.1%	4.0%	2.7%	$39,765	N	$594,475,190
Kendall Township	8,591	10,438	39.073	2,957	79.4%	3.1%	1.6%	16.0%	1.7%	0.0%	2.8%	11.4%	2.7%	$39,245	N	$272,347,149
Oswego Township	55,542	67,484	39.911	19,490	73.8%	7.5%	4.2%	19.7%	0.3%	0.0%	4.1%	10.1%	4.2%	$39,862	N	$1,516,561,697
Illinois	12,821,813	12,841,250	55,513.18	5,412,995	67.8%	14.1%	5.7%	17.5%	0.3%	0.04%	6.2%	6.2%	11.8%	$39,571	---	---
US	329,725,481	---	3,533,038	139,647,020	68.2%	12.6%	5.7%	18.4%	0.8%	0.2%	5.6%	5.6%	12.6%	$37,638	---	---

* For the purposes of FEMA's Hazard Mitigation Assistance grant programs administered by the Illinois Emergency Management Agency, an Economically Disadvantaged Rural Community (EDRC) is defined in Illinois as a community of 3,000 or fewer individuals whose residents have an average per capita annual income not exceeding 80 percent of the U.S. per capita income based on best available data.

Sources: County Clerks.
Illinois Department Public Health, Population Projections – Illinois, Chicago and Illinois Counties by Age and Sex: July 1, 2015 to July 1, 2030 (2019 Edition).
U. S. Census Bureau, American Community Survey, 5-Year Data Profile.

Figure I-13
2017-2021 Demographic Data by Census Tract
(Sheet 1 of 2)

Census Tract (2020)	Incorporated Municipalities and Townships that Fall Within Census Tract	Population (2017-2021)	Total Area (Sq. Miles) (2020)	Number of Housing Units (2017-2021)	Percent Race								Income	CEJST	Social Vulnerability Index	
					White (alone)	Black or African American (alone)	Asian (alone)	Hispanic or Latino (of any race)	American Indian & Alaska Native (alone)	Native Hawaiian & Other Pacific Islander (alone)	Some other Race (alone)	Two or more Races	% of People whose Income is below the Poverty Line	Identified as Dis-Advantaged	Nation-wide Overall SVI Ranking (2020)	Level of Vulnerability
01.03	Montgomery, Oswego, Oswego Township	5,984	2.064	2,219	57.1%	13.8%	4.3%	31.6%	0.0%	0.0%	0.0%	24.7%	1.9%	N	0.2071	Low
01.04	Aurora, Montgomery, Oswego Township	5,983	1.925	2,161	55.1%	17.0%	18.1%	7.3%	0.0%	0.0%	3.5%	6.3%	8.5%	N	0.3317	Low to Medium
01.05	Montgomery, Oswego, Plainfield, Oswego Township	8,473	12.153	2,696	65.1%	7.8%	7.2%	13.3%	0.4%	0.0%	8.9%	10.5%	2.9%	N	0.1197	Low
01.06	Oswego, Oswego Township	4,353	1.660	1,650	84.7%	3.0%	0.0%	23.7%	2.0%	0.0%	0.0%	10.3%	5.8%	N	0.038	Low
01.07	Oswego, Oswego Township	4,273	4.648	1,447	86.7%	7.8%	2.6%	9.7%	0.0%	0.0%	0.0%	2.9%	1.0%	N	0.0773	Low
01.08	Oswego, Oswego Township	5,020	11.372	1,726	86.8%	5.0%	0.0%	8.4%	0.0%	0.0%	0.0%	8.2%	3.2%	N	0.0157	Low
02.01	Montgomery, Oswego Township	4,595	0.795	1,673	79.3%	3.1%	0.7%	30.7%	0.4%	0.0%	10.1%	6.5%	3.4%	N	0.2382	Low
02.02	Montgomery, Oswego Township	3,929	0.531	1,229	66.6%	5.9%	1.7%	30.9%	1.2%	0.0%	15.6%	9.1%	9.4%	N	0.5559	Medium to High
03.01	Montgomery, Oswego, Oswego Township	6,757	2.813	2,417	71.5%	6.9%	2.0%	27.6%	0.0%	0.0%	1.9%	17.7%	5.3%	N	0.3171	Low to Medium
03.02	Oswego, Oswego Township	5,865	1.825	2,227	95.2%	1.3%	0.8%	17.9%	0.1%	0.0%	1.7%	0.9%	1.9%	N	0.1554	Low
04.01	Montgomery, Yorkville, Bristol Township	7,147	11.998	2,291	81.0%	17.5%	0.1%	11.4%	0.0%	0.0%	0.1%	1.3%	4.7%	N	0.208	Low
04.02	Yorkville, Bristol Township	9,290	9.578	3,418	73.7%	14.5%	6.3%	26.1%	0.0%	0.0%	2.2%	3.3%	0.6%	N	0.1074	Low
04.03	Montgomery, Oswego, Yorkville, Bristol Township	5,237	3.583	1,621	67.9%	14.1%	5.0%	17.4%	0.0%	0.0%	7.0%	5.9%	0.5%	N	0.3557	Low to Medium
Kendall County		130,757	320.238	44,443	76.3%	8.2%	2.9%	20.1%	0.3%	0.0%	4.5%	7.8%	4.4%	---	0.1222	Low

Figure I-13
2017-2021 Demographic Data by Census Tract
(Sheet 2 of 2)

Census Tract (2020)	Incorporated Municipalities and Townships that Fall Within Census Tract	Population (2017-2021)	Total Area (Sq. Miles) (2020)	Number of Housing Units (2017-2021)	Percent Race								Income	CEJST	Social Vulnerability Index	
					White (alone)	Black or African American (alone)	Asian (alone)	Hispanic or Latino (of any race)	American Indian & Alaska Native (alone)	Native Hawaiian & Other Pacific Islander (alone)	Some other Race (alone)	Two or more Races	% of People whose Income is below the Poverty Line	Identified as Dis-Advantaged	Nation-wide Overall SVI Ranking (2020)	Level of Vulnerability
04.04	Montgomery, Yorkville, Bristol Township	9,884	3.192	3,033	84.2%	0.0%	0.0%	26.0%	0.0%	0.0%	12.7%	3.2%	4.8%	N	0.1868	Low
05.01	Plano, Sandwich, Little Rock Township	9,040	19.728	3,150	76.3%	4.9%	1.5%	27.2%	0.0%	0.0%	11.4%	5.9%	7.1%	N	0.3791	Low to Medium
05.02	Plano, Sandwich, Little Rock Township	5,005	15.497	1,969	85.5%	0.0%	0.0%	24.1%	0.0%	0.0%	1.1%	13.5%	5.9%	N	0.2833	Low to Medium
06.01	Yorkville, Fox, Township, Kendall Township	4,309	6.992	1,633	89.8%	0.8%	0.2%	12.3%	0.0%	0.0%	4.8%	4.4%	4.5%	N	0.2508	Low to Medium
06.02	Millbrook, Millington, Newark, Yorkville, Fox Township, Kendall Township	5,985	68.249	2,052	77.5%	4.2%	2.2%	14.4%	2.4%	0.0%	0.6%	13.2%	1.2%	N	0.0653	Low
07.01	Joliet, Na-Au-Say Township	5,740	0.998	1,715	73.2%	17.2%	5.8%	18.6%	0.0%	0.0%	0.0%	3.7%	14.5%	N	0.4445	Low to Medium
07.02	Joliet, Plainfield, Oswego Township, Na-Au-Say Township	5,094	33.374	1,482	73.4%	10.5%	0.7%	17.1%	0.0%	0.0%	9.1%	6.2%	4.9%	N	0.0103	Low
07.03	Lisbon, Minooka, Newark, Plattville, Big Grove Township, Lisbon Township, Seward Township	8,794	107.265	2,634	80.0%	10.6%	0.0%	20.1%	0.0%	0.0%	0.2%	9.2%	2.4%	N	0.1018	Low
40.02	Montgomery	5,812	3.996	2,265	70.8%	8.3%	0.0%	31.0%	1.4%	0.0%	9.6%	9.9%	10.9%	N	0.4971	Low to Medium
44.01	Montgomery	2,306	1.195	863	49.3%	0.0%	0.0%	68.5%	0.0%	0.0%	1.9%	48.8%	3.6%	N	0.9077	High
45.08	Montgomery	5,989	3.816	2,043	70.1%	12.4%	4.0%	22.2%	0.0%	0.5%	3.5%	9.6%	15.3%	N	0.0622	Low
Kendall County		130,757	320.238	44,443	76.3%	8.2%	2.9%	20.1%	0.3%	0.0%	4.5%	7.8%	4.4%	---	0.1222	Low

Sources: CDC/ATSDR Social Vulnerability Index.
U.S. Census Bureau, American Community Survey, 5-Year Data Profile.

2.0 PLANNING PROCESS

The Kendall Multi-Jurisdictional Multi-Hazard Mitigation Plan (the Plan) was updated through the Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee (Planning Committee). The Plan was prepared to comply with the Disaster Mitigation Act of 2000 and incorporates the nine recommended tasks for developing or updating a local hazard mitigation plan as outlined in Federal Emergency Management Agency's (FEMA) *Local Mitigation Planning Handbook*. **Figure PP-1** provides a brief description of the process utilized to prepare this Plan.

Figure PP-1
Description of Planning Process

Tasks	Description
Task One: Building the Planning Team	The Planning Committee was reformed with broad representation and specific expertise to assist the County and the Consultant in updating the Plan.
Task Two: Outreach Strategy	Early and ongoing public involvement activities were conducted throughout the Plan's development to ensure the stakeholders and public was given every opportunity to participate and provide input.
Task Three: Risk Assessment	The Consultant identified and profiled the natural and man-made hazards that have impacted the County and conducted vulnerability analyses to evaluate the risk to each participating jurisdiction.
Task Four: Capability Assessment	Participating jurisdictions have a unique set of capabilities and resources available to accomplish hazard mitigation. Capabilities that include planning and regulatory, administrative and technical, financial, and education and outreach were identified and cataloged to determine the existing capabilities of each participant related to hazard and loss reduction/prevention.
Task Five: Mitigation Strategy	After reviewing existing plans and completing the risk assessment, the Consultant assisted the Planning Committee in updating the goals and objectives for the Plan. The participating jurisdictions were then asked to identify mitigation actions that had been started and/or completed since the previous Plan was adopted. In addition, they were asked to identify any new mitigation actions based on the results of the risk assessment. The new mitigation actions were then analyzed, categorized, and prioritized.
Task Six: Plan Maintenance and Update	The method and schedule for monitoring, evaluating, and updating the Plan was reviewed and discussed with the participating jurisdictions. The Plan update will be monitored and evaluated by a Plan Maintenance Subcommittee on an annual basis and updated again in five years.
Task Seven: Review and Adopt the Plan	The draft Plan update summarized the results of Tasks Two through Seven. The Plan was reviewed by the participants and a public forum was held to give the public an additional opportunity to provide input. Comments received were incorporated into the draft Plan update and submitted to the Illinois Emergency Management Agency and Office of Homeland Security (IEMA-OHS) and FEMA for review and approval. Comments received from IEMA-OHS and FEMA were incorporated into the final Plan update. The final Plan update was then submitted to the County and participating jurisdictions for adoption.

The Plan update and development was led at the staff level by Roger Bonuchi, the Kendall County Emergency Management Agency (EMA) Director, and Tracy Page, the Kendall County EMA Deputy Director. American Environmental Corp. (AEC) an environmental consulting firm, with experience in hazard mitigation, risk assessment and public involvement, was employed to guide the County and participating jurisdictions through the planning process.

Participation in the planning process, especially by the County and local government representatives, was crucial to the update and development of the Plan. To ensure that all participating jurisdictions took part in the planning process, participation requirements were established. Each participating jurisdiction agreed to satisfy the following requirements in order to be included in the Plan update. All of the participating jurisdictions met the participation requirements.

- Attend at least one Planning Committee meeting.
- Complete a capability assessment identifying existing capabilities and resources (i.e., plans, policies, ordinances studies, reports, maps, etc.) available to accomplish hazard mitigation.
- Identify/submit a list of critical infrastructure and facilities.
- Review the risk assessment and provide additional information on events and damages when available.
- Participate in the update of the mitigation goals and project prioritization methodology.
- Provide information on any mitigation actions started and/or completed since the adoption of the original Plan.
- Identify and submit a list of new mitigation actions.
- Review and comment on the draft Plan update.
- Formally adopt the Plan update.
- Where applicable, incorporate the Plan update into existing planning efforts.
- Participate in the Plan update maintenance.

2.1 MITIGATION ADVISORY COMMITTEE

As previously mentioned, at the start of the planning process, the Kendall County Multi-Jurisdictional All Hazard Mitigation Planning Committee was reformed to update the hazard mitigation plan. The Committee included representatives from each participating jurisdiction, as well as agriculture, cultural resources, education, emergency services, planning, recreation, and social services.

Figure PP-2 details the entities represented on the Planning Committee and the individuals who attended on their behalf. The Planning Committee was chaired by the Kendall County EMA. Additional technical expertise was provided by the staff at the Illinois Emergency Management Agency and the Illinois Department of Natural Resources Office of Water Resources.

Figure PP-2
Kendall County Planning Committee Member Attendance Record
(Sheet 1 of 2)

Representing	Name	Title	1/24/2023	4/18/2023	7/11/2023	10/24/2023	2/20/2024
American Environmental Corporation	Bostwick-Campbell, Andrea	EMS Manager	X	X	X	X	X
American Environmental Corporation	Runkle, Ken	Risk Assessor	X		X		
American Environmental Corporation	Smith, Callie	Environmental Analyst		X		X	X
Aurora, City of	Schur, Carolyn	EMA Volunteer					X
Big Grove Township	Richards, Jr., Tom	Highway Commissioner	X				
Bristol Township	Maher-Bartalone, Mary	Assessor	X				
Bristol-Kendall Fire Protection District	Bateman, Jim	Fire Chief	X	X	X		
Edith Farnsworth House	Mehaffey, Scott	Curator	X				
Grundy/Kendall Regional Office of Education	Mehochko, Chris	Regional Superintendent	X	X		X	X
KenCom Public Safety Dispatch	Belmont, Gina	Assistant Director of Operations		X	X		
KenCom Public Safety Dispatch	Bergeron, Lynette	Director	X	X			
Kendall County - Administrator	Burns, Christina	Administrator					X
Kendall County - Administrator	Koeppel, Scott	Administrator	X				
Kendall County - Board	Gengler, Scott	Member			X		
Kendall County - Board	Kellogg, Matt	Chair	X				
Kendall County - Board	Shanley, Brooke	Member	X	X			
Kendall County - EMA	Bonuchi, Roger	Director	X	X	X	X	X
Kendall County - EMA	Page, Tracy	Deputy Director	X		X	X	X
Kendall County - Facilities Management	Polvere, Dan	Director		X			
Kendall County - Forest Preserve District	Guritz, Dave	Executive Director	X				
Kendall County - Forest Preserve District	White, Antoinette	Grounds Division Supervisor	X	X			
Kendall County - GIS Department	Bally, Amanda	GIS Specialist	X				
Kendall County - Health Department	Holt, Julia	Emergency Response Specialist	X	X	X	X	X
Kendall County - Health Department	VanGundy, RaeAnn	Executive Director	X				
Kendall County - Highway Department	Burscheid, John	Assistant County Engineeer	X	X			
Kendall County - Information and Communication Technology	Kinsey, Matthew	Director	X	X			
Kendall County - Planning, Building and Zoning	Asselmeier, Matt	Senior Planner / Director	X	X	X	X	
Kendall County - Sheriff's Office	Langston, Jason	Commander	X	X		X	
Kendall County - Sheriff's Office	Page, Tracy	Business / HR Manager	X		X	X	X
Kendall County - Sheriff's Office	Waltmire, Caleb	Deputy Commander	X	X			X
Kendall County - Supervisor of Assessments Office	Nicoletti, Andy	Chief County Assessment Officer	X				
Kendall Township	Gengler, Steve	Supervisor	X		X		X
Kendall Township	Grebner, Steve	Clerk	X	X	X	X	X
Kendall Township	Westphal, Doug	Highway Commissioner	X				
Kendall-Grundy Farm Bureau	Lundh, Victoria	Manager	X				
Lisbon, Village of	Andersen, Debbie	Clerk	X	X	X	X	X
Lisbon, Village of	McIntyre, Jack	Trustee		X	X		
Lisbon, Village of	Morris, James	Trustee	X	X	X	X	X
Lisbon-Seward Fire Protection District	McIntyre, Jack	EMS Coordinator		X	X		
Little Rock-Fox Fire District	Witek, Greg	Fire Chief	X	X			
Montgomery, Village of	Sanders, Armando	Deputy Chief of Police	X				
Montgomery, Village of	Smith, Phil	Chief of Police	X				
Montgomery, Village of	Wolf, Mark	Director of Public Works	X	X	X	X	X
Newark, Village of	Fox, Cliff	Administrator	X	X			
Newark Fire Protection District	Mathre, Jeff	Fire Chief	X	X	X		
Oswego, Village of	Behr, Kerry	Project Engineer	X	X	X	X	
Oswego, Village of	Biggs, Chris	Commander / Deputy Chief	X	X	X	X	
Oswego, Village of	Burgner, Jeff	Police Chief	X				
Oswego, Village of	Hughes, Jennifer	Public Works Director	X				X
Oswego Fire Protection District	Bockrath, Chris	Firefighter					X
Oswego Fire Protection District	Schiradelly, Dan	Assistant Chief	X	X	X	X	X
Oswego Township	DeLong, Rob	Community Resource Officer		X	X		X
Oswegoland Park District	Feldotto, Chad	Director of Parks & Planning	X	X	X		X
Oswegoland Park District	Zielke, Rich	Executive Director	X	X		X	

Figure PP-2
Kendall County Planning Committee Member Attendance Record
(Sheet 2 of 2)

Representing	Name	Title	1/24/2023	4/18/2023	7/11/2023	10/24/2023	2/20/2024
Oswegoland Senior & Community Center	Siedlecki, Judy	Volunteer		X			
Plainfield, Village of	Zigterman, Zach	Police Commander / Deputy Director	X				
Plano, City of	Allison, Norm	Lieutenant of Police / Interim Chief of Police	X	X			X
Plattville, Village of	Bergeron, Lynette	Trustee	X	X			
Sandwich, City of	Penman, Geoff	Administrator	X				X
Sandwich Community Fire Protection District	Morel, Zachary	Deputy Chief	X	X	X		
Seward Township	Cryder, Scott	Highway Commissioner	X				
Yorkville, City of	Dhuse, Eric	Director of Public Works	X				
Yorkville, City of	Jensen, James	Police Chief	X	X	X		

Mission Statement

Over the course of the first two meetings, the Planning Committee reviewed and discussed the mission statement which describes their objectives for the Plan update. The following mission statement was approved by the Committee.

"The mission of the Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Planning Committee is to prepare a mitigation plan that:

1) documents the risks associated with the natural and man-made hazards that impact the County and

2) identifies projects and activities that mitigate the risk to people, structures, facilities, and systems that provide support to the County, its residents and economy, as well as community lifelines that enable the continuous operation of critical government and business functions."

Planning Committee Meetings

The Planning Committee met four times between January 2023 and February 2024. **Figure PP-2** identifies the representatives by jurisdiction present at each meeting. **Appendices A** and **B** contain copies of the attendance sheets and meeting minutes for each meeting. The purpose of each meeting, including the topics discussed, is provided below.

First Planning Committee Meeting – January 24, 2023

The purpose of this meeting was to explain the planning process to the Planning Committee members and give them a brief overview of the planning process including what mitigation is, what a hazards mitigation plan is and why the Plan needs to be updated. A discussion regarding the hazards to be included in the Plan update was conducted and an electronic survey was sent out following the meeting asking Planning Committee members whether dam failures should be included in the Plan update. Based on the responses received, the Planning Committee chose not to include dam failures. The Planning Committee did not feel dam failures posed a significant impact on the County and therefore decided not to include them in the update.

Information needed from each participant was discussed and representatives for the County and the participating jurisdictions were asked to complete the forms entitled "Capability Assessment Worksheet," "Critical Facilities & Infrastructure," "Identification of Severe Weather Shelters" and "Drinking Water Supply Worksheet" and return them at the next meeting.

Committee members were then asked to identify any recent or historic natural hazard events that have impacted the County and participants. A "Hazard Events Questionnaire" was distributed to solicit information on hazard events. Community participation was also discussed. The County and participating jurisdictions were asked to make information available on the planning process at their offices and in their communities. A "Citizen Questionnaire," was also distributed electronically to Committee members prior to the meeting for distribution to their constituents to gauge the public's perception about the hazards that impact the County. Finally, drafts of a mission statement and updated mitigation goals were presented for review.

Second Planning Committee Meeting – April 18, 2023

At the second Committee meeting portions of the updated natural and man-made hazard risk assessment section were presented for review. Following the review of the risk assessment, the Committee members participated in an exercise to calculate the Risk Priority Index (RPI) for the County and participating jurisdictions. The RPI can assist participants in determining which hazards present the highest risks and therefore which ones to focus on when formulating mitigation projects and activities. The Committee then discussed the draft mission statement and updated mitigation goals. The mission statement and mitigation goals were then reviewed, discussed, and finalized with no changes.

Next, mitigation actions were defined, and examples were discussed. As part of the Plan update, individual mitigation action lists will be created for each participating jurisdiction. Committee members were asked to identify any mitigation projects and activities their jurisdictions had started and/or completed since the original Plan was completed in 2011. Ideas for new potential mitigation projects and activities were presented. Representatives for the County and the participating jurisdictions were asked to complete the forms entitled "Existing Mitigation Project/Activity Status" and "New Hazard Mitigation Projects" and return them at the next meeting.

Third Planning Committee Meeting – July 11, 2023

The purpose of the third Committee meeting was to discuss the vulnerability analysis for select natural hazards and the preliminary results of the RPI exercise. The Committee members then discussed vulnerable community assets and completed the form entitled "Assets Vulnerability Survey" which will be used in the vulnerability analyses.

The concept of community lifelines was also discussed. Community lifelines enable the continuous operation of critical government and business functions essential to human health and safety or economic security. While the concept was developed to support emergency response and planning, FEMA has begun applying it to all phases of emergency management, including mitigation. Community lifelines will be included in most project descriptions to create a clear connection to the concept.

Next, an explanation of what a mitigation action prioritization methodology is and how it fits into the Mitigation Strategy was provided. The Committee reviewed the updated mitigation project prioritization methodology and approved it with no changes. Finally, a discussion on how the mitigation projects and activities identified by the participating jurisdictions will be presented in the Plan update was provided. Participants were encouraged to provide their mitigation project lists prior to the 4th meeting when draft lists will be distributed for review.

Fourth Planning Committee Meeting – October 24, 2023

At the fourth Committee meeting, members reviewed the draft jurisdiction-specific mitigation action tables which identified and prioritized the new and existing mitigation projects and activities provided by the participants. Members were given the opportunity to add additional projects and activities to their tables.

The public forum and adoption process were then discussed, and a date for the public forum was set. Finally, the plan maintenance and update requirements were discussed. The Plan update will be monitored and evaluated on an annual basis by a Plan Maintenance Subcommittee which will be made up of the participating jurisdictions, and key members of the Committee. The Plan must be reviewed, revised, and resubmitted to IEMA and FEMA at least once every five years.

Fifth Planning Committee Meeting – February 20, 2024

At this Planning Committee meeting the public was provided an opportunity to ask questions and provide comments on the draft Plan update.

2.2 OUTREACH STRATEGY

To engage the public in the planning process, a comprehensive outreach strategy was developed. The strategy was structured to engage the public, including underserved communities and vulnerable populations, in a two-way dialogue, encouraging the exchange of information throughout the planning process. A mix of public involvement techniques and practices were utilized to:

- disseminate information;
- identify additional useful information about natural hazard occurrences and impacts;
- assure that interested residents would be involved throughout the Plan update's development; and
- cultivate ownership of the Plan update, thus increasing the likelihood of adoption by the participating jurisdictions.

The dialogue with the public followed proven risk communication principles to help assure clarity and avoid overstating or understating the impacts posed by the natural hazards identified in the Plan update. The following public involvement techniques and practices were applied to give the public an opportunity to access information and participate in the dialogue at their level of interest and availability.

Citizen Questionnaire

A citizen questionnaire was developed to gather facts and gauge public perceptions about natural hazards that affect Kendall County. The questionnaire was distributed electronically to the Committee members who were encouraged to make it available to their residents and the general public. A copy of the questionnaire as well as any social media posts related to the questionnaire are contained in **Appendix C**.

A total of 197 questionnaires were completed and returned to the Committee. Questionnaires were completed by residents in each participating jurisdiction. These responses provide useful

information to decision makers as they determine how best to disseminate information on natural hazards and safeguard the public. Additionally, these responses identify the types of projects and activities the public is most likely to support. The following provides a summary of the results.

- Respondents felt that severe summer storms were the most frequently encountered natural hazard in Kendall County followed by extreme cold and severe winter storms. However, compiled weather records indicate that flood events, in fact, occur more frequently than severe winter storms or extreme cold.
- The most effective means of communication identified by respondents to disseminate information about natural hazards were social media and the Internet, followed by the mailings and television. Fact sheets/brochures disseminated via fire departments/law enforcement, as well as radio communications also received some support among respondents.
- In terms of the most needed mitigation projects and activities, the following categories received the strongest support:
  - maintain power during storms by burying power lines, trimming trees and/or purchasing backup generators (80%);
  - maintain roadway passages during snowstorms and heavy rains (62%);
  - install/maintain sirens and other alert systems (58%);
  - flood or drainage protection (55%); and
  - retrofit critical infrastructure (51%).

FAQ Fact Sheet

A "Frequently Asked Questions" fact sheet was disseminated to help explain what a natural hazards mitigation plan is and briefly describe the planning process. The fact sheet was made available to each participating jurisdiction to provide to their constituents. A copy of the fact sheet is contained in **Appendix D**.

News Releases/Articles & Web/Social Media Posts

News releases were prepared and submitted to local media outlets and posted to the TCRPC Facebook, Twitter, and web pages prior to each Committee meeting. The releases announced the purpose of the meetings and how the public could become involved in the Plan update's development. **Appendix E** contains a list of the media outlets that received the news releases while copies of the releases, Facebook, web posts, and any news articles published can be found in **Appendix F**.

Planning Committee Meetings

All of the meetings conducted by the Planning Committee were open to the public and publicized in advance to encourage public participation. At the end of each meeting, time was set aside for public comment. In addition, Committee members were available throughout the planning process to talk with residents and local government officials and were responsible for relaying any concerns and questions voiced by the public to the Committee. Interested individuals from the public who attended the Planning Committee meetings were provided handout materials and encouraged though not required to provide their names and/or sign the attendance sheets. Copies of the attendance sheets are included in **Appendix A**.

Public Forum

The final meeting of the Committee, held on February 20, 2024 was conducted as an open-house public forum. The open-house format was chosen for this forum instead of a hearing to provide greater flexibility for residents who wished to participate. Residents were able to come and go at any time during the forum, reducing conflicts with business, family, and social obligations.

In conjunction with the public forum, the draft Plan update was made available for review and comment on the Kendall County website. A two-page handout summarizing the planning process and a link to a comment survey that could be used to provide feedback on the draft Plan update were also posted on the website.

At the forum, residents could review a draft of the Plan update; meet with representatives from the County, the participating jurisdictions, and the Consultant; ask any questions; and provide verbal and/or written comments on the draft Plan update. Individuals attending the public forum were provided with a two-page handout summarizing the planning process and a comment sheet that could be used to provide feedback on the draft Plan update. **Appendices G** and **H** contain copies of these materials.

Public Comment Period

After the public forum, the updated draft Plans were made available for public review and comment through March 5, 2024 at the Kendall County Public Safety Center and on the County's website. A two-page handout summarizing the planning process and a link to a comment survey that could be used to provide feedback on the draft Plan update were also posted on the website. **Appendix H** contains a copy of the online comment survey. Residents were encouraged to submit their comments electronically, by mail or through representatives of the Committee.

Results of Outreach Strategy

The public involvement strategy implemented during the planning process created a dialogue among participants and interested residents, which resulted in many benefits, a few of which are highlighted below.

- *Acquired additional information about natural hazards*. Verifiable hazard event and damage information was obtained from participants that presents a clearer assessment of the extent and magnitude of natural hazards that have impacted each County. This information included details about thunderstorms with damaging winds, lightning strikes, tornadoes, and floods not available from state and federal databases.
- *Obtained critical facilities damage information*. Data collection surveys soliciting information about critical facilities damaged by natural hazards were used to supplement information obtained from government databases. This information was vital to the preparation of the vulnerability analysis.
- *Increased awareness of the impacts associated with natural hazard events within the County*. Understanding how mitigation actions can reduce risk to life and property helped generate ***over 100 new mitigation projects and activities*** at the local level that had not been previously identified in any other planning process.

2.3 PARTICIPATION OPPORTUNITIES FOR INTERESTED PARTIES

Businesses, schools, not-for-profit organizations, neighboring counties, and other interested parties were provided multiple opportunities to participate in the planning process. Wide-reaching applications were combined with direct, person-to-person contacts to identify anyone who might have an interest or possess information which could be helpful in updating the Plan.

Agricultural Community

Representatives from the agricultural community were invited to serve on the Committee through the Kendall-Grundy Farm Bureau. The Farm Bureau both served a technical partner on the Committee, receiving all electronic communications including surveys, meeting announcements, and meeting handouts to provide its members.

Cultural Resources

The Edith Farnsworth House, a National Historic Landmark owned by the National Trust for Historic Preservation and Landmarks Illinois, was invited to serve on the Committee. While it chose not to be a participating jurisdiction, received all electronic communications including surveys, meeting announcements, and meeting handouts.

Education

Representatives from education were invited to serve on the Committee through the Grundy/Kendall Regional Office of Education. The Regional Superintendent represented the school districts in the County, providing input into the planning process and coordinating with each individual district. Four school districts and two private schools – Lisbon Consolidated Community School District #90, Newark Community High School District #18, Oswego Community Unit School District (CUSD) #308, Plano CUSD #88, Parkview Christian Academy, and St. Mary Catholic School – chose to be included as participating jurisdictions in the Plan update.

Healthcare & Social Service Agencies

Input was sought from the healthcare community and social service agencies. Representatives from the Kendall County Health Department and Oswegoland Senior & Community Center attended the Committee meetings, providing input into the planning process. The Kendall County Health Department assisted in updating the County's portion of the Mitigation Strategy.

Planning

The Kendall County Planning, Building & Zoning Department assisted in the Plan update and served on the Committee, providing input into the planning process as well as the County's portion of the Mitigation Strategy.

Emergency Services

The fire departments/fire protection districts in Kendall County were contacted and invited to participate in the Plan update. Bristol-Kendall Fire Protection District (FPD), Lisbon-Seward FPD, Little Rock-Fox Fire District, Newark FPD, Oswego FPD, and Sandwich Community FPD served on the Committee and provided input into the planning process. The Bristol-Kendall FPD, Lisbon-Seward FPD, Newark FPD, Oswego FPD, and Sandwich Community FPD chose to be included as participating jurisdictions in the Plan update.

Other Government Entities
The townships within Kendall County as well as the Oswegoland Park District were invited to participate in the Plan update. Big Grove Township, Bristol Township, Kendall Township, Oswego Township, Seward Township, and the Oswegoland Park District served on the Committee and provided input into the planning process. Kendall Township, Oswego Township, and the Oswegoland Park District chose to be included as participating jurisdictions in the Plan update.

Neighboring Counties
A memo was sent to EMA/ESDA/OHSEM coordinators in the neighboring counties inviting them to participate in the mitigation planning process. The counties contacted included DeKalb, DuPage, Grundy, Kane, LaSalle, and Will. **Appendix I** contains a copy of the invitation memo.

2.4 IDENTIFICATION OF EXISTING CAPABILITIES

Each participating jurisdiction has a unique set of capabilities and resources available to accomplish hazard mitigation and reduce long-term vulnerabilities to hazard events. In order to identify these existing capabilities and resources, a Capability Assessment was conducted. The Capability Assessment helps determine the ability of the participating jurisdictions to implement the Mitigation Strategy and to identify potential opportunities for establishing or enhancing specific mitigation policies, program, or projects. It is important to try and establish which goals and actions are feasible based on an understanding of the organizational capacity of those entities tasked with their implementation. This assessment is designed to provide a general overview of the key capabilities in place for each participating jurisdiction along with their potential effect of loss reduction.

In order to catalog the existing capabilities of each participant, Capability Assessment Worksheets were distributed to each of the participating jurisdictions at the first Committee meeting on January 24, 2023. The worksheets requested information on four primary types of capabilities: planning and regulatory; administrative and technical; financial; and education and outreach. The following provides a brief description of each capability type.

Planning & Regulatory Capabilities: Planning and regulatory capabilities are based on the implementation of existing plans, policies, codes, ordinances, resolutions, local laws, and programs that prevent or reduce the impacts of hazards and guide and manage growth and development.

Administrative & Technical Capabilities: Administrative and technical capabilities are based on the available staff and personnel resources as well as their related skills and tools that can be used to develop and implement mitigation actions, policies, and programs.

Financial Capabilities: Financial capabilities include those resources a jurisdiction has access to or is eligible to use to implement mitigation actions, polices, and programs.

Education & Outreach Capabilities: Education and outreach capabilities include programs and methods already in place that could be used to support implementation of mitigation actions and communicate hazard-related information.

Figures PP-3 through **PP-14** summarize the results of the Capability Assessment by participating jurisdiction type (i.e., county/municipalities, townships, schools, fire protection districts, park districts, etc.) A capability level of "Limited", "Moderate" or "High" was assigned by capability type to each participating jurisdiction based on the number of available capabilities and resources as well as the jurisdiction's size/area served. **Figure PP-15** summarizes the individual capability levels by capability type and provides an overall capability ranking for each participant.

This assessment provides a consolidated inventory of existing plans, ordinances, programs, and resources in place. Whenever applicable, these existing capabilities were reviewed and incorporated into the Plan.

Highlights from the Capability Assessment include:

- The County and all of the municipalities, with the exception of Lisbon and Plattville, have building codes and zoning ordinances in place.
- The County and all of the municipalities, with the exception of Plattville, have comprehensive/ master plans in place.
- Only the County and Oswego have continuity of operations plans in place.

The County, Montgomery, Newark, Oswego, Plano, Yorkville, Oswego Township, Lisbon CCSD #90, Newark CHSD #18, Oswego CUSD #308, Plano CUSD #88, Bristol-Kendall FPD, Lisbon-Seward FPD, Newark FPD, Oswego FPD, Sandwich Community FPD, and Oswegoland Park District are fortunate to have the resources and abilities to potentially expand on and improve the existing policies and programs identified. Lisbon, Plattville, Kendall Township, Parkview Christian Academy, and St. Mary Catholic School have more limited resources and abilities to expand on and improve the existing policies and programs identified. The lack of legal authority and policies/programs currently in place may hamper these participants' abilities to expand and strengthen existing policies and programs. Their fiscal and staffing situations are also limited.

Overcoming these limitations will require time and a range of actions including, but not limited to, improved general awareness of natural hazards and the potential benefits that may come from the development of new standards in terms of hazard loss prevention and the identification of resources available to expand and improve existing policies and programs should the opportunity arise.

Based on conversations with Committee members and a review of available planning documents, only Montgomery has explicitly incorporated mitigation strategies into its planning mechanisms. Montgomery completed an update of its comprehensive plan in 2014. The plan includes a chapter devoted to hazard mitigation & sustainability and includes a list of the following twelve action items:

- *Adopt the latest international series of building codes with additional revisions as needed.* The Village has updated its building codes twice since the update of its comprehensive plan in 2014. In 2023, the Village adopted the 2021 ICC Codes with local amendments.
- *Improve code enforcement with training for building department staff on the natural hazards aspect of the code.*

- *Perform facilities audits on critical facilities at risk of exposure to natural hazards (Kane).*
- *Establish retrofitting incentives for improvements on private property.*
- *Protect structures in Montgomery's three repetitive loss areas that have been identified in the Plan by acquisition or elevation.*
- *Implement a formal and regular drainage system maintenance and urban forestry programs.*
- *Add rain and stream gages to develop monitoring capability for flood predictions.*
- *Conduct a review of emergency response plans and create additional plans for natural hazards as needed.*
- *Implement flood control projects per Community Rating System (CRS) criteria where they are most practical including farm drainage and bridge and culvert improvements.*
- *Improve public outreach and communication and make property protection materials available to the public.*
- *Conduct stream and ditch maintenance in developed areas.*
- *Create first responder alert systems.*

Figure PP-16, located at the end of this section, provides information on comprehensive/land use plans, building codes, and zoning ordinances for the County and participating municipalities such as effective date, next scheduled update (if known), and International Code Council I-Code version. The Kendall County Stormwater Management Plan, containing the County's stormwater ordinance, was adopted in 2010 with Oswego and Yorkville choosing to adopt the County's ordinance. No scheduled updates of this Plan are anticipated at this time. Montgomery adopted the 2019 Kane County Stormwater Management Ordinance, which is scheduled to be updated in 2024. Plano adopted a stormwater management ordinance in 2016 but did not indicate when the next scheduled update is anticipated. Lisbon, Newark, and Plattville do not have stormwater plans or ordinances.

2.5 REVIEW & INCORPORATION OF EXISTING PLANS

The existing plans, studies, reports, technical information, and maps that were reviewed and incorporated into the Plan update, where appropriate, can be found in Section 7.0 References and are cited in each appropriate section.

Figure PP-3
County / Municipalities – Planning & Regulatory Capabilities

Capability Type	County/Municipality							
	Kendall County	Lisbon	Montgomery	Newark	Oswego	Plano	Plattville	Yorkville
Plans, Policies, Codes & Ordinances								
Comprehensive/Master Land Use Plan	X	X	X	X	X	X		X
Continuity of Operations Plan	X				X			
Stormwater Management Plan	X		X		X	X		
Transportation Plan	X		X	X	X			X
Economic Development Plan	X			X				
Emergency Operations Plan	X				X	X		X
Disaster Recovery Plan	X				X			
Threat & Hazard Identification Risk Assessment (THIRA) - County Only	X							
Infrastructure Maps - Municipalities Only		X	X	X	X	X		X
Building Codes	X		X	X	X	X		X
Floodplain Ordinance	X	X	X	X	X	X	X	X
Stormwater Ordinance	X		X		X	X		X
Zoning Ordinance	X		X	X	X	X		X
Subdivision Ordinance	X		X	X	X	X		X
Historic Preservation Ordinance	X				X			
Private Sewage Disposal System Ordinance - County Only	X							
Manufactured/Mobile Home Tie Down Ordinance	X		X		X			
Steep Slope Ordinance	X				X			
Mined Areas/Developed Over Mined Areas Ordinance	X							
National Incident Management System (NIMS) Adoption	X							X
National Flood Insurance Program (NFIP) Participation	X	X	X	X	X	X	X	X
Community Rating System (CRS) Participation			X					
Level of Capability	**H**	**L**	**M**	**M**	**H**	**M**	**L**	**M**

An "X" indicates that the item is currently in place and being implemented.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-4
County / Municipalities – Administrative & Technical Capabilities

Capability Type	County/Municipality							
	Kendall County	Lisbon	Montgomery	Newark	Oswego	Plano	Plattville	Yorkville
Adminstrative & Technical								
Zoning Board	X	X	X	X	X	X		X
Public Utility Board			X					
Planning Commission	X		X	X	X	X		X
Mutual Aid Agreements	X		X		X	X		X
Administrator/Manager	X		X	X	X			X
Building Inspector/Officer	X		X	X	X	X		X
Community/Economic Development Planner	X		X	X	X	X		X
Emergency Manager	X		X	X				
Engineer/Construction Project Manager	X		X		X			X
GIS Coordinator	X							
Grant Administrator/Writer								
Fire Chief - Municipalities Only								
Floodplain Administrator	X		X	X	X	X		
Police Chief - Municipalities Only			X	X	X	X		X
Public Works/Streets Director - Municipalities Only			X	X	X	X		X
Water Superintendent - Municipalities Only			X	X	X	X		X
Zoning Officer/Administrator	X		X	X	X	X		X
Solid Waste Director - County Only	X							
Level of Capability	**H**	**L**	**H**	**M**	**M**	**M**	**L**	**M**

An "X" indicates the presence of staff with specified knowledge or skills.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-5
County / Municipalities – Financial / Education & Outreach Capabilities

Capability Type	County/Municipality							
	Kendall County	Lisbon	Montgomery	Newark	Oswego	Plano	Plattville	Yorkville
Financial								
Roadway/Bridge Improvement Plan - County Only	X							
Capital Improvements Program	X		X		X	X		X
Tax Levies for Special Purposes	X	X	X	X	X	X		X
Motor Fuel Tax	X	X	X	X	X	X	X	X
General Obligation Bonds and/or Special Tax Bonds	X	X	X	X	X	X		X
Utility Fees (Stormwater, Sewer, Water, Gas, or Electric Service)			X	X		X		X
Impact Fees - New Development	X		X	X	X	X		X
Federal Funding Programs (Non-FEMA)	X	X	X	X	X	X		X
Level of Capability	**H**	**L/M**	**H**	**H**	**H**	**H**	**L**	**H**
Education & Outreach								
StormReady Certification	X					X		
Natural Disaster/Safety-Related School Programs	X							
Ongoing Public Education or Information Programs (Fire Safety, Household Preparedness, Responsible Water Use)	X				X			
Seasonal Outreach	X				X			
Local Citizen Groups/Non-Profit Organizations (Emergency Preparedness, Access & Functional Needs Populations)	X							
Public-Private Partnership Initiatives Addressing Disaster-Related Issues	X				X			
Level of Capability	**H**	**L**	**L**	**L**	**M**	**L**	**L**	**L**

An "X" indicates a given resource is locally available for mitigation purposes.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-6
Townships – Planning & Regulatory / Administrative & Technical Capabilities

Capability Type	Township	
	Kendall Township	Oswego Township
Plans, Policies, Codes & Ordinances		
Comprehensive/Master Land Use Plan		
Stormwater Management Plan	X	
Open Space/Recreational Area Plan		
Building Codes		
Stormwater Ordinance		
Zoning Ordinance		
Subdivision Ordinance		
Private Sewage Disposal System Ordinance		
Manufactured/Mobile Home Tie Down Ordinance		
Steep Slope Ordinance		
Mined Areas/Developed Over Mined Areas Ordinance		
Road Weight Restriction Ordinance	X	X
Nuisance Weed, Grass & Tree Ordinance		X
National Incident Management System (NIMS) Adoption		
Level of Capability	**L**	**L**
Adminstrative & Technical		
Zoning Board		
Public Utility Board		
Planning Commission	X	X
Mutual Aid Agreements	X	X
Assessor	X	X
Clerk	X	X
Collector		
Highway/Road District Commissioner	X	X
Supervisor	X	X
Level of Capability	**M**	**M**

An "X" indicates that the item is currently in place and being implemented or the presence of staff with specified knowledge or skills

Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-7
Townships – Financial /
Education & Outreach Capabilities

Capability Type	Township	
	Kendall Township	Oswego Township
Financial		
Capital Improvements Program		
Roadway/Bridge Improvement Plan		
Tax Levies for Special Purposes	X	X
Motor Fuel Tax	X	X
General Obligation Bonds and/or Special Tax Bonds		X
Utility Fees (Stormwater, Sewer, Water, Gas or Electric Service)		
Impact Fees - New Development		
Federal Funding Programs (Non-FEMA)		X
Level of Capability	**L**	**M**
Education & Outreach		
StormReady Certification		
Natural Disaster/Safety-Related School Programs		
Ongoing Public Education or Information Programs (Fire Safety, Household Preparedness, Responsible Water Use, Environmental Education, etc.)		
Seasonal Outreach	X	
Local Citizen Groups/Non-Profit Organizations (Emergency Preparedness, Access & Functional Needs Populations)		
Public-Private Partnership Initiatives Addressing Disaster-Related Issues		
Level of Capability	**L**	**L**

An "X" indicates a given resource is locally available for mitigation purposes.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-8
Schools – Planning & Regulatory /
Administrative & Technical Capabilities

Capability Type	School District/School					
	Lisbon CCSD #90	Newark CHSD #18	Oswego CUSD #308	Parkview Christian Academy	Plano CUSD #88	St. Mary Catholic School
Plans & Policies						
Comprehensive/Master Facilities Plan			X		X	
Continuity of Operations Plan		X				
Strategic Plan			X	X		X
Emergency/Crisis Response Plan	X	X	X	X	X	X
National Incident Management System (NIMS) Adoption			X			
Level of Capability	**L**	**L**	**M**	**L**	**L**	**L**
Adminstrative & Technical						
Board of Education	X	X	X	X	X	
Mutual Aid Agreements			X		X	
Superintendent	X	X	X	X	X	X
Principal(s)	X	X	X	X	X	X
Chief Financial Officer/Finance Director		X	X	X		X
Food Services Supervisor	X		X	X		
Grant Writer		X				
Health Care Supervisor		X	X		X	
IT Director/Specialist		X	X	X	X	
Maintenance Manager		X	X	X		
Communications Director		X	X	X		
Operations Manager		X	X		X	
Safety & Security Director		X	X			
Transportation Director		X	X		X	
Level of Capability	**L**	**H**	**H**	**M**	**M**	**L**

An "X" indicates that the item is currently in place and being implemented or the presence of staff with specified knowledge or skills.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-9
Schools – Financial / Education & Outreach Capabilities

Capability Type	School District/School					
	Lisbon CCSD #90	Newark CHSD #18	Oswego CUSD #308	Parkview Christian Academy	Plano CUSD #88	St. Mary Catholic School
Financial						
Capital Improvements Program		X	X		X	
Tax Levies for Special Purposes	X	X	X		X	
General Obligation Bonds and/or Special Tax Bonds	X	X	X		X	
Federal Funding Programs (Non-FEMA)	X		X		X	
Level of Capability	**M**	**M**	**H**	**L**	**H**	**L**
Education & Outreach						
StormReady Certification	X					
Natural Disaster/Safety-Related School Programs	X					
Ongoing Public Education or Information Programs (Fire Safety, Household Preparedness, Responsible Water Use)	X					
Seasonal Outreach						
Public-Private Partnership Initiatives Addressing Disaster-Related Issues	X					
Level of Capability	**M**	**L**	**L**	**L**	**L**	**L**

An "X" indicates a given resource is locally available for mitigation purposes.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-10
Fire Protection Districts – Planning & Regulatory Capabilities

Capability Type	Fire District				
	Bristol-Kendall FPD	Lisbon-Seward FPD	Newark FPD	Oswego FPD	Sandwich Community FPD
Plans, Policies, Codes, Ordinances, Resolutions, & Technical Documents					
Standard Operating Procedures/Guidelines for Structural Fire Fighting (NFPA 1700)	X	X		X	X
Standard Operating Procedures for Operations at Technical Search & Rescue Incidents (NFPA 1670)	X	X		X	X
Pre-Incident Planning (NFPA 1620)	X	X	X	X	X
Fire Prevention Codes	X			X	X
Burn Ordinance				X	
National Incident Management System (NIMS) Adoption		X	X	X	X
Incident Command System (ICS) Adoption		X	X	X	X
Building Inspections	X			X	
Tier II Reports	X	X	X	X	
County Emergency Operations Plan	X	X		X	
Safety Data Sheets	X	X	X	X	
Pipeline Maps	X	X	X	X	X
Hazardous Materials Facilities Maps	X	X		X	X
Water Supply Systems Maps	X	X	X	X	X
Impassable Roads & Bridges Maps	X	X		X	
Evacuation Zones Maps	X	X		X	X
Community & Special Residential Areas Maps (i.e., manufactured home parks, subdivisions, recreational communities)	X	X		X	X
Level of Capability	**H**	**H**	**M**	**H**	**M**

An "X" indicates that the item is currently in place and being implemented.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-11
Fire Protection Districts –
Administrative & Technical Capabilities

Capability Type	Fire District				
	Bristol-Kendall FPD	Lisbon-Seward FPD	Newark FPD	Oswego FPD	Sandwich Community FPD
Adminstrative & Technical					
Board of Trustees	X	X	X	X	X
Board of Fire Commissioners	X			X	
Mutual Aid Box Alarm System (MABAS)	X	X	X	X	X
Mutual Aid Agreements				X	X
Hazardous Materials Response Team				X	
Water Rescue/Dive Team	X			X	X
Technical Rescue Team	X			X	X
Fire Chief	X	X	X	X	X
Deputy Fire Chief	X	X	X	X	X
Administrative Assistant	X	X	X	X	X
Financial/Business Manager	X			X	
Inspector	X			X	X
Public Education Director/Officer	X	X	X	X	X
Telecom Director	X				
Training Coordinator	X		X	X	X
Level of Capability	**H**	**M**	**M**	**H**	**H**

An "X" indicates the presence of staff with specified knowledge or skills.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-12
Fire Protection Districts –
Financial / Education & Outreach Capabilities

Capability Type	Fire District				
	Bristol-Kendall FPD	Lisbon-Seward FPD	Newark FPD	Oswego FPD	Sandwich Community FPD
Financial					
Capital Improvements Program	X			X	X
Tax Levies for Special Purposes	X	X		X	
General Obligation Bonds and/or Special Tax Bonds	X	X		X	
Federal Funding Programs (Non-FEMA)	X	X		X	
Level of Capability	**H**	**M**	**L**	**H**	**L**
Education & Outreach					
Natural Disaster/Safety-Related School Programs	X	X	X	X	X
Ongoing Public Education or Information Programs (Fire Safety, Household Preparedness, Responsible Water Use)	X	X		X	X
Seasonal Outreach		X		X	X
Public-Private Partnership Initiatives Addressing Disaster-Related Issues					X
Level of Capability	**M**	**M**	**L**	**M**	**H**

An "X" indicates a given resource is locally available for mitigation purposes.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-13
Park Districts – Planning & Regulatory / Administrative & Technical Capabilities

Capability Type	Park District
	Oswegoland Park District
Plans & Policies	
Strategic/Framework Plan	X
Comprehensive/Master Plan	X
Trails Plan	X
Land Acquisition Plan	X
Annual Plan	X
Emergency Management/Operations Plan	X
Continuity of Operations Plan	X
Disaster Recovery Plan	X
Inclement Weather Policy	X
General Use Ordinance	X
Budget & Appropriations Ordinance	X
National Incident Management System (NIMS) Adoption	
Level of Capability	**H**
Adminstrative & Technical	
Board of Commissioners/Trustees	X
Mutual Aid Agreements	X
Executive Director	X
Superintendent of Recreation	X
Superintendent of Parks	X
Director of Business Services	X
Director of Program Services	X
Director of Golf	X
Chief of Park District Police	
Safety & Training Coordinator	
Recreation Program Manager	X
Level of Capability	**H**

An "X" indicates that the item is currently in place and being implemented or the presence of staff with specified knowledge or skills.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-14
Park Districts – Financial / Education & Outreach Capabilities

Capability Type	Park District: Oswegoland Park District
Financial	
Capital Improvements Program	X
Tax Levies for Special Purposes	X
General Obligation Bonds and/or Special Tax Bonds	X
Endowments/Bequests	X
Federal Funding Programs (Non-FEMA)	X
Level of Capability	**H**
Education & Outreach	
Natural Disaster/Safety-Related School Programs	
Ongoing Public Education or Information Programs (Fire Safety, Household Preparedness, Responsible Water Use)	
Seasonal Outreach	
Public-Private Partnership Initiatives Addressing Disaster-Related Issues	
Level of Capability	**L**

An "X" indicates a given resource is locally available for mitigation purposes.
Level of Capacity: "L" = Limited; "M" = Moderate; "H" = High

Figure PP-15
Capability Rankings by Participating Jurisdiction

Capability Type	County/Municipality								Township		School District/School						Fire District					Park District
	Kendall County	Lisbon	Montgomery	Newark	Oswego	Plano	Plattville	Yorkville	Kendall Township	Oswego Township	Lisbon CCSD #90	Newark CHSD #18	Oswego CUSD #308	Parkview Christian Academy	Plano CUSD #88	St. Mary Catholic School	Bristol-Kendall FPD	Lisbon-Seward FPD	Newark FPD	Oswego FPD	Sandwich Community FPD	Oswegoland Park District
Planning & Regulatory	H	L	M		H	M	L	M	L	L	L	L	M	L	L	L	H	H	M	H	M	H
Administrative & Technical	H	L	H	M	M	M	L	M	M	M	L	H	H	M	M	L	H	M	M	H	H	H
Financial	H	L/M	H	H	H	H	L	H	L	M	M	M	H	L	H	L	H	M	L	H	L	H
Education & Outreach	H	L	L	L	M	L	L	L	L	L	M	L	L	L	L	L	M	M	L	M	H	L
Overall Capability	**H**	**L**	**M/H**	**M**	**M/H**	**M**	**L**	**M**	**L**	**L/M**	**L/M**	**M**	**M/H**	**L**	**M**	**L**	**H**	**M/H**	**M**	**H**	**M/H**	**H**

Level of Capacity: "L" = Limited; "M" = Moderate; "H" High

Figure PP-16
Select Planning & Regulatory Capabilities Information by County/Municipality

Participating Jurisdiction	Comprehensive/Land Use Plan		Building Codes			Zoning Ordinance	
	Effective Date	Scheduled Update (if known)	Effective Date	ICC I-Code Version	Scheduled Update (if known)	Effective Date	Scheduled Update (if known)
Kendall County	2021	2025	2019	2018	2025	2023	as needed
Lisbon	2009	---	---	---	---	---	---
Montgomery	2014	---	2023	2021	---	2021	---
Newark	2008	---	2022	2018	---	2020	---
Oswego	2015	---	2021	2009	2024	2016	2023/2024
Plano	2017	2023/2024	2019	2018	---	2017	---
Plattville	---	---	---	---	---	---	---
Yorkville	2016	2026	2019	2018	---	2014	---

3.0 RISK ASSESSMENT

Risk assessment is the process of evaluating the vulnerability of assets in order to estimate the potential loss of life, personal injury, economic loss, and property damage resulting from natural and man-made hazards. Assets are determined by each participant and can include people; structures (i.e., critical facilities, lifelines, and infrastructure); systems (i.e., networks such as electrical and communications, etc.); and natural, historic, and cultural resources). This section summarizes the results of the risk assessment conducted on the natural and man-made hazards in Kendall County. The information contained in this section was gathered by evaluating local, state, and federal records from the last 20 to 70 years.

This risk assessment identifies the natural and man-made hazards deemed most important to the Planning Committee and includes a profile of each hazard that identifies past occurrences, the severity or extent of the events, and the likelihood of future occurrences. It also provides a vulnerability analysis that identifies the impacts to public health and property, evaluates the assets of the participating jurisdictions and estimates the potential impacts each natural hazard would have on the evaluated assets. Where applicable, the differences in vulnerability between participating jurisdictions are described.

The subsequent sections provide detailed information on each of the selected natural hazards. The sections are color coded and ordered by the frequency with which the natural hazard has previously occurred within the County. Each natural hazard section contains three subsections: hazard identification, hazard profile, and hazard vulnerability.

Hazard Selection
One of the responsibilities of the Committee was to review the natural hazards detailed in the previous Plan and decide if additional hazards should be included in the Plan update. Over the course of the first two meetings, the Committee members discussed their experiences with natural and man-made hazard events and reviewed information on various hazards. While not included in the original Plan, the Committee chose to include drought and excessive heat in this Plan update.

The following identifies the hazards included in this Plan update:

- severe storms (thunderstorms, hail, lightning & heavy rain)
- floods (riverine & flash)
- severe winter storms (snow & ice)
- tornadoes
- excessive heat
- extreme cold
- drought
- earthquakes
- man-made hazards including:
  - hazardous substances (generation, transportation & storage/handling)
  - waste disposal
  - hazardous materials incidents
  - waste remediation
- terrorism

The Planning Committee chose not to include the following hazards in the Plan: land/mine subsidence, levee failures, landslides, and dam failures. In Illinois land subsidence generally occurs in areas where mining has been conducted. According to ISGS's *ILMINES* mapper, there are no underground mines located within the County. Karst refers to landforms underlain by

limestone that has been dissolved, producing characteristic landscapes such as sinkholes. Mapping prepared by the ISGS shows no karst geologic characteristics present in Kendall County. Information obtained from the U.S. Army Corps of Engineers' National Levee Database indicates there are no public or private levees located in Kendall County. A review of the USGS Landslide Inventory, NASA's Global Landslide Catalog, and the Illinois State Geological Survey's (ISGS) Landslide Inventory of Illinois did not identify any landslide events within the County. Discussions with the Planning Committee did not reveal any recent occurrences of landslides.

A review of the U.S. Army Corps of Engineers' National Inventory of Dams identified seven classified dams located in the County. Of the seven dams, two have a hazard potential classification rating of "Significant" and the remaining five dams have a hazard classification rating of "Low". There are no "High" hazard classified dams within the County. Based on information available from the National Inventory of Dams and a visual inspection, these dams do not have reservoirs with immense storage capacities and are not located in densely populated areas. According to the Stanford University's National Performance of Dams Incident Database, there are no known recorded dam failures associated with these dams and discussions with the Kendall County EMA Director did not identify any major concerns. An electronic survey was sent out asking Planning Committee members whether dam failures should be included in the Plan update. Based on the responses received, the Planning Committee did not feel dam failures posed a significant impact on the County.

Based on the information provided, the Committee did not consider these hazards warranted inclusion in the Plan update.

Risk Priority Index

After reviewing the preliminary results of the risk assessment at the second meeting, Committee members and the participating jurisdictions were asked to complete a Risk Priority Index (RPI) exercise for the hazards that have the potential to impact the County and participating jurisdictions. The RPI provides quantitative guidance for ranking the hazards and offers participants with another tool to determine which hazards present the highest risk and therefore which ones to focus on when formulating mitigation actions.

Each hazard was scored on three categories: 1) frequency, 2) impacts on life and health, and 3) impacts on property and infrastructure. A scoring system was developed that assigned specific factors to point values ranging from 1 to 4 for each category. For those hazards that were not applicable to a particular jurisdiction, a value of "NA" was assigned to each category. The higher the point value, the greater the risk associated with that hazard. **Figure R-1**, located at the end of this section, identifies the factors and values/point values associated with each category. Participants were asked to score the selected hazards based on the perspective of the entity they represented on the Committee.

The Consultant took the point values assigned to each category and averaged the remaining results and came up with an overall value for each category. The values for each category were then added together to calculate an RPI score for each hazard. A ranking was then assigned to each hazard based on the RPI score. **Figure R-2**, located at the end of this section, provides the hazard rankings for the participating jurisdictions. RPI scores were not generated for Bristol-Kendall Fire Protection District.

Figure R-3 provides a side-by-side comparison of how the hazards ranked between the RPI exercise conducted for the original Plan in 2011 and the exercise conducted for the Plan update for each of the original participants. RPIs were not generated in 2011 for Montgomery, Plattville or any of the special districts. The top hazards for the County in 2011 were thunderstorms with damaging winds, hail and lightning, followed by tornadoes and transportation hazardous materials incidents. In 2023, the top hazards were tornadoes, followed by thunderstorms with damaging winds and severe winter storms.

FEMA's National Risk Index

The National Risk Index (NRI) is an online mapping and data-based interface that helps illustrate a community's risk to 18 identified natural hazards. The natural hazards identified by the NRI and included in this Plan are: cold wave, drought, earthquake, hail, heat wave, ice storm, landslides, lightning, riverine flooding, strong wind, tornado, and winter weather. The NRI leverages available source data for natural hazard and community risk factors, such as social vulnerability and community resilience, to develop a baseline relative risk measurement for each county and census tract in the U.S. The goal is to help individuals better understand the natural hazard risk of their communities.

In the NRI, risk is defined as the potential for negative impacts as a result of a natural hazard. The risk equation behind the NRI includes three components: a natural hazards risk component (expected annual loss), a consequence enhancing component (social vulnerability), and a consequence reduction component (community resilience). Social vulnerability represents the susceptibility of social groups to the adverse impacts of natural hazards. Community resilience represents the ability of a community to prepare for anticipated natural hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions.

The scores and ratings generated by the NRI describe a county's or census tract's relative position among all other U.S. counties and census tracts for a given component. Dataset Update Version 1.19.0 released March 2023 was used in this analysis. Scores can range from 0 (the lowest possible value) to 100 (the highest possible value). For every score there is assigned one of five qualitative ratings: "Very Low", "Relatively Low", "Relatively Moderate", "Relatively High", and "Very High." Because all ratings are relative, there are no specific numeric values that determine the rating.

In order to provide the participating jurisdictions and public with additional information on the natural hazards included in the Plan, **Figure R-4** located at the end of this section, presents the overall NRI scores and ratings for each census tract as well as for the County. 2020 census tract information was used in this version of the NRI. In 2020, there were 21 census tracts in Kendall County and three census tracts that include the portions of the Village of Montgomery in Kane County. Only seven of the 24 census tracts have a Risk Index rating of "Relatively Moderate". The rest of the census tracts have a Risk Index rating of "Relatively Low". One census tract has a Social Vulnerability rating of "Very High", four have a Social Vulnerability rating of "Relatively Moderate", and the remaining census tracts have a Social Vulnerability rating of "Relatively Low" or "Very Low".

Figure R-5, located at the end of this section, provides the NRI scores and ratings by hazard type for each census tract as well as the County. Hazard ratings of "Relatively High" and "Very High"

are highlighted in yellow by census tract. The hazards with the highest relative ratings include tornadoes, extreme cold, tornadoes, excessive heat, and lightning.

Critical Facilities & Infrastructure

Critical facilities and infrastructure include structures, lifelines, systems, networks, and institutions that are critical for life, safety, and economic viability and necessary for a community's response to and recovery from emergencies. The loss of function of any of these assets can intensify the severity of the impacts and speed of recovery associated a hazard event. Critical facilities and infrastructure may include, but are not limited to, the following:

- **Essential Facilities**: Facilities essential to the health and welfare of the whole population including hospitals and other medical facilities, police and fire stations, emergency operations centers, evacuation shelters, and schools.
- **Government Facilities**: Facilities associated with the continued operations of government services such as courthouses, city/village halls, township buildings, and highway/maintenance centers.
- **Infrastructure Systems**: Infrastructure associated with drinking water, wastewater, transportation (roads, railways, waterways), communication systems, electric power, natural gas and oil.
- **Housing Facilities**: Facilities that serve populations that have access and function needs such as nursing homes, skilled and memory care facilities, residential group homes, and day care centers.
- **High Potential Loss Facilities**: Facilities that would have an impact or high loss associated with them if their functionality is compromised such as nuclear power plants, dams, levees, military installations and facilities housing industrial or hazardous materials.
- **Gathering Places**: Facilities such as parks, libraries, community centers, and churches.

As part of the planning process each participating jurisdiction reviewed and/or completed a questionnaire identifying the critical facilities and infrastructure located within their jurisdiction, both publicly and privately-owned. **Figure R-6**, located at the end of this section, identifies the number of critical facilities and infrastructure located in each participating jurisdiction for select categories. Identifying these assets makes local leaders more aware of the critical facilities and infrastructure located within their jurisdictions and helps them make informed choices on how to better protect these key resources.

While considered a "local government entity" for planning purposes, Kendall Township, Oswego Township, Lisbon Consolidated Community School District (CCSD) #90, Newark Consolidated High School District (CHSD) #18, Oswego Community Unit School District (CUSD) #308, Parkview Christian Academy, Plano CUSD #88, St. Mary Catholic School, Bristol-Kendall Fire Protection District (FPD), Lisbon-Seward FPD, Newark FPD, Oswego FPD, Sandwich Community FPD, and Oswegoland Park District do not have an extensive inventory of critical facilities/infrastructure assets to consider when conducting the risk assessment.

The critical facilities/infrastructure assets for Lisbon CCSD #90, Newark CHSD #18, Parkview Christian Academy, Plano CUSD #88, St. Mary Catholic School, Bristol-Kendall FPD, Lisbon-Seward FPD, and Newark FPD are all located within a participating municipality and are a subset

of these municipalities' critical facilities. As such their risk is considered to be the same or similar to the risk experienced by the municipalities for those hazards that either impact the entire planning area or can occur at any location within the planning area (i.e., severe storms, severe winter storms, etc.). For those hazards where the risk to the schools or FPDs varies from the risk facing the municipalities, a separate narrative assessment will be provided under the appropriate hazard's vulnerability subsection.

The critical facilities for Oswego Township are located in Boulder Hill, the largest unincorporated subdivision in Kendall County. Boulder Hill is situated between Oswego and Montgomery and therefore its risk is considered to be the same or similar to the risk experienced by these municipalities for those hazards that either impact the entire planning area or can occur at any location within the planning area (i.e., severe storms, severe winter storms, etc.). For those hazards where the risk to the Township varies from the risk facing the municipalities, a separate narrative assessment will be provided under the appropriate hazard's vulnerability subsection.

The critical facilities for Kendall Township are located in unincorporated Kendall County. Their risk is considered to be the same or similar to the risk experienced by the County for those hazards that either impact the entire planning area or can occur at any location within the planning area (i.e., severe storms, severe winter storms, etc.) For those hazards where the risk to Township critical facilities varies from the risk facing the planning area (i.e., the County), a separate narrative assessment will be provided under the appropriate hazard's vulnerability subsection.

The critical facilities for Oswegoland Park District are located in Oswego and Boulder Hill. The Park District also has parks and trails located in Oswego, Boulder Hill, Montgomery, Plainfield, Aurora, and unincorporated Kendall County. The risk to critical facilities, parks, and trails in Boulder Hill, Plainfield, and Aurora is considered to be the same or similar to the risk experienced by Oswego and Montgomery for those hazards that either impact the entire planning area or can occur at any location within the planning area (i.e., severe storms, severe winter storms, etc.). For those hazards where the risk to the Park District varies from the risk facing the municipalities, a separate narrative assessment will be provided under the appropriate hazard's vulnerability subsection.

The critical facilities for Owego FPD are located in Oswego, Montgomery, and Plainfield. As discussed previously, the risk to critical facilities in Plainfield is considered to be the same or similar to the risk experienced by Oswego and Montgomery for those hazards that either impact the entire planning area or can occur at any location within the planning area (i.e., severe storms, severe winter storms, etc.). For those hazards where the risk to the FPD varies from the risk facing the municipalities, a separate narrative assessment will be provided under the appropriate hazard's vulnerability subsection.

The critical facilities for Oswego CUSD #308 are located in Oswego, Boulder Hill, Montgomery, Plainfield and Aurora, with three of the District's schools located just over the county line in Will County. The risk to the critical facilities in Boulder, Plainfield, and Aurora is considered to be the same or similar to the risk experienced by Oswego and Montgomery for those hazards that either impact the entire planning area or can occur at any location within the planning area (i.e., severe storms, severe winter storms, etc.). For those hazards where the risk to the District varies from the

risk facing the municipalities, a separate narrative assessment will be provided under the appropriate hazard's vulnerability subsection.

Assets Vulnerability Survey

The participating jurisdictions were also asked to complete an Assets Vulnerability Survey at the third meeting to assist them in creating problem statements summarizing the consequences and/or effects the studied hazards have on their assets. The Survey asked participants to describe their jurisdiction's greatest vulnerabilities to natural hazards and which assets they felt have the greatest vulnerabilities and the hazards they are most vulnerable to. This information is summarized under the appropriate hazard's vulnerability subsection.

Future Conditions

While we cannot predict with certainty what the weather of the future will look like, we can use models to help us make sense of the patterns we have seen in the past and to use that information to predict what events will be more likely to occur going forward.

By looking at data from previous weather conditions and taking into account trends in that data that have emerged over time, we can with some degree of accuracy project what weather may look like in the future. It is important to consider that nearer term predictions have the greatest likelihood of accuracy since they require the least extrapolation and guesswork; however, this does not mean that longer term predictions are not plausible or not useful. Often, having a prediction that is even partly right is preferable to having no guide at all. By coming up with best case and worst case scenarios, even if neither is terribly likely, we can gain a better understanding of the range of potential outcomes and a good idea of what the most probable outcomes might look like.

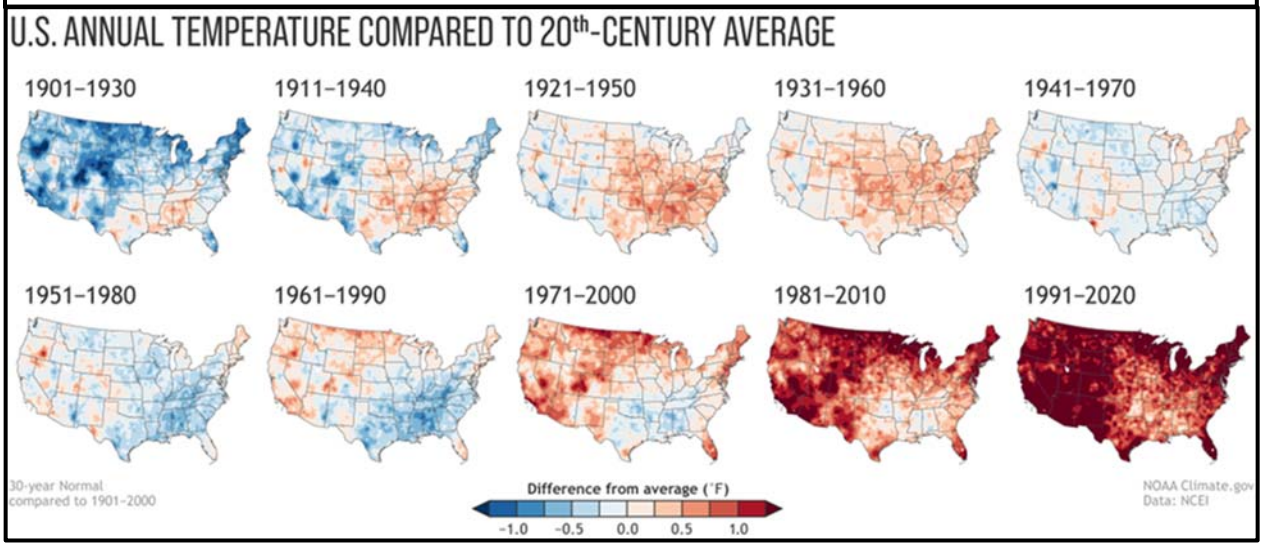
Earth's weather and climate have always been variable. Over time, sea levels have risen and fallen, glaciers have advanced and retreated, and droughts, floods, wildfires, and storms have periodically upended the notion of "normal". In recent years in the U.S., there have been several trends observed in weather patterns that offer us some insight as to what the near future may hold. Broadly, these likely changes can be referred to as "future conditions". They include more general seasonal trends as well as more specific weather pattern trends.

In recent decades we have seen both earlier springs (earlier last frost dates) and later winters (later first frost dates) in the U.S. Taken together, these two changes mean that winters are likely to be shorter and milder, and summers are likely to be longer and hotter across much of the continental U.S. than they were historically. In combination, shorter, milder winters and longer, more intense summers have resulted in an observed increase in average annual temperature.

As with any change that occurs gradually, the difference can be difficult to perceive if the time frame you are looking at is small. Additionally, smaller windows of time are more likely to be skewed by rare occurrences or anomalies. Looking at longer time frames allows us to see the big picture, putting highly unusual years into context by averaging them out with other more typical years. Looking at consecutive 30-year period averages called "Normals" allows us to detect how what is average (or 'normal') has shifted over time.

Figure R-7 shows U.S. annual temperature compared to 20th-century averages. By looking at 30 Year Normals for average annual temperature compared to overall 20th century averages, a trend of increasing annual temperature is particularly apparent in the final three 30 year periods. (1971-2000, 1981-2010, 1991-2020). Since these are average annual temperatures, even a small difference corresponds to larger temperature changes recorded within a year.

Figure R-7
U.S. Annual Temperature Compared to 20th Central Average



Also observed have been changes in when, where, and how much precipitation occurs across the U.S. **Figure R-8** shows U.S. annual precipitation compared to 20th-century averages. For some areas of the Country, this has resulted in increases in overall precipitation. The Midwestern U.S. has been on average getting progressively wetter in 30 year rolling averages from the period of 1951-1980 onwards; elsewhere, it has resulted in decreases, such as in much of the Western and Southwestern US, which has been getting drier since the period of 1971-2000 onwards.

Trends also reveal an uptick in the frequency and severity of hazardous weather events. While this is in part due to better record-keeping and a higher number of people and monitoring devices to witness hazardous events in order to report them, this trend is at least in part due to warmer bodies of air that tend to "supercharge" summer storm systems, making them more likely to produce severe weather events.

Specific information on future conditions is summarized under the appropriate hazard's probability subsection.

Figure R-8
U.S. Annual Precipitation Compared to 20th Central Average

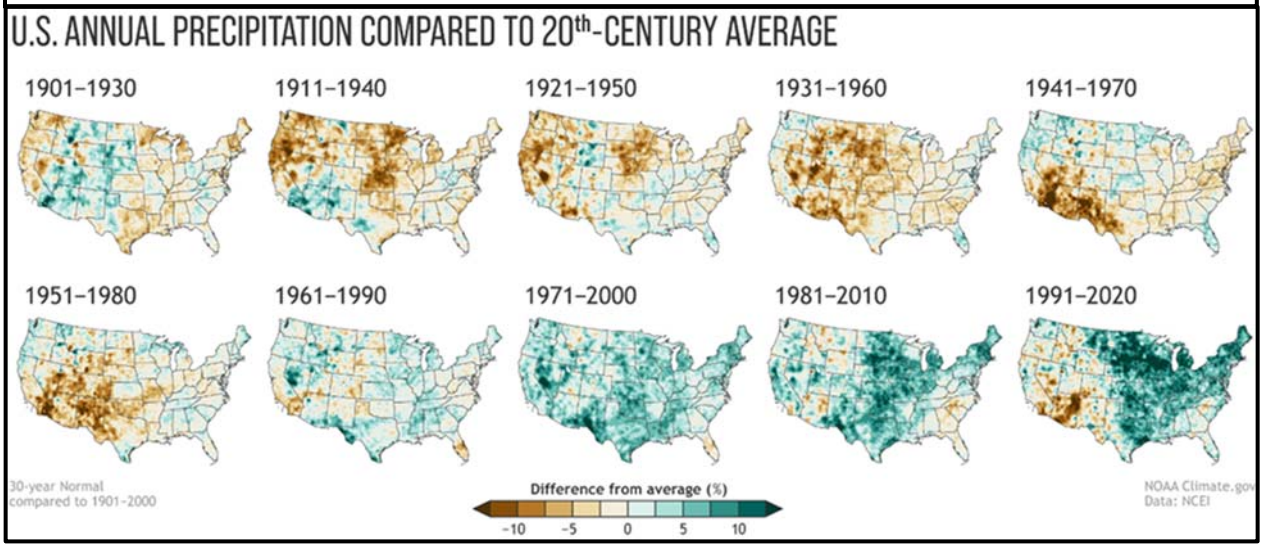


Figure R-1
Risk Priority Index Scoring System

Category	Factors	Value	Point Value
Hazard Frequency	An event is likely to occur in the next 1 to 3 years.	High	3
	An event is possible in the next 3 to 10 years.	Moderate	2
	An event is unlikely to occur within the next 10 years.	Low	1
Impacts on Life & Health	While fatalities are unlikely, injuries, some requiring hospitalization, may occur during the event.	High	3
	Minor injuries not requiring hospitalization may occur during the event.	Moderate	2
	Injuries or fatalities are unlikely to occur during the event.	Low	1
Impacts on Property & Infrastructure	- Substantial property damage is likely to occur including damage to infrastructure and critical facilities. AND/OR - Loss of access/operations at infrastructure and critical facilities (i.e., road & school closures, loss of power to drinking water/wastewater treatment facilities, municipal buildings, etc.) is anticipated for a period of time (i.e., a day or more).	High	3
	- Some minor property damage is anticipated (i.e., shingles & siding torn off homes, windows broken, etc.) but no significant damage to infrastructure or critical facilities is anticipated. AND/OR - Loss of access/operations to infrastructure and critical facilities is anticipated but only for a short period of time (i.e., up to a couple hours).	Moderate	2
	- Property damage is likely to be negligible and no loss of access/operations is anticipated at any infrastructure/critical facilities during the event.	Low	1

Figure R-2
Risk Priority Index Hazard Ranking by Participating Jurisdiction
(Sheet 1 of 2)

Hazard	Hazard Ranking by Participating Jurisdiction									
	Kendall County	Lisbon	Montgomery	Newark	Oswego	Plano	Plattville	Yorkville	Kendall Township	Oswego Township
Drought	13	10	9/10/11/12	12/13/14	12/13/14	13/14	10	4/5/6/7/8	4/5/6/7	10/11/12/13
Earthquakes	14	11/12/13/14	13/14	12/13/14	12/13/14	13/14	11/12/13/14	13/14	14	10/11/12/13
Excessive Heat	4/5	9	**1/2/3/4**	5/6/7/8/9	6/7/8/9	5/6/7/8	8/9	3	8/9/10/11/1	3/4/5/6
Extreme Cold	6/7/8	7	**1/2/3/4**	10/11	4/5	3/4	8/9	4/5/6/7/8	8/9/10/11/1	**1/2**
Floods	6/7/8	4/5/6	**1/2/3/4**	10/11	10/11	5/6/7/8	**1/2**	9/10/11/12	13	10/11/12/13
Hail	9	8	13/14	**1/2/3/4**	12/13/14	9/10	4/5/6/7	4/5/6/7/8	4/5/6/7	3/4/5/6
HazMat - Fixed Facility	12	11/12/13/14	9/10/11/12	5/6/7/8/9	4/5	11/12	11/12/13/14	9/10/11/12	8/9/10/11/1	7/8
HazMat - Transportation	10	11/12/13/14	5/6/7/8	**1/2/3/4**	2/3	11/12	11/12/13/14	**1/2**	8/9/10/11/1	10/11/12/13
Heavy Rain	6/7/8	4/5/6	9/10/11/12	5/6/7/8/9	6/7/8/9	5/6/7/8	3	9/10/11/12	2/3	3/4/5/6
Lightning	4/5	3	5/6/7/8	**1/2/3/4**	10/11	5/6/7/8	**1/2**	13/14	4/5/6/7	9
Terrorism	11	11/12/13/14	5/6/7/8	12/13/14	6/7/8/9	**1/2**	11/12/13/14	9/10/11/12	8/9/10/11/1	14
Thunderstorms with Damaging Winds	2	4/5/6	9/10/11/12	5/6/7/8/9	2/3	9/10	4/5/6/7	4/5/6/7/8	**1**	3/4/5/6
Tornadoes	**1**	2	5/6/7/8	**1/2/3/4**	**1**	**1/2**	4/5/6/7	**1/2**	4/5/6/7	7/8
Winter Storms	3	**1**	**1/2/3/4**	5/6/7/8/9	6/7/8/9	3/4	4/5/6/7	4/5/6/7/8	2/3	**1/2**

Figure R-2
Risk Priority Index Hazard Ranking by Participating Jurisdiction
(Sheet 2 of 2)

Hazard	Hazard Ranking by Participating Jurisdiction										
	Lisbon CCSD #90	Newark CHSD #18	Oswego CUSD #308	Parkview Christian Academy	Plano CUSD #88	St. Mary Catholic School	Lisbon-Seward FPD	Newark FPD	Oswego FPD	Sandwich Community FPD	Oswegoland Park District
Drought	12/13	12/13	12/13	12/13	12/13	12/13	14	11/12/13	10/11/12	12/13	8/9
Earthquakes	5/6	5/6	5/6	5/6	5/6	5/6	9/10/11	7/8/9/10	14	14	11/12/13/14
Excessive Heat	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	9/10/11	7/8/9/10	3/4	4/5/6/7/8	2/3/4/5
Extreme Cold	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	1/2/3/4/5/6/7/8	3/4/5	5/6/7/8/9	4/5/6/7/8	6/7
Floods	2/3/4	2/3/4	2/3/4	2/3/4	2/3/4	2/3/4	1/2/3/4/5/6/7/8	3/4/5	**1**	9	2/3/4/5
Hail	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	12	11/12/13	5/6/7/8/9	4/5/6/7/8	8/9
HazMat - Fixed Facility	14	14	14	14	14	14	1/2/3/4/5/6/7/8	11/12/13	13	**1/2**	11/12/13/14
HazMat - Transportation	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	13	7/8/9/10	10/11/12	12/13	11/12/13/14
Heavy Rain	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	7/8/9/10/11	9/10/11	**1/2**	5/6/7/8/9	4/5/6/7/8	2/3/4/5
Lightning	5/6	5/6	5/6	5/6	5/6	5/6	1/2/3/4/5/6/7/8	6	10/11/12	10/11	2/3/4/5
Terrorism	12/13	12/13	12/13	12/13	12/13	12/13	1/2/3/4/5/6/7/8	14	3/4	**1/2**	11/12/13/14
Thunderstorms with Damaging Winds	2/3/4	2/3/4	2/3/4	2/3/4	2/3/4	2/3/4	1/2/3/4/5/6/7/8	**1/2**	5/6/7/8/9	3	**1**
Tornadoes	**1**	**1**	**1**	**1**	**1**	**1**	1/2/3/4/5/6/7/8	3/4/5	2	4/5/6/7/8	6/7
Winter Storms	2/3/4	2/3/4	2/3/4	2/3/4	2/3/4	2/3/4	1/2/3/4/5/6/7/8	7/8/9/10	5/6/7/8/9	10/11	10

Figure R-3
Comparison of 2011 & 2023 Risk Priority Index Hazard Rankings by Participating Jurisdiction

Hazard	Hazard Ranking by Participating Jurisdiction											
	Kendall County		Lisbon		Newark		Oswego		Plano		Yorkville	
	2011	2023	2011	2023	2011	2023	2011	2023	2011	2023	2011	2023
Drought	---	13	---	10	---	12/13/14	---	12/13/14	---	13/14	---	4/5/6/7/8
Earthquakes	7	14	7	11/12/13/14	7	12/13/14	7	12/13/14	7	13/14	7	13/14
Excessive Heat	---	4/5	---	9	---	5/6/7/8/9	---	6/7/8/9	---	5/6/7/8	---	3
Extreme Cold	5	6/7/8	4	7	5	10/11	5	4/5	6	3/4	5	4/5/6/7/8
Floods	4	6/7/8	6	4/5/6	4	10/11	4	10/11	2	5/6/7/8	4	9/10/11/12
Hail	**1**	9	**1**	8	**1**	**1/2/3/4**	**1**	12/13/14	3	9/10	2	4/5/6/7/8
HazMat Incidents: Fixed Facility	6	12	5	11/12/13/14	6	5/6/7/8/9	6	4/5	5	11/12	6	9/10/11/12
HazMat Incidents: Transportation	3	10	3	11/12/13/14	3	**1/2/3/4**	3	2/3	4	11/12	3	**1/2**
Heavy Rain	---	6/7/8	---	4/5/6	---	5/6/7/8/9	---	6/7/8/9	---	5/6/7/8	---	9/10/11/12
Lightning	**1**	4/5	**1**	3	**1**	**1/2/3/4**	**1**	10/11	3	5/6/7/8	2	13/14
Terrorism	---	11	---	11/12/13/14	---	12/13/14	---	6/7/8/9	---	**1/2**	---	9/10/11/12
Thunderstorms w/ Damaging Winds	**1**	2	**1**	4/5/6	**1**	5/6/7/8/9	**1**	2/3	3	9/10	2	4/5/6/7/8
Tornadoes	2	**1**	2	2	2	**1/2/3/4**	2	**1**	**1**	**1/2**	**1**	**1/2**
Winter Storms	5	3	4	**1**	5	5/6/7/8/9	5	6/7/8/9	6	3/4	5	4/5/6/7/8

Figure R-4
National Risk Index Overall Scores/Ratings by Census Tract

Census Tract No.	Participating Jurisdiction* Located in Census Tract	Risk Index Score	Risk Index Rating	Social Vulnerability Score	Social Vulnerability Rating	Community Resilience Score	Community Resilience Rating
01.03	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	60.05	Relatively Low	20.23	Relatively Low	^	^
01.04	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	60.62	Relatively Low	35.74	Relatively Low	^	^
01.05	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	68.19	Relatively Moderate	15.45	Very Low	^	^
01.06	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	41.14	Relatively Low	4.66	Very Low	^	^
01.07	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	47.38	Relatively Low	7.68	Very Low	^	^
01.08	Oswego, Oswego Township, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD, Oswegoland Park District	42.22	Relatively Low	1.94	Very Low	^	^
02.01	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	39.89	Relatively Low	23.52	Relatively Low	^	^
02.02	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	33.19	Relatively Low	52.85	Relatively Moderate	^	^
03.01	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	67.35	Relatively Moderate	36.53	Relatively Low	^	^
03.02	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	53.01	Relatively Low	18.19	Very Low	^	^
04.01	Montgomery, Yorkville, Plano CUSD #88, Bristol-Kendall FPD, Oswego FPD	60.77	Relatively Low	23.61	Relatively Low	^	^
04.02	Yorkville, Bristol-Kendall FPD, Oswego FPD	71.90	Relatively Moderate	14.92	Very Low	^	^
04.03	Montgomery, Oswego, Yorkville, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD, Oswegoland Park District	58.65	Relatively Low	35.88	Relatively Low	^	^
04.04	Montgomery, Yorkville, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD	68.97	Relatively Moderate	21.91	Relatively Low	^	^
05.01	Plano, Sandwich, Plano CUSD #88, Bristol-Kendall FPD, Sandwich Community FPD	76.67	Relatively Moderate	46.24	Relatively Moderate	^	^
05.02	Plano, Plano CUSD #88, Sandwich Community FPD	48.32	Relatively Low	29.34	Relatively Low	^	^
06.01	Yorkville, Kendall Township, Bristol-Kendall FPD	53.10	Relatively Low	26.14	Relatively Low	^	^
06.02	Newark, Yorkville, Kendall Township, Newark CHSD #18, Plano CUSD #88, Bristol-Kendall FPD, Newark FPD, Oswego FPD, Sandwich Community FPD	56.44	Relatively Low	7.60	Very Low	^	^
07.01	---	54.92	Relatively Low	45.45	Relatively Moderate	^	^
07.02	Oswego CUSD #90, Bristol-Kendall FPD, Lisbon-Seward FPD, Oswego FPD, Oswegoland Park District	42.19	Relatively Low	1.05	Very Low	^	^
07.03	Lisbon, Newark, Plattville, Lisbon CCSD #90, Newark CHSD #18, Bristol-Kendall FPD, Lisbon-Seward FPD, Newark FPD	69.34	Relatively Moderate	12.70	Very Low	^	^
40.02	Montgomery	64.23	Relatively Moderate	53.87	Relatively Moderate	^	^
44.01	Montgomery	37.58	Relatively Low	88.98	Very High	^	^
45.08	Montgomery	37.55	Relatively Low	7.29	Very Low	^	^
Kendall County		73.56	Relatively Low	12.22	Very Low	97.68	Relatively High

* Parkview Christian Academy and St. Mary Catholic School are non-boundaried schools and as such serve all census tracts in the County.

^ Community Resilience scores are only available at the county level.

Figure R-5
NRI Hazard Scores/Ratings by Hazard by Census Tract
(Sheet 1 of 3)

Census Tract No.	Participating Jurisdiction* Located in Census Tract	Severe Storms						Severe Winter Storms			
		Hail Score	Hail Rating	Lightning Score	Lightning Rating	Strong Wind Score	Strong Wind Rating	Ice Storm Score	Ice Storm Rating	Winter Weather Score	Winter Weather Rating
01.03	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	57.10	RL	79.81	RH	77.25	RM	60.90	RL	53.55	RL
01.04	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	54.73	RL	84.23	RH	77.26	RM	63.32	RL	56.99	RL
01.05	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	60.55	RL	88.55	RH	82.79	RH	68.02	RL	61.90	RM
01.06	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	46.88	RL	68.36	RM	66.56	RM	48.90	RL	45.62	RL
01.07	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	51.92	RL	70.83	RM	69.74	RM	52.82	RL	47.46	RL
01.08	Oswego, Oswego Township, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD, Oswegoland Park District	50.37	RL	67.95	RM	67.34	RM	49.76	RL	45.98	RL
02.01	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	42.19	VL	74.51	RM	66.90	RM	48.20	RL	47.50	RL
02.02	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	38.22	VL	71.24	RM	62.63	RM	43.06	RL	44.39	RL
03.01	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	60.66	RL	85.78	RH	82.21	RH	66.03	RL	58.69	RL
03.02	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	49.50	RL	81.81	RH	74.42	RM	56.81	RL	53.11	RL
04.01	Montgomery, Yorkville, Plano CUSD #88, Bristol-Kendall FPD, Oswego FPD	57.57	RL	79.75	RH	78.70	RM	61.79	RL	56.01	RL
04.02	Yorkville, Bristol-Kendall FPD, Oswego FPD	61.28	RL	88.70	RH	85.11	RH	68.78	RL	63.38	RM
04.03	Montgomery, Oswego, Yorkville, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD, Oswegoland Park District	52.44	RL	83.22	RH	77.47	RM	60.09	RL	55.89	RL
04.04	Montgomery, Yorkville, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD	56.91	RL	90.45	RH	84.35	RH	67.37	RL	63.84	RM
05.01	Plano, Sandwich, Plano CUSD #88, Bristol-Kendall FPD, Sandwich Community FPD	63.96	RL	91.57	RH	87.91	RH	71.87	RM	67.46	RM
05.02	Plano, Plano CUSD #88, Sandwich Community FPD	51.67	RL	72.63	RM	70.77	RM	52.51	RL	50.13	RL
06.01	Yorkville, Kendall Township, Bristol-Kendall FPD	54.97	RL	72.23	RM	73.51	RM	56.84	RL	50.60	RL
06.02	Newark, Yorkville, Kendall Township, Newark CHSD #18, Plano CUSD #88, Bristol-Kendall FPD, Newark FPD, Oswego FPD, Sandwich Community FPD	63.57	RL	72.87	RM	75.39	RM	58.17	RL	51.81	RL
07.01	---	49.95	RL	83.76	RH	74.12	RM	60.23	RL	55.10	RL
07.02	Oswego CUSD #90, Bristol-Kendall FPD, Lisbon-Seward FPD, Oswego FPD, Oswegoland Park District	54.40	RL	68.39	RM	65.64	RM	50.56	RL	45.93	RL
07.03	Lisbon, Newark, Plattville, Lisbon CCSD #90, Newark CHSD #18, Bristol-Kendall FPD, Lisbon-Seward FPD, Newark FPD	67.85	RL	88.98	RH	82.45	RH	66.65	RL	61.89	RM
40.02	Montgomery	35.30	VL	67.80	RM	63.46	RM	64.47	RL	60.02	RM
44.01	Montgomery	28.61	VL	51.26	RM	48.14	RL	49.37	RL	49.31	RM
45.08	Montgomery	31.23	VL	52.15	RM	50.63	RL	47.68	RL	50.23	RL
Kendall County		36.43	VL	82.59	RM	70.86	RM	54.93	RL	40.85	RL

* Parkview Christian Academy and St. Mary Catholic School are non-boundaried schools and as such serve all census tracts in the County.

Rating Abbreviations: NR = No Rating; VL = Very Low; RL = Relatively Low; RM = Relatively Moderate; RH = Relatively High; VH = Very High

Figure R-5
NRI Hazard Scores/Ratings by Hazard by Census Tract
(Sheet 2 of 3)

Census Tract No.	Participating Jurisdiction* Located in Census Tract	Riverine Floods		Extreme Cold		Excessive Heat	
		Score	Rating	Score	Rating	Score	Rating
01.03	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	68.31	RL	96.88	RH	77.69	RM
01.04	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	60.18	RL	97.87	RH	81.71	RH
01.05	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	0.00	NR	98.57	RH	85.25	RH
01.06	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	44.18	RL	94.83	RH	71.00	RM
01.07	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	58.13	RL	95.22	RH	72.07	RM
01.08	Oswego, Oswego Township, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD, Oswegoland Park District	49.09	RL	94.94	RH	71.07	RM
02.01	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	27.50	VL	95.84	RH	74.22	RM
02.02	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	35.77	RL	94.99	RH	71.41	RM
03.01	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	51.73	RL	97.96	RH	82.11	RH
03.02	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	49.52	RL	97.25	RH	79.03	RH
04.01	Montgomery, Yorkville, Plano CUSD #88, Bristol-Kendall FPD, Oswego FPD	48.73	RL	97.68	RH	80.73	RH
04.02	Yorkville, Bristol-Kendall FPD, Oswego FPD	62.99	RL	98.73	RH	86.46	RH
04.03	Montgomery, Oswego, Yorkville, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD, Oswegoland Park District	64.85	RL	97.83	RH	81.49	RH
04.04	Montgomery, Yorkville, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD	31.99	VL	98.87	RH	87.52	RH
05.01	Plano, Sandwich, Plano CUSD #88, Bristol-Kendall FPD, Sandwich Community FPD	69.66	RL	99.11	VH	89.36	RH
05.02	Plano, Plano CUSD #88, Sandwich Community FPD	66.22	RL	96.57	RH	76.18	RM
06.01	Yorkville, Kendall Township, Bristol-Kendall FPD	52.90	RL	96.18	RH	75.13	RM
06.02	Newark, Yorkville, Kendall Township, Newark CHSD #18, Plano CUSD #88, Bristol-Kendall FPD, Newark FPD, Oswego FPD, Sandwich Community FPD	68.45	RL	96.69	RH	75.53	RM
07.01	---	37.17	RL	97.64	RH	80.72	RH
07.02	Oswego CUSD #90, Bristol-Kendall FPD, Lisbon-Seward FPD, Oswego FPD, Oswegoland Park District	58.75	RL	94.95	RH	70.48	RM
07.03	Lisbon, Newark, Plattville, Lisbon CCSD #90, Newark CHSD #18, Bristol-Kendall FPD, Lisbon-Seward FPD,	80.91	RM	98.71	RH	85.10	RH
40.02	Montgomery	85.27	RM	84.65	RM	62.36	RM
44.01	Montgomery	78.95	RM	78.92	RM	53.16	RM
45.08	Montgomery	71.91	RM	79.46	RM	53.65	RM
Kendall County		41.65	RL	96.69	VH	87.10	RM

* Parkview Christian Academy and St. Mary Catholic School are non-boundaried schools and as such serve all census tracts in the County.

Rating Abbreviations: NR = No Rating; VL = Very Low; RL = Relatively Low; RM = Relatively Moderate; RH = Relatively High; VH = Very High

Figure R-5
NRI Hazard Scores/Ratings by Hazard by Census Tract
(Sheet 3 of 3)

Census Tract No.	Participating Jurisdiction* Located in Census Tract	Tornadoes		Drought		Earthquakes	
		Score	Rating	Score	Rating	Score	Rating
01.03	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	94.51	VH	70.37	VL	66.88	RL
01.04	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	94.41	VH	71.17	VL	64.58	RL
01.05	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	97.39	VH	76.94	VL	66.85	RL
01.06	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	83.97	RH	68.61	VL	49.21	VL
01.07	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	88.14	RH	73.72	VL	57.45	RL
01.08	Oswego, Oswego Township, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD, Oswegoland Park District	84.99	RH	76.42	VL	40.93	VL
02.01	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	82.23	RH	0.00	NR	41.64	VL
02.02	Montgomery, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	76.79	RH	0.00	NR	40.30	VL
03.01	Montgomery, Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	97.23	VH	70.83	VL	71.50	RL
03.02	Oswego, Oswego Township, Oswego CUSD #90, Oswego FPD, Oswegoland Park District	90.58	RH	68.27	VL	56.48	RL
04.01	Montgomery, Yorkville, Plano CUSD #88, Bristol-Kendall FPD, Oswego FPD	94.72	VH	79.99	VL	68.45	RL
04.02	Yorkville, Bristol-Kendall FPD, Oswego FPD	98.07	VH	76.68	VL	68.92	RL
04.03	Montgomery, Oswego, Yorkville, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD, Oswegoland Park District	93.13	RH	74.61	VL	60.24	RL
04.04	Montgomery, Yorkville, Oswego CUSD #90, Bristol-Kendall FPD, Oswego FPD	97.32	VH	74.70	VL	63.58	RL
05.01	Plano, Sandwich, Plano CUSD #88, Bristol-Kendall FPD, Sandwich Community FPD	98.81	VH	81.77	RL	72.35	RL
05.02	Plano, Plano CUSD #88, Sandwich Community FPD	86.79	RH	81.60	RL	56.26	RL
06.01	Yorkville, Kendall Township, Bristol-Kendall FPD	91.47	RH	76.87	VL	60.72	RL
06.02	Newark, Yorkville, Kendall Township, Newark CHSD #18, Plano CUSD #88, Bristol-Kendall FPD, Newark FPD, Oswego FPD, Sandwich Community FPD	92.66	RH	85.02	RL	60.13	RL
07.01	---	91.48	RH	68.72	VL	60.82	RL
07.02	Oswego CUSD #90, Bristol-Kendall FPD, Lisbon-Seward FPD, Oswego FPD, Oswegoland Park District	84.05	RH	79.95	VL	53.38	VL
07.03	Lisbon, Newark, Plattville, Lisbon CCSD #90, Newark CHSD #18, Bristol-Kendall FPD, Lisbon-Seward FPD, Newark FPD	96.74	VH	85.43	RL	66.89	RL
40.02	Montgomery	96.92	VH	72.78	VL	70.28	VL
44.01	Montgomery	82.71	RH	73.69	VL	48.72	VL
45.08	Montgomery	84.70	RH	74.43	VL	47.27	VL
Kendall County		92.87	RH	33.25	VL	70.54	RL

* Parkview Christian Academy and St. Mary Catholic School are non-boundaried schools and as such serve all census tracts in the County.

Rating Abbreviations: NR = No Rating; VL = Very Low; RL = Relatively Low; RM = Relatively Moderate; RH = Relatively High; VH = Very High

Figure R-6
Critical Facilities & Infrastructure by Jurisdiction

Participating Jurisdiction	Critical Facilities				Critical Infrastructure						
	Government[1]	Emergency Protection[2]	Medical & Healthcare[3]	Schools	Drinking Water[4]	Wastewater Treatment[5]	Rail Lines	Bridges	Interstates US/State Routes & Key Roads	Power Plants	Comm. Systems
Kendall County	4	14	1	---	---	---	2	1	7	1	1
Lisbon	1	1	---	1	---	1	---	---	---	---	---
Montgomery	2	15	---	4	7	5	---	3	7	---	---
Newark	3	---	---	---	3	2	---	---	---	---	---
Oswego	2	5	---	7	13	7	2	2	4	---	---
Plano	2	3	---	8	3	4	1	2	1	---	---
Plattville	1	1	---	---	---	---	---	---	---	---	---
Yorkville	5	1	---	7	2	4	2	1	12	---	---
Kendall Township	4	2	---	3	---	---	1	---	6	---	---
Oswego Township	4	---	---	---	---	---	2	2	9	---	---
Lisbon CCSD #90	---	---	---	1	---	---	---	---	---	---	---
Newark CHSD #18	---	---	---	1	---	---	---	---	---	---	---
Oswego CUSD #308	---	---	---	23	---	---	---	---	---	---	---
Parkview Christian Academy	---	---	---	2	---	---	---	---	---	---	---
Plano CUSD #88	---	---	---	6	---	---	---	---	---	---	---
St. Mary Catholic School	---	---	---	1	---	---	---	---	---	---	---
Bristol-Kendall FPD	---	3	---	---	---	---	---	---	---	---	---
Lisbon-Seward FPD	3	2	---	1	---	1	---	2	6	---	---
Newark FPD	3	2	---	2	2	---	1	1	6	---	---
Oswego FPD	7	6	3	20	13	6	2	2	8	---	---
Sandwich Community FPD	2	3	2	7	1	1	1	---	4	---	---
Oswegoland Park District	4	---	---	---	---	---	---	1	---	---	---

[1] Government includes: courthouses, city/village halls, township buildings, highway/road maintenance centers, libraries, etc.
[2] Emergency Protection includes: sheriff's department, police, fire, ambulance, emergency operations centers, jail/correctional facilities and evacuation shelters.
[3] Medical & Healthcare includes: public health departments, hospitals, urgent/prompt care and medical clinics, nursing homes, skilled nursing facilities, memory care facilities, residential group homes, etc.
[4] Drinking Water includes: drinking water treatment plants, drinking water wells, and water storage towers/tanks.
[5] Wastewater Treatment includes: wastewater treatment plants and lift stations.
--- Indicates the jurisdiction does not own/maintain any critical facilities within that category.

3.1 SEVERE STORMS (THUNDERSTORMS, HAIL, LIGHTNING & HEAVY RAIN)

HAZARD IDENTIFICATION

What is the definition of a severe storm?

The National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) defines a "severe storm" as any thunderstorm that produces one or more of the following:

- winds with gust of 50 knots (58 mph) or greater;
- hail that is at least one inch in diameter (quarter size) or larger; and/or
- a tornado.

While severe storms are capable of producing deadly lightning and heavy rain that may lead to flash flooding, the NWS does not use lightning/either to define a severe storm. However, a discussion of both lightning and heavy rain is included in this section because both are capable of causing extensive damage. For the purposes of this report, tornadoes and flooding are categorized as separate hazards and are not discussed under severe storms.

What is a thunderstorm?

A thunderstorm is a rain shower accompanied by lightning and thunder. An average thunderstorm is approximately 15 miles in diameter, affecting a relatively small area when compared to winter storms or hurricanes, and lasts an average of 30 minutes. Thunderstorms can bring heavy rain, damaging winds, hail, lightning and tornadoes.

There are four basic types of thunderstorms: single-cell, multi-cell, squall line, and supercell. The following provides a brief description of each.

Single-cell Thunderstorm

Single cell storms are small, weak storms that only last about ½ hour to an hour and are not usually considered severe. They are typically driven by heating on a summer afternoon. Occasionally a single cell storm will become severe, but only briefly. When this happens, it is called a pulse severe storm.

Multi-cell Thunderstorm

Multi-cell storms are the most common type of thunderstorms. A multi-cell storm is organized in clusters of at least two to four short-lived cells. Each cell usually lasts 30 to 60 minutes while the system as whole may persist for many hours. Multi-cell storms may produce hail, strong winds, brief tornadoes, and/or flooding.

Squall Line

A Squall line is a group of storms arranged in a line, often accompanied by "squalls" of high wind and heavy rain. The line of storms can be continuous or there can be gaps and breaks in the line. Squall lines tend to pass quickly and can be hundreds of miles long but are typically only 10 to 20 miles wide. A "bow echo" is a radar signature of a squall line that "bows out" as winds fall behind the line and circulation develops on either end.

Supercell Thunderstorm

Supercell storms are long-lived (greater than one hour) and highly organized storms that feed off a rising current of air (an updraft). The main characteristic that sets a supercell storm apart from other thunderstorm types is the presence of rotation in the updraft. The rotating updraft of a supercell (called a mesocyclone when visible on radar) helps a supercell storm produce extreme weather events. Supercell storms are potentially the most dangerous storm type and have been observed to generate the vast majority of large and violet tornadoes, as well as downburst winds and large hail.

Despite their size, all thunderstorms are dangerous and capable of threatening life and property. Of the estimated 100,000 thunderstorms that occur each year in the U.S., roughly 10% are classified as severe.

What kinds of damaging winds are produced by a thunderstorm?

Aside from tornadoes, thunderstorms can produce straight-line winds. A straight-line wind is defined as any wind produced by a thunderstorm that is not associated with rotation. There are several types of straight-line winds including downdrafts, downbursts, microbursts, gust fronts and derechos.

Damage from straight-line winds is more common than damage from tornadoes and accounts for most thunderstorm wind damage. Straight-line wind speeds can exceed 87 knots (100 mph), produce a damage pathway extending for hundreds of miles and can cause damage equivalent to a strong tornado.

The NWS measures a storm's wind speed in knots or nautical miles. A wind speed of one knot is equal to approximately 1.15 miles per hour. **Figure SS-1** shows conversions from knots to miles per hour for various wind speeds.

Figure SS-1
Wind Speed Conversions

Knots (kts)	Miles Per Hour (mph)	Knots (kts)	Miles Per Hour (mph)
50 kts	58 mph	60 kts	69 mph
52 kts	60 mph	65 kts	75 mph
55 kts	63 mph	70 kts	81 mph
58 kts	67 mph	80 kts	92 mph

What is hail?

Hail is precipitation in the form of spherical or irregular-shaped pellets of ice that occur within a thunderstorm when strong rising currents of air (updrafts) carry raindrops upward into extremely cold areas of the atmosphere where they freeze into ice.

Hailstones grow by colliding with supercooled water drops. The supercooled water drops freeze on contact with ice crystals, frozen rain drops, dust, etc. Thunderstorms with strong updrafts continue lifting the hailstones to the top of the cloud where they encounter more supercooled water and continue to grow. Eventually the updraft can no longer support the weight of the hail, or the updraft weakens, and the hail falls to the ground.

In the U.S., hail causes more than $1 billion in damages to property and crops annually. Hail has been known to cause injuries, although it rarely causes fatalities or serious injury.

How is the severity of a hail event measured?

The severity or magnitude of a hail event is measured in terms of the size (diameter) of the hailstones. The hail size is estimated by comparing it to known objects. **Figure SS-2** provides descriptions for various hail sizes.

Figure SS-2
Hail Size Descriptions

Hail Diameter (inches)	Description	Hail Diameter (inches)	Description
0.25 in.	pea	1.75 in.	golf ball
0.50 in.	marble/mothball	2.50 in.	tennis ball
0.75 in.	penny	2.75 in.	baseball
0.88 in.	nickel	3.00 in.	teacup
1.00 in.	quarter	4.00 in.	grapefruit
1.50 in.	ping pong ball	4.50 in.	softball

Source: NOAA, National Severe Storm Laboratory.

Hail size can vary widely. Hailstones may be as small as 0.25 inches in diameter (pea-sized) or, under extreme circumstances, as large as 4.50 inches in diameter (softball-sized). Typically hail that is one (1) inch in diameter (quarter-sized) or larger is considered severe.

The severity of a hail event can also be measured or rated using the TORRO Hailstorm Intensity Scale. This scale was developed in 1986 by the Tornado and Storm Research Organisation of the United Kingdom. It measures the intensity or damage potential of a hail event based on several factors including: maximum hailstone size, distribution, shape and texture, numbers, fall speed and strength of the accompanying winds.

The Hailstorm Intensity Scale identifies ten different categories of hail intensity, H0 through H10. **Figure SS-3** gives a brief description of each category. This scale is unique because it recognizes that, while the maximum hailstone size is the most important parameter relating to structural damage, size alone is insufficient to accurately categorize the intensity and damage potential of a hail event.

It should be noted that the typical damage impacts associated with each intensity category reflect the building materials predominately used in the United Kingdom. These descriptions may need to be modified for use in other countries to take into account the differences in building materials typically used (i.e., whether roofing materials are predominately shingle, slate or concrete, etc.).

What is lightning?

Lightning, a component of all thunderstorms, is a visible electrical discharge that results from the buildup of charged particles within storm clouds. It can occur from cloud-to-ground, cloud-to-cloud, within a cloud or cloud-to-air. The air near a lightning strike is heated to approximately

50,000°F (hotter than the surface of the sun). The rapid heating and cooling of the air near the lightning strike causes a shock wave that produces thunder.

Figure SS-3
TORRO Hailstorm Intensity Scale

Intensity Category		Typical Hail Diameter		Description	Typical Damage Impacts
		millimeters (approx.)*	inches (approx.)*		
H0	Hard Hail	5 mm	0.2”	pea	no damage
H1	Potentially Damaging	5-15 mm	0.2” – 0.6”	pea / mothball	slight general damage to plants, crops
H2	Significant	10-20 mm	0.4” – 0.8”	dime / penny	significant damage to fruit, crops, vegetation
H3	Severe	20-30 mm	0.8” – 1.2”	nickel / quarter	severe damage to fruit and crops, damage to glass and plastic structures, paint and wood scored
H4	Severe	25-40 mm	1.0” – 1.6”	half dollar / ping pong ball	widespread glass damage, vehicle bodywork damage
H5	Destructive	30-50 mm	1.2” – 2.0”	golf ball	wholesale destruction of glass, damage to tiled roofs, significant risk of injuries
H6	Destructive	40-60 mm	1.6” – 2.4”	golf ball / egg	bodywork of grounded aircraft dented; brick walls pitted
H7	Destructive	50-75 mm	2.0” – 3.0”	egg / tennis ball	severe roof damage, risk of serious injuries
H8	Destructive	60-90 mm	2.4” – 3.5”	tennis ball / teacup	severe damage to aircraft bodywork
H9	Super Hailstorms	75-100 mm	3.0” – 4.0”	teacup / grapefruit	extensive structural damage, risk of severe or even fatal injuries to persons caught in the open
H10	Super Hailstorms	> 100 mm	> 4.0”	softball	extensive structural damage, risk of severe or even fatal injuries to persons caught in the open

* Approximate range since other factors (i.e., number and density of hailstones, hail fall speed and surface wind speed) affect severity.

Source: Tornado and Storm Research Organisation, TORRO Hailstorm Intensity Scale Table.

Lightning on average causes 60 fatalities and 400 injuries annually in the U.S. Most fatalities and injuries occur when people are caught outdoors in the summer months during the afternoons and evenings. In addition, lightning can cause structure and forest fires. Many of the wildfires in the western U.S. and Alaska are started by lightning. According to the NWS lightning strikes cost more than $1 billion in insured losses each year.

Are alerts issued for severe storms?

Yes. The NWS Weather Forecast Office in Chicago, Illinois is responsible for issuing ***severe thunderstorm watches*** and ***warnings*** for Kendall County depending on the weather conditions. The following provides a brief description of each type of alert.

- **Watch.** A severe thunderstorm watch is issued when conditions are favorable for the development of severe thunderstorms producing hail greater than one inch in diameter

and/or wind speeds of 58 mph in or near the watch area. Individuals should stay alert for the latest weather information and be prepared to take shelter.

- **Warning.** A severe thunderstorm warning is issued when a severe thunderstorm or a line of severe thunderstorms capable of producing hail greater than one inch in diameter and/or wind speeds of 58 mph is approaching or is occurring. Warnings indicate imminent danger to life and property for those who are in the path of the storm and individuals should seek safe shelter.

HAZARD PROFILE

The following identifies past occurrences of severe storms; details the severity or extent of each event (if known); identifies the locations potentially affected; and estimates the likelihood of future occurrences.

When have severe storms occurred previously? What is the extent of these previous severe storms?

Tables 1, 2, 3, and 4 located in **Appendix J,** summarize the previous occurrences as well as the extent or magnitude of severe storm events recorded in Kendall County. Severe storm events are separated into four categories: thunderstorms with damaging winds, hail, lightning, and heavy rain. In Kendall County, severe storms are the most frequently occurring natural hazard.

Thunderstorms with Damaging Winds

NOAA's Storm Events Database was used to document 137 reported occurrences of thunderstorms with damaging winds in Kendall County between 1996 and 2022. Of the 137 occurrences, 135 had reported wind speeds of 50 knots or greater. There were two occurrences, however, where the wind speed was not recorded. Included in the 127 thunderstorms with damaging wind events is one event that contributed to a major federal disaster declaration in Kendall County.

Severe Storms Fast Facts – Occurrences

Number of recorded Thunderstorms with Damaging Winds (1996 – 2022): ***137***

Number of recorded Severe Hail Events (1996 – 2022): ***27***

Number recorded of Lightning Strike Events (2010 – 2022): ***2***

Number recorded of Heavy Rain Events (2009 – 2022): ***3***

Highest Recorded Wind Speed: ***80 knots (June 29, 2012)***

Largest Hail Recorded: ***4.75 inches (June 10, 2015)***

Most Likely Month for Thunderstorms with Damaging Winds to Occur: ***June***

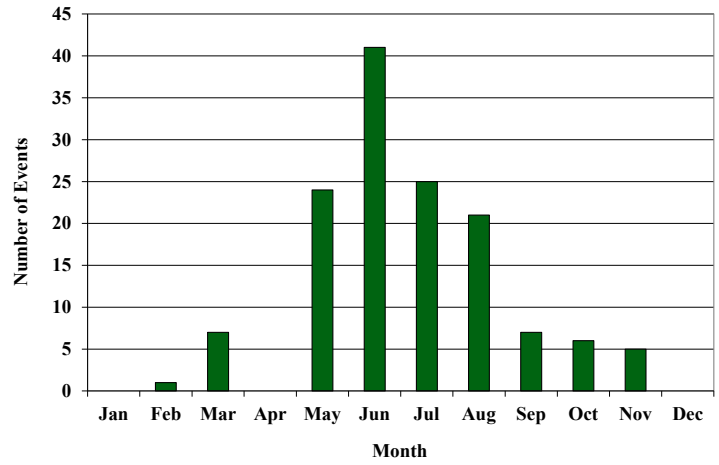
Most Likely Month for Severe Hail to Occur: ***June***

Number of Federal Emergency & Major Disaster Declarations Related to Severe Storms: ***1 (1996)***

The highest wind speed recorded in Kendall County occurred south of Oswego on June 29, 2012 when winds reached 80 knots (92 mph) during a thunderstorm event. Thunderstorms with damaging winds have been recorded in every participating jurisdiction within the County on multiple occasions.

Figure SS-4 charts the reported occurrences of thunderstorms with damaging winds by month. Of the 137 events, 90 (66%) took place in May, June, and July making this the peak period for thunderstorms with damaging winds in Kendall County. Of those 90 events, 41 (46%) occurred during June, making this the peak month for thunderstorms with damaging winds. Of the 137 occurrences, 82% of all thunderstorms with damaging winds occurred during the p.m. hours.

Figure SS-4
Thunderstorms with Damaging Winds by Month
1996 – 2022



Hail

NOAA's Storm Events Database was used to document 27 reported occurrences of severe storms with hail one (1) inch in diameter or greater in Kendall County between 1996 and 2022. Of the 27 occurrences, 12 produced hailstones 1.50 inches or larger in diameter.

The largest hail stones documented in Kendall County measured 4.75 inches in diameter (larger than a softball) and fell on June 10, 2015 in Minooka. Hail one (1) inch in diameter or greater has been recorded in every participating jurisdiction except Lisbon on at least one occasion. This does not mean that hail one inch in diameter or greater has not fallen in Lisbon, it simply indicates it wasn't recorded.

Figure SS-5 charts the reported occurrences of hail by month. Of the 27 occurrences, 22 (82%) took place in April, May, and June making this the peak period for hail in Kendall County. Of these 22 events, nine (41%) occurred during June, making this the peak month for hail events. Twenty-four (89%) of the 27 severe storms with hail occurred during the p.m. hours.

Lightning

While lightning strike events occur regularly across northeastern Illinois, NOAA's Storm Events Database and Committee Member records were only able to identify two occurrences of lightning strikes with verified damages in Kendall County between 2010 and 2022. The data limitations are almost certainly due to the rural nature of a majority of the County and the fact that lightning strikes are rarely reported.

According to data from Vaisala's National Lightning Detection Network, Kendall County averaged from to 6 to 20 cloud-to-ground lightning flashes per square mile annually between 2009 and 2018. **Figure SS-6** illustrates the cloud-to-ground lightning flash density (number of cloud-to-ground flashes per square mile per year) by county for the continental U.S. In comparison,

Illinois averaged 12.7 cloud-to-ground lightning flashes per square mile from 2009 to 2018, ranking it eighth in the Country for lightning flash density.

Figure SS-5
Hail Events by Month
1996 – 2022

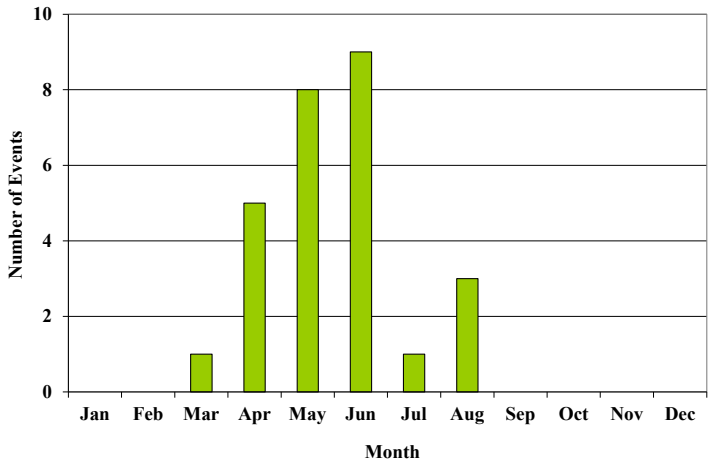
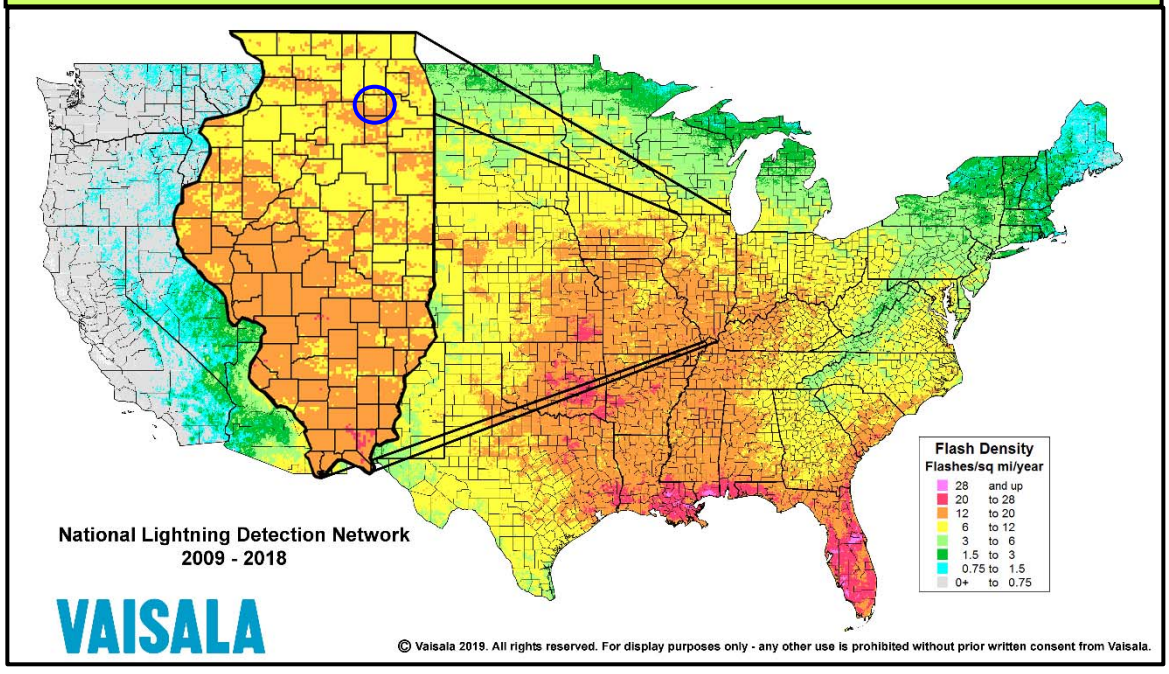


Figure SS-6
Cloud-to-Ground Lightning Flash Density: Continental U.S.



Heavy Rain

While heavy rain events occur on a fairly regular basis across northeastern Illinois, NOAA's Storm Events Database was only able to identify three occurrences of heavy rain in Kendall County. This may be due in part to a lack of uniform reporting guidelines for heavy rain events and the rural nature of a majority of the County.

What locations are affected by severe storms?

Severe storms affect the entire County. A single severe storm event will generally extend across the entire County and affect multiple locations. Severe storms have been recorded in every participating jurisdiction within the County on multiple occasions.

What is the probability of future severe storm events occurring based on historical data?

Thunderstorms with Damaging Winds

Kendall County has had 137 verified occurrences of thunderstorms with damaging winds between 1996 and 2022. With 137 occurrences over the past 27 years, Kendall County would expect to experience at least five thunderstorms with damaging winds in any given year. There were 21 years over the last 27 years where multiple (three or more) thunderstorms with damaging winds occurred. This indicates that the probability that multiple thunderstorms with damaging winds may occur during any given year within the County is 78%.

Hail

There have been 27 verified occurrences of hail one (1) inch in diameter or greater between 1996 and 2022. With 27 occurrences over the past 27 years, Kendall County would expect to experience at least one severe storm with hail event will in any given year. There were six years over the last 27 years where two or more hail events occurred. This indicates that the probability that more than one severe storm with hail may occur during any given year within the County is 22%.

What is the probability of future severe storm events occurring based on modeled future conditions?

Severe storms are very difficult to forecast in the near-term future, let alone in the long-term future. This owes to the fact that these events arise due to a combination of multiple factors (including pressure fronts, wind speeds, temperatures, and humidity) working together.

What can be predicted with more certainty looking into the future is the likelihood of supercell formation, which occurs with fewer conditions needing to be met, mainly a temperature differential in fronts and a relatively low moisture content. Supercells are strong, longer-lived storm systems characterized by rotation and updrafts that make them capable of producing hazards such as damaging winds, hail, and even tornadoes. While the formation of a supercell does not ensure that severe storm events will follow, supercells increase the probability of these events significantly, making supercell formation a good predictor for the likelihood of these other weather events.

In addition, in the last 120 years total annual precipitation in Illinois has increased by between 12% to 15% across the State. This trend is likely to continue, and as a result, precipitation in Illinois is forecasted to increase in coming decades. In addition to changes in the overall amount of precipitation, changes in precipitation patterns indicate that future events will likely be less frequent, but larger and more severe. The Illinois State Climatologist indicates that since the

beginning of the 20th Century, Illinois has seen a 40% increase in the number of days with extreme precipitation events (rainfall of 2 inches or greater) per year.

Based on existing trends of increasing supercell formation and future projections of precipitation and temperature, supercells are likely to continue to become more common in the future. For a discussion on future projections of temperature, see Section 3.5. Supercell formation today is mostly confined to the Great Plains and the Midwest, but future projections indicate that the geographic range over which supercells may develop is likely to increase as parts of the Country that were previously unfavorable to supercell formation become warmer and dryer. Additionally, if current trends of milder winters persist, supercell season is also likely to lengthen, starting earlier in the year and ending later.

Figure SS-7 contains a series of maps that show how the number of supercell tracks is likely to change in the future. The map at the top labeled a) depicts late 20th Century historical data showing the average number of supercells per year occurring within each grid square on the map. Below, projections for two different late 21st Century future scenarios for supercell frequency are given on the left, a low emission scenario depicted the top left map labeled b) and a high emission scenario depicted in the lower left map labeled d). On the right, the difference between each late 21st Century scenario and the late 20th Century historic baseline is shown, with redder areas showing an increase in supercell tracks per year, and blue areas showing a reduction.

Thunderstorms with Damaging Winds

Damaging winds in severe storms are most often associated with powerful downdrafts, so looking at the changing prevalence of conditions favorable to generating these downdrafts can give us an indicator of how likely damaging thunderstorm winds may be in the future. The formation of powerful storms is typically energized by an influx of warm moist air. As the climate in the Midwest continues to become wetter and warmer, this makes strong thunderstorms with damaging winds a more probable occurrence in the future.

On the other hand, stronger warming occurring at more northerly latitudes is likely to decrease wind shear (a measurement of wind's change in speed and direction along a column of air), which is another important predictor of damaging winds. It is difficult to know which of these trends may be stronger than the other, or whether these two trends may wind up roughly cancelling each other out. The analysis of these trends should be revisited in subsequent planning efforts as more data becomes available.

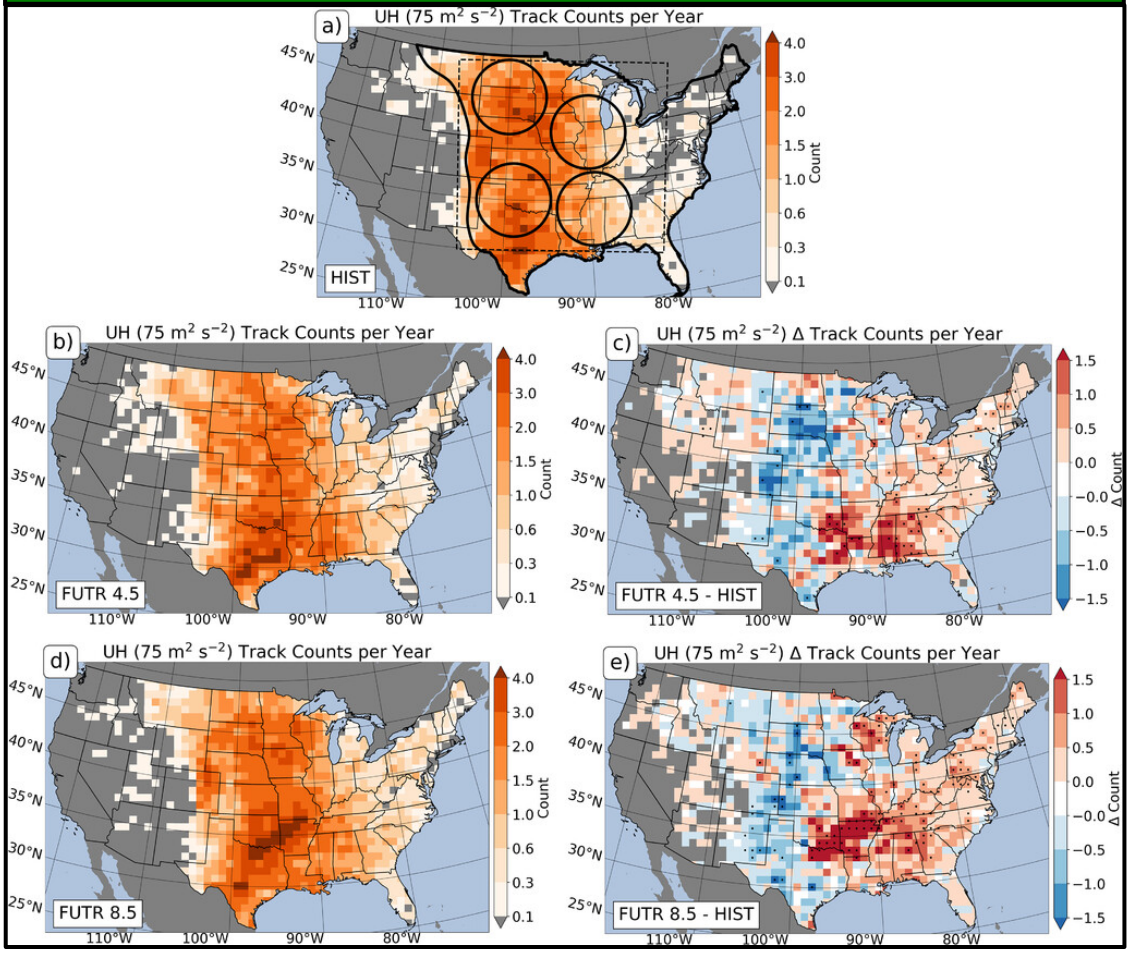
Hail

Hail forms in storm systems with strong updrafts, so the formation of strong supercell storms is a good predictor of the occurrence of hail. The influx of moist, warm air rising over dryer, cooler air tends to create these updrafts, but for hail to occur, the air above the warm air must be cold enough for hail to form. Hail formation also depends on seasonality since the air above is cooler in spring and warmer in fall.

While a wetter and warmer climate will likely lead to more severe storms with stronger updrafts, it is more difficult to predict whether more hailstorms will result. Less gradual warming in spring may mean there will not be sufficiently cool air aloft for hail to form. When cool enough air is

present for hailstones to form, stronger updrafts and more massive storms could be able to generate larger hailstones on average than those seen today. As these trends play out and more data becomes available regarding any shifts in hail frequency or intensity, it will be important to continually reassess the risk posed by hail in future planning efforts.

Figure SS-7
Mean Annual Supercell Track Counts



Citation: Bulletin of the American Meteorological Society 104, 1; 10.1175/BAMS-D-22-0027.1
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Heavy Rain

Figures SS-8, SS-9, and **SS-10** provide tabular and graphical projections for Kendall County, showing estimations for average annual precipitation and number of days with total precipitation greater than 2 inches in the early, mid, and late 21st century with both low and high estimates for each time period. Most likely, the true value will fall between these two estimates. By midcentury, the average annual precipitation in Kendall County is projected to increase by 2 inches per year, while the average number of days with precipitation per year is projected to decrease by 3 to 4 days according to the Climate Mapping for Resilience and Adaptation's Assessment Tool.

The annual number of days with total precipitation greater than 2 inches is not projected to increase significantly. This is confirmed by the Climate Explorer which indicates that in Kendall County the annual counts of intense rainstorms (rainfall of 2 inches or greater in one day) are not projected to increase. This is based on the findings of the 2018 National Climate Assessment and compares projections for the middle third of the century (2035-2064) with average conditions observed from 1961-1990.

Figure SS-8
Average Annual Precipitation Projections Table – Kendall County

Indicator	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions
	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max
Precipitation:							
Annual average total precipitation	35" 33 - 36	36" 33 - 40	36" 32 - 40	37" 32 - 41	37" 31 - 42	37" 33 - 42	39" 33 - 44
Days per year with precipitation (wet days)	174 days 170 - 177	172 days 160 - 180	171 days 157 - 181	171 days 160 - 182	170 days 151 - 184	171 days 159 - 182	168 days 132 - 189
Maximum period of consecutive wet days	11 days 10 - 12	11 days 10 - 12	11 days 9 - 13	11 days 10 - 13	11 days 9 - 13	11 days 10 - 13	11 days 9 - 13
Annual days with:							
Annual days with total precipitation > 1inch	4 days 3 - 4	4 days 3 - 5	4 days 3 - 5	4 days 3 - 6	5 days 4 - 6	5 days 3 - 7	6 days 4 - 8
Annual days with total precipitation > 2 inches	0 days 0 - 0	0 days 0 - 1	0 days 0 - 1	0 days 0 - 1	0 days 0 - 1	0 days 0 - 1	1 days 0 - 1
Annual days with total precipitation > 3 inches	0 days 0 - 0	0 days 0 - 0	0 days 0 - 0	0 days 0 - 0	0 days 0 - 0	0 days 0 - 0	0 days 0 - 0
Annual days that exceed 99th percentile precipitation	5 days 5 - 5	6 days 6 - 7	6 days 6 - 6	6 days 6 - 7	7 days 7 - 7	7 days 7 - 7	8 days 8 - 8
Days with maximum temperature below 32 °F	40 days 36 - 43	29 days 17 - 40	28 days 21 - 37	25 days 14 - 35	22 days 12 - 33	21 days 11 - 33	13 days 3 - 25

N/A = Data Not Available for the selected area

Figure SS-9
Average Annual Precipitation Projections Graph – Kendall County

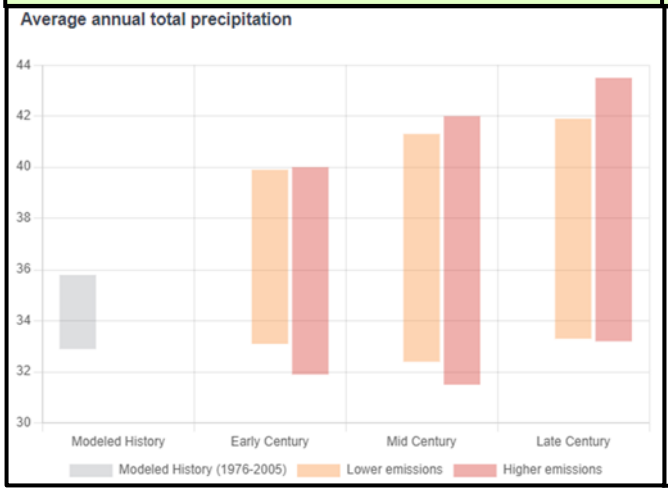
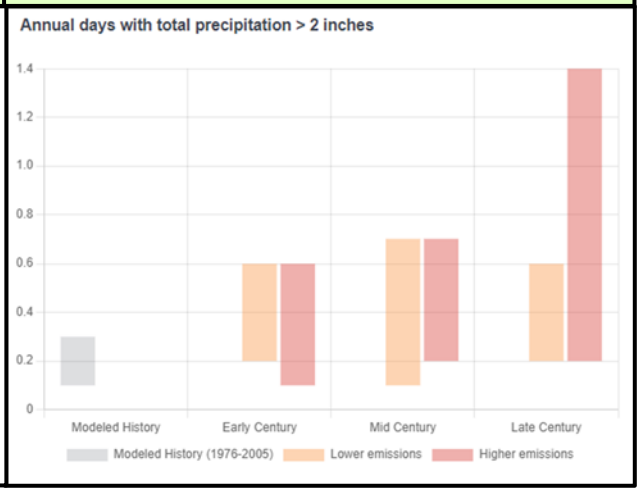


Figure SS-10
Number of Days with Total Precipitation > 2 Inches Graph – Kendall County



HAZARD VULNERABILITY

The following describes the vulnerability to participating jurisdictions, identifies the impacts on public health and property (if known) and estimates the potential impacts on public health and safety as well as buildings, infrastructure, and critical facilities from severe storms.

Are the participating jurisdictions vulnerable to severe storms?

Yes. All of Kendall County is vulnerable to the dangers presented by severe storms due to the topography of the region and its location in relation to the movement of weather fronts across north-central Illinois. Since 2013, Kendall County has recorded 48 thunderstorms with damaging winds, 10 severe storms with hail one (1) inch in diameter or greater, two verified heavy rain events and one lightning strike with verified damages.

Figure SS-11 details the number of thunderstorms with damaging winds and hail events that were recorded in or near each participating municipality while **Figure SS-12** details the number of thunderstorms with damaging winds and hail events that were recorded in or near unincorporated areas of Kendall County.

Figure SS-11
Verified Severe Storm Events by Participating Municipality

Participating Municipality	Number of Events	
	Thunderstorm & High Wind	Severe Hail
Lisbon[1,2,8]	15	2
Montgomery[3,7,10,12,14]	16	2
Newark[1,2,9]	15	2
Oswego[3,10,12,14]	35	12
Plano[5,6]	30	1
Plattville[8]	24	6
Yorkville[4,7,10,12,13]	36	4

Figure SS-12
Verified Severe Storm Events in Unincorporated Kendall County

Unincorporated Area	Number of Events	
	Thunderstorm & High Wind	Severe Hail
Boulder Hill[3,11,12,14]	20	6
Bristol[7]	13	2
Helmar[2,9]	2	0
Little Rock[5]	2	0

[1]Lisbon CCSD #90
[2]Newark CHSD #18
[3]Oswego CUSD #308
[4]Parkway Christian Academy
[5]Plano CUSD #88
[6]St. Mary Catholic School
[7]Bristol-Kendall FPD
[8]Lisbon-Seward FPD
[9]Newark FPD
[10]Oswego FPD
[11]Sandwich Community FPD
[12]Oswegoland Park District
[13]Kendall Township
[14]Oswego Township

Of the participating municipalities, Yorkville has had more recorded occurrences of thunderstorms with damaging winds while Oswego has had the greatest number of recorded severe storms with hail events. The differences in the number of recorded events between participating municipalities is likely due to the relative size of the municipalities.

The *2023 Illinois Natural Hazard Mitigation Plan* prepared by the Illinois Emergency Management Agency and Office of Homeland Security (IEMA-OHS) classifies Kendall County's hazard rating for wind (thunderstorms) and hail as "medium" and lightning as "low". IEMA-OHS's overall hazard rating system has five levels: very low, low, medium, high, and very high.

FEMA's National Risk Index (NRI) rates the County as a whole as "Relatively Moderate" for strong wind (thunderstorms), "Very Low" for hail, and "Relatively Moderate" for lightning. For strong wind, six census tracts are rated "Relatively High", 16 census tracts are rated "Relatively Moderate", and two are "Relatively Low". For hail, all 24 census tracts are rated "Relatively Low" or Very Low". For lightning, 12 census tracts are rated "Relatively High" and the remaining 12 census tracts are rated "Relatively Moderate". **Table R-5** presents the overall NRI scores and ratings for each census tract as well as for the County as a whole.

Have any of the participating jurisdictions identified specific assets vulnerable to the impacts of severe storms?

Yes. Based on responses to an Assets Vulnerability Survey distributed to the participating jurisdictions, the following jurisdictions considered specific assets within their jurisdiction vulnerable to severe storms.

Bristol-Kendall Fire Protection District:

- KenCom handles all 911 calls for the entire County, including the District. If the Dispatch Center was damaged by a severe storm, then the District's ability to receive and respond to emergency calls will be severely diminished until the backup center can be staffed and activated.

Kendall County:

- Severe storms with damaging winds have the potential to down power lines causing electrical outages. If the permanent emergency backup generators at the Public Safety Center, which includes KenCom, do not function appropriately, then the County's ability to respond to a hazard event are severely diminished, including the ability to dispatch emergency responders until the backup center can be staffed and activated.
- Severe storms with damaging winds can down trees and utility lines causing debris to block roadways, impacting travel and delaying emergency response times to individuals who need assistance or evacuation.

Kendall Township:

- If the permanent emergency backup generator at the Township Building doesn't function appropriately during a power outage caused by a thunderstorm with damaging winds, then township staff would be unable to perform required duties in a timely fashion and the Building could not be used as an emergency shelter for District residents.
- Critical facilities within the District are vulnerable to damage caused by thunderstorms with damaging winds. The roof at Cross Lutheran Church School was damaged by straight-line winds in 2016.

Lisbon:

- Thunderstorms with damaging winds have the potential to down power lines impacting service to critical facilities/infrastructure, such as Village Hall. Village Hall does not have an emergency backup generator and if power is lost to the building, then it is difficult to get to equipment used to respond to events out of the building.
- Heavy rain events have flooded roads within the Village impacting travel.
- If the permanent emergency backup generator at the wastewater treatment plant doesn't function appropriately, then a power outage caused by a thunderstorm with damaging winds could impact service to residents.

Lisbon-Seward Fire Protection District:

- Roads in the District are frequently obstructed by downed utility lines from thunderstorms with damaging winds which impact travel and delay emergency response times.
- The two fire stations within the District are staffed by volunteers. Severe storms have the potential to impact the ability of volunteers to reach the fire stations limiting the resources available to respond to emergency calls.
- Both fire stations are vulnerable to hail damage.
- Thunderstorms with damaging winds have the potential to down overhead utility lines impacting service to the fire stations and residents.

Montgomery:

- Thunderstorms with damaging winds have the potential to cause power outages impacting the Village's ability so supply an adequate amount of drinking water to residents since only some of the well sites have been equipped with emergency backup generators.
- The Village's public works facility does not have an emergency backup generator which could limit service if a power outage is experienced as the result of a thunderstorm with damaging winds.
- Lightning strikes have the potential to damage critical facilities within the Village. The Police Department has been hit by lightning, which limited access to for officers to the building and damaged valuable communications equipment.

Newark:

- Both of the Village's well sites have been hit by lightning causing damage to equipment.
- If the permanent emergency backup generator at each well site doesn't function appropriately, then a power outage caused by a thunderstorm with damaging winds could impact service to residents.
- Straight-line winds have the potential to damage the Village's elevated water storage tank impacting service to residents.

Newark Fire Protection District:

- Thunderstorms with damaging winds have the potential to down trees and power lines which impact travel and delay emergency response times.

Oswego:

- Thunderstorms with damaging winds can down trees and power lines blocking roadways, impacting travel and delaying emergency response times.

Oswego Fire Protection District:

- Communication systems are vulnerable to damage caused by thunderstorms with damaging winds and lightning strikes. Loss of radio communication with KenCom delays response times, which has occurred on multiple occasions due to severe storms.
- Thunderstorms with damaging winds have the potential to down trees and power lines blocking roadways, which impact travel and delay emergency response times.

Oswego Township:

- The Township Building, which also houses a substation of the Kendall County Sherriff's Office, does not have an emergency backup generator and constantly loses power as the result of a thunderstorm with damaging winds. The District has lost critical data and systems have crashed due to these power losses.

- ❖ Heavy rain events cause flooding in the Boulder Hill subdivision due to poor stormwater drainage impacting roadways, which leads to delays in critical response times of emergency responders.

Oswegoland Park District:

- ❖ During extended power outages caused by thunderstorms with damaging winds, our computer server may be compromised depending on duration of outage and longevity of battery backups.
- ❖ Individuals who participate in the District's outdoor programs – baseball, softball, soccer, football, aquatics, golf – are vulnerable to injury from lightning strikes.

Parkview Christian Academy:

- ❖ One the Academy's buildings is listed on the National Register of Historic Places. This asset is vulnerable to straight-line winds and could not be replaced if damaged or destroyed.

Plano:

- ❖ Critical facilities/infrastructure within the City are vulnerable to lightning strikes, especially the Police Department, which is adjacent to an open field.

Plano CUSD #88:

- ❖ Thunderstorms with damaging winds have the potential to down power lines causing a loss of power and impacting critical systems, such as refrigerators/freezers, HVAC, computers and communications, necessary to maintain operations at the District's five schools.
- ❖ Lightning strikes have the ability damage critical equipment and cause power outages that would adversely impact learning and would require students to be sent home.

Yorkville:

- ❖ City Hall/Police Department are located in one building. If straight-line winds damaged the facility, then it would severely limit the City's ability to respond to the disaster and serve residents.
- ❖ Overhead electrical power lines to critical facilities/infrastructure within the City are vulnerable to damage from thunderstorms with damaging winds.

Kendall Township completed a Roadway Overtopping Survey in which they identified two roads within its township, Ament Road near Cross Lutheran School and Helmar Road east of Ashley Road, where heavy rains can cause overtopping of the roadway that exceeds six inches. In both cases the overtopping occurs at a culvert location and is caused by surface water runoff from a heavy rain event or snow melt, not a specific body of water. The Township Clerk indicated that the roads are marked with appropriate warnings of standing water during events. The culverts have been increased in size and ditch cleaning has been conducted to improve drainage in these areas.

What impacts resulted from the recorded severe storms?

Severe storms as a whole have caused an estimated $812,000 in recorded property damages. The following provides a breakdown of impacts by category.

Thunderstorms with Damaging Winds

Database and Committee member records indicates that between 1996 and 2022, 22 of the 137 thunderstorms with damaging winds caused $684,000 in property damages. Property damage information was either unavailable or none was recorded for the remaining 113 reported occurrences.

NOAA's Storm Events Database documented one injury as the result of the June 30, 2004 thunderstorm with damaging wind event. A tree was downed onto a car with a person trapped inside at Plano.

Hail

Data obtained from NOAA's Storm Events Database indicates that between 1996 and 2022, one of the 27 hail events caused $100,000 in property damages. Property damage information was either unavailable or none was recorded for the remaining 26 events. No injuries or fatalities were reported as a result of any of the recorded hail events.

Lightning

Data obtained from NOAA's Storm Events Database and Committee member records indicate that that the two lightning strike events caused $28,000 in property damages. No injuries or fatalities were reported as a result of either lightning strike event.

Heavy Rain

Damage information was either unavailable or none was recorded, and no injuries or fatalities were reported as a result of any of the heavy rain events.

Severe Storms Fast Facts – Impacts/Risk

Thunderstorms with Damaging Winds Impacts:
- Total Property Damage (24 events): ***$684,000***
- Total Crop Damage: ***n/a***
- Injuries (1 event): ***1***
- Fatalities: ***n/a***

Severe Hail Impacts:
- Total Property Damage (1 event): ***$100,000***
- Total Crop Damage: ***n/a***
- Injuries: ***n/a***
- Fatalities: ***n/a***

Lightning Strike Impacts:
- Total Property Damage (2 events): ***$28,000***
- Total Crop Damage: ***n/a***
- Injuries: ***n/a***
- Fatalities: ***n/a***

Heavy Rain Impacts:
- Total Property Damage: ***n/a***
- Total Crop Damage: ***n/a***
- Injuries: ***n/a***
- Fatalities: ***n/a***

Severe Storms Risk/Vulnerability:
- Public Health & Safety: ***Low***
- Buildings/Infrastructure/Critical Facilities: ***Medium***

What other impacts can result from severe storms?

In Kendall County, the greatest risk to health and safety from severe storms is vehicle accidents. Hazardous driving conditions resulting from severe storms (i.e., wet pavement, poor visibility, high winds, etc.) can contribute to accidents that result in injuries and fatalities. Traffic accident data assembled by the Illinois Department of Transportation from 2017 through 2021 indicates that wet road surface conditions were present for 11.5% to 15.4% of all crashes recorded annually in the County.

While other circumstances cause wet road surface conditions (i.e., melting snow, condensation, light showers, etc.), law enforcement officials agree that hazardous driving conditions caused by severe storms add to the number of crashes. **Figure SS-13** provides a breakdown by year of the number of crashes and corresponding injuries and fatalities that occurred when wet road surface conditions were present.

Figure SS-13 Severe Weather Crash Data for Kendall County				
Year	**Total # of Crashes**	**Presence of Wet Road Surface Conditions**		
		# of Crashes	**# of Injuries**	**# of Fatalities**
2017	1,907	303	106	0
2018	2,102	303	99	1
2019	2,182	336	95	0
2020	1,684	193	17	0
2021	1,940	252	76	3
Total:	**9,815**	**1,387**	**393**	**4**

Source: Illinois Department of Transportation.

What is the level of risk/vulnerability to public health and safety from severe storms?

For Kendall County the level of risk or vulnerability posed by severe storms to public health and safety is considered to be ***low***. This assessment is based on the fact that despite their relative frequency, the number of injuries and fatalities is low. In addition, nearby hospitals in Aurora, Elgin, and Geneva (Kane County), DeKalb and Sandwich (DeKalb County), Mendota and Ottawa (LaSalle County), Morris (Grundy County), and Bolingbrook, Joliet, and New Lenox (Will County) are equipped to provide care to persons injured during a severe storm.

Are existing buildings, infrastructure, and critical facilities vulnerable to severe storms?

Yes. All existing buildings, infrastructure and critical facilities located in Kendall County and the participating jurisdictions are vulnerable to damage from severe storms. Structural damage to buildings is a relatively common occurrence with severe storms. Damage to roofs, siding, awnings, and windows can occur from hail, flying and falling debris and high winds. Lightning strikes can damage electrical components and equipment (i.e., appliances, computers etc.) and can cause fires that consume buildings. If the roof is compromised or windows are broken, rain can cause additional damage to the structure and contents of a building.

Infrastructure and critical facilities tend to be just as vulnerable to severe storm damage as buildings. The infrastructure and critical facilities that are the most vulnerable to severe storms are related to power distribution and communications. High winds, lightning and flying and falling debris have the potential to cause damage to communication and power lines; power substations; transformers and poles; and communication antennas and towers.

The damage inflicted by severe storms often leads to disruptions in communication and creates power outages. Depending on the damage, it can take anywhere from several hours to several days to restore service. Power outages and disruptions in communications can impair vital services, particularly when backup power generators are not available. **SS-14**, located at the end of this section, identifies by participating jurisdiction critical facilities and infrastructure for select categories that are supported by backup power generators. Ten of the 22 participating jurisdictions acknowledged the need for emergency backup generators to allow continued operation of critical facilities and infrastructure such as administrative and maintenance buildings, schools, and fire stations.

In addition to affecting power distribution and communications, debris and flooding from severe storms can block state and local roads hampering travel. When transportation is disrupted, emergency and medical services are delayed, rescue efforts are hindered, and government services can be affected.

Based on the frequency with which severe storms occur in Kendall County, the amount of property damage previously reported and the potential for disruptions to power distribution and communication; the risk or vulnerability to buildings, infrastructure and critical facilities from severe storms is ***medium***.

Are future buildings, infrastructure, and critical facilities vulnerable to severe storms?

Yes and No. While the County, Montgomery, Newark, Oswego, Plano, and Yorkville have building codes in place that will likely help lessen the vulnerability of new buildings and critical facilities to damage from severe storms, Lisbon and Plattville do not. However, infrastructure such as new communication and power lines will continue to be vulnerable to severe storms as long as they are located above ground. High winds, lightning and flying and falling debris can disrupt power and communication. Steps to bury all new lines would eliminate the vulnerability, but this action would be cost prohibitive in most areas.

What are the potential dollar losses to vulnerable structures from severe storms?

Unlike other natural hazards, such as tornadoes, there are no standard loss estimation models or methodologies for severe storms. With only 27 of the 168 recorded events listing property damage numbers for all categories of severe storms, there is no way to accurately estimate future potential dollar losses. However, according to County officials the total equalized assessed values of all residential, commercial, and industrial buildings in the planning area is $4,444,350,435. Since all of the structures in the planning area are vulnerable to damage, this total represents the countywide property exposure to severe storm events.

Figure SS-14
Critical Facilities & Infrastructure Supported by Backup Generators by Jurisdiction

Participating Jurisdiction	Government/ Administrative[1]	Emergency Protection[2]	Medical & Healthcare[3]	Schools	Warming/ Cooling Centers	Drinking Water[4]	Wastewater Treatment[5]
Kendall County	2	13	1	---	---	---	---
Lisbon	---	1	---	---	---	---	1
Montgomery	2	5	---	---	---	3	2
Newark	---	---	---	---	---	2	2
Oswego	1	2	---	---	---	---	1
Plano	---	3	---	8	---	3	3
Plattville	---	---	---	---	---	---	---
Yorkville	1	1	---	---	---	1	3
Kendall Township	4	2	---	---	---	---	---
Oswego Township	2	---	---	---	---	---	---
Lisbon CCSD #90	---	---	---	---	---	---	---
Newark CHSD #18	---	---	---	---	---	---	---
Oswego CUSD #308	---	---	---	19	---	---	---
Parkview Christian Academy	---	---	---	---	---	---	---
Plano CUSD #88	---	---	---	---	---	---	---
St. Mary Catholic School	---	---	---	---	---	---	---
Bristol-Kendall FPD	---	3	---	---	---	---	---
Lisbon-Seward FPD	---	2	---	---	---	---	---
Newark FPD	---	2	---	---	---	1	---
Oswego FPD	---	3	1	---	---	---	---
Sandwich Community FPD	1	3	2	7	---	---	---
Oswegoland Park District	---	---	---	---	---	---	---

[1] Government includes: courthouses, city/village halls, township buildings, highway/road maintenance centers, libraries, etc.
[2] Emergency Protection includes: sheriff's department, police, fire, ambulance, emergency operations centers, jail/correctional facilities and evacuation shelters.
[3] Medical & Healthcare includes: public health departments, hospitals, urgent/prompt care and medical clinics, nursing homes, skilled nursing facilities, memory care facilities, residential group homes, etc.
[4] Drinking Water includes: drinking water treatment plants, drinking water wells, and water storage towers/tanks.
[5] Wastewater Treatment includes: wastewater treatment plants and lift stations.
--- Indicates the jurisdiction does not own/maintain any critical facilities within that category.

3.2 FLOODS

HAZARD IDENTIFICATION

What is the definition of a flood?

The Federal Emergency Management Agency (FEMA) defines a "flood" as a general or temporary condition where two or more acres of normally dry land or two or more properties are inundated by:

- overflow of inland or tidal waters;
- unusual and rapid accumulation or runoff of surface waters from any source;
- mudflows; or
- a sudden collapse or subsidence of shoreline land.

The severity of a flooding event is determined by a combination of topography and physiography, ground cover, precipitation and weather patterns and recent soil moisture conditions. On average, flooding causes more than $5 billion in damages each year in the U.S. Floods cause utility damage and outages, infrastructure damage (both to transportation and communication systems), structural damage to buildings, crop loss, decreased land values and impede travel.

What types of flooding occur in the County?

There are two main types of flooding that affect Kendall County: general flooding and flash flooding. General flooding can be broken down into two categories: riverine flooding and shallow flooding. The following provides a brief description of each type.

General Flooding – Riverine Flooding

Riverine flooding occurs when the water in a river or stream gradually rises and overflows its banks. This type of flooding affects low lying areas near rivers, streams, lakes, and reservoirs and generally occurs when:

- persistent storm systems enter the area and remain for extended periods of time,
- winter and spring rains combine with melting snow to fill river basins with more water than the river or stream can handle,
- ice jams create natural dams which block normal water flow, and
- torrential rains from tropical systems make landfall.

General Flooding – Shallow Flooding

Shallow flooding occurs in flat areas where there are no clearly defined channels (i.e., rivers and streams) and water cannot easily drain away. There two main types of shallow flooding: sheet flow and ponding. If the surface runoff cannot find a channel, it may flow out over a large area at a somewhat uniform depth in what's called sheet flow. In other cases, the runoff may collect in depressions and low-lying areas where it cannot drain out, creating a ponding effect. Ponding floodwaters do not move or flow away, they remain in the temporary ponds until the water can infiltrate the soil, evaporate, or are pumped out.

Flash Floods

Flash flooding occurs when there is a rapid rise of water along a stream or low-lying area. This type of flooding generally occurs within six hours of a significant rain event and is usually produced when heavy localized precipitation falls over an area in a short amount of time. Considered the most dangerous type of flood event, flash floods happen quickly with little or no warning. Typically, there is no time for the excess water to soak into the ground nor are the storm sewers able to handle the sheer volume of water. As a result, streams overflow their banks and low-lying (such as underpasses, basements etc.) areas can rapidly fill with water.

Flash floods are very strong and can tear out trees, destroy buildings and bridges and roll boulders the size of cars. Flash flood-producing rains can also weaken soil and trigger debris flows that damage homes, roads, and property. A vehicle caught in swiftly moving water can be swept away in a matter of seconds. Twelve inches of water can float a car or small SUV and 18 inches of water can carry away large vehicles.

What is a base flood?

A base flood refers to any flood having a 1% chance of occurring in any given year. It is also known as the 100-year flood or the one percent annual chance flood. The base flood is the national standard used by the National Flood Insurance Program (NFIP) and the State of Illinois for the purposes of requiring the purchase of flood insurance and regulating new development.

Many individuals misinterpret the term "100-year flood". This term is used to describe the risk of future flooding; it does not mean that it will occur once every 100 years. Statistically speaking, a 100-year flood has a 1/100 (1%) chance of occurring in any given year. In reality, a 100-year flood could occur two times in the same year or two years in a row, especially if there are other contributing factors such as unusual changes in weather conditions, stream channelization or changes in land use (i.e., open space land developed for housing or paved parking lots). It is also possible not to have a 100-year flood event over the course of 100 years.

While the base flood is the standard most commonly used for floodplain management and regulatory purposes in the U.S., the 500-year flood is the national standard for protecting critical facilities, such as hospitals and power plants. A 500-year flood has a 1/500 (0.2%) chance of occurring in any given year.

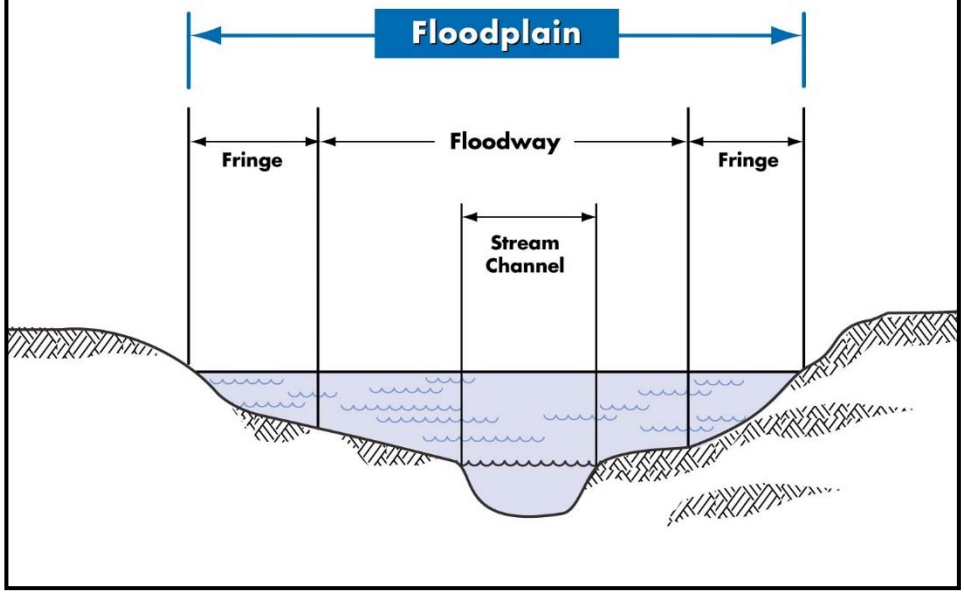
What is a floodplain?

The general definition of a floodplain is any land area susceptible to being inundated or flooded by water from any source (i.e., river, stream, lake, estuary, etc.). This general definition differs slightly from the regulatory definition of a floodplain.

A regulatory or base floodplain is defined as the land area that is covered by the floodwaters of the base flood. This land area is subject to a 1% chance of flooding in any given year. The base floodplain is also known as the 100-year floodplain or a Special Flood Hazard Area (SFHA). It is this second definition that is generally most familiar to people and the one that is used by the NFIP and the State of Illinois.

A base floodplain is divided into two parts: the floodway and the flood fringe. **Figure F-1** illustrates the various components of a base floodplain.

Figure F-1
Floodplain Illustration



Source: Illinois Department of Natural Resources, Quick Guide to Floodplain Management.

The floodway is the channel of a river or stream and the adjacent floodplain that is required to store and convey the base flood without increasing the water surface elevation. Typically, the floodway is the most hazardous portion of the floodplain because it carries the bulk of the base flood downstream and is usually the area where water is deepest and is moving the fastest. Floodplain regulations prohibit construction within the floodway that results in an increase in the floodwater's depth and velocity.

The flood fringe is the remaining area of the base floodplain, outside of the floodway, which is subject to shallow inundation and low velocity flows. In general, the flood fringe plays a relatively insignificant role in storing and discharging floodwaters. The flood fringe can be quite wide on large streams and quite small or nonexistent on small streams. Development within the flood fringe is typically allowed via permit if it will not significantly increase the floodwater's depth or velocity and the development is elevated above or otherwise protected to the base flood elevation.

What is a Special Flood Hazard Area?

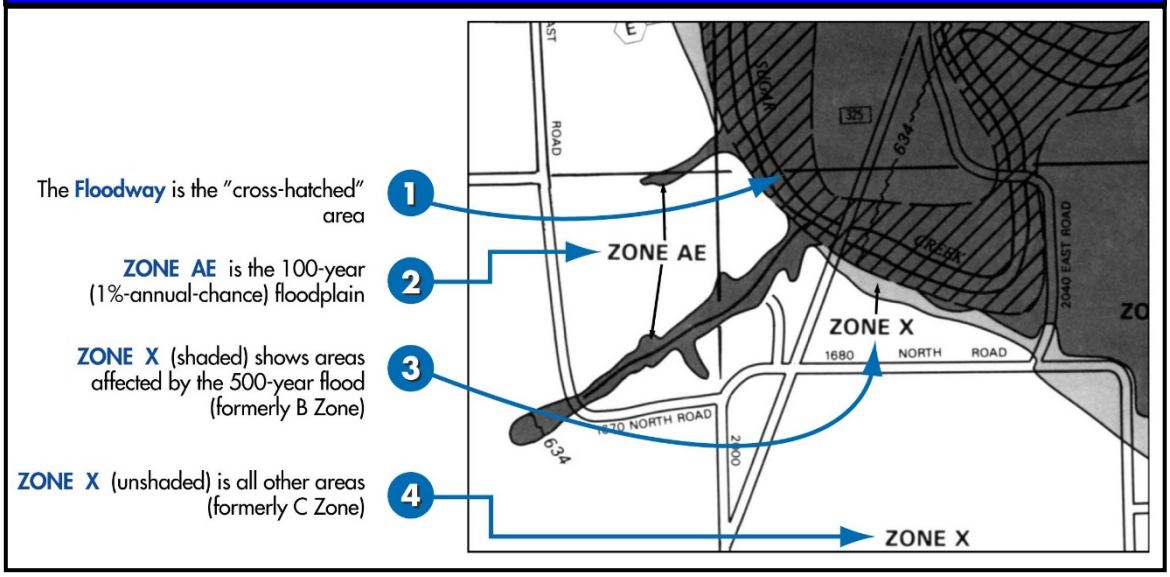
A Special Flood Hazard Area (SFHA) is the base floodplain. As discussed previously, this is the land area that is covered by the floodwaters of the base flood and has a 1% chance of flooding in any given year. The term SFHA is most commonly used when referring to the based floodplain on the Flood Insurance Rate Maps (FIRM) produced by FEMA. The SFHA is the area where floodplain regulations must be enforced by a community as a condition of participation in the NFIP and the area where mandatory flood insurance purchase requirements apply. SFHA are delineated

on the FIRMs and may be designated as Zones A, AE, A1-30, AO, AH, AR, and A99 depending on the amount of flood data available, the severity of the flood hazard or the age of the flood map.

What are Flood Insurance Rate Maps?

Flood Insurance Rate Maps (FIRMs) are maps that identify both the SFHA and the risk premium zones applicable to a community. These maps are produced by FEMA in association with the NFIP for floodplain management and insurance purposes. Digital versions of these maps are referred to as DFIRMs. **Figure F-2** shows an example of a FIRM.

Figure F-2
Example of a Flood Insurance Rate Map (FIRM)



Source: Illinois Department of Natural Resources, Quick Guide to Floodplain Management.

A FIRM will generally show a community's base flood elevations, flood zones and floodplain boundaries. The information presented on a FIRM is based on historic, meteorological, hydrologic, and hydraulic data as well as open-space conditions, flood-control projects, and development. ***These maps only define flooding that occurs when a creek or river becomes overwhelmed. They do not define overland flooding that occurs when an area receives extraordinarily intense rainfall and storm sewers, and roadside ditches are unable to handle the surface runoff.***

What are flood zones?

Flood zones are geographic areas that FEMA has defined according to varying levels of flood risk and type of flooding. These zones are depicted on a community's FIRM. The following provides a brief description of each flood zone.

- **Zone A.** Zone A, also known as the Special Flood Hazard Area (SFHA) or base floodplain, is defined as the floodplain area that has a 1% chance of flooding in any given year. There are multiple Zone A designations, including Zones A, AO, AH, A1-30, AE, AR or A99. Land areas located within Zone A are considered high-risk flood areas.

During a 30-year period, the length of many mortgages, there is at least a 1 in 4 chance that flooding will occur in a SFHA. The purchase of flood insurance is mandatory for all buildings in SFHAs receiving federal or federally-related financial assistance.

- **Zone X (shaded).** Zone X (shaded), formerly known as Zone B, is defined as the floodplain area between the limits of the base flood (Zone A) and the 0.2% chance or 500-year flood. Land areas located within Zone X (shaded) are affected by the 500-year flood and are considered at a moderate risk for flooding.

  Zone X (shaded) is also used to designate base floodplains of lesser hazards, such as areas protected by levees from 100-year flood, shallow flooding areas with average depths of less than one foot or drainage areas less than one square mile. While flood insurance is not federally required in Zone X (shaded), it is recommended for all property owners and renters.

- **Zone X (unshaded).** Zone X (unshaded), formerly known as Zone C, is defined as all other land areas outside of Zone A and Zone X (shaded). Land areas located in Zone X (unshaded) are considered to have a low or minimal risk of flooding. While flood insurance is not federally required in Zone X (unshaded), it is recommended for all property owners and renters.

What is a Repetitive Loss Structure or Property?

FEMA defines a "repetitive loss structure" as a National Flood Insurance Program-insured structure that has received two or more flood insurance claim payments of more than $1,000 each within any 10-year period since 1978. These structures/properties account for approximately one-fourth of all National Flood Insurance Program (NFIP) insurance claim payments since 1978.

Currently, repetitive loss properties make up about 2% of all NFIP policies, and account for approximately $9 billion in claims or approximately 16% of the total claims paid over the history of the Program. These structures not only increase the NFIP's annual losses, but they also drain funds needed to prepare for catastrophic events. As a result, FEMA and the NFIP are working with states and local governments to mitigate these properties.

What is floodplain management?

Floodplain management is the administration of an overall community program of corrective and preventative measures to reduce flood damage. These measures take a variety of forms and generally include zoning, subdivision or building requirements, special-purpose floodplain ordinances, flood control projects, education, and planning. Where floodplain development is permitted, floodplain management provides a framework that minimizes the risk to life and property from floods by maintaining a floodplain's natural function. Floodplain management is a key component of the National Flood Insurance Program.

What is the National Flood Insurance Program?

The National Flood Insurance Program (NFIP) is a federal program, administered by FEMA, that:

- mitigates future flood losses nationwide through community-enforced building and zoning ordinances; and

- provides access to affordable, federally-backed insurance protection against losses from flooding to property owners in participating communities.

It is designed to provide an insurance alternative to disaster assistance to meet escalating costs of repairing damage to buildings and their contents due to flooding. The U.S. Congress established the NFIP on August 1, 1968 with the passage of the National Flood Insurance Act of 1968. This Program has been broadened and modified several times over the years, most recently with the passage of the Flood Insurance Reform Act of 2004.

Prior to the creation of the NFIP, the national response to flood disasters was generally limited to constructing flood-control projects such as dams, levees, sea-walls, etc. and providing disaster relief to flood victims. While flood-control projects were able to initially reduce losses, their gains were offset by unwise and uncontrolled development practices within floodplains. In light of the continued increase in flood losses and the escalating costs of disaster relief to taxpayers, the U.S. Congress created the NFIP. The intent was to reduce future flood damage through community floodplain management ordinances and provide protection for property owners against potential losses through an insurance mechanism that requires a premium to be paid for protection.

Participation in the NFIP is voluntary and based on an agreement between local communities and the federal government. If a community agrees to adopt and enforce a floodplain management ordinance to reduce future flood risks to new construction in a SFHA (base floodplain), then the government will make flood insurance available within the community as a financial protection against flood losses.

If a community chooses not to participate in the NFIP or a participating community decides not to adopt new floodplain management regulations or amend its existing regulations to reference new flood hazard data provided by FEMA, then the following sanctions will apply.

- Property owners will not be able to purchase NFIP flood insurance policies and existing policies will not be renewed.
- Federal disaster assistance will not be provided to repair or reconstruct insurable buildings located in identified flood hazard areas for presidentially-declared disasters that occur as a result of flooding.
- Federal mortgage insurance and loan guarantees, such as those written by the Federal Housing Administration and the Department of Veteran Affairs, will not be provided for acquisition or construction purposes within an identified flood hazard area. Federally-insured or regulated lending institutions, such as banks and credit unions, are allowed to make conventional loans for insurable buildings in identified flood hazard areas of non-participating communities. However, the lender must notify applicants that the property is in an identified flood hazard area and that it is not eligible for federal disaster assistance.
- Federal grants or loans for development will not be available in identified flood hazard areas under programs administered by federal agencies such as the Environmental Protection Agency, Small Business Administration and the Department of Housing and Urban Development.

What is the NFIP's Community Rating System?

The NFIP's Community Rating System (CRS) is a voluntary program developed by FEMA to provide incentives (in the form of flood insurance premium discounts) for NFIP participating communities that have gone beyond the minimum NFIP floodplain management requirements to develop extra measures to provide protection from flooding. CRS discounts on flood insurance premiums range from 5% up to 45%. The discounts provide an incentive for communities to implement new flood protection activities that can help save lives and property when a flood occurs.

Are alerts issued for flooding?

Yes. The National Weather Service Weather Forecast Office in Chicago, Illinois is responsible for issuing ***flood watches*** and ***warnings*** for Kendall County depending on the weather conditions. The following provides a brief description of each type of alert.

- **Flood Watch.** A flood watch is issued when atmospheric and hydrologic conditions are favorable for long duration river flooding or areal flooding (the gradual ponding or buildup of water in low-lying, flood-prone areas as well as small creeks and streams that develops gradually, usually from prolonged and persistent moderate to heavy rainfall).
- **Flash Flood Watch.** A flash flood watch is issued when atmospheric and hydrologic conditions are favorable for short duration flash flooding and/or a dam break is possible.
- **Flood Advisory.** A flood advisory is issued when thunderstorms have produced heavy rainfall that may result in ponding of water on roadways and in low-lying areas, as well as rises in small stream levels but is not expected to pose an immediate threat to life and/or property.
- **Flood Warning**. A flood warning is issued when long duration river flooding or areal flooding (the gradual ponding or buildup of water in low-lying, flood-prone areas as well as small creeks and streams) is occurring or is imminent and may result from excessive rainfall, rapid snow melt, ice jams on rivers or other similar causes.
- **Flash Flood Warning.** A flash flood warning is issued when short duration flash flooding has developed due to excessive rainfall, or a dam break has occurred.

HAZARD PROFILE

The following identifies past occurrences of floods; details the severity or extent of each event (if known); identifies the locations potentially affected; and estimates the likelihood of future occurrences.

When has flooding occurred previously? What is the extent of these previous floods?

Tables 5 and **6**, located in **Appendix J**, summarize the previous occurrences as well as the extent or magnitude of flood events recorded in Kendall County. The flood events are separated into two categories: general floods (riverine and shallow/overland) and flash floods.

General Floods

NOAA's Storm Events Database, NWS's Advanced Hydrologic Prediction Service, and U.S. Geological Survey (USGS) river gage data were used to document 41 occurrences of general

flooding in Kendall County between 1997 and 2022. Included in the 41 general flood events is one event that contributed to a major federal disaster declaration in Kendall County.

Based on historical gage data, the record setting Fox River flood at Montgomery occurred on April 18, 2013 when the River crested at 15.14 feet. The second and third highest crests at this location occurred in 2008 and 2007 respectively.

Flood Fast Facts – Occurrences

Number of General Floods Reported (1997 – 2022): ***41***

Number of Flash Floods Reported (1996 – 2022): ***49***

Most Likely Month for General Floods to Occur: ***May***

Most Likely Month for Flash Floods to Occur: ***June & July***

Number of Federal Emergency & Major Disaster Declarations Related to General and Flash Flooding: ***5 (1973, 1974, 1996, 2008, 2013)***

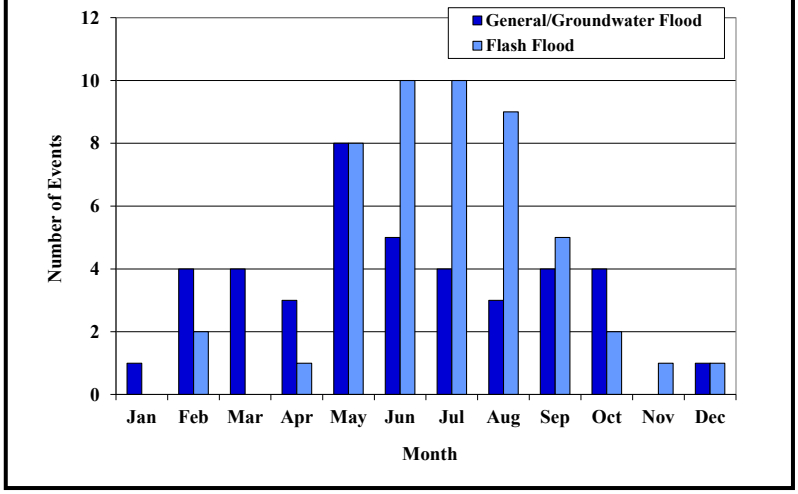
Number of State Disaster Proclamations Related to General and Flash Flooding: ***1 (2013)***

Flash Floods

NOAA's Storm Events Database and Iowa State University's National Weather Service Watch, Warning, and Advisories database were used to document 49 reported occurrences of flash flooding in Kendall County between 1996 and 2022. Included in the 49 flash flood events are four events that contributed to three major federal disaster declarations in Kendall County. One of the declarations, September 2008, also included a general flood event. One of the 49 flash flood events, April 2013, contributed to a state disaster proclamation in Kendall County. This proclamation also coincided with a major federal disaster declaration.

Figure F-3 charts the reported occurrences of flooding by month Of the 41 general flood events, 13 (32%) began in May and June making this the peak period for general flooding. Of those 13 events, 8 (62%) began during May making this the peak month for general flooding. There were four events that spanned two or more months; however, for illustration purposes only the month the event started in is graphed.

Figure F-3
Flood Events by Month



In comparison, 29 of the 49 flash flood events (62%) took place June, July, and August making this the peak period for flash floods. Of these 29 events, 10 (34%) occurred in June and 10 (34%) occurred in July, making these the peak months for flash flooding. Of the flash flood events with recorded times, 66% began during the p.m. hours.

What locations are affected by floods?
While specific locations are affected by general flooding, most areas of the County can be impacted by overland and flash flooding because of the topography and seasonally high water table of the area. In Kendall County, approximately 6.0% of the area in the County is designated as being within the base floodplain and susceptible to riverine floods.

Figure F-4 identifies the floodplains in Kendall County as well as the participating jurisdictions. This map is based on the most current Kendall County DFRIMs that became effective February 4, 2009 and January 8, 2014. While a large portion of the area prone to riverine flooding is in unincorporated portions of the County, Lisbon, Millbrook, Millington, Montgomery, Newark, Oswego, Plano, Plattville, Yorkville are also susceptible to riverine flooding because of their proximity to floodplains. **Appendix K** contains maps identifying the floodplains located in each of the participating municipalities.

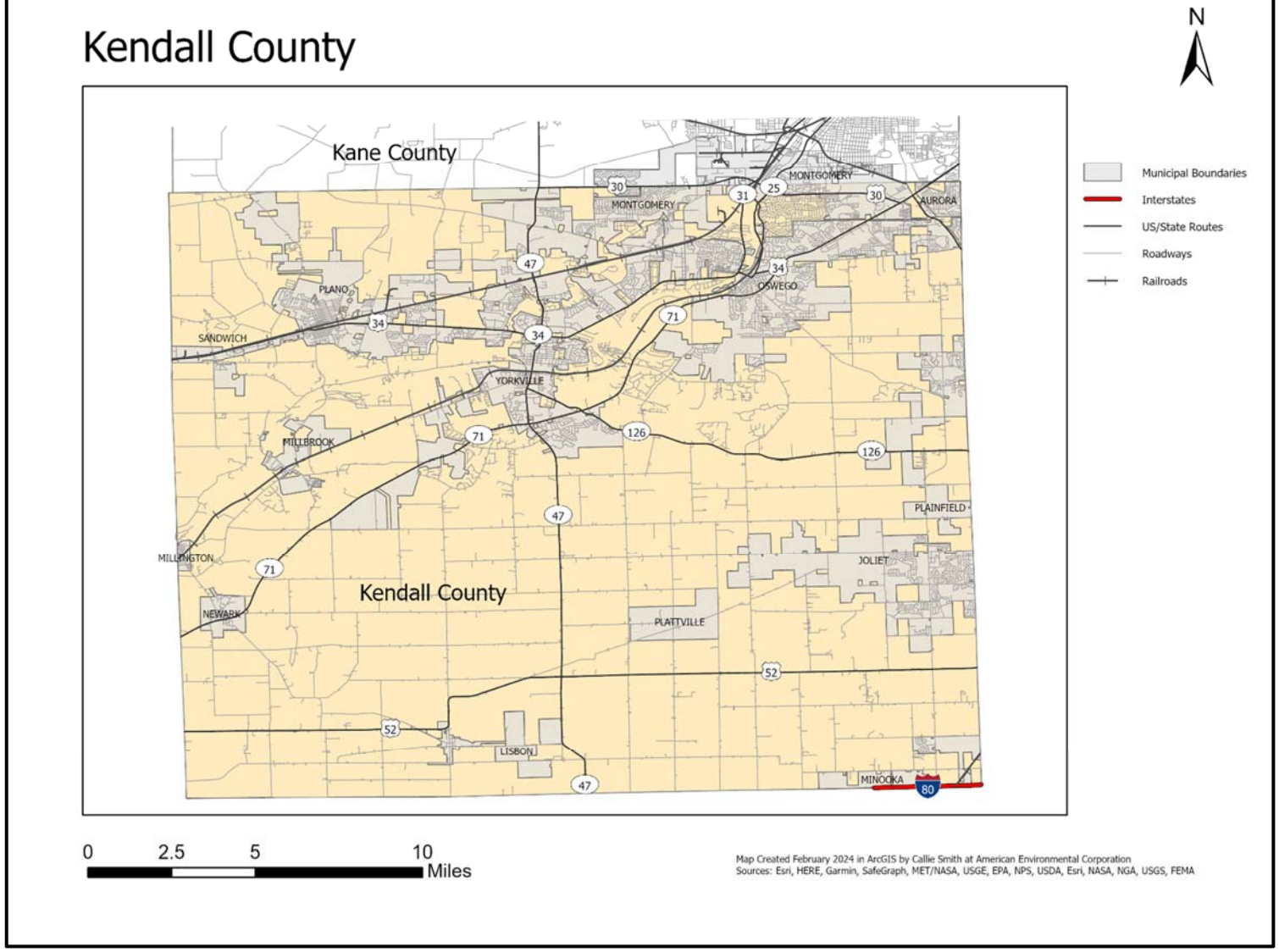
Figure F-5 identifies the bodies of water within or immediately adjacent to participating jurisdictions that are known to cause flooding or have the potential to flood. Water bodies with Special Flood Hazard Areas located within a participating jurisdiction (as identified on the DFIRMs) are identified in bold.

Figure F-5
Bodies of Water Subject to Flooding

Participating Jurisdiction	Water Bodies
Lisbon	**unnamed tributary of Saratoga Creek**
Montgomery	**Blackberry Creek, Fox River, Waubonsie Creek, unnamed tributary Waubonsie Creek**
Newark	**Clear Creek, unnamed tributary of Clear Creek**
Oswego	**Fox River, Morgan Creek, unnamed tributary of Waubonsie Creek, Waubonsie Creek**
Plano	**Big Rock Creek, Little Rock Creek**
Plattville	**unnamed tributary of West Aux Sable Creek, West Aux Sable Creek**
Yorkville	**Big Rock Creek, Blackberry Creek, Fox River,** Rob Roy Creek
Unincorporated Kendall County	Ackles Run, **Aux Sable Creek, Blackberry Creek, Clear Creek, East Aux Sable Creek, Fox River, Hollenback Creek,** Knutson Creek, Lisbon Creek, **Little Rock Creek, Little Slough Creek, Middle Aux Sable Creek, Morgan Creek,** Rob Roy Creek, Roods Creek, Saratoga Creek, **unnamed tributary of Aux Sable Creek, unnamed tributary of Clear Creek, unnamed tributary of Saratoga Creek, unnamed tributary of Waubonsie Creek, unnamed tributary of West Aux Sable Creek, Valley Run,** Walley Run, **Waubonsie Creek, West Aux Sable Creek**

Source: FEMA's DFIRMs.

Figure F-4
Floodplain Areas in Kendall County



Municipal, Township, and County officials have reported overland flood issues outside of the base floodplain in most of the participating municipalities and many unincorporated portions of the County. This overland flooding is known to impair travel.

What jurisdictions within the County take part in the NFIP?

Participating Jurisdictions

Kendall County, Lisbon, Montgomery, Newark, Oswego, Plano, Plattville, and Yorkville participate in the NFIP. **Figure F-6** ***provides information on each NFIP-participating jurisdiction,*** including the date each participant joined, the date of their current effective FIRM and the year of their most recently adopted floodplain zoning ordinance.

Figure F-6
NFIP Participating Jurisdictions

Participating Jurisdictions	Participation (Date)	Current Effective FIRM (Date)	Floodplain Zoning/FIRM Adoption Ordinance (Year)	Adoption of Minimum NFIP Criteria (Yes/No)*	Local Floodplain Management Regulations Implemented & Enforced (Yes/No)	Position Responsible for Implementation of NFIP Commitments/ Requirements	CRS Participation (Entry Date & Class if applicable)
Kendall County	07/19/1982	01/08/2014	2013	Yes	Yes	Planning, Building, & Zoning (PBZ) Department Manager	No
Lisbon	06/11/1982	02/04/2009	2009	Yes	Yes	Village Clerk	No
Montgomery	08/15/1979	01/08/2014	2021	Yes	Yes	Zoning Officer	Yes 05/01/2015 Class 5
Newark	06/01/1982	02/04/2009	2009	Yes	Yes	Village Engineer	No
Oswego	06/01/1982	01/08/2014	2013	Yes	Yes	Building Inspector	No
Plano	09/30/1976	02/04/2009	2016	Yes	Yes	City Engineer	No
Plattville	07/16/2013	01/08/2014	2013	Yes	Yes	County PBZ Manager	No
Yorkville	06/01/1982	01/08/2014	2013	Yes	Yes	City Administrator	No

* In Kendall County, all the NFIP-participating jurisdictions have adopted the State of Illinois model floodplain ordinance. This ordinance goes above and beyond NFIP minimum standards and has much more restrictive floodway regulations. As a result, all of the NFIP-participating jurisdictions are in compliance with NFIP requirements.

Discussions with the individuals responsible for implementation of the NFIP commitments and requirements within their jurisdiction and a review of the participating jurisdictions floodplain ordinances indicates that each monitor flood events and, when applicable, conduct substantial damage determinations for structures within the floodplain using FEMA's Substantial Damage Estimator Tool. For structures that meet the definition of substantial damage (total cost of repairs is 50% or more of the structure's market value before the disaster occurred, regardless of the cause of damage), the owners are notified, and the structure must be brought back into compliance with local floodplain management regulations.

Participating jurisdictions will continue to comply with the NFIP by implementing mitigation projects and activities that enforce this ordinance to reduce future flood risks to new construction

within the SFHA. At this time no new construction is planned within the base floodplain. Continued compliance with NFIP requirements is addressed in the Mitigation Action Tables of the participating jurisdictions found in Section 4.7.

Non-Participating Jurisdictions

Figure F-7 provides information on those incorporated municipalities within the County that chose not to participate in the planning process but take part in the NFIP.

Figure F-7
Non-Participating Jurisdiction NFIP Status

Participating Jurisdictions	Participation Date	Current Effective FIRM Date	CRS Participation	Most Recently Adopted Floodplain Zoning Ordinance
Millbrook	05/13/2009	02/04/2009	No	2009
Millington	06/01/1982	07/18/2011	No	2011

Sources: FEMA, Community Status Book Report: Illinois.

What is the probability of future flood events occurring based on historical data?

General Floods

Kendall County has had 41 verified occurrences of general flooding between 1997 and 2022. With 41 occurrences over the past 26 years, the County should expect at least one general flood event in any given year. There were 10 years over the past 26 years where two or more general flood events occurred. This indicates that the probability or likelihood that more than one general flood event may occur during any given year within the County is 38%.

Flash Floods

There have been 49 verified flash flood events between 1996 and 2022. With 49 occurrences over the past 27 years, the County should expect at least one flash flood event in any given year. There were 15 years over the past 27 years where two or more flash flood events occurred. This indicates that the probability that more than one flash flood event may occur during any given year within the County is approximately 56%.

What is the probability of future flood events occurring based on modeled future conditions?

In the last 120 years, total annual precipitation in Illinois has increased by between 12% to 15% across the State. This means, according to the Illinois State Climatologist, that we get about an additional 5 inches of yearly rainfall compared to what was expected historically.

This trend is likely to continue, and as a result, precipitation in Illinois is forecasted to increase in coming decades. In addition to changes in the overall amount of precipitation, changes in precipitation patterns indicate that future events will likely be less frequent, but larger and more severe. The Illinois State Climatologist indicates that since the beginning of the 20th Century, Illinois has seen a 40% increase in the number of days with extreme precipitation events (rainfall of 2 inches or greater) per year.

One result of more precipitation overall and an increase in heavy rain events is an increased risk of flooding. In particular, extreme precipitation events are likely to lead to flash floods along rivers and in urban areas, where impermeable surfaces such as buildings, roads, and sidewalks will make

drainage systems more likely to be overwhelmed. Rural areas will face different challenges, most notably those close to rivers and in low-lying areas with little or no drainage capability.

Figures SS-8 and **SS-9**, located in Section 3.1, provide tabular and graphical projections for Kendall County, showing estimations for average annual precipitation in the early, mid, and late 21st century with both low and high estimates for each time period. Most likely, the true value will fall between these two estimates. By midcentury, the average annual precipitation in Kendall County is projected to increase by 2 inches per year, while the average number of days with precipitation per year is projected to decrease by 3 to 4 days according to the Climate Mapping for Resilience and Adaptation's Assessment Tool.

By midcentury, the annual number of days with total precipitation greater than 1 inch is projected to increase by one day. The annual number of days with total precipitation greater than 2 inches is not projected to increase significantly. This is confirmed by the Climate Explorer, which indicates that in Kendall County the annual counts of intense rainstorms (rainfall of 2 inches or greater in once day) are not projected to increase. This is based on the findings of the 2018 National Climate Assessment and compares projections for the middle third of the century (2035-2064) with average conditions observed from 1961-1990.

Taken together, the projected increase in annual rainfall, the decrease in frequency of rain events, and the negligible threat of intense rain events in Kendall County means that the likelihood of flooding may be slightly higher than it is today.

HAZARD VULNERABILITY

The following describes the vulnerability to participating jurisdictions, identifies the impacts on public health and property (if known) and estimates the potential impacts on public health and safety as well as buildings, infrastructure, and critical facilities from floods.

Several factors including topography, precipitation, and an abundance of rivers and streams make Illinois especially vulnerable to flooding. According to the Illinois State Water Survey's Climate Atlas of Illinois, since the 1940s Illinois climate records have shown an increase in heavy precipitation, which has led to increased flood peaks on Illinois rivers.

Are the participating jurisdictions vulnerable to flooding?

Yes. Kendall County and the participating jurisdictions are vulnerable to the dangers presented by flooding. Precipitation levels and topography are factors that cumulatively make virtually the entire County susceptible to some form of flooding. Flooding occurs along the floodplains of all the rivers, streams, and creeks within the County as well as outside of the floodplains in low-lying areas where drainage problems occur. Since 2013, Kendall County has experienced 25 general flood events and 20 flash flood events.

All of the general flood and flash flood events impacted either a large portion of the County or the entire County and were not location specific.

The *2023 Illinois Natural Hazard Mitigation Plan* prepared by IEMA-OHS classifies Kendall County's hazard rating for riverine flooding and flash flooding as "medium". IEMA-OHS's overall hazard rating system has five levels: very low, low, medium, high, and very high.

For riverine floods, the FEMA's National Risk Index (NRI) rates the County as a whole as "Relatively Low". Four of the 24 census tracts are rated "Relatively Moderate", 17 are rated "Relatively Low", two are rated "Very Low", and one is not rated for riverine floods. **Table R-5** presents the overall NRI scores and ratings for each census tract as well as for the County as a whole.

Vulnerability to flooding can change depending on several factors, including land use. As land used primarily for agricultural and open space purposes is converted for residential and commercial/industrial uses, the number of buildings and impervious surfaces (i.e., parking lots, roads, sidewalks, etc.) increases. As the number of buildings and impervious surfaces increases, so too does the potential for flash flooding. Rather than infiltrating the ground slowly, rain and snowmelt that falls on impervious surfaces runs off and fills ditches and storm drains quickly creating drainage problems and flooding.

According to the Multi-Resolution Land Characteristics (MRLC) Consortium, in 2021 approximately 13.3% of the County's land cover was considered developed with 6.3% impervious surfaces. Areas with impervious surface rates approaching or exceeding 12 to 15 percent will likely experience negative impacts to water quality. Between 2011 and 2021 approximately 3.2 square miles or approximately 1% of the land cover in the County changed with 0.55 square miles of development and 0.79 square miles of impervious surfaces gained.

As described in Section 1.3 Land Use and Development Trends, substantial changes in land use (from forested, open, and agricultural land to residential, commercial, and industrial) are not anticipated within the unincorporated County in the immediate future. Substantial increases in residential or commercial/industrial developments are expected in Montgomery, Oswego, Plano, and Yorkville within the next five years; however these development would not be in flood-prone areas and would be governed each jurisdiction's floodplain and stormwater ordinances.

Have any of the participating jurisdictions identified specific assets vulnerable to the impacts of flooding?

Yes. Based on responses to an Assets Vulnerability Survey distributed to the participating jurisdictions, the following jurisdictions considered specific assets within their jurisdiction vulnerable to flooding.

Kendall County:

- The Edith Farnsworth House, a National Historic Landmark, is located in the base floodplain of the Fox River and has experienced flooding on multiple occasions over the years.
- Rural roadways outside of Lisbon flood, impacting travel.
- The Fox Metro Water Reclamation District's wastewater treatment plant, which serves nearly 300,000 residents in Kendall and Kane Counties, is located in the base floodplain of the Fox River and vulnerable to flooding.
- Portions of Illinois Route 25 in Oswego near the BNSF/Amtrak railroad tracks flood, impacting travel.

Lisbon:
- Village Hall is located in a floodplain and has been damaged by flooding.
- Road within the Village are vulnerable to flooding from heavy rain events.

Lisbon-Seward Fire Protection District:
- Roads in the District are frequently obstructed by flooding waters which impact travel and delay emergency response times.
- Both fire stations are located adjacent to base floodplains and have suffered flood damage.

Montgomery:
- The Village's drinking water wells are located in areas along the Fox River where flooding has occurred.

Newark Fire Protection District:
- Flooding has overtopped roads in the District and washed out culverts and bridges, which can impact travel for both residents and emergency responders.

Oswego:
- The Fox Metro Water Reclamation District's wastewater treatment plant, which serves nearly 300,000 residents including Oswego, is located in the base floodplain of the Fox River and vulnerable to flooding.
- Flooding along the Fox River has caused the evacuation of homes on South Adams Street.

Oswego Fire Protection District:
- Flooding has delayed call backs for extra manpower impeding emergency response times.

Oswegoland Park District:
- Our parks near or along the Fox River and Waubonsie Creek are vulnerable to flooding.

Plano:
- The City's wastewater treatment plant and a portion of the public works facility is located in the base floodplain of Big Rock Creek and vulnerable to flooding.

Kendall Township completed a Roadway Overtopping Survey in which they identified two roads within its township, Ament Road near Cross Lutheran School and Helmar Road east of Ashley Road, where flooding causes overtopping of the roadway that exceeds six inches. In both cases the overtopping occurs at a culvert location and is caused by surface water runoff from a heavy rain event or snow melt, not a specific body of water. The Township Clerk indicated that the roads are marked with appropriate warnings of standing water during events. The culverts have been increased in size and ditch cleaning has been conducted to improve drainage in these areas.

Flood Fast Facts – Impacts/Risk

General Flood Impacts:
- Total Property Damage (1 events): ***$92,293***
- Total Crop Damage: ***n/a***
- Injuries: ***n/a***
- Fatalities: ***n/a***

Flash Flood Impacts:
- Total Property Damage (3 events): ***$4,035,584***
- Total Crop Damage: ***n/a***
- Injuries: ***n/a***
- Fatalities: ***n/a***

Flood Risk/Vulnerability to:
- Public Health & Safety – General Flooding: ***Low***
- Public Health & Safety – Flash Flooding: ***Medium***
- Buildings/Infrastructure/Critical Facilities: ***Medium to High***

What impacts resulted from the recorded floods?

Floods as a whole have caused a minimum of $4.1 million in property damages. The following provides a

breakdown by category. In comparison, the State of Illinois has averaged an estimated $257 million annually in property damage losses, making flooding the single most financially damaging natural hazard in Illinois.

General Floods

Data obtained from NOAA's Storm Events Database and Committee member records indicates that between 1997 and 2022, one of the 41 general flood events caused $92,293 in property damages. Damage information was either unavailable or none was recorded for the remaining 40 reported occurrences. No injuries or fatalities were reported as a result of any of the recorded events.

Flash Floods

Data obtained from NOAA's Storm Events Database and Committee member records indicates that between 1996 and 2022, three of the 49 flash flood events caused $4,035,584 in property damages. Damage information was either unavailable or none was recorded for the remaining 46 reported occurrences. No injuries or fatalities were reported as a result of any of the recorded events.

What other impacts can result from flooding?

One of the primary threats from flooding is drowning. Nearly half of all flash flood fatalities occur in vehicles as they are swept downstream. Most of these fatalities take place when people drive into flooded roadway dips and low drainage areas. It only takes two feet of water to carry away most vehicles.

Floodwaters also pose biological and chemical risks to public health. Flooding can force untreated sewage to mix with floodwaters. The polluted floodwaters then transport the biological contaminants into buildings and basements and onto streets and public areas. If left untreated, the floodwaters can serve as breeding grounds for bacteria and other disease-causing agents. Even if floodwaters are not contaminated with biological material, basements and buildings that are not properly cleaned can grow mold and mildew, which can pose a health hazard, especially for small children, the elderly, and those with specific allergies.

Flooding can also cause chemical contaminants such as gasoline and oil to enter the floodwaters if underground storage tanks or pipelines crack and begin leaking during a flood event. Depending on the time of year, floodwaters also may carry away agricultural chemicals that have been applied to farm fields.

Structural damage, such as cracks forming in a foundation, can also result from flooding. In most cases, however, the structural damage sustained during a flood occurs to the flooring, drywall, and wood framing. In addition to structural damage, a flood can also cause serious damage to a building's content.

Infrastructure and critical facilities are also vulnerable to flooding. Roadways, culverts, and bridges can be weakened by floodwaters and have been known to collapse under the weight of a vehicle. Buried power and communication lines are also vulnerable to flooding. Water can infiltrate lines and cause disruptions in power and communication.

What is the level of vulnerability to public health and safety from floods?

While both general and flash floods occur on a regular basis within the County, the number of injuries and fatalities is low. In terms of the risk or vulnerability to public health and safety from general floods, the risk is seen as ***low***. However, more than half of the recorded flood events were the result of flash flooding. Since there is very little warning associated with flash flooding the risk to public health and safety from flash floods is elevated to ***medium***.

Are there any repetitive loss structures/properties within Kendall County?

Yes. According to information obtained from IEMA-OHS, there is one repetitive loss structure located in Lisbon, one in Montgomery, one in Yorkville, two in Lisbon, two in Plano, and 14 in unincorporated Kendall County. As described previously, FEMA defines a "repetitive loss structure" as an NFIP-insured structure that has received two or more flood insurance claim payments of more than $1,000 each within any 10-year period since 1978.

Figure F-8 identifies the repetitive flood loss structures by jurisdiction and provides the total flood insurance claim payments. The exact location and/or address of the insured structures are not included in this Plan to protect the owners' privacy. According to FEMA, there have been 55 flood insurance claim payments totaling $1,161,193.79 for the 21 repetitive flood loss structures.

Figure F-8
Repetitive Flood Loss Structures

Jurisdiction	Structure Type	Number of Structures	Number of Claim Payments	Flood Insurance Claim Payments		Total Flood Insurance Claim Payments
				Structure	Contents	
Lisbon	Single Family	1	2	$33,885.62	$0.00	$33,885.62
Millington	Single Family	2	5	$156,503.58	27,894.11	$184,397.69
Montgomery	Single Family	1	2	$36,220.45	5,334.11	$41,554.56
Plano	Single Family	2	7	$19,902.47	$70,562.00	$90,464.47
Yorkville	Single Family	1	2	$16,041.74	$0.00	$16,041.74
Unincorp. County	Single Family	14	37	$687,452.30	$107,397.41	$794,849.71
Total:		**21**	**55**	**$950,006.16**	**$211,187.63**	**$1,161,193.79**

Source: Illinois Emergency Management Agency and Office of Homeland Security

Are existing buildings, infrastructure and critical facilities vulnerable to flooding?

Yes. **Figure F-9** identifies the *estimated number* of existing structures by participating jurisdiction located within a base floodplain. These counts were prepared by the Consultant using FEMA's National Flood Hazard Layer and building footprints prepared by the Illinois State Water Survey. **Figure F-10** identifies the *estimated number* of existing structures by township located within the base floodplain. It should be noted that while the identified structures are located in a floodplain, the actual number impacted may differ during a real flood event.

Aside from key roads, bridges, electrical substations, and buried power and communication lines, the following provides a description of those participating jurisdictions that have specific infrastructure/critical facilities located within a floodplain.

Figure F-9
Existing Buildings, Infrastructure and Critical Facilities Located in a Base Floodplain by Participating Municipalities

Participating Jurisdiction	Residential			Residential Garages	Businesses (Commercial / Industrial)	Miscellaneous (Barns, Sheds, Silos)	Infrastructure/ Critical Facilities
	Houses	Duplexes	Apartment Complexes				
Lisbon[1,2,8]	9	---	1	3	---	7	2
Montgomery[3,7,10,12]	68	3	3	20	26	25	4
Newark[1,2,9]	1	---	---	---	---	---	1
Oswego[3,10,12]	14	6	2	---	9	4	5
Plano[5,6]	1	---	---	---	---	3	3
Plattville[8]	8	---	---	5	---	5	---
Yorkville[4,7,10,12]	6	3	---	---	---	---	5
Unincorp. Kendall County	134	---	---	---	12	116	7

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Figure F-10
Existing Buildings, Infrastructure and Critical Facilities Located in a Floodplain by Township

Township	Residential			Residential Garages	Businesses (Commercial/ Industrial)	Miscellaneous (Barns, Sheds, Silos)	Infrastructure/ Critical Facilities
	Houses	Duplexes	Apartment Complexes				
Big Grove[1,2,8,9]	---	---	---	---	---	---	---
Bristol[3,4,5, 7,12]	35	---	---	11	---	3	---
Fox[2,5,7,9,10,11]	5	---	---	---	1	14	---
Kendall[2,3,4,7,10]	8	---	---	2	---	3	---
Lisbon[1,2,7,8]	---	---	---	---	---	5	---
Little Rock[5,6,7,11]	56	---	---	5	5	14	---
Na-Au-Say[3,10,12]	---	---	---	---	1	7	---
Oswego[3,7,10,12]	10	---	---	---	1	6	6
Seward[8]	19	---	---	7	1	15	---

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Lisbon: The Village Hall is located in the base floodplain of an unnamed tributary of Saratoga Creek.

Lisbon-Seward FPD: Fire Station #1 in Lisbon is located in the base floodplain of an unnamed tributary of Saratoga Creek.

Montgomery: One of the Village's lift stations is located in the Fox River base floodplain while a water tower and communications tower are located in the base floodplain of an unnamed tributary of Waubonsie Creek.

Newark CHSD #18: A portion of the High School is located in the base floodplain of Clear Creek.

Oswego: The Cole Avenue drinking water treatment facility and water tower are located in the base floodplain of Morgan Creek.

Plano: A majority of the City's wastewater treatment plant and two City maintenance garages are located in the base floodplain of Big Rock Creek.

While 6.0% of the land area in Kendall County lies within the base floodplain and is susceptible to riverine flooding, ***almost the entire County is vulnerable to flash flooding***. As a result, ***a majority of the buildings, infrastructure and critical facilities that may be impacted by flooding are located outside of the base floodplain and are not easily identifiable.***

The risk or vulnerability of existing buildings, infrastructure and critical facilities to all forms of flooding is considered to be ***medium to high*** based on: (a) the frequency and severity of recorded flood events within the County; (b) the County's proximity to the Fox River and its tributaries; (c) the fact that most of the County is vulnerable to flash flooding; and (d) a majority of the buildings, infrastructure and critical facilities that may be impacted are located outside of the base floodplain.

Are future buildings, infrastructure and critical facilities vulnerable to flooding?

The answer to this question depends on the type of flooding being discussed.

Riverine Flooding

In terms of riverine flooding, the vulnerability of future buildings, infrastructure and critical facilities located within NFIP-participating jurisdictions is low as long as the existing floodplain ordinances are enforced. Enforcement of the floodplain ordinance is the mechanism that ensures that new structures either are not built in flood-prone areas or are elevated or protected to the base flood elevation.

Flash Flooding

In terms of flash flooding, all future buildings, infrastructure and critical facilities are still vulnerable depending on the amount of precipitation that is received, the topography and any land use changes undertaken within the participating jurisdictions.

What are the potential dollar losses to vulnerable structures from flooding?

An estimate of the potential dollar losses to vulnerable *residential structures* located within the *participating municipalities and the townships within the County* can be calculated if several assumptions are made. These assumptions represent a probable scenario based on the reported occurrences of flooding in Kendall County.

The purpose of providing an estimate is to help residents and local officials make informed decisions about how they can better protect themselves and their communities. These estimates are meant to provide a ***general idea*** of the magnitude of the potential damage that could occur from a flood event in each of the participating municipalities and townships.

Assumptions

To calculate the overall potential dollar losses to vulnerable residential structures from a flood, a set of decisions/assumptions must be made regarding:

- type of flood event;

- scope of the flood event;
- number of potentially-damaged housing units;
- value of the potentially-damaged housing units; and
- percent damage sustained by the potentially-damaged housing units (i.e., damage scenario.)

The following provides a detailed discussion of each decision/assumption.

Type of Flood Event. The first step towards calculating the potential dollar losses to vulnerable residential structures is to determine the type of flood event that will be used for this scenario. While flash flooding has occurred more frequently and has caused more recorded flood damages in the County than riverine flooding, identifying residential structures vulnerable to flash flooding is problematic because most are located outside of the base floodplain and the number of structures impacted can change with each event depending on the amount of precipitation received, the topography and the land use of the area.

Assumption #1

A riverine flood event will impact vulnerable residential structures.

Therefore, a riverine flood event will be used since it is (a) relatively easy to identify vulnerable residential structures within each municipality (i.e., those structures located within the base floodplain or Special Flood Hazard Areas of any river, stream or creek); and (b) the number of structures impacted is generally the same from event to event.

Scope of the Flood Event. To establish the number of vulnerable residential structures (potentially-damaged housing units), the scope of the riverine flood event must first be determined. In this scenario, the scope refers to the number of rivers, streams and creeks that overflow their banks and the degree of flooding experienced along base floodplains for each river, stream and creek.

Assumption #2

All base floodplains will flood and experience the same degree of flooding.

Generally speaking, a riverine flood event only affects one or two rivers or streams at a time depending on the cause of the event (i.e., precipitation, snow melt, ice jam, etc.) and usually does not produce the same degree of flooding along the entire length of the river, stream or creek. However, for this scenario, it was decided that:

- all rivers, streams and creeks with base floodplains would overflow their banks, and
- the base floodplains of each river, stream and/or creek located within the corporate limits of each municipality would experience the same degree of flooding.

This assumption results in the following conditions for each municipality:

- *Lisbon*: An unnamed tributary of Saratoga Creek would overflow its banks and flood portions of the Village.
- *Montgomery*: The Fox River, Blackberry Creek, Waubonsie Creek, and an unnamed tributary of Waubonsie Creek would overflow their banks and flood portions of the Village;

- *Newark*: Clear Creek and an unnamed tributary of Clear Creek would overflow their banks and flood portions of the Village;
- *Oswego*: The Fox River, Morgan Creek, Waubonsie Creek, and an unnamed tributary of Waubonsie Creek would overflow their banks and flood portions of the Village;
- *Plano*: Big Rock Creek and Little Rock Creek would overflow their banks and flood portions of the City;
- *Plattville*: West Aux Sable Creek an unnamed tributary of West Aux Sable Creek would overflow their banks and flood portions of the Village; and
- *Yorkville*: The Fox River, Big Rock Creek, and Blackberry Creek would overflow their banks and flood portions of the City.

Number of Potentially-Damaged Housing Units. Since this scenario assumes that all the base floodplains will experience the same degree of flooding, the number of existing residential structures located within the base floodplain(s) can be used to determine the number of potentially-damaged housing units. **Figures F-9** and **F-10** identify the total number of existing residential structures located within the base floodplains(s) of each participating jurisdiction. These counts were prepared by the Consultant.

Assumption #3

The number of existing residential structures located within the base floodplain(s) will be used to determine the number of potentially-damaged housing units.

Value of Potentially-Damaged Housing Units. Now that the number of potentially-damaged housing units has been determined, the monetary value of the units must be calculated. Typically, when damage estimates are prepared after a natural disaster such as a flood, they are based on the market value of the structure. Since it would be impractical to determine the individual market value of each potentially-damaged housing unit, the average market value for a residential structure will be used.

Assumption #4

The average market value for a residential structure will be used to determine the value of potentially-damaged housing units.

To determine the average market value, the average assessed value must first be calculated. The average assessed value is determined by taking the total assessed value of residential buildings within a jurisdiction and dividing that number by the total number of housing units within the jurisdiction. The average market value is then determined by taking the averaged assessed value and multiplying that number by three (the assessed value of a structure in Kendall County is approximately one-third of the market value). **Figure F-11** provides a sample calculation. The total assessed value is based on 2022 tax assessment information provided by County officials. **Figures F-12** and **F-13** provide the average assessed value and average market value for each participating municipality and the townships.

Figure F-11
Sample Calculation of Average Assessed Value & Average Market Value – Plano

Average Assessed Value

Total Assessed Value of Residential Buildings in the Jurisdiction÷ Total Housing Units in the Jurisdiction = Average Assessed Value

Plano: $219,229,235 ÷ 4,021 housing units = $54,521

Average Market Value

Average Assessed Value x 3 = Average Market Value (Rounded to the Nearest Dollar)

Plano: $54,521 x 3 = $163,563

Figure F-12
Average Market Value of Housing Units by Participating Municipality

Participating Jurisdiction	Total Assessed Value of Residential Buildings (2022)	Total Housing Units (2017-2021)	Average Assessed Values	Average Market Value (2022)
Lisbon[1,2,8]	$5,164,653	109	$47,382	$142,146
Montgomery[3,7,10,12]	$467,806,567	6,653	$70,316	$210,948
Newark[1,2,9]	$20,439,102	443	$46,138	$138,414
Oswego[3,10,12]	$974,852,538	11,816	$82,503	$247,509
Plano[5,6]	$219,229,235	4,021	$54,521	$163,563
Plattville[8]	$5,841,124	68	$85,899	$257,697
Yorkville[4,7,10,12]	$594,475,190	7,125	$83,435	$250,305
Lisbon[1,2,8]	$5,164,653	109	$47,382	$142,146

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District
Source: County Clerks' offices.

Damage Scenario. The final decision that must be made to calculate potential dollar losses is to determine the percent damage sustained by the structure and the structure's contents during the flood event. In order to determine the percent damage using FEMA's flood loss estimation tables, assumptions must be made regarding (a) the type of residential structure flooded (i.e., manufactured home, one story home without a basement, one- or two-story home with a basement, etc.) and (b) the flood depth. **Figure F-14.** calculates the percent loss to a structure and its contents for different scenarios based on flood depth and structure type.

Assumption #5

The potentially-damaged housing units are one or two-story homes with basements and the flood depth is two feet.
Structural Damage = 20%
Content Damage = 30%

Figure F-13
Average Market Value of Housing Units by Township

Participating Jurisdiction	Total Assessed Value of Residential Buildings (2022)	Total Housing Units (2017-2021)	Average Assessed Values	Average Market Value (2022)
Big Grove[1,2,8,9]	$28,508,531	662	$43,064	$129,193
Bristol[3,4,5, 7,12]	$842,369,156	10,363	$81,286	$243,859
Fox[2,5,7,9,10,11]	$51,965,751	728	$71,382	$214,145
Kendall[2,3,4,7,10]	$272,347,149	2,957	$92,103	$276,308
Lisbon[1,2,7,8]	$17,351,422	214	$81,081	$243,244
Little Rock[5,6,7,11]	$287,600,974	5,119	$56,183	$168,549
Na-Au-Say[3,10,12]	$299,414,345	3,152	$94,992	$284,976
Oswego[3,7,10,12]	$1,516,561,697	19,490	$77,812	$233,437
Seward[8]	$157,235,647	1,758	$89,440	$268,320

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Source: Kendall County Clerk

Figure F-14
FEMA Flood Loss Estimation Tables

Flood Building Loss Estimation Table

Flood Depth (feet)	One Story No Basement (% Building Damage)	Two Story No Basement (% Building damage)	One or Two Story With Basement (% Building damage)	Manufactured Home (% Building damage)
-2	0	0	4	0
-1	0	0	8	0
0	9	5	11	8
1	14	9	15	44
2	22	13	20	63
3	27	18	23	73
4	29	20	28	78
5	30	22	33	80
6	40	24	38	81
7	43	26	44	82
8	44	29	49	82
>8	45	33	51	82

Flood Content Loss Estimation Table

Flood Depth (feet)	One Story No Basement (% Contents Damage)	Two Story No Basement (% Contents damage)	One or Two Story With Basement (% Contents damage)	Manufactured Home (% Contents damage)
-2	0	0	6	0
-1	0	0	12	0
0	13.5	7.5	16.5	12
1	21	13.5	22.5	66
2	33	19.5	30	90
3	40.5	27	34.5	90
4	43.5	30	42	90
5	45	33	49.5	90
6	60	36	57	90
7	64.5	39	66	90
8	66	43.5	73.5	90
>8	67.5	49.5	76.5	90

Source: FEMA, Understanding Your Risks: Identifying Hazards and Estimating Losses

For this scenario it is assumed that the potentially-damaged housing units are one or two-story homes with basements and the flood depth is two feet. With these assumptions the expected percent damage sustained by the ***structure*** is estimated to be 20% and the expected percent damage sustained by the structure's ***contents*** is estimated to be 30%.

Potential Dollar Losses

Now that all of the decisions/assumptions have been made, the potential dollar losses can be calculated. First the potential dollar losses to the ***structure*** of the potentially-damaged housing units must be determined. This is done by taking the average market value for a residential structure and multiplying that by the percent damage 20% to get the average structural damage per unit. Next the average structural damage per unit is multiplied by the number of potentially-damaged housing units. **Figure F-15** provides a sample calculation.

Figure F-15
***Structure:* Potential Dollar Loss Sample Calculation – Plano**

Average Market Value of a Housing Unit with the Jurisdiction x Percent Damage = Average Structural Damage per Housing Unit

Plano: $163,563 x 20% = $32,712.60 per housing unit

Average Structural Damage x Number of Potentially-Damaged Housing Units within the Jurisdiction = *Structure* Potential Dollar Losses (Rounded to the Nearest Dollar)

Plano: $32,712.60 per housing unit x 1 housing unit = $32,713

Next the potential dollar losses to the ***content*** of the potentially-damaged housing units must be determined. Based on FEMA guidance, the value of a residential housing unit's content is approximately 50% of its market value. Therefore, start by taking one-half the average market value for a residential structure and multiply that by the percent damage 30% to get the average content damage per unit. Then take the average content damage per unit and multiply that by the number of potentially-damaged housing units. **Figure F-16** provides a sample calculation.

Figure F-16
***Content:* Potential Dollar Loss Sample Calculation – Plano**

½ (Average Market Value of a Housing Unit with the Jurisdiction) x Percent Damage = Average Content Damage per Housing Unit

Plano: ½ ($163,563) x 30% = $24,534.45 per housing unit

Average Content Damage per Housing Unit x Number of Potentially-Damaged Housing Units within the Jurisdiction = *Content* Potential Dollar Losses (Rounded to the Nearest Dollar)

Plano: $24,534.45 per housing unit x 1 housing unit = $24,534

Finally, the ***total potential dollar losses*** may be calculated by adding together the potential dollar losses to the structure and the content. **Figures F-17 and F-18** provide a breakdown of the total potential dollar losses by participating municipality and township.

This assessment illustrates the potential dollar losses that should be considered when participating jurisdictions are deciding which mitigation projects to pursue. Potential dollar losses caused by riverine flooding to vulnerable structures within the participating municipalities would be expected to ***range from $48,445 in Newark to $5.0 million in Oswego***.

Figure F-17
Estimated Potential Dollar Losses to Potentially-Damaged Housing Units from a Riverine Flood Event by Participating Municipality

Participating Jurisdiction	Average Market Value (2022)	Potentially-Damaged Housing Units	Potential Dollar Losses		Total Potential Dollar Losses (Rounded to the Nearest Dollar)
			Structure	Content	
Lisbon[1,2,8]	$142,146	9	$255,863	$191,897	$447,760
Montgomery[3,7,10,12]	$210,948	68	$2,868,893	$2,151,670	$5,020,563
Newark[1,2,9]	$138,414	1	$27,683	$20,762	$48,445
Oswego[3,10,12]	$247,509	14	$693,025	$519,769	$1,212,794
Plano[5,6]	$163,563	1	$32,713	$24,534	$57,247
Plattville[8]	$257,697	8	$412,315	$309,236	$721,551
Yorkville[4,7,10,12]	$250,305	6	$300,366	$225,275	$525,641

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Figure F-18
Estimated Potential Dollar Losses to Potentially-Damaged Structures from a Riverine Flood Event by Township

Participating Jurisdiction	Average Market Value (2022)	Potentially-Damaged Housing Units	Potential Dollar Losses		Total Potential Dollar Losses (Rounded to the Nearest Dollar)
			Structure	Contents	
Big Grove[1,2,8,9]	$129,193	---	$ 0	$ 0	$ 0
Bristol[3,4,5, 7,12]	$243,859	35	$1,707,013	$1,280,260	$2,987,273
Fox[2,5,7,9,10,11]	$214,145	5	$214,145	$160,609	$374,754
Kendall[2,3,4,7,10]	$276,308	8	$442,093	$331,570	$773,663
Lisbon[1,2,7,8]	$243,244	---	$ 0	$ 0	$ 0
Little Rock[5,6,7,11]	$168,549	56	$1,887,749	$1,415,812	$3,303,561
Na-Au-Say[3,10,12]	$284,976	---	$ 0	$ 0	$ 0
Oswego[3,7,10,12]	$233,437	10	$466,874	$350,156	$817,030
Seward[8]	$268,320	19	$1,019,616	$764,712	$1,784,328

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

For the townships, potential dollar losses caused by riverine flooding to vulnerable structures would be expected to ***range from $374,754 in Fox Township to $3.3 million in Little Rock Township***. Big Grove Township, Lisbon Township, and Na-Au-Say Township do not have any residential structures considered vulnerable to riverine flooding in this scenario.

Vulnerability of Infrastructure/Critical Facilities

The calculations presented above are meant to provide the reader with a sense of the scope or magnitude of a large riverine flood event in dollars. These calculations do not include the physical damages sustained by businesses or other infrastructure and critical facilities.

In terms of businesses, the impacts from a flood event can be physical and/or monetary. Monetary impacts can include loss of sales revenue either through temporary closure or loss of critical services (i.e., power, drinking water and sewer). Depending on the magnitude of the flood event, the damage sustained by infrastructure and critical facilities can be extensive in nature and expensive to repair. As a result, ***the cumulative monetary impacts to businesses and infrastructure can exceed the cumulative monetary impacts to residences.*** While average dollar amounts cannot be supplied for these items at this time, they should be taken into account when discussing the overall impacts that a large-scale riverine flood event could have on the participating jurisdictions.

In terms of specific infrastructure vulnerability, the following are located within a ***base floodplain***:

- *Lisbon*: Village Hall;
- *Lisbon-Seward FPD*: Fire Station #1 in Lisbon;
- *Montgomery:* lift station, water tower, and communications tower;
- *Newark CHSD #18:* a portion the High School;
- *Oswego:* the Cole Avenue drinking water treatment facility and water tower; and
- *Plano:* wastewater treatment plant and two City maintenance garages.

Considerations

While the potential dollar loss scenario was only for a riverine flood event, the participating jurisdictions have been made aware through the planning process of the impacts that can result from flash flood events. Kendall County has experienced multiple events over the last 20 to 30 years as have adjoining and nearby counties. These events illustrate the need for officials to consider the overall monetary impacts of all forms of flooding on their communities. All participants should carefully consider the types of activities and projects that can be taken to minimize their vulnerability.

3.3 SEVERE WINTER STORMS

HAZARD IDENTIFICATION

What is the definition of a severe winter storm?

A severe winter storm can range from moderate snow over a few hours to significant accumulations of sleet and/or ice to blizzard conditions with blinding, wind-driven snow that last several days. The amount of snow or ice, air temperature, wind speed and event duration all influence the severity and type of severe winter storm that results. In general, there are three types of severe winter storms: blizzards, heavy snowstorms and ice storms. The following provides a brief description of each type as defined by the National Weather Service (NWS).

- **Blizzards.** Blizzards are characterized by strong winds of at least 35 miles per hour and are accompanied by considerable falling and/or blowing snow that reduces visibility to ¼ mile or less. Blizzards are the most dangerous of all winter storms.
- **Heavy Snowstorms.** Heavy snowstorms are generally defined as producing snowfall accumulations of four inches or more in 12 hours or less or six inches or more in 24 hours or less.
- **Ice Storms.** An ice storm occurs when substantial accumulations of ice, generally ¼ inch or more, build up on the ground, trees and utility lines as a result of freezing rain.

What is snow?

Snow is precipitation in the form of ice crystals. These ice crystals are formed directly from the freezing of water vapor in wintertime clouds. As the ice crystals fall toward the ground, they cling to each other creating snowflakes. Snow will only fall if the temperature remains at or below 32°F from the cloud base to the ground.

What is sleet?

Sleet is precipitation in the form of ice pellets. These ice pellets are composed of frozen or partially frozen rain drops or refrozen partially melted snowflakes. Sleet typically forms in winter storms when snowflakes partially melt while falling through a thin layer of warm air. The partially melted snowflakes then refreeze and form ice pellets as they fall through the colder air mass closer to the ground. Sleet usually bounces after hitting the ground or other hard surfaces and does not stick to objects.

What is freezing rain?

Freezing rain is precipitation that falls in the form of a liquid (i.e., rain drops), but freezes into a glaze of ice upon contact with the ground or other hard surfaces. This occurs when snowflakes descend into a warmer layer of air and melt completely. When the rain drops that result from this melting fall through another thin layer of freezing air just above the surface they become "supercooled", but they do not have time to refreeze before reaching the ground. However, because the raindrops are "supercooled", they instantly refreeze upon contact with anything that is at or below 32°F (i.e., the ground, trees, utility lines, etc.).

Are alerts issued for severe winter storms?

Yes. The NWS Weather Forecast Office in Chicago, Illinois is responsible for issuing ***winter storm watches*** and ***warnings*** for Kankakee County depending on the weather conditions. The following provides a brief description of each type of alert.

- **Watches.** The following watches are issued when conditions are favorable for hazardous winter weather conditions but are not occurring or imminent.
  - **Winter Storm Watch.** A winter storm watch is issued when severe winter storm conditions may occur, including heavy snow, significant ice or sleet accumulations, and any of those accompanied by strong winds that may lead to significant visibility reductions.

- **Advisories.** Winter advisories are issued for winter weather events that pose a significant inconvenience, especially to motorist, but should not be life-threatening if caution is exercised. The following advisories will be issued when an event is occurring or imminent.
  - **Winter Weather Advisory.** Any one of a combination of the following winter weather elements are expected:
    - 3 to 6 inches of snow;
    - light sleet accumulations;
    - light ice accumulations; and/or
    - localized significant visibility reductions due to snow and/or blowing snow.

    A winter weather advisory may be issued for less than 3 inches of snow if significant impacts are expected.

- **Warnings.** Winter weather warnings are issued for events that can be life threatening. The following warnings will be issued when an event is occurring, is imminent, or has a high probability of occurring.

  The following winter weather warnings are issued when severe winter weather conditions are expected to cause a significant impact to life or property. Individuals are advised to avoid travel and stay indoors.
  - **Blizzard Warning.** A blizzard warning is issued when wind speeds of 35 mph or greater are accompanied by considerable falling or blowing snow that frequently reduces visibility to less than ¼ mile for three hours or more.
  - **Winter Storm Warning.** A winter storm warning is issued when:
    - snow amounts of 6 inches or more in 12 hour or 8 inches or more in 24 hours are expected; or
    - heavy sleet accumulations of ½ inch or greater are expected.

    These conditions may or may not be accompanied by wind or other phenomena. A warning may also be issued if conditions approach blizzard criteria and/or have significant impacts, even if snowfall amounts are not expected to reach the criteria above.
  - **Ice Storm Warning.** An ice storm warning is issued when ice accumulations of ¼ inch or more are expected.

HAZARD PROFILE

The following identifies past occurrences of severe winter storms; details the severity or extent of each event (if known); identifies the locations potentially affected; and estimates the likelihood of future occurrences.

When have severe winter storms occurred previously? What is the extent of these previous severe winter storm?
Table 7, located in **Appendix J**, summarize the previous occurrences as well as the extent or magnitude of severe winter storms (snow & ice) recorded in Kendall County.

Severe Winter Storm Fast Facts – Occurrences

Number of Severe Winter Storm Events Reported (1994 -2022): ***75***

Maximum 24-Hour Snow Accumulation: ***18.1 inches (February 1 & 2, 2011)***

Most Likely Month for Severe Winter Storms to Occur: ***January***

Number of Federal Emergency & Major Disaster Declarations Related to Severe Winter Storms: ***4 (1979, 1999, 2000, 2006)***

Number of State Disaster Proclamations Related to Severe Winter Storms: ***5 (2011, 2014, 2019, 2021, 2022)***

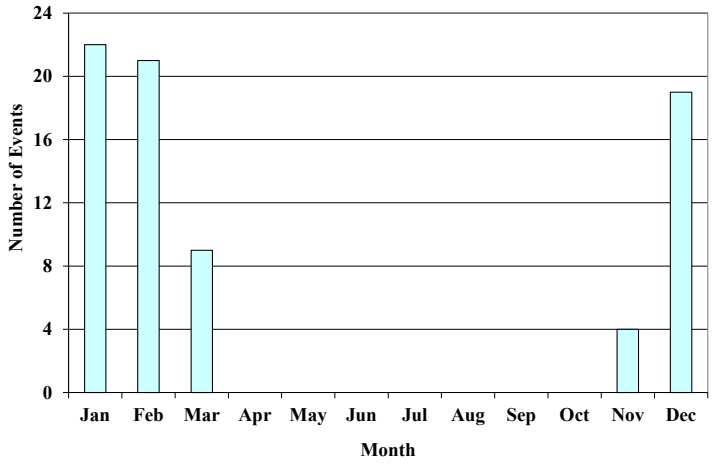
NOAA's Storm Events Database, Midwestern Regional Climate Center's cli-MATE database, and NWS's COOP data records were used to document 75 reported occurrences of severe winter storms (snow, ice and/or a combination of both) in Kendall County between 1994 and 2022. Of the 75 recorded occurrences there were 54 heavy snowstorms or blizzards; 17 combination events (freezing rain, sleet, ice and/or snow); and 4 ice or sleet storms. Included in the 75 severe winter storms are four events that contributed to three separate federal emergency declarations in Kendall County. Five of the 75 events contributed to five separate state disaster proclamations in Kendall County. None of the federal or state declarations/proclamations coincide.

Figure SWS-1 charts the reported occurrences of severe winter storms by month. Of the 75 events, 62 (83%) took place in in December, January, and February making this the peak period for severe winter storms. Of these 62 events, 22 (35%) occurred during January, making this the peak month for severe winter storms. There were two events that spanned two months; however, for illustration purposes only the month when the event started is graphed. Of the winter storm events with recorded times, 72% began during the p.m. hours.

According to the NWS's COOP data records, the maximum 24-hour snow accumulation in Kendall County is 18.1 inches, which occurred on February 1 and 2, 2011 at the Newark COOP Observation Station.

What locations are affected by severe winter storms?
Severe winter storms affect the entire County. All communities in Kendall County have been affected by severe winter storms. Severe winter storms generally extend across the entire County and affect multiple locations.

Figure SWS-1
Severe Winter Storms by Month
1994 – 2022



What is the probability of future severe winter storms occurring based on historical data?

Kendall County has had 75 verified occurrences of severe winter storms between 1994 and 2022. With 75 occurrences over the past 29 years, Kendall County should expect at least two severe winter storms in any given year. There were 18 years over the past 29 years where two or more severe winter storms occurred. This indicates the probability that two or more severe winter storms may occur during any given year within the County is 62%.

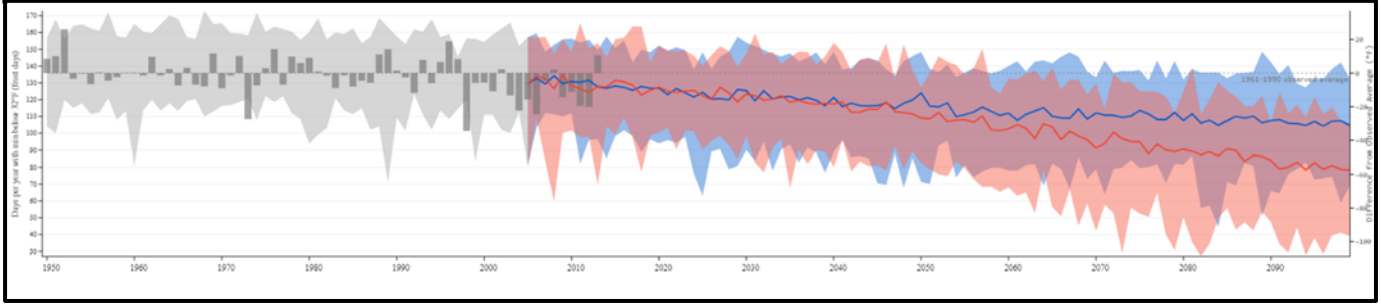
What is the probability of future severe winter storms occurring based on modeled future conditions?

The number of days in a year where the temperature falls below 32°F are gradually decreasing in number, meaning that though there will still be winter weather events, there will be fewer days in a given year that could produce them. **Figure SWS-2 and SWS-3** provide tabular and graphical projections for Kendall County showing estimations for the number of days per year with minimum temperatures below 32°F by decade in the early, mid, and late 21st century with both low and high estimates for each time period.

Figure SWS-2
Number of Days Per Year with Minimum Temperature < 32°F Table – Kendall County

Indicator	Modeled Time Frame						
	2030s Min - Max	**2040s** Min - Max	**2050s** Min - Max	**2060s** Min - Max	**2070s** Min - Max	**2080s** Min - Max	**2090s** Min - Max
Days with minimum temperature below 32°F							
Lower Emissions	**121 days** 87 - 147	**117 days** 83 - 142	**115 days** 80 - 138	**111 days** 78 - 142	**111 days** 78 - 137	**108 days** 68 - 137	**106 days** 72 - 135
Higher Emissions	**120 days** 87 - 147	**115 days** 84 - 145	**107 days** 75 - 137	**101 days** 61 - 132	**93 days** 48 - 125	**88 days** 44 - 123	**80 days** 37 - 113

Figure SWS-3
Number of Days Per Year with Minimum Temperature < 32°F Graph – Kendall County



However, while overall trends of rising temperatures will lead to milder winters on average, this does not mean that severe winter storms will become a thing of the past. Heavy snow events could actually become more common due to rising temperatures. Warmer air is more favorable to the formation of high precipitation clouds, which in winter will increase the likelihood of severe winter storm events when it gets cold enough to snow instead of rain. Snow from these events tends to be warm, wet, and heavy, but will melt relatively quickly in comparison to the finer, dustier snow that falls when temperatures are colder.

HAZARD VULNERABILITY

The following describes the vulnerability to participating jurisdictions, identifies the impacts on public health and property (if known) and estimates the potential impacts on public health and safety as well as buildings, infrastructure, and critical facilities from severe winter storms.

Are the participating jurisdictions vulnerable to severe winter storms?

Yes. All of Kendall County, including the participating jurisdictions, is vulnerable to the dangers presented by severe winter storms. Severe winter storms are among the more frequently occurring natural hazards in Illinois. Since 2013, Kendall County has experienced 29 severe winter storms.

Severe winter storms have immobilized portions of the County, blocking roads; downing power lines, trees, and branches; causing power outages and property damage; and contributing to vehicle accidents. In addition, the County, township, and municipalities must budget for snow removal and de-icing of roads and bridges as well as for roadway repairs.

The *2023 Illinois Natural Hazard Mitigation Plan* prepared by IEMA-OHS classifies Kendall County's hazard rating for winter storms as "medium" and ice storms as "low". IEMA-OHS's overall hazard rating system has five levels: very low, low, medium, high, and very high.

For winter weather and ice storm FEMA's National Risk Index (NRI) rates the County as a whole as "Relatively Low". None of the 24 census tracts are rated higher than "Relatively Moderate" for winter weather and ice storm. **Table R-5** presents the overall NRI scores and ratings for each census tract as well as for the County as a whole.

Have any of the participating jurisdictions identified specific assets vulnerable to the impacts of severe winter storms?

Yes. Based on responses to an Assets Vulnerability Survey distributed to the participating jurisdictions, the following jurisdictions considered specific assets within their jurisdiction vulnerable to severe winter storms.

Kendall County:

- Severe winter storms have the potential to down power lines causing electrical outages. If the permanent emergency backup generators at the Public Safety Center, which includes KenCom, do not function appropriately, then the County's ability to respond to a hazard event is severely diminished, including the ability to dispatch emergency responders until the backup center can be staffed and activated.
- Severe winter storms can down trees and utility lines causing debris to block roadways, impacting travel and delaying emergency response times to individuals who need assistance or evacuation.

Kendall Township:

- If the permanent emergency backup generator at the Township Building doesn't function appropriately during a power outage caused by a severe winter storm, then township staff would be unable to perform required duties in a timely fashion and the Building could not be used as an emergency shelter/warming center for District residents.

Lisbon:

- Severe winter storms have the potential to down power lines impacting service to critical facilities/infrastructure, such as Village Hall. Village Hall does not have an emergency backup generator and if power is lost to the building, then it is difficult to access equipment used to respond to events out of the building.
- If the permanent emergency backup generator at the wastewater treatment plant doesn't function appropriately, then a power outage caused by a severe winter storm could impact service to residents.

Lisbon-Seward Fire Protection District:

- Roads in the District are frequently obstructed by utility lines downed by storm winds, which impact travel and delay emergency response times.
- The two fire stations within the District are staffed by volunteers. Winter storms have the potential to impact the ability of volunteers to reach the fire stations limiting the resources available to respond to emergency calls.
- Severe winter storms have the potential to down overhead utility lines impacting service to the fire stations and residents.

Montgomery:

- Severe winter storms have the potential to cause power outages impacting the Village's ability so supply an adequate amount of drinking water to residents since only some of the well sites have been equipped with emergency backup generators.
- Severe winter storms have downed power lines impacting service to critical facilities as well as residents.
- The Village's public works facility does not have an emergency backup generator, which could limit service if a power outage is experienced as the result of a severe winter storm.

Newark:
- If the permanent emergency backup generator at each well site doesn't function appropriately, then a power outage caused by a severe winter storm could impact service to residents.

Newark Fire Protection District:
- Severe winter storms have the potential to down trees and power lines, which impact travel and delay emergency response times.
- Blowing and drifting snow from severe winter storms can cause road closures, which impact travel and the ability to respond to emergency situations.

Oswego:
- Ice storms can down trees and power lines blocking roadways, impacting travel and delaying emergency response times.

Oswego Fire Protection District:
- Communication systems are vulnerable to damage caused by severe winter storms. Loss of radio communication with KenCom delays response times.

Oswegoland Park District:
- During extended power outages caused by ice storms, our computer server may be compromised depending on the duration of the outage and the longevity of battery backups.

Plano CUSD #88:
- Severe winter storms have the potential to down power lines causing a loss of power and impacting critical systems, such as refrigerators/freezers, HVAC, computers and communications, necessary to maintain operations at the District's five schools.
- Severe winter storms can impact travel making it difficult to ensure students are home safely.

Yorkville:
- Overhead electrical power lines to critical facilities/infrastructure within the City are vulnerable to damage from ice storms.

What impacts resulted from the recorded severe winter storms?

Damage information was either unavailable or none was recorded for any of the reported occurrences between 1994 and 2022. In addition, no injuries or fatalities were reported as a result of any of the recorded severe winter storm events.

Severe Winter Storms & Extreme Cold Events
Fast Facts – Impacts/Risk

Severe Winter Storm (Snow & Ice) Impacts:
- Total Property Damage: ***n/a***
- Injuries: ***n/a***
- Fatalities: ***n/a***

Severe Winter Storm Risk/Vulnerability:
- Public Health & Safety: ***Low to Medium***
- Buildings/Infrastructure/Critical Facilities: ***Medium***

In comparison, the State of Illinois has averaged $102 million annually in winter storm losses according to the Illinois State Water Survey's Climate Atlas of Illinois, ranking winter storms second only to flooding in terms of economic loss in the State. While behind floods in terms of the amount of property damage caused, severe winter storms have a greater ability to immobilize larger areas, with rural areas being particularly vulnerable.

What other impacts can result from severe winter storms?

In Kendall County, vehicle accidents are the largest risk to health and safety from severe winter storms. Hazardous driving conditions (i.e., reduced visibility, icy road conditions, strong winds, etc.) contribute to the increase in accidents that result in injuries and fatalities. A majority of all severe winter storm injuries result from vehicle accidents.

Traffic accident data assembled by the Illinois Department of Transportation from 2017 through 2021 indicates that treacherous road conditions caused by snow/slush and ice were present for 6.4% to 12.7% of all crashes recorded annually in the County. **Figure SWS-4** provides a breakdown by year of the number of crashes and corresponding injuries and fatalities that occurred when treacherous road conditions caused by snow and ice were present.

Figure SWS-4
Severe Winter Weather Crash Data for Kendall County

Year	Total # of Crashes	Presence of Treacherous Road Conditions caused by Snow/slush and Ice		
		# of Crashes	# of Injuries	# of Fatalities
2017	1,907	122	30	0
2018	2,102	220	52	0
2019	2,182	277	54	0
2020	1,684	147	17	0
2021	1,940	146	33	0
Total:	**9,815**	**912**	**186**	**0**

Source: Illinois Department of Transportation.

Persons who are outdoors during and immediately following severe winter storms can experience other health and safety problems. Frostbite to hands, feet, ears and nose and hypothermia are common injuries. Treacherous walking conditions also lead to falls which can result in serious injuries, including fractures and broken bones, especially in the elderly. Over exertion from shoveling driveways and walks can lead to life-threatening conditions such as heart attacks in middle-aged and older adults who are susceptible.

What is the level of risk/vulnerability to public health and safety from severe winter storms?

While severe winter storms occur regularly in Kendall County, the number of injuries and fatalities is relatively low. Taking into consideration the potential for hazardous driving conditions, snow-removal related injuries, and power outages that could leave individuals vulnerable to hypothermia, the risk to public health and safety of the *general population* from severe winter storms safety is seen as ***low*** to ***medium***.

The level of risk or vulnerability posed by severe winter storms to the public health and safety of *socially vulnerable populations* is considered to be ***medium***. Socially vulnerable populations such as older adults (those 75 years of age and older) are more susceptible to slips and falls caused by treacherous walking conditions and therefore their risk is elevated. **Figure SWS-5** identifies the percent of socially vulnerable populations by participating municipality, township, and the County based on the U.S. Census Bureau's 2017-2021 American Community Survey data.

Figure SWS-5
Socially Vulnerable Populations by Participating Jurisdictions

Participating Jurisdiction	% of Population 75 year of age & Older
Lisbon[1,2,8]	8.4%
Montgomery[3,7,10,12]	2.6%
Newark[1,2,9]	5.2%
Oswego[3,10,12]	4.3%
Plano[5,6]	4.0%
Plattville[8]	6.3%
Yorkville[4,7,10,12]	2.6%
Kendall Township[2,3,4,7,10]	5.1%
Oswego Township[3,7,10,12]	4.0%
Unincorp. Kendall County	3.7%
Kendall County	3.6%
State of Illinois	6.4%

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Source: U.S. Census Bureau.

Are existing buildings, infrastructure, and critical facilities vulnerable to severe winter storms?
Yes. All existing buildings, infrastructure, and critical facilities located in Kendall County and the participating jurisdictions are vulnerable to damage from severe winter storms.

Structural damage to buildings caused by severe winter storms (snow and ice) is very rare but can occur particularly to flat rooftops. Information gathered from Kendall County residents indicates that snow and ice accumulations on communication and power lines as well as key roads presents the greatest vulnerability to infrastructure and critical facilities within the County. Snow and ice accumulations on lines often lead to disruptions in communications and create power outages. Depending on the damage, it can take anywhere from several hours to several days to restore service.

In addition to affecting communication and power lines, snow and ice accumulations on state and local roads hampers travel and can cause dangerous driving conditions. Blowing and drifting snow can lead to road closures and increases the risk of automobile accidents. Even small accumulations of ice can be extremely dangerous to motorists since bridges and overpasses freeze before other surfaces.

When transportation is disrupted, schools close, emergency, and medical services are delayed, some businesses close and government services can be affected. When a severe winter storm hits there is also an increase in cost to the County, township, and municipalities for snow removal and de-icing. Road resurfacing and pothole repairs are additional costs incurred each year as a result of severe winter storms.

Based on the frequency with which severe winter storms have occurred in Kendall County; the damages described; the amount of property damage previously reported; and the potential for disruptions to power distribution and communication; the risk or vulnerability to buildings, infrastructure and critical facilities from severe winter storms is ***medium***.

Are future buildings, infrastructure, and critical facilities vulnerable to severe winter storms?

Yes and No. While the County, Montgomery, Newark, Oswego, Plano, and Yorkville have building codes in place that will likely help lessen the vulnerability of new buildings and critical facilities to damage from severe storms, Lisbon and Plattville do not.

However, infrastructure such as new communication and power lines will continue to be vulnerable to severe winter storms, especially to ice accumulations, as long as they are located above ground. Rural areas of the County have experienced extended periods without power due to severe winter storms. Steps to bury all new lines would eliminate the vulnerability, but this action would be cost prohibitive in most areas. In terms of new roads and bridges, there is very little that can be done to reduce or eliminate their vulnerability to severe winter storms.

What are the potential dollar losses to vulnerable structures from severe winter storms?

Unlike other natural hazards, such as tornadoes, there are no standard loss estimation models or methodologies for severe winter storms. Since none of the 75 recorded events listing property damage numbers for severe winter storms, it is difficult to accurately estimate future potential dollar losses. However, according to County officials the total equalized assessed values of all residential, commercial, and industrial buildings in the planning area is $4,444,350,435. Since all of the structures in the planning area are vulnerable to damage, this total represents the countywide property exposure to severe winter storms.

3.4 EXTREME COLD

HAZARD IDENTIFICATION

What is the definition of extreme cold?

Extreme cold is generally characterized by temperatures well below what is considered normal for an area during the winter months and is often accompanied or is left in the wake of a severe winter storm. Extreme cold criteria vary from region to region. As a result, reliable fixed absolute criteria are not generally specified (i.e., a winter day with a maximum temperature of 0°F).

Whenever the temperature drops below normal and the wind speeds increase, heat can leave the body more rapidly. This can lead to dangerous situations for susceptible individuals, such as those without shelter or who are stranded, or those who live in a home that is poorly insulated or without heat.

Extreme cold is a leading cause of weather-related fatalities in Illinois. According to a 2020 study published by the University of Illinois Chicago, 1,935 individuals died from cold-related illnesses between 2011 and 2018. This is 94% of all temperature-related fatalities recorded in the State during that time period.

Extreme cold can also cause infrastructure damage, especially to residential water pipes and water distribution lines and mains. According to State Farm, in 2020 Illinois was once again the national leader in losses related to frozen pipes.

What is wind chill?

Wind chill, or wind chill factor, is a measure of the rate of heat loss from exposed skin resulting from the combined effects of wind and temperature. As the wind increases, heat is carried away from the body at a faster rate, driving down both the skin temperature and eventually the internal body temperature.

The unit of measurement used to describe the wind chill factor is known as the wind chill temperature. The wind chill temperature is calculated using a formula. **Figure EC-1** identifies the formula and calculates the wind chill temperatures for certain air temperatures and wind speeds.

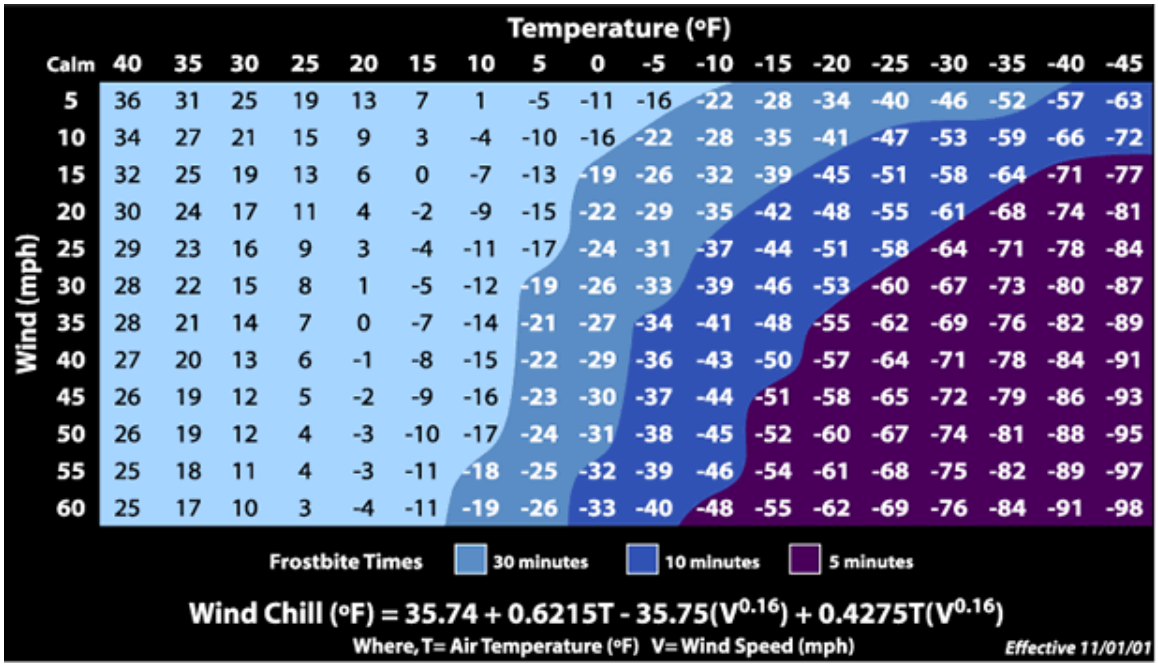
As an example, if the air temperature is 5°F and the wind speed is 20 miles per hour, then the wind chill temperature would be -15°F. The wind chill temperature is only defined for air temperatures at or below 50°F and wind speeds above three miles per hour. In addition, the wind chill temperature does not take into consideration the effects of bright sunlight which may increase the wind chill temperature by 10°F to 18°F.

Use of the current Wind Chill Temperature (WCT) index was implemented by the NWS on November 1, 2001. The new WCT index was designed to more accurately calculate how cold air feels on human skin. The new index uses advances in science, technology and computer modeling to provide an accurate, understandable and useful formula for calculating the dangers from winter

winds and freezing temperatures. The former index was based on research done in 1945 by Antarctic researchers Siple and Passel.

Exposure to extreme wind chills can be life threatening. As wind chills edge toward -19°F and below, there is an increased likelihood that exposure will lead to individuals developing cold-related illnesses.

Figure EC-1
Wind Chill Chart



Source: NOAA, National Weather Service.

What cold-related illnesses are associated with extreme cold?

Frostbite and hypothermia are both cold-related illnesses that can result when individuals are exposed to dangerously low temperatures and wind chills. The following provides a brief description of the symptoms associated with each.

- **Frostbite.** During exposure to extremely cold weather the body reduces circulation to the extremities (i.e., feet, hands, nose, cheeks, ears, etc.) in order to maintain its core temperature. If the extremities are exposed, then this reduction in circulation coupled with the cold temperatures can cause the tissue to freeze.

  Frostbite is characterized by a loss of feeling and a white or pale appearance. At a wind chill of -19°F, exposed skin can freeze in as little as 30 minutes. Seek medical attention immediately if frostbite is suspected. It can permanently damage tissue and in severe cases can lead to amputation.

- **Hypothermia.** Hypothermia occurs when the body's temperature begins to fall because it is losing heat faster than it can produce it. If an individual's body temperature falls below 95°F, then hypothermia has set in, and immediate medical attention should be sought.

  Hypothermia is characterized by uncontrollable shivering, memory loss, disorientation, incoherence, slurred speech, drowsiness and exhaustion. Left untreated, hypothermia will lead to death. Hypothermia occurs most commonly at very cold temperatures but can occur at cool temperatures (above 40°F) if an individual isn't properly clothed or becomes chilled.

What is a wind chill alert?

A wind chill alert is an advisory or warning issued by the NWS when the wind chill is expected to have a significant impact on public safety. The expected severity of cold temperatures and wind speed determines the type of alert issued. There are three types of alerts that can be issued for an extreme cold event. The following provides a brief description of each type of alert based on the **wind chill criteria** established by the NWS Weather Forecast Office in Chicago, Illinois. The Lincoln Office is responsible for issuing alerts for Kankakee County.

- **Wind Chill Watch.** A wind chill watch is issued when widespread wind chill values of around -30°F or colder are possible.
- **Wind Chill Advisory.** A wind chill advisory is issued when wind chill values of around -20°F or colder are expected.
- **Wind Chill Warning.** A wind chill warning is issued when wind chill values are expected to be -30°F or below.

HAZARD PROFILE

The following identifies past occurrences of extreme cold events; details the severity or extent of each event (if known); identifies the locations potentially affected; and estimates the likelihood of future occurrences.

When have extreme cold events occurred previously? What is the extent of these events?
Table 8, located in **Appendix J**, summarize the previous occurrences as well as the extent or magnitude of regional extreme cold events extrapolated for Kendall County. NOAA's Storm Events Database, Iowa State University's National Weather Service Watch, Warning, and Advisories database, Midwestern Regional Climate Center's cli-MATE database, and NWS's COOP Data records were used to extrapolate 78 occurrences of extreme cold in Kendall County between 1995 and 2022. Two of the 78 events contributed to two separate state disaster proclamations in Kendall County.

Extreme Cold Fast Facts – Occurrences

Number of Regional Extreme Cold Events Reported (1995 - 2022): ***78***

Coldest Temperature Extrapolated for the County: ***-26°F (December 28, 1924 & January 20, 1985)***

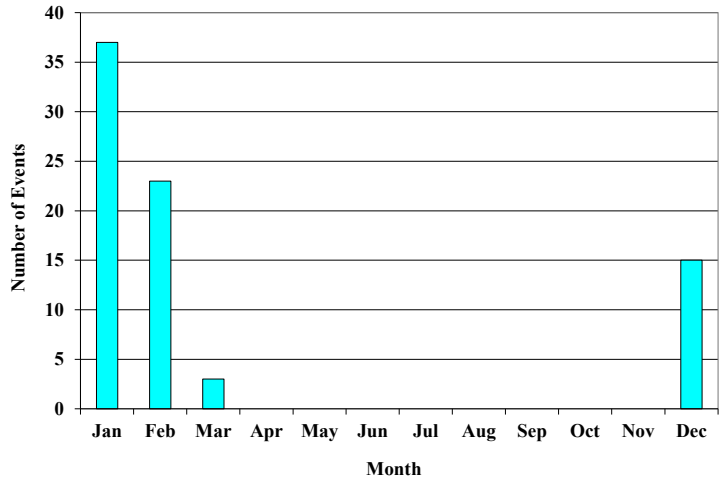
Most Likely Months for Extreme Cold Events to Occur: ***January***

Number of State Disaster Proclamations Related to Extreme Cold: ***2 (2014, 2019)***

According to the Midwestern Regional Climate Center, temperature records were either not kept or are not available from any of the NWS COOP Observation Stations or networks in Kendall County, with the exception of the Observation Station at Oswego and Yorkville which kept temperature records intermittently between 1894 and 1914. As a result, temperature records from the Aurora COOP Observation Station in Kane County and the Morris 1NW COOP Observation Station in Grundy County were used to extrapolate excessive heat events in Kendall County. Based on available records, the coldest recorded temperature at Morris 1NW was -26°F on December 28, 1924 and -26°F at Aurora on January 20, 1985.

Figure EC-2 charts the reported occurrences of extreme cold by month. Thirty-seven of the 78 events (47%) took place in January, making this the peak month for extreme cold events. There were three events that spanned two months; however, for illustration purposes only the month the event started in is graphed.

Figure EC-2
Extreme Cold by Month
1995 - 2022



What locations are affected by extreme cold?
Extreme cold affects the entire County. Extreme cold, like excessive heat and severe winter storms, generally extends across the entire County and affects multiple locations.

Do any of the participating jurisdictions have designated warming centers?
Yes. Eight of the 21 participating municipalities, townships, schools, fire protection districts, and park districts have designated warming centers. A "designated" warming center is identified as any facility that has been *formally* identified by the jurisdiction (through emergency planning, resolution, Memorandum of Agreement, etc.) as a location available for use by residents during severe winter storms and extreme cold events.

Figure EC-3 identifies the location of each warming center by jurisdiction. At this time Lisbon, Plattville, Kendall Township, Oswego Township, Lisbon CCSD #90, Newark CHSD #18, Oswego

CUSD #308, Parkview Christian Academy, Plano CUSD #88, St. Mary Catholic School, Bristol-Kendall FPD, Lisbon-Seward FPD, and Sandwich Community FPD do not have any warming centers designated. In addition, there are no State of Illinois-designated warming centers in Kendall County.

Figure EC-3
Designated Warming Centers by Participating Jurisdiction

Name/Address	Name/Address
Montgomery	*Plano*
Montgomery Village Hall, 200 N. River St.	Fox Valley Family Y.M.C.A., 3875 Eldamain Rd.
Montgomery Police Department, 10 Civic Center Ave.	Plano Police Department, 111 East Main St.
Oswego Public Library District, 1111 Reading Dr.	Plano Community Library, 15 W. North St.
Newark / Newark Fire Protection District	Plano Walmart Supercenter, 6800 West Route 34
Newark FPD Fire House, 101 East Main St.	*Yorkville*
Oswego / Oswego Fire Protection District	Beecher Community Center, 908 Game Farm Rd.
Oswego Police Department, 3355 Woolley Rd.	Senior Service Associates, 908 Game Farm Rd.
Oswego Public Library District, 32 W. Jefferson St.	Caring Hands Thrift Shop, 1002 S. Bridge St.
Oswego Public Library District, 1111 Reading Dr.	Kendall County Health Department, 811 W. John St.
Oswego Village Hall, 100 Parkers Mill Rd.	Kendall County Public Safety Center, 1102 Cornell Rd.
Oswegoland Park District	Yorkville Public Library, 902 Game Farm Rd.
Civic Center, 5 Ashlawn Ave., Montgomery	Yorkville City Hall, 651 Prairie Pointe Drive
Prairie Point, 313 E. Washington St., Oswego	Kendall County Sheriff's Office, 1102 Cornell Ln.
Boulder Point, 0 Boulder Hill Pass, Montgomery	
South Point, 810 Preston Ln., Oswego	

What is the probability of future extreme cold events occurring based on historical data?

The region, including Kendall County, has experienced 78 verified occurrences of extreme cold between 1995 and 2022. With 78 occurrences over the past 28 years, Kendall County should expect to experience at least two extreme cold events in any given year. It is important to keep in mind that there are almost certainly gaps in the early extreme cold data. More events have almost certainly occurred than are documented in this section, which means that the probability is almost certainly higher than reported.

There were 21 years over the last 28 years where multiple (two or more) extreme cold events occurred. This indicates that the probability that multiple extreme cold events may occur during any given year within the County is 75%.

What is the probability of future extreme cold events occurring based on modeled future conditions?

The warming trend observed in Illinois over the past century hasn't just meant increasingly hotter summers; it has meant milder winters. Over the past 120 years, average temperatures in Illinois have increased by 1°F to 2°F according to the Illinois State Climatologist, with the most prominent changes occurring in overnight temperatures and in increased winter and spring temperatures. As a result, extreme cold events are likely to continue to become less common and less intense than they were in the past. The number of days less than 32°F in Illinois are forecasted to decrease in the coming decades. Reductions in extreme cold events could prevent some of the damages associated with them, both in terms of human health costs and economic costs.

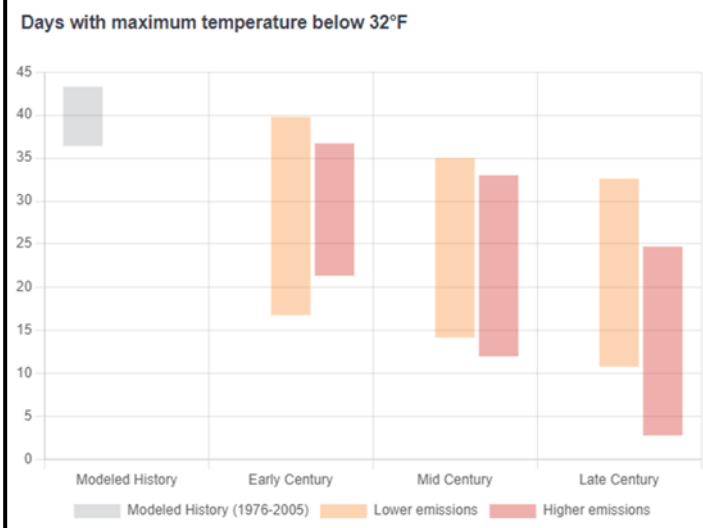
Figures EC-4, EC-5, and **EC-6** provide tabular and graphical projections for Kendall County, showing estimations for number of days where high temperatures will not exceed 32°F in the early, mid, and late 21st century with both low and high estimates for each time period. Most likely, the true value will fall between these two estimates. By midcentury, the average number of days per year not exceeding 32°F in Kendall County is forecasted to decrease from around 40 today to between 25 and 22 according to the Climate Mapping for Resilience and Adaptation's Assessment Tool.

Figure EC-4
Days with Maximum Temperature < 32°F Projection Table – Kendall County

Indicator	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions
	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max
Annual days with:							
Days with maximum temperature below 32 °F	40 days 36 - 43	29 days 17 - 40	28 days 21 - 37	25 days 14 - 35	22 days 12 - 33	21 days 11 - 33	13 days 3 - 25

N/A = Data Not Available for the selected area

Figure EC-5
Number of Days with Maximum Temperature < 32°F Graph – Kendall County

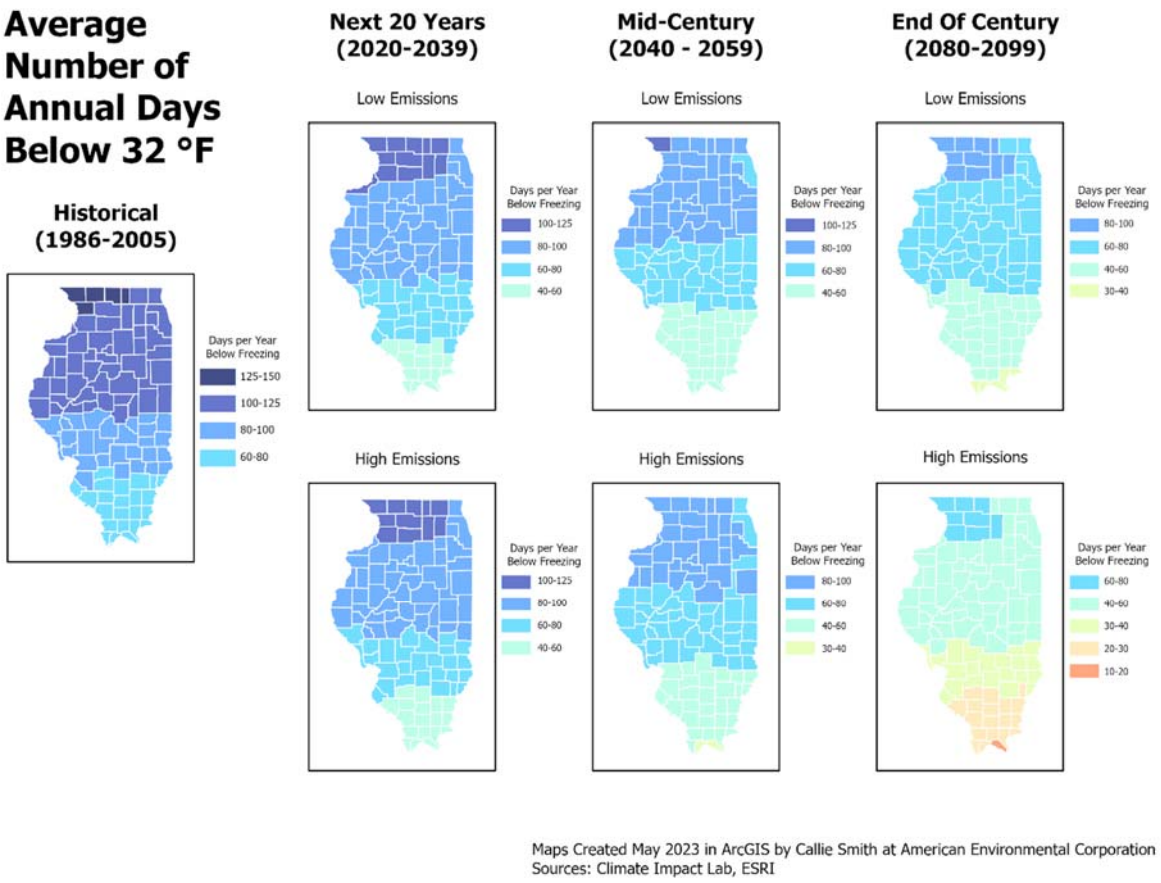


By contrast, projections from Great Lakes Integrated Sciences + Assessments indicate that there is likely to be a change of 2 to 5 days in the number of days per year where temperatures will fall below 20° F by midcentury in Kendall County.

HAZARD VULNERABILITY

The following describes the vulnerability to participating jurisdictions, identifies the impacts on public health and property (if known) and estimates the potential impacts on public health and safety as well as buildings, infrastructure, and critical facilities from extreme cold.

Figure EC-6
Average Number of Annual Days Below 32°F



Are the participating jurisdictions vulnerable to extreme cold?

Yes. All of Kendall County, including the participating jurisdictions, is vulnerable to the dangers presented by extreme cold. Since 2013, Kendall County has experienced 41 extreme cold events.

The *2023 Illinois Natural Hazard Mitigation Plan* prepared by IEMA-OHS classifies Kendall County's hazard rating for cold wave as "medium". IEMA-OHS's overall hazard rating system has five levels: very low, low, medium, high, and very high.

For extreme cold, FEMA's National Risk Index (NRI) rates the County as a whole as "Very High". One of the 24 census tracts is rated "Very High", 20 census tracts are rated "Relatively High", and three are rated "Relatively Moderate". **Table R-5** presents the overall NRI scores and ratings for each census tract as well as for the County as a whole.

Have any of the participating jurisdictions identified specific assets vulnerable to the impacts of extreme cold?

Yes. Based on responses to an Assets Vulnerability Survey distributed to the participating jurisdictions, the following jurisdictions considered specific assets within their jurisdiction vulnerable to extreme cold.

Kendall County:
Individuals in the County are vulnerable to excessive heat and its impacts, especially the elderly, unhoused, and sensitive populations.

Oswego:
While individuals are vulnerable to extreme cold and its impacts, the Village provides warming centers for residents' use.

What impacts resulted from the recorded extreme cold events?

Damage information was either unavailable or none was recorded, and no injuries or fatalities were reported as a result of any of the extreme cold events. This does not mean that injuries or fatalities didn't occur; it simply means that extreme cold was not identified as the primary cause. In comparison, the State of Illinois averages 18 cold-related fatalities annually according to the Illinois State Water Survey's Climate Atlas of Illinois.

Extreme Cold Fast Facts – Impacts/Risk

Extreme Cold Impacts:
- Total Property Damage: ***n/a***
- Injuries: ***n/a***
- Fatalities: ***n/a***

Extreme Cold Risk/Vulnerability:
- Public Health & Safety – General Population: ***Low to Medium***
- Public Health & Safety – Socially Vulnerable Populations: ***Medium***
- Buildings/Infrastructure/Critical Facilities: ***Low***

What other impacts can result from extreme cold events?

Other impacts of extreme cold include early school dismissals and school closing, power outages and frozen and ruptured water pipes and water mains. Individuals who are outdoors during and immediately following extreme cold events can experience health and safety problems. Frostbite to hands, feet, ears and nose and hypothermia are common injuries.

What is the level of risk/vulnerability to public health and safety from severe winter storms and extreme cold?

For Kendall County the level of risk or vulnerability posed by extreme cold to public health and safety of the *general population* is considered to be ***low to medium.*** This assessment is based on the fact that while extreme cold events occur regularly, the number of injuries and fatalities reported is low and all but one of the participating municipalities have designated warming centers.

The level of risk or vulnerability posed by extreme cold to the public health and safety of *socially vulnerable populations* is considered to be ***medium***. Socially vulnerable populations such as individuals with dementia and access and functional needs populations may be more susceptible to cold-related exposures if they become disoriented outdoors during an event and therefore their risk is elevated. However, demographic information is not available for these segments of the population.

Are existing buildings, infrastructure, and critical facilities vulnerable to extreme cold?
Yes. All existing buildings, infrastructure and critical facilities located in Kendall County and the participating jurisdictions are vulnerable to damage from extreme cold. Individual water pipes and distribution lines and mains are especially susceptible to freezing during extreme cold events. This freezing can lead to cracks or ruptures in the pipes in buildings as well as in buried service lines and mains. As a result, flooding can occur as well as disruptions in service. Since most buried service lines and water mains are located under local streets and roads, fixing a break requires portions of the street or road to be blocked off, excavated, and eventually repaired. These activities can be costly and must be carried out under less than ideal working conditions.

Based on the frequency with which extreme cold events have occurred in Kendall County; the damages described; the amount of property damage previously reported; and the potential for disruptions to power distribution and communication; the risk or vulnerability to buildings, infrastructure and critical facilities from extreme cold events is ***low***.

Are future buildings, infrastructure, and critical facilities vulnerable to extreme cold?
Yes and No. While the County, Montgomery, Newark, Oswego, Plano, and Yorkville have building codes in place that will likely help lessen the vulnerability of new buildings and critical facilities to damage from extreme cold, Lisbon and Plattville do not. However, infrastructure such as residential water pipes will continue to be vulnerable as long as they are located in areas such as outside walls, attics and crawl spaces that do not contain proper insulation.

What are the potential dollar losses to vulnerable structures from extreme cold?
Unlike other natural hazards, such as tornadoes, there are no standard loss estimation models or methodologies for extreme cold events. With none of the recorded events listing property damage figures, there is no way to accurately estimate future potential dollar losses from extreme cold. However, according to the County officials the total equalized assessed values of all residential, commercial, and industrial buildings in the planning area is $4,444,350,435. Since all of the structures in the planning area are vulnerable to damage, this total represents the countywide property exposure to extreme cold.

3.5 EXCESSIVE HEAT

HAZARD IDENTIFICATION

What is the definition of excessive heat?

Excessive heat is generally characterized by a prolonged period of summertime weather that is substantially hotter and more humid than the average for a location at that time of year. Excessive heat criteria typically shift by location and time of year. As a result, reliable fixed absolute criteria are not generally specified (i.e., a summer day with a maximum temperature of at least 90°F).

Excessive heat events are usually a result of both high temperatures and high relative humidity. (Relative humidity refers to the amount of moisture in the air.) The higher the relative humidity or the more moisture in the air, the less likely that evaporation will take place. This becomes significant when high relative humidity is coupled with soaring temperatures.

On hot days the human body relies on the evaporation of perspiration or sweat to cool and regulate the body's internal temperature. Sweating does nothing to cool the body unless the water is removed by evaporation. When the relative humidity is high, then the evaporation process is hindered, robbing the body of its ability to cool itself.

Excessive heat is a leading cause of weather-related fatalities in the U.S. According to the Centers for Disease Control and Prevention, a total of 7,415 people died from heat-related illnesses between 1999 and 2010, an average of 618 fatalities a year.

What is the Heat Index?

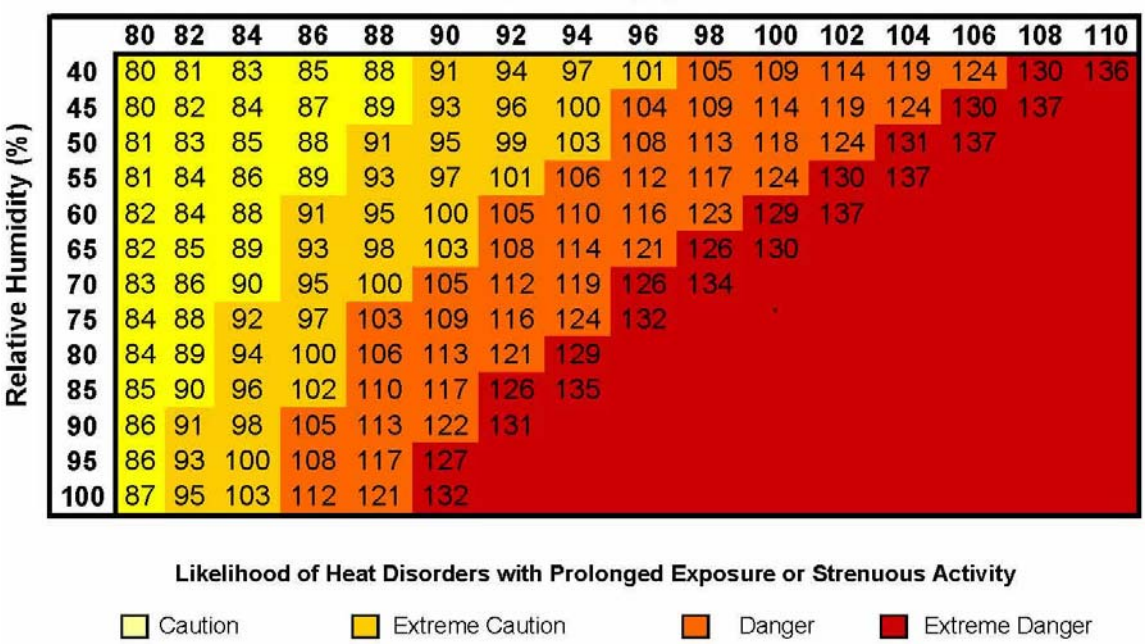
In an effort to raise the public's awareness of the hazards of excessive heat, the National Weather Service (NWS) devised the "Heat Index". The Heat Index, sometimes referred to as the "apparent temperature", is a measure of how hot it feels when relative humidity is added to the actual air temperature. **Figure EH-1** shows the Heat Index as it corresponds to various air temperatures and relative humidity.

As an example, if the air temperature is 96°F and the relative humidity is 65%, then the Heat Index would be 121°F. It should be noted that the Heat Index values were devised for shady, light wind conditions. Exposure to full sunshine can increase Heat Index values by up to 15°F. Also, strong winds, particularly with very hot, very dry air, can be extremely hazardous. When the Heat Index reaches 105°F or greater, there is an increased likelihood that continued exposure and/or physical activity will lead to individuals developing severe heat disorders.

What are heat disorders?

Heat disorders are a group of illnesses caused by prolonged exposure to hot temperatures and are characterized by the body's inability to shed excess heat. These disorders develop when the heat gain exceeds the level the body can remove or if the body cannot compensate for fluids and salt lost through perspiration. In either case the body loses its ability to regulate its internal temperature. All heat disorders share one common feature: the individual has been overexposed to heat, or over exercised for their age and physical condition on a hot day. The following describes the symptoms associated with the different heat disorders.

Figure EH-1
Heat Index



Source: NOAA, National Weather Service.

- **Heat Rash.** Heat rash is a skin irritation caused by excessive sweating during hot, humid weather and is characterized by red clusters of small blisters on the skin. It usually occurs on the neck, chest, groin or in elbow creases.
- **Sunburn.** Sunburn is characterized by redness and pain of skin exposed too long to the sun without proper protection. In severe cases it can cause swelling, blisters, fever and headaches and can significantly retard the skin's ability to shed excess heat.
- **Heat Cramps.** Heat cramps are characterized by heavy sweating and muscle pains or spasms, usually in the abdomen, arms or legs that during intense exercise. The loss of fluid through perspiration leaves the body dehydrated resulting in muscle cramps. This is usually the first sign that the body is experiencing trouble dealing with heat.
- **Heat Exhaustion.** Heat exhaustion is characterized by heavy sweating, muscle cramps, tiredness, weakness, dizziness, headache, nausea or vomiting and faintness. Breathing may become rapid and shallow and the pulse thready (weak). The skin may appear cool, moist and pale. If not treated, heat exhaustion may progress to heat stroke.
- **Heat Stroke (Sunstroke).** Heat stroke is a life-threatening condition characterized by a high body temperature (106°F or higher). The skin appears to be red, hot and dry with very little perspiration present. Other symptoms include a rapid and strong pulse, throbbing headache, dizziness, nausea and confusion. There is a possibility that the individual will become unconsciousness. If the body is not cooled quickly, then brain damage and death may result.

Studies indicate that, all things being equal, the severity of heat disorders tend to increase with age. Heat cramps in a 17-year-old may be heat exhaustion in someone 40 and heat stroke in a person over 60. Elderly persons, small children, chronic invalids, those on certain medications and persons with weight or alcohol problems are particularly susceptible to heat reactions.

Figure EH-2 below indicates the heat index at which individuals, particularly those in higher risk groups, might experience heat-related disorders. Generally, when the heat index is expected to exceed 105°F, the NWS will initiate excessive heat alert procedures.

Figure EH-2
Relationship between Heat Index and Heat Disorders

Heat Index (°F)	Heat Disorders
80°F – 90°F	Fatigue is possible with prolonged exposure and/or physical activity
90°F – 105°F	Heat cramps, heat exhaustion and heat stroke possible with prolonged exposure and/or physical activity
105°F – 130°F	Heat cramps, heat exhaustion and heat stroke likely; heat stroke possible with prolonged exposure and/or physical activity
130°F or Higher	Heat stroke highly likely with continued exposure

Source: NOAA, Heat Wave: A Major Summer Killer.

What is an excessive heat alert?

An excessive heat alert is an advisory or warning issued by the NWS when the Heat Index is expected to have a significant impact on public safety. The expected severity of the heat determines the type of alert issued. There are four types of alerts that can be issued for an extreme heat event. The following provides a brief description of each type of alert based on the ***excessive heat advisory/warning criteria*** established by NWS Weather Forecast Office in Chicago, Illinois. The Chicago Office is responsible for issuing alerts for Kendall County.

- **Watch.** An excessive heat watch is issued when conditions are favorable for the maximum heat index to potentially reach 110°F or greater and the minimum heat index is to remain at or above 75°F for at least 48 hours.
- **Advisory.** An excessive heat advisory is issued when the maximum heat index is exceeding or expected to exceed 105°F for an event that is occurring or imminent.
- **Warning.** An excessive heat warning is issued where the maximum heat index is expected to reach 110°F or greater and the minimum heat index is expected to remain at or above 75°F for at least 48 hours for an event that is occurring or imminent.

HAZARD PROFILE

The following identifies past occurrences of excessive heat, details the severity or extent of each event (if known); identifies the locations potentially affected and estimates the likelihood of future occurrences.

When have excessive heat events occurred previously? What is the extent of these events?

Table 9, located in **Appendix J**, summarizes the previous occurrences as well as the extent or magnitude of regional excessive heat events extrapolated for Kendall County. NOAA's Storm Events Database, Iowa State University's National Weather Service Watch, Warning, and Advisories database, Midwestern Regional Climate Center's cli-MATE database, and NWS's COOP Data records were used to extrapolate 77 occurrences of excessive heat in Kendall County between 1995 and 2022.

Excessive Heat Fast Facts – Occurrences

Number of Regional Excessive Heat Events Reported (1995 – 2022): ***77***

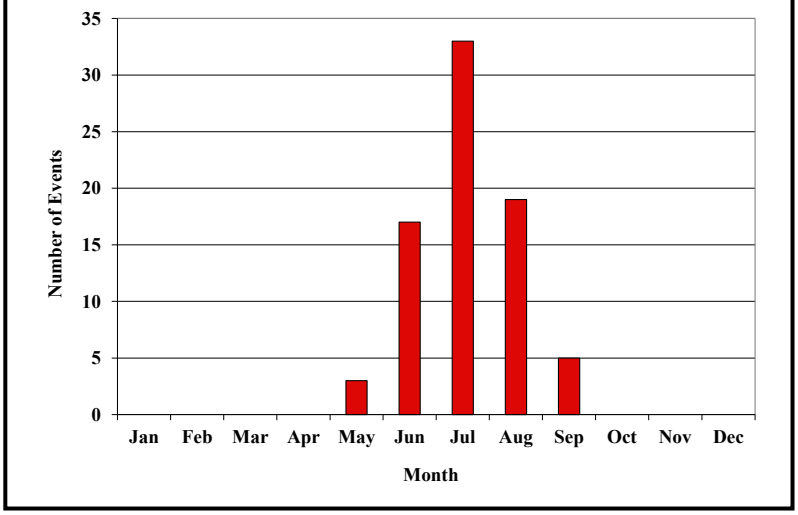
Hottest Temperature Extrapolated for the County: ***111°F (July 14, 1936)***

Most Likely Month for Excessive Heat Events to Occur: ***July***

According to the Midwestern Regional Climate Center, temperature records were either not kept or are not available from any of the NWS COOP Observation Stations or networks in Kendall County, with the exception of the Observation Station at Oswego and Yorkville which kept temperature records intermittently between 1894 and 1914. As a result, temperature records from the Aurora COOP Observation Station in Kane County and the Morris 1NW COOP Observation Station in Grundy County were used to extrapolate excessive heat events in Kendall County. Based on available records, the hottest recorded temperature at both Observation Stations was 111°F and occurred on July 14, 1936.

Figure EH-3 charts the reported occurrences of excessive heat by month for the region. Thirty-three of the 77 events (43%) began in July making this the peak month for excessive heat events in Kendall County. There were four events that spanned two months; however, for illustration purposes only the month the event started is graphed.

Figure EH-3
Excessive Heat by Month
1995 – 2022



What locations are affected by excessive heat?

Excessive heat affects the entire County. Excessive heat events, like drought and severe winter storms, generally extend across an entire region and affecting multiple counties.

Do any of the participating jurisdictions have designated cooling centers?

Yes. Seven of the 21 participating municipalities, townships, schools, fire protection districts, and park districts have designated cooling centers. A "designated" cooling center is identified as any facility that has been *formally* identified by the jurisdiction (through emergency planning, resolution, Memorandum of Agreement, etc.) as a location available for use by residents of the jurisdiction during excessive heat events.

Figure EH-4 identifies the location of each cooling center by jurisdiction. At this time Lisbon, Plattville, Kendall Township, Oswego Township, Lisbon CCSD #90, Newark CHSD #18, Oswego CUSD #308, Parkview Christian Academy, Plano CUSD #88, St. Mary Catholic School, Bristol-Kendall FPD, Lisbon-Seward FPD, Sandwich Community FPD, and Oswegoland Park District do not have any cooling centers designated. In addition, there are no State of Illinois-designated cooling centers in Kendall County.

Figure EH-4
Designated Cooling Centers by Participating Jurisdiction

Name/Address	Name/Address
Montgomery	*Plano*
Montgomery Village Hall, 200 N. River Street	Fox Valley Family Y.M.C.A., 3875 Eldamain Road
Montgomery Police Department, 10 Civic Center Ave.	Plano Police Department, 111 East Main Street
Oswego Public Library District, 1111 Reading Drive	Plano Community Library, 15 W. North Street
Newark / Newark Fire Protection District	Plano Walmart Supercenter, 6800 West Route 34
Newark FPD Fire House, 101 East Main Street	*Yorkville*
Oswego / Oswego Fire Protection District	Beecher Community Center, 908 Game Farm Road
Oswego Police Department, 3355 Woolley Road	Senior Service Associates, 908 Game Farm Road
Oswego Public Library District, 32 W. Jefferson St.	Caring Hands Thrift Shop, 1002 S. Bridge Street
Oswego Public Library District, 1111 Reading Dr.	Kendall County Health Department, 811 W. John St.
Oswego Village Hall, 100 Parkers Mill Road	Kendall County Public Safety Center, 1102 Cornell Rd.
	Yorkville Public Library, 902 Game Farm Rd.
	Yorkville City Hall, 651 Prairie Pointe Drive
	Kendall County Sheriff's Office, 1102 Cornell Ln.

What is the probability of future excessive heat events occurring based on historical data?

The region, including Kendall County, 77 verified occurrences of excessive heat between 1995 and 2022. With 77 occurrences over the past 28 years, Kendall County should expect to experience at least two excessive heat events a year. It is important to keep in mind that there are almost certainly gaps in the excessive heat data. More events have almost certainly occurred than are documented in this section, which means that the probability is almost certainly higher than reported.

There were 22 years over the last 28 years where multiple (three or more) excessive heat events occurred. This indicates that the probability that multiple excessive heat events may occur during any given year within the County is 79%.

What is the probability of future excessive heat events occurring based on modeled future conditions?

Temperature in Illinois has trended upwards over the last century, with average temperatures in Illinois having increased by 1°F to 2°F in the past 120 years according to the Illinois State Climatologist. This trend is likely to continue, with conservative long-term estimates placing average temperatures by the end of the 21st century between 4° and 9° F warmer than they are today.

With increasing temperatures comes the increasing risk of extreme heat events, which are projected to continue to become more frequent and more severe than they have been historically. This is due to increases in temperatures observed during summer months, where just a few degrees difference can turn a hot day into a dangerously hot day. The number of days greater than 95° F in Illinois are forecasted to increase in the coming decades, with conservative projections predicting that even northern Illinois will see a minimum of 10 extreme heat days per year by the end of the 21st century, compared with one or two extreme heat days per year today. Even just a few additional extreme heat days a year could prove very damaging, both in terms of human health and economic costs.

Figures EH-5, EH-6, and **EH-7** provide tabular and graphical projections for Kendall County, showing estimations for annual high temperature extremes in the early, mid, and late 21st century with both low and high estimates for each time period. Most likely, the true value will fall between these two estimates. By midcentury, the average number of days per year exceeding 90° F in Kendall County is forecasted to increase from around 14 today to between 47 and 57, and the single hottest temperature recorded in a year is predicted to increase by 6°F to 7° F according to the Climate Mapping for Resilience and Adaptation's Assessment Tool.

The Climate Explorer indicates that in Kendall County, extreme temperatures on the hottest days of the year are projected to increase by 7°F. This is based on the findings of the 2018 National Climate Assessment and compares projections for the middle third of the century (2035-2064) with average conditions observed from 1961-1990.

Taken together, an increase in the number of days per year with temperatures greater than 90° F and an increase in extreme temperatures on the hottest days for Kendall County indicates increased risk for extreme heat events.

HAZARD VULNERABILITY

The following describes the vulnerability to participating jurisdictions, identifies the impacts on public health and property (if known) and estimates the potential impacts on public health and safety as well as buildings, infrastructure, and critical facilities from excessive heat.

Are the participating jurisdictions vulnerable to excessive heat?

Yes. All of Kendall County, including the participating jurisdictions, is vulnerable to the dangers presented by excessive heat. Since 2013, the region, including Kendall County, has experienced 30 excessive heat events.

Figure EH-5
Annual High Temperature Extreme Projections Table – Kendall County

Indicator	Modeled History (1976 - 2005)	Early Century (2015 - 2044)		Mid Century (2035 - 2064)		Late Century (2070 - 2099)	
		Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions	Lower Emissions	Higher Emissions
	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max	Min - Max
Temperature thresholds:							
Annual days with maximum temperature > 90°F	**14 days** 14 - 21	**36 days** 21 - 63	**39 days** 25 - 59	**47 days** 23 - 84	**57 days** 34 - 85	**58 days** 28 - 96	**90 days** 54 - 120
Annual days with maximum temperature > 95°F	**3 days** 2 - 4	**11 days** 4 - 30	**14 days** 4 - 30	**18 days** 5 - 50	**26 days** 11 - 57	**27 days** 8 - 70	**56 days** 20 - 97
Annual days with maximum temperature > 100°F	**0 days** 0 - 0	**2 days** 0 - 10	**3 days** 0 - 9	**4 days** 0 - 22	**8 days** 1 - 28	**8 days** 0 - 22	**28 days** 2 - 75
Annual days with maximum temperature > 105°F	**0 days** 0 - 0	**0 days** 0 - 2	**0 days** 0 - 2	**1 days** 0 - 7	**1 days** 0 - 7	**1 days** 0 - 13	**10 days** 0 - 49
Annual temperature:							
Annual single highest maximum temperature °F	**96 °F** 96 - 97	**100 °F** 97 - 106	**100 °F** 96 - 103	**102 °F** 97 - 111	**103 °F** 99 - 108	**103 °F** 98 - 114	**108 °F** 100 - 115
Annual highest maximum temperature averaged over a 5-day period °F	**92 °F** 91 - 92	**95 °F** 93 - 100	**96 °F** 93 - 99	**97 °F** 93 - 104	**99 °F** 95 - 104	**99 °F** 94 - 106	**104 °F** 97 - 110
Cooling degree days (CDD)	**889 degree-days** 845 - 967	**1,243 degree-days** 1,022 - 1,610	**1,293 degree-days** 1,053 - 1,508	**1,433 degree-days** 1,072 - 1,944	**1,611 degree-days** 1,277 - 2,042	**1,634 degree-days** 1,173 - 2,352	**2,303 degree-days** 1,630 - 3,131

N/A = Data Not Available for the selected area

Figure EH-6
Number of Days with Maximum Temperature > 90°F Graph – Kendall County

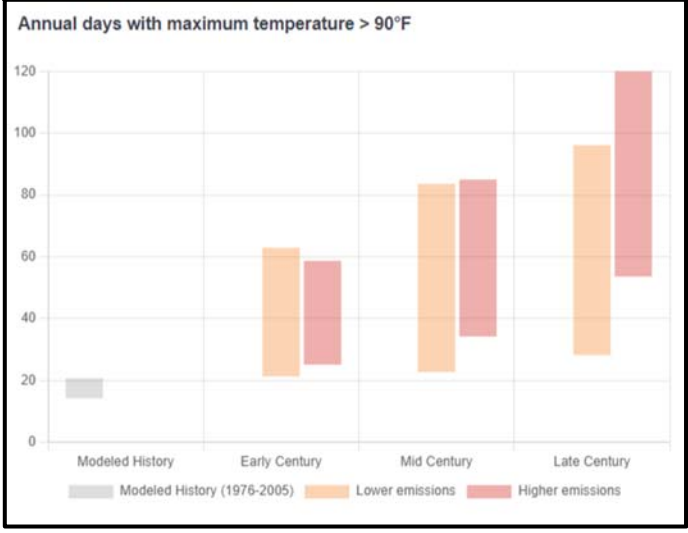
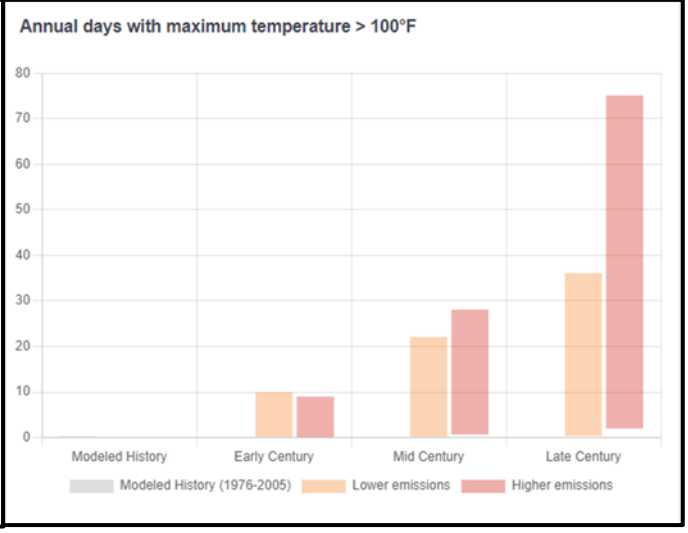


Figure EH-7
Number of Days with Maximum Temperature > 100°F Graph – Kendall County



The *2023 Illinois Natural Hazard Mitigation Plan* prepared by IEMA-OHS classifies Kendall County's hazard rating for heat wave as "medium." IEMA-OHS's overall hazard rating system has five levels: very low, low, medium, high, and very high.

For excessive heat, the FEMA's National Risk Index (NRI) rates the County as a whole as "Relatively Moderate". Eleven of the 24 census tracts are rated "Relatively High" and the

remaining 13 census tracts are rated "Relatively Moderate". **Table R-5** presents the overall NRI scores and ratings for each census tract as well as for the County as a whole.

Have any of the participating jurisdictions identified specific assets vulnerable to the impacts of excessive heat?

Yes. Based on responses to an Assets Vulnerability Survey distributed to the participating jurisdictions, the following jurisdictions considered specific assets within their jurisdiction vulnerable to excessive heat.

Kendall County:

- Individuals in the County are vulnerable to excessive heat and its impacts, especially the elderly, unhoused, and sensitive populations.

Oswego:

- While individuals are vulnerable to excessive heat and its impacts, the Village provides cooling centers for residents' use.

Plano:

- Individuals in the City are vulnerable to excessive heat and its impacts, especially the elderly.

What impacts resulted from the recorded excessive heat events?

Damage information was either unavailable or none was recorded for any of the excessive heat events. No injuries or fatalities were reported as a result of any of the excessive heat events. This does not mean that injuries or fatalities didn't occur; it simply means that excessive heat was not identified as the primary cause. This is especially true for fatalities. Usually, heat is not listed as the primary cause of death, but rather an underlying cause. The heat indices were sufficiently high for all the excessive heat events to produce heat cramps or heat exhaustion with the possibility of heat stroke in cases of prolonged exposure or physical activity.

In comparison, Illinois averages 74 heat-related fatalities annually according to the Illinois State Water Survey's Climate Atlas of Illinois.

Excessive Heat Fast Facts – Impacts/Risk

Excessive Heat Impacts:

- Total Property Damage: ***n/a***
- Total Crop Damage: ***n/a***
- Fatalities : ***n/a***
- Injuries: ***n/a***

Excessive Heat Risk/Vulnerability:

- Public Health & Safety – General Population: ***Low***
- Public Health & Safety – Socially Vulnerable Populations: ***Medium***
- Buildings/Infrastructure/Critical Facilities: ***Low***

What other impacts can result from excessive heat events?

Other impacts of excessive heat include road buckling, power outages, stress on livestock, early school dismissals and school closings. In addition, excessive heat events can also lead to an increase in water usage and may result in municipalities imposing water use restrictions. In Kendall County, excessive heat should not impact municipal water supplies since none obtain their water from surface water bodies. Excessive heat may impact residents in unincorporated Kendall County however who rely on shallow private wells for their drinking water.

What is the level of vulnerability to public health and safety from excessive heat?

Even if injuries and fatalities due to excessive heat were under reported in Kendall County, the level of risk or vulnerability posed by excessive heat to the public health and safety of the *general population* is considered to be ***low***. This assessment is based on the frequency with which excessive heat occurs within the County; the impacts associated with these events; the types of living conditions (such as older, poorly-ventilated high rise buildings and low-income neighborhoods) that tend to contribute to heat-related injuries and fatalities; as well as the fact that injuries and fatalities due to excessive heat may be under reported. For the purposes of this analysis, *general population* includes healthy, able-bodied individuals who should have the ability to physiologically acclimatize to hot conditions over a period of days to weeks. Should that prove difficult, cooling centers are available in each participating municipality, with the exception of Morton, to provide relief during peak heat hours.

The level of risk or vulnerability posed by excessive heat to the public health and safety of *socially vulnerable populations* is considered to be ***medium***. Socially vulnerable populations such as older adults (those 75 years of age and older) and small children (those younger than 5 years of age) are more susceptible to heat-related reactions and therefore their risk is elevated. **Figure EH-8** identifies the percent of socially vulnerable populations by participating municipality, township, and the County based on the U.S. Census Bureau's 2017-2021 American Community Survey data. In addition, individuals with chronic conditions, those on certain medications, and persons with weight or alcohol problems are also considered sensitive populations. However, demographic information is not available for these segments of the population.

Figure EH-8
Sensitive Populations by Participating Jurisdictions

Participating Jurisdiction	% of Population 75 year of age & Older	% of Population Younger than 5 years of age	Total % of Sensitive Population
Lisbon[1,2,8]	8.4%	10.3%	18.7%
Montgomery[3,7,10,12]	2.6%	6.3%	8.9%
Newark[1,2,9]	5.2%	4.8%	10.0%
Oswego[3,10,12]	4.3%	6.8%	11.1%
Plano[5,6]	4.0%	11.1%	15.1%
Plattville[8]	6.3%	8.3%	14.6%
Yorkville[4,7,10,12]	2.6%	5.4%	8.0%
Kendall Township[2,3,4,7,10]	5.1%	9.3%	14.4%
Oswego Township[3,7,10,12]	4.0%	5.6%	9.6%
Unincorp. Kendall County	3.7%	4.7%	8.4%
Kendall County	3.6%	6.3%	9.9%
State of Illinois	6.4%	5.8%	12.2%

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Source: U.S. Census Bureau.

Are existing buildings, infrastructure, and critical facilities vulnerable to excessive heat?

No. In general, existing buildings, infrastructure and critical facilities located in the County and the participating jurisdictions are not vulnerable to excessive heat. The primary concern is for the health and safety of those living in the County (including all of the municipalities).

While buildings do not typically sustain damage from excessive heat, in rare cases infrastructure and critical facilities may be directly or indirectly damaged. While uncommon, excessive heat has been known to contribute to damage caused to roadways within Kendall County. The combination of excessive heat and vehicle loads has caused pavement cracking and buckling.

Excessive heat has also been known to indirectly contribute to disruptions in the electrical grid. When the temperatures rise, the demand for energy also rises in order to operate air conditioners, fans, and other devices. This increase in demand places stress on the electrical grid components, increasing the likelihood of power outages. While not common in Kendall County, there is the potential for this to occur. The potential may increase over the next two decades if new power sources are not built to replace the state's aging nuclear power facilities that are expected to be decommissioned.

In general, the risk or vulnerability to buildings, infrastructure and critical facilities from excessive heat is considered ***low***, even taking into consideration the potential for damage to roadways and disruptions to the electrical grid.

Are future buildings, infrastructure, and critical facilities vulnerable to excessive heat?

No. Future buildings, infrastructure and critical facilities within the County and participating jurisdictions are no more vulnerable to excessive heat events than the existing building, infrastructure, and critical facilities. As discussed above, buildings do not typically sustain damage from excessive heat. Infrastructure and critical facilities may, in rare cases, be damaged by excessive heat, but very little can be done to prevent this.

What are the potential dollar losses to vulnerable structures from excessive heat?

Unlike other natural hazards there are no standard loss estimation models or methodologies for excessive heat. With none of the recorded events listing property damage figures, there is no way to accurately estimate future potential dollar losses from excessive heat. Since excessive heat typically does not cause structure damage, it is unlikely that future dollar losses will be extreme. The primary concern associated with excessive heat is the health and safety of those living in the County and municipalities, especially socially vulnerable populations such as the elderly, infants, young children, and those with medical conditions.

3.6 TORNADOES

HAZARD IDENTIFICATION

What is the definition of a tornado?

A tornado is a narrow violently rotating column of air, often visible as a funnel-shaped cloud that extends from the base of a thunderstorm cloud formation to the ground. The most violent tornadoes can have wind speeds of more than 300 miles per hour and can create damage paths in excess of one mile wide and 50 miles long.

Not all tornadoes have a visible funnel cloud. Some may appear nearly transparent until dust and debris are picked up or a cloud forms within the funnel. Generally, tornadoes move from southwest to northeast, but they have been known to travel in any direction, even backtracking. A typical tornado travels at around 10 to 20 mile per hour, but this may vary from almost stationary to 60 miles per hour. Tornadoes can occur at any time of the year and happen at any time of the day or night, although most occur between 4 p.m. and 9 p.m.

About 1,200 tornadoes hit the U.S. yearly, with an average 52 tornadoes occurring annually in Illinois. The destruction caused by a tornado may range from light to catastrophic depending on the intensity, size and duration of the storm. Tornadoes cause crop and property damage, power outages, environmental degradation, injuries and fatalities. Tornadoes are known to blow roofs off buildings, flip vehicles and demolish homes. Typically, tornadoes cause the greatest damage to structures of light construction, such as residential homes. On average, tornadoes cause 60 to 65 facilities and 1,500 injuries in the U.S. annually.

How are tornadoes rated?

Originally tornadoes were rated using the Fujita Scale (F-Scale), which related the degree of damage caused by a tornado to the intensity of the tornado's wind speed. The Scale identified six categories of damage, F0 through F5. **Figure T-1** gives a brief description of each category.

Use of the original Fujita Scale was discontinued on February 1, 2007 in favor of the Enhanced Fujita Scale. The original scale had several flaws including basing a tornado's intensity and damages on wind speeds that were never scientifically tested and proven. It also did not take into consideration that a multitude of factors (i.e., structure construction, wind direction and duration, flying debris, etc.) affect the damage caused by a tornado. In addition, the process of rating the damage itself was based on the judgment of the damage assessor. In many cases, meteorologists and engineers highly experienced in damage survey techniques often came up with different F-scale ratings for the same damage.

The Enhanced Fujita Scale (EF-Scale) was created to remedy the flaws in the original scale. It continues to use the F0 through F5 categories, but it incorporates 28 different damage indicators (mainly various building types, towers/poles and trees) as calibrated by engineers and meteorologists. For each damage indicator there are eight degrees of damage ranging from barely visible damage to complete destruction of the damage indicator. The wind speeds assigned to each category are estimates, not measurements, based on the damage assessment. **Figure T-1** identifies the Enhanced Fujita Scale.

Figure T-1 Fujita & Enhanced Fujita Tornado Measurement Scales				
F-Scale		**EF-Scale**		**Description**
Category	**Wind Speed (mph)**	**Category**	**Wind Speed (mph)**	
F0	40 – 72	EF0	65 – 85	Light damage – some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; damage to sign boards
F1	73 – 112	EF1	86 – 110	Moderate damage – peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off roads
F2	113 – 157	EF2	111 – 135	Considerable damage – roofs torn off frame houses; mobile homes demolished; boxcars overturned; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground
F3	158 – 207	EF3	136 – 165	Severe damage – roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown
F4	208 – 260	EF4	166 – 200	Devastating damage – well-constructed houses leveled; structures with weak foundations blown away some distance; cars thrown, and large missiles generated
F5	261 – 318	EF5	Over 200	Incredible damage – strong frame houses lifted off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 yards; trees debarked; incredible phenomena will occur

Source: NOAA, Storm Prediction Center.

The idea behind the EF-Scale is that a tornado scale needs to take into account the typical strengths and weaknesses of different types of construction, instead of applying a "one size fits all" approach. This is due to the fact that the same wind speed can cause different degrees of damage to different kinds of structures. In a real-life application, the degree of damage to each of the 28 indicators can be mapped together to create a comprehensive damage analysis. As with the original scale, the EF-Scale rates the tornado as a whole based on the most intense damage within the tornado's path.

While the EF-Scale is currently in use, **the historical data presented in this report is based on the original F-Scale**. None of the tornadoes rated before February 1, 2007 will be re-evaluated using the EF-Scale.

Are alerts issued for tornadoes?

Yes. The National Weather Service Weather Forecast Office in Chicago, Illinois is responsible for issuing ***tornado watches*** and ***warnings*** for Kankakee County depending on the weather conditions. The following provides a brief description of each type of alert.

- **Watch.** A tornado watch is issued when atmospheric conditions are favorable for the development of severe thunderstorms potentially capable of producing tornadoes. Watches are typically large, covering numerous counties or even states.

- **Warning.** A tornado warning is issued when a tornado has been sighted or indicated by weather radar. Warnings indicate imminent danger to life and property for those who are in the path of the tornado. Individuals should see shelter immediately.

HAZARD PROFILE

The following identifies past occurrences of tornadoes; details the severity or extent of each event (if known); identifies the locations potentially affected; and estimates the likelihood of future occurrences.

When have tornadoes occurred previously? What is the extent of these previous tornadoes?

Table 10, located in **Appendix J**, summarizes the previous occurrences as well as the extent or magnitude of tornado events recorded in Kendall County. NOAA's Storm Events Database, Storm Data Publication and Storm Prediction Center have documented 22 occurrences of tornadoes in Kendall County between 1950 and 2022. Included in the 22 tornado events is one event from August 1990 that contributed to a major federal disaster declaration in Kendall County. In comparison, there have been 2,745 tornadoes statewide between 1950 and 2021 according to NOAA's Storm Prediction Center. **Figure T-2** charts the reported occurrences of tornadoes by magnitude. Of the 22 reported occurrences there were: 1 – F5, 3 – F3s, 2 – F2s, 2 – F1s, 6 – F0s, 2 – FUs, 2 – EF1s, 3 – EF0s, and 1 – EFU.

Tornado Fast Facts – Occurrences

Number of Tornadoes Reported (1950 – 2022): ***22***
Highest F-Scale Rating Recorded: ***F5 (August 28, 1990)***
Most Likely Month for Tornadoes to Occur: ***May***
Average Length of a Tornado: ***3.5 miles***
Average Width of a Tornado: ***123 yards***
Average Damage Pathway of a Tornado: ***0.26 sq. mi.***
Longest Tornado Path in the County: ***18.6 miles (August 15, 1958)***
Widest Tornado Path in the County: ***600 yards (August 28, 1990)***
Number of Federal Emergency & Major Disaster Declarations Related to Tornadoes: ***1 (1990)***

Figure T-3 charts the reported tornadoes by month. Of the 22 events, 11 (50%) took place in May, and June making this the peak period for tornadoes in Kendall County. Of those 11 events, six (55%) occurred during May, making this the peak month for tornadoes. In comparison, 1,720 of the 2,745 tornadoes (63%) recorded in Illinois from 1950 through 2021 took place in April, May, and June.

Approximately 82% of all tornadoes in the County occurred during the p.m. hours, with 11 of the tornado events (50%) taking place between 2 p.m. and 8 p.m. In comparison, more than half of all Illinois tornadoes occur between 2 p.m. and 8 p.m.

The tornadoes that have impacted Kendall County have varied from 0.1 miles (176 yards) to 18.7 miles in length and from 10 yards to 600 yards in width. The average length of a tornado in Kendall County is 3.5 miles and the average width is 123 yards (0.07 miles).

Figure T-4 shows the pathway of each reported tornado. The numbers next to each tornado correspond with the tornado description in **Table 10** located in **Appendix J.** Unlike other natural

hazards (i.e., severe winter storms, drought, and excessive heat), tornadoes impact a relatively small area. Typically, the area impacted by a tornado is less than four square miles. In Kendall County, the average damage pathway or area impacted by a tornado is 0.26 square miles.

Figure T-2
Tornadoes by Magnitude
1950 – 2022

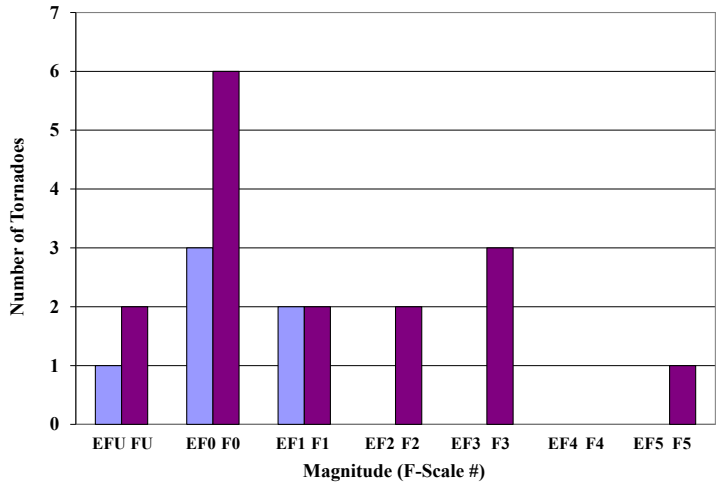
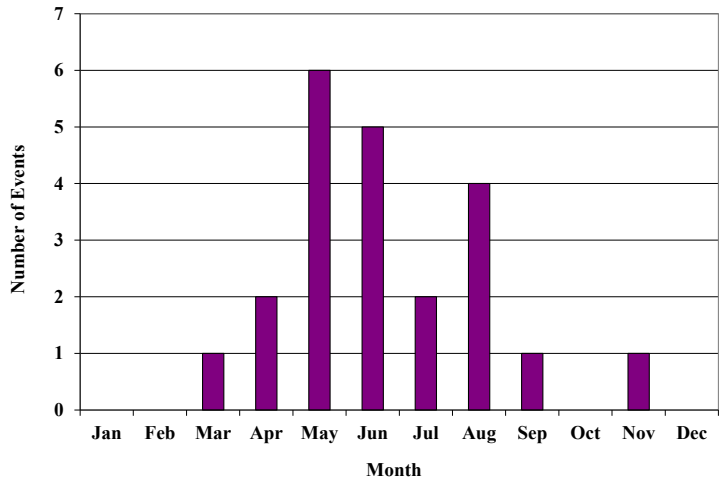
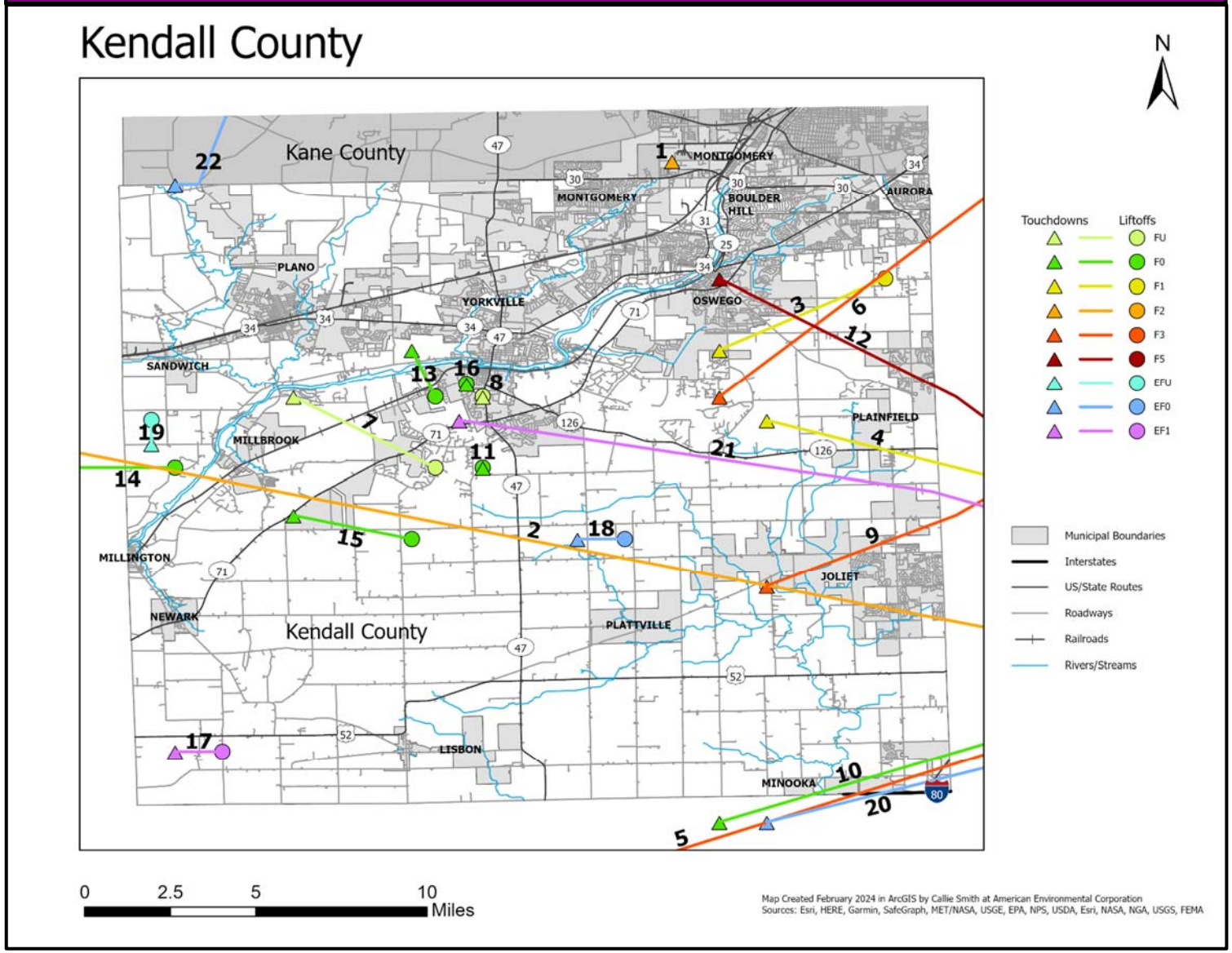


Figure T-3
Tornadoes by Month
1950 – 2022



The longest tornado recorded in Kendall County occurred on August 15, 1958. This F2 tornado, measuring 74.5 miles in length and 100 yards in width, touched down in Lee County west of Eldena and traveled southeast through DeKalb, La Salle and Kendall Counties before lifting off near Joliet in Will County. The tornado was on the ground in Kendall County for approximately 18.7 miles. The damage pathway of this tornado covered 4.23 square miles, with approximately 1.06 square miles occurring in Kendall County.

Figure T-4
Tornado Pathways in Kendall County



The widest tornado recorded in Kendall County measured 600 yards in width and occurred on August 28,1990 when an F5 tornado touched down in Kendall County at Oswego and traveled southeast before lifting off at Joliet in Will County. The damage pathway of this tornado covered 5.59 square miles, with approximately 1.77 square miles occurring in Kendall County.

What locations are affected by tornadoes?

Tornadoes have the potential to affect the entire County. Half of the municipalities within the County have had reported occurrences of tornadoes within their corporate limits.

What is the probability of future tornadoes occurring based on historical data?

Kendall County has had 22 verified occurrences of tornadoes between 1950 and 2022. With 22 tornadoes over the past 73 years, the probability or likelihood that a tornado will touchdown somewhere in the County in any given year is 30%. There were five years over the last 73 years where more than one tornado occurred. This indicates that the probability that more than one tornado may occur during any given year within the County is 7%.

What is the probability of future tornadoes occurring based on modeled future conditions?

Since tornadoes only occur when several conditions are met, predicting them is extremely difficult, even in the short-term future. Somewhat easier to predict are supercell formations, which are large and longer-lived storm systems that create conditions favorable to producing tornadoes, such as strong rotational winds and updrafts. These systems are fed by warm humid air, which means that a wetter and warmer climate could make them a more likely occurrence. Since future condition forecasts suggest a wetter and warmer Illinois as discussed in Section 3.1, it is likely that the conditions that create tornadoes will become more frequent as well, increasing their likelihood. **Figure SS-7,** located in Section 3.1, contains a series of maps that show how the number of supercell tracks is likely to change in the future. The analysis of this trend should be revisited in subsequent planning efforts as more data becomes available.

HAZARD VULNERABILITY

The following describes the vulnerability to participating jurisdictions, identifies the impacts on public health and property (if known) and estimates the potential impacts on public health and safety as well as buildings, infrastructure, and critical facilities from tornadoes.

Are the participating jurisdictions vulnerable to tornadoes?

Yes. All of Kendall County, including the participating jurisdictions, is vulnerable to the dangers presented by tornadoes. Since 2013, six tornadoes have been recorded in Kendall County.

Three of the seven participating municipalities have had a tornado touch down or pass through their municipal boundaries. **Figure T-5** lists the verified tornadoes that have touched down in or near or passed through each participating municipality and township. Six tornadoes have touched down in or passed through the Bristol-Kendall FPD while four tornadoes have touched down or passed through the Oswego FPD. Three tornadoes each have touched down in or passed through the Newark FPD and Sandwich Community FPD jurisdictions, while two tornadoes have touched down in or passed through the Lisbon-Seward FPD.

Figure T-5
Verified Tornadoes In or Near Participating Municipalities & Townships

Participating Municipality / Township	Number of Verified Tornadoes	Year	
		Touched Down/Passed Through Municipality / Township	Touched Down/Passed Near Municipality
Lisbon[1,2,8]	0	---	----
Montgomery[3,7,10,12]	0	---	---
Newark[1,2,9]	1	---	2014
Oswego[3,10,12]	6	1959, 1990	1959, 1972, 1976, 1990
Plano[5,6]	0	---	---
Plattville[8]	0	---	---
Yorkville[4,7,10,12]	10	1958, 1977, 2003, 2003	1977, 1977, 1989, 2003, 2019
Kendall Township	8	1958, 1972, 1976, 1984, 1989, 2003, 2003, 2003	---
Oswego Township	3	1959, 1976, 1985	---

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Five tornadoes have touched down in or passed through Oswego CUSD #308, three have touched down in or passed through Newark CHSD #18, and one has touched down in or passed through Lisbon CCSD #90. Interestingly enough, no tornadoes have touched down in or passed through Plano CUSD #88. In terms of the Oswegoland Park District, four tornadoes have touched down or passed through its boundaries. Unincorporated areas vulnerable to tornadoes include Little Rock which had a tornado touch down in its area in 2022.

The *2023 Illinois Natural Hazard Mitigation Plan* prepared by IEMA-OHS classifies Kendall County's hazard rating for tornadoes as "medium." IEMA-OHS's overall hazard rating system has five levels: very low, low, medium, high, and very high.

For tornadoes FEMA's National Risk Index (NRI) rates the County as a whole as "Relatively High". Ten of the 24 census tracts are rated "Very High" and the remaining 14 census tracts are rated "Relatively High" for tornadoes. **Table R-5** presents the overall NRI scores and ratings for each census tract as well as for the County as a whole.

Have any of the participating jurisdictions identified specific assets vulnerable to the impacts of tornadoes?

Yes. Based on responses to an Assets Vulnerability Survey distributed to the participating jurisdictions, the following jurisdictions considered specific assets within their jurisdiction vulnerable to tornadoes.

Bristol-Kendall Fire Protection District:
KenCom handles all 911 calls for the entire County, including the District. If the Dispatch Center was damaged by a tornado, then the District's ability to receive and respond to emergency calls will be severely diminished until the backup center can be staffed and activated.

Kendall County:

- The Kendall County Courthouse, Public Safety Center, Health Department, Coroner's Office, and Animal Control are located in close proximity to each other and are vulnerable to a devastating tornado. If these facilities are impacted, it would severely limit the County's ability to respond to the disaster.
- Tornadoes have the potential to down power lines causing electrical outages. If the permanent emergency backup generators at the Public Safety Center, which includes KenCom, do not function appropriately, then the County's ability to respond to a hazard event are severely diminished, including the ability to dispatch emergency responders until the backup center can be staffed and activated.
- Tornadoes can down trees and utility lines causing debris to block roadways, impacting travel and delaying emergency response times to individuals who need assistance or evacuation.

Kendall Township:

- If the permanent emergency backup generator at the Township Building doesn't function appropriately during a power outage caused by a tornado, then township staff would be unable to perform required duties in a timely fashion and the Building could not be used as an emergency shelter for District residents.

Lisbon:

- If the permanent emergency backup generator at the wastewater treatment plant doesn't function appropriately, then a power outage caused by a tornado could impact service to residents.

Lisbon CCSD #90:

- The staff, students, and infrastructure associated with the school are all vulnerable to tornadoes.

Montgomery:

- The Village's public works facility does not have an emergency backup generator which could limit service if a power outage is experienced as the result of a tornado.

Newark:

- If the permanent emergency backup generator at each well site don't function appropriately, then a power outage caused by a tornado could impact service to residents.

Parkview Christian Academy:

- One the Academy's buildings is listed on the National Register of Historic Places. This asset is vulnerable to tornadoes and could not be replaced if damaged or destroyed.

Yorkville:

- City Hall/Police Department are located in one building. If a tornado damaged the facility, then it would severely limit the City's ability to respond to the disaster and serve residents.
- The Communications Center and towers have the potential to be damaged by a tornado, which would limit the City's ability to quickly respond to emergency calls.
- Overhead electrical power lines to critical facilities/infrastructure within the City are vulnerable to damage from a tornado.
- Critical facilities/infrastructure such as senior homes and schools are vulnerable to tornadoes because they have not been hardened to reduce damages.

What impacts resulted from the recorded tornadoes?

Data obtained from NOAA's Storm Events Database, Storm Data Publications, Storm Prediction Center, and Committee member records indicates that between 1950 and 2022, seven of the 22 tornadoes caused $3,150,000 in property damages. A majority of the property damage total, $2.5 million, was sustained as a result of the F3 tornado on March 12, 1976 that destroyed or heavily damaged several homes near Oswego. Property damage information was either unavailable or none was recorded for the remaining 15 reported occurrences.

No injuries or fatalities were reported as a result of any of the tornadoes. In comparison, Illinois averages roughly four tornado fatalities annually; however, this number varies widely from year to year.

Tornado Fast Facts – Impacts/Risk

Tornado Impacts:

- Total Property Damage (7 events): ***$3,150.000***
- Total Crop Damage: ***n/a***
- Injuries (4 events): ***n/a***
- Fatalities: ***n/a***

Tornado Risk/Vulnerability:

- Public Health & Safety – Rural Areas: ***Low to Medium***
- Public Health & Safety – Municipalities: ***High***
- Buildings/Infrastructure/Critical Facilities – Rural Areas: ***Low to Medium***
- Buildings/Infrastructure/Critical Facilities – Municipalities/Populated Unincorp. Areas: ***High***

What other impacts can result from tornadoes?

In addition to causing damage to buildings and properties, tornadoes can damage infrastructure and critical facilities such as roads, bridges, railroad tracks, drinking water treatment facilities, water towers, communication towers, antennae, power substations, transformers, and poles. Depending on the damage done to the infrastructure and critical facilities, indirect impacts on individuals could range from inconvenient (i.e., adverse travel) to life-altering (i.e., loss of utilities for extended periods of time).

What is the level of risk/vulnerability to public health and safety from tornadoes?

For Kendall County, the level of risk or vulnerability posed by tornadoes to public health and safety depends on not only frequency, but other factors as well including population distribution and density, the ratings and pathways of previously recorded tornadoes, the presence of high-risk living accommodations (such as high-rise buildings, mobile homes, etc.), and adequate access to health care for those injured following a tornado. All these must be examined when assessing vulnerability.

In terms of adequate access to health care, nearby hospitals in Aurora, Elgin, and Geneva (Kane County), DeKalb and Sandwich (DeKalb County), Mendota and Ottawa (LaSalle County), Morris (Grundy County), and Bolingbrook, Joliet, and New Lenox (Will County) are equipped to provide care and have sufficient capacity for the influx of additional patients from one or more counties.

Kendall County (including townships & fire protection districts)

For Kendall County, including the fire protection districts and townships with the exception of Oswego Township, the level of risk or vulnerability posed by tornadoes to public health and safety is considered to be ***low*** to ***medium***. This assessment is based on the fact that tornadoes do not occur frequently in the County and a large majority of the tornadoes that have impacted the County have touched down in rural areas away from concentrated populations. In addition, outside of

Plano, Yorkville, Montgomery Oswego, and Aurora, the County is not densely populated and there is not a large number of high-risk living accommodations present.

Participating Municipalities (including schools, Oswego Township & Oswegoland Park District)
In general, if a tornado were to touch down or pass through any of the participating municipalities (which include participating schools and park district facilities) or populated areas of Oswego Township, the risk to the public health and safety would be considered ***high***. This is based on the fact that all of the participating jurisdictions have relatively dense and evenly distributed populations within their municipal boundaries. As a result, if a tornado were to touch down anywhere within the corporate limits of these municipalities it will have a greater likelihood of causing injuries or even fatalities.

Do any participating jurisdictions have community safe rooms?

Yes. Plano indicated that City Hall serves as a community safe room. None of the other participating jurisdictions have community safe rooms within their jurisdictions. As a result, if a tornado were to touch down or pass through any of the population centers in the County, then there would be a greater likelihood of injuries and fatalities due to the lack of structures specifically designed and constructed to provide life-safety protection. Each jurisdiction should consider whether the potential impacts to public health and safety from a tornado are considered great enough to warrant the consideration of community safe rooms as a mitigation action.

Are existing buildings, infrastructure, and critical facilities vulnerable to tornadoes?

Yes. All existing buildings, infrastructure, and critical facilities located within the County and participating jurisdictions are vulnerable to tornado damage. Buildings, infrastructure, and critical facilities located in the path of a tornado usually suffer extensive damage, if not complete destruction.

While some buildings adjacent to a tornado's path may remain standing with little or no damage, all are vulnerable to damage from flying debris. It is common for flying debris to cause damage to roofs, siding, and windows. In addition, mobile homes, homes on crawlspaces, and buildings with large spans (i.e., schools, barns, airport hangers, factories, etc.) are more likely to suffer damage. Most workplaces and many residential units do not provide sufficient protection from tornadoes.

The damages sustained by infrastructure and critical facilities during a tornado are similar to those experienced during a severe storm. There is a high probability that power, communication, and transportation will be disrupted in and around the affected area.

Assessing the Vulnerability of Existing Residential Structures
One way to assess the vulnerability of existing residential structures is to estimate the number of housing units that may be potentially damaged if a tornado were to touch down or pass through any of the participating municipalities, townships, or the County. In order to accomplish this, a set of decisions/assumptions must be made regarding:

- the size (area impacted) of the tornado;
- the method used to estimate the area impacted by the tornado within each jurisdiction; and
- the method used to estimate the number of potentially-damaged housing units.

The following provides a brief discussion of each decision/assumption.

Assumption #1: Size of Tornado. To calculate the number of existing residential structures vulnerable to a tornado, the size (area impacted) of the tornado must first be determined. There are several scenarios that can be used to calculate the size, including the worst case and the average. For this analysis, the area impacted by an average-sized tornado in Kendall County will be used since it has a higher probability of recurring. In Kendall County, the area impacted by an average-sized tornado is 0.26 square miles. This average is based on more than 70 years of data.

Assumption #1

Size of Tornado = 0.26 sq. miles

Assumption #2: Method for Estimating the Area Impacted. Next, a method for determining the area within each jurisdiction impacted by the average-sized tornado needs to be chosen. There are several methods that can be used including creating an outline of the area impacted by the average-sized tornado and overlaying it on a map of each jurisdiction (most notably the municipalities) to see if any portion of the area falls outside of the corporate limits (which would require additional calculations) or just assume that the entire area of the average-sized tornado falls within the limits of each jurisdiction. For this discussion, it is assumed that the entire area of the average-sized tornado will fall within the limits of the participating jurisdictions.

Assumption #2

The entire area impacted by the average-sized tornado falls within the limits of each participating jurisdiction.

This method is quicker, easier, and more likely to produce consistent results when the Plan is updated again. There is, however, a greater likelihood that the number of potentially-damaged housing units will be overestimated for those municipalities that have irregular shaped boundaries or occupy less than one square mile.

Assumption #3: Method for Estimating Potentially-Damaged Housing Units. With the size of the tornado selected and a method for estimating the area impacted chosen, a decision must be made on an approach for estimating the number of potentially-damaged housing units. There are several methods that can be used including overlaying the average-sized tornado on a map of each jurisdiction and counting the impacted housing units or calculating the average housing unit density to estimate the number of potentially-damaged housing units.

Assumption #3

The average housing unit density for each jurisdiction will be used to determine the number of potentially-damaged housing units.

For this analysis, the average housing unit density will be used since it provides a realistic perspective on potential residential damages without conducting extensive counts. Using the average housing unit density also allows future updates to the Plan to be easily recalculated and provides an exact comparison to previous estimates.

Calculating Average Housing Unit Density

The average housing unit density can be calculated by taking the number of housing units in a jurisdiction and dividing that by the land area within the jurisdiction. **Figure T-6** provides a sample calculation.

Figure T-6
Calculation of Average Housing Unit Density – Kendall County

Total Housing Units in the Jurisdiction ÷ Land Area within the Jurisdiction = Average Housing Unit Density
(Rounded Up to the Nearest Whole Number)

Kendall County: 44,443 housing units ÷ 320.2387 sq. miles = 138.781 housing units/sq. mile
(139 housing units)

Figure T-7 provides a breakdown of housing unit densities by participating municipality as well as for the unincorporated areas of the County and the County as a whole.

Figure T-7
Average Housing Unit Density by Participating Jurisdiction

Participating Jurisdiction	Township Location	Total Housing Units (2017-2021)	Mobile Homes (2017-2021)	Land Area (Sq. Miles) (2020)	Average Housing Unit Density (Units/Sq. Mi.) (Raw)
Lisbon[1,2,8]	Lisbon	109	0	2.117	51.488
Montgomery[3,7,10,12]	Bristol, Oswego	6,653	0	9.299	715.453
Newark[1,2,9]	Fox	443	0	1.124	394.128
Oswego[3,10,12]	Bristol, Oswego	11,816	0	14.888	793.659
Plano[5,6]	Little Rock	4,021	52	8.979	447.823
Plattville[8]	Lisbon	68	0	2.259	30.102
Yorkville[4,7,10,12]	Bristol, Fox	7,125	13	19.997	356.303
Unincorp. County		10,909	0	250.778	43.501
County		44,443	68	320.238	138.781

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Source: U.S. Census Bureau, American Community Survey, 5-Year Data Profile.

While the average housing unit density provides an adequate assessment of the number of housing units in areas where the housing density is fairly constant, such as municipalities, it does not provide a realistic assessment for those counties with large, sparsely populated rural areas such as Kendall County.

In Kendall County, as well as many other northcentral Illinois counties, there are pronounced differences in housing unit densities. A majority of all housing units (79%) are located in three of the County's nine townships (Oswego, Bristol, and Little Rock), while approximately 76% of all mobile homes are located in Little Rock Township. **Figure I-7**, located in Section 1.2, identifies the township boundaries. Tornado damage to buildings (especially mobile homes), infrastructure and critical facilities in the more densely populated townships is likely to be greater than in the rest of the County. While the County, Montgomery, and Oswego have specific ordinances that require anchoring systems for mobile home that would help limit the damage from lower rated tornadoes, the remaining five participating municipalities do not.

This substantial difference in density skews the average *county* housing unit density in Kendall County and is readily apparent when compared to the average housing unit densities for each of the townships within the County. **Figure T-8** provides a breakdown of housing unit densities by township and illustrates the differences between the various townships and the County as a whole.

Figure T-8
Average Housing Unit Density by Township

Township	Incorporated Municipalities Located in Township	Total Housing Units (2017-2021)	Mobile Homes (2017-2021)	Land Area (Sq. Miles) (2020)	Average Housing Unit Density (Units/Sq. Mi.) (Raw)
Big Grove[1,2,8,9]	Lisbon, Newark	662	0	35.723	18.531
Bristol[3,4,5, 7,12]	Montgomery, Oswego, Yorkville	10,363	0	28.350	365.538
Fox[2,5,7,9,10,11]	Millbrook, Millington, Newark, Yorkville	728	3	36.167	20.129
Kendall[2,3,4,7,10]	Yorkville	2,957	13	39.073	75.679
Lisbon[1,2,7,8]	Lisbon, Plattville	214	0	36.591	5.848
Little Rock[5,6,7,11]	Plano, Sandwich	5,119	52	35.225	145.323
Na-Au-Say[3,10,12]	Joliet, Plainfield	3,152	0	34.245	92.043
Oswego[3,7,10,12]	Aurora, Montgomery, Oswego, Plainfield	19,490	0	39.911	488.337
Seward[8]	Joliet, Minooka	1,758	0	34.952	50.298
Townships - 3 most populated		34,972	52	103.486	337.939
Townships - 6 least populated		9,471	16	216.751	43.695

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Source: U.S. Census Bureau, American Community Survey, 5-Year Data Profile.

For six of the nine townships, the *average county* housing unit density is greater (in most cases considerably greater) than the *average township* housing unit densities. However, the *average county* housing unit density is considerably less than the housing unit densities for Oswego and Bristol Townships.

Estimating the Number of Potentially-Damaged Housing Units

Before an estimate of the number of potentially-damaged housing units can be calculated for the participating municipalities, an additional factor needs to be taken into consideration: the presence of commercial/industrial developments and/or large tracts of undeveloped land. Occasionally villages and cities will annex large tracts of undeveloped land or have commercial/industrial parks/developments located within their corporate limits. In many cases these large tracts of land include very few residential structures. Consequently, including these tracts of land in the calculations to determine the number of potentially-damaged housing units skews the results, especially for very small municipalities. Therefore, to provide a more realistic assessment of the number of potentially-damaged housing units, these areas were subtracted from the land area figures obtained from the U.S. Census Bureau for the analysis for this update.

In Kendall County, all of the participating municipalities have large commercial/industrial and/or undeveloped land areas within their municipal boundaries. These areas account for approximately one-third to nine-tenths of the land area in these municipalities. If these areas are subtracted from the U.S. Census Bureau land area figures, then the remaining land areas have fairly consistent housing unit densities and contain a majority of the housing units. **Figure T-9** provides a breakdown of the refined land area figures for the municipalities. These refined land area figures will be used to update the average housing unit density calculations for these municipalities.

Figure T-9
Refined Land Area Figures for Participating Municipalities with Large Tracts of Commercial/Industrial and Undeveloped Land Areas

Participating Jurisdiction	Land Area (Sq. Miles) (2020)	Estimated Open Land Area & Commercial/ Industrial Tracts (Sq. Miles)	Refined Land Area (Sq. Miles)
Lisbon[1,2,8]	2.117	2.030	0.087
Montgomery[3,7,10,12]	9.299	6.860	2.439
Newark[1,2,9]	1.124	0.870	0.254
Oswego[3,10,12]	14.888	5.540	9.348
Plano[5,6]	8.979	4.090	4.889
Plattville[8]	2.259	2.170	0.089
Yorkville[4,7,10,12]	19.997	6.570	13.427

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

With updated average housing unit densities calculated it is relatively simple to provide an estimate of the number of existing potentially-damaged housing units. This can be done by multiplying the average housing unit density by the area impacted by the average-sized Kendall County tornado. **Figure T-10** provides a sample calculation.

Figure T-10
Sample Calculation of Potentially-Damaged Housing Units – Kendall County

Average Housing Unit Density x Area Impacted by the Average-Sized Kendall County Tornado = Potentially-Damaged Housing Units
(Rounded Up to the Nearest Whole Number)

Kendall County: 138.781 housing units/sq. mile x 0.26 sq. miles = 36.08 housing units
(37 housing units)

Since the refined land areas in Lisbon, Newark, and Plattville are less than the average area impacted, it is assumed that all of the housing units within these municipalities will be potentially damaged.

Figures T-11 and **T-12** provide a breakdown of the number of potentially-damaged housing units by participating municipality, as well as by township and for the unincorporated areas of the County and the County as a whole. It is important to note that for the most densely populated townships, the estimated number of potentially-damaged housing units would only be reached if a tornado's pathway included the major municipality within the township. If the tornado remained in the rural portion of the township, then the number of potentially-damaged housing units would be considerably lower.

Figure T-11
Estimated Number of Housing Units by Participating Jurisdiction
Potentially Damaged by a Tornado

Participating Jurisdiction	Total Housing Units (2017-2021)	Land Area/Refined Land Area (Sq. Miles) (2020)	Average Housing Unit Density (Units/Sq. Mi.) (Raw)	Potentially-Damaged Housing Units (Units/0.26 Sq. Mi.) (Raw)	Potentially-Damaged Housing Units (Units/0.26 Sq. Mi.) (Rounded Up)
Lisbon[1,2,8]	109	0.087	---	109.00	109
Montgomery[3,7,10,12]	6,653	2.439	2727.76	709.22	710
Newark[1,2,9]	443	0.254	---	443.00	443
Oswego[3,10,12]	11,816	9.348	1264.014	328.64	329
Plano[5,6]	4,021	4.889	822.459	213.84	214
Plattville[8]	68	0.089	---	68.00	68
Yorkville[4,7,10,12]	7,125	13.427	530.647	137.97	138
Unincorp. County	10,909	250.778	43.501	11.31	12
County	44,443	320.238	138.781	36.08	37

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

What is the level of risk/vulnerability to existing buildings, infrastructure, and critical facilities vulnerable from tornadoes?

There are several factors that must be examined when assessing the vulnerability of existing buildings, infrastructure, and critical facilities to tornadoes. These factors include tornado frequency, population distribution and density, the ratings and pathways of previously recorded tornadoes, and the presence of high-risk living accommodations (such as high-rise buildings, mobile homes, etc.).

Unincorporated Kendall County (including townships & fire protection district)

For Kendall County, including the fire protection districts and townships with the exception of Oswego Township, the level of risk or vulnerability posed by tornadoes to existing buildings, infrastructure and critical facilities is considered to be ***low to medium***, depending on the population density of the township/fire protection district. This assessment is based on the frequency with which tornadoes have occurred in the County, as well as the amount of damage that has been sustained tempered by the low population density throughout most of unincorporated Kendall County and the relative absence of high risk living accommodations. While previously recorded tornadoes have followed largely rural pathways, they have caused significant damage on several occasions.

Figure T-12
Estimated Number of Housing Units by Township Potentially Damaged by a Tornado

Township	Total Housing Units (2017-2021)	Land Area (Sq. Miles) (2020)	Average Housing Unit Density (Units/Sq. Mi.) (Raw)	Potentially-Damaged Housing Units (Units/0.26 Sq. Mi.) (Raw)	Potentially-Damaged Housing Units (Units/0.26 Sq. Mi.) (Rounded Up)
Big Grove[1,2,8,9]	662	35.723	18.531	4.82	5
Bristol[3,4,5, 7,12]	10,363	28.350	365.538	95.04	96
Fox[2,5,7,9,10,11]	728	36.167	20.129	5.23	6
Kendall[2,3,4,7,10]	2,957	39.073	75.679	19.68	20
Lisbon[1,2,7,8]	214	36.591	5.848	1.52	2
Little Rock[5,6,7,11]	5,119	35.225	145.323	37.78	38
Na-Au-Say[3,10,12]	3,152	34.245	92.043	23.93	24
Oswego[3,7,10,12]	19,490	39.911	488.337	126.97	127
Seward[8]	1,758	34.952	50.298	13.08	14
Townships - 3 most populated	34,972	103.486	337.939	87.86	88
Townships - 6 least populated	9,471	216.751	43.695	11.36	12

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Participating Municipalities (including schools, Oswego Township & Oswegoland Park District)
In general, if a tornado were to touch down or pass through any of the participating municipalities (which include participating schools and park district facilities) or populated areas of Oswego Township, the risk to existing buildings, infrastructure, and critical facilities would be considered ***high***. This assessment is based on the population and housing unit distribution within the municipalities where wide expanses of open spaces do not generally exist. As a result, if a tornado were to touch down within any of the municipalities it would have a greater likelihood of causing substantial property damage.

Are future buildings, infrastructure, and critical facilities vulnerable to tornadoes?

Yes and No. While Kendall County, Montgomery, Newark, Oswego, Plano, and Yorkville have building codes in place that will likely lessen the vulnerability of new buildings and critical facilities to damage from tornadoes, Lisbon and Plattville do not. However, even new buildings and critical facilities built to code are vulnerable to the risks posed by a higher rated tornado.

Infrastructure such as new communication and power lines will continue to be vulnerable to tornadoes as long as they are located above ground. Flying debris can disrupt power and communication lines even if they are not directly in the path of the tornado. Steps to bury all new lines would eliminate the vulnerability, but this action would be cost prohibitive in most areas.

What are the potential dollar losses to vulnerable structures from tornadoes?

Unlike other hazards, such as flooding, there are no standard loss estimation models or methodologies for tornadoes. However, a rough estimate of potential dollar losses to the

potentially-damaged housing units determined previously can be calculated if several additional decisions/assumptions are made regarding:

- the value of the potentially-damaged housing units; and
- the percent damage sustained by the potentially-damaged housing units (i.e., damage scenario).

These assumptions represent a ***probable scenario*** based on the reported historical occurrences of tornadoes in Kendall County. The purpose of providing a rough estimate is to help residents and government officials make informed decisions to better protect themselves and their communities. These estimates are meant to provide a ***general idea*** of the magnitude of the potential damage that could occur. The following provides a brief discussion of each decision/assumption.

Assumption #4: Value of Potentially-Damaged Housing Units. In order to determine the potential dollar losses to the potentially-damaged housing units, the monetary value of the units must first be calculated. Typically, when damage estimates are prepared after a natural disaster such as a tornado, they are based on the market value of the structure. Since it would be impractical to determine the individual market value of each potentially-damaged housing unit, the average market value of residential structures in each jurisdiction will be used.

Assumption #4

The average market value for residential structures in each participating jurisdiction will be used to determine the value of potentially-damaged housing units.

To determine the average market value, the average assessed value must first be calculated. The average assessed value is calculated by taking the total assessed value of residential buildings within a jurisdiction and dividing that number by the total number of housing units within the jurisdiction. The average market value is then determined by taking the average assessed value and multiplying that number by three (the assessed value of a structure in Kendall County is approximately one-third of the market value). **Figure T-13** provides a sample calculation. The total assessed value is based on 2022 tax assessment information obtained from the County officials.

Figure T-13
Sample Calculation of Average Assessed Value & Average Market Value – Yorkville

Average Assessed Value

Total Assessed Value of Residential Buildings in the Jurisdiction÷ Total Housing Units in the Jurisdiction = Average Assessed Value (Rounded to the Nearest Dollar)

Yorkville: $594,475,190 ÷ 7,125 housing units = $83,435

Average Market Value

Average Assessed Value x 3 = Average Market Value

Yorkville: $83,435 x 3 = $250,305

($250,305)

Figures T-14 and **T-15** provide the average assessed value and average market value for each participating municipality as well as by township and for the unincorporated areas of the County and the County as a whole.

Figure T-14
Average Market Value of Housing Units by Participating Jurisdiction

Participating Jurisdiction	Total Assessed Value of Residential Buildings (2022)	Total Housing Units (2017-2021)	Average Assessed Values	Average Market Value (2022)
Lisbon[1,2,8]	$5,164,653	109	$47,382	$142,146
Montgomery[3,7,10,12]	$467,806,567	6,653	$70,316	$210,948
Newark[1,2,9]	$20,439,102	443	$46,138	$138,414
Oswego[3,10,12]	$974,852,538	11,816	$82,503	$247,509
Plano[5,6]	$219,229,235	4,021	$54,521	$163,563
Plattville[8]	$5,841,124	68	$85,899	$257,697
Yorkville[4,7,10,12]	$594,475,190	7,125	$83,435	$250,305
Unincorp. County	$700,537,756	10,909	$64,216	$192,648
County	$3,473,354,672	44,443	$78,153	$234,459

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District
Source: County Clerks' offices.

Figure T-15
Average Market Value of Housing Units by Township

Participating Jurisdiction	Total Assessed Value of Residential Buildings (2022)	Total Housing Units (2017-2021)	Average Assessed Values	Average Market Value (2022)
Big Grove[1,2,8,9]	$28,508,531	662	$43,064	$129,193
Bristol[3,4,5, 7,12]	$842,369,156	10,363	$81,286	$243,859
Fox[2,5,7,9,10,11]	$51,965,751	728	$71,382	$214,145
Kendall[2,3,4,7,10]	$272,347,149	2,957	$92,103	$276,308
Lisbon[1,2,7,8]	$17,351,422	214	$81,081	$243,244
Little Rock[5,6,7,11]	$287,600,974	5,119	$56,183	$168,549
Na-Au-Say[3,10,12]	$299,414,345	3,152	$94,992	$284,976
Oswego[3,7,10,12]	$1,516,561,697	19,490	$77,812	$233,437
Seward[8]	$157,235,647	1,758	$89,440	$268,320
Townships - 3 most populated	$2,646,531,827	34,972	$75,676	$227,027
Townships - 6 least populated	$826,822,845	9,471	$87,300	$261,901

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District
Source: Kendall County Clerk

Assumption #5: Damage Scenario. Finally, a decision must be made regarding the percent damage sustained by the potentially-damaged housing units and their contents. For this scenario, the expected percent damage sustained by the structure and its contents is 100%; in other words, all of the potentially-damaged housing units would be completely destroyed. While it is highly unlikely that each and every housing unit would sustain the maximum percent damage, identifying and calculating different degrees of damage within the average area impacted is complex and provides an additional complication when updating the Plan.

Assumption #5

The tornado would completely destroy the potentially-damaged housing units.

Structural Damage = 100%
Content Damage = 100%

Calculating Potential Dollar Losses

With all the decisions and assumptions made, the potential dollar losses can now be calculated. First, the potential dollar losses to the ***structure*** of a potentially-damaged housing unit must be determined. This is done by taking the average market value for a residential structure and multiplying it by the percent damage (100%) to get the average structural damage per unit. Next the average structural damage per unit is multiplied by the number of potentially-damaged housing units. **Figure T-16** provides a sample calculation.

Figure T-16
***Structure:* Potential Dollar Loss Sample Calculation – Yorkville**

Average Market Value of a Housing Unit with the Jurisdiction x Percent Damage = Average Structural Damage per Housing Unit

Yorkville: $250,305 x 100% = $250,305 per housing unit

Average Structural Damage per Housing Unit x Number of Potentially-Damaged Housing Units within the Jurisdiction = *Structure* Potential Dollar Losses

Yorkville: $250,305 per housing unit x 138 housing units = $34,542,090

($34,542,090)

Next, the potential dollar losses to the ***content*** of a potentially-damaged housing unit must be determined. Based on FEMA guidance, the average value of a residential housing unit's content is approximately 50% of its market value. Therefore, start by taking one-half the average market value for a residential structure and multiply by the percent damage (100%) to get the average content damage per unit. Next the average content damage per unit is multiplied by the number of potentially-damaged housing units. **Figure T-17** provides a sample calculation.

Finally, the ***total potential dollar losses*** may be calculated by adding together the potential dollar losses to the structure and content. **Figures T-18** and **T-19** give a breakdown of the total potential dollar losses by municipality and township. For comparison, an estimate of potential dollar losses was calculated for the entire County, the unincorporated portions of the County, the six most populated townships and the nine least populated townships.

Figure T-17
***Content:* Potential Dollar Loss Sample Calculation – Yorkville**

½ (Average Market Value of a Housing Unit) with the Jurisdiction x Percent Damage = Average Content Damage per Housing Unit

Yorkville: ½ ($250,305) x 100% = $125,152.50 per housing unit

Average Content Damage per Housing Unit x Number of Potentially-Damaged Housing Units within the Jurisdiction = *Content* Potential Dollar Losses

Yorkville: $125,152.50 per housing unit x 138 housing units = $17,271,045

($17,271,045)

Figure T-18
Estimated Potential Dollar Losses to Potentially-Damaged Housing Units from a Tornado by Participating Jurisdiction

Participating Jurisdiction	Average Market Value (2022)	Potentially-Damaged Housing Units (Rounded Up)	Potential Dollar Losses		Total Potential Dollar Losses
			Structure	Content	
Lisbon[1,2,8]	$142,146	109	$15,493,914	$7,746,957	$23,240,871
Montgomery[3,7,10,12]	$210,948	710	$149,773,080	$74,886,540	$224,659,620
Newark[1,2,9]	$138,414	443	$61,317,402	$30,658,701	$91,976,103
Oswego[3,10,12]	$247,509	329	$81,430,461	$40,715,231	$122,145,692
Plano[5,6]	$163,563	214	$35,002,482	$17,501,241	$52,503,723
Plattville[8]	$257,697	68	$17,523,396	$8,761,698	$26,285,094
Yorkville[4,7,10,12]	$250,305	138	$34,542,090	$17,271,045	$51,813,135
Unincorp. County	$192,648	12	$2,311,776	$1,155,888	$3,467,664
County	$234,459	37	$8,674,983	$4,337,492	$13,012,475

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

This assessment illustrates why potential residential dollar losses should be considered when jurisdictions are deciding which mitigation projects to pursue. ***Potential dollar losses caused by an average tornado in Kendall County would be expected to exceed at least $23 million in any of the participating municipalities.***

Potential dollar losses caused by an average tornado in Kendall County townships would be expected to range from $729,732 in Lisbon Township to at least $44.4 million in Oswego Township. As discussed previously, the estimate for the entire County is skewed because it does not take into consideration the differences in the housing density.

Figure T-19
Estimated Potential Dollar Losses to Potentially-Damaged Housing Units from a Tornado by Township

Participating Jurisdiction	Average Market Value (2022)	Potentially-Damaged Housing Units (Rounded Up)	Potential Dollar Losses		Total Potential Dollar Losses
			Structure	Content	
Big Grove[1,2,8,9]	$129,193	5	$645,965	$322,983	$968,948
Bristol[3,4,5, 7,12]	$243,859	96	$23,410,464	$11,705,232	$35,115,696
Fox[2,5,7,9,10,11]	$214,145	6	$1,284,870	$642,435	$1,927,305
Kendall[2,3,4,7,10]	$276,308	20	$5,526,160	$2,763,080	$8,289,240
Lisbon[1,2,7,8]	$243,244	2	$486,488	$243,244	$729,732
Little Rock[5,6,7,11]	$168,549	38	$6,404,862	$3,202,431	$9,607,293
Na-Au-Say[3,10,12]	$284,976	24	$6,839,424	$3,419,712	$10,259,136
Oswego[3,7,10,12]	$233,437	127	$29,646,499	$14,823,250	$44,469,749
Seward[8]	$268,320	14	$3,756,480	$1,878,240	$5,634,720
Townships - 3 most populated	$227,027	88	$19,978,376	$9,989,188	$29,967,564
Townships - 6 least populated	$261,901	12	$3,142,812	$1,571,406	$4,714,218

[1]Lisbon CCSD #90 [2]Newark CHSD #18 [3]Oswego CUSD #308
[4]Parkway Christian Academy [5]Plano CUSD #88 [6]St. Mary Catholic School
[7]Bristol-Kendall FPD [8]Lisbon-Seward FPD [9]Newark FPD
[10]Oswego FPD [11]Sandwich Community FPD [12]Oswegoland Park District

Vulnerability of Commercial/Industrial Businesses and Infrastructure/Critical Facilities

The calculations presented above are meant to provide the reader with a sense of the scope or magnitude of an average-sized tornado in term of residential dollar losses. These calculations do not include damages sustained by businesses or other infrastructure and critical facilities within the participating jurisdictions.

In terms of businesses, the impacts from an average-sized tornado event can be physical and/or monetary. Monetary impacts can include loss of sales revenue either through temporary closure or loss of critical services (i.e., power, drinking water, and sewer). Depending on the magnitude of the event, the damage sustained by infrastructure and critical facilities can be extensive in nature and expensive to repair. As a result, the cumulative monetary impacts to businesses and infrastructure can exceed the cumulative monetary impacts to residences. ***While average dollar amounts cannot be supplied for these items at this time, they should be taken into account*** when discussing the impacts that an average-sized tornado could have on the participating jurisdictions

3.7 DROUGHTS

HAZARD IDENTIFICATION

What is the definition of a drought?

While difficult to define, the National Drought Mitigation Center (NDMC) considers "drought" in its most general sense to be a deficiency of precipitation over an extended period of time, usually a season or more, resulting in a water shortage.

Drought is a normal and recurrent feature of climate and can occur in all climate zones, though its characteristics and impacts vary significantly from one region to another. Unlike other natural hazards, drought does not have a clearly defined beginning or end. Droughts can be short, lasting just a few months, or they can persist for several years. There have been 28 drought events with losses exceeding $1 billion each (CPI-Adjusted) across the U.S. between 1980 and 2022. This is due in part to the sheer size of the areas affected.

What types of drought occur?

There are four main types of drought that occur: meteorological, agricultural, hydrological, and socioeconomic. They are differentiated based on the use and need for water. The following provides a brief description of each type.

- **Meteorological Drought.** Meteorological drought is defined by the degree of dryness or rainfall deficit and the duration of the dry period. Due to climate differences, what might be considered a drought in one location of the country may not be in another location.
- **Agricultural Drought.** An agricultural drought refers to a period when rainfall deficits, soil moisture deficits, reduced ground water or reservoir levels needed for irrigation impact crop development and yields.
- **Hydrological Drought.** Hydrological drought refers to a period when precipitation deficits (including snowfall) impact surface (stream flow, reservoir and lake levels) and subsurface (aquifers) water supply levels.
- **Socioeconomic Drought.** Socioeconomic drought refers to a period when the demand for an economic good (fruit, vegetables, grains, etc.) exceeds the supply as a result of weather-related shortfall in the water supply.

How are droughts measured?

There are numerous quantitative measures (indicators and indices) that have been developed to measure drought. How these indicators and indices measure drought depends on the discipline affected (i.e., agriculture, hydrology, meteorology, etc.) and the region being considered. There is no single index or indicator that can account for and be applied to all types of drought.

Although none of the major indices are inherently superior to the rest, some are better suited than others for certain uses. The first comprehensive drought index developed in the U.S. was the Palmer Drought Severity Index (PDSI). The PDSI is calculated based on precipitation and temperature data, as well as the local Available Water Content of the soil. It is most effective

measuring drought impacts on agriculture. For many years it was the only operational drought index, and it is still very popular around the world.

The Standardized Precipitation Index (SPI), developed in 1993, uses precipitation records for any location to develop a probability of precipitation for any time scale in order to reflect the impact of drought on the availability of different water resources (groundwater, reservoir storage, streamflow, snowpack, etc.) In 2009, the World Meteorological Organization recommended SPI as the main meteorological drought index that countries should use to monitor and follow drought conditions.

The first operational 'composite' approach applied in the U.S. was the U.S. Drought Monitor (USDM). The USDM utilizes five key indicators, numerous supplementary indicators, and local reports from expert observers around the country to produce a drought intensity rating that is ideal for monitoring droughts that have many impacts, especially on agriculture and water resources during all seasons over all climate types. NOAA's Storm Events Database records include USDM ratings and utilized them along with additional weather information to describe the severity of the drought conditions impacting affected counties. Therefore, this Plan will utilize USDM ratings to identify and describe previous drought events recorded within the County. The following provides a more detailed discussion of the USDM to aid the Plan's developers and the general public in understanding how droughts are identified and categorized.

U.S. Drought Monitor (USDM)

Established in 1999, the USDM is a relatively new index that combines quantitative measures with input from experts in the field. It is designed to provide the general public, media, government officials and others with an easily understandable "big picture" overview of drought conditions across the U.S. It is unique in that it combines a variety of numeric-based drought indices and indicators with local expert input to create a single composite drought indicator, the results of which are illustrated via a weekly map that depicts the current drought conditions across the U.S. The USDM is jointly produced by the National Drought Mitigation Center at the University of Nebraska-Lincoln, the U.S. Department of Agriculture (USDA), and the National Oceanic and Atmospheric Administration (NOAA).

The USDM has a scale of five intensity categories, D0 through D4, that are utilized to identify areas of drought. **Figure DR-1** provides a brief description of each category.

Because the ranges of the various indicators often don't coincide, the final drought category tends to be based on what a majority of the indictors show and on local observations. The authors also weight the indices according to how well they perform in various parts of the country and at different times of the year. It is the combination of the best available data, location observations and experts' best judgment that make the U.S. Drought Monitor more versatile than other drought indices.

In addition to identifying and categorizing general areas of drought, the USDM also identifies whether a drought's impacts are short-term (typically less than 6 months – agriculture, grasslands) or long-term (typically more than 6 months – hydrology, ecology). **Figure DR-2** shows an

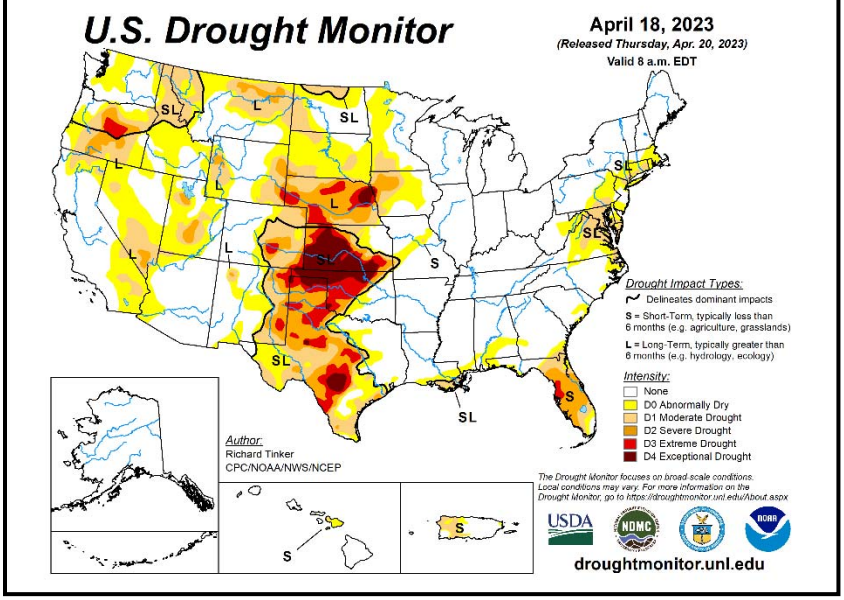
example of the USDM weekly map. The USDM is designed to provide a consistent big-picture look at drought conditions in the U.S. It is not designed to infer specifics about local conditions.

Figure DR-1
U.S. Drought Monitor – Drought Intensity Categories

Category	Possible Impacts
D0 (Abnormally Dry)	• Going into drought: - short-term dryness slowing planting, growth of crops or pastures. • Coming out of drought: - some lingering water deficits - pastures or crops not fully recovered
D1 (Moderate Drought)	• Some damage to crops, pastures • Streams, reservoirs, or wells low; some water shortages developing or imminent • Voluntary water-use restrictions requested
D2 (Severe Drought)	• Crop or pasture losses likely • Water shortages common • Water restrictions imposed
D3 (Extreme Drought)	• Major crop/pasture losses • Widespread water shortages or restrictions
D4 (Exceptional Drought)	• Exceptional and widespread crop/pasture losses • Shortages of water in reservoirs, streams, and wells creating water emergencies

Source: U.S. Drought Monitor.

Figure DR-2
U. S. Drought Monitor



The U.S. Drought Monitor is jointly produced by the National Drought Mitigation Center at the University of Nebraska-Lincoln, the U.S. Department of Agriculture, and the National Oceanic and Atmospheric Administration. Map Courtesy of NDMC.

HAZARD PROFILE

The following identifies past occurrences of drought, details the severity or extent of each event (if known); identifies the locations potentially affected and estimates the likelihood of future occurrences.

When have droughts occurred previously? What is the extent of these previous droughts?

Drought Fast Facts – Occurrences

Number of Drought Events Reported (1980 – 2022): ***4***

Number of Drought Events County was Designated a USDA Primary Natural Disaster Area: ***2 (2005 & 2012)***

Table 11, located in **Appendix J**, summarizes the previous occurrences as well as the extent or magnitude of the drought events recorded in Kendall County. NOAA's Storm Events Database, the Illinois State Water Survey, the Illinois Emergency Management Agency and Office of Homeland Security (IEMA-OHS), the NDMC at the University of Nebraska-Lincoln, and the USDA have documented four official droughts for Kendall County between 1980 and 2022. The County was designated a USDA Primary Natural Disaster area for both the 2005 and 2012 droughts.

The recorded drought events ranged in length from 9.5 to 16 months. Of the three drought events with a recorded starting month, two began in June and one began in May. Two of the drought events were assigned drought intensity category ratings by the USDM, with the 2005 drought reaching D3, extreme drought, and the 2012 drought reaching D2, severe drought.

The State of Illinois Drought Preparedness and Response Plan identified seven additional outstanding statewide droughts since 1900 based on statewide summer values of the PDSI provided by NOAA's National Center for Environmental Information. Those seven droughts occurred in 1902, 1915, 1931, 1934, 1936, 1954 and 1964; however, the extent to which Kendall County was impacted was unavailable.

What locations are affected by drought?

Drought events affect the entire County. Droughts, like excessive heat and severe winter storms, tend to impact large areas, extending across an entire region and affecting multiple counties.

What is the probability of future drought events occurring based on historical data?

Kendall County, including the participating jurisdictions, has experienced four droughts between 1980 and 2022. With four occurrences over 43 years, the probability or likelihood that the County may experience a drought in any given year is 9.3%. However, if earlier recorded droughts are factored in, then the probability that Kendall County may experience a drought in any given year decreases to 8.9%.

What is the probability of future drought events occurring based on modeled future conditions?

Despite precipitation trending upwards in Illinois in recent decades, drought conditions are likely to be more problematic in the future than they have been in the recent past, due to a combination of changes in precipitation patterns and an increase in summer temperatures.

In terms of predicting the likelihood of drought conditions, the amount of precipitation received is important, but even more critical is the timing of precipitation events. More frequent precipitation events maintain soil in a spongy, porous state that readily absorbs moisture; alternatively, more infrequent precipitation events tend to lead to dry, hardened earth, which is more effective at repelling water than absorbing it. When a precipitation event does occur over this drought-stricken soil, most of the water runs off and pools in bottomlands, leaving most land 'high and dry' while simultaneously flooding the lowest-lying areas.

Another factor making this outcome more likely is the trend of increasing temperatures in Illinois, particularly during the summer when rain events are already more sporadic. Over the past 120 years, average temperatures in Illinois have increased by 1°F and 2°F according to the Illinois State Climatologist, a trend that is likely to continue. In the future, hotter summer temperatures are likely to lead to more evaporation that will exacerbate dry conditions, causing droughts to intensify more rapidly and become more intense.

Figures SS-8 and **SS-9,** located in Section 3.1, and **Figures EH-6, EH-7,** and **EH-8,** located in Section 3.5, provide tabular and graphical projections for Kendall County showing average annual estimates for temperature and precipitation in the early, mid, and late century, with both low and high estimates for each time period. Most likely, the true values will fall between these two estimates. According to the Climate Mapping for Resilience and Adaptation's Assessment Tool, the number of days exceeding 90°F in Kendall County is projected to go from 14 today to between 47 and 57days, while days exceeding 100°F are likely to increase from an average of zero days per year today to 4 to 8 days by midcentury. It also forecasts that the average annual precipitation in Kendall County is likely to increase by 2 inches per year, while the average number of days per year without precipitation is projected to increase by 3 to 4 days.

The Climate Explorer indicates that in Kendall County, the average number of dry spells (a period of consecutive days without precipitation) is projected to increase by one. Extreme temperatures on the hottest days of the year are projected to increase by 7°F. This is based on the findings of the 2018 National Climate Assessment and compares projections for the middle third of the century (2035-2064) with average conditions observed from 1961-1990.

In combination, a decrease in the frequency of precipitation and a significant increase in the number of days with extreme heat in Kendall County would create conditions that will be more likely to produce droughts than today.

HAZARD VULNERABILITY

The following describes the vulnerability to participating jurisdictions, identifies the impacts on public health and property (if known) and estimates the potential impacts on public health and safety as well as buildings, infrastructure, and critical facilities from drought.

Are the participating jurisdictions vulnerable to drought?

Yes. All of Kendall County, including the participating jurisdictions, is vulnerable to drought. Neither the amount nor the distribution of precipitation; soil types; topography; or water table conditions provides protection for any area within the County.

The *2023 Illinois Natural Hazard Mitigation Plan* prepared by IEMA-OHS classifies Kendall County's hazard rating for drought as "low". IEMA-OHS's overall hazard rating system has five levels: very low, low, medium, high, and very high.

For drought, FEMA's National Risk Index (NRI) rates the County as a whole as "Very Low". All 24 census tracts are rated "Relatively Low" or "Very Low" for drought. **Table R-5** presents the overall NRI scores and ratings for each census tract as well as for the County as a whole.

Have any of the participating jurisdictions identified specific assets vulnerable to the impacts of drought?

No. Based on responses to an Assets Vulnerability Survey distributed to the participating jurisdictions, none of the participating jurisdictions consider specific assets within their jurisdictions vulnerable to drought.

What impacts resulted from the recorded drought events?

Data obtained from the USDA Risk Management Agency, indicates that between 1980 and 2022, two of the four droughts (2005 & 2012) caused an estimated $27,791,955 in damages to insured crops in Kendall County. Damage information was either unavailable or none was recorded for the remaining two reported occurrences.

Drought Fast Facts – Impacts/Risk

Drought Impacts:
- Total Property Damage: ***n/a***
- Total Crop Damage: ***$27.7 million (insured crop only)***

Drought Risk/Vulnerability:
- Public Health & Safety: ***Low***
- Buildings/Infrastructure/Critical Facilities: ***Low***

Of the five drought events, disaster relief payment information was only available for one of the events. In 1988, landowners and farmers in Illinois were paid in excess of $382 million in relief payments; however, a breakdown by county was unavailable.

What other impacts can result from drought events?

Based on statewide drought records available from the Illinois State Water Survey, the most common impacts that result from drought events in Illinois include reductions in crop yields and drinking water shortages.

Crop Yield Reductions

Kendall County has traditionally been known for its fertile farmland. Farmland accounts for approximately 67% of all the land in the County. According to the 2017 Census of Agriculture, there were 313 farms in Kendall County occupying 137,899 acres. In comparison, there were 364 farms occupying 63% (130,100 acres) of the total land area in the County in 2012. Of the land in farms in 2017, 97% or approximately 133,760 acres are in crop production.

According to the 2017 Census of Agriculture, total crop and livestock sales accounted for $101.6 million in revenue. This is a 1% decrease in revenue from the 2012 Census of Agriculture when total crop and livestock sales accounted for $102.6 million. Kendall County ranks 66th in crop cash receipts and 78th in livestock cash receipts. A severe drought would have a major

financial impact on the large agricultural community, particularly if it occurred during the growing season. Dry weather conditions, particularly when accompanied by excessive heat, can result in diminished crop yields and place stress on livestock.

A reduction in crop yields was seen as a result of the 1983, 1988, 2005, and 2012 droughts. **Figure DR-3** illustrates the reduction yields seen for corn and soybeans during the recorded drought events. The USDA's National Agricultural Statistics Service records show that yield reductions for corn were most severe for the 2005 drought when there was a 39.6% reduction in corn yields while yield reductions for soybeans were most severe for the 1988 drought when there was a 26.1% reduction in soybean yields.

Figure DR-3
Crop Yield Reductions Due to Drought – Kendall County

Year	Corn		Soybeans	
	Yield (bushel)	% Reduction Previous Year	Yield (bushel)	% Reduction Previous Year
1982	137.0	--	39.0	--
1983	**90.0**	**34.3%**	**37.0**	**5.1%**
1984	94.0	--	27.0	--
1987	139.0	--	44.0	--
1988	**86.0**	**38.1%**	**32.5**	**26.1%**
1989	149.0	--	44.5	--
2004	182.0	--	52.0	--
2005	**110.0**	**39.6%**	**41.0**	**21.2%**
2006	184.0	--	53.0	--
2011	165.3	--	54.4	--
2012	**102.4**	**38.1%**	43.5	**20.0%**
2013	182.2	--	51.8	--

Source: USDA, National Agricultural Statistics Service.

Drinking Water Shortages

Municipalities that rely on surface water sources for their drinking water supplies are more vulnerable to shortages as a result of drought. In Kendall County, ***none of the participating municipalities rely exclusively on surface water sources*** for their drinking water supply. According to the Illinois Environmental Protection Agency's Source Water Assessment Program, five of the seven participating municipalities obtain their public water from deep sandstone, bedrock, or shallower sand and gravel aquifers. Residents of Lisbon and Plattville do not have community water supplies and instead rely on private wells of varying depth for their drinking water.

While most of the participating municipalities are less vulnerable to drinking water shortages, a prolonged drought or a series of droughts in close succession do have the potential to impact water levels in aquifers used for individual drinking water wells in rural areas. This is because individual (private) water wells tend to be shallower than municipal (public) water wells.

What is the level of vulnerability to public health and safety from drought?

Unlike other natural hazards that affect the County, drought events do not typically cause injuries or fatalities. The primary concern centers on the financial impacts that result from loss of crop yields and livestock and potential drinking water shortages. Even taking into consideration the potential impacts that a water shortage may have on the general public, the risk or vulnerability to public health and safety from drought is ***low***.

Are existing buildings, infrastructure, and critical facilities vulnerable to drought?

No. In general, existing buildings, infrastructure and critical facilities located in Kendall County and the participating jurisdictions are not vulnerable to drought. The primary concern centers on the financial impacts that result from loss of crop yields and livestock.

While buildings do not typically sustain damage from drought events, in rare cases infrastructure and critical facilities may be directly or indirectly impacted. While uncommon, droughts can contribute to roadway damage. Severe soil shrinkage can compromise the foundation of a roadway and lead to cracking and buckling.

Prolonged heat associated with drought can also increase the demand for energy to operate air conditioners, fans, and other devices. This increase in demand places stress on the electrical grid, which increases the likelihood of power outages.

Additionally, droughts have impacted drinking water supplies. Reductions in aquifer water levels can cause water shortages that jeopardize the supply of water needed to provide drinking water and fight fires. While water use restrictions can be enacted in an effort to maintain a sufficient supply of water, they are only temporary and do not address long-term viability issues. Drinking water supplies vulnerable to drought, such as those that rely solely on surface water or shallow wells, need to consider mitigation measures that will provide long-term stability before a severe drought, or a series of droughts occur. Effective mitigation measures include drilling additional wells, preferably deep wells, securing agreements with alternative water sources and constructing water lines to provide a backup water supply.

In general, the risk or vulnerability to buildings, infrastructure and critical facilities from drought is ***low***, even taking into consideration the potential impact a drought may have on drinking water supplies and the stress that prolonged heat may place on the electrical grid.

Are future buildings, infrastructure, and critical facilities vulnerable to drought?

No. Future buildings, infrastructure and critical facilities within the County are no more vulnerable to drought than the existing building, infrastructure, and critical facilities. As discussed above, buildings do not typically sustain damage from drought. Infrastructure and critical facilities may, in rare cases, be damaged by drought, but very little can be done to prevent this damage.

What are the potential dollar losses to vulnerable structures from drought?

Unlike other natural hazards there are no standard loss estimation models or methodologies for drought. Since drought typically does not cause structure damage, it is unlikely that future dollar losses will be excessive. The primary concern associated with drought is the financial impacts that result from loss of crop yields and the potential impacts to drinking water supplies. Since a large

part of the County is involved in farming activities, it is likely that there will be future dollar losses to drought. In addition, reduced water levels and the water conservation measures that typically accompany a drought will most likely impact consumers as well as businesses and industries that are water-dependent (i.e., car washes, landscapers, etc.).

3.8 EARTHQUAKES

HAZARD IDENTIFICATION

What is the definition of an earthquake?

An earthquake is a sudden shaking of the ground caused when rocks forming the earth's crust slip or move past each other along a fault (a fracture in the rocks). Most earthquakes occur along the boundaries of the earth's tectonic plates. These slow-moving plates are being pulled and dragged in different directions, sliding over, under and past each other. Occasionally, as the plates move past each other, their jagged edges will catch or stick causing a gradual buildup of pressure (energy).

Eventually, the force exerted by the moving plates overcomes the resistance at the edges and the plates snap into a new position. This abrupt shift releases the pent-up energy, producing vibrations or seismic waves that travel outward from the earthquake's point of origin. The location below the earth's surface where the earthquake starts is known as the hypocenter or focus. The point on the earth's surface directly above the focus is the epicenter.

The destruction caused by an earthquake may range from light to catastrophic depending on a number of factors including the magnitude of the earthquake, the distance from the epicenter, the local geologic conditions as well as construction standards and time of day (i.e., rush hour). Earthquake damage may include power outages, general property damage, road, and bridge failure, collapsed buildings and utility damage (ruptured gas lines, broken water mains, etc.).

Most of the damage done by an earthquake is caused by its secondary or indirect effects. These secondary effects result from the seismic waves released by the earthquake and include ground shaking, surface faulting, liquefaction, landslides and, in rare cases, tsunamis.

According to the U.S. Geological Survey, more than 143 million Americans in the contiguous U.S. are exposed to potentially damaging ground shaking from earthquakes. More than 44 million of those Americans, located in 18 states, are exposed to very strong ground shaking from earthquakes. Illinois ranks 10th in terms of the number of individuals exposed to very strong ground shaking. The Federal Emergency Management Agency's Hazus analysis indicates that the annualized earthquake losses to the national building stock is $6.1 billion per year. A majority of the average annual loss is concentrated in California ($3.7 million). The central U.S. (including Illinois) ranks third in annualized earthquake losses at $480 billion, behind the pacific northwest (Washington and Oregon) with annualized earthquake losses at $710 billion.

What is a fault?

A fault is a fracture or zone of fractures in the earth's crust between two blocks of rock. They may range in length from a few millimeters to thousands of kilometers. Many faults form along tectonic plate boundaries. Faults are classified based on the angle of the fault with respect to the surface (known as the dip) and the direction of slip or movement along the fault. There are three main groups of faults: normal, reverse (thrust) and strike-slip (lateral).

Normal faults occur in response to pulling or tension along the two blocks of rock causing the overlying block to move down the dip of the fault plane. Most of the faults in Illinois are normal faults. Reverse or thrust faults occur in response to squeezing or compression of the two blocks of rock causing the overlying block to move up the dip of the fault plane. Strike-slip or lateral faults can occur in response to either pulling/tension or squeezing/compression causing the blocks to move horizontally past each other.

Geologists have found that earthquakes tend to recur along faults, which reflect zones of weakness in the earth's crust. Even if a fault zone has recently experienced an earthquake, there is no guarantee that all the stress has been relieved. Another earthquake could still occur.

What are tectonic plates?

Tectonic plates are large, irregularly-shaped, relatively rigid sections of the earth's crust that float on the top, fluid layer of the earth's mantle. There are about a dozen tectonic plates that make up the surface of the planet. These plates are approximately 50 to 60 miles thick and the largest are millions of square miles in size.

How are earthquakes measured?

The severity of an earthquake is measured in terms of its magnitude and intensity. A brief description of both terms and the scales used to measure each are provided below.

Magnitude

Magnitude refers to the amount of seismic energy released at the hypocenter of an earthquake. The magnitude of an earthquake is determined from measurements of ground vibrations recorded by seismographs. As a result, magnitude is represented as a single, instrumentally determined value. A loose network of seismographs has been installed all over the world to help record and verify earthquake events.

There are several scales that measure the magnitude of an earthquake. The most well-known is the Richter Scale. This logarithmic scale provides a numeric representation of the magnitude of an earthquake through the use of whole numbers and decimal fractions. Because of the logarithmic basis of the scale, each whole number increase in magnitude represents a tenfold increase in ground vibrations measured. In addition, each whole number increase corresponds to the release of about 31 times more energy than the amount associated with the preceding whole number. It is important to note that the Richter Scale is used only to determine the magnitude of an earthquake, it does not assess the damage that results.

Once an earthquake's magnitude has been confirmed, it can be classified. **Figure EQ-1** categorizes earthquakes by class based on their magnitude (i.e., Richter Scale value). Any earthquake with a magnitude less than 3.0 on the Richter Scale is classified as a micro earthquake while any earthquake with a magnitude of 8.0 or greater on the Richter Scale is considered a "great" earthquake. Earthquakes with a magnitude of 2.0 or less are not commonly felt by individuals. The largest earthquake to occur in the U.S. since 1900 took place off the coast of Alaska in Prince William Sound on March 28, 1964 and registered a 9.2 on the Richter Scale.

Intensity

Intensity refers to the effect an earthquake has on a particular location. The intensity of an earthquake is determined from observations made of the damage inflicted on individuals, structures, and the environment. As a result, intensity does not have a mathematical basis; instead, it is an arbitrary ranking of observed effects. In addition, intensity generally diminishes with distance. There may be multiple intensity recordings for a region depending on a location's distance from the epicenter.

Figure EQ-1
Earthquake Magnitude Classes

Class	Magnitude (Richter Scale)
micro	smaller than 3.0
minor	3.0 – 3.9
light	4.0 – 4.9
moderate	5.0 – 5.9
strong	6.0 – 6.9
major	7.0 – 7.9
great	8.0 or larger

Source: Michigan Technological University, UPSeis

Although numerous intensity scales have been developed over the years, the one currently used in the U.S. is the Modified Mercalli Intensity Scale. This scale, composed of 12 increasing levels of intensity that range from imperceptible shaking to catastrophic destruction, is designated by Roman numerals. The lower numbers of the intensity scale are based on human observations (i.e., felt only by a few people at rest, felt quite noticeably by persons indoors, etc.).

The higher numbers of the scale are based on observed structural damage (i.e., broken windows, general damage to foundations etc.). Structural engineers usually contribute information when assigning intensity values of VIII or greater. **Figure EQ-2** provides a description of the damages associated with each level of intensity as well as comparing Richter Scales values to Modified Mercalli Intensity Scale values.

Generally, the Modified Mercalli Intensity value assigned to a specific site after an earthquake is a more meaningful measure of severity to the general public than magnitude because intensity refers to the effects actually experienced at that location.

When and where do earthquakes occur?

Earthquakes can strike any location at any time. However, history has shown that most earthquakes occur in the same general areas year after year, principally in three large zones around the globe. The world's greatest earthquake belt, the circum-Pacific seismic belt (nicknamed the "Ring of Fire"), is found along the rim of the Pacific Ocean, where about 81 percent of the world's largest earthquakes occur.

The second prominent belt is the Alpide, which extends from Java to Sumatra and through the Himalayan Mountains, the Mediterranean Sea and out into the Atlantic Ocean. It accounts for about 17 percent of the world's largest earthquakes, including those in Iran, Turkey, and Pakistan. The third belt follows the submerged mid-Atlantic Ridge, the longest mountain range in the world, nearly splitting the entire Atlantic Ocean north to south.

While most earthquakes occur along plate boundaries some are known to occur within the interior of a plate. (As the plates continue to move and plate boundaries change over time, weakened boundary regions become part of the interiors of the plates.) Earthquakes can occur along zones

of weakness within a plate in response to stresses that originate at the edges of the plate or from deep within the earth's crust. The New Madrid earthquakes of 1811 and 1812 occurred within the North American plate.

Figure EQ-2
Comparison of Richter Scale and Modified Mercalli Intensity Scale

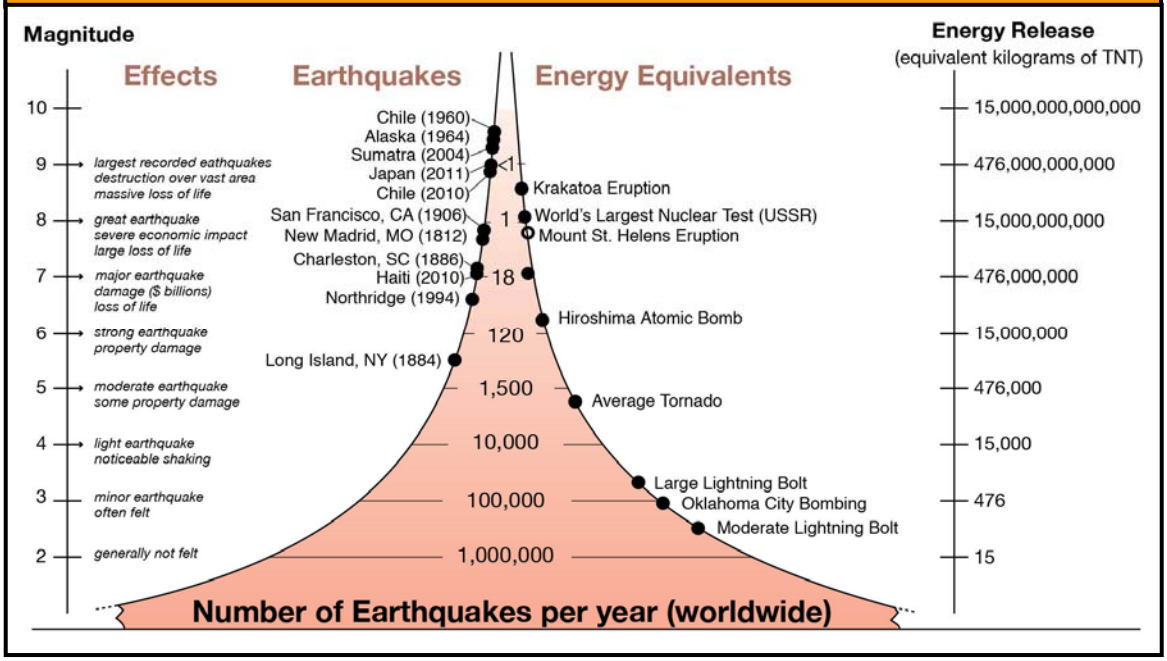
Richter Scale	Modified Mercalli Scale	Observations
1.0 – 1.9	I	Felt by very few people; barely noticeable. No damage.
2.0 – 2.9	II	Felt by a few people, especially on the upper floors of buildings. No damage.
3.0 – 3.9	III	Noticeable indoors, especially on the upper floors of buildings, but may not be recognized as an earthquake. Standing cars may rock slightly; vibrations similar to the passing of a truck. No damage.
4.0	IV	Felt by many indoors and a few outdoors. Dishes, windows, and doors disturbed. Standing cars rocked noticeably. No damage.
4.1 – 4.9	V	Felt by nearly everyone. Small, unstable objects displaced or upset; some dishes and glassware broken. Negligible damage.
5.0 – 5.9	VI	Felt by everyone. Difficult to stand. Some heavy furniture moved. Weak plaster may fall and some masonry, such as chimneys, may be slightly damaged. Slight damage.
6.0	VII	Slight to moderate damage to well-built ordinary structures. Considerable damage to poorly-built structures. Some chimneys may break. Some walls may fall.
6.1 – 6.9	VIII	Considerable damage to ordinary buildings. Severe damage to poorly built buildings. Some walls collapse. Chimneys, monuments, factory stacks, columns fall.
7.0	IX	Severe structural damage in substantial buildings, with partial collapses. Buildings shifted off foundations. Ground cracks noticeable.
7.1 – 7.9	X	Most masonry and frame structures and their foundations destroyed. Some well-built wooden structures destroyed. Train tracks bent. Ground badly cracked. Landslides.
8.0	XI	Few, if any structures remain standing. Bridges destroyed. Wide cracks in ground. Train tracks bent greatly. Wholesale destruction.
> 8.0	XII	Total damage. Lines of sight and level are distorted. Waves seen on the ground. Objects thrown up into the air.

Sources: Michigan Technological University, Department of Geological and Mining Engineering and Sciences, UPSeis.
U.S. Geological Survey.

How often do earthquakes occur?

Earthquakes occur every day. Magnitude 2 and smaller earthquakes occur several hundred times a day worldwide. These earthquakes are known as micro earthquakes and are generally not felt by humans. Major earthquakes, greater than magnitude 7, generally occur at least once a month. **Figure EQ-3** illustrates the approximate number of earthquakes that occur worldwide per year based on magnitude. This figure also identifies manmade and natural events that release approximately the same amount of energy for comparison.

Figure EQ-3
Approximate Number of Earthquakes Recorded Annually



Source: Incorporated Research Institutions for Seismology, Education and Outreach Series, "How Often Do Earthquakes Occur?"

HAZARD PROFILE

The following details the location of known fault zones and geologic structures, identifies past occurrences of earthquakes, details the severity or extent of each event (if known); identifies the locations potentially affected and estimates the likelihood of future occurrences.

Are there any faults located within the County?

Yes, there is one known fault zone located in Kendall County. The Sandwich Fault Zone is approximately 85 miles long and runs northwest-southeast across northern Illinois, from central Ogle County to southern Will County and is the largest fault zone in northern Illinois. This fault varies in width from ½ mile to 2 miles wide. **Figure EQ-4** illustrates the location of these geologic structures.

When have earthquakes occurred previously? What is the extent of these previous quakes?

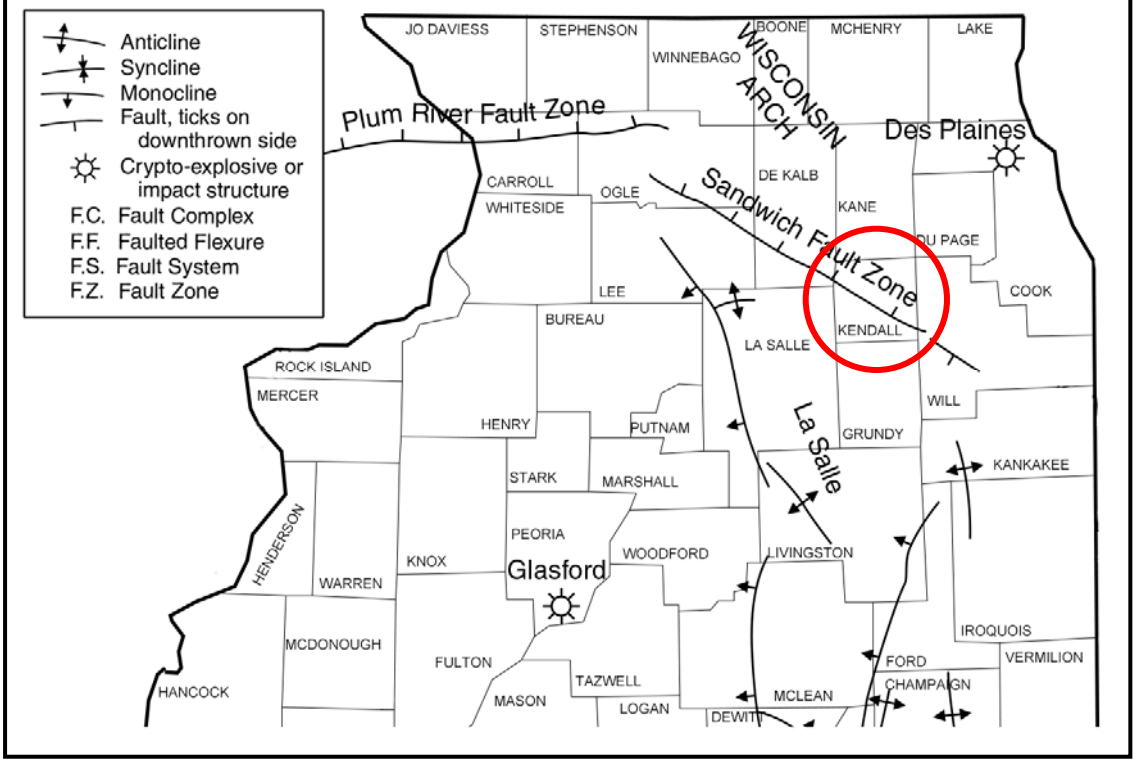
According to the Illinois State Geological Survey (ISGS), the U.S. Geological Survey and Center for Earthquake Research and Information (CERI) at the University of Memphis, one earthquake originated in Kendall

Earthquake Fast Facts – Occurrences

Earthquakes Originating in the County (1795 – 2022): ***1***
Fault Zones Located within the County: ***1***
Geological Structures Located within the County: ***None***
Earthquakes Originating in Adjacent Counties (1795-2022): ***6***
Fault Zones Located in Nearby Counties: ***None***
Geologic Structures Located in Adjacent Counties: ***1***

County during the last 200 years. On January 2, 1912, an estimated 4.0 to 4.9 magnitude earthquake originated northwest of Lisbon. This earthquake has an intensity rating of VI on the on the Modified Mercalli Intensity Scale.

Figure EQ-4
Geological Structures in Northern Illinois



Source: Illinois State Geological Survey.

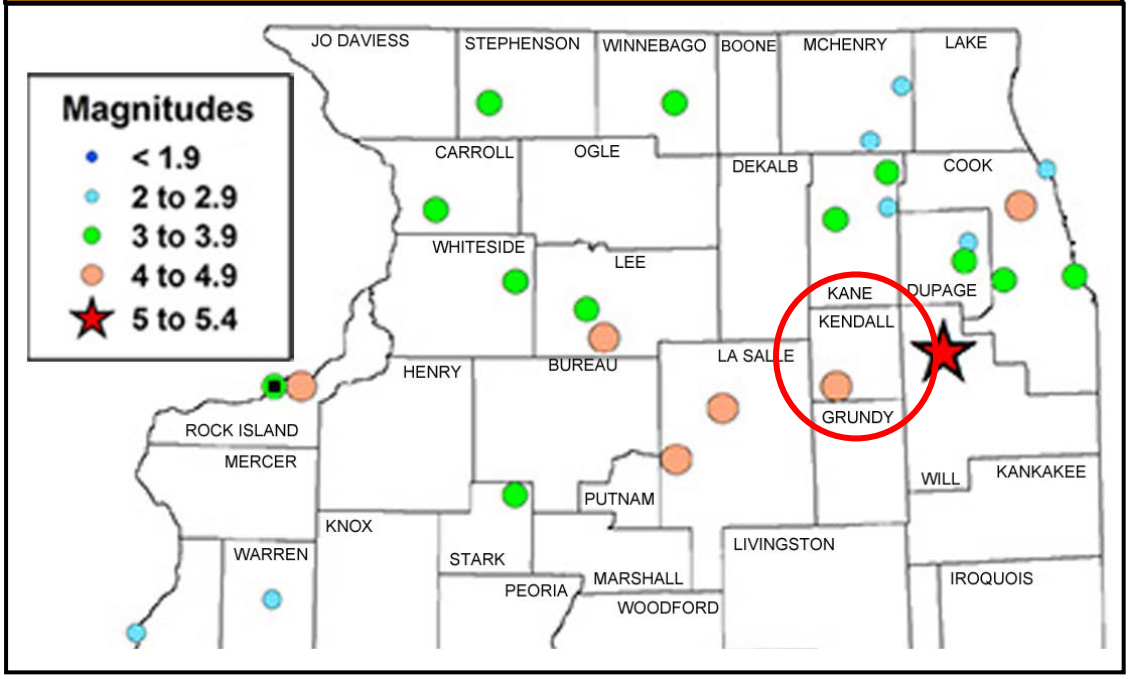
Additionally, County residents have felt ground shaking caused by earthquakes that have originated outside of the County. The following provides a brief description of these events while **Figure EQ-5** illustrates the epicenters this and nearby earthquakes.

Northeastern Illinois

Six earthquakes have originated in nearby LaSalle, Kane, and Will Counties. The following provides a brief description of each.

- On February 10, 2010 a magnitude 3.8 earthquake took place approximately two miles northeast of Virgil in Kane County. This earthquake was felt over much of Illinois, Indiana and central and southern Wisconsin. This earthquake had an intensity of IV on the Modified Mercalli Intensity Scale.
- An earthquake with a magnitude of 4.1 originated approximately eight miles northwest of Ottawa in LaSalle County on January 28, 2004. Ground shaking was felt across six states. This earthquake had an intensity of V on the Modified Mercalli Intensity Scale.

Figure EQ-5
Earthquakes Originating in Kendall Illinois



Source: Illinois State Geological Survey.

- On March 16, 1947, an earthquake with an estimated magnitude 2.6 originated in West Dundee in Kane County. This earthquake had an intensity of IV on the Modified Mercalli Intensity Scale.
- An earthquake with an estimated magnitude of 2.6 in South Elgin in Kane County on March 16, 1944. This earthquake had an intensity of IV on the Modified Mercalli Intensity Scale.
- On May 26, 1909, an earthquake with a magnitude of 5.1 originated somewhere in where Will, Kendall, Kane, and DuPage Counties meet. The exact location of this earthquake isn't known. No intensity rating was available for this event.
- An earthquake with an estimated magnitude of 4.4 originated approximately two miles west of Oglesby in LaSalle County on May 27, 1881. This earthquake had an intensity of VI on the Modified Mercalli Intensity Scale.

Northern Illinois

In addition to the above referenced event, there have been approximately two dozen other earthquakes that have occurred in northern Illinois in the last century, though none of them were greater than a magnitude 5.1. These earthquakes generally caused minor damage within 10 to 20 miles of the epicenter and were felt over several counties. Earthquakes greater than a magnitude 5 are generally not expected in this region. The following highlights a few of the other recent earthquakes that have taken place in northern Illinois.

- A magnitude 3.6 earthquake took place on November 6, 2023 approximately one mile from Standard in Putnam County. This earthquake had an intensity of IV on the Modified Mercalli Intensity Scale.

- On March 25, 2015 a magnitude 2.9 earthquake took place at Lake in the Hills in McHenry County. This earthquake was felt over several counties. Damage information was unavailable for this event. This earthquake had an intensity of IV on the Modified Mercalli Intensity Scale.
- A magnitude 3.2 earthquake took place on November 4, 2013 on the east side of McCook in Cook County. This earthquake was felt mainly in the Chicago metro area. No intensity rating was available for this event.

Southern Illinois

In addition to the above referenced events, Kendall County residents also felt ground shaking caused by several earthquakes that have originated in southern Illinois. The following provides a brief description of a few of the larger events that have occurred.

- On April 18, 2008, a magnitude 5.2 earthquake was reported in southeastern Illinois near Bellmont in Wabash County. The earthquake was located along the Wabash Valley seismic zone. Minor structural damage was reported in several towns in Illinois and Kentucky. Ground shaking was felt over all or parts of 18 states in the central U.S. and southern Ontario, Canada.
- A magnitude 5.2 earthquake took place on June 10, 1987, in southeastern Illinois near Olney in Richland County. This earthquake was also located along the Wabash Valley seismic zone. Only minor structural damage was reported in several towns in Illinois and Indiana. Ground shaking was felt over all or parts of 17 states in the central and eastern U.S. and southern Ontario, Canada.
- The strongest earthquake in the central U.S. during the 20th century occurred along the Wabash Valley seismic zone in southeastern Illinois near Dale in Hamilton County. This magnitude 5.4 earthquake occurred on November 9, 1968, with an intensity estimated at VII for the area surrounding the epicenter. Moderate structural damage was reported in several towns in south-central Illinois, southwest Indiana, and northwest Kentucky. Ground shaking was felt over all or parts of 23 states in the central and eastern U.S. and southern Ontario, Canada.

Three of the ten largest earthquakes ever recorded within the continental U.S. took place in 1811 and 1812 along the New Madrid seismic zone. This zone lies within the central Mississippi Valley and extends from northeast Arkansas through southeast Missouri, western Tennessee, western Kentucky, and southern Illinois. These magnitude 7.5 and 7.3 major earthquakes were centered near the town of New Madrid, Missouri and caused widespread devastation to the surrounding region and were felt by people in cities as far away as Pittsburgh, Pennsylvania and Norfolk, Virginia.

The quakes locally changed the course of the Mississippi River creating Reelfoot Lake in northwestern Tennessee. These earthquakes were not an isolated incident. The New Madrid seismic zone is one of the most seismically active areas of the U.S. east of the Rockies. Since 1974 more than 4,000 earthquakes have been recorded within this seismic zone, most of which were too small to be felt.

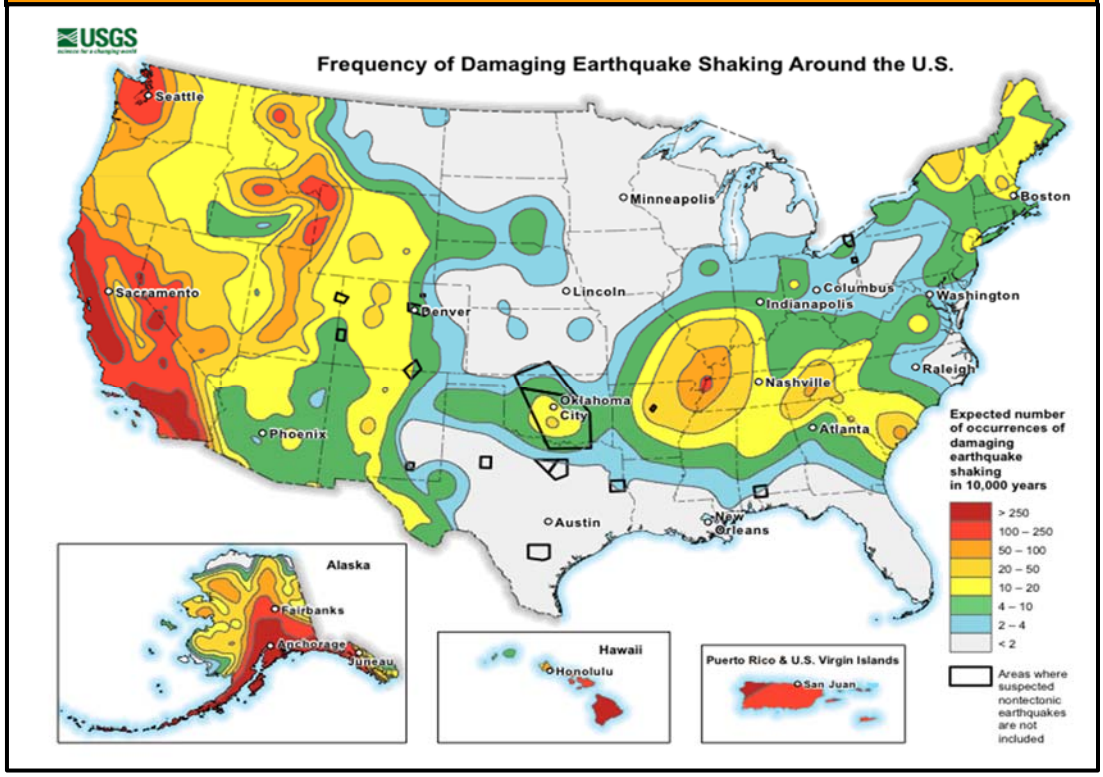
What locations are affected by earthquakes? What is the extent of future potential earthquakes?

Earthquake events generally affect the entire County. Earthquakes, like drought, impact large areas extending across an entire region and affecting multiple counties. Kendall County's

proximity to multiple fault zones, both large and small, makes the entire area likely to be affected by an earthquake if these faults become seismically active.

According to the USGS, Kendall County can expect 2 to 10 occurrences of damaging earthquake shaking over a 10,000-year period. **Figure EQ-6** illustrates the frequency of damaging earthquake shaking around the U.S.

Figure EQ-6
Frequency of Damaging Earthquake Shaking Around the U.S.



Source: U.S. Geological Survey.

What is the probability of future earthquake events occurring based on historical data?

As with flooding, calculating the probability of future earthquakes changes depending on the magnitude of the event. According to the ISGS, Illinois is expected to experience a magnitude 3.0 earthquake every year, a magnitude 4.0 earthquake every four years and a magnitude 5.0 earthquake every 20 years. The likelihood of an earthquake with a magnitude of 6.3 or greater occurring somewhere in the central U.S. within the next 50 years is between 86% and 97%.

While the major earthquakes of 1811 and 1812 do not occur often along the New Madrid fault, they are not isolated events. In recent decades, scientists have collected evidence that earthquakes similar in size and location to those felt in 1811 and 1812 have occurred several times before within the central Mississippi Valley around 1450 A.D., 900 A.D. and 2350 B.C.

The general consensus among scientists is that earthquakes similar to the 1811-1812 earthquakes are expected to recur on average every 500 years. The U.S. Geological Survey and the Center for Earthquake Research and Information (CERI) at the University of Memphis estimates that for a 50-year period the probability of a repeat of the 1811-1812 earthquakes is between 7% and 10% and the probability of an earthquake with a magnitude of 6.0 or larger is between 25% and 40%.

HAZARD VULNERABILITY

The following describes the vulnerability to participating jurisdictions, identifies the impacts on public health and property (if known) and estimates the potential impacts on public health and safety as well as buildings, infrastructure, and critical facilities from earthquakes.

Are the participating jurisdictions vulnerable to earthquakes?

Yes. All of Kendall County is vulnerable to earthquakes. The unique geological formations topped with glacial drift soils found in the central U.S. conduct an earthquake's energy farther than in other parts of the Nation. Consequently, earthquakes that originate in the Midwest tend to be felt at greater distances than earthquakes with similar magnitudes that originate on the West Coast.

Earthquake Fast Facts – Risk

Earthquake Risk/Vulnerability:

- Public Health & Safety – Light/Moderate Quake within the County or immediate region: ***Low***
- Public Health & Safety – Strong Quake within the County or immediate region: ***Low to Medium***
- Buildings/Infrastructure/Critical Facilities – Light/ Moderate Quake within the County or immediate region: ***Low***
- Buildings/Infrastructure/Critical Facilities – Strong Quake within the County or immediate region: ***Low to Medium***

This vulnerability, found throughout most of Illinois and all of Kendall County, is compounded by relatively high water tables within the region. When earthquake shaking mixes the groundwater and soil, ground support is further weakened thus adding to the potential structural damages experienced by buildings, roads, bridges, electrical lines, and natural gas pipelines.

The infrequency of major earthquakes, coupled with relatively low magnitude/intensity of past events, has led the public to perceive that Kendall County is not vulnerable to damaging earthquakes. This perception has allowed the County and participating municipalities to develop largely without regard to earthquake safety.

The *2023 Illinois Natural Hazard Mitigation Plan* prepared by IEMA-OHS classifies Kendall County's hazard rating for earthquake as "very low". IEMA-OHS's overall hazard rating system has five levels: very low, low, medium, high, and very high.

For earthquakes, FEMA's National Risk Index (NRI) rates the County as a whole as "relatively low". All 24 census tracts are rated "Relatively Low" or "Very Low" for earthquakes. **Table R-5** presents the overall NRI scores and ratings for each census tract as well as for the County as a whole.

Have any of the participating jurisdictions identified specific assets vulnerable to the impacts of earthquakes?

No. Based on responses to an Assets Vulnerability Survey distributed to the participating jurisdictions, none of the participating jurisdictions consider specific assets within their jurisdictions vulnerable to earthquakes.

What impacts resulted from the recorded earthquake events?

Property damage figures were either unavailable or none were recorded, and no injuries or fatalities were reported as a result of the January 2, 1912 earthquake that originated in Kendall County. While Kendall County residents felt the earthquakes that have occurred in Illinois, no damages were reported as a result of these events. Given the magnitude of the great earthquakes of 1811 and 1812, it is almost certain that individuals in what is now Kendall County felt those quakes; however, historical records do not indicate the intensity or impacts that these quakes had on the County.

What other impacts can result from earthquakes?

Earthquakes can impact human life, health, and public safety. **Figure EQ-7** details the potential impacts that may be experienced by the County should a magnitude 6.0 or greater earthquake occur in the region.

What is the level of vulnerability to public health and safety from earthquakes?

The risk or vulnerability to public health and safety from an earthquake is dependent on the intensity and location of the event. Since there is one known fault in Kendall County, there is the possibility that another earthquake will originate in the County at some point in the future and cause damage. However, there have not been any earthquakes associated with these faults in the last 200 years and the fault zones in northern Illinois are not expected to produce an earthquake greater than a magnitude 5.0. Therefore, if a light earthquake originates within the County or from the structures in the immediate region, the risk or vulnerability to public health and safety is considered ***low***. This risk is elevated to ***low to medium*** for a strong earthquake originating in the immediate region and ***medium*** for a strong earthquake originating within the County.

Are existing buildings, infrastructure, and critical facilities vulnerable to earthquakes?

Yes. All existing buildings, infrastructure and critical facilities located in Kendall County and the participating jurisdictions are vulnerable to damage from earthquakes. However, given the County's size (about 131,000 individuals), its population density, the fact that there are few buildings higher than two stories (with the exception of grain elevators and multi-story buildings in Oswego) tempered by the low potential for magnitude 5.0 and above earthquakes to occur in the immediate region, the damage is anticipated to be slight with only superficial structure damage such as broken windows and cracks in weak plaster and masonry.

If a strong earthquake (6.0 – 6.9) were to occur in the region, then unreinforced masonry buildings are most at risk during an earthquake because the walls are prone to collapse outward. Steel and wood buildings have more ability to absorb the energy from an earthquake while wood buildings with proper foundation ties have rarely collapsed in earthquakes. In this scenario building damage in Kendall County would range from moderate to considerable for well-built ordinary structures and considerable to severe for poorly-built structures. **Figure EQ-8**, located at the end of this

section, identifies the number of unreinforced masonry buildings that serve as critical facilities within the participating jurisdictions.

Figure EQ-7
Potential Earthquake Impacts

Direct	Indirect
Buildings • Temporary displacement of businesses, households, schools, and other critical services where heat, water and power are disrupted • Long-term displacement of businesses, households, schools, and other critical services due to structural damage or fires *Transportation* • Damages to bridges (i.e., cracking of abutments, subsidence of piers/supports, etc.) • Cracks in the pavement of critical roadways • Increased traffic on Interstate, U.S., and State Routes (especially if the quake originates along the Sandwich Fault Zone) as residents move out of the area to seek shelter and medical care and as emergency response, support services and supplies move south to aid in recovery • Misalignment of rail lines due to landslides (most likely near stream crossings), fissures and/or heaving *Utilities* • Downed power and communication lines • Breaks in drinking water and sanitary sewer lines resulting in the temporary loss of service • Disruptions in the supply of natural gas due to cracking and breaking of pipelines *Health* • Injuries/deaths due to falling debris and fires *Other* • Cracks in the earthen dams of the lakes and reservoirs within the County which could lead to dam failures	*Health* • Use of County health facilities (especially if the quake originates along the New Madrid Fault) to treat individuals injured closer to the epicenter • Emergency services (ambulance, fire, law enforcement) may be needed to provide aid in areas where damage was greater *Other* • Disruptions in land line telephone service throughout an entire region (i.e., central and southern Illinois) • Depending on the seasonal conditions present, more displacements may be expected as those who may not have enough water and food supplies seek alternate shelter due to temperature extremes that make their current housing uninhabitable

An earthquake also has the ability to damage infrastructure and critical facilities such as roads and utilities. In the event of a major earthquake, bridges are expected to experience moderate damage such as cracking in the abutments and subsidence of piers and supports. The structural integrity may be compromised to the degree where safe passage is not possible, resulting in adverse travel times as alternate routes are taken. Some rural families may become isolated where alternate paved routes do not exist. In addition, cracks may form in the pavement of key roadways. **Figure R-6** lists the number of each type of critical infrastructure by jurisdiction.

An earthquake may also down overhead power and communication lines causing power outages and disruptions in communications. Cracks or breaks may form in natural gas pipelines and

drinking water and sewage lines resulting in temporary loss of service. In addition, an earthquake could cause cracks to form in the earthen dams located within the County, increasing the likelihood of a dam failure.

As with public health and safety, the risk or vulnerability to buildings, infrastructure and critical facilities is dependent on the intensity and location of the event. The risk to buildings, infrastructure and critical facilities is considered to be ***low*** for a light to moderate earthquake that originates within the County or immediate region. This risk is elevated to ***low/medium*** for a strong earthquake originating in the immediate region and ***medium*** for a strong earthquake originating within the County.

Are future buildings, infrastructure, and critical facilities vulnerable to earthquakes?

Yes. All future buildings, infrastructure and critical facilities located in Kendall County and the participating jurisdictions are vulnerable to damage from earthquakes. While the County and all of the participating municipalities, with the exception of Lisbon and Plattville, have building codes in place, these codes do not contain seismic provisions that address structural vulnerability for earthquakes. As a result, there is the potential for future buildings, infrastructure, and critical facilities to face the same vulnerabilities as those of existing buildings, infrastructure, and critical facilities described previously.

What are the potential dollar losses to vulnerable structures from earthquakes?

Since property damage information was either unavailable or none was recorded for the documented earthquakes that impacted Kendall County, there is no way to accurately estimate future potential dollar losses to vulnerable structures. However, according to County officials the total equalized assessed values of all residential, commercial, and industrial buildings in the planning area is $4,444,350,435. Since all of the structures in the planning area are susceptible to earthquake impacts to varying degrees, this total represents the countywide property exposure to earthquake events.

Given Kendall County's proximity to geologic structures and fault zones, both large and small, and the fact that all structures within the County are vulnerable to damage, it is likely that there will be future dollar losses from any earthquake ranging from strong to great. As a result, participating jurisdictions were asked to consider mitigation projects that could provide wide ranging benefits for reducing the impacts or damages associated with earthquakes.

Figure EQ-8
Number of Unreinforced Masonry Buildings Serving as Critical Facilities by Jurisdiction

Participating Jurisdiction	Government[1]	Law Enforcement	Fire Stations	Ambulance Service	Schools	Drinking Water	Wastewater Treatment	Medical[2]	Healthcare Facilities[3]
Kendall County	---	---	---	---	---	---	---	---	---
Lisbon	---	---	---	---	---	---	---	---	---
Montgomery	---	---	---	---	---	---	---	---	---
Newark	---	---	---	---	---	---	---	---	---
Oswego	---	---	---	---	---	---	---	---	---
Plano	---	---	---	---	---	---	---	---	---
Plattville	1	---	---	---	---	---	---	---	---
Yorkville	2	---	---	---	7	---	---	---	---
Kendall Township	---	---	---	---	---	---	---	---	---
Oswego Township	2	---	---	---	---	---	---	---	---
Lisbon CCSD #90	---	---	---	---	1	---	---	---	---
Newark CHSD #18	---	---	---	---	---	---	---	---	---
Oswego CUSD #308	---	---	---	---	---	---	---	---	---
Parkview Christian Academy	---	---	---	---	1	---	---	---	---
Plano CUSD #88	---	---	---	---	5	---	---	---	---
St. Mary Catholic School	---	---	---	---	1	---	---	---	---
Bristol-Kendall FPD	---	---	---	---	---	---	---	---	---
Lisbon-Seward FPD	---	---	---	---	---	---	---	---	---
Newark FPD	1	---	1	1	2	---	---	---	---
Oswego FPD	---	---	---	---	---	---	---	---	---
Sandwich Community FPD	1	---	---	---	7	---	---	---	---
Oswegoland Park District	---	---	---	---	---	---	---	---	---

[1] Government includes: courthouses, city/village halls, township buildings, highway/road maintenance centers, etc.
[2] Medical includes: public health departments, hospitals, urgent/prompt care, and medical clinics.
[3] Healthcare Facilities include: nursing homes, skilled care facilities, memory care facilities, residential group homes, etc.
--- Indicates jurisdiction does not own/maintain any critical facilities within that category.

3.9 MAN-MADE HAZARDS

While the focus of this Plan update is on natural hazards, an ***overview of selected man-made hazards*** has been included. The Committee recognizes that man-made hazards can also pose risks to public health and property. The extent and magnitude of the impacts that result from man-made hazard events can be influenced by natural hazard events. For example, severe winter storms can cause accidents involving trucks transporting hazardous substances. These accidents may lead to the release of these substances, which can result in injury and potential contamination of the natural environment.

Consequently, the Planning Committee decided to summarize the more prominent man-made hazards in Kendall County. The man-made hazards profiled in this Plan update include:

- Hazardous Substances
  - Generation
  - Transportation
  - Storage/Handling
- Waste Disposal
- Hazardous Material Incidents
- Hazardous Waste Remediation
- Nuclear Incidents
- Terrorism

While the man-made hazards risk assessment does not have the same depth as the natural hazards risk assessment, it does provide useful information that places the various man-made hazards in perspective.

3.9.1 Hazardous Substances

Hazardous substances broadly include any flammable, explosive, biological, chemical, or physical material that has the potential to harm public health or the environment. For the purposes of this Plan, the term hazardous substance includes hazardous product and hazardous waste. A hazardous waste is defined as the byproduct of a manufacturing process that is either listed or has the characteristics of ignitability, corrosivity, reactivity, or toxicity and cannot be reused. A hazardous product is all other hazardous material.

Hazardous substances can pose a public health threat to individuals at their workplace and where they reside. The type and quantity of the substance, the pathway of exposure (inhalation, ingestion, dermal, etc.), and the frequency of exposure are factors that will determine the risk of adverse health effects experienced by individuals. Impacts can range from minor, short-term health issues to chronic, long-term illnesses.

In addition to impacting public health, hazardous substances can also cause damage to buildings, infrastructure, and the environment. Incidents involving hazardous substances can range from minor (scarring on building floors and walls) to catastrophic (i.e., destruction of entire buildings, structural damage to roadways, etc.) and lead to injuries and fatalities. The number of incidents involving hazardous substances in Illinois and across the U.S. every year underscores the need for trained and equipped emergency responders to minimize damages.

Since 1970, significant changes have occurred in regard to how hazardous substances are transported and disposed. Comprehensive regulations and improved safety and industrial hygiene practices have reduced the frequency of incidents involving hazardous substances. Based on the

small number of facilities in Kendall County that generate and use hazardous substances, the population size, transportation patterns, and land use, the probability of a release occurring in Kendall County should remain similar to other counties in Illinois. The relatively low numbers of transportation incidents should not diminish municipal or county commitment to emergency management.

HAZARD PROFILE – HAZARDOUS SUBSTANCES

The following subsections identify the general pathways – generation, transportation, and storage/handling – by which hazardous substances pose a risk to public health and the environment in Kendall County.

Hazardous Substances Fast Facts - Occurrences

Generation
Number of Facilities that Generate Reportable Quantities of Hazardous Substances (2021): ***2***

Transportation
Number of Roadway Incidents Involving Hazardous Substance Shipments (2012 - 2021): ***11***

Number of Railway Accidents/Incidents Involving Hazardous Substance Shipments (2012 - 2021): ***1***

Number of Pipeline Incidents Involving Hazardous Substances (2012 - 2021): ***3***

Storage/Handling
Number of Facilities that Store/Handle Hazardous Substances (2021): ***41***

Number of Facilities that Store/Handle Extremely Hazardous Substances (2021): ***13***

3.9.1.1 Generation

Kendall County has two facilities that generate reportable quantities of hazardous substances as a result of their operations according to the U.S. Environmental Protection Agency (USEPA) Toxic Release Inventory. **Figure MMH-1** identifies the hazardous substance generators located in Kendall County and summarizes the substances generated.

Figure MMH-1
Generators of Solid & Liquid Hazardous Substances – 2021

Name	Hazardous Substances Generated	Amount Generated (Pounds)
Plano		
Midwest Manufacturing Treating Plant	Copper compounds	0
	Total:	*0*
Plano Metal Specialties Inc	Copper	106
	Lead compounds	3
	Total:	*109*

Source: U.S. Environmental Protection Agency, TRI Explorer, Releases: Facility Report.

3.9.1.2 Transportation

Roadways

Illinois has the nation's third largest interstate system and third largest inventory of bridges. According to the Illinois Department of Transportation, there were just over 147,000 miles of highways and streets in Illinois in 2021. Most of the truck traffic in Kendall County is carried on Interstate 80. Other major roadways that carry truck traffic include U.S. Route 30, U.S. Route 34, U.S. Route 52, Illinois Route 25, Illinois Route 31, Illinois Route 47, Illinois Route 71, and Illinois Route 126. While this modern roadway system provides convenience and efficiency for

commuters, it also aids inter-state and intra-state commerce which includes the transportation of hazardous substances. A Commodity Flow Study to gauge chemical transport has not been conducted for Kendall County.

According to records obtained from the Illinois Emergency Management Agency (IEMA), there were 11 recorded roadway incidents involving the shipment of hazardous substances in Kendall County between 2012 through 2021. **Figure MMH-2** provides information on these incidents.

Figure MMH-2
Roadway Incidents* Involving Shipments of Hazardous Substances
2012 – 2021

Date	Area	Location	Hazardous Product Released	Quantity Released
9/10/2012	Plainfield[^]	IL Route 126, east of Ridge Rd & west of County Line Rd	Diesel fuel	Unknown
7/24/2014	Aurora	South Orchard Rd	Diesel fuel Hydraulic fluid	5 gallons 25 gallons
9/11/2015	Minooka[^]	U.S. 52 & Grove Rd	Gasoline	200 gallons
3/3/2016	Yorkville[^]	IL Route 47 & Galena Rd	Diesel fuel	Unknown
3/4/2016	Yorkville[^]	IL Route 47 & Galena Rd	Diesel fuel	20 gallons
11/16/2016	Minooka[^]	Ashley Rd & White Willow Rd	Anhydrous ammonia	3,000 gallons
10/11/2017	Minooka[^]	I-80, eastbound MP 122	Motor oil	330 gallons
1/22/2018	Yorkville[^]	IL Route 71 & Highpoint Rd	Hydraulic oil & Diesel fuel	Unknown
2/13/2018	Lisbon[^]	IL Route 47, south of U.S. Route 52	Diesel fuel	25 gallons
7/2/2020	Minooka[^]	I-80, eastbound exit 122	Diesel fuel	25 gallons
8/24/2021	Yorkville[^]	IL Route 47 & Walker Rd	Diesel fuel	Unknown

* For the purposes of this report a roadway incident is generally defined as an accident/incident that occurs while in the process of transporting a hazardous substance(s) on a highway, roadway, access drive, field entrance, rest area or parking lot. Vehicles that experience a release while refueling are not considered roadway incidents but are instead considered fixed facility incidents.

[^] Accident verified in the vicinity of this area.

Railways

Illinois' rail system is the country's second largest, with the East St. Louis and Chicago terminals being two of the busiest in the nation. In Kendall County there is one Class I rail line operated by Burlington Northern Santa Fe Railway. According to the Association of American Railroads, 3,796,300 carloads (125.9 million tons) of freight originated in Illinois in 2019 (the latest year for which data is available). Chemicals accounted for 101,100 carloads (9.7 million tons) or 2.8% of the total freight handled. In comparison, 27,549,000 carloads of freight originated in the U.S. in 2019 with approximately 2,014,000 carloads (7.1%) involved in the transport of chemicals.

The Illinois Commerce Commission (ICC) is required to maintain records on railway accidents/incidents that involve hazardous substances. Their records are divided into three categories. These three categories are described in **Figure MMH-3**.

Figure MMH-3
ICC Hazardous Substances Railroad Accident/Incidents Classification Categories

Category	Description
A	railroad derailments resulting in the release of the hazards substance(s) being transported
B	railroad derailments where hazards substance(s) were being transported but no release occurred
C	releases of hazardous substance(s)s from railroad equipment occurred; however, no railroad derailment was involved

Since 2012, there have been no rail accidents involving hazardous substances in Kendall County according to the ICC. In comparison, ICC records indicate that since 2012 the annual number of railway accidents in Illinois involving hazardous substances has ranged between 45 and 122. **Figure MMH-4**, located at the end of this section, provides a breakdown by category of the ICC-recorded railway accidents/incidents involving hazardous substances. Included is a comparison of the number of accidents/incidents in Kendall County to those in Cook and the Collar Counties as well as the rest of Illinois.

According IEMA's hazardous materials incident records for 2013 through 2022, there was an additional rail accident/incident involving the release of hazardous substances. **Figure MMH 5** provides information on these incidents by rail line. No derailments were associated with any of these accidents/incidents.

Figure MMH-5
IEMA Recorded Railway Accidents/Incidents Involving Hazardous Substances
2013 - 2022

Date	Area	Location	Hazardous Substance Released	Quantity Released
BNSF				
1/25/2011	Montgomery	Knell Road	Diesel fuel	900 gallons

^ Accident/incident verified in the vicinity of this area.

Source: Illinois Emergency Management Agency, Hazardous Materials Incident Reports.

The top 20 hazardous substances moved by rail through Illinois include: sodium hydroxide, petroleum gases (liquefied), sulfuric acid, anhydrous ammonia, chlorine, sulfur, vinyl chloride, propane, fuel oil, denatured alcohol, methanol, gasoline, phosphoric acid, hydrochloric acid, styrene monomer, carbon dioxide (refrigerated liquid), ammonium nitrate, sodium chlorate, and diesel fuel.

Pipelines

Energy gases (natural gas and liquefied petroleum gas), petroleum liquids (crude oil and gasoline), and liquid and gas products used in industrial processes are carried in above-ground and buried pipelines across Illinois. In Kendall County, there are five major pipelines that carry natural gas, one each operated by ANR Pipeline Co., Guardian Pipeline LLC, Kendall Power Co., natural Gas Pipeline of America, and Northern Border Pipeline. There are also two major pipelines carrying crude oil, gasoline, or hazardous liquids crossing the County from northwest to southeast. One is

operated by Amoco Oil Co. and the other is operated by Enbridge Energy. **Figure MMH-6** shows the pipelines in Kendall County.

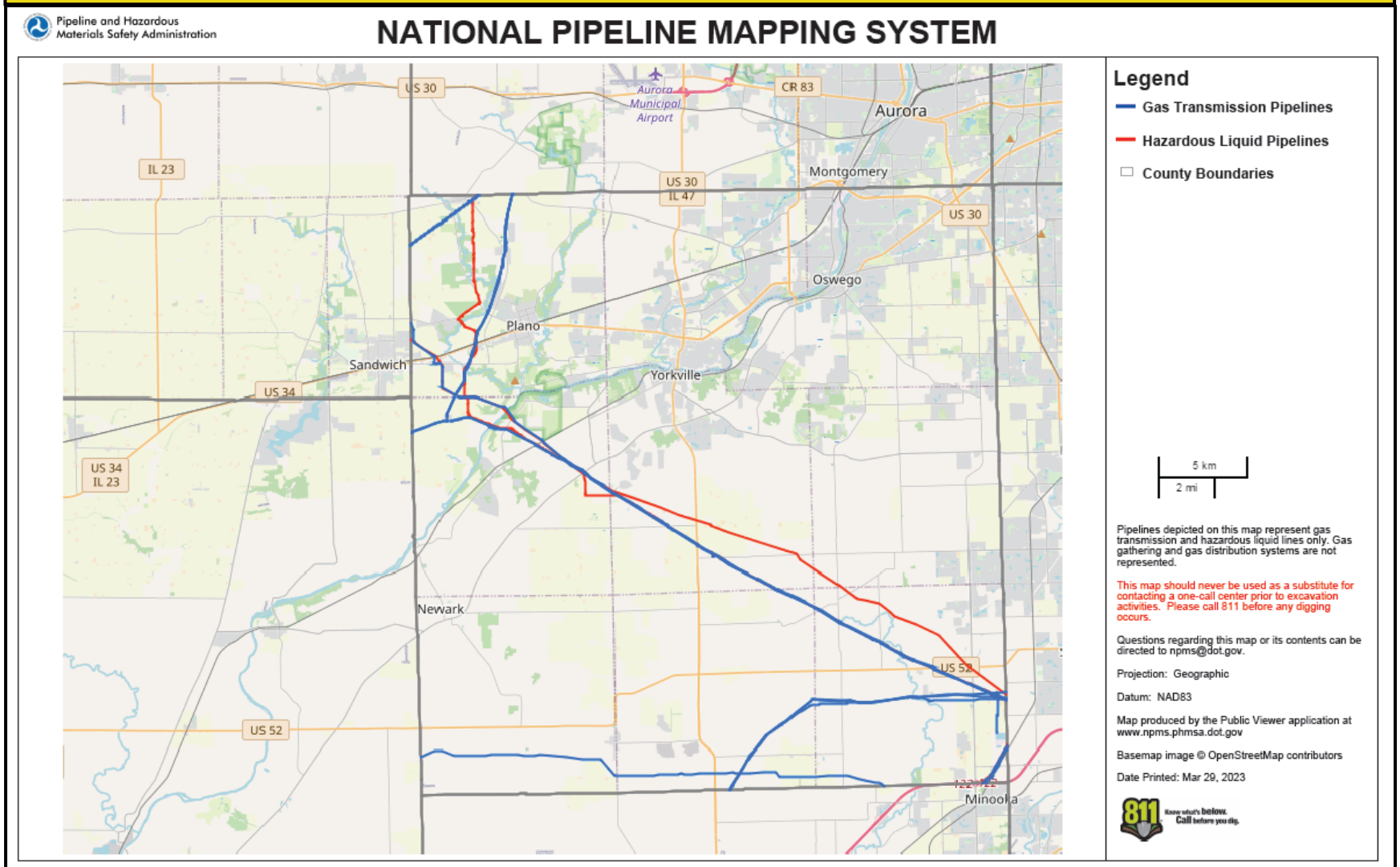
Three natural gas pipeline releases occurred in Kendall County during a 10-year period from 2012 through 2021. All of the releases occurred at the ANR Pipeline Company's Sandwich Compressor Station in unincorporated Kendall County. The first release occurred on July 13, 2012 when gas leaked by a fuel line block/bleed valve and some accumulated in the blowdown exhaust silencer and was ignited by a mechanical spark from the turbocharger causing an explosion to occur inside the silencer, damaging the silencer and nearby connecting facilities. No personnel were injured in the incident.

The second release occurred on August 9, 2013 when gas that had leaked into the crankcase of a unit ignited causing an explosion that damaged the engine and building. Three technicians received first aid attention for their minor injuries at a local medical clinic. The third release occurred on September 2, 2017 when two release valves were incorrectly positions allowing gas to vent from the station intermittently for about 31 minutes.

There have been several high-profile incidents across the U.S., including one in Illinois, that have raised public concerns about our aging pipeline infrastructure. The following provides a brief description of each incident.

- On July 26, 2010, a 30-inch liquid product pipeline rupture near Marshall, Michigan and released at least 840,000 gallons of oil into a creek that led to the Kalamazoo River, a tributary of Lake Michigan.
- On September 9, 2010, another pipeline release received national attention. A 34-inch liquid product pipeline in the Chicago suburb of Romeoville, Illinois released more than 360,000 gallons of crude oil that flowed through sewers and into a retention pond narrowly avoiding the Des Plaines River. This release triggered numerous odor complaints from residents in the adjacent municipalities of Lemont and Bolingbrook. The property damage/cleanup costs were estimated at $46.6 million.
- Also, on September 9, 2010, a 30-inch-high pressure natural gas pipeline ruptured in the San Francisco suburb of San Bruno, California that resulted in an explosion that killed
- eight people, injured 51, destroyed over 30 homes and damaged an entire neighborhood. The property damage was estimated at around $55 million.
- On March 12, 2014, a gas main rupture in Manhattan, New York resulted in an explosion that killed eight people and leveled two multi-use, five story buildings.
- On May 19, 2015, a 24-inch liquid product pipeline ruptured near Refugio State Beach in Santa Barbara County, California and released approximately 100,000 gallons of crude oil. The release occurred along a rustic stretch of coastline that forms the northern boundary of the Santa Barbara Channel, home to a rich array of sea life. Oil ran down a ravine and entered the Pacific Ocean, blackening area beaches, creating a 9-mile oil slick and impacting birds, marine mammals, fish, and coastal and subtidal habitats.

Figure MMH-6
Pipeline Location Map



Continual monitoring and maintenance of these pipelines is necessary to prevent malfunctions from corrosion, aging, or other factors that could lead to a release. In addition to normal wear and tear experienced by pipelines, the possibility of sabotage and seismic activity triggering a release must be considered when contemplating emergency response scenarios.

3.9.1.3 Storage/Handling

Beyond knowing where hazardous substances are generated and the methods and routes used to transport them, it is important to identify where hazardous substances are handled and stored. This information will help government officials and emergency management professionals make informed choices on how to better protect human health, property and the environment and what resources are needed should an incident take place.

Records obtained from IEMA-OHS's Tier II database were used to gather information on the facilities that generate, use and store chemicals in excess of reportable threshold quantities within Kendall County. The Tier II information was then compared with USEPA's Toxic Release Inventory (TRI) and information from Illinois Environmental Protection Agency (IEPA) databases. This review identified 41 facilities within Kendall County in 2021 that store and handle hazardous substances

Of these 41 facilities, 13 reported the presence of Extremely Hazardous Substances (EHSs) at their facilities. An EHS is any USEPA-identified chemical that could cause serious, irreversible health effects from an accidental release. There are approximately 400 chemicals identified as EHSs. Stationary sources that possess one or more of these substances at or above threshold reporting quantities are required to notify IEMA.

3.9.2 Waste Disposal

Waste disposal has caused surface water and ground water contamination in Illinois and across the U.S. Beginning in the late 1970s substantial regulatory changes strengthened the design, operating and monitoring requirements for landfills where the majority of waste is disposed. These regulatory changes have helped reduce the public health threat posed by landfills.

HAZARD PROFILE – WASTE DISPOSAL

The following subsections identify the general pathways – solid, medical, and hazardous – by which waste disposal poses a risk to public health and the environment in Kendall County.

Waste Disposal Fast Facts - Occurrences

Solid Waste
Number of Solid Waste Landfills Operating in Kendall County (2022): ***None***

Number of Landfills Serving Kendall and adjacent counties (2022): ***4***

Potentially-Infectious Medical Waste (PIMW)
Number of Facilities within the County Permitted to Handle PIMW: ***None***

Hazardous Waste
Number of Commercial Off-Site Hazardous Waste Treatment or Disposal Facilities located in the County: ***None***

3.9.2.1 Solid Waste

While recycling activities have reduced the amount of solid waste (waste generated in households), the majority continues to be disposed of in landfills. As of 2021, there were 36 landfills operating in Illinois.

According IEPA's Annual Landfill Capacity Report issued in July 2022, there were no commercial landfills that operate in Kendall County. There are currently four landfills that serve Kendall and the adjacent counties. These landfills include Laraway Recycling and Disposal in Joliet (Will County), Prairie View Recycling and Disposal in Wilmington (Will County), DeKalb County Landfill in DeKalb (DeKalb County), and the LandComp Landfill in Ottawa (LaSalle County).

3.9.2.2 Potentially- Infectious Medical Waste

Potentially-Infectious Medical Waste (PIMW) is generated in connection with medical research; biological testing; and the diagnosis, treatment or immunization of human beings or animals. PIMW is typically generated at hospitals, nursing homes, medical or veterinary clinics, dental offices, clinical or pharmaceutical laboratories, and research facilities. According to IEPA's list of permitted PIMW Facilities, there are no facilities permitted to accept medical waste for disposal in Kendall County.

3.9.2.3 Hazardous Waste

A hazardous waste is defined as the byproduct of a manufacturing process that is either listed or has the characteristics of ignitability, corrosivity, reactivity, or toxicity and cannot be reused. According to IEPA's Storage, Treatment, Recycling, Incinerating, Transfer Stations, and Processing list, there are currently no off-site hazardous waste treatment or disposal facilities located in Kendall County.

3.9.3 Hazardous Material Incidents

A hazardous material or hazmat incident refers to any accident involving the release of hazardous substances, which broadly include any flammable, explosive, biological, chemical, or physical material that has the potential to harm public health or the environment. These incidents can take place where the substances are used, generated, or stored or while they are being transported. In addition, hazmat incidents also include the release of hazardous substances, such as fuel, used to operate vehicles. These releases can be the result of an accident or a leak.

HAZARD PROFILE – HAZARDOUS MATERIALS INCIDENTS

From 2012 to 2021, there were 30 hazmat incidents recorded in Kendall County. Of these incidents, 12 (40%) involved transportation incidents or accidents while 18 (60%) occurred at fixed facilities. Eleven (37) of the 12 (74%) transportation incidents or accidents involved petroleum-based products.

Hazmat Incident Fast Facts - Occurrences

Number of Hazardous Material Incidents in Kendall County (2012 - 2021): ***30***

Number of Transportation-Related Incidents/Accidents: ***12***

Number of Fixed Facility-Related Incidents/Accidents: ***18***

Average Number of Hazardous Material Incidents Experienced Annually: ***3***

Based on the recorded incidents, Kendall County experienced an average of three hazmat incidents annually from 2012 through 2021. The types of existing industries; the major transportation corridors through the County, which include interstate and Illinois highways, rail, and pipeline; and chemical use within and adjacent to the County suggest that hazmat incidents are likely to

continue to take place at the rate reflected in the 10-year study period. Constant vigilance, proper training and equipment, and prompt response are needed to minimize the potential impacts of each incident.

3.9.4 Waste Remediation

The improper disposal or containment of special and hazardous waste through the years has led to soil, groundwater, and surface water contamination of sites across the U.S. In order to safeguard human health and the environment, these contaminants must be removed or neutralized so they cannot cause harm. This process is known as waste remediation.

HAZARD PROFILE – WASTE REMEDIATION

In Illinois, waste remediation is handled through several programs including the federal Superfund program, the State Response Action Program, the state Site Remediation Program, and the Leaking Underground Storage Tanks Program. The following provides a brief description of each.

Waste Remediation Fast Facts - Occurrences

Superfund
Number of Superfund Sites in the County: ***None***

Illinois Site Response Action Program
Number of SRAP Sites in the County: ***3***

Illinois Site Remediation Program
Number of SRP Sites in the County: ***16***

Number of SRP Sites with NFR/4Y Letters: ***12***

Illinois Leaking Underground Storage Tanks Program
Number of LUST Sites in County: ***79***

Number of LUST Sites with NFR/Non-LUST/4Y Letters: ***66***

Superfund (CERLCA) Program/ National Priorities List
Superfund is a USEPA-led program to clean up sites within the U.S. contaminated by hazardous waste that has been dumped, left out in the open, or otherwise improperly managed and which pose a risk to human health and/or the environment. Sites of national priority among the known or threatened releases of hazardous substances, pollutants or contaminants throughout the U.S. and its territories are identified on the National Priorities List (NPL). Those sites that pose the largest threat to public health and the environment are typically found on the NPL.

According to the NPL database, there are 45 Superfund sites in Illinois. There are no Superfund sites in Kendall County.

State Response Action Program (SRAP)
The main objective of the State Response Action Program (SRAP) is to clean up hazardous substances at sites that present an imminent and substantial threat to human health and the environment, but which may not be addressed by other federal or state cleanup programs. The sites handled by the SRAP include abandoned landfills, old manufacturing plants, former waste oil recycling operations, contaminated agrichemical facilities, and other areas where surface water, groundwater, soil, and air may be contaminated with hazardous substances. Since the mid-1980s, cleanup activities have been conducted at more than 500 sites in Illinois through this Program. Once the threat to human health and the environment has been mitigated, some sites are transferred to other state cleanup programs to complete remediation activities.

There are three SRAP sites in Kendall County, all of which have either completed the program or been transferred to another program.

Illinois Site Remediation Program (SRP)
The Site Remediation Program (SRP) is a voluntary cleanup program that provides applicants the opportunity to receive technical assistance in determining what course of action is needed to remediate sites where hazardous substances, pesticides, or petroleum may be present. The goal of the SRP is to receive a no further remediation determination from IEPA. Most site remediation in Illinois is handled through this Program. Since the mid-1980s, remediation activities have been conducted and monitored at approximately 5,800 sites in Illinois. Properties that satisfy respective IEPA laws and regulations can receive a No Further Remediation (NFR) letter. They must demonstrate, through proper investigation and, when warranted, remedial action, that environmental conditions at their remediation site do not present a significant risk to human health or the environment. This letter describes what remediation activities have been taken and whether any portion of the property, based on future property use, might need additional remediation.

There are 16 SRP sites in Kendall County. Twelve of the 16 SRP sites (75%) have received NFR or 4Y letters. The remaining four sites do not pose an immediate threat to public health or the environment.

Leaking Underground Storage Tank Program (LUST)
The Leaking Underground Storage Tanks Program (LUST) oversees remedial activities associated with petroleum product releases from underground storage tanks (UST). This program began in the late 1980s as a result of the threats posed by vapors in homes and businesses, contaminated groundwater, and contaminated soil. In Illinois, more than 14,500 acres of soil contaminated by leaking underground tanks have been remediated between 1988 and 2010 (the most recent year for which data was available).

In Kendall County, there are 79 sites involving the remediation of petroleum product releases from underground storage tanks. Of the 79 LUST sites, 66 (84%) have received NFR letters, other clearance letters, or remediation is virtually complete.

3.9.5 Nuclear Incidents

The term "nuclear incident" refers to the release of significant levels of radioactive material or exposure of the general public to radiation. This section does not address the intentional or malicious release of radioactive materials as a result of a terrorism activity. Exposure to dangerous levels of radiation can have varying health effects on people and animals. Impacts range from minor health issues to fatal illnesses.

HAZARD PROFILE – NUCLEAR INCIDENTS

In Kendall County, residents could be exposed to radioactive material and/or radiation from a nuclear incident that occurs:

- at the Dresden Generating Station located in Grundy County;
- at the Braidwood Generating Station located in Will County;

- at the LaSalle Generating Station located in LaSalle County;
- at the Byron Generating Station located in Ogle County; or
- as spent nuclear fuel rods are being transported by railway through the County.

There have been no nuclear incidents and therefore no injuries or damages associated with any of the nuclear power facility or the transportation of spent nuclear fuel rods through Kendall County.

Nuclear Incidents Fast Facts - Occurrences

Number of Nuclear Power Facilities in the County: ***None***

Number of Nuclear Power Facilities near the County: ***4***

Emergency Planning Zones

Are there Areas in the County within the 10-mile Critical Risk Zone of any Nuclear Power Facilities? ***Yes (the southeast portion of the County)***

Are there Areas in the County within the 50-mile Pathway Zone of any Nuclear Power Facilities? ***Yes (the entire County)***

Number of Incidents Impacting the County: ***None***

3.9.5.1 Power Facilities

Commercial nuclear facilities constructed in the U.S. should withstand most natural hazards such as tornadoes and severe storms that frequently occur in Illinois. Nonetheless, IEMA-OHS has developed a Radiological Emergency Response Plan in cooperation with other state and local governments. Procedures are in place and exercises are conducted with state and local officials to protect the public in the unlikely event of a nuclear emergency. There are four nuclear generating stations relatively close to Kendall County operated by Constellation Energy. **Figure MMH-7** identifies the facility, its location, and its respective distance to the Kendall County border.

Figure MMH-7
Nuclear Generating Stations Near Kendall County

Nuclear Generating Station Name	Location	Distance to Kendall County Border
Braidwood Generating Station	1.25 miles northeast of Braceville Will County	15 miles
Byron Generating Station	3.25 miles south of Byron Ogle County	43 miles
Dresden Generating Station	7 miles east of Morris Grundy County	5 miles
LaSalle County Generating Station	4.5 miles south of Marseilles LaSalle County	15 miles

An Emergency Planning Zone (EPZ) around each nuclear facility is assessed to estimate potential damages to the public and critical infrastructure. EPZs typically include a 10-mile Critical Risk Zone and a 50-mile Ingestion Pathway Zone. Ingestion refers to radiation that might enter a person's body. The southeast portion of Kendall County falls within the 10-mile Critical Risk Zone for the Dresden Generating Station. The entire county falls within the 50-mile Ingestion Pathway Zone for the Braidwood, Dresden, and LaSalle County Generating Stations, while the northwest portion of the County falls within the 50-mile Ingestion Pathway Zone for the Byron Generating Station. **Figure MMH-8** identifies the locations that fall within these zones.

Figure MMH-8 Locations within Emergency Planning Zones		
Nuclear Generating Station Name	**Areas within 10-Mile Critical Risk Zone**	**Areas within 50-Mile Ingestion Pathway Zone**
Braidwood Generating Station	none	Entire County
Byron Generating Station	none	Portions of Little Rock, Fox, and Bristol Townships, including the Villages of Plano, Millbrook, and Millington
Dresden Generating Station	Portions of Lisbon and Seward Townships, including the Village of Minooka and City of Joliet	Entire County
LaSalle County Generating Station	none	Entire County

The consequences associated with a release at any nuclear power facility would depend on the magnitude of the accident and the prevailing weather conditions. A significant incident might require individuals to stay indoors or to evacuate to temporary relocation centers. Temporary relocation centers have been established for Kendall County residents should a significant event requiring evacuation occur at the nearby nuclear power facility.

To protect the food supply, persons owning livestock may be advised to remove all livestock from pasture, shelter if possible, and provide them with stored feed and protected water. The American Nuclear Insurers (ANI) Company provides insurance to cover the Exelon Corporation's legal liability up to the limits imposed by the Price-Anderson Act, for bodily injury and property damage such as the loss of livestock and crops caused by a nuclear energy incident at the Clinton Generator Station.

No nuclear power facilities have had any incidents that have impacted Kendall County. The probability of an incident causing off-site impacts appears low.

3.9.5.2 Transportation of Spent Nuclear Fuel Rods by Railway

The protocol for moving spent nuclear fuel rods from nuclear power plants requires that the train be stopped and inspected before moving through Illinois and that it be escorted as it moves through the State. Inspection of the track ahead of the train is also required to reduce the risk of derailment.

While movement of nuclear material has been minimal as the U.S. grapples with the issue of developing national or regional repositories, more rail movement is anticipated in the future. At the present time, the nuclear power facility previously mentioned is storing spent fuel rods on-site. If a national or regional repository is established, then the spent fuel rods will be moved off-site. According to the Illinois Commerce Commission, there has never been a railway transportation accident resulting in the release of radioactive material; however, widespread concern remains regarding its safe transportation.

3.9.6 Terrorism

Terrorism has different definitions across the globe. For the purpose of this Plan, terrorism will be defined as any event that includes violent acts which threaten, or harm lives, health or property

conducted by domestic or foreign individuals or groups aimed at civilians, the federal government or symbolic locations intended to cause widespread fear.

HAZARD PROFILE – TERRORISM

The attack on the World Trade Center and the Pentagon on September 11, 2001 by foreign terrorists galvanized national action against terrorism and resulted in the creation of the U.S. Department of Homeland Security. While the number of terrorist activities garnering national attention in the U.S. has been relatively small, approximately 201,183 terrorist events have occurred worldwide between 1970 and 2019, according to the National Consortium for the Study of Terrorism and Responses to Terrorism (the Consortium). During this same time span, the Consortium documented 3,004 terrorist events within the U.S.

Terrorism Fast Facts – Occurrences*

Number of Recorded Terrorism Events Worldwide (1970 – 2019): ***201,183***

Number of Recorded Terrorism Events in the U.S. (1970 – 2019): ***3,004***

Number of Recorded Terrorism Events in Illinois (1970 – 2019): ***117***

* Based on data from the National Consortium for the Study of Terrorism and Responses to Terrorism (START) Global Terrorism Database.

Acts of terrorism have resulted in fatalities and injuries as a result of kidnappings, hijackings, bombings, and the use of chemical and biological weapons. The Global Terrorism Database has documented 3,633 American fatalities in the U.S. between 1995 and 2019 from terrorist attacks. The attacks on September 11, 2001 account for 3,001of the 3,633 fatalities. A search of the Global Terrorism Database identified 117 incidents of terrorism in Illinois between 1970 and 2019. These incidents resulted in six fatalities and 38 injuries.

The Federal Bureau of Investigation's (FBI) provides supporting documentation on domestic terrorist attacks in a series of reports on terrorism. These reports provide a chronological summary of terrorist incidents in the U.S. with detailed information on attacks between 1980 and 2005. During this time period, 192 incidents were documented within the U.S. Six of these incidents occurred in Illinois; five in the Chicago area and one downstate.

Other more recent events in Illinois occurred on September 24, 2009 when a single individual from Macon County sought to carry out his anger at the federal government by detonating a van filled with explosive outside of the Federal Courthouse in Springfield. This attempt was thwarted by the FBI.

On May 16, 2018 at around 8:00 a.m., 19-year-old boy, armed with a 9-mm semi-automatic rifle, fired several shots near the Dixon High School Gymnasium where approximately 180 students were practicing for graduation. The school's resource officer confronted the shooter, who fled from the school on foot. The shooter fired several shots at the resource officer, who returned fire, wounding the shooter in the shoulder. The gunman suffered non-life threatening injuries. No students or staff were injured in the incident. Faculty and staff barricaded doors and took cover as the incident unfolded.

More recently an active shooter incident occurred at the Highland Park Independence Day parade on July 4, 2022. A 22-year-old man, armed with a semi-automatic rifle, gained access to the roof

of a building along the parade route and opened fire on spectators and those in the parade killing seven individuals and wounding an additional 48 individuals. The shooter evaded immediate capture and fled the scene but was apprehended later the same day. He confessed to the shooting and is being held without bail as he awaits trial.

It is impossible to predict with any reasonable degree of accuracy how many terrorism events might be expected to occur in Kendall County or elsewhere in Illinois. Although targets for terrorist activity are more likely centered in larger urban areas, recruitment, training, and other support activities, such as the ones described above, have occurred in rural areas.

The economic resources available to some terrorist groups coupled with the combination of global tensions, economic uncertainty and frustration towards government appear to have recently raised the frequency of attempts. Enhanced efforts by law enforcement officials and civilian vigilance for unusual activity or behavior will be needed to repel terrorists whether they are domestic or foreign in origin.

Figure MMH-4
ICC Recorded Railway Accidents/Incidents Involving Hazardous Substances
2012 – 2021

Year	Category	Accident/Incident Location			
		Illinois	Kendall County	Cook & Collar Counties	All Other Counties
2012	A	4	0	2	2
	B	13	0	11	2
	C	73	0	42	31
2013	A	5	0	3	2
	B	23	0	16	7
	C	82	0	51	29
2014	A	2	0	2	0
	B	36	0	22	14
	C	84	0	40	43
2015	A	4	0	3	1
	B	27	0	15	12
	C	69	0	36	31
2016	A	4	0	1	3
	B	14	0	6	8
	C	65	0	33	29
2017	A	2	0	1	1
	B	14	0	9	5
	C	69	0	34	33
2018	A	1	0	0	1
	B	8	0	4	4
	C	55	0	24	31
2019	A	6	0	4	2
	B	6	0	4	2
	C	33	0	12	21
2020	A	4	0	2	2
	B	7	0	5	2
	C	46	0	30	16
2021	A	4	0	2	2
	B	31	0	16	15
	C	29	0	13	16

Source: Illinois Commerce Commission

4.0 MITIGATION STRATEGY

The mitigation strategy identifies how participating jurisdictions are going to reduce or eliminate the potential loss of life and property damage that results from the natural hazards identified in the Risk Assessment section of this Plan. The strategy includes:

- Reviewing, re-evaluating, and updating the mitigation goals. Mitigation goals describe the objective(s) or desired outcome(s) that the participants would like to accomplish in terms of hazard and loss prevention. These goals are intended to reduce or eliminate long-term vulnerabilities to natural hazards.
- Evaluating the status of the existing mitigation actions and identifying a comprehensive range of jurisdiction-specific mitigation actions including those related to continued compliance with the National Flood Insurance Program (NFIP). Mitigation actions are projects, plans, activities, or programs that achieve at least one of the mitigation goals identified.
- Analyzing the existing and new mitigation actions identified for each jurisdiction. This analysis ensures each action will reduce or eliminate future losses associated with the hazards identified in the Risk Assessment section.
- Reviewing, re-evaluating, and updating the mitigation actions prioritization methodology. The prioritization methodology outlines the approach used to prioritize the implementation of each identified mitigation action.
- Identifying the entity(s) responsible for implementation and administration. For each mitigation action, the entity(s) responsible for implementing and administering that action is identified as well as the timeframes for completing the actions and potential funding sources.
- Conducting a preliminary cost/benefit analysis of each mitigation action. The qualitative cost/benefit analysis provides participants a general idea of which actions are likely to provide the greatest benefit based on the financial cost and staffing efforts needed.

As part of the Plan update, the mitigation strategy was reviewed and revised. A detailed discussion of each aspect of the mitigation strategy and any updates made is provided below.

4.1 MITIGATION GOALS REVIEW

As part of the Plan update process, the mitigation goals from the previous Plan were reviewed and re-evaluated. The Planning Committee chose to update the three original goals and add six new goals in order to address a more comprehensive range of mitigation activities and projects.

The previous list of mitigation goals as well as potential updates to the list were distributed to the Committee members at the first meeting on January 24, 2023. Members were asked to review the list before the second meeting and consider whether any changes needed to be made or if additional goals should be included. At the Committee's April 18, 2023 meeting the group discussed the previous list of goals and approved them with no changes. **Figure MIT-1** lists the approved mitigation goals.

Figure MIT-1 Mitigation Goals	
Goal 1	Lessen the impacts of hazards on new and existing infrastructure (buildings, roads, bridges, utilities, water supplies, sanitary sewer systems, etc.) in order to promote hazard-resistant communities.
Goal 2	Incorporate hazard mitigation strategies into existing and new community plans and regulations.
Goal 3	Develop long-term strategies to educate residents and businesses about the hazards affecting the County and the actions they can take before a hazard event occurs to protect themselves, as well as their households, homes, and businesses in an effort to encourage hazard resilience.
Goal 4	Protect the lives, health, safety, and welfare of the individuals living in the County from the dangers caused by natural and man-made hazards.
Goal 5	Place a priority on protecting public services and community lifelines (i.e., safety and security; food, water, and shelter; health and medical; energy; communication; and transportation), public services, and schools.
Goal 6	Preserve and protect the rivers, streams, and floodplains in the County.
Goal 7	Ensure future development does not increase the vulnerability of hazard-prone areas within the County or create unintended exposures to natural and man-made hazards.
Goal 8	Protect historic, cultural, and natural resources from the effects of natural and man-made hazards.
	Promote hazard resilience within Kendall County – the ability to prepare for, withstand, and rapidly recover from the effects of natural and man-made hazards.

4.2 EXISTING MITIGATION ACTIONS REVIEW

The Plan update process included a review and evaluation of the ***existing hazard mitigation actions***. A copy of these original actions is included in **Appendices L** and **M**. A review of the existing hazard mitigation actions revealed the following shortcomings:

- ❖ Actions were not jurisdiction-specific. Most of the action were applied to every participating jurisdiction no matter their level of interest, ability to implement or relevance to their jurisdiction.
- ❖ Actions did not identify specific entities responsible for implementation. This created a situation in which the participating jurisdictions did not have a clear understanding of which department within their own jurisdiction was tasked with implementing the action and therefore no sense of responsibility or ownership of the action was taken.
- ❖ Actions already completed were included in the mitigation strategy. Several of the actions identified were already implemented prior to the completion and adoption of the Plan and therefore were eliminated.
- ❖ Actions focused on emergency preparedness, response or recovery and not mitigation. Several of the actions identified were aimed at addressing emergency preparedness, response or recovery and not mitigation needs and therefore were eliminated.

As a result of these findings, the Committee agreed to the creation of individual jurisdiction-specific mitigation action lists for each participant. In addition, those actions identified as completed or emergency preparedness, response or recovery in the original Plan, Mitigation Strategy Numbers 8, 9, 10, 11, 12, 15, 18, and 24, were eliminated. The remaining existing mitigation actions were evaluated, assigned to the appropriate participating jurisdiction(s), and

presented to the Planning Committee members for their review and evaluation at the second meeting held on April 18, 2023. Each participating jurisdiction was asked to identify those actions that were either in progress or that had been completed since the original Plan was prepared in 2011. Because jurisdictional priorities change over time, they were also given the opportunity to eliminate any action on their specific list that they did not deem currently relevant, viable, and/or practical for implementation.

Figures MIT-2 through **MIT-8**, located at the end of this section, summarize the results of this evaluation by jurisdiction. Each action listed includes a reference number to the original mitigation action list found in **Appendices L** and **M**. None of the participants identified changes in priorities since the previous Plan was approved.

Kendall Township, Lisbon CCSD #90, Lisbon-Seward Fire Protection District (FPD), Newark CHSD #18, Oswego CUSD #308, Oswego Township, Oswegoland Park District, Parkview Christian Academy, Plano CUSD #88, Sandwich Community FPD, and St. Mary Catholic School did not participate in the previous Plan update and therefore are not included in the summary. Bristol-Kendall FPD, Newark FPD, Oswego FPD, and Plattville participated in the original Plan but did not include any mitigation actions in the Plan and are also not included in the summary. While Millbrook participated in the previous Plan, they chose not to participate in the Plan update process and are not included in the summary.

4.3 NEW MITIGATION ACTION IDENTIFICATION

Following the review and evaluation of the existing mitigation actions, the Committee members were asked to consult with their respective jurisdictions to identify ***new, jurisdiction-specific mitigation actions***. Instead of focusing on all-inclusive actions covering multiple jurisdictions, participants were asked to identify mitigation actions that met the specific needs and risks associated with their jurisdiction.

Representatives of Kendall County and each of the participating municipalities were also asked to identify mitigation actions that would ensure their continued compliance with the National Flood Insurance Program. The Kendall County Planning, Building & Zoning Department is responsible for the administration and enforcement of the County's ordinances regulating the development of land in Plattville. Therefore, projects related to continued compliance with the National Flood Insurance Program for Plattville will originate with the County.

he compiled lists of new mitigation actions were then reviewed to assure the appropriateness and suitability of each action. Those actions that were not deemed appropriate and/or suitable were either reworded or eliminated.

4.4 MITIGATION ACTION ANALYSIS

Next, those existing mitigation actions retained, and the new mitigation actions identified were assigned to one of four broad mitigation activity categories that allowed Committee members to compare and consolidate similar actions. **Figure MIT-9** identifies each mitigation activity category and provides a brief description.

Figure MIT-9
Types of Mitigation Activities

Category	Description
Local Plans & Regulations (LP&R)	Local Plans & Regulations include actions that influence the way land and buildings are being developed and built. Examples include stormwater management plans, floodplain regulations, capital improvement projects, participation in the NFIP Community Rating System, comprehensive plans, and local ordinances (i.e., building codes, etc.)
Structure & Infrastructure Projects (S&IP)	Structure & Infrastructure Projects include actions that protect infrastructure and structures from a hazard or remove them from a hazard area. Examples include acquisition and elevation of structures in flood prone areas, burying utility lines to critical facilities, construction of community safe rooms, install "hardening" materials (i.e., impact resistant window film, hail resistant shingles/doors, etc.) and detention/retention structures.
Natural System Protection (NSP)	Natural System Protection includes actions that minimize damage and losses and also preserve or restore natural systems. Examples include sediment and erosion control, stream restoration and watershed management.
Education & Awareness Programs (E&A)	Education & Awareness Programs include actions to inform and educate citizens, elected officials and property owners about hazards and the potential ways to mitigate them. Examples include outreach/school programs, brochures, and handout materials, becoming a StormReady community, evacuation planning and drills, and volunteer activities (i.e., culvert cleanout days, initiatives to check in on the elderly/disabled during hazard events such as storms and extreme heat events, etc.)

Each mitigation action was then analyzed to determine:

- the hazard or hazards being mitigated;
- the general size of the population affected (i.e., small, medium, or large), the participant's Social Vulnerability Index (SVI) ranking, status as a disadvantaged community per the Climate and Economic Justice Screening Tool (CEJST), as well as the participant's status as an Economically Disadvantaged Rural Community (EDRC);
- the goal or goals fulfilled;
- whether the action would reduce the effects on new or existing buildings and infrastructure; and
- whether the action would ensure continued compliance with the National Flood Insurance Program.

Each mitigation action was also evaluated to determine whether it would mitigate risk to one or more of FEMA's seven Community Lifelines. Community Lifelines are the most fundamental services in the community that, when stabilized, enable all aspects of society to function. These fundamental services enable the continuous operation of critical government and business functions essential to human health and safety or economic security. The Community Lifelines include Safety & Security; Food, Water, Shelter; Health & Medical; Energy (Power & Fuel); Communications; Transportation; and Hazardous Materials. **Figure MIT-10** provides a brief description of each Community Lifeline.

Figure MIT-10 Community Lifelines	
Category	**Components/Subcomponents**
Safety & Security	- Law Enforcement/Security (police stations, law enforcement, site security, correctional facilities) - Fire Service (fire stations, firefighting resources) - Search & Rescue (local search & rescue) - Government Service (emergency operation centers, essential government functions, government offices, schools, public records, historic/cultural resources) - Community Safety (flood control, other hazards, protective actions)
Food, Water, Shelter	- Food [commercial food distribution, commercial food supply chain, food distribution programs (e.g., food banks)] - Water [drinking water utilities (intake, treatment, storage & distribution), wastewater systems, commercial water supply chain]; - Shelter [housing (e.g., homes, shelters), commercial facilities (e.g., hotels)]; - Agriculture (animals & agriculture)
Health & Medical	- Medical Care (hospitals, dialysis, pharmacies, long-term care facilities, VA health system, veterinary services, home care) - Patient Movement (emergency medical services) - Fatality Management (mortuary and post-mortuary services) - Public Health (epidemiological surveillance, laboratory, clinical guidance, assessment/interventions/treatments, human services, behavioral health) - Medical Supply Chain [blood/blood products, manufacturing (e.g., pharmaceutical, device, medical gases), distribution, critical clinical research, sterilization, raw materials]
Energy	- Power Grid (generation systems, transmission systems, distribution systems) - Fuel [refineries/fuel processing, fuel storage, pipelines, fuel distribution (e.g., gas stations, fuel points), off-shore oil platforms]
Communications	- Infrastructure [wireless, cable systems and wireline, broadcast (e.g., TV and radio), satellite, data centers/internet] - Alerts, Warnings, & Messages (local alert/warning ability, access to IPAWS, NAWAS terminals) - 911 & Dispatch (public safety answering points, dispatch) - Responder Communications (LMR networks) - Finance (banking services, electronic payment processing)
Transportation	- Highway/Roadway/Motor Vehicle (roads, bridges) - Mass Transit (bus, rail, ferry) - Railway (freight, passenger) - Aviation [commercial (e.g., cargo/passenger), general, military] - Maritime (waterways, ports and port facilities)
Hazardous Materials	- Facilities [oil/hazmat facilities (e.g., chemical, nuclear), oil/hazmat/toxic incidents from facilities] - Hazmat, Pollutants, Contaminants (oil/hazmat/toxic incidents from non-fixed facilities, radiological or nuclear incidents)

4.5 MITIGATION ACTION PRIORITIZATION METHODOLOGY & COST/BENEFIT ANALYSIS REVIEW

The methodology applied to prioritize mitigation actions in the previous Plan was reviewed by the Committee as part of the Plan update process. The original prioritization methodology was based

on the STAPLE+E planning factors (Social, Technical, Administrative, Political, Legal, Economic, and Environmental) and applied a rating of high, medium, low, or ongoing to each mitigation action.

Taking into account the number and types of factors assessed and the complexity associated with the STAPLE+E analysis, the Planning Committee decided to replace the original prioritization methodology with one focused on key factors such as frequency of the hazard, degree of mitigation, cost/benefit utilization, and risk reduction to community lifelines. This updated prioritization methodology was presented to the Planning Committee members at the third meeting held on July 11, 2023. The group reviewed and discussed the methodology and chose to approve it with no changes.

Figure MIT-11 identifies and describes the four-tiered prioritization methodology adopted by the Planning Committee. This methodology identifies which projects and activities maximize benefits and have a greater likelihood of reducing the long-term vulnerabilities associated with the most frequently-occurring natural hazards.

Figure MIT-11
Mitigation Action Prioritization Methodology

P1 High Priority	P2 Significant Priority	P3 Moderate Priority	P4 Important
- Mitigates risk to the most frequently occurring hazards (i.e., severe storms, floods, severe winter storms, extreme cold, excessive heat) - Action has the potential to virtually eliminate or significantly reduce hazard impacts - Mitigates risk to at least one community lifeline - Benefits exceed cost - Action meets multiple plan goals and/or projects life & health	- Mitigates risk to the most frequently occurring hazards (i.e., severe storms, floods, severe winter storms, extreme cold, excessive heat) - Action has the potential to reduce hazard impacts - May mitigate risk to a community lifeline - Benefit is equal to or exceeds cost - Action meets at least one plan goal	- Mitigates risk to the less frequently occurring hazards (i.e., tornadoes, drought, earthquakes, man-made hazards) - Action has the potential to virtually eliminate or significantly reduce hazard impacts - Mitigates risk to at least one community lifeline - Benefits exceed cost - Action meets multiple plan goals and/or projects life & health	- Mitigates risk to the less frequently occurring hazards (i.e., tornadoes, drought, earthquakes, man-made hazards) - Action has the potential to reduce hazard impacts - May mitigate risk to a community lifeline - Benefit is equal to or exceeds cost - Action meets at least one plan goal

While prioritizing the actions is useful and provides participants with additional information, it is important to keep in mind that implementing any the mitigation actions is desirable regardless of which prioritization category an action falls under.

In addition to weighing the cost of an action versus the benefits the action will produce as part of the prioritization methodology, a preliminary qualitative cost/benefit analysis was conducted on each mitigation action to demonstrate its monetary and non-monetary benefits and provide additional information that can be considered in each participant's decision-making process. The

costs and benefits were analyzed in terms of the general overall cost to complete an action as well as the staffing efforted needed and the action's likelihood of virtually eliminating or significantly reducing the risk associated with a specific hazard. The general descriptors of high, medium, and low were used. These terms are not meant to translate into a specific dollar amount, but rather to provide a relative comparison between the actions identified by each jurisdiction.

This analysis is only meant to give the participants a starting point to compare which actions are likely to provide the greatest benefit. It was repeatedly communicated to the Planning Committee members that when a grant application is submitted to IEMA-OHS/FEMA for a specific action, a detailed cost/benefit analysis will be required to receive funding.

4.6 MITIGATION ACTION IMPLEMENTATION & ADMINISTRATION

Finally, each participating jurisdiction was asked to identify how the mitigation actions will be implemented and administered. This included:

- identifying the party or parties responsible for oversight and administration;
- determining what funding source(s) are available or will be pursued; and
- describing the time frame for completion.

Oversight & Administration

It is important to keep in mind that some of the participating jurisdictions have limited capabilities related to organization and staffing for oversight and administration of the identified mitigation actions. Three of the seven participating municipalities are small in size, with populations of less than 1,250 individuals. In most cases these jurisdictions have minimal staff. Their organizational structure is such that most have very few offices and/or departments, generally limited to public works and water/sewer. Those in charge of the offices/departments often lack the technical expertise needed to individually oversee and administer the identified mitigation actions. As a result, most of the participating jurisdictions identified their governing body (i.e., village board, city council or board of trustees) as the entity responsible for oversight and administration simply because it is the only practical option given their organizational constraints. Other participants felt that oversight and administration fell under the purview of the entity's governing body (board/council) and not individual departments.

Funding Sources

While the Chicago Metropolitan Agency for Planning has the ability to assist with grant writing service to the participants, many do not have staff with grant writing capabilities. As a result, assistance was needed in identifying possible funding sources for the identified mitigation actions. The consultant provided written information to the participants about FEMA and non-FEMA funding opportunities that have been used previously to finance mitigation actions. In addition, funding information was discussed with participants during Committee meetings and in one-on-one contacts so that an appropriate funding source could be identified for each mitigation action.

A handout was prepared and distributed that provided specific information on the non-FEMA grant sources available including the grant name, the government agency responsible for administering the grant, grant ceiling, contact person and application period among other key points. Specific grants from the following agencies were identified: U.S. Department of Agricultural – Rural Development (USDA – RD), Illinois Department of Agriculture (IDOA), Illinois Department of

Commerce and Economic Opportunity (DCEO), Illinois Environmental Protection Agency (IEPA), Illinois Department of Natural Resources (IDNR) and Illinois Department of Transportation (IDOT).

The funding source identified for each action is the most likely source to be pursued; however, if grant funding is unavailable through the most likely or other suggested sources, then implementation of medium and large-scale projects and activities is unlikely due to the budgetary constraints experienced by most, if not all, of the participants due to their size, projected population growth and limited revenue streams. It is important to remember that the population for the entire County is approximately 131,000 individuals, with approximately 32,700 living in unincorporated Kendall County. Three of the seven participating municipalities are smaller in size, with populations of less than 1,250 individuals. Some of the jurisdictions struggle to maintain and provide the most critical of services to their residents. Additional funding is necessary if implementation is to be achieved.

Time Frame for Completion

The time frame for completion identified for each action is the timespan in which participants would like to see the action successfully completed. In most cases, however, the time frame identified is dependent on obtaining the necessary funding. As a result, a time range has been identified for many of the mitigation actions to allow for unpredictability in securing funds.

4.7 RESULTS OF MITIGATION STRATEGY

Figures MIT-12 through **MIT-33**, located at the end of this section, summarize the results of the mitigation strategy. The mitigation actions are arranged alphabetically by participating jurisdiction following the County and include both existing and new actions.

Figure MIT-2
Kendall County – Status of Existing Mitigation Actions
(Sheet 1 of 5)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Ensure all critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information. (Kendall County Mitigation Strategy No. 1)	✓					✓	
Purchase and distribute weather radios to county residents to establish a Communications Community Lifeline. (Kendall County Mitigation Strategy No. 2)		✓				✓	
Install new river gages along tributaries of the Fox River, including Little Rock Creek, Big Rock Creek, and Blackberry Creek. (Kendall County Mitigation Strategy No. 3)	✓						✓
Develop mutual aid agreements with local government entities to improve coordination and enhance emergency preparedness, response, recovery, and mitigation activities within the County. (Kendall County Mitigation Strategy No. 4)	✓					✓	
Conduct public education about the risks associated with the nuclear facilities located near the County. (Kendall County Mitigation Strategy No. 5)	✓					✓	

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the County's vulnerability since the 2011 Plan was approved. The County did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Kendall County has one infrastructure improvement project in progress that has the potential to decrease the vulnerability of hazard prone areas in the County and one administrative activity completed that decreases the vulnerability of inundation-prone areas in the County. It is still too early to tell the degree of reduction that will be experienced from the implantation of these actions. The County has one administrative activity completed that has the potential to decrease vulnerability to Communications Community Lifelines and one infrastructure project and two administrative activities that establish Communications Community Lifelines. However these projects and activities will not significantly change the vulnerability of hazard prone areas within the County.

Figure MIT-2
Kendall County – Status of Existing Mitigation Actions
(Sheet 2 of 5)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Install landscape barriers (living snow fences) along county-owned roads, including but not limited to Grover Road, Plainfield Road, Ridge Road, Wolf Road, County Line Road, and Plains Road to limit blowing and drifting of snow, ease hazardous driving conditions, and ensure continued functionality of a Community Lifeline. (Kendall County Mitigation Strategy No. 6)	✓						✓
Develop and update stormwater management plans and ordinances. (Kendall County Mitigation Strategy No. 7)		✓			Stormwater Management Plan completed December 21, 2010.	✓	
Implement a floodplain buyout program to acquire repetitive flood loss properties and remove existing structures in Black Hawk Springs and along the Fox River and Blackberry Creek in Oswego. (Kendall County Mitigation Strategy No. 13)	✓					✓	
Relocate the Edith Farnsworth House, a National Register of Historic Places site, to mitigate flood risk. (Kendall County Mitigation Strategy No. 13)	✓						✓

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the County's vulnerability since the 2011 Plan was approved. The County did not identify any changes in priorities since the previous Plan was approved.

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Figure MIT-2
Kendall County – Status of Existing Mitigation Actions
(Sheet 3 of 5)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Purchase and install transfer switches at critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages. (Kendall County Mitigation Strategy No. 14)	✓						✓
Purchase and install lightning suppression/grounding systems, power conditioning, and surge protection at critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines. (Kendall County Mitigation Strategy No. 16)	✓						✓
Implement Nixle, an electronic mass notification system, to provide time sensitive alerts and warnings about hazard events to residents and establish a Communications Community Lifeline. (Kendall County Mitigation Strategy No. 17)			✓		Chose Everbridge		✓

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the County's vulnerability since the 2011 Plan was approved. The County did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Kendall County has one infrastructure improvement project in progress that has the potential to decrease the vulnerability of hazard prone areas in the County and one administrative activity completed that decreases the vulnerability of inundation-prone areas in the County. It is still too early to tell the degree of reduction that will be experienced from the implantation of these actions. The County has one administrative activity completed that has the potential to decrease vulnerability to Communications Community Lifelines and one infrastructure project and two administrative activities that establish Communications Community Lifelines. However these projects and activities will not significantly change the vulnerability of hazard prone areas within the County.

Figure MIT-2
Kendall County – Status of Existing Mitigation Actions
(Sheet 4 of 5)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Develop a Tactical Interoperable Communications Plan (TICP) to improve communications among local government entities, ensure resilient and reliable communications during a major hazard event and mitigate risk to Community Lifelines. (Kendall County Mitigation Strategy No. 19)			✓	2020			✓
Purchase mobile signage to alert the public of hazardous conditions, power outages, road closures/detours, etc. associated with hazard events. (Kendall County Mitigation Strategy No. 20)			✓	2021			✓
Conduct a Commodity Flow Study to determine the types and quantities of hazardous substances and chemicals being transported within and through the County to assess potential impacts on Community Lifelines. (Kendall County Mitigation Strategy No. 22)	✓						✓

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the County's vulnerability since the 2011 Plan was approved. The County did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Kendall County has one infrastructure improvement project in progress that has the potential to decrease the vulnerability of hazard prone areas in the County and one administrative activity completed that decreases the vulnerability of inundation-prone areas in the County. It is still too early to tell the degree of reduction that will be experienced from the implantation of these actions. The County has one administrative activity completed that has the potential to decrease vulnerability to Communications Community Lifelines and one infrastructure project and two administrative activities that establish Communications Community Lifelines. However these projects and activities will not significantly change the vulnerability of hazard prone areas within the County.

Figure MIT-2
Kendall County – Status of Existing Mitigation Actions
(Sheet 5 of 5)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Establish best practices for burying power lines to establish a resilient and reliable power supply, limit service disruptions, and mitigate risk to Community Lifelines. (Kendall County Mitigation Strategy No. 23)	✓						✓
Improve signage and signals at intersections with frequent accidents, including US Route 24 and US Route 30 and IL Route 71 and US Route 34. (Kendall County Mitigation Strategy No. 26)			✓		Ongoing by State of Illinois		✓

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the County's vulnerability since the 2011 Plan was approved. The County did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Kendall County has one infrastructure improvement project in progress that has the potential to decrease the vulnerability of hazard prone areas in the County and one administrative activity completed that decreases the vulnerability of inundation-prone areas in the County. It is still too early to tell the degree of reduction that will be experienced from the implantation of these actions. The County has one administrative activity completed that has the potential to decrease vulnerability to Communications Community Lifelines and one infrastructure project and two administrative activities that establish Communications Community Lifelines. However these projects and activities will not significantly change the vulnerability of hazard prone areas within the County.

Figure MIT-3
Lisbon – Status of Existing Mitigation Actions

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Ensure all critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information. (Kendall County Mitigation Strategy No. 1)		✓			Started a mass text program	✓	
Purchase and install transfer switches at critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages. (Kendall County Mitigation Strategy No. 14)		✓			manual transfer switches have been installed at two lift stations. A backup generator is going to be installed at wastewater treatment plant.	✓	
Purchase and install lightning suppression/grounding systems, power conditioning, and surge protection at critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines. (Kendall County Mitigation Strategy No. 16)	✓						✓
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems. (Kendall County Mitigation Strategy No. 21)		✓				✓	

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the Village's vulnerability since the 2011 Plan was approved. The Village did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Lisbon has one infrastructure improvement project in progress that has the potential to decrease vulnerability of Food, Water, Shelter Community Lifelines. It is still too early to tell the degree of reduction that will be experience from the implementation of this action. The Village also has one administrative activity in progress that establishes a Communications Community Lifeline. This activity however will not significantly change the vulnerability of hazard prone areas in the Village.

Figure MIT-4
Montgomery – Status of Existing Mitigation Actions
(Sheet 1 of 3)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Ensure all critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information. (Kendall County Mitigation Strategy No. 1)	✓						✓
Purchase and install transfer switches at critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages. (Kendall County Mitigation Strategy No. 14)		✓				✓	
Purchase and install lightning suppression/grounding systems, power conditioning, and surge protection at critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines. (Kendall County Mitigation Strategy No. 16)		✓				✓	

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendices L and M.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the Village's vulnerability since the 2011 Plan was approved. The Village did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Montgomery has five infrastructure improvement projects completed or in progress that have the potential to decrease the vulnerability of inundation and flood-prone areas in the Village. It is still too early to tell the degree of reduction that will be experience from the implementation of these actions. The Village has three additional infrastructure projects in progress that have the potential to decrease vulnerability to Safety & Security and Food, Water, Shelter Community Lifelines or establish a Communications Community Lifeline. However these projects will not significantly change the vulnerability of hazard prone areas within the Village.

Figure MIT-4
Montgomery – Status of Existing Mitigation Actions
(Sheet 2 of 3)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems. (Kendall County Mitigation Strategy No. 21)		✓				✓	
Acquire properties in flood-prone areas and remove existing structures. (Kane County Mitigation Strategy No. 5)		✓				✓	
Elevate flood-prone structures out of base floodplains. (Kane County Mitigation Strategy No. 5)	✓						✓
Install warning station complete with monitoring station and SCADA system along Waubonsie Creek in the Parkview Estates neighborhood area to alert Village emergency responders of rising flood waters and allow for the safe evacuation of residents when necessary. (Kane County Mitigation Strategy No. 8.2)		✓				✓	
Purchase and install a new weather/emergency warning siren to cover the expansion of residential areas to the west and south without alert coverage to establish Communications Community Lifelines. (Kane County Mitigation Strategy No. 9.9)			✓	2014	Village installed a warning siren at 2325 Dickson Road		✓

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendices L and M.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the Village's vulnerability since the 2011 Plan was approved. The Village did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Montgomery has five infrastructure improvement projects completed or in progress that have the potential to decrease the vulnerability of inundation and flood-prone areas in the Village. It is still too early to tell the degree of reduction that will be experience from the implementation of these actions. The Village has three additional infrastructure projects in progress that have the potential to decrease vulnerability to Safety & Security and Food, Water, Shelter Community Lifelines or establish a Communications Community Lifeline. However these projects will not significantly change the vulnerability of hazard prone areas within the Village.

Figure MIT-4
Montgomery – Status of Existing Mitigation Actions
(Sheet 3 of 3)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Montgomery Overflow of Blackberry Creek: Replace the drain tile and restore drainage to the overflow route letting the soils drain and restoring their water holding and infiltration capacity which will allow the Overflow to function better during flood events. (Kane County Mitigation Strategy No. 10.28)		✓				✓	
Implement three-phase plan to reduce basement flooding experienced in the Lakewood Creek West subdivision which backs up to a large parcel of ComEd with a depressional storage area. Phase I includes upsizing the detention basin restrictor plates at downstream detention basins to allow improved passage of stormwater. Phase II will be the installation of a 24-inch storm sewer to bypass the ComEd depressional storage area and transmit the stormwater to the existing Lakewood West detention basin system. Phase III will be the construction of a secondary storm sewer outfall through the adjoining Lakewood Creek storm sewer/detention system. (Kane County Mitigation Strategy No. 10.29)			✓	2018	Village installed 1,457 feet of 15" perforated ADS storm sewer pipe in ComEd easement		✓

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendices L and M.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the Village's vulnerability since the 2011 Plan was approved. The Village did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Montgomery has five infrastructure improvement projects completed or in progress that have the potential to decrease the vulnerability of inundation and flood-prone areas in the Village. It is still too early to tell the degree of reduction that will be experience from the implementation of these actions. The Village has three additional infrastructure projects in progress that have the potential to decrease vulnerability to Safety & Security and Food, Water, Shelter Community Lifelines or establish a Communications Community Lifeline. However these projects will not significantly change the vulnerability of hazard prone areas within the Village.

Figure MIT-5
Newark – Status of Existing Mitigation Actions

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Ensure all critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information. (Kendall County Mitigation Strategy No. 1)		✓			Village has a resident notification system in place to send text/email to residents to warn of weather related and other hazards		✓
Purchase and install transfer switches at critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages. (Kendall County Mitigation Strategy No. 14)			✓	2017	Village has backup generators at each well site		✓
Purchase and install lightning suppression/grounding systems, power conditioning, and surge protection at critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines. (Kendall County Mitigation Strategy No. 16)	✓					✓	
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems. (Kendall County Mitigation Strategy No. 21)		✓				✓	

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the Village's vulnerability since the 2011 Plan was approved. The Village did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Newark has one infrastructure improvement project in progress that has the potential to decrease vulnerability of inundation and flood-prone areas in the Village. It is still too early to tell the degree of reduction that will be experience from the implementation of this action. The Village has one infrastructure project and one administrative activity in progress or completed that have the potential to decrease vulnerability to Safety & Security and Food, Water, Shelter Community Lifelines or establish a Communications Community Lifeline. However these actions will not significantly change the vulnerability of hazard prone areas within the Village.

Figure MIT-6
Oswego – Status of Existing Mitigation Actions

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Ensure all critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information. (Kendall County Mitigation Strategy No. 1)			✓	2013	Radios installed		✓
Purchase and install transfer switches at critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages. (Kendall County Mitigation Strategy No. 14)		✓		2017	Installed at Village Hall and new Police Department	✓	
Purchase and install lightning suppression/grounding systems, power conditioning, and surge protection at critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines. (Kendall County Mitigation Strategy No. 16)	✓					✓	
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems. (Kendall County Mitigation Strategy No. 21)		✓				✓	

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the Village's vulnerability since the 2011 Plan was approved. The Village did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Oswego has one infrastructure improvement project in progress that has the potential to decrease vulnerability of inundation and flood-prone areas in the Village. It is still too early to tell the degree of reduction that will be experience from the implementation of this action. The Village has one infrastructure project and one administrative activity in progress or completed that have the potential to decrease vulnerability to Safety & Security and Food, Water, Shelter Community Lifelines or establish a Communications Community Lifeline. However these actions will not significantly change the vulnerability of hazard prone areas within the Village.

Figure MIT-7
Plano – Status of Existing Mitigation Actions
(Sheet 1 of 2)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Ensure all critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information. (Kendall County Mitigation Strategy No. 1)			✓	2012	Added when Plano Police Department was built		✓
Purchase and install transfer switches at critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages. (Kendall County Mitigation Strategy No. 14)			✓	2012	Competed at Plano Police Department, City Garage, Wastewater Treatment Plant		✓
Purchase and install lightning suppression/grounding systems, power conditioning, and surge protection at critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines. (Kendall County Mitigation Strategy No. 16)			✓	2012	Competed at Plano Police Department when it was built		✓

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the City's vulnerability since the 2011 Plan was approved. The City did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Plano has one infrastructure improvement project in progress that has the potential to decrease vulnerability of inundation and flood-prone areas in the City. It is still too early to tell the degree of reduction that will be experience from the implementation of this action. The City has two infrastructure projects and one administrative activity completed that have the potential to decrease vulnerability to Safety & Security and Food, Water, Shelter Community Lifelines or establish Communications Community Lifeline and an additional administrative activity in progress. However these actions will not significantly change the vulnerability of hazard prone areas within the City.

Figure MIT-7
Plano – Status of Existing Mitigation Actions
(Sheet 2 of 2)

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems. (Kendall County Mitigation Strategy No. 21)		✓			Ongoing and as needed	✓	
Develop an evacuation plan for hazardous materials incidents. (Kendall County Mitigation Strategy No. 27)		✓			EOP established in 2016 & revised annually	✓	

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the City's vulnerability since the 2011 Plan was approved. The City did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Plano has one infrastructure improvement project in progress that has the potential to decrease vulnerability of inundation and flood-prone areas in the City. It is still too early to tell the degree of reduction that will be experience from the implementation of this action. The City has two infrastructure projects and one administrative activity completed that have the potential to decrease vulnerability to Safety & Security and Food, Water, Shelter Community Lifelines or establish Communications Community Lifeline and an additional administrative activity in progress. However these actions will not significantly change the vulnerability of hazard prone areas within the City.

Figure MIT-8
Yorkville – Status of Existing Mitigation Actions

Mitigation Action Description	Status of Mitigation Action			Year Completed	Summary/Details of Completed Action (i.e., location, scope, etc.)	Status of No/In Progress Actions	
	No Progress (✓)	In Progress (✓)	Completed (✓)			Included in Updated Action Plan (✓)	No Longer Relevant (✓)
Ensure all critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information. (Kendall County Mitigation Strategy No. 1)		✓				✓	
Purchase and install transfer switches at critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages. (Kendall County Mitigation Strategy No. 14)		✓				✓	
Purchase and install lightning suppression/grounding systems, power conditioning, and surge protection at critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines. (Kendall County Mitigation Strategy No. 16)	✓						✓
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems. (Kendall County Mitigation Strategy No. 21)	✓						

(Mitigation Strategy "No.") refers to the original action by number detailed in Appendix L.

No substantial changes in development have occurred in hazard prone areas that would increase or decrease the City's vulnerability since the 2011 Plan was approved. The City did not identify any changes in priorities since the previous Plan was approved.

In terms of changes in vulnerability associated with mitigation actions in progress or completed, Yorkville has one infrastructure project and one administrative activity in progress or completed that have the potential to decrease vulnerability to Safety & Security and Food, Water, Shelter Community Lifelines or establish a Communications Community Lifeline. However these actions will not significantly change the vulnerability of hazard prone areas within the City.

Figure MIT-12
Kendall County Hazard Mitigation Actions
(Sheet 1 of 4)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Develop a list of at risk/socially vulnerable populations within the County in order to alert these individuals of hazard events and provide services such as check ins.	EC, EH, EQ, F, MMH, SS, SWS, T	C	LP&R E&A	Small SVI: 0.1222	---	---	4, 9	P2/P4	Low/High	Community Health Division & Environmental Health Division / Public Health Department	1-2 years	County	New
Partner with local fire departments/fire protection districts to distribute carbon monoxide detectors and public information on the risk to life and property associated with the natural and man-made hazards that impact the County and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.1222	---	---	4	P2/P4	Low/Medium	Emergency Response Specialist / Public Health Department	2-3 years	County	New
Strengthen professional workforce capabilities related to building code administration and enforcement activities by acquiring software and hardware to assist in building and structure permitting and enforcement.	EC, EH, F, SS, SWS, T	S&S	LP&R	Large SVI: 0.1222	Yes	Yes	1, 2, 6, 7, 8, 9	P1/P3	Medium/High	Planning, Building & Zoning Director	2-5 years	County / FEMA BRIC	New
Update Land Resource Management Plan for unincorporated areas of the County as well as the incorporated municipalities of Millbrook and Plattville.	F, SS	S&S	LP&R	Large SVI: 0.1222	Yes	Yes	2, 6, 7, 8	P2	Low/Medium	Planning, Building & Zoning Director	2-5 years	County	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the County's size (approx. 32,700 individuals in unincorporated areas), projected population growth and budgetary constraints. The County works hard to maintain critical services to its residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-12
Kendall County Hazard Mitigation Actions
(Sheet 2 of 4)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Update the County's stormwater ordinance.	F, SS	S&S	LP&R	Large SVI: 0.1222	Yes	Yes	2, 6, 7	P2	Low/Medium	Planning, Building & Zoning Director	1-2 years	County	Existing (2011) No. 7
Implement a floodplain buyout program to acquire repetitive flood loss properties and remove existing structures in Black Hawk Springs and along the Fox River and Blackberry Creek in Oswego.	F	S&S	LP&R S&IP NSP	Small SVI: 0.1222	---	Yes	2, 4, 6	P1	Medium/High	Planning, Building & Zoning Director	2-5 years	County / FEMA BRIC FMA	Existing (2011) No. 13
Ensure all county-owned critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Small SVI: 0.1222	---	---	4	P2/P4	Low/High	EMA Director	1-5 years	County	Existing (2011) No. 1

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the County's size (approx. 32,700 individuals in unincorporated areas), projected population growth and budgetary constraints. The County works hard to maintain critical services to its residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-12
Kendall County Hazard Mitigation Actions
(Sheet 3 of 4)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and distribute weather radios to county residents to establish a Communications Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Small SVI: 0.1222	---	---	4	P2/P4	Low/High	EMA Director	1-5 years	County	Existing (2011) No. 2
Develop mutual aid agreements with local government entities to improve coordination and enhance emergency preparedness, response, recovery, and mitigation activities within the County.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	LP&R	Large SVI: 0.1222	Yes	Yes	1, 2, 4, 5	P1	Low/Medium	Chair County Board / EMA Director / Sheriff	2-5 years	County	Existing (2011) No. 4
Make public information materials available to residents that detail the risks to life and property associated with the natural and man-made hazards that impact the County, including the nearby nuclear facilities, and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.1222	---	---	3, 4	P2/P4	Low/Medium	EMA Director	1-5 years	County	New / Existing (2011) No. 5

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the County's size (approx. 32,700 individuals in unincorporated areas), projected population growth and budgetary constraints. The County works hard to maintain critical services to its residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-12
Kendall County Hazard Mitigation Actions
(Sheet 4 of 4)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Review new Flood Insurance Rate Maps (FIRMs) when they become available. Update the flood ordinance to exceed federal standards and reflect the revised FIRMs and present both for adoption. Enforce flood ordinance to ensure new development does not increase flood vulnerability or create unintended exposures to flooding.*	F	S&S	LP&R	Small SVI: 0.1222	Yes	Yes	2, 6, 7	P1	Low/High	Chair County Board / Planning, Building & Zoning Director	1-5 years	County	New
Continue to make the most recent Flood Insurance Rate Maps available at the Planning, Building & Zoning Department to assist the public in considering where to construct new buildings.*	F	S&S	E&A	Small SVI: 0.1222	Yes	---	2, 3, 4 6, 7	P2	Low/Medium	Planning, Building & Zoning Director	1-5 years	County	New
Continue to make County and Village officials aware of the most recent Flood Insurance Rate Maps and issues related to construction in a floodplain.*	F	S&S	E&A	Small SVI: 0.1222	Yes	---	3	P2	Low/Medium	Planning, Building & Zoning Director	1-5 years	County	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the County's size (approx. 32,700 individuals in unincorporated areas), projected population growth and budgetary constraints. The County works hard to maintain critical services to its residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

* Mitigation action to ensure continued compliance with NFIP. The Kendall County Planning, Building & Zoning Department is responsible for the administration and enforcement of the County's ordinances regulating the development of land in the unincorporated areas of the County as well as the incorporated villages of Millbrook and Plattville. Therefore, projects related to continued compliance with the National Flood Insurance Program for Plattville will originate with the County.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-13
Bristol-Kendall Fire Protection District Hazard Mitigation Actions

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and install a natural gas emergency backup generator at Station 2 to establish a resilient and reliable power supply, ensure sustained functionality during extended power outages, maintain continuity of operations, and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Medium SVI: 0.0103 – 0.3791 CEJST: No	---	Yes	1, 5, 9	P1/P3	Medium/High	Fire Chief / Board of Trustees	5 years	FPD / FEMA HMGP BRIC	New
Purchase and install a natural gas emergency backup generator at Station 3 to establish a resilient and reliable power supply, ensure sustained functionality during extended power outages, maintain continuity of operations, and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Medium SVI: 0.0103 – 0.3791 CEJST: No	---	Yes	1, 5, 9	P1/P3	Medium/High	Fire Chief / Board of Trustees	5 years	FPD / FEMA HMGP BRIC	New
Purchase new base station radio antennas to maintain continuity of operations, ensure system functionality, and mitigate risk to Community Lifelines essential to human health and safety.	EC, EH, EQ, F, MMH, SS, SWS, t	C	S&IP	Large SVI: 0.0103 – 0.3791 CEJST: No	---	Yes	4, 5, 9	P1/P3	Medium/High	Fire Chief / Board of Trustees	2 years	FPD / FEMA BRIC	New
Make public information materials available to District residents that detail the risks to life and property associated with the natural and man-made hazards that impact the District and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0103 – 0.3791 CEJST: No	---	---	4	P2/P4	Low/Medium	Fire Chief / Board of Trustees	1-5 years	FPD	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a career fire protection district of this size (serving approx. 34,000 individuals in a service area of approx. 77 square miles.) Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-14
Kendall Township Hazard Mitigation Actions
(Sheet 1 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and install an automatic emergency backup generator at the Township Building to establish a resilient and reliable power supply in order to maintain continuity of government/ operations and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	---	Yes	1, 5, 9	P1/P3	Medium/High	Supervisor / Highway Commissioner / Board of Trustees	1 year	Township / FEMA BRIC HMGP	New
Install hardening materials (i.e., shatter-proof/impact resistant glass, hail resistant doors, roof anchoring system, etc.) at the Township Building to increase building resilience to natural and man-made hazards, maintain continuity of government/operations, protect staff and residents, and mitigate risk to Community Lifelines.	EQ, MMH, SS, T	S&S	S&IP	Large SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Supervisor	1-2 years	Township / FEMA BRIC HMGP	New
Identify locations within the Township that can be used as warming and/or cooling centers and secure agreements to formally designate each location as warming and/or cooling centers for use by Township residents.	EC, EH	---	LP&R	Medium SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	---	---	4	P2	Low/Medium	Supervisor / Clerk	1-2 years	Township	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small, rural township of this size (approx. 8,600 individuals). The Township works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-14
Kendall Township Hazard Mitigation Actions
(Sheet 2 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Design and construct a community safe room (built to high wind standards and equipped with emergency backup generators and HVAC systems) at the Township Building for use by staff and residents to establish a Community Lifeline.	SS, T	---	S&IP	Small SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	---	4	P1/P3	Medium/High	Supervisor	2-5 years	Township / FEMA HMGP BRIC	New
Make public information materials available to Township residents that detail the risks to life and property associated with the natural and man-made hazards that impact the Township and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	---	---	3, 4	P2/P4	Low/Medium	Supervisor / Clerk	1-5 years	Township	New
Upsize select drainage culverts and bridges within the Township to increase carry capacity, better manage stormwater runoff, alleviate recurring drainage/flood problems, and ensure system resilience and functionality.	F, SS	T	S&IP	Medium SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	Yes	1, 5, 9	P1	Medium/High	Road Commissioner	2-5 years	Township / IDOT Local Roads	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small, rural township of this size (approx. 8,600 individuals). The Township works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-14
Kendall Township Hazard Mitigation Actions
(Sheet 3 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and distribute NOAA weather radios to township employees to establish a Communications Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Small SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	---	---	4	P2/P4	Low/High	Supervisor / Highway Commissioner / Board of Trustees	1 year	Township	New
Purchase and install outdoor storm warning sirens in unincorporated areas of the Township to establish Community Lifelines essential to human health and safety.	SS, T	---	LP&R E&A	Medium SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	---	---	4	P1/P3	Medium/High	Supervisor / Board of Trustees	2-4 years	Township / FEMA BRIC HMGP	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small, rural township of this size (approx. 8,600 individuals). The Township works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-15
Lisbon Hazard Mitigation Actions
(Sheet 1 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Prepare and adopt a stormwater management plan and ordinance.	F, SS	S&S	LP&R	Large SVI: 0.1018 CEJST: No EDRC: Yes	Yes	Yes	2, 6, 7	P2	Medium/High	President / Village Board	4 years	Village / FEMA BRIC FMA	New
Evaluate the adoption and/or implementation of building codes, specifications, and/or standards that reduce structure risk and vulnerability to natural hazards and ensures community resilience. Adopt proposed building codes. Develop professional workforce capabilities related to building codes through technical assistance and training and/or engage a third-party contractor to support activities related to building code enforcement.	EC, EH, EQ, F, SS, SWS, T	S&S	LP&R	Large SVI: 0.1018 CEJST: No EDRC: Yes	Yes	Yes	1, 2, 7, 9	P1/P3	Medium/High	President / Village Board	4 years	Village / FEMA BRIC	New
Relocate Village Hall out of the base floodplain of an unnamed tributary.*	F	S&S	S&IP	Large SVI: 0.1018 CEJST: No EDRC: Yes	---	Yes	1, 5, 6, 9	P1	Medium/High	President / Village Board	5 years	Village / FEMA FMA	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (less than 300 individuals). Village works hard to provide the most critical of services to its residents, but it's a struggle. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-15
Lisbon Hazard Mitigation Actions
(Sheet 2 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Purchase and install outdoor storm warning sirens to establish Community Lifelines essential to human health and safety.	SS, T	---	LP&R E&A	Large SVI: 0.1018 CEJST: No EDRC: Yes	---	---	4	P1/P3	Medium/High	President / Village Board	2 years	Village / FEMA BRIC HMGP / USDA – RD Critical Facilities Programs	New
Construct public drinking water supply system, including water tower, for the Village to ensure community resilience to drought, alleviate public health concerns stemming from floodwater contamination of private wells, aid in fire suppression during natural hazard events, and establish a Community Lifeline.	DR, F, SS	---	S&IP	Large SVI: 0.1018 CEJST: No EDRC: Yes	---	---	1, 5, 9	P1/P3	High/High	President / Village Board	5 years	Village / USDA – RD Water & Waste Disposal Program / IEPA SRF – PWSLP	New
Trim and manage trees and maintain easements to minimize the number and duration of service disruptions, improve community resilience, and mitigate risk to Community Lifelines.	SS, SWS, T	C E T	S&IP	Medium SVI: 0.1018 CEJST: No EDRC: Yes	Yes	Yes	1, 4, 5, 9	P1/P3	Medium/Medium	President / Village Board	1-5 years	Village	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (less than 300 individuals). Village works hard to provide the most critical of services to its residents, but it's a struggle. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-15
Lisbon Hazard Mitigation Actions
(Sheet 3 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Improve coordination between the Village, Township and County in an effort to help implement hazard mitigation projects and cleanup activities aimed at reducing or eliminating the risk associated with natural and man-made hazard events.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	S&S	LP&R E&A	Large SVI: 0.1018 CEJST: No EDRC: Yes	---	---	1, 2, 4, 5, 9	P2/P4	Low/Medium	President / Village Board	5 years	Village	New
Bury power lines to Village-owned critical facilities and infrastructure to establish a resilient and reliable power supply, improve resiliency, limit service disruptions, and mitigate risk to Community Lifelines.	SS, SWS, T	C E S&S T	S&IP	Large SVI: 0.1018 CEJST: No EDRC: Yes	---	Yes	1, 5, 9	P1/P3	Medium/High	President / Village Board	5 years	Village / FEMA BRIC HMGP	New
Make public information materials available to residents that detail the risks to life and property associated with the natural and man-made hazards that impact the Village and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.1018 CEJST: No EDRC: Yes	---	---	3, 4	P2/P4	Low/Medium	President / Village Board	1-5 years	Village	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (less than 300 individuals). Village works hard to provide the most critical of services to its residents, but it's a struggle. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-15
Lisbon Hazard Mitigation Actions
(Sheet 4 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Ensure all village-owned critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Small SVI: 0.1018 CEJST: No EDRC: Yes	---	---	4	P2/P4	Low/High	President / Board of Trustees	1-5 years	Village	Existing (2011) No. 1
Purchase and install transfer switches at critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages.	EC, EH, EQ, F, MMH, SS, SWS, T	C FWS SS T	S&IP	Large SVI: 0.1018 CEJST: No EDRC: Yes	---	Yes	1, 4, 5	P1/P3	Medium/High	President / Board of Trustees	2-5 years	Village / FEMA BRIC HMGP	Existing (2011) No. 14
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems.	F, SS	SS T	S&IP	Medium SVI: 0.1018 CEJST: No EDRC: Yes	Yes	Yes	1, 5, 9	P2	Low/Medium	President / Board of Trustees	1-5 years	Village	Existing (2011) No. 21

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (less than 300 individuals). Village works hard to provide the most critical of services to its residents, but it's a struggle. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-15
Lisbon Hazard Mitigation Actions
(Sheet 5 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Review new Flood Insurance Rate Maps (FIRMs) when they become available. Update the flood ordinance to exceed federal standards and reflect the revised FIRMs and present both for adoption. Enforce flood ordinance to ensure new development does not increase flood vulnerability or create unintended exposures to flooding.*	F	S&S	LP&R	Small SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	Yes	2, 6, 7	P1	Low/High	President Village Board / Village Clerk	1-5 years	Village	New
Continue to make the most recent Flood Insurance Rate Maps available at the Village Clerk's Office to assist the public in considering where to construct new buildings.*	F	S&S	E&A	Small SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	---	2, 3, 4 6, 7	P2	Low/Medium	Village Clerk	1-5 years	Village	New
Continue to make Village officials aware of the most recent Flood Insurance Rate Maps and issues related to construction in a floodplain.*	F	S&S	E&A	Small SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	---	3	P2	Low/Medium	Village Clerk	1-5 years	Village	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (less than 300 individuals). Village works hard to provide the most critical of services to its residents, but it's a struggle. Additional funding is necessary if implementation is to be achieved within the time frames specified.

* Mitigation action to ensure continued compliance with NFIP.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-16
Lisbon Consolidated Community School District #90 Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and install an automatic emergency backup generator at Lisbon Grade School to establish a resilient and reliable power supply in order to maintain continuity of operations, ensure sustained functionality during extended power outages, and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.1018 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District / USDA – RD Critical Facilities Programs	New
Purchase and install a grounding system to protect critical infrastructure (i.e., computers, electrical systems, HVAC, etc.), improve infrastructure resilience, and ensure continued operations of Community Lifelines.	SS	C S&S	S&IP	Large SVI: 0.1018 CEJST: No	Yes	Yes	1, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District	New
Perform periodic, district-wide, multi-jurisdiction training on the District's Reunification Plan for police, fire, EMA, and District staff. This Plan outlines how students will be reunified with their parent/guardian in the event of a school crisis or emergency. Training will include familiarizing personnel with the resources the District can provide as a single source for communication data.	EQ, F, MMH, SS, T	S&S	LP&R E&A	Large SVI: 0.1018 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / Board of Education	5 years	School District	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small, rural school district of this size (serving approx. 500 individuals in a 44 square-mile area). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-16
Lisbon Consolidated Community School District #90 Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Develop a Redundant Communication Systems Plan that outlines the types of back-up communication modalities available within the District to ensure resilient and reliable communications in the event of a major hazard occurrence to mitigate risk to a Community Lifeline. The Plan should include an audit of the current communications infrastructure system within the District, infrastructure needs, timeline for upgrades and the financial impact associated with the improvements	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	LP&R E&A	Large SVI: 0.1018 CEJST: No	---	---	1, 2, 5, 9	P2/P4	Low/Medium	Superintendent / Board of Education	5 years	School District	New
Purchase and install window safety film at the Grade School to increase building resilience to natural and man-made hazards, maintain continuity of operations, protect staff and students, and mitigate risk to a Community Lifeline.	EQ, MMH, SS, T	S&S	S&IP	Large SVI: 0.1018 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District / FEMA BRIC HMGP	New
Educate students and staff about the natural and man-made hazards that have the potential to impact the District and the proactive actions they can take to reduce their risks.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.1018 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / Board of Education	2-5 years	School District	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small, rural school district of this size (serving approx. 500 individuals in a 44 square-mile area). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-17
Lisbon-Seward Fire Protection District Hazard Mitigation Actions
(Sheet 1 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Develop partnerships with local government entities to improve coordination and implementation of floodplain management projects/activities to reduce flood risk/impacts within the District.	F, SS	S&S	LP&R	Medium SVI: 0.0103 – 0.1018 CEJST: No	---	---	1, 4, 5, 9	P2	Low/Medium	Fire Chief / Board of Trustees	5 years	FPD	New
Improve drainage characteristics (re-grade/ contour areas, install curb, permeable pavement, etc.) around the Newark Fire Station to alleviate drainage/flooding problems that occur during/after heavy rain events, better manage stormwater runoff, and mitigate risk to a Community Lifeline.	F, SS	S&S	S&IP	Medium SVI: 0.0103 – 0.1018 CEJST: No	---	Yes	1, 5, 9	P1	Medium/Medium	Fire Chief / Board of Trustees	5 years	FPD / FEMA FMA	New
Coordinate with Newark Public Works Department regarding upgrades to drainage system along S. Canal St. and Joliet Rd. to better manage stormwater runoff, alleviate drainage/flooding problems around the Fire Station associated with heavy rain events and mitigate risk to Community Lifelines.	F, SS	S&S T	LP&R E&A	Medium SVI: 0.0103 – 0.1018 CEJST: No	---	---	1, 5, 9	P2	Low/Medium	Fire Chief / Board of Trustees	5 years	FPD	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small rural, all-volunteer fire protection district of this size (serving approx. 3,000 individuals in a service area of 62 square miles). Additional funding is necessary if implementation is to be achieved.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-17
Lisbon-Seward Fire Protection District Hazard Mitigation Actions
(Sheet 2 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Conduct a study into the creation and enforcement of fire prevention codes within the District, including an inter-governmental agreement with Kendall County Planning, Building & Zoning Department to ensure cooperation and enforcement.	EQ, MMH, SS, T	S&S	LP&R E&A	Large SVI: 0.0103 – 0.1018 CEJST: No	---	---	1, 2, 4, 7	P2/P4	Low/Medium	Fire Chief / Board of Trustees	5 years	FPD	New
Purchase and install lightning suppression/grounding systems, power conditioning, and surge protection at Fire Stations to improve system resilience and ensure continuity of operations of Community Lifelines.	SS	C S&S	S&IP	Large SVI: 0.0103 – 0.1018 CEJST: No	---	Yes	1, 5, 9	P1	Medium/High	Fire Chief / Board of Trustees	5 years	FPD	New
Coordinate with local government entities and electrical utilities within the District to strengthen/harden overhead power line infrastructure or bury power lines to improve resilience, limit service disruptions, and mitigate risk to Community Lifelines.	SS, SWS, T	E S&S T	LP&R E&A	Large SVI: 0.0103 – 0.1018 CEJST: No	---	---	1, 2, 5, 9	P2	Low/Medium	Fire Chief / Board of Trustees	5 years	FPD	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small rural, all-volunteer fire protection district of this size (serving approx. 3,000 individuals in a service area of 62 square miles). Additional funding is necessary if implementation is to be achieved.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-17
Lisbon-Seward Fire Protection District Hazard Mitigation Actions
(Sheet 3 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Expand public education programs at schools and churches to include information not only on fire safety but also the risks to life and property associated with the natural and man-made hazards that impact the District and the proactive approaches individuals can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0103 – 0.1018 CEJST: No	---	---	3, 4	P2/P4	Low/Medium	Fire Chief / Public Education Officer	2 years	FPD	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small rural, all-volunteer fire protection district of this size (serving approx. 3,000 individuals in a service area of 62 square miles). Additional funding is necessary if implementation is to be achieved.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-18
Montgomery Hazard Mitigation Actions
(Sheet 1 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Complete drainage and floodplain storage improvements to the Montgomery Overflow of Blackberry Creek. The Overflow conveys floodwaters from Blackberry Creek to the Fox River during large flood events.	F, SS	S&S	S&IP	Medium SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	Yes	Yes	1, 5, 6, 9	P1	Medium/High	President Village Board / Public Works Director	5 years	Village / FEMA FMA BRIC	New
Design and construct a secondary access route into the Blackberry Heights subdivision to establish an alternate Transportation Community Lifeline for emergency services personnel in the event the primary access road is blocked.	EQ, F, MMH, SS, SWS, T	S&S T	S&IP	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	Yes	Yes	1, 4, 5, 9	P1/P3	High/High	President Village Board / Public Works Director	5 years	Village	New
Construct improvements to the Parkview Estates bypass channel which diverts water from Waubonsie Creek during large flood events, protecting the Parkview Estates neighborhood.	F, SS	S&S	S&IP	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	Yes	Yes	1, 5, 6, 9	P1	Medium/High	President Village Board / Public Works Director	5 years	Village / FEMA FMA BRIC	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 10,700 individuals). The Village works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-18
Montgomery Hazard Mitigation Actions
(Sheet 2 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Establish a unified flood warning system for the Fox River, Waubonsie Creek, and Blackberry Creek to monitor water levels and alert officials to potential flood events.	F, SS	S&S	LP&R E&A	Medium SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	---	---	2, 4, 9	P2	Medium/High	President Village Board / Public Works Director	5 years	Village	New
Design and construct a storm sewer system on Sherman Ave. to better manage stormwater runoff and alleviate recurring drainage problems experienced in this area.	F, SS	---	S&IP	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	Yes	Yes	1, 5, 9	P1	Medium/High	President Village Board / Public Works Director	5 years	Village / IEPA SRF – WPCLP	New
Construct Catherine Lane storm sewer outfall pipe improvements and regrade ditches to improve stormwater conveyance.	F, SS	FWS	S&IP	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	---	Yes	1, 5, 9	P1	Medium/Medium	President Village Board / Public Works Director	5 years	Village	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 10,700 individuals). The Village works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-18
Montgomery Hazard Mitigation Actions
(Sheet 3 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and install transfer switches at village-owned critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages.	EC, EH, EQ, F, MMH, SS, SWS, T	C FWS SS T	S&IP	Large SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	---	Yes	1, 4, 5	P1/P3	Medium/High	President Village Board / Public Works Director	2-5 years	Village / FEMA BRIC HMGP	Existing (2011) Kendall No. 14
Purchase and install lightning suppression/grounding systems, power conditioning, and surge protection at village-owned critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines.	SS	C FWS S&S T	S&IP	Large SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	---	Yes	1, 4, 5, 9	P1	Medium/High	President Village Board / Public Works Director	2-5 years	Village	Existing (2011) Kendall No. 16
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems.	F, SS	SS T	S&IP	Medium SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	Yes	Yes	1, 5, 9	P2	Low/Medium	Public Works Director	1-5 years	Village	Existing (2011) Kendall No. 21

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 10,700 individuals). The Village works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-18
Montgomery Hazard Mitigation Actions
(Sheet 4 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Acquire properties in flood-prone areas, with a focus on repetitive loss properties in River Street, Marviray Manor, and Parkview Estates, and remove existing structures.	F	S&S	S&IP NSP	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	---	Yes	2, 4, 6	P1	Medium/High	President Village Board / Public Works Director / Community Development Director	5 years	Village / FEMA BRIC FMA	Existing (2015) Kane No. 5
Install warning station complete with monitoring station and SCADA system along Waubonsie Creek in the Parkview Estates neighborhood area to alert village emergency responders of rising flood waters and allow for the safe evacuation of residents when necessary.	F, SS	S&S	S&IP E&A	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	---	---	4	P2	Medium/Medium	President Village Board / Public Works Director	2-5 years	Village	Existing (2015) Kane No. 8
Montgomery Overflow of Blackberry Creek: Upgrade the drain tile to restore drainage to the overflow route letting the soils drain and restoring their water holding and infiltration capacity which will allow the Overflow to function better during flood events.	F, SS	S&S	S&IP NSP	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	Yes	Yes	1, 5	P1	Medium/High	President Village Board / Public Works Director	5 years	Village / FEMA BRIC FMA	Existing (2015) Kane No. 10

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 10,700 individuals). The Village works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-18
Montgomery Hazard Mitigation Actions
(Sheet 5 of 5)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Review new Flood Insurance Rate Maps (FIRMs) when they become available. Update the flood ordinance to exceed federal standards and reflect the revised FIRMs and present both for adoption. Enforce flood ordinance to ensure new development does not increase flood vulnerability or create unintended exposures to flooding.*	F	S&S	LP&R	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	Yes	Yes	2, 6, 7	P1	Low/High	President Village Board / Community Development Director	1-5 years	Village	New
Continue to make the most recent Flood Insurance Rate Maps available at the Community Development Department to assist the public in considering where to construct new buildings.*	F	S&S	E&A	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	Yes	---	2, 3, 4 6, 7	P2	Low/Medium	Community Development Director	1-5 years	Village	New
Continue to make Village officials aware of the most recent Flood Insurance Rate Maps and issues related to construction in a floodplain.*	F	S&S	E&A	Small SVI: 0.0622 – 0.9077 CEJST: No EDRC: No	Yes	---	3	P2	Low/Medium	Community Development Director	1-5 years	Village	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 10,700 individuals). The Village works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

* Mitigation action to ensure continued compliance with NFIP.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-19
Newark Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and install a remote monitoring system (power loss notification/call system) at drinking water well sites that alert operators to power outages and surges caused by natural hazard events and mitigate risk to Community Lifelines.	SS, SWS, T	FWS	S&IP	Large SVI: 0.1018 CEJST: No EDRC: No	---	Yes	1, 5, 9	P1/P3	Medium/High	President Village Board / Public Works Director	1-2 years	Village	New
Make public information materials available to residents that detail the risks to life and property associated with the natural and man-made hazards that impact the Village and the proactive approaches they can take to reduce their risk.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.1018 CEJST: No EDRC: No	---	---	3, 4	P2/P4	Low/Medium	President Village Board / Public Works Director	1-5 years	Village	New
Purchase and install lightning suppression/ grounding systems, power conditioning, and surge protection at village-owned critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines.	SS	C FWS S&S T	S&IP	Large SVI: 0.1018 CEJST: No EDRC: No	---	Yes	1, 4, 5, 9	P1	Medium/High	President Village Board / Public Works Director	2-5 years	Village	Existing (2011) No. 16
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems.	F, SS	SS T	S&IP	Medium SVI: 0.1018 CEJST: No EDRC: No	Yes	Yes	1, 5, 9	P2	Low/Medium	President Village Board / Public Works Director	1-5 years	Village	Existing (2011) No. 21

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 1,200 individuals). The Village works hard to provide critical services to its residents, but it's a struggle. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-19
Newark Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Review new Flood Insurance Rate Maps (FIRMs) when they become available. Update the flood ordinance to exceed federal standards and reflect the revised FIRMs and present both for adoption. Enforce flood ordinance to ensure new development does not increase flood vulnerability or create unintended exposures to flooding.*	F	S&S	LP&R	Small SVI: 0.1018 CEJST: No EDRC: No	Yes	Yes	2, 6, 7	P1	Low/High	President Village Board / City Engineer	1-5 years	Village	New
Continue to make the most recent Flood Insurance Rate Maps available at the Village Clerk's Office to assist the public in considering where to construct new buildings.*	F	S&S	E&A	Small SVI: 0.1018 CEJST: No EDRC: No	Yes	---	2, 3, 4 6, 7	P2	Low/Medium	City Engineer	1-5 years	Village	New
Continue to make Village officials aware of the most recent Flood Insurance Rate Maps and issues related to construction in a floodplain.*	F	S&S	E&A	Small SVI: 0.1018 CEJST: No EDRC: No	Yes	---	3	P2	Low/Medium	City Engineer	1-5 years	Village	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 1,200 individuals). The Village works hard to provide critical services to its residents, but it's a struggle. Additional funding is necessary if implementation is to be achieved within the time frames specified.

* Mitigation action to ensure continued compliance with NFIP.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-20
Newark Community High School District #18 Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and install an automatic emergency backup generator at Newark Community High School to establish a resilient and reliable power supply in order to maintain continuity of operations, ensure sustained functionality during extended power outages, and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.0653 – 0.1018 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District / USDA – RD Critical Facilities Program	New
Purchase and install a grounding system to protect critical infrastructure (i.e., computers, electrical systems, HVAC, etc.), improve infrastructure resilience, and ensure continued operations of Community Lifelines.	SS	C S&S	S&IP	Large SVI: 0.0653 – 0.1018 CEJST: No	Yes	Yes	1, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District	New
Perform periodic, district-wide, multi-jurisdiction training on the District's Reunification Plan for police, fire, EMA, and District staff. This Plan outlines how students will be reunified with their parent/guardian in the event of a school crisis or emergency. Training will include familiarizing personnel with the resources the District can provide as a single source for communication data.	EQ, F, MMH, SS, T	S&S	LP&R E&A	Large SVI: 0.0653 – 0.1018 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / Board of Education	5 years	School District	New

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† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small, rural school district of this size (serving approx. 3,000 individuals in a 101 square-mile area). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-20
Newark Community High School District #18 Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Develop a Redundant Communication Systems Plan that outlines the types of back-up communication modalities available within the District to ensure resilient and reliable communications in the event of a major hazard occurrence to mitigate risk to a Community Lifeline. The Plan should include an audit of the current communications infrastructure system within the District, infrastructure needs, timeline for upgrades and the financial impact associated with the improvements.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	LP&R E&A	Large SVI: 0.0653 – 0.1018 CEJST: No	---	---	1, 2, 5, 9	P2/P4	Low/Medium	Superintendent / Board of Education	5 years	School District	New
Purchase and install window safety film at the High School to increase building resilience to natural and man-made hazards, maintain continuity of operations, protect staff and students, and mitigate risk to a Community Lifeline.	EQ, MMH, SS, T	S&S	S&IP	Large SVI: 0.0653 – 0.1018 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District / FEMA BRIC HMGP	New
Educate students and staff about the natural and man-made hazards that have the potential to impact the District and the proactive actions they can take to reduce their risks.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0653 – 0.1018 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / Board of Education	2-5 years	School District	New

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† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small, rural school district of this size (serving approx. 3,000 individuals in a 101 square-mile area). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-21
Newark Fire Protection District Hazard Mitigation Actions

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Identify dry hydrants within the District that can be used as filling stations to supply an uninterrupted flow of water to aid in fire suppression as necessary during natural hazard events.	DR, EQ, MMH, SS, T	S&S	LP&R E&A	Large SVI: 0.0653 – 0.1018 CEJST: No	---	---	4, 5, 9	P2/P4	Low/Medium	Fire Chief / Board of Trustees	5 years	FPD	New
Make public information materials available to District residents that detail the risks to life and property associated with the natural and man-made hazards that impact the District and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0653 – 0.1018 CEJST: No	---	---	3, 4	P2/P4	Low/Medium	Fire Chief / Board of Trustees	1-5 years	FPD	New
Identify alternate locations for District apparatus, equipment, gear, etc. in the event a natural hazard incident impacts the fire station to ensure continued functionality of a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	LP&R E&A	Large SVI: 0.0653 – 0.1018 CEJST: No	---	---	4, 5, 9	P2/P4	Low/Medium	Fire Chief / Board of Trustees	2-5 years	FPD	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a small rural, all-volunteer fire protection district of this size (serving approx. 3,500 individuals in a service area of 64 square miles). Additional funding is necessary if implementation is to be achieved.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-22
Oswego Hazard Mitigation Actions
(Sheet 1 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Upsize culverts along major roadways within the Village and install detention basins at strategic locations to alleviate recurring flooding/roadway overtopping, increase carrying capacity to better manage stormwater runoff, and ensure resilience of and mitigate risk to a Community Lifeline. Currently overtopping is occurring with events less than the 100 year frequency.	F, SS	T	S&IP	Medium SVI: 0.0157 – 0.3557 CEJST: No EDRC: No	---	Yes	1, 5, 9	P1	Medium/High	Public Works Director	5-10 years	Village / FEMA HMGP BRIC	New
Ensure all village-owned critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Small SVI: 0.0157 – 0.3557 CEJST: No EDRC: No	---	---	4	P2/P4	Low/High	Public Works Director / Police Chief / Parks & Recreations Director / City Administrator	1-5 years	Village	Existing (2011) No. 1

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 34,300 individuals). The Village works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-22
Oswego Hazard Mitigation Actions
(Sheet 2 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and install transfer switches at village-owned critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/operations during extended power outages.	EC, EH, EQ, F, MMH, SS, SWS, T	C FWS SS T	S&IP	Large SVI: 0.0157 – 0.3557 CEJST: No EDRC: No	---	Yes	1, 4, 5	P1/P3	Medium/High	Facilities Division / Public Works Director	1-5 years	City / FEMA BRIC HMGP	Existing (2011) No. 14
Purchase and install lightning suppression/ grounding systems, power conditioning, and surge protection at village-owned critical facilities/infrastructure to improve system resilience and ensure continuity of operations of Community Lifelines.	SS	C FWS S&S T	S&IP	Large SVI: 0.0157 – 0.3557 CEJST: No EDRC: No	---	Yes	1, 4, 5, 9	P1	Medium/High	Facilities Division / Public Works Director	1-5 years	City	Existing (2011) No. 16
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems.	F, SS	S&S T	S&IP	Medium SVI: 0.0157 – 0.3557 CEJST: No EDRC: No	Yes	Yes	1, 5, 9	P2	Low/Medium	Public Works Director	1-5 years	City	Existing (2011) No. 21

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 34,300 individuals). The Village works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-22
Oswego Hazard Mitigation Actions
(Sheet 3 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Review new Flood Insurance Rate Maps (FIRMs) when they become available. Update the flood ordinance to exceed federal standards and reflect the revised FIRMs and present both for adoption. Enforce flood ordinance to ensure new development does not increase flood vulnerability or create unintended exposures to flooding.*	F	S&S	LP&R	Small SVI: 0.0157 – 0.3557 CEJST: No EDRC: No	Yes	Yes	2, 6, 7	P1	Low/High	President Village Board / Building Inspector	1-5 years	Village	New
Continue to make the most recent Flood Insurance Rate Maps available at the Building & Permits Department to assist the public in considering where to construct new buildings.*	F	S&S	E&A	Small SVI: 0.0157 – 0.3557 CEJST: No EDRC: No	Yes	---	2, 3, 4 6, 7	P2	Low/Medium	Building Inspector	1-5 years	Village	New
Continue to make Village officials aware of the most recent Flood Insurance Rate Maps and issues related to construction in a floodplain.*	F	S&S	E&A	Small SVI: 0.0157 – 0.3557 CEJST: No EDRC: No	Yes	---	3	P2	Low/Medium	Building Inspector	1-5 years	Village	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (approx. 34,300 individuals). The Village works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

* Mitigation action to ensure continued compliance with NFIP.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-23
Oswego Community Unit School District #308 Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Purchase and install automatic emergency backup generators at all District schools to establish a resilient and reliable power supply in order to maintain continuity of operations, ensure sustained functionality during extended power outages, and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District / FEMA HMGP	New
Purchase and install grounding systems district-wide to protect critical infrastructure (i.e., computers, electrical systems, HVAC, etc.), improve infrastructure resilience, and ensure continued operations of Community Lifelines.	SS	C S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	Yes	Yes	1, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District	New
Perform periodic, district-wide, multi-jurisdiction training on the District's Reunification Plan for police, fire, EMA, and District staff. This Plan outlines how students will be reunified with their parent/guardian in the event of a school crisis or emergency. Training will include familiarizing personnel with the resources the District can provide as a single source for communication data.	EQ, F, MMH, SS, T	S&S	LP&R E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / Board of Education	5 years	School District	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by a school district of this size (serving approx. 17,500 students in a 69 square-mile area). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-23
Oswego Community Unit School District #308 Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Develop a Redundant Communication Systems Plan that outlines the types of back-up communication modalities available within the District to ensure resilient and reliable communications in the event of a major hazard occurrence to mitigate risk to a Community Lifeline. The Plan should include an audit of the current communications infrastructure system within the District, infrastructure needs, timeline for upgrades and the financial impact associated with the improvements.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	LP&R E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	1, 2, 5, 9	P2/P4	Low/Medium	Superintendent / Board of Education	5 years	School District	New
Purchase and install window safety film at all District buildings to increase building resilience to natural and man-made hazards, maintain continuity of operations, protect staff and students, and mitigate risk to a Community Lifeline.	EQ, MMH, SS, T	S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District / FEMA BRIC HMGP	New
Educate students and staff about the natural and man-made hazards that have the potential to impact the District and the proactive actions they can take to reduce their risks.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / Board of Education	2-5 years	School District	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by a school district of this size (serving approx. 17,500 students in a 69 square-mile area). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-24
Oswego Fire Protection District Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Make public information materials available to District residents that detail the risks to life and property associated with the natural and man-made hazards that impact the District and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	3, 4	P2/P4	Low/Medium	Fire Chief / Command Staff / Board of Trustees	1 year	FPD	New
Harden (i.e., shatter-proof glass, hail resistant doors, roof anchoring system, etc.) all District facilities to improve structure resilience to natural and man-made hazards, safeguard functionality/ continuity of operations, protect staff, and mitigate risk to Community Lifelines.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	---	Yes	1, 4, 5	P1/P3	High/High	Fire Chief / Command Staff / Board of Trustees	1-5 years	FPD / FEMA BRIC HMGP	New
Evaluate the need for additional outdoor warning sirens with the District to maximize system's effectiveness and establish community lifelines in areas without coverage essential to human health and safety.	SS, T	C	S&IP E&A	Medium SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Fire Chief / Command Staff / Board of Trustees	1-3 years	FPD	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by a career fire protection district of this size (serving approx. 75,000 individuals in a service area of 52 square miles.) Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-24
Oswego Fire Protection District Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Purchase and install outdoor warning sirens in areas without coverage to establish Community Lifelines essential to human health and safety.	SS, T	---	S&IP	Medium SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P1/P3	Medium/High	Fire Chief / Command Staff / Board of Trustees	2-5 years	FPD / FEMA BRIC HMGP	New
Secure a Memorandum of Agreement with the Fox Bluff Vacation Cottage & RV Resort to construct a community safe room, equipped with an emergency backup generator and HVAC system, for use by guests to establish a Food, Water, Shelter Community Lifeline.	SS, T	---	LP&R	Small SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Fire Chief / Command Staff / Board of Trustees	1-3 years	FPD	New
Construct a community safe room, equipped with an emergency backup generator and HVAC system, at the Fox Bluff Vacation Cottage & RV Resort for use by guests to establish a Food, Water, Shelter Community Lifeline.	SS, T	---	S&IP	Small SVI: 0.0103 – 0.5559 CEJST: No	Yes	---	4	P1/P3	Medium/High	Fire Chief / Command Staff / Board of Trustees	2-5 years	FPD / FEMA BRIC HMGP	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by a career fire protection district of this size (serving approx. 75,000 individuals in a service area of 52 square miles.) Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-25
Oswego Township Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Upgrade and expand the stormwater sewer system in the unincorporated subdivision of Boulder Hill to eliminate stormwater infiltration, better manage stormwater runoff, increase storage and draining capacity, and ensure system resilience and functionality in an effort to address recurring heavy rain/flood events that overwhelm the current system.	F, SS	FWS	S&IP	Small SVI: 0.0103 – 0.5559 CEJST: No EDRC: No	Yes	Yes	1, 5, 9	P1	High/High	Highway Commissioner / Board of Trustees	3 years	Township / IEPA SRF – WPCLP	New
Purchase and install an automatic emergency backup generator at the Township Building, which also houses a substation of the Kendall County Sheriff's Office, to establish a resilient and reliable power supply in order to maintain continuity of government/operations and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No EDRC: No	---	Yes	1, 5, 9	P1/P3	Medium/High	Supervisor / Board of Trustees	1-2 years	Township / FEMA BRIC HMGP	New
Purchase NOAA weather radios for Township buildings to establish a Communications Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Small SVI: 0.0103 – 0.5559 CEJST: No EDRC: No	---	---	4	P2/P4	Low/High	Community Resource Officer	1 year	Township	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by a township of this size (approx. 55,600 individuals.) The Township works hard to maintain critical services to its residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-25
Oswego Township Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Construct stormwater conveyance system along Harvey Rd. from Rance Rd. to Wolf Crossing Rd. to better manage stormwater runoff in an effort to address recurring flood problems experienced during heavy rain events that have damaged adjacent farmland.	F, SS	T	S&IP	Small SVI: 0.0103 – 0.5559 CEJST: No EDRC: No	---	Yes	1, 5, 9	P1	Medium/High	Highway Commissioner / Board of Trustees	3 years	Township / FEMA HMGP / IEPA SRF – WPCLP	New
Construct stormwater conveyance system along Douglas Rd. from Collins Rd. to Wolf Crossing Rd. to better manage stormwater runoff in an effort to address recurring flood problems experienced during heavy rain events that have damaged adjacent farmland.	F, SS	T	S&IP	Small SVI: 0.0103 – 0.5559 CEJST: No EDRC: No	---	Yes	1, 5, 9	P1	Medium/High	Highway Commissioner / Board of Trustees	3 years	Township / FEMA HMGP / IEPA SRF – WPCLP	New
Make public information materials available to Township residents that detail the risks to life and property associated with the natural and man-made hazards that impact the Township and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0103 – 0.5559 CEJST: No EDRC: No	---	---	3, 4	P2/P4	Low/Medium	Highway Commissioner / Board of Trustees	1-5 years	Township	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by a township of this size (approx. 55,600 individuals.) The Township works hard to maintain critical services to its residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-26
Oswegoland Park District Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Purchase and install lightning detection & notification system equipment at community/ natural area parks within the District to provide patrons advance warning of dangerous weather conditions and establish a Community Lifeline.	SS	---	S&IP E&A	Medium SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P1	Medium/High	Director of Parks & Planning	2-5 years	Park District	New
Design and construct community safe rooms (built to high wind standards and equipped with emergency backup generators and HVAC systems) for use by staff/visitors at facilities and community/natural area parks within the District to establish Food, Water, Shelter Community Lifelines.	SS, T	---	S&IP	Medium SVI: 0.0103 – 0.5559 CEJST: No	Yes	---	4	P1/P3	Medium/High	Director of Parks & Planning	2-5 years	Park District / FEMA HMGP BRIC	New
Install permeable paver parking lots in parks to better manage stormwater runoff, reduce peak flows, filter and clean contaminants, and promote groundwater recharge.	F, SS	---	NSP S&IP	Medium SVI: 0.0103 – 0.5559 CEJST: No	---	Yes	1, 2, 8, 9	P1	Medium/High	Director of Parks & Planning	5 years	Park District /	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by park districts of this size (serving approx. 65,000 individuals in a service area of 38 square miles). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-26
Oswegoland Park District Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Make public information materials available to park patrons that inform them of the risks to life and property associated with natural and man-made hazards and the proactive actions that they can take to reduce or eliminate their risks.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Director of Parks & Planning	1-5 years	Park District / IEPA GIGO / FEMA BRIC	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of large-scale activities/projects is unlikely due to the budgetary constraints experienced by park districts of this size (serving approx. 65,000 individuals in a service area of 38 square miles). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-27
Parkview Christian Academy Hazard Mitigation Actions
(Sheet 1 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Purchase and install automatic emergency backup generators at both Upper Campus and Lower Campus buildings to establish a resilient and reliable power supply in order to maintain continuity of operations, ensure sustained functionality during extended power outages, and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / School Board	5 years	Academy	New
Purchase and install grounding systems at both Campuses to protect critical infrastructure (i.e., computers, electrical systems, HVAC, etc.), improve infrastructure resilience, and ensure continued operations of Community Lifelines.	SS	C S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	Yes	Yes	1, 5, 9	P1/P3	Medium/High	Superintendent / School Board	5 years	Academy	New
Perform periodic, multi-jurisdiction training on the Academy's Reunification Plan for police, fire, EMA, and staff. This Plan outlines how students will be reunified with their parent/guardian in the event of a school crisis or emergency. Training will include familiarizing personnel with the resources the Academy can provide as a single source for communication data.	EQ, F, MMH, SS, T	S&S	LP&R E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / School Board	5 years	Academy	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by small, private school of this size (approx. 500 students). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-27
Parkview Christian Academy Hazard Mitigation Actions
(Sheet 2 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Develop a Redundant Communication Systems Plan that outlines the types of back-up communication modalities available to ensure resilient and reliable communications in the event of a major hazard occurrence to mitigate risk to a Community Lifeline. The Plan should include an audit of the current communications infrastructure system within the Academy, infrastructure needs, timeline for upgrades and the financial impact associated with the improvements.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	LP&R E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	1, 2, 5, 9	P2/P4	Low/Medium	Superintendent / School Board	5 years	School District	New
Purchase and install window safety film at both Campus buildings to increase building resilience to natural and man-made hazards, maintain continuity of operations, protect staff and students, and mitigate risk to a Community Lifeline.	EQ, MMH, SS, T	S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / School Board	1-5 years	School District	New
Educate students and staff about the natural and man-made hazards that have the potential to impact the Academy and the proactive actions they can take to reduce their risks.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / School Board	1-5 years	School District	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by small, private school of this size (approx. 500 students). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-27
Parkview Christian Academy Hazard Mitigation Actions
(Sheet 3 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Update evacuation plan/escape route materials for each classroom.	EQ, F, MMH, SS, T	S&S	LP&R E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / School Board	1-5 years	School District	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by small, private school of this size (approx. 500 students). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-28
Plano Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Make public information materials available to residents that detail the risks to life and property associated with the natural and man-made hazards that impact the City and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Medium SVI: 0.2833 – 0.3791 CEJST: No EDRC: No	---	---	3, 4	P2/P4	Low/Medium	President Village Board / Public Works Director	1-5 years	City	New
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems.	F, SS	S&S T	S&IP	Medium SVI: 0.2833 – 0.3791 CEJST: No EDRC: No	Yes	Yes	1, 5, 9	P2	Low/Medium	Public Works Director	2-5 years	City	Existing (2011) No. 21
Review/revise evacuation plan for hazardous materials incidents.	MMH	---	LP&R E&A	Large SVI: 0.2833 – 0.3791 CEJST: No EDRC: No	---	---	2, 4, 9	P4	Low/Medium	Mayor City Council / Police Lieutenant	1 year	City	Existing (2011) No. 27

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a city of this size (approx. 11,000 individuals). The City works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-28
Plano Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Review new Flood Insurance Rate Maps (FIRMs) when they become available. Update the flood ordinance to exceed federal standards and reflect the revised FIRMs and present both for adoption. Enforce flood ordinance to ensure new development does not increase flood vulnerability or create unintended exposures to flooding.*	F	S&S	LP&R	Small SVI: 0.2833 – 0.3791 CEJST: No EDRC: No	Yes	Yes	2, 6, 7	P1	Low/High	Mayor City Council / City Engineer	1-5 years	City	New
Continue to make the most recent Flood Insurance Rate Maps available at the Building, Planning & Zoning Office to assist the public in considering where to construct new buildings.*	F	S&S	E&A	Small SVI: 0.2833 – 0.3791 CEJST: No EDRC: No	Yes	---	2, 3, 4 6, 7	P2	Low/Medium	City Engineer / Building, Planning & Zoning Director	1-5 years	City	New
Continue to make City officials aware of the most recent Flood Insurance Rate Maps and issues related to construction in a floodplain.*	F	S&S	E&A	Small SVI: 0.2833 – 0.3791 CEJST: No EDRC: No	Yes	---	3	P2	Low/Medium	City Engineer / Building, Planning & Zoning Director	1-5 years	City	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a city of this size (approx. 11,000 individuals). The City works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

* Mitigation action to ensure continued compliance with NFIP.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-29
Plano Community Unit School District #88 Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Purchase and install automatic emergency backup generators at all District schools to establish a resilient and reliable power supply in order to maintain continuity of operations, ensure sustained functionality during extended power outages, and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.0653 – 0.3791 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District / FEMA HMGP	New
Purchase and install grounding systems district-wide to protect critical infrastructure (i.e., computers, electrical systems, HVAC, etc.), improve infrastructure resilience, and ensure continued operations of Community Lifelines.	SS	C S&S	S&IP	Large SVI: 0.0653 – 0.3791 CEJST: No	Yes	Yes	1, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District	New
Perform periodic, district-wide, multi-jurisdiction training on the District's Reunification Plan for police, fire, EMA, and District staff. This Plan outlines how students will be reunified with their parent/guardian in the event of a school crisis or emergency. Training will include familiarizing personnel with the resources the District can provide as a single source for communication data.	EQ, F, MMH, SS, T	S&S	LP&R E&A	Large SVI: 0.0653 – 0.3791 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / Board of Education	5 years	School District	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a rural school district of this size (serving approx. 12,000 individuals in a 40 square-mile area). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-29
Plano Community Unit School #88 District Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Develop a Redundant Communication Systems Plan that outlines the types of back-up communication modalities available within the District to ensure resilient and reliable communications in the event of a major hazard occurrence to mitigate risk to a Community Lifeline. The Plan should include an audit of the current communications infrastructure system within the District, infrastructure needs, timeline for upgrades and the financial impact associated with the improvements.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	LP&R E&A	Large SVI: 0.0653 – 0.3791 CEJST: No	---	---	1, 2, 5, 9	P2/P4	Low/Medium	Superintendent / Board of Education	5 years	School District	New
Purchase and install window safety film at all District buildings to increase building resilience to natural and man-made hazards, maintain continuity of operations, protect staff and students, and mitigate risk to a Community Lifeline.	EQ, MMH, SS, T	S&S	S&IP	Large SVI: 0.0653 – 0.3791 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Superintendent / Board of Education	5 years	School District / FEMA BRIC HMGP	New
Educate students and staff about the natural and man-made hazards that have the potential to impact the District and the proactive actions they can take to reduce their risks.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0653 – 0.3791 CEJST: No	---	---	4	P2/P4	Low/Medium	Superintendent / Board of Education	2-5 years	School District	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a rural school district of this size (serving approx. 12,000 individuals in a 40 square-mile area). Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-30
Plattville Hazard Mitigation Actions

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Secure a Memorandum of Agreement with the UPA Hall to construct a community safe room, equipped with an emergency backup generator and HVAC system, for use by Village residents to establish a Community Lifeline.	SS, T	---	LP&R	Medium SVI: 0.1018 CEJST: No EDRC: No	---	---	4	P1/P3	Low/Medium	President / Village Board	1-3 years	Village	New
Design and construct a community safe room (built to high wind standards and equipped with emergency backup generators and HVAC systems) at the UPA Hall for use by Village residents to establish a Community Lifeline.	SS, T	---	S&IP	Medium SVI: 0.1018 CEJST: No EDRC: No	Yes	---	4	P1/P3	High/High	President / Village Board	2-5 years	Village / FEMA HMGP BRIC	New
Make public information materials available to residents that detail the risks to life and property associated with the natural and man-made hazards that impact the Village and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.1018 CEJST: No EDRC: No	---	---	3, 4	P2/P4	Low/Medium	President / Village Board	1-5 years	Village	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a village of this size (less than 200 individuals). The Village struggles to provide even the most critical of services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

The Kendall County Planning, Building & Zoning Department is responsible for the administration and enforcement of the County's ordinances regulating the development of land in Plattville. Therefore, projects related to continued compliance with the National Flood Insurance Program for Plattville will originate with the County.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-31
Sandwich Community Fire Protection District Hazard Mitigation Actions

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and install an emergency backup generator at the fire station to establish a resilient and reliable power supply, ensure sustained functionality during extended power outages, maintain continuity of operations, and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.0653 – 0.3791 CEJST: No	---	Yes	1, 5, 9	P1/P3	Medium/High	Fire Chief / Board of Trustees	5 years	FPD / FEMA HMGP BRIC	New
Make public information materials available to District residents that detail the risks to life and property associated with the natural and man-made hazards that impact the District and the proactive approaches they can take to reduce their risk.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0653 – 0.3791 CEJST: No	---	---	4	P2/P4	Low/Medium	Fire Chief / Board of Trustees	1-5 years	FPD	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a combination (career/volunteer) fire protection district of this size (serving approx. 10,000 individuals in a service area of 70 square miles.) Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-32
St. Mary Catholic School Hazard Mitigation Actions
(Sheet 1 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Purchase and install an automatic emergency backup generator at St. Mary School to establish a resilient and reliable power supply in order to maintain continuity of operations, ensure sustained functionality during extended power outages, and mitigate risk to a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Principal / School Board	5 years	School	New
Purchase and install a grounding system to protect critical infrastructure (i.e., computers, electrical systems, HVAC, etc.), improve infrastructure resilience, and ensure continued operations of Community Lifelines.	SS	C S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	Yes	Yes	1, 5, 9	P1/P3	Medium/High	Principal / School Board	5 years	School	New
Perform periodic, multi-jurisdiction training on the Academy's Reunification Plan for police, fire, EMA, and staff. This Plan outlines how students will be reunified with their parent/guardian in the event of a school crisis or emergency. Training will include familiarizing personnel with the resources the School can provide as a single source for communication data.	EQ, F, MMH, SS, T	S&S	LP&R E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Principal / School Board	5 years	School	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by small, private schools. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-32
St. Mary Catholic School Hazard Mitigation Actions
(Sheet 2 of 2)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Develop a Redundant Communication Systems Plan that outlines the types of back-up communication modalities available to ensure resilient and reliable communications in the event of a major hazard occurrence to mitigate risk to a Community Lifeline. The Plan should include an audit of the current communications infrastructure system, infrastructure needs, timeline for upgrades and the financial impact associated with the improvements.	EC, EH, EQ, F, MMH, SS, SWS, T	S&S	LP&R E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	1, 2, 5, 9	P2/P4	Low/Medium	Principal / School Board	5 years	School	New
Purchase and install window safety film at the School to increase building resilience to natural and man-made hazards, maintain continuity of operations, protect staff and students, and mitigate risk to a Community Lifeline.	EQ, MMH, SS, T	S&S	S&IP	Large SVI: 0.0103 – 0.5559 CEJST: No	---	Yes	1, 4, 5, 9	P1/P3	Medium/High	Principal / School Board	1-5 years	School	New
Educate students and staff about the natural and man-made hazards that have the potential to impact the School and the proactive actions they can take to reduce their risks.	DR, EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Large SVI: 0.0103 – 0.5559 CEJST: No	---	---	4	P2/P4	Low/Medium	Principal / School Board	1-5 years	School	New

[§] Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by small, private schools. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

DR	Drought	MMH	Man-Made Hazard
EC	Extreme Cold	SS	Severe Storms
EH	Excessive Heat	SWS	Severe Winter Storm
EQ	Earthquake	T	Tornado
F	Flood		

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-33
Yorkville Hazard Mitigation Actions
(Sheet 1 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Evaluate outdoor warning siren system needs within the City. Purchase and install a new emergency warning siren system to maximize the system's effectiveness and ensure continued operations Communications Community Lifelines essential to human health and safety.	SS, T	C	S&IP E&A	Large SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	---	---	4	P1/P3	Medium/High	Mayor City Council / Public Works Director	2-5 years	City / FEMA BRIC HMGP	New
Purchase P25-compliant interoperable land mobile radio system to allow City personnel to exchange critical communications across departments, agencies, and jurisdictions to maintain continuity of government/operations and ensure system resilience and functionality of a Community Lifeline.	EC, EH, EQ, F, MMH, SS, SWS, T	C	S&IP	Large SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	---	1, 2, 5, 9	P1/P3	High/High	Mayor City Council / Public Works Director / Police Chief	2-5 years	City / FEMA BRIC HMGP	New
Ensure all city-owned critical facilities are equipped with weather radios to establish a Communications Community Lifeline that notifies staff and residents of natural and man-made hazard event information.	EC, EH, EQ, F, MMH, SS, SWS, T	---	E&A	Small SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	---	---	4	P2/P4	Low/High	Mayor City Council / Police Chief / Public Works Director	1-5 years	City	Existing (2011) No. 1

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a City of this size (approx. 20,500 individuals). The City works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-33
Yorkville Hazard Mitigation Actions
(Sheet 2 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)§	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)†	Status
					New	Existing							
Purchase and install transfer switches at city-owned critical facilities/infrastructure to provide emergency backup power, ensure continued operations of Community Lifelines, and maintain continuity of government/ operations during extended power outages.	EC, EH, EQ, F, MMH, SS, SWS, T	C FWS S&S T	S&IP	Large SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	---	Yes	1, 4, 5	P1/P3	Medium/High	Mayor City Council / Public Works Director	2-5 years	City / FEMA BRIC HMGP	Existing (2011) No. 14
Conduct stream and ditch maintenance along streams in developed areas to maximize carrying/storage capacity and reduce flood problems.	F, SS	S&S T	S&IP	Medium SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	Yes	1, 5, 9	P2	Low/Medium	Mayor City Council / Public Works Director	2-5 years	City	Existing (2011) No. 21
Review new Flood Insurance Rate Maps (FIRMs) when they become available. Update the flood ordinance to exceed federal standards and reflect the revised FIRMs and present both for adoption. Enforce flood ordinance to ensure new development does not increase flood vulnerability or create unintended exposures to flooding.*	F	S&S	LP&R	Small SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	Yes	2, 6, 7	P1	Low/High	Mayor City Council / City Administrator	1-5 years	City	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a City of this size (approx. 20,500 individuals). The City works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

* Mitigation action to ensure continued compliance with NFIP.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

Figure MIT-33
Yorkville Hazard Mitigation Actions
(Sheet 3 of 3)

Activity/Project Description	Hazard(s) to be Mitigated	Community Lifeline(s) to be Mitigated	Type of Mitigation Activity	Population Affected (Size, SVI, CEJST, and/or EDRC)[§]	Reduce Effects of Hazard(s) on Buildings & Infrastructure		Goal(s) Met	Priority	Cost/Benefit Analysis	Organization / Department Responsible for Implementation & Administration	Time Frame to Complete Activity	Funding Source(s)[†]	Status
					New	Existing							
Continue to make the most recent Flood Insurance Rate Maps available at the Building Safety & Zoning Office to assist the public in considering where to construct new buildings.*	F	S&S	E&A	Small SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	---	2, 3, 4 6, 7	P2	Low/Medium	City Administrator / Building Code Official	1-5 years	City	New
Continue to make City officials aware of the most recent Flood Insurance Rate Maps and issues related to construction in a floodplain.*	F	S&S	E&A	Small SVI: 0.0653 – 0.2508 CEJST: No EDRC: No	Yes	---	3	P2	Low/Medium	City Administrator	1-5 years	City	New

§ Size refers to the general size of the population affected (i.e., small, medium, or large, while a Social Vulnerability Index (SVI) ranking of 0.6 or greater, a Climate and Economic Justice Screening Tool (CEJST) designation of "Yes", and/or an Economically Disadvantaged Rural Community (EDRC) designation of "Yes" identifies potentially underserved communities and/or socially vulnerable populations using the SVI, CEJST, and EDRC as described in Section 1.2.

† Identifies the most likely funding source to be pursued for the activity/project described. However, if funding is unavailable through the most likely or other suggested sources, then implementation of medium to large-scale activities/projects is unlikely due to the budgetary constraints experienced by a City of this size (approx. 20,500 individuals). The City works hard to maintain critical services to residents. Additional funding is necessary if implementation is to be achieved within the time frames specified.

* Mitigation action to ensure continued compliance with NFIP.

Acronyms

Hazard(s) to be Mitigated:

EC	Extreme Cold	MMH	Man-Made Hazard
EH	Excessive Heat	SS	Severe Storms
EQ	Earthquake	SWS	Severe Winter Storm
F	Flood	T	Tornado

Community Lifelines to be Mitigated:

C	Communications	H&M	Health & Medical
E	Energy (Power & Fuel)	S&S	Safety & Security
FWS	Food, Water, Shelter	T	Transportation
HM	Hazardous Material		

Type of Mitigation Activity:

E&A	Education & Awareness	NSP	Natural Systems Protection
LP&R	Local Plans & Regulations	S&IP	Structure & Infrastructure Projects

Priority:

P1	High Priority	P3	Moderate Priority
P2	Significant Priority	P4	Important

5.0 PLAN MAINTENANCE

This section focuses on the Federal Emergency Management Agency (FEMA) requirements for maintaining and updating the Plan once it has been approved by FEMA and adopted by the participating jurisdictions. These requirements include:

- establishing the method and schedule for monitoring, evaluating and updating the Plan;
- describing how the requirements of the Plan will be incorporated into existing planning mechanisms; and
- detailing how continued public input will be obtained during the plan maintenance process.

These requirements ensure that the Plan remains an effective and relevant document. The following provides a detailed discussion of each requirement.

5.1 MONITORING, EVALUATING & UPDATING THE PLAN

Outlined below is a method and schedule for monitoring, evaluating, and updating the Plan. This method allows the participating jurisdictions to make necessary changes and updates to the Plan and track the implementation and results of the mitigation actions that have been undertaken.

5.1.1 Monitoring and Evaluating the Plan

The Plan update will be monitored and evaluated by a Plan Maintenance Subcommittee on an annual basis. The Subcommittee will be composed of the participating jurisdictions who sought Plan approval and other key members of the Committee. The Kendall County Emergency Management Agency (EMA) will chair the Plan Maintenance Subcommittee.

The Kendall County EMA will assume lead responsibility for monitoring and tracking the implementation status of the mitigation actions identified in the Plan update. It will be the responsibility of each Plan participant to provide the Kendall County EMA with an annual progress report on the status of their existing mitigation actions and identify whether any actions need to be modified. New mitigation actions may be added to the Plan during the annual monitoring and evaluation period or at any time during the plan maintenance cycle by contacting the Kendall County EMA and providing the appropriate information.

Monitoring & Evaluating

- A Plan Maintenance Subcommittee will be formed to monitor and evaluate the Plan update.
- The ***Plan update will be monitored and evaluated*** on an ***annual basis***.
- Each Plan participant will be responsible for providing an annual progress report on the status of their mitigation actions.
- Plan participants can add ***new mitigation actions*** to the Plan ***during the annual monitoring phase or by contacting*** the Kendall County EMA.

The Kendall County EMA together with the Plan Maintenance Subcommittee will also evaluate the Plan update on an annual basis to determine the effectiveness of the Plan at achieving its stated purpose and goals. In order to evaluate the effectiveness of the Plan update, the Subcommittee will review the mitigation actions that have been successfully implemented and determine whether the action achieved the identified goal(s) and had the intended result (i.e., losses were avoided, or the vulnerability of hazard-prone areas were reduced).

The Subcommittee will also ask each Plan participant to identify any significant changes in development or priorities that have occurred within the previous 12 months; whether any new plans, policies, regulations, or reports have been adopted; and if any hazard-related damages to the jurisdiction's assets have been sustained (i.e., people, critical facilities, infrastructure, and systems, and/or natural, historic, and cultural resources).

In order to streamline the plan maintenance process, the Kendall County EMA will provide each Plan participant with a Plan Maintenance Checklist along with the necessary forms to complete and return. **Appendix N** contains a copy of Checklist and associated forms.

The Kendall County EMA will then prepare a progress report detailing the results of the annual Plan monitoring and evaluation period and provide copies to the Subcommittee. The annual progress report will include:

- information on any hazard-related damages sustained by assets within the planning area during the previous year.
- implementation status of the mitigation actions identified in the Mitigation Strategy.
- identification of any new mitigation actions proposed by the Plan participants.
- information on changes in development, priorities, and planning and regulatory capabilities for the Plan participants.
- identification of how information will be disseminated to stakeholders and constituents on the Plan and its progress in effort to seek continued public participation.

If any existing mitigation actions are modified or new mitigation actions are identified for the Plan participants, then Section 4.7 of the Mitigation Strategy will be updated, and the Plan update resubmitted to the Illinois Emergency Management Agency (IEMA) and FEMA for reference.

On an as needed basis the Kendall County EMA, in consultation with the Subcommittee, will evaluate requests from non-participating jurisdictions to "join" the Plan before the five-year update. Consideration will be given if certain conditions are met as outlined in Appendix D of *FEMA's Local Mitigation Planning Policy Guide.*

5.1.2 Updating the Plan

The Plan must be updated within five years of the of the Plan approval date indicated on the signed FEMA final approval letter. (This date can be found in Section 6, Plan Adoption.) This ensures that all the participating jurisdictions will remain eligible to receive federal grant funds to implement those mitigation actions identified in this Plan.

The Kendall County EMA, with assistance from the Plan Maintenance Subcommittee, will be responsible for updating the Plan. The update will

Updating the Plan

- The Kendall County EMA, with assistance from the Plan Maintenance Subcommittee, will be responsible for updating the Plan.
- The Plan ***must be updated within 5 years*** of the ***date of the final approval letter*** provided by FEMA.
- Once the Plan update has received FEMA/IEMA approval, each participating jurisdiction ***must adopt the Plan to remain eligible to receive federal mitigation funds.***

incorporate all of the information gathered during the monitoring and evaluation phase and will also include:

- a review of the Mitigation Strategy, including potential updates to the mitigation goals and prioritization methodology;
- an evaluation of whether additional natural hazards need to be addressed or included in the Plan;
- a review of new hazard data that may affect the Risk Assessment Section;
- identification of any changes in priorities within each participating jurisdiction; and
- identification of any changes in development that have occurred in hazard prone areas that would increase or decrease the participating jurisdictions' vulnerability.

A Planning Committee will be reformed to update the Plan and a public involvement strategy similar to the one employed for this Plan update will be implemented to ensure that the public and stakeholders have ample opportunities to become engaged and provide input during the development of the Plan update. In addition, any jurisdictions that did not take part in the previous Plan update may do so at this time. It will be the responsibility of these jurisdictions to provide all of the information needed to be integrated into the Plan update.

A public forum will be held to present the Plan update to the public for review and comment. The comments received at the public forum will be reviewed and incorporated into the Plan update. The Plan update will then be submitted to IEMA and FEMA for review and approval. ***Once the Plan update has received state and federal approval, FEMA requires that each of the participating jurisdictions adopt the Plan to remain eligible to receive federal funds to implement identified mitigation actions.***

5.2 INCORPORATING THE MITIGATION STRATEGY INTO EXISTING PLANNING MECHANISMS

As part of the planning process, the Committee identified each participating jurisdiction's existing capabilities (i.e., existing authorities, policies, programs, technical information, etc.) and resources available to support or accomplish mitigation and reduce long-term vulnerability. **Figures PP-3** through **PP-14** identify the existing authorities, policies, programs, technical information, and resources available by capability type by jurisdiction. ***It will be the responsibility of each participating jurisdiction to incorporate, where applicable, the mitigation strategy and other information contained in the Plan update into the planning mechanisms identified for their jurisdiction.***

Adoption of this Plan update will trigger each participating jurisdiction to review and, where appropriate, integrate the Plan into other available planning mechanisms. The Plan Maintenance Subcommittee's annual review will help maintain awareness of the Plan among the participating jurisdictions and encourage active integration of the Plan into their day-to-day operations and planning mechanisms. Any time a mitigation action is slated for implementation by a participating jurisdiction, it will be integrated into their capital improvement plan/budget.

Several of the participating jurisdictions, including Kendall County, Montgomery, Oswego, Plano, Yorkville, have identified the need to adopt, review, and/or strengthen current policies or programs

in the near future. Several of the participating jurisdictions, Lisbon, Plattville, Kendall Township, Parkview Christian Academy, and St. Mary Catholic School, have limited capabilities to integrate the mitigation strategy and other information contained in the Plan update into existing planning mechanisms. These jurisdictions are smaller in size and may not have the financial resources or trained personnel to develop planning mechanisms such as comprehensive plans or building and zoning ordinances.

5.3 CONTINUED PUBLIC INVOLVEMENT

The County and participating jurisdictions understand the importance of continued public involvement and will seek public input on the Plan update throughout the plan maintenance cycle. Any meetings held by the Plan Maintenance Subcommittee will be noticed and open to the public. Stakeholders and the public will be encouraged to participate and provide feedback. Following distribution of the annual progress report, each participating jurisdiction will be encouraged to discuss the findings at their monthly board/council meetings to help maintain awareness of the Plan and encourage integration of the Plan in day-to-day operations.

Participating jurisdictions will also be encouraged to make the annual progress report available via social media and on their websites, as available, and at their offices. As the lead organization responsible for maintaining the Plan update, the Kendall County EMA will also periodically post mitigation-related topics to social media including where to access the approved Plan, information on the hazards that have the potential to impact the County, interesting facts about each hazard, and no or low-cost actions that residents can take to reduce their risk from natural hazards.

A copy of the approved Plan will be maintained and available for review at the Kendall County EMA Office and on the County's website. Individuals will be encouraged to provide feedback and submit comments for the next Plan update to the Kendall County EMA Office. The comments received will be compiled and included in the annual progress report and considered for incorporation into the next Plan update. Separate Committee meetings and a public forum will be held prior to the next Plan update submittal to ensure that the public and stakeholders have ample opportunity to become engaged, provide input during the development of the Plan update, and comment on the proposed revision to the Plan update.

6.0 PLAN ADOPTION

The final step in the planning process is the adoption of the approved Plan update by each participating jurisdiction. Each jurisdiction must formally adopt the Plan to become or remain eligible for federal grant funds to implement mitigation actions identified in this Plan.

6.1 PLAN ADOPTION PROCESS

Before the Plan update could be adopted by the participating jurisdictions, it was made available for public review and comment through a public forum and comment period. Comments received were incorporated into the Plan update and the Plan was then submitted to the Illinois Emergency Management Agency and Office of Homeland Security (IEMA-OHS) and the Federal Emergency Management Agency (FEMA) for their review and approval.

Upon receipt of the Approval Pending Adoption (APA) letter from FEMA, the Plan update was presented to the County and participating jurisdictions for adoption. ***Each participating jurisdiction was required to formally adopt*** the Plan to become or remain eligible to receive federal grant funds to implement the mitigation actions identified in this Plan. Any jurisdiction that chose not to adopt the Plan update did not affect the eligibility of those who did.

Figure PA-1 identifies the participating jurisdictions and the date each formally adopted the Plan update. Signed copies of the adoption resolutions are located in **Appendix O**. FEMA signed the final approval letter on (Date) which began the five-year approval period and set the expiration date of (Date) for the Plan.

Figure PA-1
Plan Adoption Dates

Participating Jurisdiction	Plan Adoption Date

7.0 REFERENCES

Provided below is a listing, by section, of the resources utilized to create this document.

1.0 INTRODUCTION

1. Federal Emergency Management Agency. Data Visualization: Disaster Declarations for States and Counties. Database. <https://www.fema.gov/data-visualization-disaster-declarations-states-and-counties>.
2. Federal Emergency Management Agency. OpenFEMA Dataset: Disaster Declarations Summaries – V2. Excel Dataset. <https://www.fema.gov/openfema-dataset-disaster-declarations-summaries-v1>.
3. Federal Emergency Management Agency. Getting Started: Building Support for Mitigation Planning. FEMA 386-1. September 2002.
4. Illinois Emergency Management Agency and Office of Homeland Security. Mitigation Planning. 2023 Illinois Natural Hazard Mitigation Plan. October 2023. <https://iema.illinois.gov/content/dam/soi/en/web/iema/recovery/documents/plan-illmitigationplan.pdf>.

1.2 County Profile

1. Illinois Department of Commerce and Economic Opportunity. Community Profiles. Database. <https://app.locationone.com/areas/communities?organization=59eaba35bec80e09b4bbf0df&buildings:filters=%5B%5B%22railServed%22%2C%5B%22Y%22%5D%5D%5D&buildings:sort=sqft:high&sites:filters=%5B%5D&sites:sort=acres:high>.
2. Illinois Department of Public Health. IDPH Population Projections, Illinois, Chicago, and Illinois Counties by Age and Sex: July 1, 2015 to July 1, 2030 (2019 Edition). <https://dph.illinois.gov/content/dam/soi/en/web/idph/files/publications/population-projections-report-2010-2030.pdf>.
3. Illinois State Water Survey. Major Watersheds of Illinois. Map. 2011. <https://www.isws.illinois.edu/docs/default-source/maps/major-watersheds-illinois-2000-01.pdf?sfvrsn=b7aba970_2>.
4. Multi-Resolution Land Characteristics Consortium. National Land Cover Database Enhanced Visualization and Analysis Tool. <https://www.mrlc.gov/tools>.
5. United States Census Bureau. 2020 Census – Census Tract Reference Map. <https://www.census.gov/geographies/reference-maps/2020/geo/2020pl-maps/2020-census-tract.html>.
6. United States Census Bureau. Gazetteer Files. <https://www.census.gov/geographies/reference-files/time-series/geo/gazetteer-files.html>.
7. United States Census Bureau. American Community Survey. Data Profiles. <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/>.
8. United States Department of Agriculture. Census of Agriculture Historical Archive. <https://agcensus.library.cornell.edu/>.

9. United States Department of Agriculture. National Agricultural Statistics Service. Census of Agriculture. 2017 State and County Profiles – Illinois. <https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Illinois/>.

10. United States Department of Agriculture. National Agricultural Statistics Service. Census of Agriculture. Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin. 2006. Agricultural Handbook 296. <https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051845.pdf>.

11. United States Department of Agriculture. Natural Resources Conservation Service. Soil Surveys by State. <https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soil/soil-surveys-by-state>.

1.3 Land Use and Development Trends

1. United States Census Bureau. Explore Census Data. <https://data.census.gov/>.

2. United States Census Bureau. Illinois: Population of Counties by Decennial Census: 1900 to 1990. 1995.

3. United States Census Bureau. American Community Survey. Data Profiles. <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/>.

2.0 PUBLIC INVOLVEMENT

1. Federal Emergency Management Agency. Local Mitigation Planning Policy Guide. FP 206-21-0002. April 19, 2022. <https://www.fema.gov/sites/default/files/documents/fema_local-mitigation-planning-policy-guide_042022.pdf>.

2.4 EXISTING CAPABILITIES

1. Chamlin & Associates. Comprehensive Planning Map. Village of Lisbon. August 2007.

2. Chamlin & Associates. Village of Lisbon Comprehensive Plan. January 2009.

3. Ginkgo Planning & Design, Inc. Village of Oswego 2015 Comprehensive Plan. 2015. <https://www.oswegoil.org/home/showpublisheddocument/1386/637397620951500000>.

4. Houseal Lavigne Associates. Montgomery 2035 Comprehensive Plan. April 2014. <https://www.montgomeryil.org/DocumentCenter/View/1253/March-Draft---LQ?bidId=>.

5. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Capability Assessment Worksheet. Form.

6. The Lakota Group. United City of Yorkville Comprehensive Plan Update. August 16, 2016. <https://www.yorkville.il.us/DocumentCenter/View/8370/COMPREHENSIVE-PLAN-FINAL-EDITION-10-1-2016?bidId=>.

7. Paul Bednar Planning & Design, Ltd. Village of Newark 2025 Comprehensive Plan. February 2008. <https://newark-il.us/wp-content/uploads/2014/04/Newark-Comp-Plan-DRAFT-1.31.08.indd-iphone-web.pdf>.

8. Teska. 2017 City of Plano Comprehensive Plan. May 2017. <https://www.cityofplanoil.com/DocumentCenter/View/589/Comprehensive-Plan>.

3.0 RISK ASSESSMENT

1. Changnon, Stanley A., et al. Climate Atlas of Illinois. Champaign, Illinois: Illinois State Water Survey, 2004.
2. Federal Emergency Management Agency. Understanding Your Risks: Identifying Hazards and Estimating Losses. FEMA 386-2. August 2001.
3. Illinois Department of Transportation. Illinois Roadway Crash Data. County Crash Statistics. <http://www.idot.illinois.gov/transportation-system/safety/Illinois-Roadway-Crash-Data>.
4. Illinois Emergency Management Agency and Office of Homeland Security. Mitigation Planning. 2023 Illinois Natural Hazard Mitigation Plan. October 2023. <https://iema.illinois.gov/content/dam/soi/en/web/iema/recovery/documents/plan-illmitigationplan.pdf>.
5. Illinois Emergency Management Agency. Preparedness. Weather. Severe Weather Preparedness Guide. February 2021. <https://www2.illinois.gov/iema/preparedness/documents/severeweatherpreparedness.pdf>
6. Illinois Environmental Protection Agency. Drinking Water Branch. Public Water Supply Systems Search. Database. <http://water.epa.state.il.us/dww/index.jsp>.
7. Illinois Environmental Protection Agency. Source Water Assessment Program Factsheets. Database. <http://dataservices.epa.illinois.gov/swap/factsheet.aspx>.
8. Illinois State Geological Survey. Coal Mines in Viewer. Online Map Viewer. <https://ilmineswiki.web.illinois.edu/wiki/ILMINES>.
9. Illinois State Geological Survey. County Coal Data and Maps. <https://isgs.illinois.edu/research/coal/maps/county>.
10. Illinois State Geological Survey. Karst Landscapes of Illinois: Dissolving Bedrock and Collapsing Soil. <http://www.isgs.illinois.edu/outreach/geology-resources/karst-landscapes-illinois-dissolving-bedrock-and-collapsing-soil>.
11. Illinois State Geological Survey. Landslide Inventory of Illinois. By Myrna M. Killey et al. Circular 534. 1985. <https://www.ideals.illinois.edu/items/43502>.
12. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Assets Vulnerability Survey. Form.
13. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Capability Assessment Worksheet. Form.
14. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Critical Facilities & Infrastructure. Form.
15. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Drinking Water Supply Worksheet. Form.

16. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Identification of Severe Weather Shelters. Form.

17. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Natural Hazard Events Questionnaire. Form.

18. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Risk Priority Index Exercise. Form.

19. Kirschbaum, D.B., Adler, R., Hong, Y., et al. "A Global Landslide Catalog for Hazard Applications: Methods, Results, and Limitations." Natural Hazards 52, 561-575 (2010). <https://doi.org/10.1007/s11069-009-9401-4>.

20. Kirschbaum, D.B., Stanley, T., & Zhou, Y. "Spatial and Temporal Analysis of a Global Landslide Catalog." Geomorphology 249, 4-15 (2015). <https://doi.org/10.1016/j.geomorph.2015.03.016>.

21. Midwestern Regional Climate Center. cli-MATE: Online Data Portal. Database. <https://mrcc.purdue.edu/CLIMATE/>.

22. Multi-Resolution Land Characteristics Consortium. National Land Cover Database Enhanced Visualization and Analysis Tool. <https://www.mrlc.gov/tools>.

23. National Aeronautics and Space Administration. Global Landslide Catalog. Cooperative Open Online Landslide Repository. <https://maps.nccs.nasa.gov/arcgis/apps/MapAndAppGallery/index.html?appid=574f26408683485799d02e857e5d9521>.

24. National Oceanic and Atmospheric Administration. National Centers for Environmental Information. COOP Data/Record of Climatological Observations Form. Database. <http://www.ncdc.noaa.gov/IPS/coop/coop.html>.

25. National Oceanic and Atmospheric Administration. National Centers for Environmental Information. Storm Events Database. Database. <https://www.ncdc.noaa.gov/stormevents/>.

26. National Oceanic and Atmospheric Administration. National Weather Service. National Weather Service Glossary. <https://w1.weather.gov/glossary/>.

27. National Oceanic and Atmospheric Administration. National Weather Service. Thunderstorms, Tornadoes, Lightning…Nature's Most Violet Storms. <https://www.weather.gov/media/owlie/ttl6-10.pdf>.

28. Stanford University. National Performance of Dams Program. NPDP Dam Incidents Database. Database. <http://npdp.stanford.edu/dam_incidents>.

29. U.S. Army Corps of Engineers. National Inventory of Dams. Database. < https://nid.usace.army.mil/#/>.

30. U.S. Army Corps of Engineers. National Levee Database. Database. <https://levees.sec.usace.army.mil/#/>.

31. U.S. Geological Survey. U.S. Landslide Inventory and Interactive Map. Online Map Viewer. <https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=ae120962f459434b8c904b456c82669d>.

3.1 SEVERE STORMS (THUNDERSTORMS, HAIL, LIGHTNING & HEAVY RAIN)

1. National Oceanic and Atmospheric Administration. A Hail of a Storm: Hailstones Pack a Perilous (and Costly) Punch. August 2009.
2. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Hail Basics. <https://www.nssl.noaa.gov/education/svrwx101/hail/>.
3. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Hail Types. <https://www.nssl.noaa.gov/education/svrwx101/hail/types/>.
4. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Lightning Basics. <https://www.nssl.noaa.gov/education/svrwx101/lightning/>.
5. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Thunderstorm Basics. <https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/>.
6. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Thunderstorm Types. <https://www.nssl.noaa.gov/education/svrwx101/thunderstorms/types/>.
7. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Damaging Winds Basics. <https://www.nssl.noaa.gov/education/svrwx101/wind/>.
8. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Damaging Winds Types. <https://www.nssl.noaa.gov/education/svrwx101/wind/types/>.
9. National Oceanic and Atmospheric Administration. National Weather Service. Safety. Cloud-to-Ground Lightning Flashes By State: 2009-2018. <https://www.weather.gov/media/safety/09-18Flashes_Flash_Density_State.pdf>.
10. National Oceanic and Atmospheric Administration. National Weather Service. Safety. Severe Thunderstorms. Watch vs. Warning. <https://www.weather.gov/safety/thunderstorm-ww>.
11. National Oceanic and Atmospheric Administration. National Weather Service. Storm Prediction Center. Frequently Asked Questions. How does the NWS define a severe thunderstorm? <https://www.spc.noaa.gov/faq/>.
12. National Oceanic and Atmospheric Administration. National Weather Service. Weather Forecast Office – Chicago, Illinois. Watch, Warning, and Advisory Criteria at NWS Chicago. <https://www.weather.gov/lot/headlines>.
13. The Tornado and Storm Research Organisation. The TORRO Hailstorm Intensity Scale. <https://www.torro.org.uk/research/hail/hscale>.
14. Vaisala. National Lightning Detection Network. Flash Density Map in Miles: 2009-2018.

3.2 FLOODS

1. Code of Federal Regulations. Title 44 – Emergency Management and Assistance. Chapter 1 – Federal Emergency Management Agency, Department of Homeland Security. Subchapter B – Insurance and Hazard Mitigation. Part 59 – General Provisions. Subpart A – General. 59.1 – Definitions. <https://www.govinfo.gov/content/pkg/CFR-2017-title44-vol1/pdf/CFR-2017-title44-vol1-part59.pdf>.
2. Federal Emergency Management Agency. Adoption of Flood Insurance Rate Maps by Participating Communities. FEMA 495. September 2019. <https://www.fema.gov/sites/default/files/2020-07/fema_adoption-flood-insurance-rate-maps-participating-communities_bulletin.pdf>.
3. Federal Emergency Management Agency. Answers to Questions About the NFIP. FEMA F-084. March 2022. <https://agents.floodsmart.gov/sites/default/files/fema-answers-to-questions-about-the-NFIP.pdf>.
4. Federal Emergency Management Agency. Community Status Book Report Illinois. <http://www.fema.gov/cis/IL.pdf>.
5. Federal Emergency Management Agency. Design Guide for Improving Critical Facility Safety from Flooding and High Winds: Providing Protection to People and Buildings. FEMA 543. January 2007. <https://www.fema.gov/media-library/assets/documents/8811>.
6. Federal Emergency Management Agency. FEMA Flood Maps and Zones Explained. <https://www.fema.gov/blog/fema-flood-maps-and-zones-explained>.
7. Federal Emergency Management Agency. Flood Insurance Rate Map (FIRM). <https://www.fema.gov/glossary/flood-insurance-rate-map-firm>.
8. Federal Emergency Management Agency. Flood Map Service Center. Map Viewer. <https://msc.fema.gov/portal/home>.
9. Federal Emergency Management Agency. Flood Zones. <https://www.fema.gov/glossary/flood-zones>.
10. Federal Emergency Management Agency. How to Read a Flood Insurance Rate Map Tutorial. Updated June 2003.
11. Federal Emergency Management Agency. How to Read a Flood Map. <https://www.fema.gov/sites/default/files/documents/how-to-read-flood-insurance-rate-map-tutorial.pdf>.
12. Federal Emergency Management Agency. National Flood Insurance Program Community Rating System: A Local Official's Guide to Saving Lives, Preventing Property Damage, Reducing the Cost of Flood Insurance. FEMA B 573. 2018. <https://www.fema.gov/sites/default/files/documents/fema_community-rating-system_local-guide-flood-insurance-2018.pdf>.
13. Federal Emergency Management Agency. National Flood Insurance Program: Frequently Asked Questions Repetitive Loss. October 2005. <https://www.fema.gov/txt/rebuild/repetitive_loss_faqs.txt>.

14. Federal Emergency Management Agency. National Flood Insurance Program Terminology Index. <https://www.fema.gov/flood-insurance/terminology-index>.

15. Federal Emergency Management Agency. Participation in the NFIP. <https://www.fema.gov/glossary/participation-nfip#:~:text=To%20join%2C%20the%20community%20must,exceeds%20the%20minimum%20NFIP%20criteria.>.

16. Federal Emergency Management Agency. What is a flood map? <https://www.floodsmart.gov/all-about-flood-maps>.

17. Federal Emergency Management Agency. Understanding Your Risks: Identifying Hazards and Estimating Losses. FEMA 386-2. August 2001.

18. Federal Emergency Management Agency. National Flood Insurance Program. Answers to Tough Questions: Talking Points for Community Officials. September 2013.

19. Illinois Administrative Code. Title 17: Conservation. Chapter I: Department of Natural Resources. Subchapter h: Water Resources. Part 3706: Regulation of Construction within Flood Plains. <https://www.dnr.illinois.gov/adrules/documents/17-3706.pdf>.

20. Illinois Department of Natural Resources. Office of Water Resources. 100-Year Floodplain in Illinois. Map. August 6 2009. <https://dnr.illinois.gov/waterresources/gismaps.html >.

21. Illinois Department of Natural Resources. Office of Water Resources. Draft River Stages in Illinois: Flood and Damage Data. August 2009. <https://dnr.illinois.gov/content/dam/soi/en/web/dnr/waterresources/documents/floodstagebook-report2009.pdf >.

22. Illinois Department of Natural Resources. Office of Water Resources. Local Floodplain Administrator's Manual. 2006. <https://dnr.illinois.gov/content/dam/soi/en/web/dnr/waterresources/documents/localfloodplainadministratorsmanualbluebook-2006.pdf>.

23. Illinois Department of Natural Resources. Office of Water Resources. Quick Guide to Floodplain Management in Illinois. 2001. <https://dnr.illinois.gov/content/dam/soi/en/web/dnr/waterresources/documents/resman-ilfpmquickguide.pdf>.

24. Library of Congress. Congressional Research Service. National Flood Insurance Program: Selected Issues and Legislation in the 115th Congress. R45099. Update July 31, 2018. <https://crsreports.congress.gov/product/pdf/R/R45099>.

25. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Flood Basics. <https://www.nssl.noaa.gov/education/svrwx101/floods/>.

26. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Flood Types. <https://www.nssl.noaa.gov/education/svrwx101/floods/types/>.

27. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Severe Weather 101 – Frequently Asked Questions About Floods. <https://www.nssl.noaa.gov/education/svrwx101/floods/faq>.

28. National Oceanic and Atmospheric Administration. National Weather Service. Advanced Hydrologic Prediction Service. November 2021. <https://water.weather.gov/ahps>.

29. National Oceanic and Atmospheric Administration. National Weather Service. During a Flood. <https://www.weather.gov/safety/flood-during>.

30. National Oceanic and Atmospheric Administration. National Weather Service. Floods the Awesome Power. <https://www.weather.gov/media/jetstream/tstorms/floods_booklet.pdf>.

31. National Oceanic and Atmospheric Administration. National Weather Service. Flood Products – What Do They Mean? <https://www.weather.gov/bmx/outreach_flw>.

32. National Oceanic and Atmospheric Administration. National Weather Service. Weather Forecast Office – Chicago, Illinois. Watch, Warning, and Advisory Criteria at NWS Chicago. <https://www.weather.gov/lot/headlines>.

33. U.S. Army Corps of Engineers. RiverGages.com <https://rivergages.mvr.usace.army.mil/WaterControl/new/layout.cfm>.

34. U.S. Code. Title 42 – The Public Health and Welfare. Chapter 50 – National Flood Insurance. Subchapter III – Coordination of Flood Insurance with Land-Management Programs in Flood-Prone Areas. Section 4106 – Nonparticipation in Flood Insurance Program. <http://uscode.house.gov/search/criteria.shtml>.

3.3 SEVERE WINTER STORMS

1. Illinois Emergency Management Agency. Mitigation. Winter Storms. <https://iema.illinois.gov/recovery/hazardinfo.html#Winter>.

2. Illinois Emergency Management Agency. Preparedness. Winter Storm Preparedness Guide. November 2021. <https://www2.illinois.gov/iema/Preparedness/Documents/winter_storm_preparedness_guidebook.pdf>

3. Illinois State Water Survey. Illinois Third Consecutive Severe Winter: 1978-1979. By Stanley A. Changnon, Jr., David Changnon and Phillis Stone. Report of Investigation 94. 1980. <https://www.isws.illinois.edu/pubdoc/RI/ISWSRI-94.pdf>.

4. Illinois State Water Survey. Record Winter Storms in Illinois, 1977-1978. By Stanley A. Changnon, Jr. and David Changnon. Report of Investigation 88. 1978. <https://www.isws.illinois.edu/pubdoc/RI/ISWSRI-88.pdf>.

5. Illinois State Water Survey. The Severe Winter of 1981-1982 in Illinois. By Steven D. Hilberg, Peter G. Vinzani, and Stanley A. Changnon, Jr. Report of Investigation 104. 1983. <https://www.isws.illinois.edu/pubdoc/RI/ISWSRI-104.pdf>.

6. Illinois State Water Survey. State Climatologist Office for Illinois. Glossary of Winter Weather Terms. <https://www.isws.illinois.edu/statecli/Winter/glossary.htm>.

7. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Types of Winter Weather. <https://www.nssl.noaa.gov/education/svrwx101/winter/types/>.
8. National Oceanic and Atmospheric Administration. National Weather Service. Weather Forecast Office – Chicago, Illinois. Watch, Warning, and Advisory Criteria at NWS Chicago. <https://www.weather.gov/lot/headlines>.
9. Ready.gov. Ready Kids. Winter Weather. <https://www.ready.gov/kids/disaster-facts/winter-weather>.

3.4 EXTREME COLD

1. Centers for Disease Control and Prevention. Extreme Cold: A Prevention Guide to Promote Your Personal Health and Safety. <https://www.cdc.gov/disasters/winter/pdf/extreme-cold-guide.pdf>.
2. Centers for Disease Control and Prevention. Natural Disasters and Severe Weather. Prevent Hypothermia & Frostbite. <https://www.cdc.gov/disasters/winter/staysafe/hypothermia.html>.
3. Environmental Research. Clinical Outcomes of Temperature Related Injuries Treated in the Hospital Setting, 2011-2018. Lee S. Friedman, et al. 11 July 2020. <https://www.sciencedirect.com/science/article/abs/pii/S0013935120307775?via%3Dihub>.
4. Illinois Emergency Management Agency. Winter Storm Preparedness Guide. <https://www2.illinois.gov/iema/Preparedness/Documents/winter_storm_preparedness_guidebook.pdf>
5. National Oceanic and Atmospheric Administration. National Weather Service. During Extremely Cold Weather. <https://www.weather.gov/safety/cold-during>.
6. National Oceanic and Atmospheric Administration. National Weather Service. Wind Chill Chart. <https://www.weather.gov/safety/cold-wind-chill-chart>.
7. National Oceanic and Atmospheric Administration. National Weather Service. Wind Chill Questions. <https://www.weather.gov/safety/cold-faqs>.
8. National Oceanic and Atmospheric Administration. National Weather Service. Wind Chill Temperature Index. <https://www.weather.gov/media/safety/wind-chill-brochure.pdf>.
9. National Oceanic and Atmospheric Administration. National Weather Service. Winter Weather Resources and Frequently Asked Questions. <https://www.weather.gov/safety/cold-outreach>.
10. National Oceanic and Atmospheric Administration. National Weather Service. Weather Forecast Office – Chicago, Illinois. Watch, Warning, and Advisory Criteria at NWS Chicago. <https://www.weather.gov/lot/headlines>.
11. Ready.gov. Ready Kids. Winter Weather. <https://www.ready.gov/kids/disaster-facts/winter-weather>.

12. University of Illinois Chicago. UIC Today. Cold-Weather Accounts for almost all Temperature-Related Deaths. 18 August 2020. <https://today.uic.edu/cold-weather-accounts-for-almost-all-temperature-related-deaths>.

3.5 EXCESSIVE HEAT

1. Centers for Disease Control and Prevention. National Environmental Public Health Tracking. Extreme Heat. <https://ephtracking.cdc.gov/showClimateChange ExtremeHeat.action>.
2. Centers for Disease Control and Prevention. Natural Disasters and Severe Weather. FAQs. <https://www.cdc.gov/disasters/extremeheat/faq.html>.
3. Centers for Disease Control and Prevention. Natural Disasters and Severe Weather. Warning Signs and Symptoms. <https://www.cdc.gov/disasters/extremeheat/warning.html>.
4. National Oceanic and Atmospheric Administration. National Weather Service. Heat Index. <https://www.weather.gov/safety/heat-index>.
5. National Oceanic and Atmospheric Administration. National Weather Service. Heat Watch vs. Warning. <https://www.weather.gov/safety/heat-ww>.
6. National Oceanic and Atmospheric Administration. National Weather Service. Heat Wave: A Major Summer Killer. Brochure. <https://www.weather.gov/media/owlie/heatwave.pdf>.
7. National Oceanic and Atmospheric Administration. National Weather Service. Weather Forecast Office – Chicago, Illinois. Watch, Warning, and Advisory Criteria at NWS Chicago. <https://www.weather.gov/lot/headlines>.
8. North Carolina Cooperative Extension Service. Heat Stress Disorders. <https://content.ces.ncsu.edu/heat-stress-disorders>.
9. United States Environmental Protection Agency. Excessive Heat Events Guidebook. June 2006. <https://www.epa.gov/sites/production/files/2016-03/documents/eheguide_final.pdf>.

3.6 TORNADOES

1. Illinois Secretary of State. Illinois State Archives. Illinois Regional Archives Depository System. County Fact Sheets. <https://www.ilsos.gov/departments/archives/IRAD/iradregn.html#countyfacts>.
2. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Tornado Basics. <https://www.nssl.noaa.gov/education/svrwx101/tornadoes/>.
3. National Oceanic and Atmospheric Administration. National Severe Storms Laboratory. Frequently Asked Questions about Tornadoes. <https://www.nssl.noaa.gov/education/svrwx101/tornadoes/faq/>.
4. National Oceanic and Atmospheric Administration. National Weather Service. NWS Forecast Office Chicago, Illinois. Watch, Warning, and Advisory Criteria at NWS Chicago. <https://www.weather.gov/lot/headlines>.

5. National Oceanic and Atmospheric Administration. National Weather Service. Safety Tornado Watch vs. Warning. <https://www.weather.gov/safety/tornado-ww>.

6. National Oceanic and Atmospheric Administration. Storm Prediction Center. The Online Tornado FAQ: Frequently Asked Questions about Tornadoes. By Roger Edwards. <https://www.spc.noaa.gov/faq/tornado/>.

7. National Oceanic and Atmospheric Administration. Storm Prediction Center. Fujita Tornado Damage Scale. Figure. By Roger Edwards. <https://www.spc.noaa.gov/faq/tornado/f-scale.html>.

8. National Oceanic and Atmospheric Administration. Storm Prediction Center. Enhanced F Scale for Tornado Damage. Figure. By Roger Edwards. <https://www.spc.noaa.gov/faq/tornado/ef-scale.html>.

3.7 DROUGHT

1. Illinois State Water Survey. Drought Risk Analysis for Illinois' Community Surface Water Systems. <https://experience.arcgis.com/experience/7e3d44b288a54fe5b53b8dd4c0974c6f/page/Page-3/?views=Drought-Risk-Analysis-Tool>.

2. Illinois State Water Survey. State of Illinois Drought Preparedness and Response Plan. Adopted by the State Water Plan Committee October 2, 2011. <https://www.isws.illinois.edu/hilites/drought/archive/2011/docs/St_Ill_Drought_Plan_2011.pdf>.

3. Illinois State Water Survey. Department of Energy and Natural Resources. The 1988-1989 Drought in Illinois: Causes, Dimensions, and Impacts. Research Report 121. By Peter J. Lamb, Scientific Editor. 1992. <https://www.isws.illinois.edu/pubdoc/RR/ISWSRR-121.pdf>.

4. Illinois State Water Survey. Illinois State Climatologist. Moderate Drought in Western Illinois. 30 August 2013. <https://climateillinois.wordpress.com/2013/08/>.

5. National Drought Mitigation Center. Drought Basics. <https://drought.unl.edu/Education/DroughtBasics.aspx>.

6. National Drought Mitigation Center. Types of Drought. <https://drought.unl.edu/Education/DroughtIn-depth/TypesofDrought.aspx>.

7. National Integrated Drought Information System. U.S. Drought Portal. U.S. Drought Monitor. <https://www.drought.gov/drought/data-maps-tools/current-conditions>.

8. National Oceanic and Atmospheric Administration. National Centers for Environmental Information. Billion-Dollar Weather and Climate Disasters: Mapping. Database. <https://www.ncdc.noaa.gov/billions/mapping>.

9. National Oceanic and Atmospheric Administration. National Weather Service. Safety. Understand Drought and Know How to Respond. <https://www.weather.gov/safety/drought>.

10. National Oceanic and Atmospheric Administration. National Weather Service. Safety. Drought Safety. Drought Types. <https://www.weather.gov/safety/drought-types>.

11. United State Department of Agriculture. USDA Designates Counties in Illinois as Agricultural Disaster Areas. Release No 0281.05. 27 July 2005.

12. United State Department of Agriculture. Agriculture Secretary Vilsack Announces New Drought Assistance, Designates an Additional 218 Counties as Primary Natural Disaster Areas. Release No. 0260.12. 1 August 2012. <https://www.usda.gov/media/press-releases/2012/08/01/agriculture-secretary-vilsack-announces-new-drought-assistance>.

13. United State Department of Agriculture. Farm Service Agency. USDA Designated 44 Counties in Illinois as Primary Natural Disaster Areas. Release No. 0150.11. 2 November 2011. <https://www.fsa.usda.gov/FSA/printapp?fileName=ed_20111102_rel_0150.html&newsType=ednewsrel>.

14. United State Department of Agriculture. Farm Service Agency. USDA Designated 44 Counties in Iowa as Primary Natural Disaster Areas with Assistance to Farmers and Ranchers in Adjacent States. Release 0201.13. 12 December 2013.

15. United States Department of Agriculture. National Agricultural Statistics Service. Census of Agriculture. 2017 State and County Profiles – Illinois. <https://www.nass.usda.gov/Publications/AgCensus/2017/Online_Resources/County_Profiles/Illinois/>.

16. United States Department of Agriculture. Census of Agriculture Historical Archive. <https://agcensus.library.cornell.edu/>.

17. United States Department of Agriculture. National Agricultural Statistics Service. 2017 Census of Agriculture. Table 1. County Summary Highlights: 2017. <https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_County_Level/Illinois/>.

18. United States Department of Agriculture. National Agricultural Statistics Service. 2017 Census of Agriculture. Table 2. Market Value of Agricultural Products Sold Including Direct Sales: 2017 and 2012. <https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Volume_1,_Chapter_2_County_Level/Illinois/>.

19. United States Department of Agriculture. Census of Agriculture Historical Archive. Table 1. County Summary Highlights: 2012. 13 March 2019 <https://agcensus.library.cornell.edu/wp-content/uploads/2012-Illinois-st17_2_001_001.pdf>.

20. United States Department of Agriculture. Census of Agriculture Historical Archive. Table 2. Market Value of Agricultural Products Sold Including Direct Sales: 2012 and 2007. <https://agcensus.library.cornell.edu/wp-content/uploads/2012-Illinois-st17_2_002_002.pdf>.

21. United States Department of Agriculture. National Agricultural Statistics Service. Data & Statistics. Quick Stats. Quick Stats Lite. Database. <https://www.nass.usda.gov/Quick_Stats/Lite/>.

22. United States Drought Monitor. U.S. Drought Monitor. Map. <https://droughtmonitor.unl.edu/>.

23. United States Drought Monitor. Drought Classification. <https://droughtmonitor.unl.edu/About/AbouttheData/DroughtClassification.aspx >.

24. United States Drought Monitor. What is the U.S. Drought Monitor? Brochure. < https://droughtmonitor.unl.edu/data/docs/USDM_FSA_fact_sheet.pdf >.

25. World Meteorological Organization. Handbook of Drought Indicators and Indices. <https://library.wmo.int/doc_num.php?explnum_id=3057 .

3.8 EARTHQUAKES

1. Atkinson, William. The Next New Madrid Earthquake: A Survival Guide for the Midwest. Carbondale, Illinois: Southern Illinois University Press, 1989.

2. EPRI, U.S. Department of Energy, and U.S. Nuclear Regulatory Commission. Technical Report: Central and Eastern United States Seismic Source Characterization for Nuclear Facilities. 2012. <http://www.ceus-ssc.com/Report/Downloads.html>.

3. Federal Emergency Management Agency. Hazus Estimated Annualized Earthquake Losses for the United States. FEMA P-366. April 2017. <https://www.fema.gov/sites/default/files/2020-07/fema_earthquakes_hazus-estimated-annualized-earthquake-losses-for-the-united-states_20170401.pdf>.

4. Illinois State Geological Survey. Handbook of Illinois Stratigraphy. By H. B. Willman, et. al. Bulletin 95. 1975. <http://hdl.handle.net/2142/35115>.

5. Illinois State Geological Survey. Seismicity of Illinois. By Paul C. Heigold and Timothy H. Larson. Environmental Geology Notes 133. 1990. 18 March 2019 <http://hdl.handle.net/2142/78950>.

6. Illinois State Geological Survey. Structural Features in Illinois. By W. John Nelson. Bulletin 100. 1995. <https://www.ideals.illinois.edu/items/43593>.

7. Illinois State Geological Survey. Earthquakes In Illinois: 1795 – 2015. Map.

8. Illinois State Geological Survey. Earthquake Occurrence in Illinois: An Earthquake Every Year. Fact Sheet. 1995-3. <https://www.isgs.illinois.edu/sites/isgs/files/files/qk-fct-occur.pdf>.

9. Illinois State Geological Survey. Northern Illinois Earthquakes: Small Quake Shakes the Area. Fact Sheet. 1999-1. <https://www.isgs.illinois.edu/sites/isgs/files/files/eq-fct-nrth.pdf>.

10. Illinois State Geological Survey. Wabash Valley Earthquakes: A Dozen Moderate Quakes in a Century. Fact Sheet. 1996-1. <https://www.isgs.illinois.edu/sites/isgs/files/files/eq-fct-wabash.pdf>.

11. Incorporated Research Institutions for Seismology. How Often Do Earthquakes Occur? Fact Sheet. June 2011. <https://www.iris.edu/hq/inclass/fact-sheet/how_often_do_earthquakes_occur>.

12. Louie, John N. University of Nevada, Reno. Nevada Seismological Lab. Earthquake Effects in Kobe, Japan. <https://sites.google.com/view/louie-class-geol100/earthquake-effects-in-kobe-japan>.

13. Marshak, S., W. J. Nelson and J. H. McBride. "Phanerozoic strike-slip faulting in the continental interior platform of the United States: examples from the Laramide Orogen, Midcontinent, and Ancestral Rocky Mountains." Geological Society, London, Special Publications 210 (2003): 159-184.

14. Michigan Technological University. UPSeis. Earthquake Magnitude Scale. <http://www.geo.mtu.edu/UPSeis/magnitude.html>.

15. Michigan Technological University. UPSeis. Modified Mercalli Intensity Scale. <http://www.geo.mtu.edu/UPSeis/Mercalli.html>.

16. St. Louis University. Introduction to New Madrid Seismic Zone. <http://www.eas.slu.edu/eqc/eqc_quakes/NewMadridGeneral.html>.

17. University of Alaska Fairbanks. Alaska Earthquake Center. Earthquake Magnitude Classes. <https://earthquake.alaska.edu/earthquake-magnitude-classes>.

18. University of Memphis. Center for Earthquake Research and Information. New Madrid Earthquake Catalog Search. Database. <http://folkworm.ceri.memphis.edu/catalogs/html/cat_nm.html>.

19. U.S. Geological Survey. 1811 – 1812 New Madrid, Missouri Earthquakes. <https://www.usgs.gov/programs/earthquake-hazards/science/1811-1812-new-madrid-missouri-earthquakes>.

20. U.S. Geological Survey. Earthquake Hazard in the Heartland of the Homeland. Fact Sheet 2006-3125. By Joan Gomberg and Eugene Schweig. January 2007. <https://pubs.usgs.gov/fs/2006/3125>.

21. U.S. Geological Survey. Earthquake Hazard in the New Madrid Seismic Zone Remains a Concern. Fact Sheet 2009-3071. By A. D. Frankel, et al. August 2009. <https://pubs.usgs.gov/fs/2009/3071>.

22. U.S. Geological Survey. Earthquake Hazards Program. <https://www.usgs.gov/glossary/earthquake-hazards-program>.

23. U S. Geological Survey. Earthquakes. By Kay M. Shedlock and Louis C. Pakiser. 1995. <https://pubs.usgs.gov/gip/earthq1/index.html>.

24. U.S. Geological Survey. Earthquakes in the Central United States – 1699-2002. By Russell L. Wheeler, et. al. U.S. Geological Survey Geologic Investigations Series I-2812. Version 1.0. 24 November 2003. <https://pubs.usgs.gov/imap/i-2812/>.

25. U.S. Geological Survey. Earthquakes in the Central United States – 1699-2002: Earthquake Catalog. By Russell L. Wheeler, et. al. U.S. Geological Survey Geologic Investigations Series I-2812. 24 November 2003. <https://pubs.usgs.gov/imap/i-2812/catalog.txt>.

26. U.S. Geological Survey. Earthquakes in the Central United States – 1699 – 2010. Supersedes Geologic Investigations Series I-2812. By Richard L. Dart and Christina M. Volpi. 2010. <https://pubs.usgs.gov/gip/115/>.

27. U.S. Geological Survey. Earthquakes in the Central United States – 1699 – 2010: Updatecatalog. 2010. <https://pubs.usgs.gov/gip/115/downloads/GIP115_data/Updatecatalog.txt>.

28. U.S. Geological Survey. M 2.9 – 3km WNW of Lake in the Hills, Illinois. <https://earthquake.usgs.gov/earthquakes/eventpage/us10001qrx/executive>.

29. U.S. Geological Survey. M 3.2 – 1km SSW of Lyons, Illinois. <https://earthquake.usgs.gov/earthquakes/eventpage/usb000ksfx/executive>.

30. U.S. Geological Survey. M 3.6 – 1km SSW of Standard, Illinois. <https://earthquake.usgs.gov/earthquakes/eventpage/us6000lnhy/executive>.

31. U.S. Geological Survey. M 3.8 – 2 km NW of Lily Lake, Illinois. <https://earthquake.usgs.gov/earthquakes/eventpage/usp000h751#executive>.

32. U.S. Geological Survey. M 4.2 – 12 km NW of Dayton, Illinois. <https://earthquake.usgs.gov/earthquakes/eventpage/usp000cz1k#executive>.

33. U.S. Geological Survey. M 5.2 – 7km ESE of Claremont, Illinois. <https://earthquake.usgs.gov/earthquakes/eventpage/nm603116#executive>.

34. U.S. Geological Survey. M 5.2 – 7km NNE of Bellmont, Illinois. <https://earthquake.usgs.gov/earthquakes/eventpage/nm606657#executive>.

35. U.S. Geological Survey. Moment magnitude, Richter Scale - what are the different magnitude scales, and why are there so many? <https://www.usgs.gov/faqs/moment-magnitude-richter-scale-what-are-different-magnitude-scales-and-why-are-there-so-many>.

36. U.S. Geological Survey. Nearly Half of Americans Exposed to Potentially Damaging Earthquakes. 10 August 2015. <https://www.usgs.gov/news/nearly-half-americans-exposed-potentially-damaging-earthquakes>.

37. U.S. Geological Survey. Search Earthquake Catalog. Database. <https://earthquake.usgs.gov/earthquakes/search/>.

38. U.S. Geological Survey. Seismicity of the United States, 1568-1989 (Revised). By C.W. Stover and J.L. Coffman. U.S. Geological Survey Professional Paper 1527. 1993. <https://pubs.er.usgs.gov/publication/pp1527>.

39. U.S. Geological Survey. The Modified Mercalli Intensity Scale. <https://www.usgs.gov/programs/earthquake-hazards/modified-mercalli-intensity-scale>.

40. U.S. Geological Survey. The Science of Earthquakes. By Lisa Wald. <https://earthquake.usgs.gov/learn/kids/eqscience.php>.

41. U.S. Geological Survey. The Severity of an Earthquake. <https://pubs.usgs.gov/gip/earthq4/severitygip.html>.

42. U.S. Geological Survey. United States: Magnitude 7+. <https://www.usgs.gov/programs/earthquake-hazards/lists-maps-and-statistics>.

43. U.S. Geological Survey. What is a fault and what are the different types? <https://www.usgs.gov/faqs/what-fault-and-what-are-different-types>.

44. U. S. Geological Survey. Where do earthquakes occur? <https://www.usgs.gov/faqs/where-do-earthquakes-occur?qt-news_science_products=7#qt-news_science_products>.

45. U.S. Nuclear Regulatory Commission. Magnitude/Intensity Comparison. <https://www.nrc.gov/docs/ML1821/ML18214A882.pdf>.

3.9 MAN-MADE HAZARDS

1. Association of American Railroads. Freight Railroads in Illinois. <https://www.aar.org/data-center/railroads-states/>.

2. Association of American Railroads. Freight Railroads Moving America Safely. <https://www.aar.org/fact-sheets/>.

3. Association of American Railroads. Freight Railroads in United States. <https://www.aar.org/data-center/railroads-states/>.

4. California Department of Fish and Wildlife. Office of Spill Prevention and Response. National Resource Damage Assessment (NRDA) and Restoration. Refugio. <https://www.wildlife.ca.gov/OSPR/NRDA/Refugio>.

5. Federal Bureau of Investigation. Terrorism 2002 – 2005. <https://www.fbi.gov/file-repository/stats-services-publications-terrorism-2002-2005-terror02_05.pdf/view>.

6. Illinois Commerce Commission. Transportation. Railroad Safety. Annual Report on Accidents/Incidents Involving Hazardous Materials on Railroads in Illinois. <https://www.icc.illinois.gov/reports/report.spx?rt=19>.

7. Illinois Department of Transportation. Transportation Fast Facts. <https://idot.illinois.gov/transportation-system/Network-Overview/index>.

8. Illinois Emergency Management Agency. Hazardous Materials Incident Reports. Database. <https://public.iema.state.il.us/OIAHazmatSearch/>.

9. Illinois Emergency Management Agency. Tier 2 Hazardous Chemical Reports. Database. <https://public.iema.state.il.us/FOIAHazmatSearch/T2Search.aspx>.

10. Illinois Environmental Protection Agency. Do I Have a Special Waste? <https://www2.illinois.gov/epa/topics/waste-management/waste-disposal/special-waste/Pages/do-i-have.aspx>.

11. Illinois Environmental Protection Agency. Generators and Managers of Hazardous Waste in Illinois. <https://www2.illinois.gov/epa/topics/waste-management/waste-disposal/hazardous-waste/Pages/annual-report.aspx>.

12. Illinois Environmental Protection Agency. Landfill Capacity Report. <https://www2.illinois.gov/epa/topics/waste-management/landfills/landfill-capacity/Pages/default.aspx>.

13. Illinois Environmental Protection Agency. Leaking Underground Storage Tanks. <https://www2.illinois.gov/epa/topics/cleanup-programs/lust/Pages/default.aspx>.

14. Illinois Environmental Protection Agency. Leaking UST Database. Database. <https://www2.illinois.gov/epa/topics/cleanup-programs/bol-database/Pages/leaking-ust.aspx>.

15. Illinois Environmental Protection Agency. Permitted Facilities for Storage, Treatment, Recycling, Incinerating, Transfer Stations and Processing. Database. <https://www2.illinois.gov/epa/topics/waste-management/permitted-facilities/Pages/default.aspx>.

16. Illinois Environmental Protection Agency. Site Remediation Program. <https://www2.illinois.gov/epa/topics/cleanup-programs/srp/Pages/default.aspx>.

17. Illinois Environmental Protection Agency. Site Remediation Program Database Search. Database. <https://www2.illinois.gov/epa/topics/cleanup-programs/bol-database/Pages/srp.aspx>.

18. Illinois Environmental Protection Agency. State Response Action. <https://www2.illinois.gov/epa/topics/cleanup-programs/state-response-action/Pages/default.aspx>.

19. Illinois Environmental Protection Agency. State Response Action Program. Database. <https://www2.illinois.gov/epa/topics/cleanup-programs/bol-database/Pages/ssu.aspx>.

20. National Transportation Safety Board. Pipeline Accident Brief: Large Crude Oil Spill from Damaged Enbridge Energy Pipeline. NTSB Number: PAB-13-03. Adopted 30 September 2013. <https://www.ntsb.gov/investigations/AccidentReports/Reports/PAB1303.pdf>.

21. National Transportation Safety Board. Pipeline Accident Report: Enbridge Incorporated Hazardous Liquid Pipeline Rupture and Release. NTSB Number: PAR-12-01. Adopted 10 July 2012. <https://www.ntsb.gov/investigations/AccidentReports/Reports/PAR1201.pdf>.

22. National Transportation Safety Board. Pipeline Accident Report: Natural Gas-Fueled Building Explosion and Resulting Fire. NTSB Number: PAR-15-01. Adopted 9 June 2015. <https://www.ntsb.gov/investigations/AccidentReports/Reports/PAR1501.pdf>.

23. National Transportation Safety Board. Pipeline Accident Report: Pacific Gas and Electric Company Natural Gas Transmission Pipeline Rupture and Fire. NTSB Number: PAR-11-01. Adopted 30 August 2011. <https://www.ntsb.gov/investigations/accidentreports/reports/par1101.pdf>.

24. National Transportation Safety Board. Preliminary Report: Pipeline Explosion and Fire, Manhattan, NY, March 12, 2014.

25. University of Maryland. START: National Consortium for the Study of Terrorism and Responses to Terrorism. American Deaths in Terrorist Attacks, 1995 - 2019. Fact Sheet. October 2020. <https://www.start.umd.edu/publication/american-deaths-terrorist-attacks-1995-2019>.

26. University of Maryland. START: National Consortium for the Study of Terrorism and Responses to Terrorism. Global Terrorism Database. Database. <http://www.start.umd.edu/gtd/>.

27. U.S. Department of Transportation. Federal Highway Administration. Highway Statistics Series. <https://www.fhwa.dot.gov/policyinformation/statistics.cfm>.

28. U.S. Department of Transportation. Federal Highway Administration. Bridge Condition by Highway System. <https://www.fhwa.dot.gov/bridge/nbi/condition.cfm>.

29. U.S. Department of Transportation. Pipeline and Hazardous Materials Safety Administration. Distribution, Transmission & Gathering, LNG, and Liquid Accident and Incident Data. <https://www.phmsa.dot.gov/data-and-statistics/pipeline/distribution-transmission-gathering-lng-and-liquid-accident-and-incident-data>.

30. U.S. Department of Transportation. Pipeline and Hazardous Materials Safety Administration. National Pipeline Mapping System. Public Map Viewer. Map. <https://www.npms.phmsa.dot.gov/>.

31. U.S. Environmental Protection Agency. National Priorities List (NPL) Sites – by State. Database. <https://www.epa.gov/superfund/npl-site-status-information>.

32. U.S. Environmental Protection Agency. Superfund: National Priorties List (NPL). <https://www.epa.gov/superfund/superfund-national-priorities-list-npl>.

33. U.S. Environmental Protection Agency. TRI Explorer. Database. <https://enviro.epa.gov/triexplorer/tri_release.chemical?>.

34. U.S. Environmental Protection Agency. What is Superfund? <https://www.epa.gov/superfund/what-superfund>.

4.0 MITIGATION STRATEGY

1. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Existing Mitigation Project/Activity Status. Form.

2. Kendall County Multi-Jurisdictional All Hazards Mitigation Planning Committee. Hazard Mitigation Projects. Form.

APPENDIX A

Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

January 24, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	KEN RUNKLE	AMERICAN ENVIRONMENTAL	RISK ASSESSOR
2.	ROGER BONNICHE	KCEMA	DIRECTOR
3.	Doug Westphal	Kendall Twp	Highway Comm.
4.	Andrea Bostwick-Campbell	American Environmental	EMS Manager
5.	Debbie Andersen	Village of Lisbon	Village Clerk
6.	Victoria Lundh	Kendall-Grundy Farm Bureau	Manager
7.	ARMANDO SANDERS	Montgomery P.D	Deputy Chief
8.	Kerry Behr	Village of Oswego	Project Engineer
9.	DAN Schiradelly	Oswego Fire Dept.	ASS. STANT CHIEF
10.	ERIC DIXSS	City of Yorkville	DIR. OF PW
11.	Chris Mehochko	Grundy Kendall ROE	Regional Superintendent
12.	Caleb Waltmire	Kendall Co Sheriff's office	Deputy Commander
13.	STEVE GREBNER	Kendall Township	Clerk
14.	Matt Kellogg	Kendall County	Board Chair
15.	Zach Zigterman	Plainfield	Commander / Deputy Director
16.	GEOFF PENMAN	City of Sandwich	City Administrator

Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

January 24, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Phil Smith	Montgomery	Chief of Police
2.	Rich ZIELKE	OSWEGOLAND PARK DISTRICT	EXEC. DIRECTOR
3.	Brooke Shanley	Kendall County Board	member
4.	Scott Koepke	Kendall County	Administrator
5.	Jim Batemon	BCFD	chief
6.	Amanda Bally	GIS Dept.	GIS Specialist
7.	Jennifer Hughes	Village of Oswego	Public Works Director
8.	Chris Biggs	OSWEGO T.D.	COMMANDER
9.	Dan Cuff	Kendall County IFPD	Exec. Dir.
10.	Steve Gengler	Kendall Township	Supervisor
11.	RaeAnn VanGundy	Health Dept.	Ex Director
12.	Lynette Bergeson	Plattville Village / 211	Trustee/Bd member
13.	Antoinette White	Kendall County Forest Preserve District	Grounds Division Supervisor
14.			
15.			
16.			

Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

January 24, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Jeff Matthue	Newark Fire Dept	Chief
2.	Tom Richards Jr	Big Grove Twp.	Road comisl
3.	Greg Witek	Little Rock-Fox FPD	Fire Chief
4.	Tracy Page	Kendall county EMA/sheriff	Deputy Director
5.	Julia Holt	Kendall county Health Dept	emergency response specialist
6.	Norm Allison	Plano police Dept	Lt.
7.	James Morais	Village of Lisbon	Trustee
8.	Mark Wolf	Village of Montgomery	Director of Public Works
9.	Andy Nicoletti	Kendall County	CCAO
10.	Jeff Burgner	Oswego PD	Chief
11.	Jim Jensen	Yorkville PD	Chief
12.	Scott Snyder	Seward Twp	Highway Commiss
13.	Jason Langston	Kendall Co. SO.	
14.	Mary Maher-Bartalone	Bristol township	Assessor
15.	Matt Asselmeier	Kendall County PBZ	Senior Planner
16.	Zachary Morel	Sandwich fire department	deputy Chief

Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

January 24, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Lynette Bergeron	KenCom Public Safety	Director
2.	Scott McCaffrey	Edith Farnsworth House	ED Actuator
3.	John Burscheid	Kendall County Highway Dept.	Asst. County Engineer
4.	Chad Fedotto	Oswegoland Park Dist	Dir of Parks & Planning
5.		Village of Newark	Administrator
6.	Matthew Linsey	Kendall County Technology	Director
7.		Kendall County Forest Pres. Dist	Exec Dir.
8.			
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Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

April 18, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Callie Smith	AEC	Environmental Analyst
2.	Julia Holt	Kendall County HD	EHS
3.	Matthew Kinsey	Kendall County	ICT Director
4.	PAUL BOECKER	CITIZEN	
5.	Jeff Mathis	Newark Fire Dept	Chief
6.	Steve Geebner	Kendall Township	Clerk
7.	Zachary Morel	Sandwich fire dept.	deputy Chief
8.	James Gannon	LISBON VILLAGE	TRUSTEE
9.	GREGG WITEK	LRF FPD	Fire Chief
10.	Jack McIntyre	village of Lisbon / Lisbon-Seward FPD	Trustee / EMS Coord.
11.	Matt Asselmeier	Kendall County Planning, Building & Zoning	Senior Planner
12.	John Burscheid	Kendall County Highway Dept.	Asst. County Engineer
13.	Lynette Bergeson	KenCom	Director
14.	JASON LANGSTON	KENDALL CO. SHERIFF'S OFF	COMMANDER.
15.	Chad Feldhio	Oswegoland Park Dist	Dir of Parks & Planning
16.	CLIFF FOX	VILLAGE OF NEWARK	VILL ADMINISTRATOR

Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

April 18, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	DAN POLVERA	KENDALL COUNTY	KCFM DIRECTOR
2.	ROGER BONNETT	KENDALL CNTY	DIRECTOR - EMA
3.	NORM ALLISON	PLANO (city of PD)	Lt.
4.	Andrea Bostwick-Campbell	AEC	EMS Manager
5.	Bob DeLong	Oswego Township	Community Resource officer
6.	Deb Andersen Deb Andersen	Lisbon	Village Clerk
7.	JIM BATTERSON	BRISTOL KENDALL FIRE	FIRE CHIEF
8.	Kerry Behr	Oswego	Project Engineer
9.	Gina Belmont	KenCom	Assistant Director
10.	Rich ZIELKE	OSWEGOLAND PARK DIST	EXEC. DIRECTOR
11.	CHRIS BIGGS	OPD	COMMANDER
12.	DAN Schinabeck	OFPD	A/C
13.	MARK WOLF	VILLAGE OF MONTGOMERY	PUBLIC WORKS DIRECTOR
14.	Caleb Waltmire	Kendall Co. Sheriff	Deputy Commander
15.	Chris Mehochko	Grundy Kendall ROE	Regional Superintendent
16.	JAMES JENSEN	YORKVILLE P.D	CHIEF OF POLICE

Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

April 18, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Antoinette White	Kendall County Forest Preserve District	Grounds Supervisor
2.	Brooke Shanley	Kendall County	Board Member
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Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

April 18, 2023

	Name (Please Print)	*Representing (Jurisdiction/Organization)*	*Title*
1.	Judy Siedlecki	OSWEGOLAND SR. & COMMUN. CTR.	VOLUNTEER
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Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

July 11, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Andrea Bestwick-Campbell	American Env. Corp	EMS Manager
2.	Zachary Morel	Sandwich Fire	deputy Chief
3.	Debbie Andersen	Village of Lisbon	village clerk
4.	James Lyons	" " "	TRUSTEE
5.	Jackson McIntyre	Lisbon-Seward FPD / village of Lisbon	EMS coord. / Trustee
6.	Julia Holt	Kendall Co Health Dept	emergency response specialist
7.	Steve Grebner	Kendall Township	Clerk
8.	Gina Belmont	KenCom	Asst. Director of Operations
9.	Jim Bateman	Bristol Kendall	Fire Chief
10.	Steve Gengler	Kendall Township	Supervisor
11.	James Jensen	Yorkville Police Dept	Chief
12.	MARK WOLF	VILLAGE OF MONTGOMERY	DIRECTOR OF PUBLIC WORKS
13.	Chris Biggs	Oswego Police	Deputy Chief
14.	Scott Gryder	Kendall County	County Board
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Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

July 11, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	KEN RUNKLE	AEC	RISK ASSESSOR
2.	Jeff MATHRE	NEWARK FIRE DEPT	Chief
3.	Tracy Page	Kendall Sheriff / EMA	Business/HR
4.	Roger Bonnett	" " "	Director
5.	Matt Asselmeier	Kendall County Planning, Building & Zoning	Director
6.	Kerry Behr	Village of Oswego	Project Engineer
7.	Rob Delaney	Oswego Township	Community Resources
8.	DAN Schindler	Oswego Fire	ASSISTANT CHIEF
9.	Chad Feldhs	Oswego Land Park Dist	Dir. of Parks & Planning
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Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

October 24, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Andrea Campbell	American Environmental	EMS Manager
2.	Debbie Andersen	Village of Lisbon	village clerk
3.	Julia Holt	Kendall Health Dept	EHS
4.	DAN Schneider	Oswego F.D	ASST. Chief
5.	Matt Asselmeier	Kendall County Planning, Building + Zoning	Director
6.	ROGER BONACKI	KENDALL CNTY EMA	DIRECTOR
7.	Tracy Page	Kendall county EMA/Sheriff	Deputy Director
8.	JASON LANGSTON	KENDALL CO. S.O.	COMMANDER
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Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

October 24, 2023

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Callie Smith	AEC	Environmental Analyst
2.	Jim Marcin	LISBON VILLAGE	TRUSTEE
3.	STEVE GREBNER	Kendall Township	Clerk
4.	Rich Zielke	Oswegoland Park Dist	Exec. Director
5.	Kerry Behr	Village of Oswego	Project Engineer
6.	MARK WOLF	VILLAGE OF MONTGOMERY	DIRECTOR OF PUBLIC WORKS
7.	CHRIS BIGGS	OSWEGO POLICE	DEPUTY CHIEF
8.	Chris Mehochko	Grundy Kendall ROE	Regional Superintendent
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Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

February 20, 2024

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Andrea Campbell	American Environmental	EMS Manager
2.	Callie Smith	AEC	Environmental Analyst
3.	Jim Olson	V. Village of Lisbon	TRUSTEE
4.	Tracy Page	Kendall County EMA	Deputy Director
5.	Julia Holt	Kendall County Health Dept	emer. resp. specialist
6.	Chad Feldotto	Oswegoland Park District	Dir of Parks & Planning
7.	DAN Schinadeck	OFPD	ASST. CHIEF
8.	GEOFF Penman	CITY of SANDWICH	CITY ADMINISTRATOR
9.	Steve Gengler	Kendall Township	Supervisor
10.	Chris Mehochko	Grundy Kendall ROE	Regional Superintendent
11.	Caleb Waltmire	Kendall Co. Sheriff's office	Deputy Commander
12.	Chris Bockerstette	OSWEGO FIRE	Firefighter
13.	Christina Burns	Kendall County	County Administrator
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Attendance Sheet

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee Meeting

February 20, 2024

	Name (Please Print)	Representing (Jurisdiction/Organization)	Title
1.	Rob DeLong	Oswego Township	Community Resources
2.	ROGER BONUCHI	KENDALL COUNTY	DIRECTOR
3.	Debbie Andersen	Village of Lisbon	Village Clerk
4.	NORM ALLISON	City of PLANO	Interim Chief of Police.
5.	STEVE GROSSER	Kendall Township	Clerk
6.	MARK WOLF	VILLAGE OF MONTGOMERY	DIRECTOR OF PUBLIC WORKS
7.	Jennifer Hughes	V.llge of Oswego	D.rector of Public Works
8.	Carolyn Schur	Aurora EMA	Volunteer
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APPENDIX B

Meeting Minutes

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee

January 24, 2023
3:00 p.m.
Kendall County Health Department
811 W. John Street, Yorkville

Committee Members

Big Grove Township
Bristol Township
Bristol-Kendall FPD
Edith Farnsworth House
Grundy-Kendall ROE
KenCom Public Safety Dispatch
Kendall County
- Administrator
- Assessor's Office
- County Board
- EMA
- GIS
- Health Department
- Highway Dept.
- Planning, Building, & Zoning
- Sherriff's Office
- Technology

Kendall County Forest Preserve Dist.
Kendall Township
Kendall-Grundy Farm Bureau
Lisbon, Village of
Little Rock-Fox Fire District
Montgomery, Village of
Newark, Village of
Newark FPD
Oswego, Village of
Oswegoland Park District
Plainfield, Village of
Plano, Village of
Plattville, Village of
Sandwich, City of
Sandwich FPD
Seward Township
Yorkville, City of
American Environmental Corp.

Welcome and Introductions

Roger Bonuchi, Director of the Kendall County Emergency Management Agency, welcomed attendees. He indicated that the purpose of this Committee is to update the Kendall County All Hazards Mitigation Plan.

Handout materials were distributed to each member, including a Natural Hazard Events Questionnaire. A link to a citizen questionnaire was provided to potential members via email as well. The questionnaires will help gauge residents and committee member understanding of the natural hazards that impact the County and also identifies communication preferences.

Andrea Bostwick, American Environmental Corporation (AEC) began the meeting by providing background information on the planning grant and the planning process. Kendall County EMA applied for and received a planning grant from FEMA to update the County's hazard mitigation plan. This grant is administered through the Illinois Emergency Management Agency (IEMA) and pays for 90% of the planning cost. The remaining 10%

will be met through in-kind services. The goal of the grant is to obtain a FEMA-approved hazard mitigation plan. The process generally takes about 16 to 18 months from start to finish.

What is Mitigation?

Andrea explained that for the purpose of this process, mitigation is any sustained action that reduces the long-term risk to people and property from natural and man-made hazards and their impacts. Sustained actions can include projects and activities such as building a community safe room or establishing warming and cooling centers. Mitigation is one of the phases of emergency management and is an important component in creating hazard-resistant communities.

What is an All Hazards Mitigation Plan?

Andrea then explained that an All Hazards Mitigation Plan details the natural and man-made hazard events that have previously impacted the County and identifies activities and projects that reduce the risk to people and property from these hazards before an event occurs. A hazard mitigation plan is different from the County's Emergency Operations Plan/ Emergency Response Plan (EOP/ERP) because it identifies actions that can be taken before a disaster strikes whereas the EOP/ERP identifies how the County will respond during and immediately after an event occurs.

The natural and man-made hazards that will be included in the Plan are severe summer storms (including thunderstorms with damaging winds, hail, lightning, and heavy rain events); severe winter storms (including ice and snowstorms); floods (both flash flood and riverine floods); tornadoes; excessive heat; extreme cold; drought; and earthquakes; transportation, generation, and storage of hazardous substances; hazardous materials incidents; waste disposal; and remediation activities.

Andrea indicated that the Committee can also include additional hazards it feels have a significant impact on the County and then discussed dam failures. AEC will send out a survey in the next week to poll the Committee on whether to include this hazard in the Plan update.

Why Update an All Hazards Mitigation Plan?

Since the early 1990s damages caused by weather extremes have risen substantially. In 2021 the U.S. experienced $141 billion in severe storm damages from twenty (20) severe weather and natural hazard events. The losses experienced in 2021 were the 3rd highest only behind 2017 (Harvey, Irma, Maria, and California Wildfires) and 2005 (Katrina, Rita, & Wilma). In the last decade, the U.S. has experienced the top three years with the highest total number of billion-dollar events and two of the top three years with the highest total losses ever recorded. Consequently, the Federal Emergency Management Agency (FEMA) continues to encourage counties throughout the U.S. to prepare and develop hazard mitigation plans because what they've found is that for every dollar spent on mitigation, $6 dollars can be reaped in savings.

Updating this plan provides several major benefits:

1. Access to federal mitigation assistance funds. Specific projects and activities will be developed and updated through the planning process to help each participating jurisdiction reduce damages. By including these actions in this Plan, the participating jurisdictions will become eligible to receive state and federal funds to implement the actions.
2. Increased awareness of the impacts associated with natural hazards. Verifiable information about the natural hazards that occur in Kendall County will be gathered to help participants in municipal and county meetings make decisions about how to better protect citizens and property from storm damages.

The Planning Process

The goal of the Committee meetings is to update the Plan to meet state and federal requirements so that it can be approved by the IEMA and FEMA. The Planning Committee is an integral part of the planning process and ensures that the Plan is tailored to the needs of the County and participating jurisdictions.

A five meeting process has been developed to achieve this goal. Specific activities for the Committee meetings include:

1st Committee meeting	Orientation to the Planning Process Required Information Needed to Participate
2nd Committee meeting	Discuss the Risk Assessment Approve Mission Statement & Goals Participants Return Required Forms Begin discussing Mitigation Projects and Activities
3rd Committee meeting	Discuss and approve Mitigation Strategy Committee returns draft list of Mitigation Projects and Activities
4th Committee meeting	Finish discussing Mitigation Projects and Activities Committee discusses approval/adoption of the Plan
5th Committee meeting (Public Forum)	Present the Plan for public review Committee helps answer questions from the public

Jurisdictions who wish to be part of the Plan must meet certain participation requirements that include:

- Participating in the planning meetings and public forum;
- Completing required forms;
- Coordinating with their constituents and the public; and
- Adopting the Plan once it's completed.

Information Needed from the Committee

As part of the Plan's update, Ken Runkle of AEC indicated that there is information that will be needed from each participating jurisdiction. The information provided will be used

to meet FEMA plan requirements. He then talked about each of the forms that must be completed at the beginning of the planning process. These Include:

Critical Facilities. Completed lists of Critical Facilities will be used to identify facilities vulnerable to natural hazards and will be provided to IEMA and FEMA as a separate supplement. Copies of the Plan made available to the public will not include these lists for security reasons.

Capability Assessment: Each jurisdiction has a unique set of capabilities and resources available to accomplish hazard mitigation and reduce long-term vulnerabilities to hazard events. As part of the update of the plan, the existing capabilities of each jurisdiction need to be identified and described.

Shelter Surveys. Identifies locations designated as severe weather shelters within each jurisdiction including warming centers, cooling centers and community safe rooms.

Drinking Water Supply Worksheet: Information on the drinking water supplies that serve the participating communities needs to be identified to assist in assessing drought vulnerability.

Andrea and Ken passed out the forms and fielded questions. Ken asked participants to complete the forms and return them by the next meeting if possible and to let him know if they had any questions.

Severe Weather Events

Andrea told the Committee that, while AEC will review multiple data sources, including NOAA, NWS, and state and federal databases, these sources don't always include every event nor do they always include damage information, especially dollar amounts. In many cases, individuals at the local level are our best resource for this kind of information.

She then asked Committee members to share their memories of hazardous events that have occurred in the County including any damages to critical infrastructure and facilities.

Hazard events related include:

- A tornado on August 10, 2020 damaged private property
- A storm with hail in 2019 caused roof damage in Oswego
- Rain events in 1996 included 19 inches of rain that caused widespread flooding
- 1997 drought event
- 2011 blizzard with 34 inches of snow
- Extremely low temperatures in 2019 that caused water service lines to freeze in Oswego
- 2012 drought
- Flooding in April 2013
- Very cold winter in 1984
- Severe winter storms in 1978 and 1979
- A microburst in 1990 caused roof damage to township buildings
- A tornado in Plainfield in 1990

She asked participants to identify any hazard events that have impacted their jurisdiction by completing the form titled, “Hazard Event Questionnaire”. The information provided will help supplement the information included in the risk assessment.

She also asked Committee members to please provide any storm damage photos they would be willing to share for inclusion in the Plan.

Community Participation

Ken stressed the importance of attending each committee meeting and indicated that member participation helps the County meet its 10% match for this grant in addition to assuring that member jurisdictions are eligible for IEMA/FEMA funds. He indicated that tag-teaming and designating substitute representatives is permissible when other obligations arise. Ken pointed out that a designated substitute representative does not have be an official or employee of the jurisdiction.

Ken requested that each jurisdiction consider sharing meeting information with their boards, councils, etc. at regularly scheduled meetings and consider posting the press release or adding a calendar item to their web pages. He also asked jurisdictions who are on Facebook to consider posting about the Plan on their pages as well.

Ken indicated that another opportunity to include the public in the process is to post the link to the Citizen Questionnaire on their web pages or Facebook pages. The more individuals who complete the survey, the better our understanding will be of the public’s perception of the hazards that impact the County. Finally, he asked the participants to consider posting or making available at their offices the “Frequently Asked Questions” document in their meeting packet. It provides a quick summary of what the Plan is and why it’s important to participate.

Mission Statement & Goals

Copies of a draft mission statement and goals were distributed in the meeting packet. Committee Members were asked to review these prior to the next meeting. The mitigation goals describe the objectives or end results the Committee would like to accomplish in terms of hazard and loss reduction/prevention. Every project included in the Plan should be aimed at one or more of the goals identified by this Committee. Specific goals related to each jurisdiction can be added to this list as well.

What Happens Next?

The risk assessment will be the main topic of the next committee meeting. The second meeting of the Committee was scheduled for:

Tuesday, April 18, 2023
Location TBD
3 P.M.

Andrea asked Committee members to please review the “Tasks to be Completed” handout before the next meeting and indicated that AECs contact information could be found on the last page of the meeting handout if any questions come up. With no further questions the meeting was adjourned, and Roger Bonuchi closed by thanking attendees for their participation.

Meeting Minutes

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee

April 18th, 2023
3:00 p.m.
Oswego Fire Protection District Station 1,
3511 Woolley Road, Oswego

Committee Members

Bristol-Kendall Fire Protection District
Grundy/Kendall ROE
KenCom
Kendall County
- Board
- EMA
- Facilities Management
- Forest Preserve District
- Health Department
- Highway Department
- ICT
- Planning, Building, & Zoning
- Sheriff's Office

Kendall Township
Lisbon, Village of
Lisbon-Seward FPD
Little Rock-Fox Fire District
Montgomery, Village of
Newark FPD
Newark, Village of
Oswego FPD
Oswego Township
Oswego, Village of
Oswegoland Park District
Oswegoland Sr. & Community Center
Plano, City of
Plattville, Village of
Sandwich CFPD
Yorkville, City of
American Environmental Corp.

Welcome and Introductions

On behalf of the Kendall County Emergency Management Agency, Andrea Bostwick-Campbell and Callie Smith welcomed attendees.

Handout materials were distributed to each member in attendance. Andrea provided a brief recap to reorient Committee Members as to what was accomplished at the previous meeting. Before beginning the risk assessment presentation, Andrea asked the participating jurisdictions to submit their completed "Critical Facilities", "Capability Assessments", "Shelter Surveys" and "Drinking Water Worksheets" if they haven't done so already.

Risk Assessment

Andrea began the presentation by noting that there have been seven federally-declared disasters in Kendall County since 1972. A total of 509 verified natural hazard events have been documented over the last 20 to 70 years. There have been 273 events identified

since 2010. A minimum of $7.8 million in damages have resulted from just 34 of these documented natural hazard events.

The damage amounts are actually much higher based on several facts:

1.) damage descriptions for many floods, tornadoes and severe storm events did not include dollar amounts;
2.) damages to roads from heat and freeze/thaws conditions were not included; and
3.) crop damage figures were unavailable for a majority of the events.

The frequency, magnitude, and property damages for each category of natural hazard were described.

Severe Storms

Severe storms are the most frequently occurring natural hazard in Kendall County with 156 events verified since 1996. Half of those events occurred since 2010. One of the 7 federal disaster declarations for Kendall County included severe storms (1996). At least $805,500 in damages have resulted from 24 events, which is just over 10% of all the property damage recorded in the County. Only one injury was recorded as the direct result of a thunderstorm event. This figure does not include injuries or fatalities caused by hazardous driving conditions, such as wet pavement. Between 2017 and 2021, 4 fatalities and 393 injuries were attributed to hazardous driving conditions created by wet pavement in Kendall County alone.

The highest recorded wind speed in the County, not associated with a tornado, is 80 knots (92 mph) recorded south of Oswego on June 29, 2012 (near Whitetail Ridge Golf Club). The largest hail recorded in the County was 4.75 inches in diameter (larger than a softball), observed on June 10, 2015 in Minooka.

Severe Winter Storms

While the original Plan only documented 27 severe winter storms and 1 extreme cold event between 1994 and 2009, a review of additional resources allowed data gaps to be filled, which led to the identification of at least 76 verified events involving severe winter storms (snow and/or ice) since 1994 and 88 extreme cold events since 1995. Since 2010, there have been 38 snow/ice events and 51 extreme cold events in Kendall County. One of the seven federal disaster declarations for the County is related to severe winter storms (the 1990 ice storm). No damages or emergency protective measures were reported as the result of any of these events, though we know that funds were allocated for measures such as snow removal for larger storms. Between 2017 and 2021, 186 injuries were attributed to crashes involving ice and snow-covered roadways.

The record maximum 24-hour snowfall in the County is 18.1 inches, which occurred at the Newark COOP Station on February 1st and 2nd in 2011. Since there are no National Weather Service COOP stations in Kendall County that kept recent temperature records, data from Kane and Grundy counties was used to estimate the coldest regional temperature. The Morris COOP Station recorded a temperature of -26°F on December 28, 1924. The Aurora COOP Station recorded its coldest temperature on January 20, 1985, also a reading of -26°F.

Floods

The original Plan only identified 17 flood events between 1996 and 2008, but gaps in historical data were reviewed to document at least 84 verified flood events in the County, with 35 riverine/shallow flood events since 1997 and 49 flash flood events since 1996. Five of the seven federal disaster declarations for Kendall County are related to flooding (’72, ’74, ’96, ’08, ’13). At least $4.1 million in damages has resulted from three general flood events, which represents over 50% of all the property damage recorded in the County. No injuries or fatalities were reported as a result of any of the recorded events.

Excessive Heat

The original Plan did not include excessive heat, so in adding it to this Plan additional resources were reviewed to fill historic data gaps which led to the identification of 88 recorded excessive heat events reported in Kendall County since 1995. No injuries or fatalities were recorded as the result of these events.

The hottest regional temperature recorded occurred on July 14, 1936; this was measured as 111°F in Aurora and 109°F in Morris. The years of 1936 and 1954 set records across the state for high temperatures, most of which still stand today.

Tornadoes

Since 1950, 21 tornadoes have been verified in Kendall County, with 6 occurring since 2010. Approximately $2.9 million in property damages has resulted from 6 of these tornadoes, which is over 30% of all the property damage recorded in the County. No injuries or fatalities were recorded as a result of these events.

The highest recorded F-Scale rating for a tornado in the County was an F5, which occurred on August 28, 1990. The longest tornado was an EF2 that occurred on August 15, 1958 that traveled 18.6 miles across the County as part of its total 74.5 mile path. The widest tornado recorded in the County was the F5 from August 28, 1990, which was 600 yards wide.

Drought

Like excessive heat, the original Plan did not include drought. In adding it to this Plan, resources were reviewed which led to the identification of four major droughts during the last four decades – 1983, 1988, 2005, and 2012. There has been at least one drought per decade with the exception of the 1990s when no substantial droughts were recorded. In 2005, the County was designated a Primary Natural Disaster Area due to drought conditions. Following each declared drought, crop yield reductions were generally experienced, some substantial. Corn yield reductions were most severe for the 2005 drought when there was a 39.6% reduction in corn yields. Soybean yields were most severely reduced during the 1988 drought, when they fell by about 26.1%.

Year	Corn	Soybeans
1983	34.3%	5.1%
1988	38.1%	26.1%
2005	39.6%	21.2%
2012	38.1%	20.0%

Earthquakes

In the previous 200 years, only one earthquake has originated in Kendall County, an estimated 4.0 to 4.9 magnitude quake with an intensity of VI that originated northwest of Lisbon on January 2, 1912. No records were found that recorded any damages, injuries, or fatalities. Additionally, six earthquakes have originated in the adjacent counties of LaSalle, Kane, and Will. There is one known fault zone in the County, the Sandwich Fault Zone which is approximately 85 miles long and stretches from Ogle County to Will County in a northwest-southeast direction.

Man-Made Hazards Risk Assessment

While the focus of this planning effort is directed at natural hazards, FEMA allows a small portion of the planning process to be devoted to an overview of selected man-made hazards.

Although this overview does not have the same depth as the assessment of natural hazards, it provides useful information to place various man-made hazards in perspective. The man-made hazard risk assessment focused on the following categories of:

- generation, storage/handling, and transportation of hazardous substances;
- waste disposal;
- hazardous materials (hazmat) incidents; and
- waste remediation.

Hazardous substances broadly include flammable, explosive, biological, chemical, or physical material that has the potential to harm public health or the environment. For the purposes of this Plan, the term includes both hazardous product and hazardous waste.

Generation, Storage/Handling, & Transportation

In 2021, there were 2 facilities in Kendall County that generated reportable quantities of hazardous substances according to the USEPA.

Based on records obtained from IEMA's Tier II database, there were 41 stationary facilities within Kendall County that stored and/or handled hazardous substances. Thirteen of these facilities stored and/or handled chemicals identified as "Extremely Hazardous Substances".

Waste Disposal

There are no active commercial solid (household) waste landfills operating in Kendall County, no facilities within the County permitted to handle Potentially Infectious Medical Waste, and no commercial off-site hazardous waste treatment or disposal facilities.

Hazardous Materials (Hazmat) Incidents

A hazardous materials (hazmat) incident refers to any accident involving the release of hazardous substances. Incidents can take place at fixed facilities or as they are being transported. Between 2013 and 2022 there were 30 hazmat incidents reported to IEMA & ICC in Kendall County. Of the 30 incidents, 18 occurred at fixed facilities, while 12

occurred during transport. Of the 12 transportation hazmat incidents, 11 were roadway incidents and one was a rail incident.

Waste Remediation

Waste remediation in Illinois is primarily conducted through three programs: the federal Superfund Program (for sites posing the largest threat to public health and the environment), the Illinois Site Remediation Program (SRP), and the Illinois Leaking Underground Storage Tank (LUST) Program.

Superfund: There are no active Superfund sites in Kendall County.

Illinois SRP: There are 16 SRP sites located Kendall County. Twelve of the sites have received "No Further Remediation" (NFR) or 4(y) letters.

Illinois LUST: There are 79 LUST sites located in Kendall County. Approximately 84% of these sites have received NFR, Non-Lust Determination or Section 4(y) letters or remediation is virtually complete.

Risk Priority Index Exercise

Following the risk assessment, Andrea led the Committee through a Risk Priority Index (RPI) exercise. The RPI is a quantitative means of providing guidance for ranking the hazards that have the potential to impact the County. This ranking can assist participants in determining which hazards present the highest risks and therefore which ones to focus on when formulating mitigation projects and activities. Each hazard is scored on three categories: frequency, impacts on life and health and impacts on property and infrastructure based on a scoring system provided. Andrea walked the Committee through the scoring system using excessive heat as an example and then provided time for the Committee to fill out the PRI form during the meeting. The results will be compiled, and the findings will be presented at the next meeting.

Mission Statement & Goals

Andrea asked Committee members to review the draft mission statement and updated mitigation goals provided in the meeting materials. Both of these are required elements of the Plan. As part of the Plan update process, both items need to be reviewed and re-evaluated. The mission statement was reviewed, and it was determined that no revisions to the wording were needed.

Next, Andrea discussed the mitigation goals, which are intended to reduce long-term vulnerabilities to natural and man-made hazards. Each project included in the updated Plan should be aimed at one or more of the goals developed by the Committee. The updated goals were reviewed, and no revisions were made to the wording.

The mission statement and goals will be added to the Plan update.

Mitigation

Andrea explained that mitigation actions include activities and projects that reduce the long-term risk to people and property from the natural and man-made hazards discussed in the risk assessment.

To help the jurisdictions think about and assemble their lists, Andrea provided several examples and referred participants to a 2-page list of potential mitigation projects included in the handout material along with mitigation project lists from other jurisdictions. These examples can be used to help Committee members when they prepare their list. Finally, Andrea provided excerpts from a FEMA publication on mitigation ideas as another resource.

Status of Existing Projects

Callie distributed **"Status of Existing Mitigation Actions"** forms to each of the previously participating jurisdictions detailing the mitigation projects and activities included in the original Plan. Andrea explained that as part of the update process the status of these projects needs to be determined. She described how the form should be completed so that this information can be included in the Plan update.

New Projects

The form titled **"Hazard Mitigation Projects"** was distributed by Callie, and Andrea indicated this form should be used to submit new projects and activities for the Plan. She told the Committee that individual mitigation project lists will be developed for each participating jurisdiction and that this is a list of projects each jurisdiction would like to see accomplished if funding becomes available. FEMA is trying to stimulate the implementation of mitigation projects and activities to reduce the extraordinary amount of money being expended on hazard event damages.

The projects and activities included in the Plan should be mitigation-related, not emergency preparedness, response, recovery, or maintenance. Mitigation projects can include studies, regulatory activities, structural and infrastructure projects, and information/education activities. She provided advice for completing the mitigation project list including providing a detailed description of the project, the jurisdiction responsible for the project and the time frame to complete the project.

Committee members were encouraged to contact Andrea, Ken, or Callie if questions arise before they return to the next Committee meeting.

What Happens Next?

The vulnerability assessment and mitigation project prioritization methodology will be the main topics of the next Committee meeting.

The third meeting of the Committee was scheduled for:

Tuesday, July 11th, 2023
3:00 p.m.
Oswego Fire Protection District Station 1
3511 Woolley Road, Oswego

Public Comment

With no questions or comments, Andrea adjourned the meeting.

Meeting Minutes

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee

July 11, 2023
3:00 p.m.
Oswego Fire Protection District Station 1,
3511 Woolley Road, Oswego

Committee Members

Bristol-Kendall Fire Protection District
Kendall County
- Board
- EMA
- Health Department
- KenCom
- Planning, Building, & Zoning
- Sheriff's Office

Kendall Township
Lisbon, Village of
Lisbon-Seward FPD
Montgomery, Village of
Newark FPD
Oswego FPD
Oswego Township
Oswego, Village of
Oswegoland Park District
Sandwich Community FPD
Yorkville, City of
American Environmental Corp.

Welcome

Roger Bonuchi, Director of the Kendall County Emergency Management Agency, welcomed attendees. He turned the meeting over to Andrea Bostwick, American Environmental Corporation (AEC), who opened the meeting.

Handout materials were distributed to each member in attendance. Andrea provided a brief recap to reorient Committee Members as to what has been accomplished. Before beginning the vulnerability analysis presentation, Andrea asked the participating jurisdictions to submit their completed "Critical Facilities", "Capability Assessments", and "Shelter Surveys" if they haven't done so already.

Vulnerability Analysis

Ken Runkle of AEC then began the vulnerability analysis discussion by noting that the focus of this meeting is the vulnerability posed by tornadoes. The analysis estimates future potential damages in terms of dollar loss to residences, including contents, for each participating jurisdiction based on FEMA acceptable formulas. The potential damages were calculated on the magnitude most likely to be encountered, not on a worst-case event.

Tornadoes

Since 1950, 21 tornadoes have been verified in Kendall County. While occurring less frequently than severe storms and severe winter storms, tornadoes have caused at least $2.9 million in property damages.

Using information from the 21 verified tornadoes, damages were calculated based on an "average" tornado. The average tornado in Kendall County impacts approximately 0.26 square miles. Housing densities were calculated from U.S. Census Bureau information for each of the participating jurisdictions. This information, along with a set of assumptions were used to estimate the number of vulnerable residential structures.

Potential dollar losses were then calculated for these vulnerable residential structures using the provided tax assessment values and an additional assumption about the degree of damage sustained by the structures and their contents.

Potential dollar losses caused by an average-sized tornado to residences and their contents would be expected to exceed at least $23 million in any of the participating municipalities. Losses ranged from $23 million in Lisbon to $177 million in Montgomery. Potential dollar losses by township would be expected to range from $729,732 in Lisbon Township to $44 million in Oswego Township. Ken noted that the damage figure for the most populated townships would only be reached if the tornado's path included a portion a municipality.

Risk Priority Index Exercise Results

Andrea then presented the results of the Risk Priority Index Exercise that was conducted at the April 18, 2023 meeting. She provided the Committee with a brief recap on what the Risk Priority Index is and how it can help participants determine which hazards present the highest risk and therefore which ones to focus on when formulating mitigation projects and activities.

Based on the Committee's responses, tornadoes scored the highest, followed by thunderstorms with damaging winds and winter storms. The highest scoring man-made hazard was transportation related hazmat incidents. The hazards that scored the lowest included drought, terrorism, and fixed facility hazmat incidents.

A side-by-side comparison of how the hazards ranked between the original exercise conducted for the 2012 Plan and this exercise was provided for comparison. The top hazards from the original exercise included floods followed by tornadoes and severe winter storms/extreme cold.

Community Lifelines

Before discussing mitigation projects and the mitigation action tables with the Committee, Andrea took a few minutes to discuss the concept of community lifelines. FEMA has identified seven community lifelines that are the most fundamental services in the community that, when stabilized, enable all aspects of society to function. The seven community lifelines include: safety & security; food, water, shelter; health & medical; energy (power & fuel); communications; transportation; and hazardous materials.

While the concept of community lifelines was developed to support emergency response and planning, FEMA has begun applying it to all phases of emergency management. Efforts to protect community lifelines and prevent and mitigate potential impacts to them is one of the focuses of the BRIC grant program. A handout with a brief description of

the community lifelines was included in the meeting packet. Community lifelines will be included in most project description to create a clear connection to the concept.

Asset Vulnerability Survey

As part of the Plan update, Andrea indicated that vulnerable community assets need to be identified for the participating jurisdictions. FEMA requires that the Plan include a summary, such as a list of key issues or problem statements, which describes the effects the hazards have on each participating jurisdiction and their assets. Assets include people, structures (including critical facilities, infrastructure, and community lifelines), systems (networks and capabilities such as electrical and communications grids), and natural, historic, and cultural resources. She asked Committee members to complete a 2-page survey distributed to help identify each community's vulnerable assets and the hazards they are vulnerable to. This information will be used in the vulnerability analysis.

Mitigation Actions Prioritization Methodology

The Mitigation Actions Prioritization Methodology outlines the approach used to classify each mitigation action identified by the participating jurisdictions and is a FEMA-required element of the Plan.

Mitigation actions can be prioritized in a number of ways. Andrea explained that the updated methodology is based on key factors such as frequency of the hazard, degree of mitigation, and cost/benefit utilization.

This methodology helps objectively identify which projects and activities maximize benefits and have a greater likelihood to significantly reduce the long-term vulnerabilities associated with the most frequently-occurring hazards. After reviewing the updated methodology, the Committee determined that no changes needed to be made.

Andrea acknowledged that while this methodology does not take politics into consideration, this factor may affect the order in which projects are implemented. She also noted that it is important to keep in mind that implementing any of the mitigation projects is desirable regardless of which prioritization category they fall under.

Mitigation Projects

Committee Members were asked to submit their existing and new Mitigation Projects forms. Andrea then described how the draft methodology, the existing and new lists of mitigation projects, finalized goals and other information will be presented for Committee review.

Andrea chose a frequently requested mitigation project, a community safe room (tornado shelter), as an example to show how a typical project is prioritized and entered into the Plan on a Mitigation Action Table. She described how each column in the Mitigation Action Table would be completed for this example project.

Andrea explained that the information in the Mitigation Action Tables would be prepared by AEC, but that the Tables cannot be completed until all of the participants submit their draft lists of projects. Committee Members will have the opportunity at the next meeting

to review all of the mitigation projects submitted so that they can make adjustments to their lists if they choose.

It was noted that each jurisdiction will have their own list of jurisdiction-specific mitigation projects and they do not need to get approval from the County or any of the other participants for any of their projects. Participants were also reminded that this is a list of projects and activities they would like to see accomplished if funding becomes available. For a jurisdiction to be eligible for a project, it must be on its list.

This is a mitigation plan and there are some projects that IEMA/FEMA do not consider mitigation. Projects associated with emergency preparedness, disaster response & recovery and maintenance will not be included in the Plan. Andrea noted that as the committee members put their lists together, if they are unsure about whether a project would be considered mitigation, go ahead, and include it on their list. AEC will review the lists and help make the appropriate determinations.

What Happens Next?

Andrea asked that mitigation project forms and all other previously-distributed forms be returned to AEC by August 31. The Committee agreed to schedule the next meeting on:

October 24, 2023
3 p.m.
Oswego Fire Protection District Station 1,
3511 Woolley Road, Oswego

Public Comment

With no additional questions or comments, Andrea and Roger adjourned the meeting.

Meeting Minutes

Kendall County Multi-Jurisdictional
All Hazards Mitigation Planning Committee

October 24, 2023
3:00 p.m.
Oswego Fire Protection District Station 1,
3511 Woolley Road, Oswego

Committee Members

Grundy Kendall ROE
Kendall County
- EMA
- Health Department
- Planning, Building, & Zoning
- Sheriff's Office

Kendall Township
Lisbon, Village of
Montgomery, Village of
Oswego FPD
Oswego, Village of
Oswegoland Park District
American Environmental Corp.

Welcome

Andrea Bostwick-Campbell, American Environmental Corporation (AEC), opened the meeting and welcomed attendees.

Handout materials were distributed to each member in attendance. Andrea provided a brief recap to reorient Committee members as to what has been accomplished and what will be covered at this meeting.

Mitigation Project Submittal & Action Tables

Andrea thanked the Committee Members for assembling their lists of mitigation projects and activities. She explained that the information in the draft Mitigation Action Tables handout was prepared by AEC using the lists of mitigation projects and activities provided by the participation jurisdictions. A draft of the Mitigation Strategy section that details the review and re-evaluation of the goals and prioritization methodology as well as how the mitigation projects were analyzed in the tables was also provided in the meeting handouts for review by the Committee.

Committee members were asked to review the Mitigation Action Tables containing the descriptions of the mitigation projects and activities. Andrea and Callie Smith of AEC moved throughout the room to discuss questions with each member. Some committee members expressed interest in adding additional mitigation projects to these tables. Andrea advised Committee Members who wished to add additional projects to provide them to her as soon as possible, and no later than mid-December.

Participants were reminded that this is a list of projects and activities they would like to see accomplished if the money becomes available. Also, for a jurisdiction to be eligible for a project, it must be on its list.

Since this is a mitigation plan, some projects were either removed or not included if they were not considered mitigation. Projects associated emergency preparedness, response, recovery, and maintenance will not be included in the Plan.

Public Forum and Adoption

Andrea laid out the timeline for the remainder of the Plan update process and explained in more detail how the final meeting and adoption process would proceed. The final Committee meeting will be conducted as an open-house style public forum to present the draft Plan for review and comment. A paper copy of the draft Plan will be available for review at the meeting and posted online on the County's website. There will be a two-week public comment period following the public forum.

Unless otherwise specified, Committee members will receive an electronic copy of the draft Plan to make available for public comment.

Once the comment period is over, any comments received will be incorporated into the Plan and submitted to IEMA/FEMA. Following IEMA and FEMA review, any edits requested will be made and then FEMA will issue an Approval Pending Adoption letter. At this point an email will be sent to all the participating jurisdictions, along with a copy of a model adoption resolution, asking them to formally adopt the Plan by resolution. A copy of the executed resolution should then be provided to AEC. Once all the adoption resolutions are received, Andrea will submit them to IEMA and FEMA. FEMA will then issue the Final Approval letter starting the clock for the five-year update.

Plan Maintenance and Update

Andrea described the commitments detailed in a draft of the Plan Maintenance and Update section provided in the meeting handouts for review by the Committee. The Plan will be monitored and evaluated on an annual basis by a Plan Maintenance Subcommittee, which will be made up of the participating jurisdictions and key members of the Planning Committee. The Kendall County EMA Office will send out a Plan Maintenance Checklist to each of the participating jurisdictions who will be responsible for providing information to the Subcommittee. This information will include: the status of their mitigation actions; any hazard-related damages to critical facilities and infrastructure; the adoption of any new plans, policies, or regulations; and any significant changes in development. The Subcommittee will also evaluate the Plan to determine its effectiveness at achieving its stated purpose and goals. Participants can also add new mitigation actions during the annual monitoring phase or by contacting the EMA Director.

The EMA Office will then prepare an annual progress report detailing the results of the annual monitoring and evaluation period and provide copies to the Subcommittee. Any modifications or additions to mitigation project lists will require an update of the Mitigation Strategy and a resubmittal of the Plan to IEMA and FEMA for reference.

At least once every five years, the Plan must be reviewed, revised, and resubmitted to IEMA/FEMA for the participating jurisdictions to remain eligible for mitigation project funds. At the five-year update, any jurisdiction that is not already part of this Plan and who wants to become part of the Plan may do so. New jurisdictions must supply the same information that all the current jurisdictions supplied.

What Happens Next?

Public Forum

The final Committee meeting will be conducted as an open-house style public forum where the draft Plan update will be presented for review and comment.

The public forum will be held on:

Tuesday, February 20, 2023
Oswego Fire Protection District Station 1,
3511 Woolley Road, Oswego
5 p.m. to 7 p.m.

Public Comment

With no other questions, the meeting was adjourned.

APPENDIX C

Kendall County Citizen Questionnaire

You can help protect lives and property from natural hazard events in the County by taking a few moments to complete this questionnaire.

Asterisk (*) desonates required questions for form completion.

* 1. **Please indicate where you live in the County (please check only one).**

- [ ] Aurora
- [ ] Joliet
- [ ] Lisbon
- [ ] Millbrook
- [ ] Minooka
- [ ] Montgomery
- [ ] Newark
- [ ] Oswego
- [ ] Plano
- [ ] Plainfield
- [ ] Plattville
- [ ] Sandwich
- [ ] Yorkville
- [ ] Unincorporated County
- [ ] Other (please specify)

* 2. **Please place a checkmark next to each of the natural hazards listed below that you have experienced in the County (please check all that apply).**

- [ ] Severe Summer Storms (thunderstorms, hail, lightning strikes)
- [ ] Floods
- [ ] Severe Winter Storms (snow,sleet, ice)
- [ ] Excessive Heat
- [ ] Extreme Cold
- [ ] Tornadoes
- [ ] Drought
- [ ] Earthquakes
- [ ] Mine/Land Subsidence
- [ ] Landslides
- [ ] Dam Failures
- [ ] Other (please specify)

Appendix C

3. **Which of the natural hazards above have you encountered most frequently?**

4. **Rank the natural hazards listed below in order from 1 to 11 based on which hazard you feel poses the greatest threat. (1 = greatest threat and 11 = least threat)**
Each number should only be used once.

- Severe Summer Storms
- Floods
- Severe Winter Storms
- Excessive Heat
- Extreme Cold
- Tornadoes
- Drought
- Earthquakes
- Mine/Land Subsidence
- Landslides
- Dam Failures

* 5. **What types of mitigation projects or activities are most needed in the County?**
Please check the five you feel are most important

- [ ] Public information fact sheets and brochures describing actions residents can take to protect themselves and their property against natural hazard impacts.
- [ ] Floodplain Ordinances
- [ ] Building Codes and Enforcement
- [ ] Sirens or other Alert Systems
- [ ] Tornado Safe Shelters
- [ ] Maintain roadway passage during snow storms and heavy rains
- [ ] Provide sufficient water supply during drought
- [ ] Identify residents with special needs in order to provide assistance during a ntural hazard event

Appendix C

- [ ] Flood or Drainage Protection (i.e., culvert and drainage ditch maintenance, retention pond construction, dam or levee conctruction/maintenance and/or hydraulic studies to determine cause of drainage problems.)
- [ ] Retrofit critical infrastructure (public water supplies, schools, sewage treatment facilities, bridges, hospitals and other important services) to reduce potential damages
- [ ] Maintain power during storms by burying power lines, trimming trees and/or purchasing a back-up generator
- [ ] Other (please specify)

* 6. **What are the most effective ways *for you* to receive information about how to make your household and property safer from natural hazards (Please check all that apply.)**

- [ ] Newspaper
- [ ] Mailings
- [ ] Television
- [ ] Extension Service
- [ ] Radio
- [ ] Public Workshops/Meetings
- [ ] Internet
- [ ] Fire Department/Law Enforcement
- [ ] Social Media (Facebook, Twitter, etc.)
- [ ] Public Health Department
- [ ] Schools
- [ ] Municipal/County Offices
- [ ] Other (please specify)

Thank you for your time in assisting with the update of the County's Hazard Mitigation Plan.
Kendall County Multi-Jurisdictional All Hazards Mitigation Advisory Committee

Done

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Appendix C

Kendall County Emergency Management Agency
January 17 at 1:24 PM ·

Kendall County Natural Hazards Citizen Questionnaire

You can help reduce risks from natural hazard events in the County by taking a few moments to complete this questionnaire. As part of the County's hazard mitigation planning process, a citizen questionnaire has been developed to gather information and gauge public perception about the natural hazards that impact the County. We would appreciate it if you would take about 5 minutes to complete this survey: www.surveymonkey.com/r/Kendall-CQ

APPENDIX D

Frequently Asked Questions

Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan Update

1) What is the Kendall County Multi-Hazard Mitigation Plan?

The Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan evaluates damage to life and property from natural and man-made hazards that have impacted the County and identifies projects and activities to reduce these damages. The Plan is considered to be multi-jurisdictional because it includes municipalities and other jurisdictions (townships, fire protection districts, schools, etc.) who want to participate.

2) What is hazard mitigation?

Hazard mitigation is any action taken to ***reduce*** the long-term risk to people and property from natural and man-made hazards ***before*** an event occurs.

3) Why is this Plan being updated?

The Plan update fulfills federal planning requirements of the Stafford Act as amended by the Disaster Mitigation Act and the Disaster Recovery and Reform Act. While meeting federal requirements, this Plan update also provides these benefits:

- Funding for mitigation projects and activities ***before*** disasters occur.
- Funding for projects and activities ***following*** declared disasters.
- Increased awareness about natural hazards and closer cooperation among the various organizations and political jurisdictions involved in emergency planning and response.

4) Who is updating this Plan?

The Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Planning Committee is updating the Plan with assistance from technical experts in emergency planning, environmental matters, and infrastructure. The Committee will include members from education, emergency services, municipal, township and county government, health care, and law enforcement.

5) How can I participate?

You are invited to attend public meetings of the Kendall County Multi-Hazard Mitigation Planning Committee. In addition, you are encouraged to provide photographs, other documentation, and anecdotal information about damages you experienced from natural and man-made hazards in Kendall County. Surveys will be available at participating jurisdictions and through Kendall County to help gather specific information from residents. All of this information will be used to update the Plan. The draft Plan update will be presented at a public forum for further public input.

More information can be obtained by contacting:

Roger Bonuchi, Director
Kendall County Emergency Management Agency
1102 Cornell Lane
Yorkville, IL 60560
(630) 553-4500

APPENDIX E

Media Outlets Serving Kendall County

WSPY (107.1 FM)
https://www.wspynews.com/

Shaw Local News Network – Kendall County
https://www.shawlocal.com/

News List – Kendall County
https://www.kendallcountyil.gov/offices/advanced-components/list-detail-pages/news-list

APPENDIX F

Kendall County Emergency Management Agency
Roger Bonuchi, Director
Tracy Page, Deputy Director

FOR IMMEDIATE RELEASE

Kendall County Prepares for Natural and Man-Made Disasters

Yorkville, IL (January 3, 2023) — Kendall County will update its plan to reduce the damages caused by severe weather such as floods, snow and ice storms, thunderstorms, and tornados, among other events. The plan is called a Hazard Mitigation Plan, and the process to update it will be funded through a grant from the Federal Emergency Management Agency (FEMA).

"The Plan describes the natural hazard events that have impacted the County and identifies activities and projects to reduce the risk to residents, property, and infrastructure," said Roger Bonuchi, Kendall County Emergency Management Agency Director. "By having an updated hazard mitigation plan, the County and participating jurisdictions will become eligible for federal funds to construct these projects," he added.

The Kendall County Hazard Mitigation Planning Committee will hold its first meeting on Tuesday, January 24, 2023, at 3:00 P.M. The meeting will be held at the Kendall County Health Department, 811 W. John Street, Yorkville. The meeting is open to the public.

The Planning Committee includes representatives from the county, townships, municipalities, schools, and health care services, as well as technical partners and other stakeholders. Meetings of this committee will be conducted over the next year as working sessions so that any interested residents can attend and ask questions. The purpose of these working sessions is to gather and discuss information that will be used to update the Plan.

"This mitigation plan is different from an emergency response plan because it focuses on ways to reduce and prevent damages before they occur," added Bonuchi.

For additional information, please contact Roger Bonuchi at the Kendall County Emergency Management Agency at (630) 553-4500 or email at rbonuchi@kendallcountyil.gov

###

Kendall County Emergency Management Agency

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Kendall County Emergency Management Agency
January 3 at 1:01 PM

Kendall County Prepares for Natural and Man-Made Disasters

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"The Plan describes the natural hazard events that have impacted the County and identifies activities and projects to reduce the risk to residents, property, and infrastructure," said Roger Bonuchi, Kendall County Emergency Management Agency Director. "By having an updated hazard mitigation plan, the County and participating jurisdictions will become eligible for federal funds to construct these projects," he added.

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"This mitigation plan is different from an emergency response plan because it focuses on ways to reduce and prevent damages before they occur," added Bonuchi.

For additional information, please contact Roger Bonuchi at the Kendall County Emergency Management Agency at (630) 553-4500 or email at rbonuchi@kendallcountyil.gov

Kendall Township

Events

Monthly Meetings for Kendall Township Board is the third Tuesday of each month. Meetings start promptly at 7:30 PM at the Township Building at 9925 State Route 47.

Meeting Dates for 2023 (see posting on Download Page):

January 17th

February 21st

March 21st

April 18th

May 16th

June 20th

July 18th

August 15th

September 19th

October 17th

November 21st

December 19th

Kendall County has initiated the updating of their Hazard Mitigation Plan and Kendall township is participating. There will be a series of 5 public meetings and we will post the news release of the meeting prior to the next planned one on April 18th 2023. Here is the link to the one held on Jan 24th.

Kendall County Hazard Mitigation Meeting.pdf

Appendix F

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News List - Kendall County

Kendall County Prepares for Natural and Man-Made Disasters

Post Date: 01/03/2023 1:15 PM

Kendall County Prepares for Natural and Man-Made Disasters

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“The Plan describes the natural hazard events that have impacted the County and identifies activities and projects to reduce the risk to residents, property, and infrastructure,” said Roger Bonuchi, Kendall County Emergency Management Agency Director. “By having an updated hazard mitigation plan, the County and participating jurisdictions will become eligible for federal funds to construct these projects,” he added.

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The Planning Committee includes representatives from the county, townships, municipalities, schools, and health care services, as well as technical partners and other stakeholders. Meetings of this committee will be conducted over the next year as working sessions so that any interested residents can attend and ask questions. The purpose of these working sessions is to gather and discuss information that will be used to update the Plan.

“This mitigation plan is different from an emergency response plan because it focuses on ways to reduce and prevent damages before they occur,” added Bonuchi.

For additional information, please contact Roger Bonuchi at the Kendall County Emergency Management Agency at (630) 553-4500 or email at rbonuchi@kendallcountyil.gov

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Kendall County Prepares For Natural And Man-Made Disasters With Updated Plan

Officials said having an updated hazard mitigation plan makes Kendall County eligible for federal funds to construct projects.

Emily Rosca, Patch Staff

Posted Wed, Jan 4, 2023 at 3:10 pm CT

Reply

Appendix F

The public is invited to the Kendall County Hazard Mitigation Planning Committee's first meeting at 3 p.m. Jan. 24 in Yorkville. (Rachel Nunes/Patch)

Press release from the Kendall County Government:

OSWEGO, IL — Kendall County will update its plan to reduce the damages caused by severe weather such as floods, snow and ice storms, thunderstorms, and tornados, among other events. The plan is called a Hazard Mitigation Plan, and the process to update it will be funded through a grant from the Federal Emergency Management Agency (FEMA).

"The Plan describes the natural hazard events that have impacted the County and identifies activities and projects to reduce the risk to residents, property, and infrastructure," said Roger Bonuchi, Kendall County Emergency Management Agency Director.

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For additional information, please contact Roger Bonuchi at the Kendall County Emergency Management Agency at (630) 553-4500 or email at rbonuchi@kendallcountyil.gov

This press release was produced by the Kendall County Government. The views expressed here are the author’s own.

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Assault Weapon Ban 'Infringes Constitutional Rights': Kendall Sheriff

Crime & Safety | 23h
Employee Of The Fourth Quarter Chosen At Kendall County Sheriff's Office

Schools | 1d
Oswego High Senior Chosen First Chair In All-State 'Shrek' Production

https://www.wspynews.com/news/local/kendall-county-to-update-hazard-mitigation-plan/article_d6b6cb24-8e91-11ed-aa55-8b8d245ee47b.html

TOP STORY

Kendall County to update hazard mitigation plan

Ethan Kruger
Jan 9, 2023

Appendix F

Kendall County is beginning the process of updating its hazard mitigation plan for natural and man-made disasters in the coming months. Some of the hazards included are floods, snow and ice storms, and tornadoes.

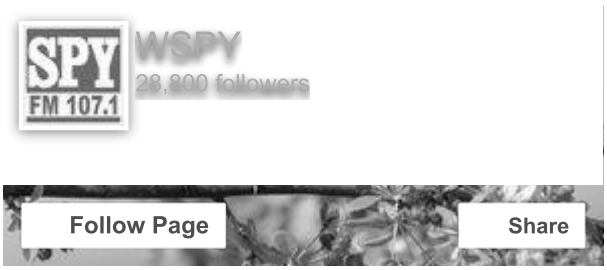
Roger Bonuchi is director of the Kendall County Emergency Management Agency. He says it's about identifying critical infrastructure.

Bonuchi says Kendall County's existing plan is due to be updated.

There will be meetings of the Kendall County Mitigation Planning Committee which includes representatives from local government, health care services, and other stakeholders.

The plan is not the county's emergency response plan which deals with emergencies as they occur, but rather is meant to reduce and prevent damage before there is an emergency.

The first meeting of the mitigation committee is on Tuesday, January 24 at the Kendall County Health Department at 811 W. John Street in Yorkville. It starts at three in the afternoon and is open to the public.



Kendall County Emergency Management Agency
Roger Bonuchi, Director
Tracy Page, Deputy Director

FOR IMMEDIATE RELEASE

Contact: Roger Bonuchi
630-553-4500

Reducing Damages Caused by Severe Weather and Other Hazards

Yorkville, IL (March 30, 2023) — The frequency of and damages caused by severe storms and other natural and man-made hazards in Kendall County will be discussed when the Kendall County Hazard Mitigation Planning Committee meets at the at the Oswego Fire Protection District Station 1, 3511 Woolley Road, Oswego at 3 p.m. on Tuesday, April 18.

This Committee, comprised of County, township, municipal, education, fire protection district, park district, and health care representatives, as well as technical partners and other stakeholders, will meet over the next several months to update the Kendall County All Hazards Mitigation Plan. All Committee meetings are open to the public.

“The goal of this Committee Meeting is to identify how often severe weather events occur within the County and what kinds of damages have resulted. Based on this information we will begin to compile lists of activities and projects to reduce damages caused by these events,” said Kendall County Emergency Management Agency Director, Roger Bonuchi.

The focus of this effort is on natural hazards — severe thunderstorms with damaging winds or hail, tornadoes, snow and ice storms, floods, drought, and excessive heat. Interested persons can provide input at these meetings or submit their comments and questions to their appropriate representatives.

Participants to date include the County, Lisbon, Montgomery, Newark, Oswego, Plainfield, Plano, Plattville, Sandwich, and Yorkville, as well as Big Grove Township, Bristol Township, Kendall Township, Grundy/Kendall ROE, Bristol-Kendall Fire Protection District (FPD), Little Rock-Fox FPD, Newark FPD, Oswego FPD, Sandwich Community FPD, Edith Farnsworth House, Kendall County Forest Preserve District, Oswegoland Park District, and Kendall-Grundy Farm Bureau. Jurisdictions who have yet to participate in a committee meeting are encouraged to attend.

“This Plan will be our best resource for determining how to reduce damages from storms and other natural and man-made hazards. After the Plan is updated, comprehensive information will be available in one document to help guide those who are making decisions about how to better protect Kendall County residents,” added Bonuchi.

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Kendall County Emergency Management Agency
March 30 at 6:45 PM ·

FOR IMMEDIATE RELEASE

Contact: Roger Bonuchi
630-553-4500

Reducing Damages Caused by Severe Weather and Other Hazards

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XXXXXXXXXXXXXXXXXXX

Appendix F

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April 6 at 10:00 AM ·

The Kendall County Emergency Management Agency is holding a meeting about reducing damage from natural and man made disasters.

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Kendall County EMA holding damage mitigation meeting

The Kendall County Emergency Management Agency is holding a meeting about reducing da...

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Record Newspapers - Shaw Local
April 6 at 12:04 PM ·

The public is invited when the committee meets at 3 p.m. on Tuesday, April 18, at Oswego Fire Protection District Station 1, 3511 Woolley Road, Oswego.

SHAWLOCAL.COM

Is Kendall County prepared for severe weather? Officials working to update All Hazards Mitigation Plan

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Appendix F

News List - Kendall County

Reducing Damages Caused by Severe Weather and Other Hazards

Post Date: 03/30/2023 2:44 PM

FOR IMMEDIATE RELEASE

Contact: Roger Bonuchi

630-553-4500

Reducing Damages Caused by Severe Weather and Other Hazards

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##########

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https://www.wspynews.com/news/local/kendall-county-ema-holding-damage-mitigation-meeting/article_ba7b24ae-d479-11ed-8394-37d8d24e9af3.html

EDITOR'S PICK

Kendall County EMA holding damage mitigation meeting

WSPYNEWS
Apr 6, 2023

Oswego Fire Station. *(WSPY News.com file photo)*

The Kendall County Emergency Management Agency is holding a meeting about reducing damage from natural and man made disasters. The meeting is open to the public and will be on Tuesday, April 18 at three in the afternoon at the Oswego Fire Protection District Station 1 at 3511 Woolley Road.

A committee made up of local stakeholders, such as fire departments and city officials, will be discussing projects to improve damage mitigation.

It's part of the county's goal of updating its Hazard Mitigation plan which happens every few years.

Anyone interested can provide input the committee.

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WSPYNEWS

April 07, 2023

Kendall County

Is Kendall County prepared for severe weather? Officials working to update All Hazards Mitigation Plan

Public can attend meeting later this month at Oswego Fire Protection District Station 1

By Shaw Local News Network

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April 06, 2023 at 12:00 pm CDT

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The committee, comprised of county, township, municipal, education, fire protection district, park district and health care representatives, as well as technical partners and other stakeholders, will meet over the next several months to update the Kendall County All Hazards Mitigation Plan.

All committee meetings are open to the public.

”The goal of this committee meeting is to identify how often severe weather events occur within the county and what kinds of damages have resulted. Based on this information we will begin to compile lists of activities and projects to reduce damages caused by these events,” Kendall County Emergency Management Agency Director Roger Bonuchi said in a news release.

> *”This plan will be our best resource for determining how to reduce damages from storms and other natural and man-made hazards.”*
>
> — Roger Bonuchi, director, Kendall County Emergency Management Agency

The focus of this effort is on natural hazards — severe thunderstorms with damaging winds or hail, tornadoes, snow and ice storms, floods, drought and excessive heat. Interested persons can provide input at these meetings or submit their comments and questions to their appropriate representatives.

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Discussion About Reducing Damages Caused By Severe Weather Planned In Oswego

Organizers will compile a list of activities and projects to be completed to help reduce the damage from natural and man-made hazards.

Emily Rosca, Patch Staff

Posted Thu, Mar 30, 2023 at 8:35 pm CT

Reply (1)

Appendix F

The discussion will occur when the Kendall County Hazard Mitigation Planning Committee meets at the Oswego Fire Protection District Station 1 on April 18. (Shutterstock)

Press release from Kendall County Sheriff's Office:

KENDALL COUNTY, IL — The frequency of and damages caused by severe storms and other natural and man-made hazards in Kendall County will be discussed when the Kendall County Hazard Mitigation Planning Committee meets at the Oswego Fire Protection District Station 1, 3511 Woolley Road, Oswego at 3 p.m. on Tuesday, April 18.

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Find out what's happening in Oswegowith free, real-time updates from Patch.

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"This Plan will be our best resource for determining how to reduce damages from storms and other natural and man-made hazards. After the Plan is updated, comprehensive information will be available in one document to help guide those who are making decisions about how to better protect Kendall County residents," added Bonuchi.

This press release was produced by Kendall County Sheriff's Office. The views expressed here are the author's own.

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Politics & Government | 1d

Bond Issuance Passes For Oswego Fire Department: Unofficial Results

Kendall County Emergency Management Agency
Roger Bonuchi, Director
Tracy Page, Deputy Director

FOR IMMEDIATE RELEASE

Contact: Roger Bonuchi
630-553-4500

Reducing Damages Caused by Severe Weather and Other Hazards

Yorkville, IL (June 20, 2023) — Identifying projects and activities that can protect Kendall County residents, property, and critical infrastructure from natural and man-made hazards while maintaining vital services when severe weather hits will be discussed when the Kendall County Hazard Mitigation Planning Committee meets at the at the Oswego Fire Protection District Station 1, 3511 Woolley Road, Oswego at 3 p.m. on Tuesday, July 11.

“Severe weather frequently damages buildings, crops, roads, and other critical infrastructure in this area. Since 1972, the County has been a part of seven federal disaster declarations. In addition, there has been at least $7.8 million in verified property damages caused by hazard events in the County,” said Kendall County Emergency Management Agency Director, Roger Bonuchi. “Identifying preventative steps that can be taken to reduce the dollar damages as well as protect public health before a natural hazard event occurs is the goal of this planning process.”

This Committee began work in January 2023 to update the County’s All Hazards Mitigation Plan. Committee meetings are open to the public.

“Other emergency plans are directed at responding after a storm or disaster strikes. With this Plan, we will identify actions that can be taken to reduce damages caused by natural and man-made hazards for each participating jurisdiction before they occur. This Plan also helps assure each participating jurisdiction is eligible to receive federal grant money for mitigation projects,” added Bonuchi.

Building community safe rooms, acquiring flood prone properties, resolving drainage issues, retrofitting critical infrastructure to better withstand hazard events, installing back-up power supplies, and developing public information materials are a few of the more frequently encountered mitigation projects in Illinois.

XXXXXXXXXXXXXXXXXXX

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1102 Cornell Ln, Yorkville, IL, United States, Illinois

(630) 553-4500

rbonuchi@kendallcountyil.gov

kendallcountyil.gov/kcema

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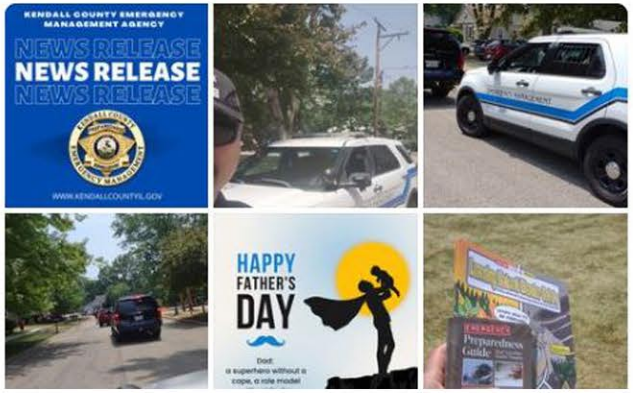

Kendall County Emergency Management Agency
June 20 at 1:09 PM ·

FOR IMMEDIATE RELEASE

Contact: Roger Bonuchi
630-553-4500

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Kendall County Emergency Management Agency
Roger Bonuchi, Director
Tracy Page, Deputy Director

FOR IMMEDIATE RELEASE

Contact: Roger Bonuchi
630-553-4500

Protecting Public Health and Property in Kendall County

Yorkville, IL (October 9, 2023) -- Projects and activities to prevent injuries and fatalities while maintaining vital services for Kendall County residents will be the main topic of discussion at the Kendall County All Hazards Mitigation Planning Committee meeting to be held at the at the Oswego Fire Protection District Station 1, 3511 Woolley Road, Oswego at 3 p.m. on Tuesday, October 24.

The Committee began work in January to update the County's All Hazards Mitigation Plan. This Plan details the past severe weather events that have impacted the County and identifies mitigation projects and activities that can be taken before a severe weather event occurs to protect residents and critical services and infrastructure.

"Obtaining FEMA's approval of our updated Plan will make all of the participants eligible to receive federal grant money for mitigation projects and activities," explained Kendall County Emergency Management Agency Director, Roger Bonuchi.

Projects identified by Committee members at this meeting will become part of the Kendall County All Hazards Mitigation Plan. While the committee has provided input on portions of the Plan, the entire Plan will be presented for public review and comment before it is submitted to the state and federal government for approval.

"A public forum will be conducted early next year for interested persons to review the Plan update and ask questions of Committee Members. A two-week public comment period will be held following the public forum to accommodate interested persons who are unable to attend. We want to make sure that anybody who is interested has an opportunity to review and comment on the draft Plan update," added Bonuchi.

Interested persons can submit questions and comments to the Committee members or directly to the Kendall County EMA Office.

XXXXXXXXXXXXXXXX

EOC phone 630.553.4500 I 24-hour: 630.553.5856 | 1102 Cornell Lane, Yorkville, IL 60560

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rbonuchi@kendallcountyil.gov

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Kendall County Emergency Management Agency
October 4 at 1:45 PM ·

FOR IMMEDIATE RELEASE

Contact: Roger Bonuchi - 630-553-4500

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Kendall County Emergency Management Agency
Roger Bonuchi, Director
Tracy Page, Deputy Director

FOR IMMEDIATE RELEASE

Contact: Roger Bonuchi
630-553-4500

Plan to Protect Public Health and Property in Kendall County Ready for Public Review

Yorkville, IL (February 5, 2024) -- The updated Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan outlining projects and activities to reduce damages caused by severe weather and other natural hazards will be available for public review and comment starting February 20. The Plan, along with a summary sheet and a comment survey, will be available for review at the Kendall County Public Safety Center (1102 Cornell Lane, Yorkville) and on the County website.

The comment period will remain open through March 5. Public comments received will be used to make any revisions needed before the Plan is submitted to the Illinois Emergency Management Agency and Office of Homeland Security and the Federal Emergency Management Agency.

The Kendall County Multi-Hazard Mitigation Planning Committee has been conducting working meetings open to the public since January 2023. The Committee prepared the Plan with technical assistance from state and federal agencies as well as a consultant specializing in emergency management planning.

The municipalities of Lisbon, Montgomery, Newark, Oswego, Plano, Plattville, and Yorkville have participated in the planning process. Other participating jurisdictions include Lisbon Community Consolidated School District #90, Newark Community High School District #18, Oswego Community Unit School District #308, Parkview Christian Academy, Plano School District #88, St. Mary School (Plano), Oswegoland Park District, Kendall Township, Oswego Township, Bristol-Kendall Fire Protection District (FPD), Lisbon-Seward FPD, Newark FPD, Oswego FPD, and Sandwich Community FPD.

“This Plan describes how the County and the participating jurisdictions have been impacted by severe weather and other hazards and identifies specific mitigation actions that can be taken to reduce damages to people and property before events occur,” explained Roger Bonuchi, Kendall County Emergency Management Agency Director.

An open-house style public forum will be held at the Oswego Fire Protection District Station 1, 3511 Woolley Road, Oswego, from 5 p.m. to 7 p.m. on Tuesday, February 20. Individuals can come and review the Plan at any time during the forum. Those unable to attend can still review the Plan and provide comments without participating in the public forum.

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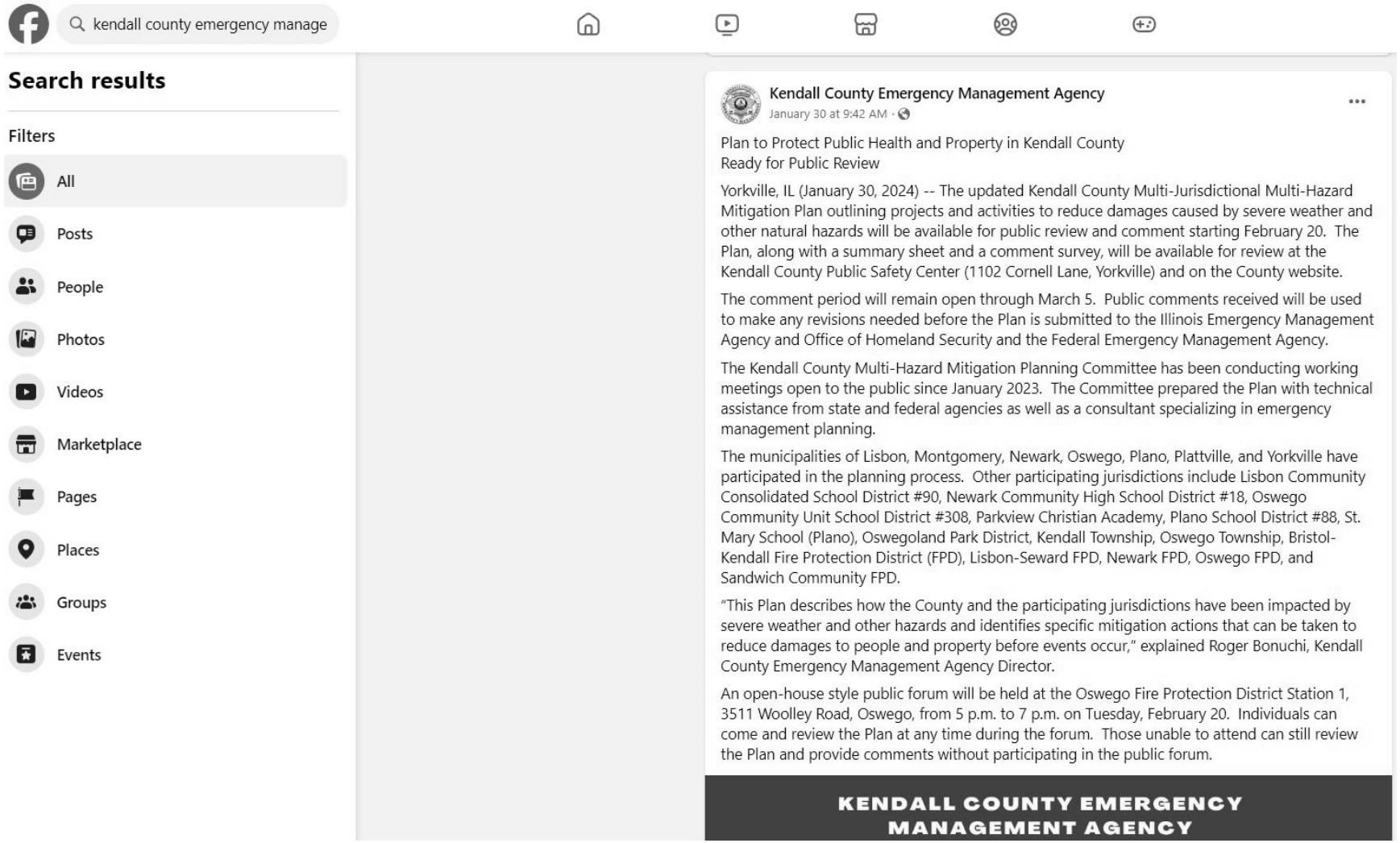
EOC phone 630.553.4500 I 24-hour: 630.553.5856 | 1102 Cornell Lane, Yorkville, IL 60560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January 30 at 9:42 AM ·
Plan to Protect Public Health and Property in Kendall County
Ready for Public Review
Yorkville, IL (January 30, 2024) -- The updated Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan outlining projects and activities to reduce damages caused by severe weather and other natural hazards will be available for public review and comment starting February 20. The Plan, along with a summary sheet and a comment survey, will be available for review at the Kendall County Public Safety Center (1102 Cornell Lane, Yorkville) and on the County website.
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KENDALL COUNTY EMERGENCY MANAGEMENT AGENCY

Appendix F

News List - Kendall County

Plan to Protect Public Health and Property Ready for Public Review

Post Date: 02/02/2024 8:51 AM

FOR IMMEDIATE RELEASE

Plan to Protect Public Health and Property in Kendall County

Ready for Public Review

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Contact: Roger Bonuchi

630-553-4500

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https://www.wspynews.com/news/local/kendall-county-hazard-mitigation-plan-to-open-for-public-comment-later-this-month/article_468d5658-c293-11ee-9b8b-179b2b689636.html

FEATURED TOP STORY

Kendall County hazard mitigation plan to open for public comment later this month

Ethan Kruger
Feb 3, 2024

Kendall County Public Safety Center.

The Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan will be available for public viewing and comment later this month.

Emergency Management Agency (EMA) Director Roger Bonuchi says people can come by and view it at the Kendall County Public Safety Center in Yorkville or see it online beginning February 20th.

A committee has been working on updating the plan since January last year. Bonuchi says the last update was in 2010. It's normally done every ten years, but was delayed due to the COVID-19 pandemic.

There will also be an open house to discuss the plan at the Oswego Fire Protection District Station 1 at 3511 Woolley Road in Oswego on February 20 from five to seven.

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News

Kendall County, IL Unveils Updated Multi-Hazard Mitigation Plan for Public Review

By: Country Herald Staff Report January 30, 2024

Yorkville, IL – Kendall County is inviting residents to review and comment on its updated Multi-Jurisdictional Multi-Hazard Mitigation Plan, which aims to minimize damages from severe weather and natural disasters. The public review period opens on February 20, with the Plan available at the Kendall County Public Safety Center and online.

According to county officials, the Plan, developed in collaboration with multiple municipalities and school districts, focuses on proactive strategies to protect public health and property. The public comment period extends until March 5, offering an opportunity for residents to influence the final submission to state and federal emergency management agencies.

Appendix F

The Plan's development, guided by the Kendall County Multi-Hazard Mitigation Planning Committee since January 2023, involves input from state and federal agencies and an emergency management consultant. It addresses the impact of severe weather and outlines specific mitigation actions.

Residents can also attend an open-house forum at the Oswego Fire Protection District Station 1 on February 20 to discuss the Plan. This initiative demonstrates Kendall County's commitment to preparedness and public safety in the face of natural hazards.

APPENDIX G

KENDALL COUNTY MULTI-JURISDICTIONAL MULTI-HAZARD MITIGATION PLAN PUBLIC FORUM SUMMARY HANDOUT

FEBRUARY 20, 2024
5:00 P.M. – 7:00 P.M.

Each year natural hazards (i.e., severe thunderstorms, tornadoes, severe winter storms, flooding, etc.) cause damage to property and threaten the lives and health of Kendall County residents. Since 1973, Kendall County has been included in 13 emergency and major federal disaster declarations and experienced at least $8 million in recorded property damages and $27.7 million in recorded crop damages.

In the last 10 years alone (2013 – 2022), there have been 48 thunderstorms with damaging winds, 41 extreme cold events, 30 excessive heat events, 29 severe winter storms, 25 riverine flood events, 20 flash flood events, 10 severe storms with hail one inch in diameter or greater, 6 tornadoes, 2 verified heavy rain events, and 1 lightning strike with verified damages in the County. While natural and man-made hazards cannot be avoided, their impacts can be reduced through effective hazard mitigation planning and implementation.

What is hazard mitigation planning?
Hazard mitigation planning is the process of determining how to reduce or eliminate property damage and loss of life from natural and man-made hazards. This process helps the County and participating jurisdictions reduce their risk by identifying vulnerabilities and developing mitigation actions to lessen and sometimes even eliminate the effects of a hazard. The results of this process are documented in a multi-hazard mitigation plan.

Why prepare an updated multi-hazard mitigation plan?
By preparing and adopting an updated multi-hazard mitigation plan, participating jurisdictions become eligible to apply for and receive federal hazard mitigation funds to implement mitigation actions identified in the plan. These funds, made available through the Disaster Mitigation Act of 2000, can help provide local government entities with the opportunity to complete mitigation projects that would not otherwise be financially possible.

Who participated in the update of the County's Multi-Hazard Mitigation Plan?
Recognizing the benefits that could be gained from preparing an updated multi-hazard mitigation plan, Kendall County invited all the local government entities within the County to participate. The following jurisdictions chose to participate in the Plan update with the County:

- Bristol-Kendall FPD
- Kendall Township
- Lisbon, Village of
- Lisbon CCSD #90
- Lisbon-Seward FPD
- Montgomery, Village of
- Newark, Village of
- Newark CHSD #18
- Newark FPD
- Oswego, Village of
- Oswego CUSD #308
- Oswego FPD
- Oswegoland Park District
- Oswego Township
- Parkview Christian Academy
- Plano, City of
- Plano CUSD #88
- Plattville, Village of
- Sandwich Community FPD
- St. Mary Catholic School
- Yorkville, City of

KENDALL COUNTY MULTI-JURISDICTIONAL MULTI-HAZARD MITIGATION PLAN

How was the Plan update developed?

The Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan update was developed through the Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Planning Committee. The Committee included representatives from each participating jurisdiction, as well as agriculture, cultural resources, education, emergency services, planning, recreation, and social services. The Planning Committee met five times between January 2023 and February 2024.

Which hazards are included in the Plan update?

After reviewing the risk assessment, the Planning Committee chose to include the following hazards in the Plan:

Natural Hazards

- severe storms (thunderstorms, hail, lightning & heavy rain)
- floods (riverine & flash)
- severe winter storms (snow & ice)
- extreme cold
- excessive heat
- tornadoes
- drought
- earthquakes

Man-Made Hazards

- hazardous substances (generation, transportation, and storage/handling)
- waste disposal
- hazardous material incidents
- waste remediation
- nuclear incidents
- terrorism

What is included in the Plan update?

The Plan update is divided into sections that cover the planning process; the risk assessment; the mitigation strategy, including the jurisdiction-specific mitigation action lists; plan maintenance; and adoption. The majority of the Plan update is devoted to the risk assessment and mitigation strategy.

The risk assessment identifies the natural and man-made hazards that pose a threat to the County and includes a profile of each hazard, which describes the location and severity of past occurrences, reported damages to public health and property, and the likelihood of future occurrences. It also provides a vulnerability analysis that estimates the potential impacts each natural hazard would have on the health and safety of the residents of Kendall County, as well as the buildings, critical facilities, and infrastructure in the County.

The key component of the mitigation strategy is a list of the projects and activities developed by each participating jurisdiction to reduce the potential loss of life and property damage that results from the natural hazards identified in the risk assessment. These projects and activities are intended to be implemented *before* a hazard event occurs.

What happens next?

Any comments received at today's public forum and during the public comment period will be reviewed and, where applicable, incorporated into the draft Plan update before it is submitted to the Illinois Emergency Management Agency and Office of Homeland Security (IEMA-OHS) and the Federal Emergency Management Agency (FEMA) for review. Once IEMA-OHS and FEMA have reviewed and approved the Plan, it will be presented to the County and each participating jurisdiction for formal adoption. After adopting the Plan update, each participating jurisdiction will be eligible to apply for federal mitigation funds and can begin implementing the mitigation actions identified in the Plan.

APPENDIX H

KENDALL COUNTY MULTI-JURISDICTIONAL MULTI-HAZARD MITIGATION PLAN

COMMENT SHEET

PLAN COMMENT PERIOD
FEBRUARY 20, 2024 THRU MARCH 5, 2024

The County's Multi-Jurisdictional Multi-Hazard Mitigation Plan evaluates damage to life and property from the natural and man-made hazards that occur in the County. This Plan also identifies projects and activities for the County and each participating jurisdiction that will help reduce these damages. This comment sheet should be used to provide feedback on the draft Plan update.

What comments, concerns or questions do you have regarding the draft Plan update?
(Use additional sheets if necessary.)

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Please Print Your Name, Address, and Phone Number Below:

Name: _____ Phone: _____

Address: _____

_____ Zip Code: _____

Comments will be accepted through March 5, 2024

Place
Stamp
Here

Roger Bonuchi, Director
Kendall County Emergency Management Agency
1102 Cornell Ln.
Yorkville, IL 60560

Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan Update Comment Survey

The Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan evaluates damage to life and property from the natural and man-made hazards that occur in the County. This Plan also identifies projects and activities for the County and each participating jurisdiction to help reduce these damages. This comment sheet should be used to provide feedback on the draft Plan update.

An asterisk (*) denotes a question that is required for form completion.

* 1. What comments, concerns or questions do you have regarding the draft Plan update?

* 2. Name:

3. Address:

4. City/Village/Town:

5. State/Province:

6. Zip Code:

* 7. Email Address:

8. Phone Number:

Comments will be accepted through March 5, 2024.

Done

Powered by SurveyMonkey
See how easy it is to create surveys and forms.

Privacy & Cookie Notice

Appendix H

APPENDIX I

Kendall County Emergency Management Agency
Roger Bonuchi, Director
Tracy Page, Deputy Director

To: DeKalb County ESDA: Dennis Miller (dmiller@dekalbcounty.org)
DuPage County OHSEM: Craig Dieckman (oem@dupagecounty.gov)
Grundy County EMA: Joe Schroeder (jschroeder@grundyco.org)
Kane County EMA: Scott Buziecki (kanecountyeoc@countyofkane.org)
LaSalle County EMA: Fred Moore (LaSalleCoEMA@lasallecounty.org)
Will County EMA: Allison Anderson (ema@willcountyillinois.com)

From: Roger Bonuchi, Kendall County Emergency Management Agency Director

Subject: Hazard Mitigation Plans Update

Date: January 30, 2024

The purpose of this memorandum is to inform you that Kendall County is updating its countywide Multi-Hazard Mitigation Plan. Since we share common boundaries, you are invited to review our draft Plan and provide comments during the public comment period, which runs from February 20 through March 5, 2024. Starting February 20, the Plan, along with a summary sheet and a comment survey, can be viewed on the Kendall County webpage.

A public forum is scheduled for:

Tuesday, February 20, 2024
5 p.m. to 7 p.m.
Oswego Fire Protection District Station 1,
3511 Woolley Road, Oswego

If you have any questions, please contact me at 630-553-4500 or rbonuchi@kendallcountyil.gov

American Environmental Corp., an emergency management and environmental consulting firm experienced in preparing these plans, is leading our planning process. If you have specific questions about the Plan, please contact Ken Runkle, a consultant team member, at 217-585-9517 x4 or krunkle@aecspfld.com

Runkle, Ken

From: Tracy Page <tpage@kendallcountyil.gov>
Sent: Tuesday, January 30, 2024 9:17 AM
To: Anderson, Lisa; aanderson@willcountyillinois.com; bciszczon@willcountyillinois.com; Besler, Linda; cflynn@lasallecounty.org; Chelsea Bowen; Christopher Builta; Deborah Dortmund (MadisonDeborah@co.kane.il.us); dmiller@dekalbcounty.org; Drendel, Beth; fmoore@lasallecounty.org; Jon Mensching (MenschingJonathan@co.kane.il.us); jschroeder@grundycountyil.gov; jsheldon@grundycountyil.gov; Ricky Ortiz (rortiz@grundycountyil.gov); Roger Bonuchi; Scott Buziecki (BuzieckiScott@KaneCountyIL.gov); tmuzzey@willcountyillinois.com; tmurray@willcountyillinois.com; oem@dupagecounty.gov
Cc: Runkle, Ken; Bostwick, Andrea; Smith, Callie
Subject: Kendall County - Hazard Mitigation Plan Review
Attachments: Kendall Hazard Adjacent Counties.pdf

Hello Neighboring Counties

The purpose of this memorandum is to inform you that Kendall County is updating its countywide Multi-Hazard Mitigation Plan. Since we share common boundaries, you are invited to review our draft Plan and provide comments during the public comment period, which runs from February 20 through March 5, 2024. Starting February 20, the Plan, along with a summary sheet and a comment survey, can be viewed on the Kendall County webpage.

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Tuesday, February 20, 2024
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If you have any questions, please contact EMA Director Roger Bonuchi at 630-553-4500 or rbonuchi@kendallcountyil.gov

American Environmental Corp., an emergency management and environmental consulting firm experienced in preparing these plans, is leading our planning process. If you have specific questions about the Plan, please contact Ken Runkle, a consultant team member, at 217-585-9517 x4 or krunkle@aecspfld.com

Sincerely,

Tracy Page
Deputy Director
Kendall County Emergency Management Agency

Phone 630-553-7500 x1115 **Fax** 630-553-4379
Web www.kendallcountyil.gov **Email** tpage@kendallcountyil.gov
1102 Cornell Lane, Yorkville, IL 60560

APPENDIX J

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
06/23/1996	9:30 PM	Plano	n/a	n/a	n/a	n/a	n/a	
07/24/1996	11:15 AM	Oswego Boulder Hill^	n/a	n/a	n/a	n/a	n/a	***This event was part of a federally-declared disaster (Declaration #1129)*** A severe thunderstorm downed trees in Oswego.
10/29/1996	5:30 PM	countywide	57 kts	n/a	n/a	n/a	n/a	
05/18/1997	6:45 PM	Yorkville Yorkville^	50 kts	n/a	n/a	n/a	n/a	Thunderstorm winds caused damage at a farm southeast of Yorkville. A semi-trailer was blown over, windows were broken and shingles peeled off a barn, and trees and limbs were blown down.
07/18/1997	2:45 PM	countywide	50 kts	n/a	n/a	n/a	n/a	Trees and power lines were downed countywide.
05/28/1998	9:30 PM	Yorkville	50 kts	n/a	n/a	n/a	n/a	Strong winds blew a tree down on to Highway 71.
06/18/1998	7:05 PM	Sandwich Plano^ Yorkville	64 kts	n/a	n/a	n/a	n/a	A large tree fell on a house in Yorkville.
06/28/1998	3:00 AM	Lisbon	50 kts	n/a	n/a	n/a	n/a	
06/29/1998	4:50 PM	Lisbon	61 kts	n/a	n/a	n/a	n/a	
08/24/1998	12:47 PM	Oswego Boulder Hill^	50 kts	n/a	n/a	n/a	n/a	Large trees were blown down in northern Kendall County.
09/20/1998	3:00 PM	Lisbon	50 kts	n/a	n/a	n/a	n/a	Trees were blown down.
11/10/1998	5:55 AM	countywide	50 kts	n/a	n/a	n/a	n/a	Some trees were downed.
07/21/1999	8:01 PM	Oswego Boulder Hill^	50 kts	n/a	n/a	n/a	n/a	Trees were blown down\.
05/18/2000	4:25 PM	Sandwich	52 kts	n/a	n/a	n/a	n/a	Kendall County emergency management reported large branches down along Route 52, and siding and roof damage to homes 10 to12 miles. Power lines and trees were down blocking roads.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
05/18/2000	4:30 PM	Newark Plattville Helmar^	60 kts	n/a	n/a	n/a	n/a	
08/06/2000	3:49 PM	Sandwich	52 kts	n/a	n/a	n/a	n/a	
08/06/2000	3:50 PM	Montgomery	61 kts	n/a	n/a	n/a	n/a	Widespread downed trees and power lines
06/14/2001	6:50 PM	Newark	50 kts	n/a	n/a	n/a	n/a	The main damage from this line of storms was in the form of trees and limbs down, as well as power lines and utility poles down.
07/22/2001	4:20 PM	Yorkville	50 kts	n/a	n/a	n/a	n/a	
09/06/2001	6:20 PM	Oswego Oswego^ Boulder Hill^	50 kts	n/a	n/a	n/a	n/a	Part of a tree fell across a road.
06/04/2002	12:17 PM	Yorkville	50 kts	n/a	n/a	n/a	n/a	
05/30/2003	6:40 PM	Plano^	60 kts	n/a	n/a	n/a	n/a	Trees were blown down in Silver Springs State Park.
07/07/2003	7:15 AM	Yorkville Oswego Bristol^	50 kts	n/a	n/a	n/a	n/a	A few trees were blown down in Yorkville and Oswego.
07/07/2003	8:56 PM	Plano	50 kts	n/a	n/a	n/a	n/a	Trees were damaged in Plano.
07/11/2003	1:40 PM	Plano^	61 kts	n/a	n/a	n/a	n/a	
07/11/2003	2:15 PM	Lisbon^ Millbrook	50 kts	n/a	n/a	n/a	n/a	
07/17/2003	8:15 PM	Joliet^ Plainfield^	50 kts	n/a	n/a	n/a	n/a	Small trees were blown down 7 miles southeast of Oswego toward the Kendall Will county line.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
07/27/2003	11:35 AM	countywide	57 kts	n/a	n/a	n/a	n/a	Wind damage was widespread across Kendall County. Trees, large tree limbs and power lines were blown down in Plano, Newark and Oswego as well as many rural parts of the County. Trees were blown down blocking Illinois Route 71 west of Oswego. Trees 20 inches in diameter were blown down southeast of Plano along Lynwood Drive. Southwest of Plano, a large tree limb fell onto a roof and broke a skylight.
07/31/2003	8:25 PM	Plano Bristol^ Yorkville^ Oswego Boulder Hill^	52 kts	n/a	n/a	n/a	n/a	Trees and power lines were blown down across many parts of northern Kendall County.
05/12/2004	2:50 PM	Plattville^	50 kts	n/a	n/a	n/a	n/a	Power lines were blown down at the intersection of Newark Road and Route 47.
05/12/2004	2:55 PM	Oswego Boulder Hill^	50 kts	n/a	n/a	n/a	n/a	Large tree limbs were down along Wolfs Crossing Road.
05/13/2004	3:12 PM	Millbrook Millbrook^	57 kts	n/a	n/a	n/a	n/a	A 10 inch diameter tree was blown down near Budd Road and Route 71 near Millbrook.
05/13/2004	3:20 PM	Plano	58 kts	n/a	n/a	n/a	n/a	
05/13/2004	3:26 PM	Little Rock	61 kts	n/a	n/a	n/a	n/a	
05/13/2004	3:28 PM	Yorkville Bristol^	50 kts	n/a	n/a	n/a	n/a	
05/13/2004	3:34 PM	Montgomery	50 kts	n/a	n/a	n/a	n/a	Tree limbs were blown down.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
05/30/2004	5:35 PM	countywide	53 kts	1	n/a	n/a	n/a	Trees and tree limbs were blown down countywide. Also, trees were down at campground east of Millbrook. Tree limbs were down on a power line in Yorkville. A tree was down on a car in Little Rock. Another tree was down on a power line 3 miles south of Plano. At Plano, a tree was down on a car with a person trapped inside. In Yorkville, trees and tree limbs were blown down at the Kendall County Government Center at the intersection of Route 34 and Cannonball Road. Trees were also blown down at the intersection of Route 47 and Route 126.
07/22/2004	1:20 PM	Bristol^ Yorkville^ Oswego^	50 kts	n/a	n/a	n/a	n/a	Power lines knocked down on Winding Creek and Oak Creek Rds, near Rt. 71 between Yorkville and Oswego.
03/30/2005	4:44 PM	Newark	50 kts	n/a	n/a	n/a	n/a	Power lines reported down.
05/19/2005	3:27 PM	Yorkville	55 kts	n/a	n/a	n/a	n/a	A utility pole and numerous oak trees were blown down near Walker and Schlapp Roads.
05/19/2005	3:44 PM	Yorkville Plano^ Bristol^	50 kts	n/a	n/a	n/a	n/a	Railroad gates were blown down near Eldmain Road and Route 34.
08/02/2006	7:37 PM	Minnoka^	52 kts	n/a	n/a	n/a	n/a	
08/03/2006	3:35 AM	Plano^ Sandwich^	50 kts	n/a	n/a	n/a	n/a	A five inch diameter tree limb was blown down blocking a road.
08/10/2006	7:30 AM	Newark	55 kts	n/a	n/a	n/a	n/a	A large tree was blown down at US 52 and Stevens Road.
10/02/2006	9:09 PM	Oswego Boulder Hill^	50 kts	n/a	n/a	$25,000	n/a	A large tree limb was blown down onto a vehicle which caused an accident at Stuart and Wooley Roads.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
10/02/2006	9:37 PM	Yorkville	55 kts	n/a	n/a	n/a	n/a	A large tree was blown down blocking Fox Road.
10/02/2006	9:50 PM	Plano	50 kts	n/a	n/a	n/a	n/a	Numerous tree limbs blown down on Route 34 between Plano and Yorkville Roads.
10/02/2006	10:16 PM	Plano^	50 kts	n/a	n/a	n/a	n/a	Four to five inch diameter tree limbs blown down on Milhurth Road.
03/31/2007	8:11 PM	Newark	61 kts	n/a	n/a	n/a	n/a	Tree limbs blown down.
03/31/2007	8:19 PM	Bristol	61 kts	n/a	n/a	n/a	n/a	
03/31/2007	8:23 PM	Montgomery	68 kts	n/a	n/a	n/a	n/a	
06/01/2007	5:45 PM	Plano	50 kts	n/a	n/a	$5,000	n/a	A large string of powerlines was blown down on Burr Oak Road off of Griswald Springs Road.
06/01/2007	6:06 PM	Yorkville^	56 kts	n/a	n/a	$5,000	n/a	A gazebo was blown over.
07/10/2007	3:30 PM	Plano	50 kts	n/a	n/a	n/a	n/a	Small tree limbs were blown down.
07/18/2007	8:10 PM	Boulder Hill	50 kts	n/a	n/a	n/a	n/a	Six inch diameter tree limbs blown down.
07/18/2007	8:27 PM	Yorkville	50 kts	n/a	n/a	n/a	n/a	Numerous trees blown down near Route 47 and Kennedy.
08/23/2007	2:00 PM	Montgomery	56 kts	n/a	n/a	n/a	n/a	
08/23/2007	2:05 PM	Plattville^	50 kts	n/a	n/a	n/a	n/a	A large tree limb was blown down on County Line Road between Renwick and Caton Farm Road in Kendall County.
06/08/2008	11:15 AM	Montgomery	50 kts	n/a	n/a	$500	n/a	A patio swing was picked up and thrown over a fence. Cast iron patio furniture was mangled. A trampoline was blown several houses down a street.
06/15/2008	6:20 AM	Plano^	50 kts	n/a	n/a	n/a	n/a	One tree was blown down on Creek Road north of Miller Road.
06/15/2008	6:25 AM	Yorkville	50 kts	n/a	n/a	n/a	n/a	One tree was blown down near Route 126 and Crooked Creek Road.
06/28/2008	3:07 PM	Plano	50 kts	n/a	n/a	n/a	n/a	Trees were blown down in Plano.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
07/10/2008	7:07 PM	Plattville^	55 kts	n/a	n/a	$1,000	n/a	A tree and power lines were blown down near Caton Farm and Brisbin Roads.
07/10/2008	7:20 PM	Plattville^	55 kts	n/a	n/a	n/a	n/a	A tree was blown down on Plattville Road, just east of Route 47.
08/04/2008	6:20 PM	Millbrook Plano Yorkville Bristol	52 kts	n/a	n/a	$6,000	n/a	At Millbrook, six inch diameter tree limbs with power lines were blown down near Sandy Bluff and Millhurst Roads. A large section of a tree was blown down at Dearborn and Harve Streets in Plano, which knocked down a utility pole. Tree limbs and power lines were blown down across other areas of Plano. At Bristol, a large tree was completely snapped off 8 to 10 feet above ground. Power lines were also knocked down.
08/04/2008	6:30 PM	Montgomery	61 kts	n/a	n/a	$5,000	n/a	Sheet metal and insulation were torn off a soap factory by strong winds. Most of the damage was cosmetic, no structual damage was reported.
06/19/2009	5:40 PM	Plattville^	56 kts	n/a	n/a	$1,000	n/a	A large tree and power lines were blown down blocking Caton Farm Road just east of Ridge Road.
06/19/2009	5:47 PM	Yorkville	61 kts	n/a	n/a	$1,000	n/a	Numerous trees and power lines were blown down. People were trapped in cars due to the fallen trees and power lines.
06/19/2009	5:52 PM	Oswego^	65 kts	n/a	n/a	n/a	n/a	
06/19/2009	6:08 PM	Helmar^	61 kts	n/a	n/a	$1,000	n/a	Numerous trees and power lines were blown down.
08/16/2009	1:00 PM	Montgomery	55 kts	n/a	n/a	$1,000	n/a	Large tree limbs and signs were blown down along Route 30 between Route 47 and Route 25.
08/16/2009	1:05 PM	Boulder Hill	54 kts	n/a	n/a	n/a	n/a	
06/18/2010	2:45 PM	Oswego^	66 kts	n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
06/21/2010	9:02 PM	Plattville^	50 kts	n/a	n/a	$200,000	n/a	A large silo blew down onto an anhydrous ammonia tank, damaging a valve. The ammonia leak resulted in evacuation of several nearby residences. There was also a tree blown down on a road.
06/23/2010	4:30 PM	Sandwich Plano^	50 kts	n/a	n/a	$2,000	n/a	Utlitily poles and power lines were blown down near Sandy Bluff and Griswold Springs Roads.
06/23/2010	4:33 PM	Yorkville Yorkville^ Plano Plano^ Bristol	72 kts	n/a	n/a	$12,000	n/a	Southeast of Yorkville a large tree was blown down near Route 126 and Minkler Road. East of Plano, two large trees were blown down on Keller Road. Trees were blown down on River Road. Part of a roof was blown off a house on River Road. One tree fell on a car. Other trees were blown over onto power lines. Tree limbs up to six inches in diameter were blown down. Part of a twelve inch diameter tree was blown down on a house. North of Yorkville, eight to twelve inch diameter trees were blown down. At Yorkville, trees with diameters up to 16 inches were snapped and uprooted. Numerous tree limbs and power lines were blown down along Route 47. Tree damage was reported near Countryside Parkway and Route 47 with estimated winds to 70 mph.
06/23/2010	4:40 PM	Oswego	68 kts	n/a	n/a	n/a	n/a	Oswego public works estimated 1,000 trees suffered some kind of damage or were completely blown down. A semi truck was blown over on Route 34.
06/23/2010	4:47 PM	Plainfield Joliet	60 kts	n/a	n/a	$5,000	n/a	In Plainfield, a row of utility poles was blown down along Ridge Road.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
06/23/2010	4:52 PM	Oswego Boulder Hill^	60 kts	n/a	n/a	$3,000	n/a	A large tree was blown down in front of a house on Fox Mead Court. The tree damaged gutters and siding on the house.
05/11/2011	5:54 PM	Oswego	60 kts	n/a	n/a	n/a	n/a	
06/08/2011	10:50 PM	Plano	50 kts	n/a	n/a	$500	n/a	A utility pole was snapped near Fox River Drive.
06/08/2011	11:10 PM	Lisbon^	50 kts	n/a	n/a	n/a	n/a	A tree was reported down near the intersection of Lisbon Road and Route 52.
07/11/2011	6:48 AM	Yorkville Yorkville^	55 kts	n/a	n/a	$1,000	n/a	A 4 to 5 inch diameter tree was blown down as were several large limbs. A backyard wooden jungle gym was destroyed.
07/11/2011	6:54 AM	Oswego Boulder Hill^	52 kts	n/a	n/a	n/a	n/a	
06/29/2012	8:14 PM	Plano	50 kts	n/a	n/a	n/a	n/a	Two 70-foot sections of wooden fencing were blown down.
06/29/2012	8:31 PM	Oswego^	80 kts	n/a	n/a	n/a	n/a	Trees and tree limbs were blown down.
07/24/2012	5:20 AM	Plattville^	56 kts	n/a	n/a	n/a	n/a	Two trees were split near Southworth Circle and Townsend Blvd.
08/04/2012	2:15 PM	Newark^ Plattville^	60 kts	n/a	n/a	n/a	n/a	Several large trees were blown down across the southern part of Kendall County.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
08/04/2012	2:30 PM	Plattville^	60 kts	n/a	n/a	$250,000	n/a	Kendall Township identified $250,000 in damages to structures within the township, including multiple grain bins and buildings. A few utility poles and a large tree were blown down along Budd Road east of Millbrook. North of Yorkville, a half dozen large grain bins were dented including one bin that shifted several feet and had its roof peeled away. A large barn door was blown off into a house porch causing minor damage to the home. Trees were blown down near the intersection of Route 47 and Route 52 northeast of Lisbon.
06/12/2013	4:08 PM	Millbrook^ Yorkville Yorkville^ Lisbon^	70 kts	n/a	n/a	$27,000	n/a	A few utility poles and a large tree were blown down along Budd Road east of Millbrook. North of Yorkville, a half dozen large grain bins were dented including one bin that shifted several feet and had its roof peeled away. A large barn door was blown off into a house porch causing minor damage to the home. Trees were blown down near the intersection of Route 47 and Route 52 northeast of Lisbon.
06/12/2013	4:25 PM	Plano Plano^ Yorkville Yorkville^ Bristol^	61 kts	n/a	n/a	n/a	n/a	Numerous trees were bent over between Plano and Yorkville.
06/12/2013	4:31 PM	Lisbon^	60 kts	n/a	n/a	n/a	n/a	
06/12/2013	4:33 PM	Oswego^	55 kts	n/a	n/a	n/a	n/a	A large tree was snapped.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
06/24/2013	4:33 PM	Oswego Boulder Hill^	60 kts	n/a	n/a	n/a	n/a	A large tree was uprooted on Fox Bend Golf Course off of Ogden Avenue.
11/17/2013	11:20 AM	Yorkville Bristol^	61 kts	n/a	n/a	n/a	n/a	
11/17/2013	11:28 AM	Montgomery	52 kts	n/a	n/a	n/a	n/a	
06/18/2014	6:25 PM	Oswego Boulder Hill^	67 kts	n/a	n/a	n/a	n/a	
06/30/2014	8:53 PM	Oswego	65 kts	n/a	n/a	n/a	n/a	
05/08/2015	3:06 PM	Oswego^	53 kts	n/a	n/a	n/a	n/a	
05/25/2016	1:56 PM	Plano Yorkville^ Bristol^	50 kts	n/a	n/a	n/a	n/a	Four 6-8 inch trees uprooted at Hoffman St. near Kristen St.
06/20/2016	12:43 PM	Plattville^	55 kts	n/a	n/a	n/a	n/a	Tree limbs down, trees snapped and leaning power poles with wires down as well as lightweight metal debris from farm structures near and along Grove Rd.
07/13/2016	5:15 PM	Newark^	56 kts	n/a	n/a	n/a	n/a	
07/13/2016	5:36 PM	Yorkville^	52 kts	n/a	n/a	n/a	n/a	
07/13/2016	5:41 PM	Oswego Plattville^	56 kts	n/a	n/a	n/a	n/a	Mature trees were bending.
02/28/2017	10:12 PM	Newark^	65 kts	n/a	n/a	$1,000	n/a	Large trees were blown down blocking Roods Road. Power lines were also damaged.
03/07/2017	1:03 AM	Oswego Boulder Hill^	50 kts	n/a	n/a	$1,000	n/a	A couple of power poles were blown down.
05/17/2017	11:05 PM	Plattville^	62 kts	n/a	n/a	n/a	n/a	
10/14/2017	6:30 PM	Newark	60 kts	n/a	n/a	$5,000	n/a	Trees were blown down and utility poles were snapped along Chicago Road from near Coy Park Road to near Meadow Lane.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
05/02/2018	3:30 PM	Plattville^	50 kts	n/a	n/a	n/a	n/a	A large tree limb was blown down.
05/16/2019	11:15 AM	Oswego Boulder Hill^	55 kts	n/a	n/a	n/a	n/a	A large tree was uprooted along Main Street.
05/27/2019	12:43 PM	Yorkville Bristol	60 kts	n/a	n/a	n/a	n/a	In Yorkville, a six foot diameter tree was uprooted. The windshield of a car was smashed by a tree that fell on it. A small portion of the roof of a home improvement store was torn off. At Bristol, Two large trees were blown down causing siding and roof damage to a house. A deck and a fence were also damaged.
05/27/2019	12:50 PM	Oswego Boulder Hill^	52 kts	n/a	n/a	n/a	n/a	A garage door was damaged by the winds.
06/30/2019	12:30 PM	Plano	50 kts	n/a	n/a	n/a	n/a	Multiple large tree limbs were blown down.
06/30/2019	1:12 PM	Plattville^	50 kts	n/a	n/a	n/a	n/a	Three large tree limbs were blown down with diameters ranging from 6 inches to one foot.
07/02/2019	7:20 PM	Montgomery	50 kts	n/a	n/a	n/a	n/a	Numerous power lines were blown down on Aucutt Road.
05/23/2020	1:56 PM	Plattville^	50 kts	n/a	n/a	n/a	n/a	Small trees and large tree limbs were blown down.
06/26/2020	6:23 PM	Oswego Boulder Hill^	61 kts	n/a	n/a	n/a	n/a	
06/26/2020	6:45 PM	Newark	60 kts	n/a	n/a	n/a	n/a	Trees were blown down and power was out for a significant portion of Newark.
06/26/2020	6:52 PM	Lisbon	60 kts	n/a	n/a	n/a	n/a	A tree was blown down across Route 52.
06/26/2020	7:01 PM	Plattville^	60 kts	n/a	n/a	n/a	n/a	A one foot diameter tree was blown down blocking the right lane on Route 52, two miles west of Ridge Road.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
07/19/2020	10:04 AM	Boulder Hill Oswego	55 kts	n/a	n/a	n/a	n/a	A large tree was blown down completely blocking a road in Boulder Hill. A 3 to 6 inch diameter tree limb was blown down in Oswego
08/10/2020	2:11 PM	Plano Yorkville^ Yorkville	65 kts	n/a	n/a	n/a	n/a	Tree limbs and power lines were blown down in Plano. Trees, tree limbs and power lines were blown down in Yorkville.
08/10/2020	2:20 PM	Yorkville	60 kts	n/a	n/a	n/a	n/a	Several trees and large tree limbs were blown down.
08/10/2020	2:26 PM	Oswego^	60 kts	n/a	n/a	n/a	n/a	Damage to siding of a house was reported along with small tree limbs blown down nearby.
11/10/2020	5:06 PM	Plattville^	50 kts	n/a	n/a	n/a	n/a	
08/11/2021	8:18 AM	Sandwich Little Rock Plano	60 kts	n/a	n/a	$125,000	n/a	The Plano School District identified $125,000 in damages from roof failure caused by high winds. Several trees were snapped or blown down between Sandwich and Plano, including one tree blown down on Little Rock Road. A large oak tree was snapped at its base in Little Rock.
08/11/2021	8:28 AM	Oswego Boulder Hill	55 kts	n/a	n/a	n/a	n/a	At Oswego, a large tree limb was blown down and a fence was blown over. Half of another tree was snapped at its fork. Multiple large tree limbs were blown down in Boulder Hill.
08/11/2021	8:35 AM	Montgomery^ Yorkville^	59 kts	n/a	n/a	n/a	n/a	
09/07/2021	1:47 PM	Lisbon Lisbon^	60 kts	n/a	n/a	n/a	n/a	Numerous tree limbs up to four inches in diameter were blown down. Corn crops were blown down south of Lisbon.
09/07/2021	1:55 PM	Lisbon^	63 kts	n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 1
Severe Storms - Thunderstorms with Damaging Winds Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Windspeed (knots)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
09/07/2021	1:58 PM	Minooka	60 kts	n/a	n/a	n/a	n/a	A few shingles were blown off the west side roof of a residence along Holt Road. Corn crops were blown down nearby.
09/07/2021	1:59 PM	Plattville^	56 kts	n/a	n/a	n/a	n/a	Tree limbs were blown down.
03/25/2022	3:20 PM	Yorkville	55 kts	n/a	n/a	n/a	n/a	Westbound Van Emmon Street was blocked near Benjamin Street due to a tree that was blown down. Power lines were blown down across Route 34 at Tuma Road, blocking portions of the road.
03/25/2022	3:23 PM	Montgomery	50 kts	n/a	n/a	n/a	n/a	A roof of an industrial building was damaged with debris on a roadway.
08/03/2022	12:33 PM	Yorkville Yorkville ^	60 kts	n/a	n/a	n/a	n/a	A couple of trees were blown down in Yorkville. East of Yorkville large trees were blown down along Route 71, east of Winding Creek Road.
09/11/2022	6:05 AM	Oswego Boulder Hill^	50 kts	n/a	n/a	n/a	n/a	A photo shared on social media showed a healthy 9 inch diameter tree limb snapped near Cheshire Court and Canton Drive.
11/05/2022	10:11 AM	Yorkville Bristol^	50 kts	n/a	n/a	n/a	n/a	A photo shared on social media showed siding that had been torn off of a house.
GRAND TOTAL:				**1**	**0**	**$684,000**	**$0**	

Source: Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Planning Committee Member responses to the Natural Hazard Events Questionnaire.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.

* Includes all events reported for the Village of Montgomery.
^ Thunderstorm with damaging winds verified in the vicinity of this location(s).

Table 2
Severe Storms - Hail Events Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Hail Stone Diameter (inches)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
04/19/1996	8:10 PM	Plattville^	1.00 in.	n/a	n/a	n/a	n/a	
06/10/1999	4:15 PM	Newark	1.00 in.	n/a	n/a	n/a	n/a	
05/12/2000	3:45 PM	Newark	1.75 in.	n/a	n/a	n/a	n/a	
05/12/2000	4:02 PM	Yorkville^	3.50 in.	n/a	n/a	n/a	n/a	The largest hail fell in a small area a couple miles south-southeast of Yorkville, east of Route 47 between Ament Road and Walker Road. A few farm houses received hail from billiard ball to baseball size.
05/12/2000	4:05 PM	Oswego Boulder Hill^	1.75 in.	n/a	n/a	n/a	n/a	
06/25/2002	10:38 AM	Oswego^	1.00 in.	n/a	n/a	n/a	n/a	
07/11/2003	1:40 PM	Lisbon^	1.00 in.	n/a	n/a	n/a	n/a	
08/01/2003	3:58 PM	Oswego Boulder Hill^	1.00 in.	n/a	n/a	n/a	n/a	Reported at the intersection of US 30 and US 34.
05/23/2004	6:27 PM	Yorkville Yorkville^	1.75 in.	n/a	n/a	n/a	n/a	There were several reports of hail 3/4 inch and larger from in and around Yorkville. The largest was golfball size at the intersection of Route 126 and 71.
03/30/2005	4:45 PM	Lisbon^ Plattville Joliet	1.00 in.	n/a	n/a	n/a	n/a	Quarter sized hail reported at the intersection of Rt. 47 and Newark Rd.
05/11/2005	5:17 AM	Oswego Boulder Hill^	1.00 in.	n/a	n/a	n/a	n/a	
04/02/2006	5:52 PM	Oswego Oswego^	1.00 in.	n/a	n/a	n/a	n/a	
04/25/2008	6:00 PM	Montgomery	1.00 in.	n/a	n/a	n/a	n/a	
06/21/2010	9:05 PM	Plattville^	1.00 in.	n/a	n/a	n/a	n/a	Quarter size hail was reported near Ridge Road and Theodore Street.

* Includes all events reported for the Village of Montgomery.
^ Hail event verified in the vicinity of this location(s).

Table 2
Severe Storms - Hail Events Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Hail Stone Diameter (inches)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
04/03/2011	10:10 PM	Plattville^	1.50 in.	n/a	n/a	n/a	n/a	Hail up to the size of walnuts was reported covering roads.
06/04/2011	2:29 PM	Oswego	1.00 in.	n/a	n/a	n/a	n/a	Quarter size hail was reported near Collins and Grove Roads.
08/13/2011	2:20 PM	Yorkville	1.00 in.	n/a	n/a	n/a	n/a	
06/12/2013	4:25 PM	Plano	1.00 in.	n/a	n/a	n/a	n/a	
06/12/2013	4:32 PM	Oswego Boulder Hill	1.75 in.	n/a	n/a	n/a	n/a	Multiple reports of quarter sized hail were received from Oswego, including a quarter size hail report near the intersection of routes 30 and 34. Golfball size hail was reported near the intersection of Route 30 and Briarcliff Road.
06/12/2013	4:41 PM	Montgomery	1.50 in.	n/a	n/a	n/a	n/a	
06/12/2013	4:55 PM	Oswego^	1.00 in.	n/a	n/a	n/a	n/a	
06/10/2015	6:20 PM	Plattville^	4.75 in.	n/a	n/a	$100,000	n/a	A photo was sent to NWS Chicago showing hail up to 4.75 inches in diameter near the intersection of Camden Drive and Kettleson Drive. Multiple vehicles were damaged including shattered windshields.
04/10/2017	11:51 AM	Plattville^	1.75 in.	n/a	n/a	n/a	n/a	
05/16/2019	9:04 PM	Oswego Bristol^	1.75 in.	n/a	n/a	n/a	n/a	
05/27/2019	12:41 PM	Yorkville Yorkville^ Bristol^ Oswego^	1.75 in.	n/a	n/a	n/a	n/a	Golf ball sized hail was estimated in Yorkville with damage to siding on houses.

* Includes all events reported for the Village of Montgomery.
^ Hail event verified in the vicinity of this location(s).

Table 2
Severe Storms - Hail Events Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Magnitude Hail Stone Diameter (inches)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
05/27/2019	12:50 PM	Oswego Boulder Hill^	2.00 in.	n/a	n/a	n/a	n/a	Hail up to two inches in diameter was reported in Oswego. Several homes suffered significant roof, siding and gutter damage.
08/10/2020	2:30 PM	Oswego Boulder Hill^	1.00 in.	n/a	n/a	n/a	n/a	Quarter size hail was reported in Oswego.
GRAND TOTAL:				**0**	**0**	**$100,000**	**$0**	

Source: NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.

* Includes all events reported for the Village of Montgomery.
^ Hail event verified in the vicinity of this location(s).

Table 3
Severe Storms - Lightning Events Reported in Kendall County*
2010 - 2022

Date(s)	Start Time	Location(s)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
06/23/2010	4:40 PM	Yorkville^	n/a	n/a	$8,000	n/a	Lighting struck and damaged emergency services transmitters on a 140-foot tall tower.
10/24/2021	n/a	Oswego	n/a	n/a	$20,000	n/a	The Oswego Park District reported that lightning struck the driving range shed and start a fire at its Fox Bend Golf Course. The structure and its contents were a complete loss.
GRAND TOTAL:			**0**	**0**	**$28,000**	**$0**	

Source: Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Planning Committee Member responses to the Natural Hazard Events Questionnaire.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.

* Includes all events reported for the Village of Montgomery.
^ Lightning strike event verified in the vicinity of this location(s).

Table 4
Severe Storms - Heavy Rain Events Reported in Kendall County*
2009 - 2022

Date(s)	Start Time	Magnitude Rainfall (inches)	Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
08/26/2009 thru 08/28/2009	2:31 PM	3.69 in.	Montgomery	n/a	n/a	n/a	n/a	
05/17/2020	3:00 PM	3.00 in.	Joliet	n/a	n/a	n/a	n/a	
08/25/2021	7:00 PM	4.10 in.	Montgomery	n/a	n/a	n/a	n/a	rainfall of 4.10 inches was measured in 1 hour and 47 minutes.
GRAND TOTAL:				**0**	**0**	**$0**	**$0**	

Sources: NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.

* Includes all events reported for the Village of Montgomery.
^ Heavy rain event verified in the vicinity of this location(s).
[1] Observed Location information was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in the Midwestern Regional Climate Center's cli-MATE data system and NOAA's Storm Events Database.

Table 5
General Flood Events Reported in Kendall County*
1997 - 2022

Date(s)	Start Time	Water Body	Location(s)	Magnitude Flood Crest Fox River River Montgomery[1]	Impacts[2]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
					Home	Business	Infra-structure					
02/20/1997 thru 02/22/1997	6:00 PM	area rivers, streams, and creeks	countywide	---				n/a	n/a	n/a	n/a	Widespread extensive flooding resulted from the heavy rains falling over still frozen soils.
05/30/2004 thru 06/01/2004	n/a	Fox River	northern portion of county	13.92 ft. 05/31/2004				n/a	n/a	n/a	n/a	
01/13/2005	4:00 AM	area rivers, streams, and creeks	countywide	---			X	n/a	n/a	n/a	n/a	The intersection of County Line Rd. and Indian Boundary Rd. was closed due to flooding from 1 foot of standing water. County Line Rd. is the dividing line between Kendall and Will Counties and flooding occurred on both sides of the road and thus in both Counties.
10/02/2006 thru 10/03/2006	9:45 PM	area rivers, streams, and creeks	northwestern portion of county	---			X	n/a	n/a	n/a	n/a	Six inches of standing water reported all over Plano. Standing water reported in streets in Yorkville
03/01/2007	2:52 PM	area rivers, streams, and creeks	northeastern portion of county	---			X	n/a	n/a	n/a	n/a	Standing water covering both lanes of 127th Street at the Will/Kendall County line. Six inches of standing water on Reservation Road east of Minkler Road.

* Includes all events reported for the Village of Montgomery.

[1] Flood stage at gauge location is 13.5 feet, moderate flood stage is 15.0 feet and major flood stage is 16.0 feet.

[2] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 5
General Flood Events Reported in Kendall County*
1997 - 2022

Date(s)	Start Time	Water Body	Location(s)	Magnitude Flood Crest Fox River River Montgomery[1]	Impacts[2]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
					Home	Business	Infra-structure					
03/31/2007	9:25 PM	area rivers, streams, and creeks	northeastern portion of county	---			X	n/a	n/a	n/a	n/a	Four to five inches of water on Minkler and Reservation Roads.
07/18/2007 thru 07/19/2007	9:09 PM	area rivers, streams, and creeks	northeastern portion of county	---			X	n/a	n/a	n/a	n/a	Four inches of flowing water at Simmom and Douglas Roads. Simmon flooded for one half mile. Eight inches of standing water at Dolores and Route 31.
08/23/2007 thru 08/29/2007	n/a	Fox River	countywide	14.77 ft. 08/24/2007 4th highest crest on record		X	X	n/a	n/a	n/a	n/a	Water on many roadways across the county. The Oswegoland Park District indicated that Hudson Crossing Park, Prairie Point Community Park, Violet Patch Park on the Fox River and Fox Bend Golf Course were all flooded for days and cleanup was handled by park district staff

* Includes all events reported for the Village of Montgomery.

[1] Flood stage at gauge location is 13.5 feet, moderate flood stage is 15.0 feet and major flood stage is 16.0 feet.

[2] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 5
General Flood Events Reported in Kendall County*
1997 - 2022

Date(s)	Start Time	Water Body	Location(s)	Magnitude Flood Crest Fox River River Montgomery[1]	Impacts[2]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
					Home	Business	Infra-structure					
09/13/2008 thru 09/16/2008	n/a	Fox River. area rivers, streams, and creeks	countywide	15.12 ft. 09/14/2008 3rd highest crest on record			X	n/a	n/a	$92,293	n/a	***This event is part of a major federal disaster declaration (Declaration #1800)*** Public Assistance Figures for Kendall County totaled $92,293. Totals by Jurisdiction: $26,600 Plano; $14,034 Kendall County; $1,924 Oswego FPD; $49,735 Landmarks Preservation Council of Illinois
12/27/2008 thru 12/29/2008	n/a	Fox River, area rivers, streams, and creeks	countywie	14.11 ft. 12/28/2008 9th highest crest on record				n/a	n/a	n/a	n/a	
03/09/2009 thru 03/10/2009	n/a	Fox River, area rivers, streams, and creeks	countywide	13.54 ft. 03/09/2009				n/a	n/a	n/a	n/a	
05/13/2010 thru 05/14/2010	n/a	Fox River, area rivers, streams, and creeks	northern portion of county	13.77 ft. 05/14/2010				n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Flood stage at gauge location is 13.5 feet, moderate flood stage is 15.0 feet and major flood stage is 16.0 feet.

[2] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 5
General Flood Events Reported in Kendall County*
1997 - 2022

Date(s)	Start Time	Water Body	Location(s)	Magnitude Flood Crest Fox River River Montgomery[1]	Impacts[2]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
					Home	Business	Infra-structure					
07/23/2010 thru 07/25/2010	n/a	Fox River	northern portion of county	14.06 ft. 07/24/2010 10th highest crest on record				n/a	n/a	n/a	n/a	
08/03/2010 thru 08/06/2010	6:00 AM	area rivers, streams, and creeks	countywide	---				n/a	n/a	n/a	n/a	
06/09/2011 thru 06/10/2011	7:09 PM	area rivers, streams, and creeks	countywide	---			X	n/a	n/a	n/a	n/a	Middle Aux Sable Creek was out of its bank near Ashley Road by Plattville. Heavy rain caused 10 to 12 inches of standing water at the intersection of Dolores Street and Charles Court near Oswego.
07/24/2011 thru 07/25/2011	10:07 AM	area rivers, streams, and creeks	countywide	---				n/a	n/a	n/a	n/a	
04/17/2013 thru 04/27/2013	n/a	Fox River, area rivers, streams, and creeks	countywide	15.14 ft. 04/18/2013 2nd highest crest on record		X	X	n/a	n/a	n/a	n/a	The Oswegoland Park District indicated that Hudson Crossing Park, Violet Patch Park on the Fox River and Fox Bend Golf Course were all flooded and cleanup was handled by park district staff

* Includes all events reported for the Village of Montgomery.

[1] Flood stage at gauge location is 13.5 feet, moderate flood stage is 15.0 feet and major flood stage is 16.0 feet.

[2] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 5
General Flood Events Reported in Kendall County*
1997 - 2022

Date(s)	Start Time	Water Body	Location(s)	Magnitude Flood Crest Fox River River Montgomery[1]	Impacts[2]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
					Home	Business	Infra-structure					
06/26/2013 thru 07/02/2013	9:44 PM	area rivers, streams, and creeks	countywide	---				n/a	n/a	n/a	n/a	
06/15/2015 thru 06/16/2015	n/a	Fox River, area rivers, streams, and creeks	countywide	14.37 ft. 06/15/2015 7th highest crest on record				n/a	n/a	n/a	n/a	
08/12/2016 thru 08/13/2016	11:09 PM	area rivers, streams, and creeks	countywide	---				n/a	n/a	n/a	n/a	
02/28/2017 thru 03/01/2017	9:09 PM	area rivers, streams, and creeks	southeastern portion of county	---				n/a	n/a	n/a	n/a	
04/30/2017 thru 05/02/2017	n/a	Fox River, area rivers, streams, and creeks	countywide	13.74 ft. 05/01/2017				n/a	n/a	n/a	n/a	
07/12/2017 thru 07/27/2017	n/a	Fox River	northern portion of county	14.21 ft. 07/23/2017 8th highest crest on record				n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Flood stage at gauge location is 13.5 feet, moderate flood stage is 15.0 feet and major flood stage is 16.0 feet.

[2] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

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1997 - 2022

Date(s)	Start Time	Water Body	Location(s)	Magnitude Flood Crest Fox River River Montgomery[1]	Impacts[2]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
					Home	Business	Infra-structure					
10/14/2017 thru 10/15/2017	n/a	Fox River, area rivers, streams, and creeks	countywide	13.71 ft. 10/15/2017				n/a	n/a	n/a	n/a	
02/20/2018 thru 02/21/2018	n/a	Fox River, area rivers, streams, and creeks	countywide	13.65 ft. 02/21/2018				n/a	n/a	n/a	n/a	
05/21/2018 thru 05/22/2018	n/a	Fox River	northern portion of county	13.60 ft. 05/21/2018				n/a	n/a	n/a	n/a	
05/30/2018 thru 05/31/2018	3:10 PM	area rivers, streams, and creeks	countywide	---	X		X	n/a	n/a	n/a	n/a	Residential flooding was reported in the Southbury subdivision in Oswego. The intersection of Southbury Blvd and Colchester Drive was flooded with water over the curb and up to the sidewalk.
06/22/2018 thru 06/29/2018	n/a	Fox River	northern portion of county	13.99 ft. 06/27/2018				n/a	n/a	n/a	n/a	
05/01/2019 thru 05/02/2019	n/a	Fox River	northern portion of county	13.68 ft. 05/01/2019				n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Flood stage at gauge location is 13.5 feet, moderate flood stage is 15.0 feet and major flood stage is 16.0 feet.

[2] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 5
General Flood Events Reported in Kendall County*
1997 - 2022

Date(s)	Start Time	Water Body	Location(s)	Magnitude Flood Crest Fox River River Montgomery[1]	Impacts[2]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
					Home	Business	Infra-structure					
05/09/2019 thru 05/10/2019	n/a	Fox River	northern portion of county	13.92 ft. 05/09/2019				n/a	n/a	n/a	n/a	
05/27/2019	n/a	Fox River, area rivers, streams, and creeks	northern portion of county	13.64 ft. 05/27/2019			X	n/a	n/a	n/a	n/a	Six to ten inches of standing water was reported on some neighborhood streets in Oswego.
06/30/2019	1:30 PM	area rivers, streams, and creeks	southeastern portion of county	---			X	n/a	n/a	n/a	n/a	Flooding was reported at the intersection of Holt and Ridge Roads near Minooka.
09/13/2019 thru 09/23/2019	n/a	Fox River	northern portion of county	13.68 ft. 09/22/2019				n/a	n/a	n/a	n/a	
09/28/2019 thru 09/29/2019	12:30 AM	area rivers, streams, and creeks	western portion of county	---				n/a	n/a	n/a	n/a	After flash flooding during the evening of September 27th, flood waters continued to slowly recede through the morning of September 29th.
10/02/2019 thru 10/12/2019	n/a	Fox River	northern portion of county	13.73 ft. 10/03/2019				n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Flood stage at gauge location is 13.5 feet, moderate flood stage is 15.0 feet and major flood stage is 16.0 feet.

[2] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 5
General Flood Events Reported in Kendall County*
1997 - 2022

Date(s)	Start Time	Water Body	Location(s)	Magnitude Flood Crest Fox River River Montgomery[1]	Impacts[2]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
					Home	Business	Infra-structure					
10/26/2019 thru 11/04/2019	8:44 PM	area rivers, streams, and creeks	countywide	---				n/a	n/a	n/a	n/a	
03/29/2020	n/a	Fox River	northern portion of county	13.62 ft. 03/29/2020				n/a	n/a	n/a	n/a	
04/29/2020 thru 05/02/2020	n/a	Fox River	northern portion of county	13.93 ft. 04/30/2020				n/a	n/a	n/a	n/a	
05/14/2020 thru 05/25/2020	n/a	Fox River, area rivers, streams, and creeks	countywide	14.66 ft. 05/18/2020 5th highest crest on record				n/a	n/a	n/a	n/a	
02/22/2022	12:45 PM	area rivers, streams, and creeks	countywide	---			X	n/a	n/a	n/a	n/a	Ditches were reported overflowing near River Road just west of Yorkville. Minor overbank flooding was reported along Hollenback Creek near Millbrook.

* Includes all events reported for the Village of Montgomery.

[1] Flood stage at gauge location is 13.5 feet, moderate flood stage is 15.0 feet and major flood stage is 16.0 feet.

[2] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 5
General Flood Events Reported in Kendall County*
1997 - 2022

Date(s)	Start Time	Water Body	Location(s)	Magnitude Flood Crest Fox River River Montgomery[1]	Impacts[2]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
					Home	Business	Infra-structure					
09/11/2022	6:15 AM	area rivers, streams, and creeks	countywide	---			X	n/a	n/a	n/a	n/a	Street flooding was reported in Oswego.
GRAND TOTAL:								**0**	**0**	**$92,293**	**$0**	

Sources: Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Planning Committee Member responses to the Natural Hazard Events Questionnaire.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Data.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.
NOAA, National Weather Service, River Observations, North Central River Forecast Center, Fox River at Montgomery.
United States Geological Survey, National Water Dashboard.

* Includes all events reported for the Village of Montgomery.

[1] Flood stage at gauge location is 13.5 feet, moderate flood stage is 15.0 feet and major flood stage is 16.0 feet.

[2] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 6
Flash Flood Events Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Impacts[1]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
			Home	Business	Infra-structure					
07/17/1996 thru 07/18/1996	6:00 PM	countywide			X	n/a	n/a	$1,500,000	n/a	***This event was part of a major federal disaster declaration (Declaration #1129)*** Kendall Township indicated that 14-17 inches of rain fell flooding homes and washing out culverts and bridges.
02/21/1997	8:14 AM	countywide				n/a	n/a	n/a	n/a	
07/10/2000	4:00 AM	countywide				n/a	n/a	n/a	n/a	
07/27/2003	12:00 PM	countywide			X	n/a	n/a	n/a	n/a	Street flooding was reported in Plano.
05/09/2004	7:13 PM	countywide				n/a	n/a	n/a	n/a	
05/13/2004	6:00 PM	countywide			X	n/a	n/a	n/a	n/a	Flooding was reported on High Point Road between Budd and Fox Roads in Yorkville. Deep standing water was reported on IL Rte. 126, half a mile east of IL Rte. 71.
05/30/2004	6:00 PM	countywide			X	n/a	n/a	n/a	n/a	Roads were flooded.
06/11/2004 thru 06/12/2004	11:25 PM	countywide			X	n/a	n/a	n/a	n/a	Water was flowing across US Rte. 34 in Plano and numerous roads were covered by high water in Oswego. Collins Road between Grove and Plainfield Roads was closed due to high water.
07/06/2004	7:00 PM	countywide				n/a	n/a	n/a	n/a	
08/28/2004	2:38 AM	countywide				n/a	n/a	n/a	n/a	
09/13/2006	3:40 AM	southern portion of county				n/a	n/a	n/a	n/a	
10/02/2006 thru 10/03/2006	10:32 PM	countywide				n/a	n/a	n/a	n/a	
07/18/2007 thru 07/19/2007	9:50 PM	countywide				n/a	n/a	n/a	n/a	

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^ Flash flood event verified in the vicinity of this location(s).
[1] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 6
Flash Flood Events Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Impacts[1]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
			Home	Business	Infra-structure					
08/20/2007	3:30 AM	countywide				n/a	n/a	n/a	n/a	
08/22/2007 thru 08/23/2007	9:56 PM	countywide				n/a	n/a	n/a	n/a	
08/23/2007 thru 08/24/2007	6:26 PM	countywide				n/a	n/a	n/a	n/a	
09/13/2008	1:28 AM	countywide				n/a	n/a	n/a	n/a	***This event was part of a major federal disaster declaration (Declaration #1800)***
09/14/2008	3:15 AM	countywide	X	X	X	n/a	n/a	$2,000,000	n/a	***This event was part of a major federal disaster declaration (Declaration #1800)*** In Oswego, Route 25 was flooded and closed between Oswego and Montgomery Roads. Several cars drove around the barricades and at least one car was swept into the Fox River. The driver was able to escape. Four miles south of Little Rock, Jetter Road was flooded and closed. Three occupants of a car were rescued after their car was swept into Big Rock Creek. In Plano, many roads were flooded and closed, including Hale Road, Main Street, Miller Road and Creek Road. Extensive flooding was reported along Rock Creek Road. The Farnsworth House in Plano was damaged by flood waters from the Fox River. Extensive flooding was reported in Millington. Part of Fox River Drive was washed away and 17 roads across Kendall County were closed due to flooding. Basement flooding was also reported.

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Table 6
Flash Flood Events Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Impacts[1]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
			Home	Business	Infra-structure					
12/27/2008	2:43 PM	countywide				n/a	n/a	n/a	n/a	Collins Road between Plainfield Road and Grove Road was flooded and impassable.
02/26/2009	7:59 PM	northeastern portion of county				n/a	n/a	n/a	n/a	
05/15/2009	5:46 PM	countywide				n/a	n/a	n/a	n/a	
06/02/2010	2:48 AM	countywide				n/a	n/a	n/a	n/a	
08/03/2010	5:30 AM	countywide			X	n/a	n/a	n/a	n/a	Several roads were flooded across parts of Kendall County including Route 52 and Grove Road; County Line Road at Caton Farm Road; Ridge Road and Caton Farm Road; on Morgan Drive in Oswego; and at Schlapp and Cherry Roads.
06/09/2011	5:33 AM	countywide				n/a	n/a	n/a	n/a	
07/23/2011	2:37 AM	eastern portion of county				n/a	n/a	n/a	n/a	
07/23/2011 thru 07/24/2011	11:43 PM	countywide				n/a	n/a	n/a	n/a	
05/06/2012 thru 05/07/2012	11:22 PM	southern portion of county				n/a	n/a	n/a	n/a	
08/04/2012	2:55 PM	countywide			X	n/a	n/a	n/a	n/a	One to two feet of water covered parts of Route 126 near Yorkville.
08/26/2012 thru 08/27/2012	7:54 PM	northeastern portion of county				n/a	n/a	n/a	n/a	

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Table 6
Flash Flood Events Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Impacts[1]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
			Home	Business	Infra-structure					
04/18/2013	6:00 AM	countywide	X		X	n/a	n/a	$535,584	n/a	*Event Description Provided Below*
This event was part of a major federal disaster declaration (Declaration #4116) ***This event was part of a state disaster proclamation*** Numerous roads were closed across the county due to flooding. Oswego indicated that flooding occurred village-wide causing residential flooding, blocking roadway acees and washing out culverts.								Public Assistance Figures for Kendall County totaled $535,584. Totals by Jurisdiction: $4,688 Lisbon-Seward FPD; $5,211 Lisbon Township; $6,302 Na-Au-Say Township; $131,263 Oswego; $39,897 Seward Township; $11,185 Kendall County; $57,708 Oswego CUSD #308; $6,020 Oswego FPD; $160,628 Oswegoland Park District; $1,878 Kendal County ETSB; $15,002 Oswego Township Road District; $68,215 Kendall County Forest Preserve District; $27,587 Big Grove Road District		
06/12/2013	5:40 PM	countywide				n/a	n/a	n/a	n/a	
11/17/2013	11:44 AM	eastern portion of county				n/a	n/a	n/a	n/a	
05/11/2014	6:57 PM	southern portion of county				n/a	n/a	n/a	n/a	
06/10/2015	6:49 PM	southeastern portion of county				n/a	n/a	n/a	n/a	
06/13/2015 thru 06/14/2015	6:25 PM	southern portion of county				n/a	n/a	n/a	n/a	
06/15/2015	6:09 PM	countywide				n/a	n/a	n/a	n/a	
06/22/2015 thru 06/23/2015	8:59 PM	countywide				n/a	n/a	n/a	n/a	
09/18/2015 thru 09/19/2015	5:32 PM	countywide				n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.
^ Flash flood event verified in the vicinity of this location(s).
[1] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 6
Flash Flood Events Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Impacts[1]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
			Home	Business	Infra-structure					
06/22/2016 thru 06/23/2016	8:52 PM	southern portion of county				n/a	n/a	n/a	n/a	
08/12/2016	5:51 PM	countywide				n/a	n/a	n/a	n/a	
07/12/2017	10:14 AM	northern portion of county				n/a	n/a	n/a	n/a	
10/14/2017 thru 10/15/2017	10:02 PM	countywide				n/a	n/a	n/a	n/a	
07/02/2019 thru 07/03/2019	8:30 PM	northeastern portion of county				n/a	n/a	n/a	n/a	
07/21/2019	10:39 PM	northern portion of county				n/a	n/a	n/a	n/a	
09/27/2019 thru 09/28/2019	7:30 PM	countywide			X	n/a	n/a	n/a	n/a	Interstate 80 was closed due to flooding near Minooka.
05/15/2020	12:11 AM	northern portion of county				n/a	n/a	n/a	n/a	
05/17/2020	4:15 PM	countywide			X	n/a	n/a	n/a	n/a	Multiple reports of flooded roads were received near 127th Street and Collins Road. Flood waters 12 to 18 inches deep were reported on Caton Farm and Ridge Roads. Flooding was reported on Interstate 80 near Ridge Road.
06/26/2021	11:00 AM	countywide			X	n/a	n/a	n/a	n/a	The intersection of Route 126 and Ridge Road was flooded and impassable.

* Includes all events reported for the Village of Montgomery.
^ Flash flood event verified in the vicinity of this location(s).
[1] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 6
Flash Flood Events Reported in Kendall County*
1996 - 2022

Date(s)	Start Time	Location(s)	Impacts[1]			Injuries	Fatalities	Property Damages	Crop Damages	Impacts/ Event Description
			Home	Business	Infra-structure					
08/25/2021 thru 08/26/2021	9:06 PM	northeastern portion of county				n/a	n/a	n/a	n/a	
GRAND TOTAL:						**0**	**0**	**$4,035,584**	**$0**	

Sources: Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Planning Committee Member responses to the Natural Hazard Events Questionnaire.
Iowa State University, Iowa Environmental Mesonet, National Weather Service Data, Search for Warnings.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Data.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.

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^ Flash flood event verified in the vicinity of this location(s).
[1] An "X" in the columns of Home, Business and Infrastructure indicates impacts occurred to those structure/infrastructure types during a general flood event. A detailed description of the type and magnitude of the impacts are included in the Impacts/Event Description column if available.

Table 7
Severe Winter Storm Events Reported in Kendall County*
1994 - 2022

Date(s)	Start Time	Event Type	Magnitude[1]					Observed Location(s)[2]	Injuries	Fatalities	Property Damages	Impacts/ Event Description
			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
01/26/1994 thru 01/27/1994	6:00 PM	Ice Storm		X	0.5 in.	X			n/a	n/a	n/a	Between 40,000 and 60,000 customers lost power, some for several days, across the region.
12/08/1995 thru 12/09/1995	12:00 PM	Winter Storm	4.0 in.				40 mph		n/a	n/a	n/a	Strong winds caused severe blowing and drifting of snow, especialy in open areas.
01/15/1997 thru 01/18/1997	6:00 AM	Winter Storm	6.0 in.				X		n/a	n/a	n/a	The snow was followed by windy and bitter cold weather. The combination of severe wind chill and blowing and drifting snow caused many schools to close.
02/16/1997	n/a	Heavy Snow	4.0 in.					Yorkville	n/a	n/a	n/a	
03/09/1998	4:00 AM	Winter Storm	8.0 in.				X		n/a	n/a	n/a	Strong winds combined with the heavy snow damaged power lines aand tree limbs throughout the area. More than 300,000 households lost power, with some places without electricity for up to 4 days.

* Includes all events reported for the Village of Montgomery.

[1] An "X" in the snow, freezing rain, ice, sleet and/or strong winds columns indicates the presences of that weather condition during the severe winter storm event.

[2] Observed Location information was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in the Midwestern Regional Climate Center's cli-MATE data system and NOAA's Storm Events Database.

Table 7
Severe Winter Storm Events Reported in Kendall County*
1994 - 2022

Date(s)	Start Time	Event Type	Magnitude[1]					Observed Location(s)[2]	Injuries	Fatalities	Property Damages	Impacts/ Event Description
			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
01/01/1999 thru 01/02/1999	7:00 PM	Heavy Snow	14.4 in.				50 mph		n/a	n/a	n/a	***This event was part of a federal emergency declaration (Declaration #3134)*** Heavy snow and blowing snow caused hazardous travel.
03/08/1999 thru 03/09/1999	5:00 PM	Winter Storm	8.0 in.				X		n/a	n/a	n/a	Strong east winds causd blowing and drifting of snow. There were many traffic accidents. Many schools closed.
01/19/2000 thru 01/20/2000	12:00 PM	Heavy Snow	6.0 in.					Newark	n/a	n/a	n/a	
02/18/2000	3:00 AM	Winter Storm	7.0 in.				30 mph	Newark	n/a	n/a	n/a	Numerous accidents due to slick road conditions and poor visibility were reported throughout northern Illinois.
12/11/2000 thru 12/12/2000	3:00 AM	Blizzard	8.0 in.				45 mph	Newark	n/a	n/a	n/a	***This event was part of a federal emergency declaration (Declaration #3161)***
12/14/2000	n/a	Heavy Snow	4.1 in.					Newark	n/a	n/a	n/a	***This event was part of a federal emergency declaration (Declaration #3161)***
01/31/2002	4:00 AM	Winter Storm	9.0 in.					Newark	n/a	n/a	n/a	The snow caused numerous car accidents.

* Includes all events reported for the Village of Montgomery.

[1] An "X" in the snow, freezing rain, ice, sleet and/or strong winds columns indicates the presences of that weather condition during the severe winter storm event.

[2] Observed Location information was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in the Midwestern Regional Climate Center's cli-MATE data system and NOAA's Storm Events Database.

Table 7
Severe Winter Storm Events Reported in Kendall County*
1994 - 2022

Date(s)	Start Time	Event Type	Magnitude[1]					Observed Location(s)[2]	Injuries	Fatalities	Property Damages	Impacts/ Event Description
			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
03/02/2002 thru 03/03/2002	8:00 PM	Heavy Snow	9.0 in.					Newark	n/a	n/a	n/a	
02/15/2003	n/a	Heavy Snow	4.0 in.					Newark	n/a	n/a	n/a	
03/04/2003 thru 03/05/2003	10:00 PM	Heavy Snow	4.7 in.					Newark	n/a	n/a	n/a	
01/05/2004	n/a	Heavy Snow	5.0 in.					Newark	n/a	n/a	n/a	
11/25/2004	n/a	Heavy Snow	4.5 in.					Yorkville	n/a	n/a	n/a	
01/04/2005 thru 01/06/2005	7:00 PM	Heavy Snow	5.5 in.					Newark Yorkville	n/a	n/a	n/a	
01/21/2005 thru 01/22/2005	5:00 PM	Heavy Snow	4.5 in.					Yorkville	n/a	n/a	n/a	
12/09/2005	n/a	Heavy Snow	4.7 in.					Newark Yorkville	n/a	n/a	n/a	
01/20/2006 thru 01/21/2006	6:00 PM	Heavy Snow	5.0 in.					Newark Yorkville	n/a	n/a	n/a	
03/06/2006	8:00 AM	Heavy Snow	5.0 in.					Yorkville	n/a	n/a	n/a	

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1994 - 2022

Date(s)	Start Time	Event Type	Magnitude[1]					Observed Location(s)[2]	Injuries	Fatalities	Property Damages	Impacts/ Event Description
			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
11/30/2006 thru 12/01/2006	8:00 PM	Winter Storm	6.0 in.	X		X			n/a	n/a	n/a	***This event was part of a federal emergency declaration (Declaration #3269)***
02/06/2007 thru 02/07/2007	7:00 AM	Heavy Snow	6.5 in.					Newark Yorkville	n/a	n/a	n/a	Numerous traffic accidents were reported across the area.
02/13/2007	2:00 AM	Blizzard	2.0 in.				35 mph	Newark	n/a	n/a	n/a	
02/25/2007 thru 02/26/2007	4:00 PM	Winter Storm	X in.		X	X	35 mph	Yorkville	n/a	n/a	n/a	Mixed precipitation occurred with accumulations of snow, sleet, and ice between 1 and 3 inches.
12/01/2007	11:00 AM	Ice Storm	X	X	0.5 in.	X			n/a	n/a	n/a	
12/05/2007	n/a	Heavy Snow	4.9 in.					Newark	n/a	n/a	n/a	
12/16/2007	n/a		4.5 in.					Yorkville	n/a	n/a	n/a	
01/29/2008	7:00 PM	Winter Storm	3.0 in.				35 mph		n/a	n/a	n/a	Heavy snow combined with wind gusts to create near blizzard conditions with numerous locations reporting visibility less than a quarter mile.
01/31/2008 thru 02/01/2008	12:00 PM	Heavy Snow	12.0 in.					Newark Yorkville	n/a	n/a	n/a	
02/04/2008	5:00 PM	Heavy Snow	4.0 in.					Yorkville	n/a	n/a	n/a	

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			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
12/17/2008	n/a	Heavy Snow	4.4 in.					Newark Oswego Yorkville	n/a	n/a	n/a	
12/18/2008 thru 12/19/2008	10:00 PM	Winter Storm	1.0 in.	X	0.3 in.	X		Yorkville	n/a	n/a	n/a	Snow, ice, and sleet caused numerous vehicle accidents and spinouts.
12/21/2008	1:00 AM	Blizzard	1.0 in.				40 mph		n/a	n/a	n/a	
12/24/2008	n/a	Heavy Snow	4.6 in.					Lisbon	n/a	n/a	n/a	
01/14/2009	12:00 AM	Heavy Snow	6.8 in.					Lisbon Oswego Yorkville Newark	n/a	n/a	n/a	
12/26/2009 thru 12/27/2009	3:00 AM	Heavy Snow	7.0 in.					Yorkville	n/a	n/a	n/a	
01/07/2010	n/a	Heavy Snow	4.0 in.					Lisbon	n/a	n/a	n/a	
02/22/2010	n/a	Heavy Snow	5.3 in.					Yorkville	n/a	n/a	n/a	
12/04/2010	n/a	Heavy Snow	4.8 in.					Lisbon Newark Yorkville	n/a	n/a	n/a	

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			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
12/11/2010 thru 12/12/2010	2:00 PM	Winter Storm	3.0 in.				55 mph		n/a	n/a	n/a	Very strong winds developed causing whiteout and near blizzard conditions in open spaces. Hundreds of accidents, spin outs and vehicles in ditches were reported across the area.
12/21/2010	n/a	Heavy Snow	4.5 in.					Oswego Yorkville	n/a	n/a	n/a	
02/01/2011 thru 02/02/2011	10:00 AM	Blizzard	18.1 in.				55 mph	Newark Yorkville	n/a	n/a	n/a	***This event was part of a state disaster procamation*** Many motorists and their vehicles became stranded as conditions deteriorated and snow quickly accumulated.
01/13/2012	n/a	Heavy Snow	6.2 in.					Newark Oswego Yorkville	n/a	n/a	n/a	
01/20/2012 thru 01/21/2012	10:00 AM	Heavy Snow	8.2 in.					Newark Oswego Yorkville	n/a	n/a	n/a	
02/27/2013	n/a	Heavy Snow	4.0 in.					Yorkville	n/a	n/a	n/a	
03/05/2013 thru 03/06/2013	6:00 AM	Heavy Snow	11.7 in.					Oswego Plainfield Yorkville	n/a	n/a	n/a	

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			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
01/02/2014	n/a	Heavy Snow	4.5 in.					Oswego	n/a	n/a	n/a	
01/04/2014 thru 01/06/2014	1:00 PM	Heavy Snow	10.3 in.				X	Oswego Plainfield Yorkville	n/a	n/a	n/a	***This event was part of a state disaster procamation*** Strong winds at times created blizzard-like conditions, reducing visibility to a few hundred feet or less.
01/26/2014 thru 01/27/2014	6:00 PM	Winter Storm	4.0 in.				58 mph		n/a	n/a	n/a	Winds gusting up to 58 mph at times led to temporary blizzard-like conditions that caused severe impacts to area roadways. Illinois State Police in District 5 serving Kendall, Grundy, and Will counties reported over 100 cars stuck and described I-57 as a wasteland.
02/05/2014	n/a	Heavy Snow	5.3 in.					Oswego Plainfield Yorkville	n/a	n/a	n/a	
02/09/2014	n/a	Heavy Snow	4.0 in.					Oswego	n/a	n/a	n/a	
02/17/2014 thru 02/18/2014	6:00 AM	Heavy Snow	7.1 in.					Oswego Plainfield Yorkville	n/a	n/a	n/a	

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			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
03/11/2014 thru 03/12/2014	10:00 PM	Heavy Snow	6.2 in.					Oswego Plainfield	n/a	n/a	n/a	
02/01/2015 thru 02/02/2015	12:00 AM	Winter Storm	16.8 in.				35 mph	Oswego Plainfield Yorkville	n/a	n/a	n/a	A period of blizzard to near blizzard conditions occurred in many locations.
03/24/2015	n/a	Heavy Snow	4.6 in.					Plainfield	n/a	n/a	n/a	
11/20/2015 thru 11/21/2015	5:00 PM	Heavy Snow	4.5 in.					Yorkville	n/a	n/a	n/a	
12/28/2015	3:00 AM	Sleet		X	X	X			n/a	n/a	n/a	Sleet mixed with freezing rain and snow occurred along and north of I-80.
12/04/2016 thru 12/05/2016	8:15 AM	Heavy Snow	7.0 in.					Lisbon Oswego Plainfield Yorkville	n/a	n/a	n/a	
02/08/2018 thru 02/09/2018	6:00 PM	Heavy Snow	10.0 in.					Lisbon Oswego Plainfield Yorkville	n/a	n/a	n/a	
02/11/2018	n/a	Heavy Snow	4.2 in.					Lisbon Oswego	n/a	n/a	n/a	

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			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
11/26/2018	n/a	Heavy Snow	5.0 in.					Plainfield Yorkville	n/a	n/a	n/a	
01/19/2019	n/a	Heavy Snow	5.4 in.					Oswego Yorkville	n/a	n/a	n/a	
01/28/2019	n/a	Heavy Snow	4.7 in.					Plainfield	n/a	n/a	n/a	***This event was part of a state disaster procamation***
02/11/2019 thru 02/12/2019	2:15 PM	Ice Storm		X	0.5 in.				n/a	n/a	n/a	Damage to tree limbs and power lines were reported in some areas.
02/13/2020	n/a	Heavy Snow	4.5 in.					Oswego	n/a	n/a	n/a	
03/23/2020	n/a	Heavy Snow	5.6 in.					Plainfield	n/a	n/a	n/a	
12/29/2020 thru 12/30/2020	2:45 PM	Winter Storm	5.0 in.	0.2 in.					n/a	n/a	n/a	
01/25/2021 thru 01/26/2021	4:00 PM	Heavy Snow	5.0 in.						n/a	n/a	n/a	
01/30/2021 thru 01/31/2021	3:00 PM	Heavy Snow	8.5 in.					Oswego Plainfield	n/a	n/a	n/a	
02/15/2021 thru 02/16/2021	3:00 PM	Heavy Snow	8.0 in.						n/a	n/a	n/a	***This event was part of a state disaster procamation***

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			Snow (inches)	Freezing Rain (inches)	Ice (inches)	Sleet (Inches)	Strong Wind (mph)					
02/01/2022 thru 02/02/2022	10:00 PM	Heavy Snow	8.8 in.					Oswego Plainfield	n/a	n/a	n/a	***This event was part of a state disaster procamation***
02/17/2022	11:00 AM	Winter Storm	3.0 in.				30 mph		n/a	n/a	n/a	Winds produced widespread blowing and drifting snow. Numerous traffic accidents were reported.
12/22/2022 thru 12/24/2022	9:30 AM	Winter Storm	3.0 in.				55 mph		n/a	n/a	n/a	Wind gusts produced widespread blowing snow and near whiteout conditions in many areas, espcially in rural and open areas.
GRAND TOTAL:									**0**	**0**	**$0**	

Sources: NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Cooperative Observation Forms.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.

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Table 8
Regional Extreme Cold/Wind Chill Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Impacts/Event Description
		Low (Min)	High (Max)	Wind Chill (Max)					
01/04/1995	n/a	-5 °F	8 °F	n/a	Aurora	n/a	n/a	n/a	
02/05/1995	n/a	-1 °F	13 °F	n/a	Aurora	n/a	n/a	n/a	
02/11/1995 thru 02/12/1995	n/a	-5 °F	16 °F	n/a	Aurora	n/a	n/a	n/a	
12/10/1995	n/a	-4 °F	11 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/30/1996 thru 02/05/1996	n/a	-22 °F	12 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/11/1997 thru 01/13/1997	n/a	-11 °F	12 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/17/1997 thru 01/18/1997	n/a	-13 °F	9 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/04/1999 thru 01/11/1999	n/a	-23 °F	25 °F	n/a	Aurora Morris	n/a	n/a	n/a	
12/23/1999	n/a	-4 °F	17 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/21/2000	n/a	-11 °F	11 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/24/2000	n/a	-8 °F	16 °F	n/a	Aurora Morris	n/a	n/a	n/a	

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		Low (Min)	High (Max)	Wind Chill (Max)					
12/18/2000	n/a	-15 °F	15 °F	n/a	Aurora Morris	n/a	n/a	n/a	
12/22/2000 thru 12/25/2000	n/a	-16 °F	20 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/02/2001	n/a	-10 °F	19 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/23/2003	1:00 AM	-7 °F	13 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
01/26/2003	n/a	-4 °F	18 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/28/2004 thru 01/31/2004	n/a	-9 °F	19 °F	-34 °F	Aurora Morris	n/a	n/a	n/a	
12/19/2005	n/a	-3 °F	14 °F	n/a	Aurora Morris	n/a	n/a	n/a	
02/18/2006 thru 02/19/2006	1:00 AM	-8 °F	8 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/04/2007 thru 02/10/2007	9:00 PM	-11 °F	15 °F	-35 °F	Aurora Morris	n/a	n/a	n/a	
02/15/2007 thru 02/16/2007	n/a	-6 °F	19 °F	n/a	Aurora Morris	n/a	n/a	n/a	

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		Low (Min)	High (Max)	Wind Chill (Max)					
01/02/2008 thru 01/03/2008	12:25 AM	-1 °F	17 °F	-20 °F	Aurora Morris	n/a	n/a	n/a	
01/19/2008 thru 01/20/2008	1:00 AM	-7 °F	8 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
01/24/2008 thru 01/25/2008	1:00 AM	-9 °F	4 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
01/30/2008 thru 01/31/2008	12:06 AM	-2 °F	17 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/10/2008 thru 02/11/2008	n/a	-5 °F	16 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/20/2008	1:00 AM	2 °F	17 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
12/21/2008 thru 12/22/2008	10:29 AM	-6 °F	8 °F	-40 °F	Aurora Morris	n/a	n/a	n/a	
01/14/2009 thru 01/16/2009	7:00 PM	-22 °F	13 °F	-45 °F	Aurora Morris	n/a	n/a	n/a	
01/25/2009	n/a	-9 °F	11 °F	n/a	Aurora Morris	n/a	n/a	n/a	

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		Low (Min)	High (Max)	Wind Chill (Max)					
02/04/2009	n/a	-2 °F	13 °F	n/a	Aurora	n/a	n/a	n/a	
01/01/2010 thru 01/03/2010	8:00 PM	-5 °F	16 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
01/10/2010	1:00 AM	-6 °F	17 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
12/13/2010	1:00 AM	-3 °F	14 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
01/21/2011 thru 01/22/2021	n/a	-6 °F	18 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/02/2011 thru 02/03/2011	10:00 PM	-6 °F	24 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/09/2011 thru 02/10/2011	n/a	-10 °F	16 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
01/21/2013 thru 01/22/2013	7:00 PM	-7 °F	13 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
01/31/2013 thru 02/01/2013	9:48 PM	0 °F	17 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	

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		Low (Min)	High (Max)	Wind Chill (Max)					
12/11/2013 thru 12/12/2013	7:00 PM	-7 °F	24 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
12/24/2013	n/a	-5 °F	15 °F	n/a	Aurora Morris	n/a	n/a	n/a	
12/29/2013 thru 12/30/2013	8:00 PM	-2 °F	14 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
01/02/2014 thru 01/03/2014	10:00 PM	-6 °F	16 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
01/05/2014 thru 01/08/2014	7:00 PM	-17 °F	18 °F	-50 °F	Aurora Morris	n/a	n/a	n/a	***This event was part of a state disaster proclamation***
01/22/2014 thru 01/24/2014	8:00 PM	-8 °F	17 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
01/27/2014 thru 01/29/2014	4:00 AM	-14 °F	6 °F	-45 °F	Aurora Morris	n/a	n/a	n/a	
02/03/2014 thru 02/04/2014	n/a	-9 °F	19 °F	n/a	Aurora Morris	n/a	n/a	n/a	

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		Low (Min)	High (Max)	Wind Chill (Max)					
02/06/2014 thru 02/11/2014	1:00 AM	-15 °F	15 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/26/2014	1:00 AM	-2 °F	n/a	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/27/2014	1:00 AM	-1 °F	10 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
03/03/2014	1:00 AM	-5 °F	9 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
01/05/2015 thru 01/09/2015	1:00 AM	-10 °F	20 °F	-40 °F	Aurora Morris	n/a	n/a	n/a	
02/06/2015	n/a	-4 °F	19 °F	n/a	Aurora Morris	n/a	n/a	n/a	
02/14/2015 thru 02/15/2015	9:00 PM	-3 °F	17 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/18/2015 thru 02/20/2015	7:00 PM	-9 °F	8 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/23/2015 thru 02/24/2015	1:00 AM	-6 °F	19 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
02/27/2015	3:00 AM	-7 °F	14 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 8
Regional Extreme Cold/Wind Chill Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Impacts/Event Description
		Low (Min)	High (Max)	Wind Chill (Max)					
12/14/2016 thru 12/15/2016	10:00 PM	-3 °F	16 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
03/06/2014	n/a	-1 °F	15 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/11/2016	n/a	-1 °F	12 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/17/2016 thru 01/18/2016	10:00 PM	-5 °F	9 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
12/16/2016	n/a	-3 °F	16 °F	n/a	Aurora Morris	n/a	n/a	n/a	
12/18/2016 thru 12/19/2016	7:00 AM	-10 °F	5 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
01/06/2017 thru 01/07/2016	n/a	-5 °F	19 °F	n/a	Aurora Morris	n/a	n/a	n/a	
12/26/2017 thru 01/07/2018	7:00 PM	-16 °F	19 °F	-40 °F	Aurora Morris	n/a	n/a	n/a	
02/06/2018	n/a	-5 °F	11 °F	n/a	Aurora Morris	n/a	n/a	n/a	
01/21/2019	n/a	-1 °F	14 °F	n/a	Aurora Morris	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 8
Regional Extreme Cold/Wind Chill Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Impacts/Event Description
		Low (Min)	High (Max)	Wind Chill (Max)					
01/24/2019 thru 01/26/2019	7:00 PM	-13 °F	11 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
01/27/2019	1:00 AM	-9 °F	n/a	-25 °F	Aurora Morris	n/a	n/a	n/a	
01/29/2019 thru 01/31/2019	4:41 AM	-25 °F	7 °F	-60 °F	Aurora Morris	n/a	n/a	n/a	***This event was part of a state disaster proclamation*** The Kendall County Public Health Administrator indicated that school and government officers were closed January 30th and 31st
03/04/2019	n/a	-4 °F	15 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
01/18/2020 thru 01/19/2020	10:00 PM	1 °F	16 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
02/13/2020 thru 02/14/2020	9:00 PM	-7 °F	18 °F	-20 °F	Aurora Morris	n/a	n/a	n/a	
02/07/2021 thru 02/17/2021	1:00 AM	-12 °F	19 °F	-35 °F	Aurora Morris	n/a	n/a	n/a	
01/06/2022 thru 01/07/2022	10:00 PM	-5 °F	17 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 8
Regional Extreme Cold/Wind Chill Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Impacts/Event Description
		Low (Min)	High (Max)	Wind Chill (Max)					
01/25/2022 thru 01/26/2022	9:00 PM	-12 °F	10 °F	-30 °F	Aurora Morris	n/a	n/a	n/a	
12/22/2022 thru 12/25/2022	10:00 PM	-10 °F	15 °F	-25 °F	Aurora Morris	n/a	n/a	n/a	
02/03/2023	12:00 AM	1 °F	19 °F	-20 °F	Aurora Morris	n/a	n/a	n/a	
GRAND TOTAL:						**0**	**0**	**$0**	

Sources: Iowa State University, Iowa Environmental Mesonet, National Weather Service Data, Search for Warnings.
Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Planning Committee Member responses to the Natural Hazard Events Questionnaire.
Midwestern Regional Climate Center, cli-MATE.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Cooperative Observation Forms.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.

* Includes all events reported for the Village of Montgomery.
[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 9
Regional Excessive Heat Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
		Day (Max)	Night (Min)	Heat Index (Max)						
06/20/1995	n/a	94 °F	74 °F	n/a	Aurora	n/a	n/a	n/a	n/a	
07/11/1995 thru 07/16/1995	n/a	102 °F	70 °F	n/a	Aurora	n/a	n/a	n/a	n/a	
07/29/1995 thru 07/30/1995	n/a	94 °F	72 °F	n/a	Aurora	n/a	n/a	n/a	n/a	
08/11/1995 thru 08/13/1995	n/a	96 °F	69 °F	n/a	Aurora	n/a	n/a	n/a	n/a	
06/30/1996	n/a	93 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/23/1997 thru 06/24/1997	n/a	96 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/14/1997	n/a	94 °F	69 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/25/1998 thru 06/27/1998	n/a	96 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/21/1998	n/a	94 °F	75 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/04/1999 thru 07/05/1999	n/a	94 °F	74 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 9
Regional Excessive Heat Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
		Day (Max)	Night (Min)	Heat Index (Max)						
07/21/1999 thru 07/25/1999	11:00 AM	95 °F	70 °F	111 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/28/1999 thru 07/31/1999	11:00 AM	101 °F	70 °F	105 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/21/2001 thru 07/23/2001	n/a	98 °F	66 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/31/2001 thru 08/01/2001	n/a	95 °F	69 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
08/08/2001	n/a	96 °F	71 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/21/2002 thru 06/23/2002	n/a	95 °F	69 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/30/2002 thru 07/04/2002	n/a	96 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/08/2002	n/a	95 °F	71 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/21/2002 thru 07/22/2002	n/a	99 °F	71 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	

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Table 9
Regional Excessive Heat Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
		Day (Max)	Night (Min)	Heat Index (Max)						
08/01/2002	n/a	95 °F	72 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/04/2003	n/a	96 °F	71 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
08/26/2003	n/a	93 °F	71 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/24/2005 thru 06/29/2005	n/a	97 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/17/2005 thru 07/18/2005	n/a	96 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
05/28/2006	n/a	95 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/16/2006 thru 07/17/2006	1:00 PM	95 °F	73 °F	105 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/29/2006 thru 08/02/2006	n/a	99 °F	73 °F	110 °F	Aurora Morris	n/a	n/a	n/a	n/a	
06/23/2009 thru 06/25/2009	11:00 AM	95 °F	72 °F	105 °F	Aurora Morris	n/a	n/a	n/a	n/a	
08/09/2009	12:00 PM	90 °F	73 °F	105 °F	Aurora Morris	n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 9
Regional Excessive Heat Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
		Day (Max)	Night (Min)	Heat Index (Max)						
07/23/2010	10:00 AM	92 °F	71 °F	105 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/28/2010	n/a	90 °F	73 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
08/10/2010 thru 08/13/2010	na	93 °F	71 °F	110 °F	Aurora Morris	n/a	n/a	n/a	n/a	
06/07/2011	n/a	95 °F	73 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/01/2011	3:00 PM	92 °F	72 °F	105 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/18/2011 thru 07/22/2011	11:00 AM	99 °F	70 °F	120 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/23/2011 thru 07/24/2011	10:00 AM	94 °F	71 °F	110 °F	Morris	n/a	n/a	n/a	n/a	
07/28/2011 thru 07/29/2011	10:00 AM	92 °F	72 °F	105 °F	Morris	n/a	n/a	n/a	n/a	
08/01/2011 thru 08/03/2011	n/a	92 °F	73 °F	110 °F	Aurora Morris	n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 9
Regional Excessive Heat Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
		Day (Max)	Night (Min)	Heat Index (Max)						
09/01/2011 thru 09/02/2011	n/a	95 °F	69 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
05/28/2012	n/a	98 °F	73 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/19/2012 thru 06/21/2012	n/a	94 °F	71 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/28/2012	12:00 PM	100 °F	75 °F	110 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/03/2012 thru 07/08/2012	11:00 AM	103 °F	71 °F	118 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/16/2012 thru 07/19/2012	n/a	101 °F	71 °F	105 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/23/2012	n/a	92 °F	72 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/25/2012	11:00 AM	102 °F	72 °F	110 °F	Aurora Morris	n/a	n/a	n/a	n/a	
08/04/2012	n/a	96 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/15/2013 thru 07/20/2013	n/a	95 °F	70 °F	109 °F	Aurora Morris	n/a	n/a	n/a	n/a	

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Table 9
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1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
		Day (Max)	Night (Min)	Heat Index (Max)						
08/28/2013	n/a	93 °F	74 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
09/11/2013	n/a	97 °F	73 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/18/2014	n/a	92 °F	75 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/18/2015 thru 07/19/2015	10:00 AM	93 °F	71 °F	110 °F	Aurora Morris	n/a	n/a	n/a	n/a	
09/07/2015	n/a	94 °F	71 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/21/2016 thru 07/24/2016	12:00 PM	94 °F	70 °F	113 °F	Aurora Morris	n/a	n/a	n/a	n/a	
08/12/2016	n/a	92 °F	73 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
09/07/2016	n/a	93 °F	73 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/12/2017 thru 06/14/2017	n/a	97 °F	69 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
09/23/2017	n/a	95 °F	69 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
05/28/2018	n/a	100 °F	69 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 9
Regional Excessive Heat Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
		Day (Max)	Night (Min)	Heat Index (Max)						
06/16/2018 thru 06/18/2018	12:00 PM	96 °F	71 °F	110 °F	Aurora Morris	n/a	n/a	n/a	n/a	
06/29/2018 thru 07/01/2018	11:00 AM	95 °F	71 °F	120 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/04/2018	12:00 PM	91 °F	72 °F	105 °F	Aurora Morris	n/a	n/a	n/a	n/a	
08/05/2018 thru 08/06/2018	n/a	94 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
08/27/2018 thru 08/28/2018	11:00 AM	95 °F	70 °F	109 °F	Aurora Morris	n/a	n/a	n/a	n/a	
07/03/2019 thru 07/06/2019	n/a	94 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/14/2019 thru 07/15/2019	n/a	92 °F	69 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/18/2019 thru 07/21/2019	3:00 PM	95 °F	70 °F	118 °F	Aurora Morris	n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 9
Regional Excessive Heat Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
		Day (Max)	Night (Min)	Heat Index (Max)						
07/07/2020 thru 07/08/2020	n/a	94 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
07/18/2020	12:00 PM	90 °F	73 °F	105 °F	Morris	n/a	n/a	n/a	n/a	
08/26/2020 thru 08/28/2020	n/a	93 °F	71 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
08/11/2021	12:00 PM	93 °F	69 °F	110 °F	Aurora Morris	n/a	n/a	n/a	n/a	
08/24/2021 thru 08/25/2021	1:00 PM	95 °F	69 °F	106 °F	Aurora Morris	n/a	n/a	n/a	n/a	
08/28/2021 thru 08/29/2021	n/a	92 °F	70 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
06/14/2022 thru 06/15/2022	3:46 AM	98 °F	71 °F	110 °F	Aurora Morris	n/a	n/a	n/a	n/a	
06/21/2022	1:20 PM	98 °F	71 °F	108 °F	Aurora Morris	n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 9
Regional Excessive Heat Events Reported in Kendall County*
1995 - 2022

Date(s)	Start Time	Magnitude - Temperature °F			Observed Location(s)[1]	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
		Day (Max)	Night (Min)	Heat Index (Max)						
07/05/2022	12:00 PM	97 °F	66 °F	110 °F	Morris	n/a	n/a	n/a	n/a	
08/07/2022	n/a	93 °F	71 °F	n/a	Aurora Morris	n/a	n/a	n/a	n/a	
GRAND TOTAL:						**0**	**0**	**$0**	**$0**	

Sources: Iowa State University, Iowa Environmental Mesonet, National Weather Service Data, Search for Warnings.
Midwestern Regional Climate Center, cli-MATE.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Cooperative Observation Forms.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.

* Includes all events reported for the Village of Montgomery.

[1] Observed Location information, if available, was obtained from NWS's COOP Observation Station records as well as other officially-designated sources identified in NOAA's Storm Events Database and the Midwestern Regional Climate Center's cli-MATE data system.

Table 10
Tornadoes Reported in Kendall County*
1950 - 2022

Map No.	Date(s)	Start Time	Location(s)	Magnitude Fujita Scale	Length (Miles)[1]	Width (Yards)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
1	08/06/1958	5:10 PM	Montgomery	F 2	2.0 mi.	70 yd.	n/a	n/a	$250,000	n/a	
2	08/15/1958	2:00 AM	Millbrook^ Milbrook Yorkville Joliet	F 2	18.6 mi.	100 yd.	n/a	n/a	n/a	n/a	*Touchdown/Liftoff – Multiple Counties* Touched down in Lee County west of Eldena and traveled southeast through DeKalb, La Salle and Kendall Counties before lifting off near Joliet in Will County – total length: 74.5 miles
3	09/26/1959	7:30 PM	Oswego^ Oswego	F 1	3.0 mi.	10 yd.	n/a	n/a	$25,000	n/a	Destroyed a large barn
4	04/06/1972	8:30 PM	Oswego^ Plainfield^ Plainfield	F 1	4.0 mi.	50 yd.	n/a	n/a	$25,000	n/a	*Touchdown/Liftoff – Two Counties* Touched down in Kendall County southeas of Osewego and traveled southeast before lifting off east Joliet in unincorporateed Will County – total length: 10.7 miles

* Includes all events reported for the Village of Montgomery.
[1] The length provided is only for the portion(s) of the tornado that occurred in the County.
^ Tornado touchdown verified in the vicinity of this location(s).

Table 10
Tornadoes Reported in Kendall County*
1950 - 2022

Map No.	Date(s)	Start Time	Location(s)	Magnitude Fujita Scale	Length (Miles)[1]	Width (Yards)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
5	07/17/1972	4:45 PM	Minooka Minooka^	F 3	3.1 mi.	200 yd.	n/a	n/a	n/a	n/a	*Touchdown/Liftoff – Multiple Counties* Touched down in Marshall County just south of Camp Grove and traveled northeast through Putnam, La Salle, Grundy, and Kendall Counties before lifting off at Joliet in Will County – total length: 81.5 miles
6	03/12/1976	12:50 PM	Oswego^ Plainfield^	F 3	7.0 mi.	30 yd.	n/a	n/a	$2,500,000	n/a	*Touchdown/Liftoff – Multiple Counties* Touched down in Kendall County south of Osewego and traveled northeast through the northwest corner of Will before lifting off at Lombard in DuPage County – total length: 22.6 miles Several homes were destroyed or heavily damaged in a subdivision near Oswego, with the most intense damage occurring in this area
7	06/30/1977	8:45 AM	Milbrook^ Yorkville^	F U	3.0 mi.	177 yd.	n/a	n/a	n/a	n/a	

* Includes all events reported for the Village of Montgomery.
[1] The length provided is only for the portion(s) of the tornado that occurred in the County.
^ Tornado touchdown verified in the vicinity of this location(s).

Table 10
Tornadoes Reported in Kendall County*
1950 - 2022

Map No.	Date(s)	Start Time	Location(s)	Magnitude Fujita Scale	Length (Miles)[1]	Width (Yards)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
8	06/30/1977	9:10 AM	Yorkville Yorkville^	F U	1.7 mi.	350 yd.	n/a	n/a	n/a	n/a	
9	04/27/1984	5:39 PM	Joliet Plainfield	F 3	5.0 mi.	200 yd.	n/a	n/a	n/a	n/a	*Touchdown/Liftoff – Two Counties* Touched down in Kendall County southeast of Osewego and traveled southeast before lifting off just east of Plainfield in unincorporated Will County – total length: 9.0 miles
10	06/15/1985	5:00 PM	Minooka	F 0	3.3 mi.	10 yd.	n/a	n/a	n/a	n/a	*Touchdown/Liftoff – Multiple Counties* Touched down in Grundy County west of Minooka and traveled northeast through the southeast corner of Kendall County before lifting off at Joliet in Will County – total length: 13.0 miles
11	06/05/1989	12:05 PM	Yorkville^	F 0	0.1 mi.	10 yd.	n/a	n/a	$0	n/a	Kendall County Sheriff reported seeing a tornado touch down and stir up dust in an open field near IL Rte. 71 and Pavillion Road.

* Includes all events reported for the Village of Montgomery.
[1] The length provided is only for the portion(s) of the tornado that occurred in the County.
^ Tornado touchdown verified in the vicinity of this location(s).

Table 10
Tornadoes Reported in Kendall County*
1950 - 2022

Map No.	Date(s)	Start Time	Location(s)	Magnitude Fujita Scale	Length (Miles)[1]	Width (Yards)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
12	08/28/1990	2:30 PM	Oswego Oswego^ Plainfield^ Plainfield	F 5	5.2 mi.	600 yd.	n/a	n/a	$250,000	n/a	***This event was part of a federally-declared disaster Declaration #878*** *Touchdown/Liftoff – Two Counties* Touched down in Kendall County at Oswego and traveled southeast before lifting off at Joliet in Will County – total length: 16.4 miles Tornado first touched down at Oswego, damaging several buildings. The tornado moved southeast across crop land roughly parallel to US Route 30. The first 4 to 5 miles the tornado was F1 and F2 across rural areas, then became F3 as it crossed into Will County.

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[1] The length provided is only for the portion(s) of the tornado that occurred in the County.
^ Tornado touchdown verified in the vicinity of this location(s).

Table 10
Tornadoes Reported in Kendall County*
1950 - 2022

Map No.	Date(s)	Start Time	Location(s)	Magnitude Fujita Scale	Length (Miles)[1]	Width (Yards)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
13	05/28/2003	2:39 PM	Yorkville^	F 0	1.0 mi.	50 yd.	n/a	n/a	$0	n/a	A weak tornado touched down 2 miles west of Bristol near Route 47 in northern Kendall county. The tornado was on the ground for 2 minutes. No damage was reported.
14	05/30/2003	6:35 PM	Millbrook^	F 0	1.0 mi.	100 yd.	n/a	n/a	n/a	n/a	*Touchdown/Liftoff – Two Counties* Touched down in LaSalle County southeast of Somonauk and traveled east before lifting off west of Milbrook in Kendall County – total length: 2.5 miles
15	05/30/2003	6:42 PM	Millbrook^ Yorkville	F 0	3.5 mi.	100 yd.	n/a	n/a	n/a	n/a	A tree was damaged at Hollenback Road and Route 71. A large tree was snapped at Walker Road and Helmar Road. A large farm building collapased just south of Walker Road and east of Lisbon Road.

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^ Tornado touchdown verified in the vicinity of this location(s).

Table 10
Tornadoes Reported in Kendall County*
1950 - 2022

Map No.	Date(s)	Start Time	Location(s)	Magnitude Fujita Scale	Length (Miles)[1]	Width (Yards)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
16	07/27/2003	12:26 PM	Yorkville	F 0	1.0 mi.	100 yd.	n/a	n/a	n/a	n/a	A weak tornado touchdown near the Hideaway Lake Camp. Numerous trees were damaged and some were blown down. Damage occurred to several trailers and campers from the falling trees and tree limbs. The tornado appeared to skip along the ground with the strongest winds staying aloft affecting mainly the trees.
17	06/30/2014	8:38 PM	Newark^	EF 1	1.15 mi.	50 yd.	n/a	n/a	$50,000	n/a	The Kendall County Forest Preserve District identified $50,000 in damages to its roof, downed trees and power lines. Concentrated damage was also found at two farmsteads including the destruction of an outbuilding and large trees snapped at their bases.

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^ Tornado touchdown verified in the vicinity of this location(s).

Table 10
Tornadoes Reported in Kendall County*
1950 - 2022

Map No.	Date(s)	Start Time	Location(s)	Magnitude Fujita Scale	Length (Miles)[1]	Width (Yards)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
18	05/27/2019	12:47 PM	Yorkville^	EF 0	0.97 mi.	30 yd.	n/a	n/a	n/a	n/a	A tornado briefly touched down near the intersection of Walker Road and Ashley Road. A video of the tornado showed it kicked up dust in an open field. No damage was reported.
19	05/17/2020	2:15 PM	Millbrook^ Sandwich^	EF U	0.69 mi.	25 yd.	n/a	n/a	n/a	n/a	A brief tornado touched down. No damage was reported.
20	05/23/2020	1:57 PM	Minooka Minooka^	EF 0	2.07 mi.	100 yd.	n/a	n/a	n/a	n/a	*Touchdown/Liftoff – Multiple Counties* Touched down in Grundy County on the west side of Minooka and traveled northeast through the southeast corner of Kendall County before lifting off just north of Channahon in unincorporated Will County – total length: 6.3 miles Two wooden utility poles were blown down along with a half dozen large trees and numerous large tree limbs

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[1] The length provided is only for the portion(s) of the tornado that occurred in the County.
^ Tornado touchdown verified in the vicinity of this location(s).

Table 10
Tornadoes Reported in Kendall County*
1950 - 2022

Map No.	Date(s)	Start Time	Location(s)	Magnitude Fujita Scale	Length (Miles)[1]	Width (Yards)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
21	08/10/2020	2:15 PM	Yorkville Plainfield Joilet	EF 1	10.47 mi.	250 yd.	n/a	n/a	$50,000	n/a	*Event Description Provided Below*

Touchdown/Liftoff – Two Counties
Touched down in Kendall County at Yorkville and traveled southeast before lifting off near Joliet in unincorporated Will County – total length: 14.45 miles
A tornado touched down near Walsh Drive, just north of Route 71.
A pergola was destroyed, siding was ripped off a house and parts of a fence and a tree were thrown over a road.
Eyewitness accounts indicated the debris was lifted and twirled.
The tornado continued moving east southeast producing damage to trees along Rte 126.
The most significant damage was found east of Schlapp Road along Wheeler Road where trees were mangled, a farm building was destroyed with debris deposited in a nearby field and a large grain bin was bent inward
Wood panels were thrown into the ground leaving scour marks in the grass.
Six utility poles were snapped along Ridge Road and a 1000-1500 pound auger was moved about 50 feet.

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^ Tornado touchdown verified in the vicinity of this location(s).

Table 10
Tornadoes Reported in Kendall County*
1950 - 2022

Map No.	Date(s)	Start Time	Location(s)	Magnitude Fujita Scale	Length (Miles)[1]	Width (Yards)	Injuries	Fatalities	Property Damages	Crop Damages	Impacts/Event Description
22	11/05/2022	10:06 AM	Little Rock	EF 0	0.20 mi.	100 yd.	n/a	n/a	n/a	n/a	*Touchdown/Liftoff – Two Counties* Touched down in Kendall County at Little Rock and traveled north-northeast before lifting off at Big Rock in Kane County – total length: 3.7 miles Sporadic tree and power line damage occurred along its path.
GRAND TOTAL:							**0**	**0**	**$3,150,000**	**$0**	

Sources: Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Planning Committee Member responses to the Natural Hazard Events Questionnaire.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Data.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.
NOAA, National Weather Service, Storm Prediction Center, SVRGIS, Tornadoes (1950-2021) Database.

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[1] The length provided is only for the portion(s) of the tornado that occurred in the County.
^ Tornado touchdown verified in the vicinity of this location(s).

Table 11
Drought Events Reported in Kendall County*
1980 - 2022

Year(s)	Start Month	Duration (Months)	Magnitude Drought Intensity Category[1]					Percent Crop Yield Reduction from Previous Year		Designated USDA Primary Natural Disaster Area	Crop Damages	Impacts/Event Description
			D0	D1	D2	D3	D4	Corn	Soybeans			
1983	n/a	n/a						34.3 %	5.1 %	n/a	n/a	All 102 counties in Illinois were proclaimed state disaster areas because of high temperatures and insufficient precipitation beginning in mid-June
1988	June	16						46.3 38	26.1 %	n/a	n/a	Approximately half of all Illinois counties were impacted by drought conditions
2005 - 2006	May	12	X	X	X	X		39.6 %	21.2 %	Yes	$2,590,557 ^	
2012 - 2013	June	9.5	X	X	X			38.1 %	20.0 %	Yes	$25,201,398 ^	
GRAND TOTAL:											**$27,791,955 ***	

Sources: Illinois State Water Survey, Illinois State Climatologist.
National Drought Mitigation Center, United States Drought Monitor.
NOAA, National Environmental Satellite, Data & Information Service, National Centers for Environmental Information, Storm Events Database.
United States Department of Agriculture, National Agricultural Statistics Service, Quik Stats Lite.

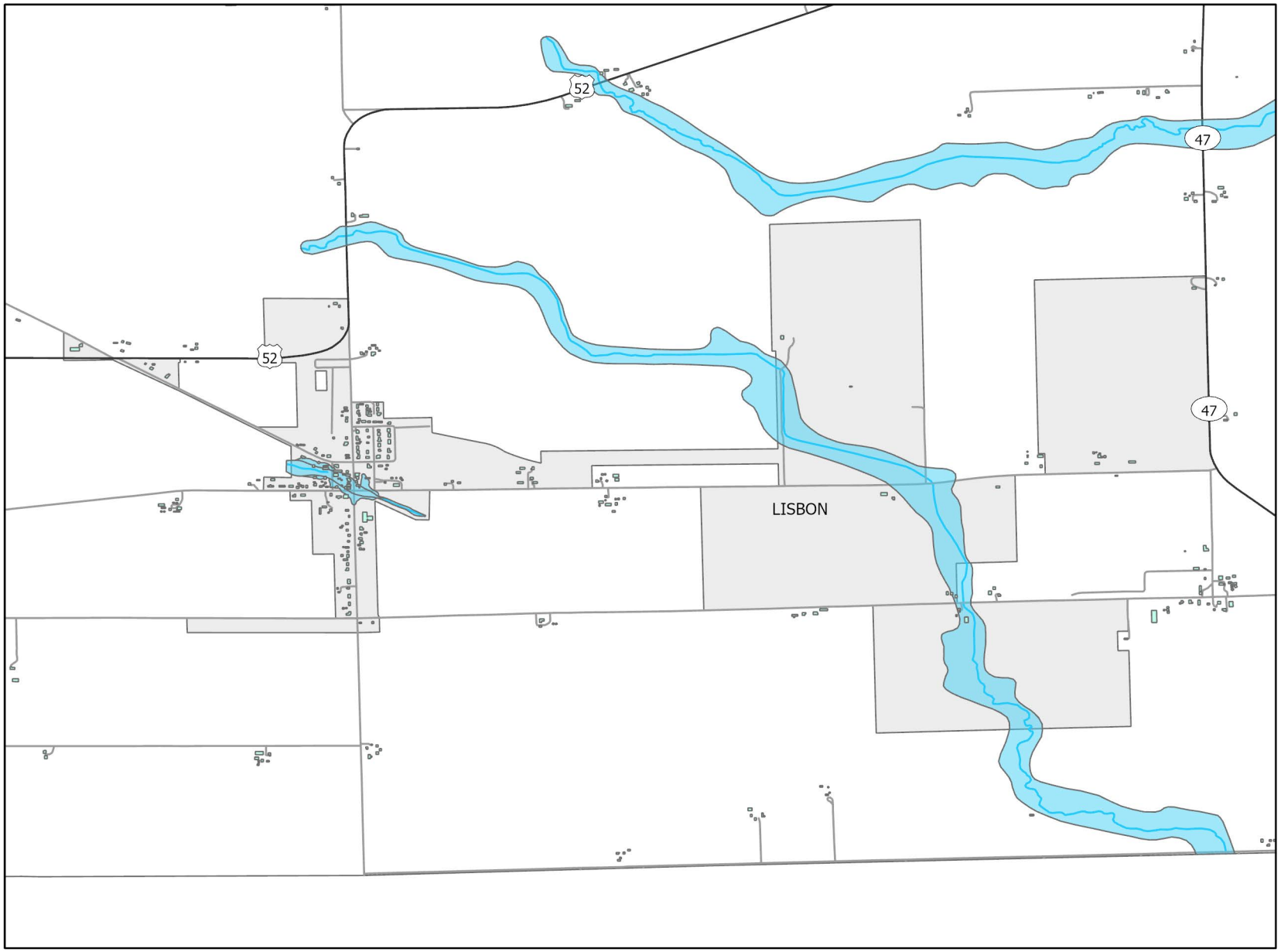
* Includes all events reported for the Village of Montgomery.
^ Crop Damage figures were obtained from USDA Risk Management Agency and only represent losses sustained by insured crops.
[1] An "X" identifies the level of drought intensity reached by at least a portion of the County during the event, if available.

US Drought Monitor – Drought Intensity Category Descriptions

D0	abnormally dry	D3	extreme drought
D1	moderate drought	D4	exceptional drought
D2	severe drought		

APPENDIX K

Lisbon



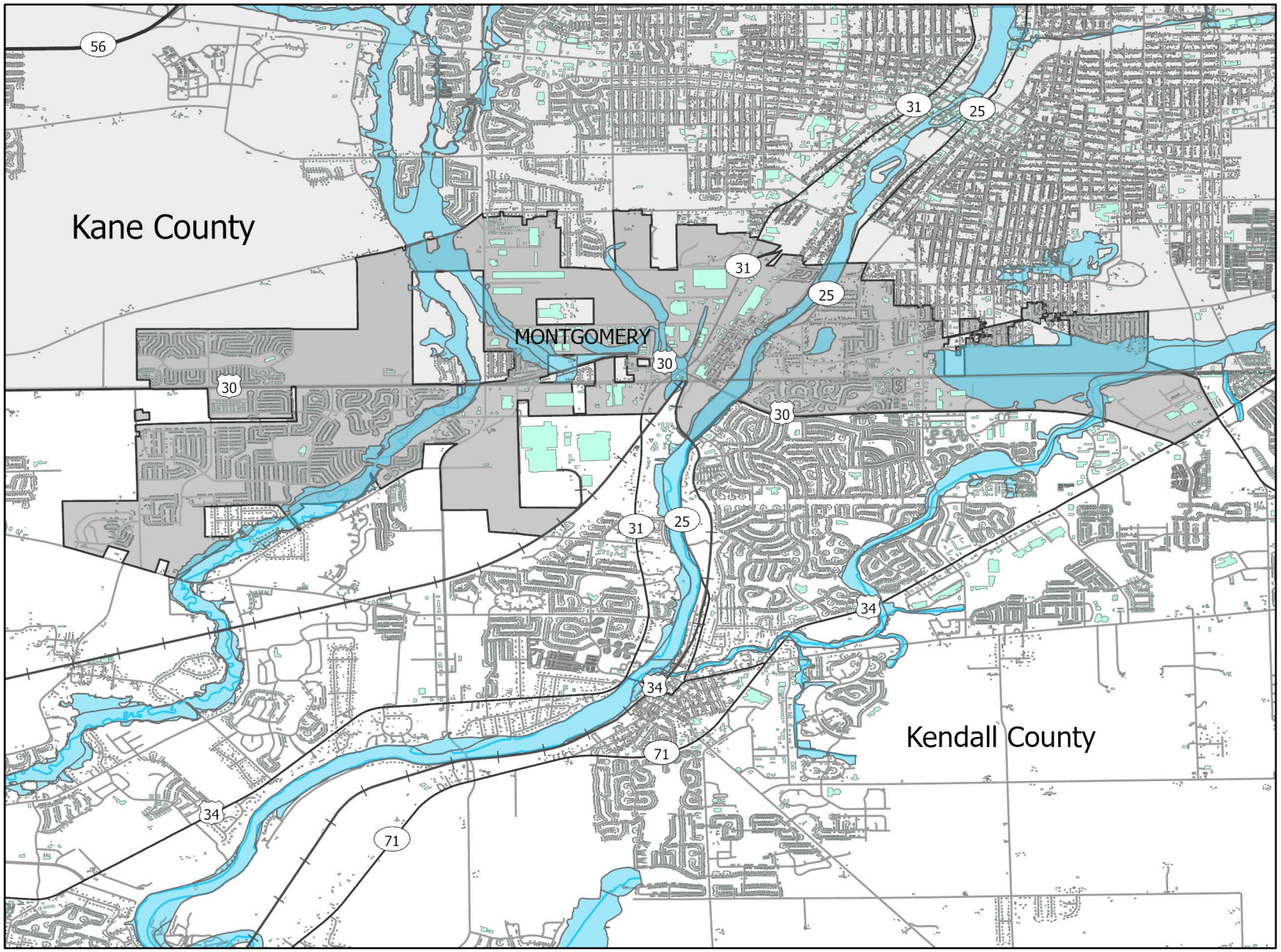
N

100 Year Floodplain
Building Footprints
Municipal Boundaries
Rivers/Streams
Interstates
US/State Routes
Roadways
Railroads

0 0.5 1 2 Miles

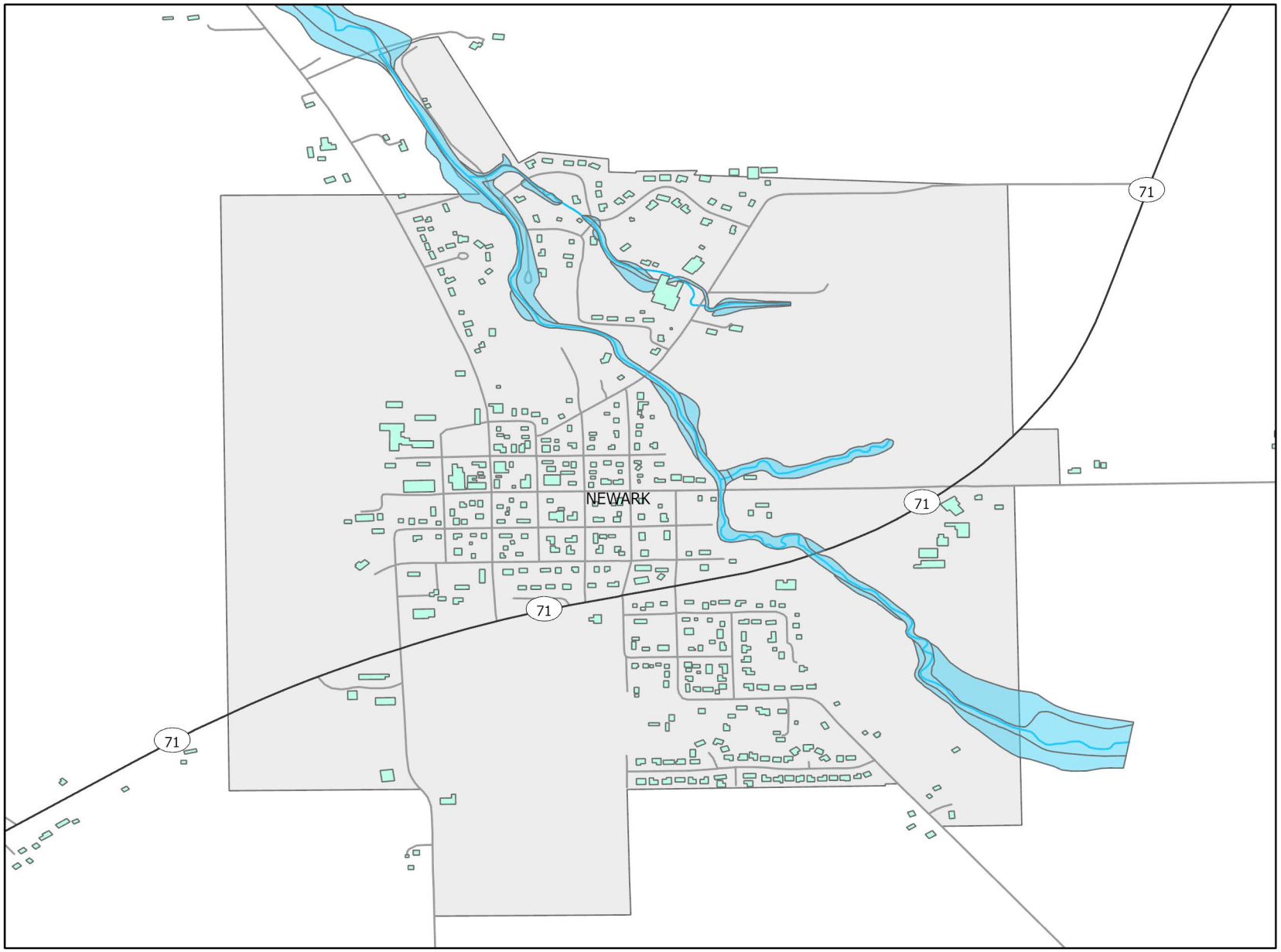
Map Created December 2023 in ArcGIS by Callie Smith at American Environmental Corporation
Sources: Esri, HERE, Garmin, SafeGraph, MET/NASA, USGE, EPA, NPS, USDA, Esri, NASA, NGA, USGS, FEMA

Montgomery



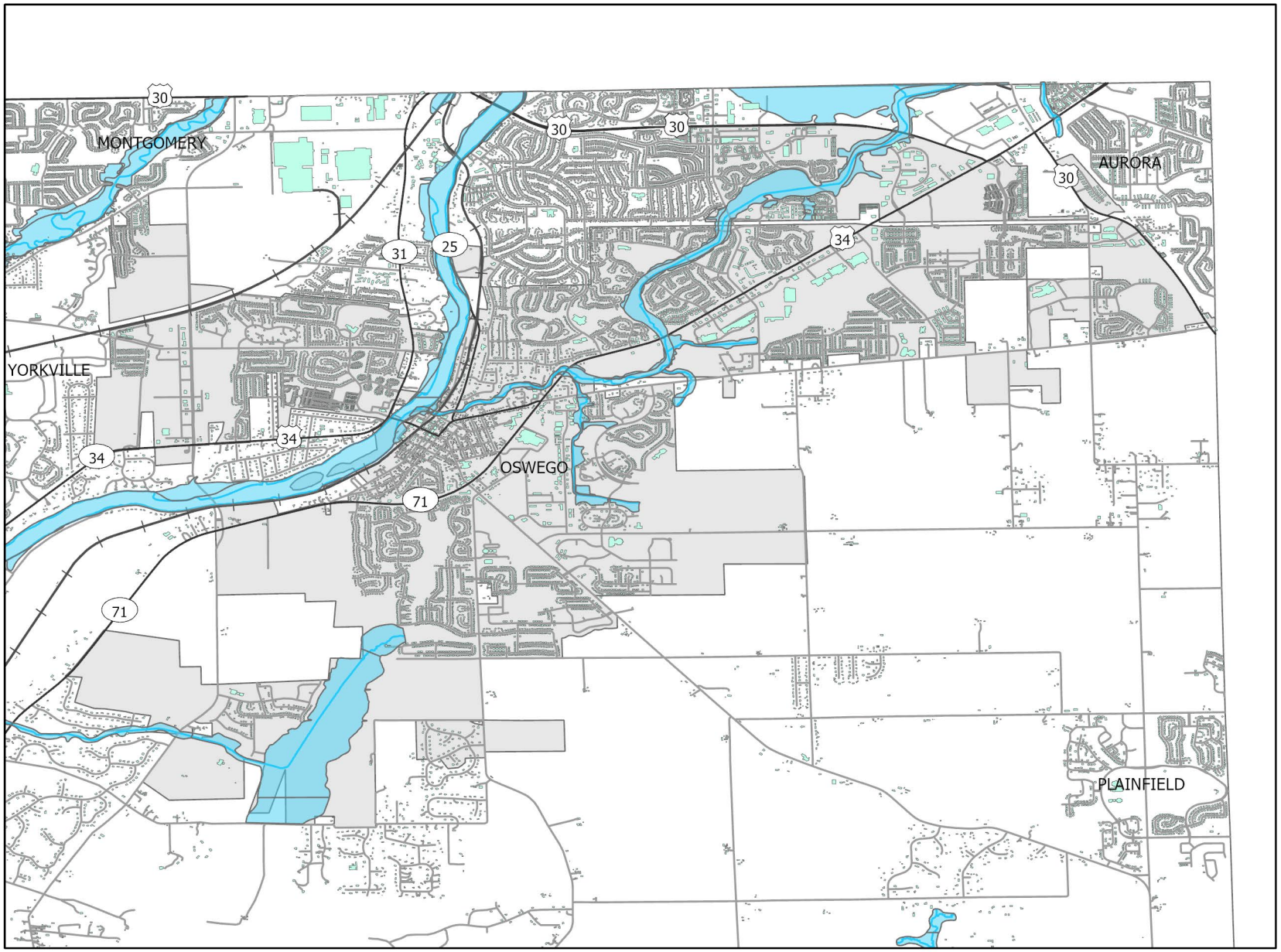
Map Created December 2023 in ArcGIS by Callie Smith at American Environmental Corporation
Sources: Esri, HERE, Garmin, SafeGraph, MET/NASA, USGE, EPA, NPS, USDA, Esri, NASA, NGA, USGS, FEMA

Newark



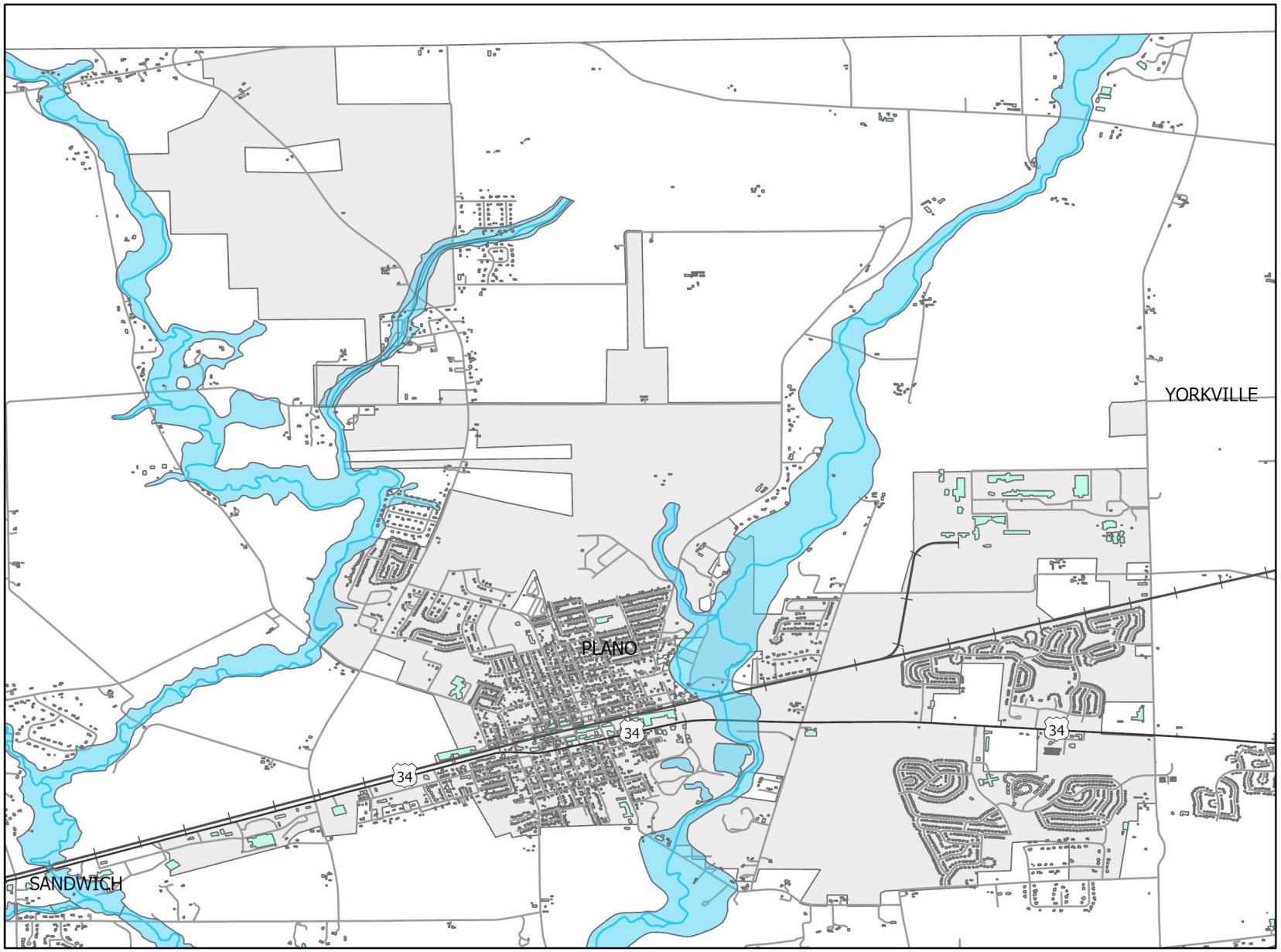
Map Created December 2023 in ArcGIS by Callie Smith at American Environmental Corporation
Sources: Esri, HERE, Garmin, SafeGraph, MET/NASA, USGE, EPA, NPS, USDA, Esri, NASA, NGA, USGS, FEMA

Oswego



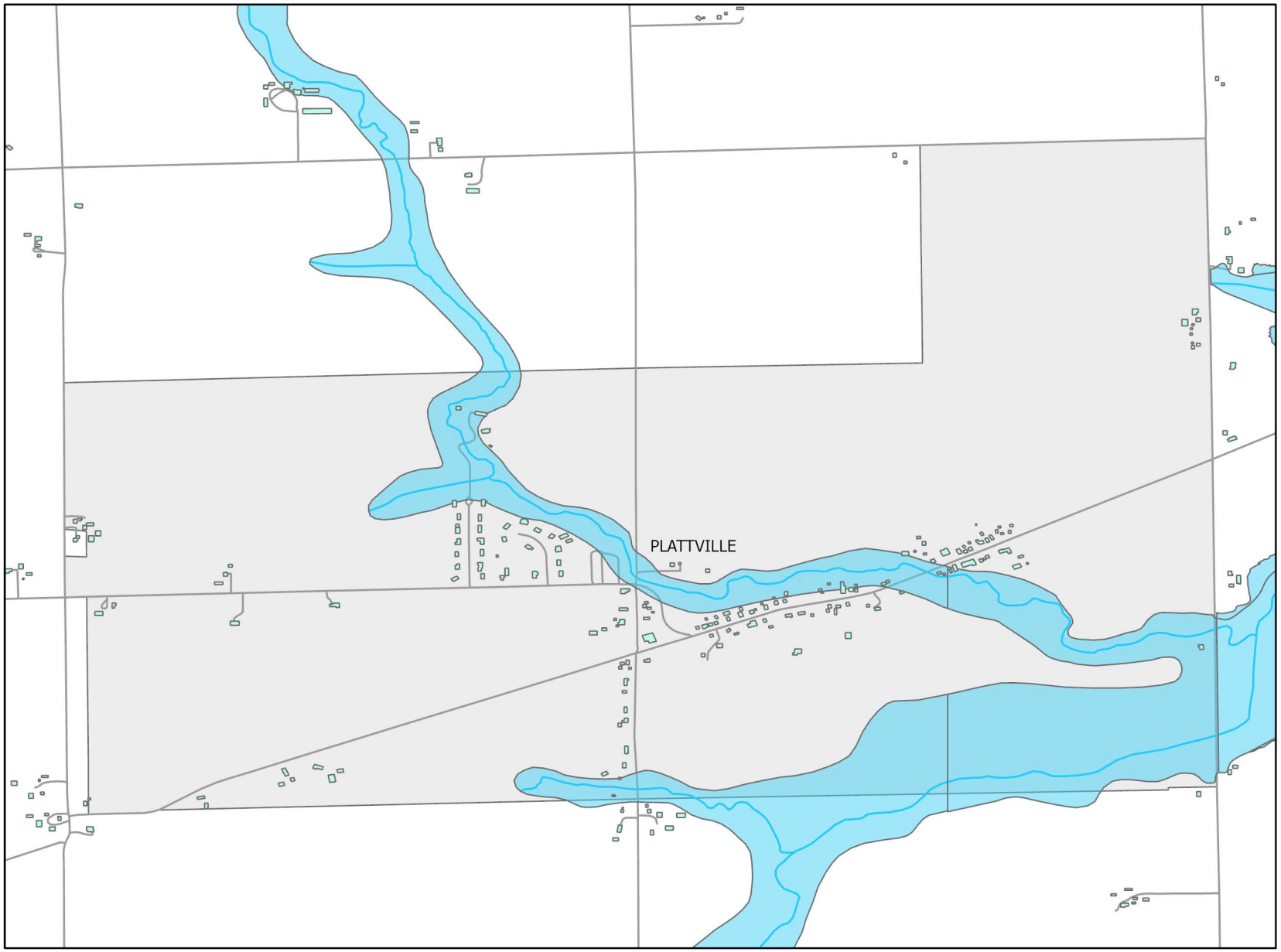
Map Created December 2023 in ArcGIS by Callie Smith at American Environmental Corporation
Sources: Esri, HERE, Garmin, SafeGraph, MET/NASA, USGE, EPA, NPS, USDA, Esri, NASA, NGA, USGS, FEMA

Plano



Map Created December 2023 in ArcGIS by Callie Smith at American Environmental Corporation
Sources: Esri, HERE, Garmin, SafeGraph, MET/NASA, USGE, EPA, NPS, USDA, Esri, NASA, NGA, USGS, FEMA

Plattville



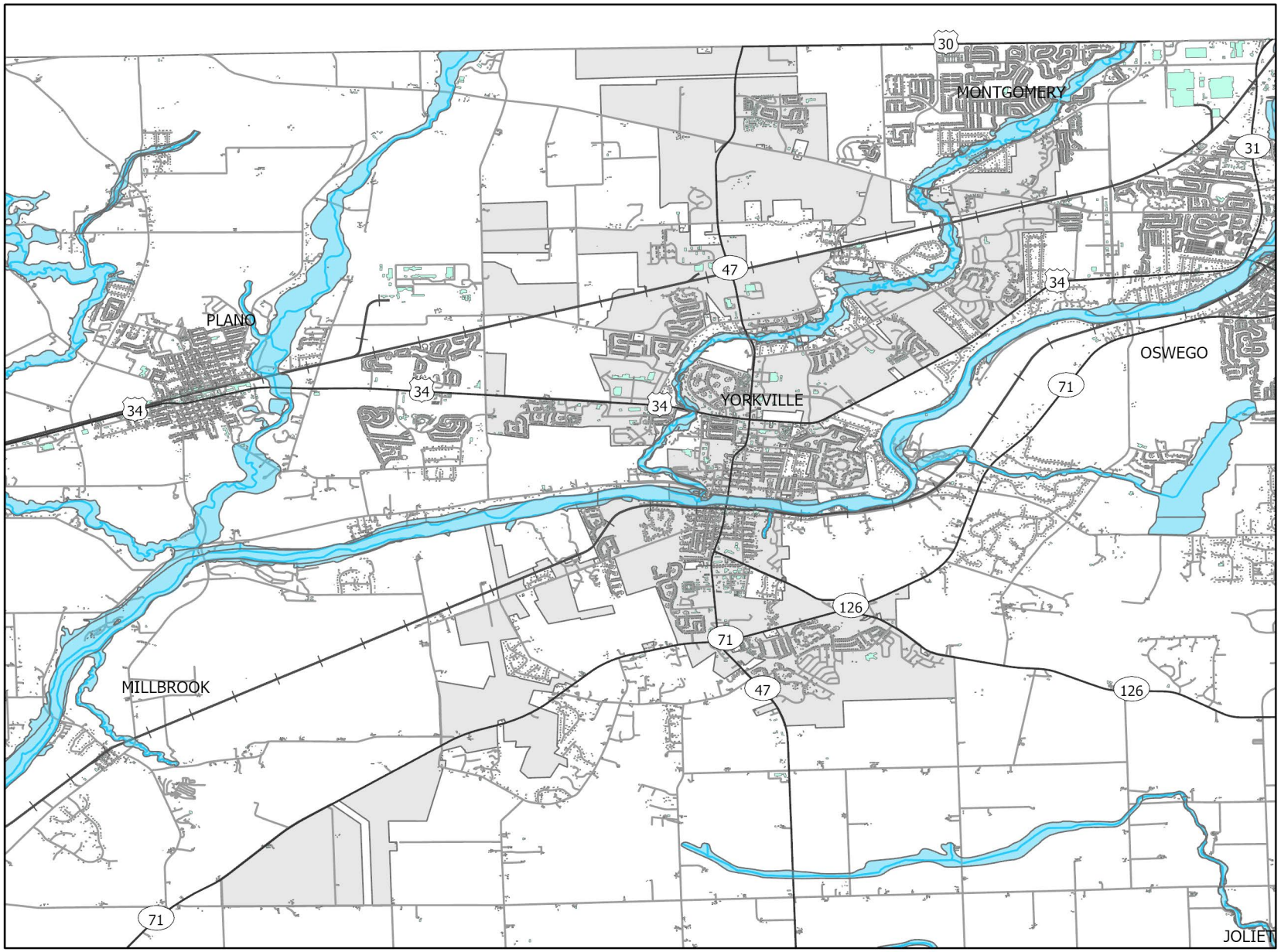
N

100 Year Floodplain
Building Footprints
Municipal Boundaries
Rivers/Streams
Interstates
US/State Routes
Roadways
Railroads

0 0.25 0.5 1 Miles

Map Created December 2023 in ArcGIS by Callie Smith at American Environmental Corporation
Sources: Esri, HERE, Garmin, SafeGraph, MET/NASA, USGE, EPA, NPS, USDA, Esri, NASA, NGA, USGS, FEMA

Yorkville



N

100 Year Floodplain
Building Footprints
Municipal Boundaries
Rivers/Streams
Interstates
US/State Routes
Roadways
Railroads

0 1.25 2.5 5 Miles

Map Created December 2023 in ArcGIS by Callie Smith at American Environmental Corporation
Sources: Esri, HERE, Garmin, SafeGraph, MET/NASA, USGE, EPA, NPS, USDA, Esri, NASA, NGA, USGS, FEMA

APPENDIX L

Table 5-5: Mitigation Strategies

No.	Mitigation Item	Goals and Objects Satisfied	Hazards Addressed	Jurisdictions Covered	Priority	Comments
1	Require critical facilities to have weather radios	Goal: Improve emergency communications with the public Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Thunderstorm	Kendall County, Boulder Hill, Plano, Sandwich, Yorkville, Lisbon, Montgomery, Newark, Oswego	Ongoing	All critical facilities are equipped with weather radios. The county would like to develop a program to distribute weather radios to the public as well and will solicit funding from IEMA and FEMA.
2	Install stream gauges	Goal: Create new or revise existing plans/maps for the community Objective: Conduct new studies/research to profile hazards and follow up with mitigation strategies.	Flood	Kendall County	Ongoing	New stream gauges are being installed on tributaries to Fox River: Little Rock Creek, Big Rock Creek, Blackberry Creek
3	Establish mutual aid agreements	Goal: Create new or revise existing plans/maps for the community Objective: Review and update existing, or create new, community plans and ordinances to support hazard mitigation.	Winter Storm, Hazmat	Kendall County	Ongoing	The county has mutual aid agreements in place for hazmat incidents and snow removal.
4	Create a database for identification of special needs population	Goal: Develop long-term strategies to educate the community residents on the hazards affecting their county Objective: Improve education and training of emergency personnel and public officials.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Drought, Hazmat, Fire	Kendall County	Ongoing	The county keeps a database for senior citizens with special needs. There are continued attempts to create a similar database for non-senior residents.
5	Conduct public education regarding nearby nuclear power plant	Goal: Develop long-term strategies to educate the community residents on the hazards affecting their county Objective: Raise public awareness on hazard mitigation.	Hazmat	Kendall County	Ongoing	After 9-11, the county conducted extensive public education.
6	Build snow fences along roads to mitigate drifting snow	Goal: Lessen the impacts of hazards to new and existing infrastructure Objective: Equip public facilities and communities to guard against damage caused by secondary effects of hazards.	Winter Storm	Kendall County	Ongoing	All state highways have snow fences. The county would like to build additional snow fences along the following roads: Grover Road, Plainfield Road, Ridge Road, Wolf Road, County Line Road, and Plains Road. Funding will be sought from the highway department and ILDOT. If funding is available, implementation will begin within three years.

No.	Mitigation Item	Goals and Objects Satisfied	Hazards Addressed	Jurisdictions Covered	Priority	Comments
7	Develop stormwater management ordinances and plans	Goal: Create new or revise existing plans/maps for the community Objective: Review and update existing, or create new, community plans and ordinances to support hazard mitigation.	Flood	Kendall County	In Progress	The county has developed a number of stormwater management ordinances (including for Ausable Creek) and updates them on a regular basis. The county will continue to use local resources to develop stormwater management plans for each community.
8	Establish warming and cooling centers	Goal: Lessen the impacts of hazards on at risk populations. Objective: Improve emergency sheltering in the community.	Drought, Winter Storm	Plano, Sandwich, Yorkville, Montgomery, Oswego	Complete	Kendall County communities are equipped with warming and cooling centers.
9	Install Reverse 911 for mass notification	Goal: Improve communication to the public. Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Flood, Earthquake, Thunderstorm, Drought, Winter Storm, Hazmat, Fire	Kendall County	Complete	The county has a Reverse 911 system.
10	Establish a system to alert first responders of emergencies	Goal: Improve First Responder communication. Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Thunderstorm	Boulder Hill, Plano, Sandwich, Yorkville, Montgomery, Oswego	Complete	First responders in the northern part of the county are alerted by Skywarn in conjunction with Chicago systems.
11	Establish safe rooms in critical facilities	Goal: Lessen the impacts of hazards to the community. Objective: Improve emergency sheltering in the community.	Tornado, Flood, Earthquake, Thunderstorm, Drought, Winter Storm, Hazmat, Fire	Kendall County, Boulder Hill, Plano, Sandwich, Yorkville, Lisbon, Montgomery, Newark, Oswego	Complete	The county has safe rooms in all critical facilities.
12	Buy out homes in areas that have frequent flooding	Goal: Create new or revise existing plans/maps for the community Objective: Support compliance with the NFIP for each jurisdiction.	Flood	Montgomery	Complete	Homes along Fox River in Montgomery have been bought out.
13	Institute a buy-out plan for repetitive loss properties in Black Hawk Springs and along Oswego Fox River and Blackberry Creek; move Farnsworth House (historical site) to a new location	Goal: Create new or revise existing plans/maps for the community Objective: Support compliance with the NFIP for each jurisdiction.	Flood	Kendall County	High	The County EMA and Floodplain Managers will oversee the implementation of the project. Funding has not been secured as of 2010 but will be sought from funding sources such as IEMA. Implementation, if funding is available, is forecasted to begin within five years.

No.	Mitigation Item	Goals and Objects Satisfied	Hazards Addressed	Jurisdictions Covered	Priority	Comments
14	Purchase transfer switches to provide back-up power to critical facilities	Goal: Lessen the impacts of hazards to new and existing infrastructure Objective: Improve emergency sheltering in the community.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm	Kendall County, Boulder Hill, Plano, Sandwich, Yorkville, Lisbon, Montgomery, Newark, Oswego	High	The County and other jurisdictions will oversee the implementation of this project. Local resources will be used to determine which facilities should receive generators. Funding has not been secured as of 2010, but the pre-disaster mitigation program and community development grants are possible funding sources. If funding is available, this project is forecasted to begin within one year.
15	Establish CERT teams and procure funding for training and equipment	Goal: Develop long-term strategies to educate the community residents on the hazards affecting their county Objective: Improve education and training of emergency personnel and public officials.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Hazmat, Fire, Drought	Kendall County	High	The County EMA will oversee this project. Funding will be sought from FEMA and IEMA. If funding is available, implementation will begin within one year.
16	Install lightning suppression, power conditioning, and surge protection in critical facilities	Goal: Lessen the impacts of hazards to new and existing infrastructure Objective: Retrofit critical facilities with structural design practices and equipment that will withstand natural disasters and offer weather-proofing.	Thunderstorm	Kendall County, Boulder Hill, Plano, Sandwich, Yorkville, Lisbon, Montgomery, Newark, Oswego	High	The County EMA will oversee this project. Funding will be sought from community grants and local resources. If funding is available, implementation will begin within five years.
17	Implement Nixle for mass media release via e-mail and text messages	Goal: Lessen the impacts of hazards to new and existing infrastructure Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm, Hazmat, Fire, Drought	Kendall County	High	The County EMA will work with first responders to implement Nixle. Funding for public education may be sought from FEMA. If resources are available, implementation will begin within one year.
18	Establish secure mobile classrooms	Goal: Lessen the impacts of hazards to new and existing infrastructure Objective: Retrofit critical facilities with structural design practices and equipment that will withstand natural disasters and offer weather-proofing.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm	Kendall County, Boulder Hill, Plano, Sandwich, Yorkville, Lisbon, Montgomery, Newark, Oswego	Medium	The County EMA will work with engineers to oversee the implementation of this project. Funding has not been secured as of 2010, but federal, state, and community development grants are possible funding sources. Implementation, if funding is available, will begin within three years.
19	Improve communications interoperability	Goal: Improve communications between First Responders. Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Flood, Earthquake, Thunderstorm, Drought, Winter Storm, Hazmat, Fire	Kendall County	Medium	The County EMA will oversee implementation of this project. Local resources will be used to develop an interoperability plan. Funding for exercises and training may be sought from state resources. If funding and resources are available, implementation will begin within three years.

No.	Mitigation Item	Goals and Objects Satisfied	Hazards Addressed	Jurisdictions Covered	Priority	Comments
20	Procure temporary signage to use during power outages or warn of road closure	Goal: Improve communication with the public. Objective: Equip public facilities and communities with means to guard against damage caused by secondary effects of hazards.	Flood	Kendall County	Medium	The County EMA and County Highway Departments oversee the implementation of this project. Local resources will be used as much as possible and additional funding will be sought from the PDM program. Implementation, if funding is available, is forecasted to begin within three years.
21	Conduct stream and ditch maintenance along all streams in developed areas of the county	Goal: Lessen the impacts of hazards to new and existing infrastructure Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Flood	Boulder Hill, Plano, Sandwich, Yorkville, Lisbon, Montgomery, Newark, Oswego	Medium	The County Engineer will oversee this project. The U.S. Army Corps of Engineers and the DNR are potential funding sources. If funding is available, implementation will begin within three years.
22	Conduct a commodity flow study	Goal: Create new or revise existing plans/maps for the community Objective: Conduct new studies/research to profile hazards and follow up with mitigation strategies.	Hazmat	Kendall County	Medium	The County EMA will work with the highway department to complete this project. Funding will be sought from ILDOT. If funding is available, implementation will begin within three years.
23	Establish best practices for burying power lines in new subdivisions	Goal: Create new or revise existing plans/maps for the community Objective: Conduct new studies/research to profile hazards and follow up with mitigation strategies.	Winter Storm	Kendall County	Low	County officials will establish and document best practices using local resources. If resources are available, implementation will begin within five years.
24	Procure emergency operation system/switches for traffic signals (manual control)	Goal: Lessen the impacts of hazards to new and existing infrastructure Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Tornado, Flood, Earthquake, Thunderstorm, Winter Storm	Kendall County	Low	The County EMA and County Highway Departments oversee the implementation of this project. Funding will be sought from federal and state agencies. Implementation, if funding is available, is forecasted to begin within five years.
25	Improve condition of Wolf Road by installing new culverts and/or elevating the road	Goal: Lessen the impacts of hazards to new and existing infrastructure Objective: Minimize the amount of infrastructure exposed to hazards.	Flood	Kendall County	Low	The County Highway Department will oversee this project. Funding will be sought from DNR, FEMA, and IEMA. If funding is available, implementation will begin within five years.
26	Improve signage and signals at intersections with frequent accidents: 34 and 30; 71and 34	Goal: Lessen the impacts of hazards to new and existing infrastructure Objective: Evaluate and strengthen the communication and transportation abilities of emergency services throughout the county.	Hazmat	Kendall County	Low	The County EMA and County Highway Department oversee the implementation of this project. Funding will be sought from federal and state agencies. Implementation, if funding is available, is forecasted to begin within five years.

No.	Mitigation Item	Goals and Objects Satisfied	Hazards Addressed	Jurisdictions Covered	Priority	Comments
27	Develop an evacuation plan for hazmat incidents	Goal: Create new or revise existing plans/maps for the community Objective: Review and update existing, or create new, community plans and ordinances to support hazard mitigation.	Hazmat	Plano	Low	Plano currently has no evacuation plan. City resources will be used to develop and publicize the plan. If resources are available, implementation will begin within five years.

APPENDIX M

	An action cannot be implemented without sufficient funding. Examine various avenues for funding a mitigation project; a costly mitigation project could be financially feasible if the community applies for and receives grant funds to supplement available community resources.
Environmental	✓ Is the proposed action in a floodplain or wetland or will it indirectly impact the natural and beneficial functions of a floodplain or wetland? ✓ How will the action affect the natural environment? ✓ How will the action affect utility and transportation systems? Comment: Unless detrimental effects of a project on the natural environment can be minimized, the project under consideration may not be a good fit for the community.

FEMA 386-9 Using the Hazard Mitigation Plan to Prepare Successful Mitigation Projects

10.1. Program Action Items

Each action item will include a brief description, the year the item was included in the plan, the responsible agency, a deadline, actual or estimated cost, and the benefit of the item. Action Items added to the plan during a previous update will also include a status for the item. Some of the action items will not have a specific date as a deadline as they will be ongoing and will continue through the next five years. A list of action items that have been completed or are being removed from the plan since the last update is included at the end of the chapter.

All of the original action items added in 2003 are generic in nature and most could apply to all of the participating jurisdictions. During the 2009 and 2015 updates jurisdiction added specific action items. Therefore some of the action items listed below will be generic in scope and could apply to all jurisdictions and some will be for a single jurisdiction.

Action Item 1. Building Code Improvements

Adopt the latest International series of codes, the new national standard that is being adopted throughout the country. Code revisions should be pursued to strengthen new buildings against damage by high winds, tornadoes and hail. Requiring tornado "safe rooms" in certain structures should be considered. Any code revisions should be consistent with the efforts undertaken by multi-community organizations of building department staff.

Year included in plan: 2003

Action item status: This action item is continuing.

Responsible agency: Kane County Development Department and building departments of municipalities. The organizations of building department staff should take the lead on drafting new code language.

Deadline: This action item will be continuous and each jurisdiction should adopt the latest building codes 18 months after they are published. This will allow "the bugs" to be worked out of the I-Codes, which has been a concern of many communities and will allow full review of the changes by each community.

Cost: Staff time.

Benefits: This will improve the hazard protection standards for new construction and will ensure a consistent set of building standards across the County. It will also assist communities to improve their BCEGS rating.

Action Item 2. Improved Code Enforcement

Develop and conduct training for building department staff on the natural hazards aspects of the International Codes, regulation of mobile home installation, and the County stormwater ordinance and its flood protection, wetland protection, erosion and sediment control and best management practices provisions.

Year included in plan: 2003

Responsible agency: Kane County Departments to develop training. Municipal building staff to participate.

Deadline: This action item will now be continuous. Each jurisdiction should continue to improve code enforcement by providing training to the code enforcement staff in the areas listed above. As the jurisdiction adopts the newest International series of codes; training should be provided to code enforcement staff as soon as possible.

Cost: Staff time

Benefits: A better educated staff will pay more attention to the details of factors vital to natural hazard mitigation when they review plans and inspect sites, such as ensuring that a structure is securely connected to the foundation. Training will also ensure that staffs understand new I-Code provisions, the County's stormwater ordinance and their responsibilities under the National Flood Insurance Program. A regular training program can improve BCEGS scores, too.

Action Item 3. Review of Plans and Development Regulations

When they are up for revision, comprehensive plans, land use plans, and zoning and subdivision ordinances should incorporate mitigation provisions, especially:

- Open space provisions that will protect properties from flooding, preserve wetlands, and enhance groundwater infiltration;
- Appropriate farmland preservation measures;
- Standards for streets and water systems that facilitate access and use by fire and emergency equipment;
- Requirements to bury utility lines; and
- Mandating storm shelters in new mobile home parks.

Year included in plan: 2003

Responsible agency: Kane County Departments, municipal planning, zoning, engineering and community development departments.

Deadline: This action item will be continuous and each jurisdiction should continue to incorporate mitigation provisions and strategies into plans as they are developed or updated.

Cost: Staff time

Benefits: By incorporating mitigation provisions into other plans and regulations, more offices will be implementing mitigation activities, hazardous areas will be avoided, and new developments will be better protected.

3.1 – Big Rock, Village of

The Village will adopt a *Subdivision Control Ordinance* and accompanying *Standard Specifications*.

Year included in plan: 2009

Responsible Agency: The Village of Big Rock's Plan Commission, Board of Trustees, and Administrative Office.

Deadline: January 1, 2010

Cost: Estimated $5 – $10,000 in legal and engineering review fees and staff time.

Benefits: The new Ordinance and Specifications will incorporate mitigation provisions, especially:

- Open space provisions that will protect properties from flooding, preserve wetlands, and enhance groundwater infiltration;
- Appropriate farmland preservation measures;
- Standards for streets and water systems that facilitate access and use by fire and emergency equipment;

- Requirements to bury utility lines; and
- Mandating storm shelters in new mobile home parks.

2015 Status Update: Currently the Village does not have any funding for this project. The Village is looking for grants so that we can move forward on our project's

3.2 – South Elgin, Village of

South Elgin has received free local assistance from CMAP to develop a Unified Development Ordinance. This Ordinance will include open space, floodplain, and other mitigation provisions.

Year included in plan: 2015

Responsible agency: South Elgin Community Development

Deadline: 2017

Cost: $5,000

Benefits: The Unified Development Ordinance will identify areas subject to special flood hazards as well as special flood hazard regulations thereby keeping future development safer during a flood.

Action Item 4. Retrofitting Incentives

Establish a program of technical assistance and financial incentives to encourage property protection measures on private property, such as:

- Surface and subsurface drainage improvements,
- Swales and regrading for shallow surface flooding,
- Sewer backup protection
- Relocating furnaces and water heaters out of basements
- Tornado safe rooms
- Installing lightning rods

Year included in plan: 2003

Responsible agency: Kane County Departments. Municipal offices to be designated by the community's adopting resolution.

Deadline: Each jurisdiction is encouraged to develop and implement incentive programs. It is understood that funding is limited, however when funding becomes available jurisdictions should consider implementing an incentive program.

Cost: The level of effort depends upon the size of the community but a 5/100 of 1% of the municipality's budget (0.0005) would be a good target.

Benefits: Using a 25% rebate level, for every dollar spent by the community, $4 will be spent to protect a property from damage. Communities have found this approach to protect against local drainage and sewer backup problems to be a real cost saver compared to public works projects to control drainage or replace sewer pipes.

4.1 – Big Rock, Village of

The Village is planning to work with homeowners on a property protection program for surface and subsurface drainage improvements.

Year included in plan: 2009

Responsible Agency: The Village Board of Trustees with the advice and administrative assistance from the Drainage Committee.

Deadline: Ongoing program

Cost: Unknown and Incremental.

Benefits: While certain subdivisions in the Village do not currently have access to drainage systems, other developed areas (Timberview and Welton Subdivisions) can access limited drainage tiles. The Village will work with the residents to identify small local projects on a cost share basis that will alleviate localized flooding without the necessity to undertake a major drainage project.

2015 Status Update: Currently the Village does not have any funding for this project. The Village is looking for grants so that we can move forward on our project's

4.2 – North Aurora, Village of

The village of North Aurora has identified a project to help residents install overhead sewer lines to prevent sewer backup. Overhead sewer means there are no direct openings to the sanitary sewer in the basement. All of the wastewater that is collected in the basement is discharged into a separate sump pit and pumped into the sanitary service line. The basement drainage is dependent on a pump and a continuous electric power supply. Generally, the plumbing from the fixtures on the main floor is installed just below the basement ceiling (hence, the term "overhead"), and is routed to the outside service line though an opening high up on the basement wall. Converting the plumbing to an overhead sewer is one of the most expensive ways to prevent basement backups. Nevertheless, it is generally considered to be the best method available. Only the residents who have experienced sewer back-ups and are concerned with taking an active role in resolving the problem will use the cost sharing program.

Year included in plan: 2009

Responsible Agency: Public Works

Deadline: This will be an ongoing project for a minimum of 11 years.

Cost: The average cost to install an overhead is between $5,000 and $8,000. The Village will pay half, or a maximum $4,000 per household.

Benefits: The Overhead will help prevent back-ups into basements during all rain events and other sewer blockages. This program will be offered on a Village–wide basis and therefore has the potential of helping the largest number of residents.

2015 Status Update: The village reviewed this action item for the 2015 update and updated the cost of installation. Current plans are to continue the program for a minimum of 11 years.

Action Item 5. Repetitive Loss Projects

Protect the buildings in repetitive loss areas 7, 8, 9, 12 and 14. These are the top priority areas based on the flood hazard and type of construction, as explained in the criteria on page 5-12. Acquisition is the recommended property protection approach for areas 7, 8, 9, and 12 and elevation is recommended for areas 9, 12 and 14. Properties in the other repetitive loss areas could be protected by retrofitting measures that could be funded for much less under the cost share program proposed in action item 4.

The specific measure to use on each property should be determined by an audit of the building and the owner's preferences. In each case, no action should be taken without the owner's full willing cooperation.

Year included in plan: 2003

Responsible agency: Kane County Departments (repetitive loss areas 8 and 9) and the appropriate office in Elgin (area 7) and Montgomery (areas 12 and 14).

Deadline: The Kane County Departments are continuing to work with IEMA and FEMA on the repetitive loss areas in the county.

Cost: Costs depend on individual property to be elevated or acquired. Staff time.

Benefits: FEMA and IEMA only fund projects where the benefits are shown to exceed the costs. A benefit/cost analysis must be run for each property in order to qualify for FEMA funds.

Action Item 6. Drainage Maintenance

Implement a formal and regular drainage system maintenance program. This would involve mapping the local drainage system, determining which areas can be accessed for inspection and maintenance, preparing procedures modeled on CRS program guidance, conducting an annual inspection and removing debris as needed. It would include

educating and working with homeowner associations and other non-governmental entities responsible for maintenance on their own properties.

The procedures would treat natural streams different from drainage ditches and developed areas different from vacant lands. Enforcing stream and wetland dumping regulations should also be a part of the program.

Year included in plan: 2003

Responsible agency: Municipal public works departments, township road districts, drainage districts. The Kane County Division of Transportation to be responsible for maintenance of roadside ditches under its jurisdiction

Deadline: Each jurisdiction is encouraged to develop and implement a drainage maintenance program and ensure that current maintenance programs are up to date and appropriate.

Cost: Staff time

Benefits: An obstruction to a channel, such as a plugged culvert, can result in overbank flooding during a small rainstorm. By inspecting and maintaining the drainage system, potential flood problems can be identified and corrected before the next big rain. A proactive preventive activity like this can prevent $1,000's in flood damage, closed streets and threat to people.

6.1 - Algonquin, Village of

Dixie Creek Streambank Stabilization & Lake Braewood Naturalization. The existing channel of this creek is subject to high velocities and severe erosion has occurred in the open stream. This has caused Lake Braewood to silt in considerably and it no longer maintains its original stormwater storage capacity. This causes Gaslight Drive, the adjacent park and an adjacent homeowner to flood.

Year included in the plan: 2015

Responsible Agency: Public Works Department

Deadline: Currently funding for this project is not available. When funding becomes available the project should be completed in 3 years

Estimated Cost: $700,000

Benefits: The proposed improvements will stabilize Dixie Creek, open up Lake Braewood for additional stormwater capacity and ultimately protect Gaslight Drive and both Village and private property.

6.2 – Carpentersville, Village of

Lake Marian Watershed - Alt. B1 Keith Andres Park Stream Maintenance Debris Removal and Vegetation Management

Year included in plan: 2009

Responsible Agencies: Village Public Works Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. This will be ongoing annual program, starting within months of funding being made available. Debris and brush removal has taken place on an annual basis.

Cost: $200,000

Benefits: Reduce debris clogging of downstream drainage structures, maintain optimal hydraulic capacity of the creek channel, and improve water quality.

2015 Status Update: Due to funding restrictions no action has been taken on this project.

6.3 – North Aurora, Village of

The village of North Aurora has identified a need to install Cured-in-place Piping (C.I.P.P.). C.I.P.P. is formed by the insertion of a resin-impregnated flexible tube into the existing pipe. The tube is expanded to fit against the original conduit, and then heated to cure the resin. The finish product is a joint (less structural) pipe that is formed to the existing pipe. The cured-in-place pipe shall be chemically resistant to domestic sewage. Over the next (3) years the Village will also be entering into a manhole sealing program to help eliminate additional Inflow and Infiltration into the system.

Year included in plan: 2015

Responsible agency: Public Works

Deadline: 3 years to finish the entire community.

Cost: The cost per budget year is roughly $200,000 to $250,000

Benefits: Eliminate Inflow and Infiltration into the Sanitary Sewer System. This in return will eliminate backups into the homes.

Action Item 7. Urban Forestry

Implement an urban forestry program that qualifies the municipality to become a Tree City, USA. To qualify for Tree City USA, a city or village must meet four standards, which are explained in more detail on page 6-10:

- A tree board or department
- A tree care ordinance
- A community forestry program with an annual budget of at least $2 per capita
- An Arbor Day observance and proclamation

Year included in plan: 2003

Responsible agency: To be designated by the municipality's adopting resolution.

Deadline: Each jurisdiction is encouraged to implement an urban forestry program and work towards Tree City USA designation as funding allows.

Cost: $2 per capita, staff time

Benefits: In addition to improving a community's appearance, an active urban forestry program will address the major problems caused by winter storms and high winds – loss of power, telephone and cable services and damage to vehicles and buildings due to falling trees or limbs.

7.1 – Burlington, Village of

The Village of Burlington would like to establish a tree program (urban forestry) for the Village for maintenance and tree planting/conservation.

Year included in plan: 2009

Responsible agency: Village of Burlington

Deadline: Some work has been completed on this project but currently the village has no funding to finish or expand this project.

Cost: Approximately $10,000 annually

Benefits: To mitigate potential damage during winter and spring summer storms due to high winds and or ice.

2015 Status Update: Installation of several trees around the main detention pond has been completed. As additional funds or grant funding becomes available this project will be expanded further.

7.2 – Lily Lake, Village of

The Village of Lily Lake has identified a need for a program to identify and estimate the age of prominent trees along Village roads and right-of-ways and investigate forestry maintenance programs suited to the needs of the Village. The program should also draft guidelines to the maintenance of trees within the Village and draft a tree maintenance

booklet addressing the care and maintenance of trees within the community. Review existing Village tree ordinances and offer amended ordinances, where required, for review by Village Board members. Establish an action plan to maintain trees and forested areas of Village property. Arbor Day will be observed through the planting of a tree species native to northern Illinois at a designated location within the Village Park.

Year included in plan: 2009

Responsible agency: The Lily Lake Plan Commission will appoint members to be part of the Village Tree Board. The Village Tree Board will review programs suited to urban forestry and recommend actions to the Plan Commission and the Village Board.

Deadline: Once funding is established implementation will be about one year.

Cost: A small budget, meeting the Tree City, USA requirements will be established for the distribution of information associated with the care of trees within the Village and community. A portion of the budget will be allocated to amending present tree ordinances. Estimated cost about $2 per capita and staff time.

Benefits: Improvement of Village appearance as well as identifying trees that are possible hazards and could create additional problems during emergencies and disasters.

2015 Status Update: The Village currently does not have funding for this project but will continue to look for funding in order to become a Tree City USA recipient.

7.3 – West Dundee, Village of

The neighborhood tree trimming project has been ongoing under the supervision of the Public Works Department. This project, on a seven to eight year cycle, allows for every parkway tree within West Dundee to be examined, preventatively maintained (i.e. removal of dead or broken branches, obstructions removed and structural integrity analyzed) and hazardous trees to be identified and removed as needed. The program enhances the vitality of the urban tree canopy and limits the amount of roadway obstructions, debris and potential to damage property through branches being damaged in storm/ice events. The previous budgeted amount to conduct this program was $50,000 a year. However, under the fiscally constrained budget, this program is no longer being funded. A limited amount is available to remove hazardous trees by a contractor in the event that staff cannot safely remove the tree. In the event that funding becomes available, this program will resume its scheduled activities.

Year included in plan: 2009

Responsible agency: Village of West Dundee Public Works Department

Deadline: Currently the village has no funding for this project. Once funding is identified the project will be incorporated into the Public Works department.

Cost: $50,000 annually

Benefits: It maintains a healthy, green canopy of municipal, parkway trees. The Preventative Maintenance removes dead/broken/weak branches under controlled circumstances. Limits storm/severe weather breakage and roadway debris.

2015 Status Update: Program is ongoing. $55,000 was approved for forestry related expenditures for the new/current fiscal year. Tree trimming by contract and by staff is a part of that in addition to tree removals, tree planting and stump grinding by contract and by staff.

7.4 – Pingree Grove, Village of

The Village is adding a tree/forestry program and in 2015 will be working towards a "Tree City USA" designation.

Year included in plan: 2015

Responsible Agency: Village of Pingree Grove

Deadline: The Village plans to have the Village designated as a "Tree City USA" community by the end of the year.

Cost: $12,000

Benefits: To mitigate some of the potential problems during high wind incidents and ice storms.

Action Item 8. Flood Threat Recognition

Continue current funding of rain and stream gages throughout county. Review the gauging network, especially the western rural areas, to determine if additional rain and stream gages are necessary. This work would identify any potential new sites where gages would be most productive and estimate the cost of installing and maintaining them. Participate in the annual Stream Gage Cooperators' meeting through the USGS, Fox River Coordinating Group with IDNR, and develop gaging capabilities as funding permits and projects call for additional capabilities.

Year included in plan: 2003

Responsible agency: Kane County Departments.

Deadline: Continue to monitor gage needs in Kane County, Participate in annual Stream Gage Cooperators' Meetings, and evaluate gaging needs upon onset of all new hydrologic and hydraulic modeling projects.

Cost: Staff time

Benefits: Early recognition of an impending flood can save lives and prevent property damage. For example, 10 minutes of lead time could allow evacuation of a parking lot or installation of emergency protection measures. The data collected would also help in evaluating watershed plans and models and designing storm drainage works.

8.1 – Elburn, Village of

The Blackberry Creek Subdivision, located south of Keslinger Road and east of Rout 47, contains wetlands of considerable size. These wetlands are part of the natural drainage for the water from rain events for an area roughly bounded by Route 47 on the west, Pouley Road on the east, and Route 38 on the north. During very heavy rain events, this area can be taxed to the point of overflowing, and threaten flooding of homes at the far south end of Blackberry Creek Subdivision. To help mitigate the flooding threat, a dam was built during the initial construction phase of the subdivision. A spillway runs under Patriot Parkway. The water height at the dam is monitored by an electronic flood gage. The flood gage has been damaged by ice, and is no longer functioning, and needs to be replaced.

Year Included in plan: 2009

Responsible Agency: The Village of Elburn Public Works Department.

Deadline: Currently, the Village has no funding available for this project. Once funding is secured, the project should be completed within one year.

Cost: Unknown at this time. No quotes for replacement have been received.

Benefits: Monitoring of water levels at the dam in the wetlands area, would allow those residents living in the southern flood zone to receive adequate warning of potential flooding during heavy rain events.

2015 Status Update: This project is still viable, however, due to budgetary constraints, there is no funding available for FY 2015-2016. The project will be re-evaluated during the budgeting process for FY 2016-2017.

8.2 – Montgomery, Village of

There is a recurrent flooding problem in the Parkview Estates neighborhood in Montgomery from Waubonsie Creek. The Village would like to install a flood warning station to warn the Village of rising flood water and allow the Village to evacuate residents when necessary. The warning station would include a monitoring station and a SCADA (radio control) system to transmit data to the Village emergency responders.

Responsible Agencies: Village of Montgomery, Village of Montgomery Police Department, Illinois Department of Natural Resources, and U.S. Geologic Survey.

Deadline: Once the Village secures funding for this project the warning station could be set up within a year. Village staff will continue to look for funding sources and include this item in our annual budget proposal process.

Cost: $25,000 to purchase and install the warning station and then yearly maintenance and operation costs of $13,000.

Benefits: Establishing the Parkview Estates Warning Station would allow the Village to warn residents in advance of flooding events. This will allow evacuation of people and property in a timely manner to prevent harm to people and reduce damage to property.

2015 Status Update: The village does not currently have funding for this project but will actively look for available funding options.

Action Item 9. Improved Emergency Response

Conduct a review of emergency response plans and programs to:

- Ensure that each municipality has an emergency management coordinator or liaison.
- Identify where additional activities are needed to respond to natural hazards, especially activities that can be undertaken after a flood warning and before the flood arrives.
- Ensure there is adequate and current information on critical facilities.
- Incorporate post-disaster procedures for public information, reconstruction regulation and mitigation project identification.
- Conduct a table top exercise at least once a year
- Identify what rural areas could use additional warning capabilities.

Year included in plan: 2003

Responsible agency: Kane County Office of Emergency Management. Municipal leads to be designated by the municipality's adopting resolution.

Deadline: This action item will be continuous and should be reviewed annually by each jurisdiction. Jurisdictions should strive to improve overall emergency response to natural hazards.

Cost: Depends on project and Staff time

Benefits: Some communities have no plan and others are revising theirs. Very few have special procedures for natural hazards. An emergency response plan that has been

carefully prepared, that utilizes all available data on the hazards and their potential impact, and that is regularly exercised will greatly improve local disaster response capabilities.

9.1 – Batavia, City of

The City of Batavia has identified the need to replace the Wastewater utility SCADA system. The system provides day-to-day operating information. The system also provides emergency and system alarms. The system was partially installed in 2014 and will be completed with ongoing treatment plant improvements in 2017. The system is vital to ensure the safe and efficient operation of the City's wastewater utility.

Year included in plan: 2009

Responsible Agency: City of Batavia

Deadline: Fiscal year 2017

Cost: $200,000

Benefits: Ensure safe and efficient operation of the City's wastewater utility.

2015 status: This action item originally included also replacing the electric and water utility systems. The electric system was completed in 2013 and the water system was completed in 2014. The Wastewater system is to be completed in combination with ongoing treatment plant improvements in 2017

9.2 – Big Rock, Village of

The Village will draft an Emergency Operations Plan

Year included in plan: 2009

Responsible Agency: The Village Board of Trustees will appoint a public safety committee. The committee will research, draft, and recommend a plan to the Board.

Deadline: December 31, 2012 depending on availability of staff and funding.

Cost: Estimated $5 – 10,000 in legal and consultant review fees and staff time.

Benefits: Since the Village has discovered through the recent responses during flood conditions that the responses have been disorganized, the residents would be better served during emergencies if the Village adopted and followed an Emergency Operations Plan. The Village would

- Appoint an emergency management coordinator or liaison.

- Identify where additional activities are needed to respond to natural hazards, especially activities that can be undertaken after a flood warning and before the flood arrives.
- Ensure there is adequate and current information on critical facilities.
- Incorporate post-disaster procedures for public information, reconstruction regulation and mitigation project identification.
- Conduct a table top exercise at least once a year

2015 Status Update: Currently the Village does not have any funding for this project. The Village is looking for grants so that we can move forward on our project's

9.3 Campton Hills, Village of

There currently is no tornado warning siren system in the Village of Campton Hills. The village would like to install a warning system for the purpose of alerting the residents of approaching tornados. Several sirens will need to be installed to cover the Villages 17 square miles.

During the spring of 2015, the Village will complete the installation of the first early warning siren at Wasco Elementary School. The project will be completed with the assistance of School District 303, the Fox River and Countryside Fire/Rescue District, and the Cities of Service Grant provided to the Village through Bloomberg Philanthropies. The siren, valued at $10,000, will be donated by Fulton Technologies and the installation, estimated at $12,000-$15,000, will be funded through the Cities of Service Grant. The siren is expected to serve well over 1,000 residents, two elementary schools, one Fire Station, the combined Village Hall/Police Station, and downtown Campton Hills businesses.

Fulton Technologies has agreed to donate the remaining sirens necessary to cover the entire 17 square miles of the Village. Due to funding constraints, the Village will not be able to complete the installation of these sirens in the immediate future but will continue its pursuit of grant funds to do so.

Year included in plan: 2015

Responsible Agency: Village of Campton Hills

Deadline: The first siren should be installed in the spring of 2015 with other sirens added to the system as funding becomes available.

Cost: $15,000 for installation of each siren

Benefits: The warning system benefits the residents of Campton Hills by alerting them in advance of a tornado allowing them to seek shelter.

9.4 – Elgin, City of

Due to new annexations, identify and install all areas without storm siren coverage.

- Ensure that all areas are included when storm sirens are activated.
- Identify what areas are without coverage.
- Upgrade/retrofit older technology 7,000' diameter siren buffer sirens with new 11,000' diameter buffer technology sirens providing better coverage while reducing the overall number of sirens to maintain.
- Add solar and battery backup to all existing warning sirens and include same for new sirens.
- Purchase and install sirens in needed areas.

Year included in plan: 2009

Responsible agency: Elgin Fire Department has identified the locations and how many storm sirens are needed.

Deadline: 2015, pending budget allocations

Cost: Estimated to be over $250,000.

Benefits: Currently, new annexations are not within coverage of storm sirens. By identifying the locations and installing storm sirens, citizens in those areas will be included in storm siren activation. By replacing some existing warning siren heads, pockets of housing previously not covered in the older parts of town will now receive sufficient warning coverage and overlap without cost of tower infrastructure.

2015 status update: This project was updated to include upgrading older technology and adding solar and battery backups. Cost estimates have also been updated.

9.5 – Elgin, City of

The City of Elgin EOC is located in the basement of city hall. Currently there is no radio signal in the EOC, there is no Wi-Fi access, and there is no technology for displaying critical display information in the room. The room is small and congested and is furnished with some folding tables and chairs. The EOC will be remodeled to include all new furnishings with computer classroom style tables and electric and Cat. 5 capabilities at every seat. A wall will be removed to enlarge the EOC by 260 square feet and 12 computers will be installed so the room can be utilized for training purposes. Four 42" monitors will be mounted to display weather status, police CAD, fire CAD, and other display information. A state of the art Smartboard will be installed at the front of the room and there will be 4 "consolettes" installed to provide direct communications with emergency dispatch center and the Incident Command Post. An additional 500 square foot room adjacent to the EOC will be set up as conference/breakout room.

Year included in plan: 2015

Responsible Agency: Fire Department will oversee the renovation through the Office of Emergency Management.

Deadline: Early 2015

Cost: Estimated to be approximately $30,000

Benefits: the City of Elgin has been fortunate that it has not had to stand up an EOC yet. Part of the reason for this is that it lacked an adequately equipped facility. By enhancing the room with technology and communications capabilities the room will be activated when appropriate. The new design will allow the room to be utilized by all of City Hall as a functional classroom and Emergency Management training will be scheduled on a quarterly basis. These improvements will result in a safer and more efficient response to all hazards disaster responses.

9.6 – Gilberts, Village of

The McCornack Bridge allows light traffic over the Tyler Creek. It is not rated for heavy truck traffic including fire department apparatus. At this time, there are six occupied homes on this road. There is proposed a 600 unit residential and commercial development around this bridge, however the fire protection district is not in favor without an upgrade for the bridge. The village planes to upgrade the bridge to allow for heaver truck traffic including the fire departments vehicles.

Year included in plan: 2009

Responsible agency: Public Works Department

Deadline: The Village currently has no funding for this project. Once funding is established the project should take about two years.

Cost: $600,000

Benefits: With an improved bridge, responding emergency vehicles could use McCornack Road without having additional response times to locations south of the bridge on Big Timber Road corridor.

2015 Status Update: The Village has not been able to fund this project but would still like to complete the work once funding is available.

9.7 – Hampshire, Village of

Establish a Citizens Emergency Response Team (CERT) to assist first responders with lower priority tasks such as staffing telephone banks, messaging, traffic control,

transportation (snowmobiles, small boats, canoes and pickup trucks) etc. as required by the first responders.

Year included in plan: 2009

Responsible agency: Village of Hampshire's Public Safety Committee, Hampshire Police Department, and the Hampshire Fire Protection District.

Deadline: Start the project in 2010 and have an on-going program

Cost: The start-up cost would be approximately $ 5,000 to $ 10,000 with an annual expense of between $ 5,000 and $ 10,000. Currently, due to economic constraints, there is no local funding available.

Benefits: The benefits of establishing a CERT program will provide citizens the training and knowledge to assist in a coordinated effort following large emergencies and disasters thereby reducing the overall effect of the incident.

2015 Status Update: The Village board is currently working with the Village Police Department and the Hampshire Fire Protection District to create the CERT program. the Village hopes to have a formal program established by the end of 2015.

9.8 – Hampshire, Village of

Install a solar and battery powered early warning siren for the purpose of alerting the Hampshire residents in the Northeast corner of the Village of tornado, severe storms and other potential weather related conditions.

Year included in plan: 2009

Responsible agency: The Village of Hampshire and to be radio signal activated by the Hampshire police department.

Deadline: The Village currently has no funding for this project. Once funding is established the project should take about a year.

Cost: $17,211.00

Benefits: This will allow both the new Hampshire High School and the Gary D. Wright Elementary School at the intersection of Big Timber and Ketchum Roads as well as the residents of the Lakewood subdivision maximum audio volume from this warning device. There currently is a warning siren on the North/East side of the toll way but depending on prevailing wind conditions the toll way's height blocks the full effect of that siren.

2015 Status Update: Due to funding restrictions no action has been taken on this project.

9.9 – Montgomery, Village of

The village of Montgomery has identified the need for a third outdoor weather/emergency warning siren to cover newer residential areas on the west side of the community. There are currently two village-owned sirens in operation that work in conjunction with the City of Aurora emergency warning system to cover most of the village. With the expansion of residential areas to the west and south over the past decade, it was determined that our current mapped coverage area did not include all Montgomery properties. The new siren will be placed at 2525 Dickson Road at the Dickson-Murst Farm property, and will cover an area bordered generally by Lakewood Creek Drive, U.S. Route 30, IL Route 47, and the BNSF railroad in Bristol, IL.

Year included in plan: 2014

Responsible agency: Village of Montgomery

Deadline: The village has identified funding for the installation of the siren, and is working with vendors and contractors to initiate construction in 2014. The Village anticipates having the siren operational in 2015.

Cost: $45,000

Benefits: The additional siren will provide coverage to all Montgomery properties and will work in conjunction with the existing sirens and City of Aurora system to provide early weather and emergency warnings to Montgomery residents.

9.10 – St. Charles, City of

The current Emergency Operations Center for the City of St. Charles is located in the basement of City Hall. It is cramped and floods during heavy rain events. Adequate space is not available for all radios, computers and other technology required to operate a functional center. The City is currently constructing a new Central Administrative Headquarters Fire Station and room was made available for an EOC. Money was allocated for basic construction costs to finish the space, however additional funding will be needed for outfitting the center.

Year included in Plan: 2009

Responsible Agency: Fire Department

Deadline: Upon completion of the building, approximately two budget years will be needed to acquire the radio equipment and antennas.

Cost: Total cost for construction and equipment is approximately $325,000

Benefits: A new EOC will function as the command center during any emergency impacting the community. It will have dispatching capabilities and will be able to act as a back-up to Tri Com when called to do so. This will have the effect of providing seamless response during large scale events.

2015 Status Update: The building has been completed and some of the necessary communication and technology equipment has been purchased. Due to budget constraints there remains another year to complete the purchases of the necessary communication and technology equipment to realize the EOC's full potential.

9.11 – St. Charles, City of

The City of St. Charles plays host to a number of festivals, concerts, and other large gatherings in the downtown area. The largest of these can bring tens of thousands of people into the downtown during any particular day. Currently, there is no rapid method of disseminating information concerning impending severe weather or other threats to public health. The city would like to install an AM Radio Station in the EOC and the EOC can be staffed during these events and information can be passed rapidly to the vendors and attendees.

Year included in plan: 2009

Responsible agency: Fire Department

Deadline: about one year once funding is available.

Cost: $35,000

Benefits: The Emergency Management Agency would be able to provide rapid information to those in attendance for festivals, concerts, and other gatherings on impending severe weather, sheltering locations, lost children and need for evacuation when called for. Other uses could be for the dissemination of general information in the broadcast area.

2015 Status Update: This project is still viable, however, due to budget constraints there is no funding available for Fiscal 2015/2016. The project will be re-evaluated during the budgeting process for Fiscal 2016/2017.

9.12 – Sugar Grove, Village of

The Village purchased a Federal Government FEMA Surplus Trailer that can be converted to a moveable temporary EOC Center. The Village intends to equip the trailer with communications equipment, emergency supplies, and other equipment.

Year included in plan: 2009

Responsible agency: Police Department

Deadline: About one year once funding is available.

Cost: $25,000

Benefits: This trailer, once fully equipped will give the village flexibility in coordinating the village's response to natural hazards.

2015 Status Update: The Village has not been able to fund the communication equipment part of this project. Once funding is available it should take about a year to outfit the trailer.

9.13 – Virgil, Village of

There currently is no tornado warning siren in the Village of Virgil. The village would like to install a warning siren for the purpose of alerting the residents of approaching tornados. The siren would be radio signal activated by a member of the Virgil Village Board or by a Committee member.

Year included in plan: 2009

Responsible agency: The Village of Virgil

Deadline: Currently the village has no funding for this project. Installation should take about one year once funding is available.

Cost: $25,000

Benefits: This will allow the residents of the Village of Virgil to be alerted in the event there is a tornado approaching the village area.

2015 Status Update: The village would still like to have a tornado siren but currently no funding is available for this project.

9.14 – Wayne, Village of

Currently, the Village Hall, Police Department, and Emergency Operations Center (EOC) are housed in one building. The structure is in the area of 100 years old and the largest room can hold no more than 15 people. There is no Village public building that can hold more than 15 people safely during a natural hazard incident, or the village's ability to address such an incident at the EOC. The village has identified the need for a new Police Station and EOC building.

Year included in plan: 2009

Responsible agency: Village of Wayne, Wayne Police Department

Deadline: Currently the village has no funding for the construction or outfitting of either facility. Once funding is acquired the project should be completed in two years

Cost: $750,000

Benefits: By the Village building a new EOC and increasing the size of the facility the village will be more capable of providing command and control functions during incidents.

2015 Status Update: The Village reviewed this project and would still like to have a new facility for the Police Department and EOC. However funding has not been available for such a project.

Action Item 10. Flood Control Projects

Implement flood control projects, including farm drainage improvements and projects to improve bridges and culverts, where they prove to be the most appropriate approach to reduce flood damage. Such projects need to meet the criteria listed in Section 8.8, especially the first two – ensuring no adverse impacts on other properties and coordinating projects on a watershed basis.

Responsible agency: Kane County Departments, municipal public works departments, State, County and township transportation departments.

Year included in plan: 2003

Deadline: Each jurisdiction is encouraged to continue to implement and improve flood control projects.

Cost: The cost of each project will vary. This action item calls for ensuring the projects meet the criteria set in Section 8.8.

Benefits: The benefits of each project will vary. This action item calls for ensuring the projects meet the criteria set in Section 8.8. Several of those criteria assure that adverse impacts will not be transferred on to neighboring or downstream properties.

10.1 Aurora, City of

Woodlawn Avenue, Prairie Street, and Highland Avenue Storm Sewer Improvement Project – 5000 lineal feet of storm sewers ranging in size from 12" to 36" in diameter.

Year included in plan: 2014

Responsible Agencies: Public Works Department

Deadline: Work should be completed in 2015

Benefits: Completed project should reduce frequency of sewage backup into homes and businesses along with overflows into the Fox River and Indian Creek.

Cost: As bid cost: $2,212,956.00

10.2 Aurora, City of

Charles – Harrison Sewer Separation Project - 2900 lineal feet of storm sewers ranging in size from 12" to 30" in diameter.

Year included in plan: 2014

Responsible Agencies: Public Works Department

Deadline: Work should be completed in 2015

Benefits: Completed project should reduce frequency of sewage backup into homes and businesses along with overflows into the Fox River and Indian Creek.

Cost: As bid cost: $998,198.00

10.5 – Big Rock, Village of and Kane County

The Village is collaborating with Kane County's Water Resource Department to conceptually study the drainage/flooding issues plaguing the Tenerelli Subdivision. The Village will determine a course of action upon reviewing the results of that study.

Year included in plan: 2009

Responsible Agency: The Village is the lead agency for the study/project. Kane County's Water Resources is the coordinating agency. The Village's Waste/Stormwater Committee is the contact and administrative agency.

Deadline: An RFP for the conceptual study will be submitted to consulting firms by September of 2009. The deadlines for actions resulting from the study are not known at this time.

Cost: The conceptual study is expected to cost $5,000. The costs for actions identified by the study are not known but expected to be beyond the Village's funding means.

Benefits: The Tenerelli Subdivision was developed prior to the adoption of the Kane County Stormwater Ordinance. The residents suffer with habitual ponding of water that jeopardizes the proper function of septic leach fields. During storm events, some residents cannot access their homes until the rising water recedes. The subdivision is bordered by undeveloped land with channel drainage that is choked with vegetation. This drainage channel empties into a deteriorating and undersized agricultural drain tile which carries the water from a 2,000 acres watershed to Welch Creek. On another side, the subdivision's drainage system must accommodate the run-off from a major pass through highway with inadequate right of way drainage provisions.

The conceptual study will be performed by a licensed engineer approved by the Village and County. Any action taken as a result of the study will meet the criteria set in Section 8.8 designed to assure that adverse impacts will not be transferred to neighboring or downstream properties.

2015 Status Update: Currently the Village does not have any funding for this project. The Village is looking for grants so that we can move forward on our project's

10.6 – Big Rock, Village of

After the installation of the Water Reclamation Facility, the Village is researching the feasibility of assuming responsibility for and improving the existing tile line on the south side of the town center to mitigate drainage/flooding conditions in that section of town versus developing a separate nuisance flow system and improved roadway drainage.

Year included in plan: 2009

Responsible Agency: The Village Board of Trustees with the advice and administrative assistance from the Drainage Committee.

Deadline: The Water Reclamation Facility will not be operational until 2011. A study will be performed shortly thereafter to determine the feasibility of each action.

Cost: Unknown

Benefits: The South Side of Big Rock is currently underserved by the Rhodes Ave. trunk sewer line which has the capacity to accommodate additional lateral lines for road right of way run-off. The area is also served by an inadequate and deteriorating nuisance flow drainage system. But the system may be able to be replaced on a sectional basis over a period of years to drain flooded and ponding areas on the South Side.

2015 Status Update: Currently the Village does not have any funding for this project. The Village is looking for grants so that we can move forward on our project's

10.7 – Big Rock, Village of

Two subdivisions, Bergman Estates and Raymond Woods, have been newly annexed to the Village (April 2009). The road ways and yards of these residential areas suffer from severe ponding during heavy rains or storm events. The culverts and drainage ways are deteriorating and undersized. Since an adjacent area has been subdivided in preparation for residential development, the Village would like to extend the drainage measures that will be installed for the developing area to serve the adjacent areas.

Year included in plan: 2009

Responsible Agency: The Village Board of Trustees with the advice and administrative assistance from the Drainage Committee.

Deadline: At this time the village does not have funding for this project and a deadline can not be specified until funding is established.

Cost: Preliminary estimate, $250,000 – $500,000 for the initial phase.

Benefits: The roadways and driveways in these residential areas are often impassable during and after storm events. Further, ponding on residential property negatively impacts septic field function. A properly sized and functioning system would eliminate these ponding issues and the associated health risks. By coordinating the drainage measures with the adjacent developing property, a more comprehensive solution will be implemented that considers the needs for all of the residents in that area.

2015 Status Update: Currently the Village does not have any funding for this project. The Village is looking for grants so that we can move forward on our project's

10.8 – Big Rock, Village of

The residences and school on the North Side of Big Rock drain to an inadequate and deteriorating agricultural drain tile system. Because the cost to separate these "urbanized" drainage requirements from the agricultural drain tiles is currently prohibitive, an effort has been made to re-organize the drainage district that once regulated the tile system. However, Big Rock will eventually need to create a separate drainage plan for the residential, commercial, and institutional uses for the Route 30 corridor.

Year included in plan: 2009

Responsible Agency: The Village Board of Trustees with the advice and administrative assistance from the Drainage Committee.

Deadline: At this time the village does not have funding for this project and a deadline can not be specified until funding is established.

Cost: A preliminary engineering estimate placed the projects costs in excess of $1.5 million dollars.

Benefits: The school property as the land locked depressional area holds water during any wet season and floods excessively in heavy rains and storm events. The residential properties and roadways flood in moderate to severe events. A properly sized and functioning system would eliminate these ponding issues and the associated health risks.

Additional Item: An alley behind homes on Main Street would flood when there were heavy rains. After televising the drain tile it was determined that the installation of a new manhole 25 to 30 years ago, damaged the drain tile and was not connected to the current drainage system. Removal of the damaged drain tile and installation of proper drainage lines have alleviated standing water and flooding issues previously experienced by the residents in this block of Main Street.

2015 Status Update: Currently the Village does not have any funding for this project. The Village is looking for grants so that we can move forward on our project's

10.9 – Carpentersville, Village of and East Dundee, Village of

L W Besinger Drive Stormwater Detention Facility. The current Meadowdale Mall was constructed in the late 1950's, prior to any stormwater detention requirements. The tributary area is about 90% impervious surface with fairly steep slopes, leading to intense stormwater runoff with no attenuation. This runoff has severely eroded the downstream drainage channel, in areas downcutting exists up to 10 feet deep and beginning to encroach near existing residential properties.

Year included in plan: 2009

Responsible Agencies: Village of Carpentersville and Village of East Dundee

Deadline: Currently, neither village has funding for this project and a deadline will depend on when funding becomes available. Estimated at 2 years after funding approval, for design, environmental permitting, land acquisition, and construction

Cost: $2,000,000 estimated, including 4 acre land acquisition of vacant land, design, permitting, and construction costs

Benefits: The construction of a proposed 25-30 acre-feet stormwater detention basin will bring this site into compliance with current stormwater regulations, to significantly reduce or eliminate downstream channel erosion.

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.10 – Carpentersville, Village of

Sioux Avenue to IL RT 62 and along RT 62 Stormwater Detention and Storm Sewer Project The current drainage system is severely undersized, resulting in roadway overtopping of Sioux Avenue in a 2 to 5 year interval, and severe stormwater ponding on residential property in both the Village of Carpentersville and the Village of Barrington Hills. The existing storm sewer system is in an advance state of deterioration, resulting in a court ordered twice-annually cleaning and jetting program.

Year included in plan: 2009

Responsible Agencies: Village of Carpentersville Engineering and Public Works Departments

Department *Deadline:* Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Estimated at 4 years after funding approval, for design, environmental permitting, land acquisition and construction.

Cost: $1,670,000

Benefits: Benefits will include improved drainage, construction of stormwater detention facilities to reduce downstream discharge rates, and restoration of eroded areas.

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.11 – Carpentersville, Village of

Lake Marian Watershed - Alt. C1 Alameda Avenue Culvert Replacement and channel improvement (Alameda and Kings culvert replacements and channel improvements are part of same drainage issue, can be combined if funding available for both) The existing cast in place triple box cell culvert is in an advance state of deterioration. Severe erosion has occurred in the open stream, resulting in nearly vertical banks and near-undermining of an existing Village watermain. With the existing culvert, Alameda Avenue currently overtops at between the 25 and 50 year interval.

Year included in plan: 2009

Responsible Agencies: Village Engineering Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Estimated at 2 years after funding approval, for design, environmental permitting, land acquisition and construction

Cost: $251,000

Benefits: The acquisition of one home (included in cost estimate), the replacement of this culvert, and channel improvement upstream to the RT 25 storm sewer outfall will address condition, roadway overtopping, and streambank stabilization and naturalization issues

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.12 – Carpentersville, Village of

Lake Marian Watershed - Alt. C1 Kings Avenue Culvert Replacement (Alameda and Kings culvert replacements and channel improvements are part of same drainage issue, can be combined if funding available for both) Severe erosion has occurred in the open stream, resulting in nearly vertical banks, encroaching near residential properties. With the existing culvert, Kings Road currently overtops at between the 50 and 100 year interval.

Year included in plan: 2009

Responsible Agencies: Village Engineering Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. *Estimated at 2 years after funding approval, for design, environmental permitting, and construction*

Cost: $183,000

Benefits: The replacement of this culvert, and channel improvement upstream to Alameda Avenue culvert outfall will address condition, roadway overtopping, and streambank stabilization and naturalization issues

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.13 – Carpentersville, Village of

Lake Marian Watershed - Alt. C1 Algonquin Avenue Culvert Replacement Severe erosion has occurred in the open stream, resulting in downcutting and nearly vertical banks. Debris clogging of the existing undersized culvert resulted in roadway overtopping, roadway closure, and partial roadway washout in August 2007 storm event. With the existing culvert, Algonquin Road currently overtops at between the 25 and 50 year interval.

Year included in plan: 2009

Responsible Agencies: Village Engineering Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Estimated at 2 years after funding approval, for design, environmental permitting, and construction

Cost: $342,000

Benefits: Severe erosion has occurred in the open stream, resulting in downcutting and nearly vertical banks. Debris clogging of the existing undersized culvert resulted in roadway overtopping, roadway closure, and partial roadway washout in August 2007 storm event. With the existing culvert, Algonquin Road currently overtops at between the 25 and 50 year interval. The replacement of this culvert will provide adequate drainage capacity to prevent overtopping and closure of the roadway

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.14 – Carpentersville, Village of

Lake Marian Watershed - Alt. S2 Keith Andres Park Check Dams Create 5 check dams and over 23 ac-ft of storage to reduce downstream runoff impacts, create stream crossing locations that would allow a more extensive network of trails within this 25 acre park

Year included in plan: 2009

Responsible Agencies: Village Engineering Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Estimated at 2 years after funding approval, for design, environmental permitting, and construction

Cost: $570,000

Benefits: Create 5 check dams and over 23 ac-ft of storage to reduce downstream runoff impacts, create stream crossing locations that would allow a more extensive network of trails within this 25 acre park

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.15 – Carpentersville, Village of

Lake Marian Watershed - Alt. B2 Keith Andres Park Riffle Pool Restoration / Enhancement

Year included in plan: 2009

Responsible Agencies: Village Engineering Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Estimated at 2 years after funding approval, for design, environmental permitting, and construction

Cost: $130,000

Benefits: Allow stream to reach dynamic stability by dissipating and distributing energy throughout the channel, reduce continued erosion of existing stream system.

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.16 – Carpentersville, Village of

Lake Marian Watershed - Alt. B3 or Z1 Keith Andres Park J-Hook Vanes (or) In-stream Grade Control Structures

Year included in plan: 2009

Responsible Agencies: Village Engineering Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Estimated at 2 years after funding approval, for design, environmental permitting, and construction

Cost: $295,000

Benefits: Improve creek sinuosity at desired locations by utilizing erosive velocities and reduce continued erosion of existing stream system.

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.17 – Carpentersville, Village of

Lake Marian Watershed - Alt. Z2 Skyline Avenue Gabion Embankment Stabilization

Year included in plan: 2009

Responsible Agencies: Village Engineering Department and Dundee Township Highway Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Estimated at 2 years after funding approval, for design, environmental permitting, and construction

Cost: $253,000

Benefits: Protect Skyline Avenue embankment and structural stability of roadway from erosion and damage due to poor orientation of creek related to the outlet structure

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.18 – Carpentersville, Village of

Lake Marian Watershed - Alt. Z3 Skyline Avenue Debris Control Structure to improve protection of existing creek outlet structure under Skyline Avenue

Year included in plan: 2009

Responsible Agencies: Village Engineering Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Estimated at 1 year after funding approval, for design, environmental permitting, and construction

Cost: $50,000

Benefits: Prevent debris clogging and roadway overtopping problems

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.19 – Carpentersville, Village of

Four Winds Way Creek - FEMA restudy to determine new accurate flood elevations

Year included in plan: 2009

Responsible Agencies: Village Engineering Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Study could begin within months after funding becomes available, with approximate study duration of 18 months, including FEMA concurrence

Cost: $40,000

Benefits: This project is necessary due to massive erosion from 2007 storm event which significantly widened drainage channel, very likely resulting in lowered flood elevations and possibly remapping to remove some or all of the existing 22 homes from the floodplain.

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.20 – Carpentersville, Village of

Four Winds Way Creek - Riversview Drive culvert replacement

Year included in plan: 2009

Responsible Agencies: Village Engineering Department

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. Estimated at 2 years after funding approval, for design, environmental permitting, and construction

Cost: $100,000

Benefits: Culvert was massively overtopped in 2007 storm event, resulting in some roadway damage and road closure for over a week. Culvert replacement to pass 100 year storm under roadway will addressing overtopping and closure issues

2015 Status Update: Due to funding restrictions no action has been taken on this project.

10.21 - Carpentersville, Village of

Carpenter Creek Reach #2 – Stabilization and Runoff Storage Project

Year included in plan: 2014

Responsible Agencies: Village of Carpentersville

Deadline: The Village recently received funding through the IEPA Section 319 grant program for bank stabilization and water quality improvements to a 1,500 linear foot stretch directly north of Maple Avenue of Carpenter Creek. The project is currently scheduled to commence in the spring of 2015 pending the design, environmental permitting, and land acquisition.

Cost: $1,111,500

Benefits: This project will improve and stabilize the stream banks along Carpenter Creek as well as to enhance water quality in the area. In addition, the Village also desires to improve the channel conveyance and floodplain storage along a portion of this reach to potentially remove approximately 40 structures from the regulatory floodplain. The project was listed as the highest BOD reduction project within the Jelkes Creek-Fox River Watershed Action Plan.

10.22 - Carpentersville, Village of

Washington Street Bridge Culvert Replacement Project

Year included in plan: 2014

Responsible Agencies: Village of Carpentersville

Deadline: Currently the village has no funding for this project and a deadline will depend on when funding becomes available. However, a floodplain study has been completed and will need to be updated.

Cost: $1,200,000

Benefits: This project is necessary to improve the conveyance of Carpenter Creek through the culvert as well as to reduce the regulatory floodplain adjacent to the project. Approximately 6 structures would be removed from the regulatory floodplain.

10.23 – East Dundee, Village of

The Village of East Dundee has experienced significant flooding adjacent to the McIntosh Creek watershed. All of the major crossings upstream from Van Buren Street experience frequent overtopping of the roadway causing a significant erosion control problems. The village has identified two areas where storm water detention facilities would greatly improve the quality of life for downstream residents and reduce the likelihood of property damage during exceptional rain events.

Year included in plan: 2009

Responsible Agencies: East Dundee Public Works

Deadline: Presently there is insufficient funding in the village budget to complete this project.

Cost: The estimated cost of construction including engineering is $750,000. The estimate does not include land acquisition, which would be necessary. The village would need significant funding assistance to move forward on this project. It is recommended that the downstream detention area be constructed first as funding becomes available.

Benefits: The completion of this project will prevent or reduce flooding for the residents downstream.

2015 Status update: This Project has not moved forward do to the lack of funding resources. This is still a viable project for the Village of East Dundee.

10.24 – East Dundee, Village of

The Village of East Dundee has experienced significant flooding in the Terrace and Fox River Bluff Subdivisions. This area of the village has been developed in a bowl with no gravity storm sewer release. The storm water is infiltrated by drywell throughout the subdivisions. Since the drywells have limited infiltration rate the higher intensity storms result in much of the water bypassing the drywells and ending up in the lowest part of the bowl. This area is the rear yard of several homes and a park. The proposed project is to build a detention/infiltration pond to efficiently collect the excess storm water and hold it until the infiltration rate can exceed the inflow rates.

Year included in plan: 2009

Responsible Agencies: East Dundee Public Works

Deadline: Presently there is insufficient funding in the village budget to complete this project.

Cost: The estimated cost of construction including engineering is $200,000. The estimate does not include land acquisition but the Dundee Park District has been contacted and they seem agreeable in concept and would likely grant an easement to the village. The village would need significant funding assistance to move forward on this project.

Benefits: The completion of this project will prevent or reduce flooding Terrace and Fox River Bluff Subdivisions.

2015 Status update: Currently the Village of East Dundee is working on Phase II design engineering with FEMA grant process. Final funding has not been awarded to the Village. The Village should receive notification on FEMA funding during the winter of 2015.

10.25 – Elburn, Village of

The northwest quadrant of Elburn (north of the Union Pacific Railroad Tracks and west of Route 47) is one of the oldest sections of the Village. The existing storm water drainage system is old. It was not built to handle storm water runoff from the number of residences and businesses that are tied into it. This means that the system is easily overwhelmed during, even moderately heavy, rain events. Adding to this problem are the existing drainage channels that run under the Union Pacific Railroad tracks. These channels are not large enough to completely accommodate the storm water runoff in the quadrant. The Elburn Public Works Department keeps the channels open as much as possible by regularly removing debris and blockages.

Responsible Agency: The Village of Elburn Public Works Department.

Deadline: When the property immediately south of the Union Pacific Railroad tracks is developed, the Village will require an improved storm water drainage and retention system.

Cost: Unknown at this time. The cost will ultimately have to be part of any future development of the area immediately adjacent to the south side of the Union Pacific Railroad tracks.

Benefits: Flooding of streets and basements in the northwest quadrant of the Village will be reduced significantly. The existing storm water drainage system will not be overwhelmed by moderately heavy rain events.

2015 Status update: This project is still viable, however, due to budgetary constraints for, and lack of commercial development in area, it is doubtful that any action can be taken on this project for FY 2015-2016. This project will be re-evaluated during the budgeting process for FY 2015-2016.

10.26 – Gilberts, Village of

The Village of Gilberts annexed land in 2005 on the north side of Binnie Road extending east from Galligan Road for approximately 2000'. This annexation included the previous township road known as Binnie Road. At the extreme east end of the annex roadway is a dip (depression in the roadway that will hide a vehicle for a few seconds) in Binnie Road that is bordered by a restrictive wetlands area prone to flooding in spring with snow melt and during significant rain events. The village continually asphalt patches the lowest point to keep a reasonable roadway surface. There exist field tile on the south side near the wetlands that is compromised at times and requires excavation and mechanical pumping to help alleviate the standing water.

The village would like to remove the existing roadway surface, install a series of engineered culverts, place road rock to an engineered height and then pave the new roadway raising the roadway out of the dip and out of the flood way.

Year included in plan: 2009

Responsible Agencies: Public Works Department

Deadline: The Village currently has no funding for this project. Once funding is established the project should take about a year.

Cost: $450,000

Benefits: This would eliminate the roadway surface being submerged under flood water for any period of time. Emergency vehicles and normal traffic will be able to use the roadway at all times and travel much safer without the blind dip in the road.

2015 Status Update: The Village has not been able to fund this project but would still like to complete the work once funding is available.

10.27 – Maple Park, Village of

The Village of Maple Park is working on flooding issues, on the North side of Maple Park, near the water tower and the Heritage Hills Subdivision. Village engineers have begun mapping these areas where flooding occurs. The Village proposes to install new storm water sewer lines and catch basins in these areas; the water on the north side of town will then flow to a detention pond to the west or to the drainage ditch to the south, to allow the water to flow away from these areas. In the Heritage Hills subdivision, increase the size of the existing storm sewers to the north, add a new storm sewer line and catch basin to the south, this water will then flow out to Union drainage ditch #2

Year included in plan: 2009

Responsible Agencies: Village of Maple Park

Deadline: Presently there is no funding in the village budget to complete this project.

Cost: The estimated cost of this project is over $500,000. At this time the Village does not have the resources to fund this project. Once funding is secured, the Village Engineer's will develop a specific plan for the project to go forward.

Benefits: This project will be beneficial to the surrounding homeowners that suffer basement flooding when heavy rainfall occurs. It will also benefit and alleviate flooding at the Well Pumping Station and Sanitary Sewer Lift Station.

2015 Status Update: In 2012, the village installed a storm drain at the NE corner of Elm & Broadway and also increased the size of the existing storm sewers in the Heritage Hills

subdivision. In 2013, the village installed a new storm drain at the NW corner of Broadway and Willow. In 2014, the village installed a new storm sewer line on Willow Street from Liberty to Green. Although this is a large amount of improvements for the area this will not completely solve the flooding issue. Currently the village does not have any funds allocated in the current budget for any additional improvements. As funding becomes available the village will continue to implement improvements in this area.

10.28 - Montgomery, Village of

The Montgomery Overflow of Blackberry Creek conveys flood water from Blackberry Creek to the Fox River in large flooding events. In normal conditions the area is drained by a 12 inch agricultural drain tile which is currently in disrepair and there is standing water through much of the overflow route. The Village proposes to replace the drain tile and restore drainage to the area allowing the soils to drain and restoring their water holding and infiltration capacity allowing the Overflow to function better in flooding events.

Responsible Parties: Village of Montgomery and Kane County

Deadline: Currently the Village has no funding for this project and a deadline will depend on when funding becomes available. The project can be constructed in phases with the first phase starting after funding is secured and the whole project completed within two years of funding.

Cost: $100,000 for replacement of approximately 4500 feet of 12 inch drain tile

Benefits: By replacing the drain tile normal drainage can be restored to the Montgomery Overflow area. This will restore the capacity of the soils for infiltration allowing the Overflow to function better in flooding events. Restoring normal drainage to the area will also allow the agricultural lands to be farmed and reduce the impacts that high water tables have had on surrounding residential areas.

2015 Status Update: The Village has looked at this project during the 2015 update and decided that the project is still a good project but currently no funding is available for the project.

10.29 – Montgomery, Village of

In the spring of 2013, residents of the Lakewood Creek West subdivision whose homes back up to a large parcel of ComEd right-of-way experienced basement flooding after a 5.5” rain event within 24 hours. During heavy rains the low-lying ComEd depressional filled with storm water runoff which rose to within 6” – 12” of ground level door thresholds. Although water did not flow directly into the homes, the high water levels and increased burden placed on sump pumps caused basement flooding in adjacent homes. The Village Engineer and Public Works staff developed a 3 phase plan for reducing the elevation of stored storm water. Phase I will include the upsizing of detention basin restrictor plates at downstream detention basins to allow improved

passage of storm water. Phase II will be the installation of a 24 inch storm sewer to by-pass the ComEd depressional storage area and transmit the storm water to the existing Lakewood West detention basin system. Phase III will be the construction of a secondary storm sewer outfall through the adjoining Lakewood Creek storm sewer/detention system.

Year included in plan: 2014

Responsible agency: Village of Montgomery

Deadline: The village Public Works staff completed the Phase I improvements in the Fall of 2013 for $15,000. The Village will monitor the area to determine the level of improvement achieved by the Phase I changes, and will look to secure funding for Phase II and Phase III improvements, with installation to take place in the appropriate budget year following fund appropriation.

Cost: Phase I: $15,000, Phase II: $115,000, Phase III: $22,000, Total $152,000

Benefits: Phase I improvements increased detention release rates without causing downstream high water issues, which allowed for a larger volume of available detention within the Lakewood West basin system. Phase II and III improvements will allow positive drainage paths that will greatly reduce or eliminate the storage of storm water runoff in the ComEd right-of-way.

10.30 – Sleepy Hollow, Village of

The village has experienced flooding in the area along Sleepy Creek between Winmoor Drive on the west and Locust on the east and Sycamore on the north and Willow on the south. Correcting this situation will require re-grading of existing swale and storm drainage as well as possible repair, replacement or removal of existing dams.

Year included in plan: 2009

Responsible Agencies: Board of Trustees/Village Engineers and Public Works

Deadline: The Village does not currently have funding for this project.

Cost: $750,000

Benefits: resolve repeated flooding of property within the described boundaries.

2015 Status Update: The Village does not have the funding, but still desires to complete this project.

10.31 – Sleepy Hollow, Village of

The village has experienced flooding in the area along Jelkes Creek between Sleepy Hollow Road on the west and Bullfrog Lane on the east and Route 72 on the north and Boncosky Road on the south. Critical facilities in this area, which experience flooding, include the Village Hall, Village Police Department, Village Public Works and the Rutland-Dundee Fire Protection District fire station. This will require possible remeandering of the creek along with increasing the height of the bank downstream as well as establishing additional detention/retention along with swale and drainage re-engineering.

Year included in plan: 2009

Responsible Agencies: Board of Trustees/Village Engineers and Public Works

Deadline: The Village does not currently have funding for this project.

Cost: $1,250,000

Benefits: resolve repeated flooding of property within the described boundaries including the critical facilities listed above.

2015 Status Update: The Village does not have the funding for this project but still desires to complete this project.

10.2. Public Information Strategy

Action Item 11. Hazard Mitigation Materials

Prepare background information, articles, and other explanations of hazard mitigation topics, including:

- The natural hazards that threaten Kane County
- What the sirens and warnings mean
- Safety and health precautions
- What government agencies are doing and how they can help
- The hazard mitigation benefits of preventive measures
- The procedures that should be followed to ensure that new developments do not create new problems.
- The need to protect streams and wetlands from dumping and inappropriate development.
- The hazard mitigation benefits of restoring agricultural drainage and rivers, wetlands and other natural areas.

These materials are to be provided to County, municipal, school, and private offices for use in presentations, newsletter articles, webpages, brochures and other outreach projects.

Year included in plan: 2003

Responsible agency: Kane County Office of Emergency Management, Water Resources Department, and municipalities. The Red Cross should provide technical advice.

Deadline: Each jurisdiction is encouraged to continue to develop materials for the public on natural hazard mitigation strategies and then use the materials for action item 12. Outreach Projects, listed below.

Cost: Staff time

Benefits: By preparing a master set of locally pertinent articles and materials, each interested office only has to select the most appropriate media and distribute the messages. By simply inserting an article in a newsletter or putting it on the website, the local level of effort is greatly reduced, which increases that likelihood that the messages will get out. The messages will also be technically correct and consistent throughout the County.

Action Item 12. Outreach Projects

Prepare and disseminate mitigation information based on the materials provided under action item 11. Such projects should include articles in newsletters, news releases, directed mailings, handouts, websites, and displays. Different media should be used for the following audiences:

- The general public
- Floodplain residents
- Developers and builders
- Farm owners and operators
- Decision makers
- Schools and teachers

Provide building departments, libraries and other interested offices with a list of references on property protection. Include a request that they make the references available for public use. A special effort should be made to identify references on insurance, flood proofing and other methods of flood protection.

Year included in plan: 2003

Responsible agency: Kane County Office of Emergency Management. Municipal leads to be designated by the municipality's adopting resolution. The Red Cross should also participate.

Deadline: Each jurisdiction is encouraged to continue implementing outreach projects and provide mitigation information to the public

Cost: Most projects will only cost staff time, such as newsletter articles and websites. Others, such as directed mailings and brochures, will have printing and/or postage expenses.

Benefits: There are many benefits to having a well-informed public. For example, deaths from lightning have steadily decreased over the years because people are more aware of what they should and should not do. More self-help and self-protection measures will be implemented if people know about them and are motivated to pursue them.

10.3. Administrative Action Items

This section reviews the additional action items that are needed to administer and support the recommendations of the two previous sections.

Action Item 13. Plan Adoption

Adopt this *Natural Hazards Mitigation Plan* by passing a resolution. The County's resolution creates the Mitigation Coordinating Committee which is described in the next action item. The municipal resolutions adopt each action item that is pertinent to the community and assigns a person responsible for it.

Year included in plan: 2003

Responsible agency: County Board, Village Boards and City Councils

Deadline: With each update of the plan the county and participating jurisdictions will need to adopt or re-adopt the updated plan within one year of tentative plan approval from FEMA.

Cost: Staff time

Benefits: Formal adoption of the plan ensures that County and municipal staffs are authorized and instructed to implement the action items. Adoption is also a requirement for recognition of the plan by mitigation funding programs and the Community Rating System.

Action Item 14. Mitigation Coordinating Committee

The Natural Hazards Mitigation Planning Committee has been converted to a permanent advisory body in the County's original resolution to adopt this *Plan*. The Committee:

- Act as a forum for hazard mitigation issues,
- Disseminate hazard mitigation ideas and activities to all participants,
- Monitor implementation of this Action Plan, and

– Report on progress and recommended changes to the County Board and each municipality.

The Committee does not have any powers over staff or the municipalities. It is purely an advisory body. Its primary duty is to collect information and report to the County Board, the municipalities, and the public on how well this *Plan* is being implemented. Other duties include reviewing mitigation proposals, hearing resident concerns about flood protection and related matters, and passing the concerns on to the appropriate entity.

The Mitigation Committee is, in effect, Kane County's hazard mitigation conscience, reminding the member agencies and municipalities that they are all stakeholders in the plan's success. The resolution charges it with seeing the *Plan* carried out and recommending changes that may be needed. While it has no formal powers, its work should act as a strong incentive for the offices responsible for the action items to meet their deadlines.

Year included in plan: 2003

Responsible agency: The Kane County Development and Community Services Department, Division of Transportation, Environmental and Water Resources Division, GIS Technology Department, and the Office of Emergency Management as well as a representative from each participating jurisdiction.

Deadline: The yearly report is due to the County Board in December of each year. The reports should also be made available to all participating jurisdictions. An annual evaluation of the plan's implementation is required for credit under the Community Rating System. A five year update is required for continuing credit of this *Plan* under the Community Rating System and FEMA's mitigation funding programs.

Cost: Staff time.

Benefits: Those responsible for implementing the various recommendations have many other jobs to do. A monitoring system helps ensure that they don't forget their assignments or fall behind in working on them. The *Plan* should be evaluated in light of progress, changed conditions, and new opportunities.

Action Item 15. Community Rating System

Host a workshop to review floodplain management activities currently undertaken and those recommended by this *Plan (*see the paragraphs on CRS credit at the end of the discussion of each mitigation measure in chapters 4 – 9). Participants will determine whether to apply for a Community Rating System flood insurance premium rate discount. If so, they would submit an application.

Year included in plan: 2003

Responsible agency: Kane County Departments. Municipal leads to be designated by the municipality's adopting resolution. Technical support and a workshop can be provided by the Insurance Services Office.

New Deadline: This action item will be continuous.

Cost: Staff time.

Benefits: There are many benefits to CRS participation, as explained in the document, *CRS Application*. In addition to saving residents money, it has been shown to provide an effective incentive to implement and maintain floodplain management activities, even during times of drought.

10.4 Action Items Completed Since the 2009 Update

Mitigation projects completed from Action Item 1. Building Code Improvements

1. **Geneva, City of**

The City of Geneva will review the 2009 I-codes for amendments and adoption.

Benefits: Benefits will include improved construction of facilities, consistent application of the codes.

The City of Geneva adopted the 2009 International Building Code in June of 2011.

Mitigation projects completed from Action Item 9. Improved Emergency Response

1. **Batavia, City of**

The City of Batavia has identified the Public Works facility as being vital to emergency operations. The existing emergency backup generator within the facility is insufficient to support all tasks necessary for emergency operations. The existing generator will be replaced with a larger natural gas powered unit.

Benefits: Provide backup power source for Public Works facility in support of emergency operations.

The City completed this work in 2011

2. **Carpentersville, Village of**

Currently the village Emergency Operations Center (EOC) is located in the Police Department and doubles as the Departments Roll Call room. Anytime the room is activated, phones, computers, tables, chairs, and other supplies are assembled. The Village has plans for a new Public Works facility where an EOC will be added to the basement area. Currently the Village collects approximately $5,000/year for the ESDA operating budget. Any grant money would be used to supplement this amount.

Benefits: Reduce the impact of natural and man-made disasters and emergencies to the community due to increased response capability. The EOC can be a vital resource in coordinating the Village's response to provide the highest level of service to the community. The EOC will then be fully outfitted with radios, computers, phones, and other supplies in a "ready" state.

The Village constructed the public works facility and established an EOC within the facility in 2013.

3. Geneva, City of and all municipal jurisdictions in the county.

The county had a committee of building department officials from each municipality. For the most part this committee has ceased to exist. The committee worked on common building department issues including mutual aid of building officials for emergencies and disasters. The lead agency for this committee has been the city of Geneva Building Department. It has been determined that this committee should be resurrected.

Benefits: Benefits will be unified structure for requesting and receiving help from other communities in the event of natural hazards.

The local municipalities started to meet again monthly back in 2012. Starting in February of 2015 all local municipalities are reviewing the 2015 I codes as a group for possible adoption.

4. Pingree Grove, Village of

The village of Pingree grove has identified a need for outdoor warning sirens within the village. In 2008 the village installed its first warning siren on Reinking Rd to serve the residents of the Heritage District and Cambridge Lakes South area of the village. A second siren is needed for the Cambridge Lakes North area. This area is bordered by Rt. 47, Rt. 72, and Big Timber Rd. The planned siren would be consistent with the specifications of the current siren and would be installed based on the Village Engineer's recommendations for maximum coverage.

Benefits: This type of warning system greatly benefits the residents of Pingree Grove by alerting them in advance of severe weather allowing them to seek shelter and a place of safety

The Village of Pingree Grove installed the storm sirens in 2013

5. South Elgin, Village of

The Village of South Elgin has had several major flooding events affect its residents in the past several years. The village would like to improve the response time for sandbagging operations and increases the overall sandbagging effort for the residents. The village has identified a need to purchase a four-chute sandbagging machine to address this issue.

Benefits: The purchase of this sandbagging machine should expedite the filling of sandbags for residents and it is expected the response time of filled sandbags to the affected area will improve.

The Village of South Elgin purchased the four-chute sandbagging equipment in 2010.

6. West Dundee, Village of

Historically, the Village of West Dundee has provided itself with a part-time Emergency Management Agency (EMA) Coordinator. This position was incorporated into the job description of the Deputy Fire Chief, which also was a part-time position. Due to fiscal restraints and the current state of economic affairs with the Village, the position of Deputy Chief has been eliminated and not replaced. However the village would like to establish an EMA coordinator as soon as the financial situation allows.

Benefits: The position would be responsible for the coordination of the Village's Emergency Operations Plan with the departments of Administration, Community Development & Building, Fire, Police and Public Works. The Part-Time EMA Coordinator would be tasked with the revision and development of a Village of West Dundee Emergency Operations Plan, incorporating the guidelines and practices of the National Incident Management System. The function of the EMA Coordinator would be the preparation of all Village Departments in the event of a natural and/or man-made disaster; and to coordinate the efforts with the surrounding municipalities of Carpentersville, East Dundee, Elgin, Gilberts, Sleepy Hollow as well as the Kane County Office of Emergency Management.

The Village has secured a part-time EMA Coordinator; however not at the proposed compensation rate.

7. West Dundee, Village of and Carpentersville, Village of

Administrative staff has met with our equivalents from Carpentersville to discuss the possibility of a water system interconnect. Carpentersville's west water tower is in need of routine maintenance, including cleaning and painting. However, without that tower, their water distribution system would have a difficult time maintaining adequate water

pressure through the western half of their Village. West Dundee will face similar obstacles when the Randall Road Water Tower is serviced in the future. A resolution for both communities needs would be to interconnect each Village's water systems. This would allow for one community's tower to be taken out of service and then utilize the other community's tower to maintain their system's pressures. The interconnect would be utilized only during times of tower maintenance, high fire volume flows or in response to a catastrophic event. Pending approval by the two communities, construction would be in 2010 with the interconnect available for use by spring, 2011. The estimated cost for this project would be split between the two communities.

Benefits: This project will provide emergency access to adjacent community's water supply in the event of extended high fire flows, catastrophic event of reservoir supply (tower failure) or extended disruption of water production capability. Also, this project will enhanced the ability to perform preventative maintenance on existing water distribution/production system with little to no impact on maintaining current and required water system pressures.

This project has been completed.

Mitigation projects completed from Action Item 10. Flood Control Projects

1. **Algonquin, Village of**

Ratt Creek Tributary adjacent to Edgewood Drive. The existing channel is subject to high velocities and severe erosion has occurred in the open stream resulting in severely sloped banks and potential undermining of Edgewood Drive and Harper Drive. The Village has developed Streambank Stabilization plans for the above reach of Ratt Creek Tributary to stabilize the channel and protect adjacent roadways.

Benefits: The proposed improvements will stabilize the Ratt Creek Tributary streambank and ultimately protect Edgewood Drive and Harper Drive.

The Village of Algonquin has completed this project.

2. **Aurora, City of**

The City of Aurora has experienced flooding upstream of Illinois Avenue in a drainage from Greenfield Lake to Orchard Lake. The city has identified the cause of this flooding to be undersized culverts under Illinois Avenue. The undersized culverts need to be replaced.

Benefits: Replacement of the undersized culvert should alleviate the flooding.

Completed on 08-27-11 with a final cost of $228,972.00

3. Aurora, City of

The City of Aurora is proposing to construct storm sewers within sewer basins 5, 6, and 13. The improvements are as follows:

2.1 Basin 6 Fulton, Smith, and Fenton St. Storm and Sanitary Sewer Improvements – which consists of approximately 6,800 lineal feet of storm sewers ranging in size from 12" to 42" in diameter.

Completed on 4-21-11 with a final cost of $1,452,066.81

2.2 Basin13 River St Sub Basin Storm Sewer Improvements Phase 2 - which consists of approximately 3,900 lineal feet of storm sewer ranging in size from 6" to 27" in diameter.

Completed on 10-5-10 with a final cost of $307,436.86

2.3 Basin13 River St Sub Basin Storm Sewer Improvements Phase 3 - which consists of approximately 7,800 lineal feet of storm sewer ranging in size from 12" to 26" in diameter.

Completed on 12-10-10 with a final cost of $2,046,580.07

4. Aurora, City of

The City is in the process of preparing a CSO LTCP that will be used as a planning tool to decrease the frequency of combined sewage overflows into the Fox River and Indian Creek. The plan is a requirement listed in the City's CSO NPDES permit.

Benefits: Completed project should reduce frequency of sewage overflows into the Fox River and Indian Creek.

The preparation and review of the LTCP was completed in July of 2010.

5. Batavia, City of, Geneva, City of & Kane County

Kane County and the cities of Batavia and Geneva have identified that flooding occurs near and along the Braeburn Marsh during heavy rain events. The City has contracted with a consultant to model the watershed and identify flood mitigation projects for the area. Once the mitigation projects have been identified the city will prioritize the projects and start construction; assuming funding will be available from the city or grants are obtained.

Benefits: To prevent or reduce future flooding in the Braeburn and Crestview Subdivisions.

The study for this item was completed in 2010/2011 and the construction was completed in 2012/2013

6. Batavia, City of

The City of Batavia has identified the need to reconstruct the Carriage Crest sanitary lift station. The station serves approximately three hundred acres with a flow of 2,100+/- P.E. The station was constructed in 1968 and is nearing the end of its useful life. Failure of the lift station would result in sanitary sewer overflows. The Carriage Crest Lift Station is located within the Crestview subdivision. Depending on the results of the ongoing Braeburn March drainage study, the lift station may be reconstructed to include a separate storm water lift station.

Benefits: To prevent sanitary sewer overflows. To reduce groundwater levels.

The construction for this action item was completed in 2010/2011

7. Burlington, Village of

To alleviate flooding on the east side of the Village of Burlington wants to improve the drainage from the south side of the railroad tracks to the north side of the railroad tracks. This work would involve replacing drainage tile that has been in place under the railroad since the late 1890's and replace the section of tile on the north side of the tracks, going under the abandoned grain mill and continuing to the north east that is collapsing.

During 2008 the Village undertook steps to assess the condition of the drainage tile after experiencing backup flooding in the eastern area of the Village. Portions of this tile were televised and the collapsing state of the tile was seen. Further improvements would include a grate over the opening of the tile on the south side of the tracks and drainage improvements/replacement of drainage tile.

Benefits: to alleviate damages to businesses, homes, well and property in the Village of Burlington.

In 2013, the Village of Burlington completed this project using grant money.

8. Campton Hills, Village of

During extended wet weather or major storms extensive flooding occurs along Denker Road in the area of the Vestuto property. This flooding creates a wash –out of Denker Road closing the road to traffic affecting 750 vehicles per day. The adjacent property is also being flooded. To elevate these problem 2-24 inch culverts will need to be placed to increase conveyance of 345 cfs of flow. Additional re-grading of Denker Road and the driveway approach to the private residence and ditch grading will also need to be completed.

Benefits: This project would eliminate additional ongoing costs needed to keep the road open, allow access to emergency vehicles and the citizens of the village, and prevent or reduce flooding to the adjacent property.

This project was completed and the Village has not had any more issues up to the present, within this area causing road closures or flooding of nearby residences.

9. Sleepy Hollow, Village of

The village has identified Saddle Club subdivision and Deer Creek subdivision water shed area as having flooding problems. The village would like to Re-engineer and re-grad swales and storm drainage along with resizing and replacement of culverts.

Benefits: Resolve repeated flooding of streets and property within the described boundaries.

This project was completed in 2012.

10. South Elgin, Village of

Within the Village of South Elgin the area in and near the Renee Detention Pond floods during large rain events. During the September 13, 2008 rain event, the village received 9.38 inches of rain and as a result of this event the village initiated an immediate storm water study in the area resulting of a regional solution to the problem. The village will install a 36 inch storm sewer on Kane Street to carry the storm water from the Kane Street Detention Pond straight to the Fox River thereby avoiding the nearby neighborhood. Rear yard storm sewers will be constructed on Martin Drive between Spring Street and Kane Street. Residents will be allowed to hook up to the new storm sewers once constructed. Other area improvements such as more inlets on the area streets for drainage will be constructed as well as improvements on the Renee Detention Pond.

Benefits: By installing the 36 inch storm sewer and other improvements in the area the amount of storm water moved out of the area directly to the Fox River will be increased, thereby preventing or reducing future flooding in the area.

The Village of South Elgin completed the 36" storm sewer in 2011. This sewer has greatly improved the capacity of the storm sewer system as well as making several neighborhoods safer during storm events due to the elimination of street flooding.

10.5 Action Items Removed at the Jurisdictions Request since the 2009 Update

Action Items removed from Action Item 11. Flood Control Projects

1. Carpentersville, Village of

Lake Marian Watershed - Alt. S1 Keith Andres Park Class II Dam Installation

APPENDIX N

Plan Maintenance Checklist

We are in the process of conducting our annual evaluation/status update for our Multi-Jurisdictional Hazard Mitigation Plan. Please review the following tasks and complete and return this checklist along with the necessary forms. If you have any questions, please let us know.

Jurisdiction: _____

Prepared By: _____

Title: _____ Date: _____

TASK 1: DAMAGE INFORMATION

Has your jurisdiction sustained any natural hazard-related damages to critical facilities and infrastructure within the last year?

☐ Yes ☐ No ☐ Don't Know

If Yes, please complete and return the attached critical facilities damages questionnaire.

TASK 2: STATUS OF EXISTING PROJECTS/ACTIVITIES

Please look over the attached Mitigation Action Tables for your jurisdiction and determine whether any of the mitigation projects/activities listed have been completed or are in progress (in the planning stages.)

Does your jurisdiction have any mitigation projects/activities in progress (in the planning stages) or completed?

☐ Yes ☐ No

If Yes, please fill out and return the attached Mitigation Action Progress Report for each project/activity that has been completed or is in progress.

Has your jurisdiction undergone any changes in priorities within the last 12 months that would impact the implementation of the listed mitigation projects/activities?

☐ Yes ☐ No

If yes, please detail the changes in priorities.

_____

_____

_____

Plan Maintenance Checklist

TASK 3: IDENTIFICATION OF NEW PROJECTS/ACTIVITIES

Are there any new mitigation projects/activities your jurisdiction would like to see add to the Plan? (Remember, only projects included in the Plan are potentially eligible for federal mitigation projects funding.)

☐ Yes ☐ No

If yes, please complete and return the attached New Mitigation Project Form.

TASK 4: JURISDICTION EVALUATION

Have there been any significant changes in development in your jurisdiction within the last 12 months (i.e. expansion of existing businesses, siting of new businesses, new subdivision development, or expansion of existing subdivisions, demolition of businesses/residents to create green spaces, etc.)

☐ Yes ☐ No

If yes, please specify the type of development changes.

Has your jurisdiction adopted any new/updated policies, plans, regulations, or reports (i.e., comprehensive plans, building codes, zoning ordinance, etc.) that could be incorporated into this Plan?

☐ Yes ☐ No

If yes, please provide the name of the policy, plan, regulation, or report and its purpose.

Were any components of the Hazard Mitigation Plan (i.e., mitigation actions, vulnerability analyses, etc.) integrated into any new/updated policies, plans, regulations, or reports (i.e., comprehensive plans, building codes, zoning ordinance, etc.)?

☐ Yes ☐ No

If yes, please provide the name of the policy, plan, regulation, or report and what component(s) of the hazard mitigation plan were integrated.

Plan Maintenance Checklist

TASK 4: JURISDICTION EVALUATION CONTINUED…

Do any new critical facilities or infrastructure need to be added to your jurisdiction's Critical Facilities Survey?

☐ Yes ☐ No

If yes, please provide the name and address of the facility.

What are your plans for sharing information on the Plan and its annual progress with your jurisdiction and constituents (i.e., informal presentation at board/council meeting, posting update to social media or website, etc.)?

Critical Facilities Damage Questionnaire

Supplemental information about ***damages to critical infrastructure/facilities*** (i.e., government buildings, schools, communication towers and radio equipment, water & sewer treatment facilities, hospitals, medical centers, etc.) that have ***taken place*** in the participating jurisdictions and County is needed for the risk assessment/vulnerability analysis portion of the Plan. If you could take a moment and think about the critical infrastructure damages caused by past natural hazard occurrences and provide any available information in the form below, it would be greatly appreciated.

Please complete <u>one record</u> for <u>each natural hazard event that damaged a critical facility</u>. Do not combine multiple events on one record. Additional forms are located on the back of this page. Please return the completed form(s) to Andrea or Zak. Thank you!

Jurisdiction: _____

Prepared By: _____ Date: _____

1.) Date of Event (month/day/year if possible)**:** _____

2.) Critical Facility Damaged: _____

3.) Type of Hazard:

☐ thunderstorm (straight-line winds)	☐ tornado	☐ landslide
	☐ snow storm	☐ sinkhole
☐ hail	☐ ice storm	☐ mine subsidence
☐ lightning strike	☐ extreme cold	☐ earthquake
☐ heavy rain	☐ drought	☐ levee failure
☐ flood	☐ excessive heat	☐ dam failure

4.) Types of Damages: _____

_____

5.) Estimate of Damages: $ _____

Mitigation Action Progress Report

As part of the Plan Maintenance "monitoring" phase, the implementation status of each project and activity listed in the Plan for the participating jurisdictions needs to be identified.

1) Please review the Mitigation Action Tables provided for your jurisdiction to determine whether any of the projects/activities listed have been ***"Completed"*** or are ***"In Progress"*** (in the planning stages.)
2) For each project or activity that is ***"Completed"*** or "***In Progress"***, please fill out the following Progress Report.

Jurisdiction: _____

Prepared By: _____

Title: _____ Date: _____

Progress Report Period	From Date: To Date:
Project/Activity Description	
Responsible Agency	
Project Status	☐ In Progress ☐ Approved by Council/Board ☐ Included in Capital Improvement Plan/Slated for Construction & Implementation ☐ Grant Completed & Submitted ☐ Letting/Contractor Selected ☐ Notice to Proceed Issued ☐ Construction Underway ☐ Anticipated Completion Date: _____ ☐ Other (please specify): _____ ☐ Completed ☐ Project Delayed ☐ Project Cancelled

SUMMARY OF PROJECT PROGRESS FOR THIS REPORT PERIOD

What was accomplished during this reporting period for this project?

Were any obstacles, problems or delays encountered? ☐ Yes ☐ No ☐ Don't Know
If Yes, please describe:

If the project was delayed, is it still relevant? ☐ Yes ☐ No ☐ Don't Know
If Yes, should the project be changed/revised?

Other comments:

New Hazard Mitigation Projects Form
Multi-Jurisdictional Hazard Mitigation Plan

Participating Jurisdiction _____

Prepared by: _____

Title _____ Date: _____

	Project Description	Position/Organization Responsible for Implementation & Administration of the Project *(i.e. Mayor / City Council; Public Works Director; Fire Chief / Board of Trustees)*	Time Frame to Complete the Project *(i.e. 1 year; 5 years; 2-5 years)*
1.			
2.			
3.			
4.			

APPENDIX O

Resolution No. 2024-_____

A RESOLUTION OF THE UNITED CITY OF YORKVILLE ADOPTING THE 2024 KENDALL COUNTY MULTI-JURISDICTIONAL MULTI-HAZARD MITIGATION PLAN

WHEREAS the United City of Yorkville recognizes the threat that natural and man-made hazards, including severe thunderstorms, severe winter storms, floods, and tornadoes among others, pose to people and property within the United City of Yorkville; and

WHEREAS the United City of Yorkville has prepared a multi-hazard mitigation plan, hereby known as the 2024 Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan in accordance with federal laws, including the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended; the National Flood Insurance Act of 1968, and the National Dam Safety Program Act, as amended; and

WHEREAS the 2024 Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the United City of Yorkville from the impacts of future hazards and disasters; and

WHEREAS adoption by the United City of Yorkville demonstrates its commitment to hazard mitigation and achieving the goals outlined in the 2024 Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan.

NOW THERFORE, BE IT RESOLVED BY United City of Yorkville, ILLINOIS, that the United City of Yorkville adopts the 2024 Kendall County Multi-Jurisdictional Multi-Hazard Mitigation Plan and agrees to participate in the annual maintenance and evaluation of the Plan.

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

CITY CLERK

KEN KOCH	_____	DAN TRANSIER	_____
ARDEN JOE PLOCHER	_____	CRAIG SOLING	_____
CHRIS FUNKHOUSER	_____	MATT MAREK	_____
SEAVER TARULIS	_____	RUSTY CORNEILS	_____

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

MAYOR

Attest:

_____

CITY CLERK

Reviewed By:	
Legal	■
Finance	□
Engineer	□
City Administrator	■
Community Development	■
Purchasing	□
Police	□
Public Works	□
Parks and Recreation	■

Agenda Item Number

Mayor's Report #8

Tracking Number

CC 2024-30

Agenda Item Summary Memo

Title: PZC 2024-13 Unified Development Ordinance – Text Amendment for Land Cash

Meeting and Date: City Council – April 23, 2024

Synopsis: Text Amendment to Unified Development Ordinance regarding land cash ordinance.

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Krysti J. Barksdale-Noble, AICP (Name) Community Development (Department)

Agenda Item Notes:

See attached memo.

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/gov_officials.php

Memorandum

To: City Council
From: Krysti J. Barksdale-Noble, Community Development Director
CC: Sara Mendez, Planner I
Bart Olson, City Administrator
Date: April 15, 2024
Subject: **PZC 2024-13** Park & Recreation Land and School Site Dedication Proposed Text Amendment

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Summary

A request to amend 10-7-9 Park and Recreation Land and School Dedication in the Unified Development Ordinance regarding the methodology, criteria, and formula for requiring park and recreation and school site dedication as a condition of final plat approval of a subdivision. The proposed amendments would revert the calculations to the prior ordinance adopted in 1996 and provide continuity in calculating park and school land cash fees for current and future residential developments. Recommended revisions are specific to Table 10-7-9(A)(1): Parkland Dedication Requirements, Table 10-7-9(B)(1): School Dedication Requirements, and Table 10-7-9(D): Estimated Population Per Dwelling Unit.

Background

In January 1996, the City of Yorkville adopted a Land Cash Ordinance which established the required minimum land dedication for parks and schools upon approval of a final plat of subdivision for new residential developments. The land cash ordinance also allowed for a cash in lieu payment rather than the actual land or a combination of both if the development site could not reasonably accommodate the required minimum acreage to be dedicated for public parks and schools.

At that time, the formula for calculating the minimum required land dedication was derived from the Illinois State Board of Education recommendations for minimum site criteria based on school classification by grade, county average students per school classification, and county average acreage per school classification. Ultimately, the number of students to be generated by a subdivision or planned unit development was calculated using a data from 1993 which determined the minimum acreage (park and school) required to be dedicated or funded in cash.

Since 1996, there have been four (4) amendments to the Land Cash Ordinance related to the fair market value for an improved acre of land in Yorkville. Although the ordinance states *"it is recognized that population density, age distributions and local conditions change over years, and the specific formula for the dedication of land, or the payment of fees in lieu thereof… are subject to periodic review and amendment if necessary"*, there has been no changes to the methodology the City uses to determine land cash calculations in nearly 30 years.

Unified Development Ordinance

As part of the Unified Development Ordinance adoption, the consultant prepared recommended changes to the City's established land cash population methodology, estimated number of students per school classification, and minimum numbers of acres required for both park land and school site dedication. According to staff's research, these numbers were based off of the 2010 Illinois Capital Development Board's (ICDB) Acreage Guidelines which serves as the construction management arm for Illinois State Government and most school districts follow these standards when deciding to construct new facilities, as well as the School Construction Laws in the state statute. Furthermore, many area communities have adopted this methodology as well, such as Oswego, St. Charles, Joliet, Elgin, New

Lennox, Woodridge, and the Village of Sleepy Hollow (cited in the UDO). Therefore, the recommendation was made to modernize the land cash formula which was codified in the Unified Development Ordinance.

Comparison of Former & Current Calculations

The following table illustrates the comparison of the formula from the previous land cash ordinance (approved via Ord. 1996-3) and the current UDO formula:

Former Land Cash Dedication Requirements (Ord. 1996-3)				**UDO School Land Cash Requirements (Ord. 2023-60)**			
School Classification	*County Average Students per school classification*	*County Average Acreage per school classification*		*School Classification*	*Maximum Number of Students for school classification*	*Minimum Number of Land Acres for school classification*	
Elementary	321.50	7.25	0.0225 ac/student	**Elementary**	600	11	0.018 ac/student
Middle	429.88	15.92	0.3703 ac/student	**Middle**	900	19	0.211 ac/student
High School	590.0	49.30	0.0835 ac/student	**High School**	2,300	48	0.208 ac/student

The City previously based our school land cash requirements on an assumption that an average of 321 kids would be in a 7.25-acre elementary school, 429 kids would be in a ~16-acre middle school, and 590 kids would be in a 49-acre high school. The City's new land cash ordinance changed the methodology of the fees to reduce the total donation from developers to the school district because we modified the population projection table and moved to an assumption that a maximum count of 600 kids would be in an 11-acre elementary school, 900 kids would be in a 19-acre middle school, and 2,300 kids would be in a 48-acre high school[1]. However, this new land cash ordinance has the effect of reducing the park and school land cash donation by nearly half.

Below are example calculations using the former land cash calculations and the current UDO calculations for a generic residential planned unit development with 100 single-family homes, 50 townhomes, and 20 duplexes, for a total of 170 dwelling units.

	1996 Land Cash Ord.	**UDO Land Cash Ord.**
Required Park Land Donation/Cash	5.320 acres/$537,320	2.858 acres/$288,658
Required School Land Donation/Cash	7.100 acres/$717,126	3.500 acres/$353,533
Cash in Lieu Fee per Dwelling Unit (Park)	SF = $3,787.64 DU = $2,382.68 TH = $2,218.04	SF = $2,090.57 DU = $1,216.90 TH = $1,105.27
Cash in Lieu Fee per Dwelling Unit (School)	SF = $5,055.12 DU = $3,180.01 TH = $2,960.28	SF = $2,560.41 DU = $1,490.40 TH = $1,353.67

[1] The 2010 ICDB recommendations are the same or very close to the UDO land cash values (e.g., Elementary: 5 acres plus 1 acre per 100 students; Middle: 15 acres plus 1 acre per 100 students; High School: 20 acres plus 1 acre per 100 students).

Proposed Text Amendments

In consideration of the impactful changes to the school land cash donation as a result of the new methodology used in the UDO, staff is proposing to amend Section 10-7-9. Park and Recreation Land and School Dedication in the Unified Development Ordinance (UDO). The following is a summary of the proposed amendments:

1. **Table 10-7-9(A)(1): Parkland Dedication Requirements.**

   Staff is proposing to remove the following table in its entirety as the total parkland dedication table recommends a minimum total of 5.5 aces per 1,000 people, while the previous 1996 Land Cash Ordinance recommends a minimum of ten (10) acres. Additionally, the original 1996 ordinance did not have a parkland dedication table as presented in the UDO version, which provides minimum acres and size ranges per type of recreation area. Although the 2008 Yorkville Park and Recreation Master Plan provides for such park acreage standards, these standards may be revised in the future. Therefore, staff recommends deferring to the most recent adopted version of the Park and Recreation Master Plan for park acreage standards, as follows:

A. **Criteria For Requiring Park and Recreation Land Dedication.**

1. **Requirements and Population Ratio.** The quantity of land required for park dedication shall result directly from the total population of the proposed development. The total requirement shall be ~~five and one half (5 ½)~~ten (10) acres of land per one thousand (1,000) residents. The required ~~five and one half (5 ½)~~t ten (10) acres shall be allocated into different types of recreation areas ~~as shown in Table 10-7-9(A)(1)~~ per the City's adopted Park and Recreation Master Plan, or as may be required by City Council at its discretion.

Table 10-7-9(A)(1): Parkland Dedication Requirements		
Type of Recreation Area	Size Range	Minimum Acres Per 1,000 People
Play lot	Minimum - 8,000 square feet	n/a
School/park (neighborhood playground)	Minimum - 5 acres	1.25
Neighborhood park	Minimum - 3 1/2 acres	1
District-wide park or play field	Minimum - 4 acres, up to 30 acres	1.25
Community-wide recreation park	Minimum - 12 acres, up to 30 acres	2
Total		5.5

2. **Table 10-7-9(B)(1): School Dedication Requirements**
   a. Replace with the following revised table.

Table 10-7-9(B)(1): School Dedication Requirements		
School Classification Grade	Maximum Number of Students For Each School Classification	Minimum Number of Land Acres For Each School Site For Such Classification
Elementary Schools - Grades K-5	321.50 students	7.25 acres
Junior High Schools - Grades 6-8	429.88 students	15.92 acres
High Schools - Grades 9-12	590 students	49.30 acres

3. **Table 10-7-9(D): Estimated Population Per Dwelling Unit**
    a. Replace with the following revised table.

Table 10-7-9(D): Estimated Population Per Dwelling Unit						
Type of Unit	**Preschool**	**Elementary**	**Junior High**	**High School**	**Adults**	**Total Per Dwelling Unit**
	0-4 Years	5-10 Years	11-13 Years	14-17 Years	18+ Years	All Ages
Dwelling, Single-Family						
2 Bedroom	0.102	0.191	0.054	0.057	1.694	2.098
3 Bedroom	0.254	0.440	0.126	0.179	.921	2.920
4 Bedroom	0.413	0.665	0.190	0.340	2.142	3.750
5 Bedroom	0.236	0.488	0.139	0.249	2.637	3.749
Dwelling Duplex, Dwelling, Townhome						
1 Bedroom	0.000	0.064	0.018	0.037	1.068	1.187
2 Bedroom	0.092	0.198	0.056	0.074	1.776	2.196
3 Bedroom	0.231	0.298	0.085	0.103	1.805	2.522
4 Bedroom	0.332	0.452	0.130	0.205	2.243	3.362
Dwelling, Multi-Family						
Efficiency	0.000	0.064	0.018	0.037	1.360	1.479
1 Bedroom	0.000	0.064	0.018	0.038	1.749	1.869
2 Bedroom	0.042	0.160	0.045	0.079	1.614	1.940
3 Bedroom	0.050	0.339	0.096	0.153	2.499	3.137
Note: Estimated population per dwelling unit formula is based on standards adopted via Ord. 1996-3.						

4. **Appendix B – Ordinance No. 1996-3**

Staff also proposes to <u>add as Appendix B</u> in the Unified Development Ordinance the previously recorded Ordinance No. 1996-3 Revising United City of the Village of Yorkville Land Cash Ordinance adopted on January 25, 1996 which would codify the ordinance as a reference to the other development related ordinances.

Staff Comments

Staff supports the revisions to Section 10-7-9 of the Unified Development Ordinance, reinstating the 1996 methodology for determining park and school land dedication requirements, ensuring consistency in cash fee calculations for residential developments both present and forthcoming. This text amendment request is scheduled for a public hearing before the Planning and Zoning Commission on May 8, 2024. Staff will be available at Tuesday night's meeting to discuss this matter in greater detail.

Attachments

1. Draft Approving Ordinance
2. Proposed redlined amendments to Section 10-7-9 Park and Recreation Land and School Site Dedication
3. Ord. 1996-3 "Ordinance Revising United City of the Village of Yorkville Land Cash Ordinance"
4. 2008 Park and Recreation Master Plan excerpt re: Park Facility Standards
5. Comparison Spreadsheets of Example Land Cash Calculations
6. Public Hearing Notice

Ordinance No. 2024-_____

AN ORDINANCE OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS, APPROVING AN AMENDMENT TO THE YORKVILLE UNIFIED DEVELOPMENT ORDINANCE REGARDING PARK AND RECREATION AND SCHOOL SITE DEDICATION (LAND CASH)

WHEREAS, the United City of Yorkville (the "*City*") is a duly organized and validly existing non home-rule municipality created in accordance with the Constitution of the State of Illinois of 1970 and the laws of the State; and,

WHEREAS, pursuant to Section 10-8-11 of the United City of Yorkville Unified Development Ordinance ("UDO") the City may initiate amendments to the Zoning Ordinance; and,

WHEREAS, the City filed a request seeking an amendment to the UDO to revise the methodology, criteria, and formula for requiring park and recreation and school site dedication as a condition of final plat approval of a subdivision; and,

WHEREAS, the Planning and Zoning Commission convened and held a public hearing on May 8, 2024, to consider the request and forward a recommendation to the City Council to approve the requested text amendment.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1. That the above recitals are hereby incorporated and made a part of this Ordinance.

Section 2. That Section 10-7-9 Park and Recreation Land and School Dedication of the United City of Yorkville Unified Development Ordinance, specifically Tables 10-7-9(A)(1): Parkland Dedication Requirements, Table 10-7-9(B)(1): School Dedication Requirements, and Table 10-7-9(D): Estimated Population Per Dwelling Unit, is hereby amended attached hereto and made a part hereof as *Exhibit A*.

Section 3. That the previously recorded Ordinance No. 1996-3 Revising United City of the Village of Yorkville Land Cash Ordinance adopted on January 25, 1996 shall be added as Appendix B. Land Cash Ordinance in the Unified Development Ordinance and is hereby attached hereto and made a part hereof as *Exhibit B.*

Section 4. This Ordinance shall be in full force and effect after its passage, publication, and approval as provided by law.

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

CITY CLERK

KEN KOCH	_____	DAN TRANSIER	_____
ARDEN JOE PLOCHER	_____	CRAIG SOLING	_____
CHRIS FUNKHOUSER	_____	MATT MAREK	_____
SEAVER TARULIS	_____	RUSTY CORNEILS	_____

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

MAYOR

10-7-9. Park and Recreation Land and School Site Dedication

As a condition of approval of a final plat of a subdivision, the developer shall dedicate land for park and recreational purposes and for school sites to serve the needs of residents of the development, or a cash contribution in lieu of the land dedication, or a combination of both, at the discretion of the City, in accordance with the criteria and formula below.

A. **Criteria For Requiring Park and Recreation Land Dedication.**

1. **Requirements and Population Ratio.** The quantity of land required for park dedication shall result directly from the total population of the proposed development. The total requirement shall be ~~five and one half (5 ½)~~ten (10) acres of land per one thousand (1,000) residents. The required ~~five and one half (5 ½)~~t ten (10) acres shall be allocated into different types of recreation areas ~~as shown in Table 10-7-9(A)(1)~~ per the City's adopted Park and Recreation Master Plan, or as may be required by City Council at its discretion.

Table 10-7-9(A)(1): Parkland Dedication Requirements		
Type of Recreation Area	**Size Range**	**Minimum Acres Per 1,000 People**
Play lot	Minimum - 8,000 square feet	n/a
School/park (neighborhood playground)	Minimum - 5 acres	1.25
Neighborhood park	Minimum - 3 1/2 acres	1
District-wide park or play field	Minimum - 4 acres, up to 30 acres	1.25
Community-wide recreation park	Minimum - 12 acres, up to 30 acres	2
Total		5.5

B. **Criteria For School Site Dedication.**

1. **Requirement and Population Ratio.** The required dedication of land for school sites shall depend on the quantity of students projected to be generated within the subdivision. The land dedication requirement shall be determined by obtaining the ratio of: (a) the ~~maximum~~ estimated number of students to be served in each such school classification (this number is determined by applying the estimated population per dwelling unit as defined in Table 10-7-9~~(B)(1)~~(D) over (b) the maximum recommended number of students to be served in each school classification ,and then applying such ratio to the (c) minimum recommended number of acres for a school site of each school classification defined in Table 10-7-9(B)(1). The product shall be the number of acres of land required for sufficient school sites to serve the estimated children in each such school classification.

Table 10-7-9(B)(1): School Dedication Requirements		
School Classification Grade	**Maximum Number of Students For Each School Classification**	**Minimum Number of Land Acres For Each School Site For Such Classification**
Elementary Schools - Grades K-5	600 students	11 acres
Junior High Schools - Grades 6-8	900 students	19 acres
High Schools - Grades 9-12	2,300 students	48 acres

Table 10-7-9(B)(1): School Dedication Requirements		
School Classification Grade	Maximum Number of Students For Each School Classification	Minimum Number of Land Acres For Each School Site For Such Classification
Elementary Schools - Grades K-5	321.50 students	7.25 acres
Junior High Schools - Grades 6-8	429.88 students	15.92 acres
High Schools - Grades 9-12	590 students	49.30 acres

C. **Contribution in Lieu Procedure.** When available land is inappropriate for park, recreational, or school sites, the City shall require ~~At the City's discretion, it may require~~ the developer to pay a contribution in lieu of the land dedication required. The cash contribution required in lieu of park and recreation and/or school facilities shall be per the City's adopted ordinances.

The cash contributions in lieu of park and recreation land dedication shall be held in trust solely for the acquisition of park and recreation land which will be available to serve the needs of the residents of the subdivision.

D. **Estimated Population Per Dwelling Unit.** Table 10-7-9(D) of population density shall be used to calculate the quantity of dedicated acres of land for parkland or schools or to determine the required cash contribution in lieu of.

Table 10-7-9(D): Estimated Population Per Dwelling Unit						
Type of Unit	Preschool	Elementary	Junior High	High School	Adults	Total Per Dwelling Unit
	0-4 Years	5-10 Years	11-13 Years	14-17 Years	18+ Years	All Ages
Dwelling, Single-Family						
2 Bedroom	0.113	0.136	0.048	0.020	1.700	2.017
3 Bedroom	0.292	0.369	0.173	0.184	1.881	2.899
4 Bedroom	0.418	0.530	0.298	0.360	2.158	3.764
5 Bedroom	0.283	0.345	0.248	0.300	2.594	3.770
Dwelling Duplex, Dwelling, Townhome						
1 Bedroom	0.000	0.000	0.000	0.000	1.193	1.193
2 Bedroom	0.064	0.088	0.048	0.038	1.752	1.990
3 Bedroom	0.212	0.234	0.058	0.059	1.829	2.392
4 Bedroom	0.323	0.322	0.154	0.173	2.173	3.145
Dwelling, Multi-Family						
Efficiency	0.000	0.000	0.000	0.000	1.294	1.294
1 Bedroom	0.000	0.002	0.001	0.001	1.754	1.758
2 Bedroom	0.047	0.086	0.042	0.046	1.693	1.914
3 Bedroom	0.052	0.234	0.123	0.118	2.526	3.053
Note: Estimated population per dwelling unit formula is based on standards in use in the Village of Sleepy Hollow, Illinois						

Table 10-7-9(D): Estimated Population Per Dwelling Unit						
Type of Unit	Preschool	Elementary	Junior High	High School	Adults	Total Per Dwelling Unit
	0-4 Years	5-10 Years	11-13 Years	14-17 Years	18+ Years	All Ages
Dwelling, Single-Family						
2 Bedroom	0.102	0.191	0.054	0.057	1.694	2.098
3 Bedroom	0.254	0.440	0.126	0.179	.921	2.920
4 Bedroom	0.413	0.665	0.190	0.340	2.142	3.750
5 Bedroom	0.236	0.488	0.139	0.249	2.637	3.749
Dwelling Duplex, Dwelling, Townhome						
1 Bedroom	0.000	0.064	0.018	0.037	1.068	1.187
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3 Bedroom	0.231	0.298	0.085	0.103	1.805	2.522
4 Bedroom	0.332	0.452	0.130	0.205	2.243	3.362
Dwelling, Multi-Family						
Efficiency	0.000	0.064	0.018	0.037	1.360	1.479
1 Bedroom	0.000	0.064	0.018	0.038	1.749	1.869
2 Bedroom	0.042	0.160	0.045	0.079	1.614	1.940
3 Bedroom	0.050	0.339	0.096	0.153	2.499	3.137
Note: Estimated population per dwelling unit formula is based on standards adopted via Ord. 1996-3.						

January 26, 1996

ORDINANCE NO. ~~XXXX~~ 1996-3

ORDINANCE REVISING
UNITED CITY OF THE VILLAGE OF YORKVILLE
LAND CASH ORDINANCE

THE UNITED CITY OF THE VILLAGE OF YORKVILLE having studied the current Land-Cash formulas as set forth in its Land Cash Contribution Ordinance passed previously on the 10th day of May, 19 90; and the City Council and the Mayor of the United City of the Village of Yorkville pursuant to joint discussions and investigation of said formulas by the *Kendall-Grundy Regional School Superintendent's Office* and the City deeming there to have been substantial increase in the cost of acquisition of land and building of structures to serve the needs of the School *Districts affected*; and the City Council and the Mayor of the United City of the Village of Yorkville deeming it to be in the best interest of the *City and the affected School Districts* and in the best interest of the citizens of the United City of the Village of Yorkville to provide adequate financing for the acquisition of school sites and the construction of schools, does hereby enact an amendment to the existing Land-Cash Ordinance of the United City of the Village of Yorkville, passed on the 25th day of Jan, 19 96, as follows:

UPON MOTION DULY MADE, seconded and approved, the preexisting Land-Cash Ordinance formula is hereby modified as follows *and shall apply to all subdivisions where the final plat of Subdivision is approved by vote of the City Council.*

SECTION I DEDICATION OF PARK LANDS AND SCHOOL SITES OR PAYMENTS IN LIEU THEREOF

As a condition of approval of a final plat of subdivision or planned unit development, each subdivider or planned unit developer will be required to dedicate land or cash in lieu of actual land or a combination of both in accordance with the following criteria:

A. Criteria for Park and Recreation Land Dedication.

1. Location

A comprehensive Recreation Department plan and/or appropriate standards adopted by affected Recreation Departments shall be used as a guideline in locating sites *all lands so credited shall be above the 100-year design flood levels , and must meet the requirements of the Recreation Board. Specifically identified and approved wetland or natural areas located below the 100-year flood level may be credited in whole or in part, subsequent to Recreation Board review, and consent by the City Council. Other areas such as Storm Water Control Facilities may be taken by the City but will not be used to satisfy the requirements herein.*

2. Requirement and population Ratio

The ultimate population density to be generated by a subdivision or planned unit development shall bear directly on the amount of land required to be dedicated for park and recreation sites. The acreage of land dedication requirement shall be determined by obtaining the total population of the development times 10 acres per 1,000 populations. Total population is determined by applying the estimated ultimate population per dwelling unit table (Table 1) to the number of respective units in the development. For purposes of this *requirement* each single family home will have four bedrooms. *Each duplex unit will be calculated as 50% two-bedroom units and 50% three bedroom units. Each townhome and apartment will be calculated with two bedrooms.*

Example: Development of 300 total populations

Total population X the required acreage = Total acres required
for 1,000 populations

$$300 \times \frac{10 \text{ acres}}{1{,}000} = 3 \text{ acres}$$

B. Criteria for Requiring School Site Dedication

1. Requirement and population Ratio

The ultimate number of students to be generated by a subdivision or planned unit development shall bear directly upon the amount of land required to be dedicated for school sites. The land dedication requirement shall be determined by obtaining the ratio of: (a) estimated children to be served in each school classification (this number is determined by applying the estimated ultimate population per dwelling unit table (Table 1) to the number of respective units in the development) over the (b)maximum recommended number of students to be served in each such school classification as stated herein, and then applying such ratio to the (c) said minimum recommended number of acres for a school site of each such classification as stated herein. The product thereof shall be the acres of land deemed needed to have sufficient land for school sites to serve the estimated increased children in each such school classification. *For this computation, density calculations shall be the same as A2 above.*

2. School Classification and Size of School Site

School classification and size of school sites within the City shall be determined in accordance with the following criteria that is consistent with the minimum site recommendations of the Illinois State Board of Education (variances of grade organization and size are subject to local Board of Education District policy):

$$\frac{\text{estimated children by school classification}}{\text{actual school population by school classification}} \times \text{actual acreage by school classification} = \text{land donation}$$

Classification by Grades	County Average Students per school classification	County Average Acreage per school classification
Elementary	321.50 students	7.25 acres
Middle	429.88 students	15.92 acres
High School	590.0 students	49.30 acres

(Regional means are calculated to determine current student populations and acreages)

(See tables 1 & 2)

Elementary:

$$\frac{100 \times 1.078^{*}}{321.50} \times 7.25 = 2.4309 \text{ acres}$$

*Add preschool to elementary totals.

Middle:

$$\frac{100 \times .190}{429.88} \times 15.92 = .7036 \text{ acres}$$

High School:

$\frac{100 \times .340}{590} \times 49.30 = 2.8410$ acres

Total acreage = 5.9755

C. Criteria for Requiring a *Cash* Contribution in Lieu of Park and School Sites

1. When available land is inappropriate for park, recreational, or school sites, the City shall require a cash contribution in lieu of the land dedication by the subdivider or unit developer.

2. Collection of Fees

a. The cash contribution *in* lieu of park and recreation land dedication shall be held in trust by the City or other public body designated by the City, for the acquisition *of* park or recreational land as herein classified, which will be available to serve the immediate and future needs of the residents of that subdivision or development, or for the improvement of other existing local park and recreation lands which already serves such needs.

b. The contributions in lieu of school sites shall be *paid directly to the School District who will in turn issue a receipt that must be presented to the City prior to approval of the final plat.* Said funds shall be used for the acquisition of land for a school site to serve the immediate or future needs of children from that subdivision or development, or for the improvement to any existing school site or buildings which already serve or will serve such need. *The City shall require a current supporting resolution enacted by the Board of Education Appendix F Herein, and shall require a report of fees collected by the School District on or about January 1 of each year. The City reserves the right to collect said funds if necessary.*

c. The total cash contribution to be required shall be determined at the time the final plat is approved. Prior to execution of the final plat by the appropriate City Officials, the developer or subdivider shall *pay the total required cash contribution as follows:*

a. One third (1/3) of the amount calculated for the entire plat calculated or the unit of land being final platted is to be paid to *either the City of Yorkville for Park Cash Contributions or to the School District for School Cash Contributions* along with a Letter of Credit *to the appropriate agency* assuring payments as specified from an approved financial institution in the amount equal to two thirds (2/3) of said entire amount, prior to the final plat being executed by the City. The letter of credit is hereinabove provided shall expressly provide it may be drawn against by the City *or by the School District* at any time the developer or subdivider fails to make the payments.

b. One third (1/3) of said amount for the entire final plat shall be paid upon issuance of the first occupancy permit or one year after the final plat is recorded, whichever occurs first. The Letter of Credit *will* be reduced to an amount equal to one third (1/3) of said entire amount *after said second payment.*

c. The final amount due as calculated per the ordinance for the entire final plat shall be paid prior to the acceptance in full or in part of the Public Improvements or two years after the final plat is recorded, whichever occurs first. The Letter of Credit will be returned after said payment.

3. Refund

If any portion of a cash contribution in lieu of park, recreation, or school sites is not expended for the purposes set forth herein within ten (10) years from the date of receipt, it shall be refunded to the lot owner or owners of these lots for which the contribution was made which owner or owners are determined at the time the date of refund is established.

4. Criteria for requiring Land Dedication and a Fee

There will be situations in subdivisions or planned unit developments when a combination of land dedication and a contribution in lieu of land are both necessary; these occasions will arise when:

a. Only a portion of the land to be developed is proposed as the location for a park or school site. That portion of the land within the subdivision falling within the park or school location shall be dedicated as a site as stated earlier, and a cash contribution in lieu thereof shall be required for any additional land that would have been required to be dedicated.

b. A major part of the local park, recreation, or school site has already been acquired and only a small portion of land is needed from the development to complete the site. The remaining portions shall be required by dedication and a cash contribution in lieu thereof shall be required.

5. Fair Market Value

The cash contributions in lieu of land shall be based on the "Fair market value" of the acres of land in the area improved that otherwise would have been dedicated as park, recreation, or school sites. Because of the diversity of lands within the City, a single determination of "fair market value" is not possible. The "fair market value" for any particular parcel shall be determined by the Supervisor of Assessment Office of Kendall County prior to plat approval. This valuation determined by the Supervisor of Assessments shall be used unless any subdivider, developer, or public body files a written objection thereto. In the event of any such objection, the subdivider, developer, or public body shall submit an appraisal showing the "fair market value" of such improved land in the area of development of other evident. Final determination of said "fair market value" per acre of such improved land shall be made by the City Council based on such information submitted by the subdivider or developer and from other sources as may be submitted to the City Council be affected parties.

D. Time of Conveyance of payment

1. The subdivider or developer shall convey to the respective school district and *the City*, the lands required under this agreement within thirty (30) days after final subdivision plat or final plat of a planned unit development is recorded in the Kendall County Recorder's Office.

2. A subdivider or developer shall make each cash contribution required under this Ordinance.
As noted in C2c above.

E. Density

The attached table, marked as Table No. 1, being the same as Estimated Ultimate Population per Dwelling Unit, is generally indicative of current and short range projected trends in family size for new construction and shall be used in calculating the amount of required dedication of acres of land or the cash contributions in lieu thereof unless a written objection is filed thereto by the subdivider or developer.

In the event a subdivider or developer files a written objection to the Table of Estimated Ultimate Population Per Dwelling Unit, attached hereto, he shall submit his own demographic study showing the estimated additional population to be generated from the subdivision or planned unit development and in that event final determination of the density formula to be used in such calculations shall be made by the City Council, based upon such demographic information submitted by the subdivider or developer and from other sources which may be submitted to the City Council by the School District or others. It is recognized that population density, age distributions and local conditions change over the years, and the specific formula for the dedication of land, or the payment of fees in lieu thereof, as stated herein is subject to periodic review and amendment if necessary.

F. Reservation of Additional Land

Where the School District's or Recreation Department's's comprehensive plan or stands of the City Council call for a larger amount of park and recreational land or school sites in a particular subdivision or planned unit development than the developer is required to dedicate, the land needed beyond the developer's contribution shall be reserved for subsequent purchases by the City or other public body designated by the City, provided that such acquisition is made within one year from the date of approval of the final plat *at a cost per acre as established in item C5 above.*

G. Topography and Grading

The slope, topography and geology of the dedicated site as well as its surroundings must be suitable for its intended purposes. Grading, *topsoiling, and landscaping* on sites dedicated for park and recreational uses will be performed according to plans and specifications provided by the Recreation Department.

H. Improved Sites

All sites shall be dedicated in a condition ready for full service of electrical, water, sewer, *sidewalks, landscaping, streetlights* and streets (including enclosed drainage and curb and gutter) as applicable to the location of the site, or acceptable provision made therefore. The sidewalks and trees normally included within the definition of "Improved" sites may be *deferred* due to the delay time between dedication of any such site and construction of facilities thereon. *In such a case, the real cash value shall be paid.*

SECTION II ORDINANCE PROVISIONS

If any provision of this Ordinance or the application thereof to any person or circumstances is declared invalid by a court of competent jurisdiction, such partial invalidity shall not affect other provisions or applications of this Ordinance, which can be given effect without the invalid provision or application thereof, and to this extent the provisions of this Ordinance are declared to be coverable.

SECTION III EFFECTIVE DATE

This Ordinance shall be in full force and effect from the date of its passage as provided by law.

SECTION IV

To the extent any conflict exists between this present Ordinance and the previous Land-Cash Ordinance adopted by the United City of the Village of Yorkville, this Ordinance shall supersede the effects thereof.

PASSED this 25 day of Jan, 19 96.

APPROVED BY me, as Mayor of the United City of the Village of Yorkville, this 25 day of Jan, 19 96

Robert A. Johnson
Mayor

ATTEST:

Jacqueline Dawson
City Clerk

The 1993 yield table is a compilation of date secured from numerous sources throughout the Chicagoland Metropolitan area. Both school districts and municipalities have provided statistical date to update these figures. To those agencies, organizations, municipalities and school districts which have helped and have provided pertinent information, we are most grateful.

1993 TABLE OF ESTIMATED ULTIMATE POPULATION PER DWELLING UNIT

Children per Unit w/Sp. Ed. Factor

Type of Unit	Pre-School 0-4	Elementary Grades K-6 5-11 years	Junior High Grades 7-8 12-13 years	Total Pre K-8 5-13 years	High School Grades 9-12 14-17 years	Adults 18 yrs+	Total Per Dwelling Unit
Detached Single Family							
2 bedroom	0.102	0.191	0.054	0.347	0.057	1.694	2.098
3 bedroom	0.254	0.440	0.126	0.820	0.179	1.921	2.920
4 bedroom	0.413	0.665	0.190	1.268	0.340	2.142	3.750
5 bedroom	0.236	0.488	0.139	0.863	0.249	2.637	3.749
Attached Single Family							
1 bedroom	0.000	0.064	0.018	0.082	0.037	1.068	1.187
2 bedroom	0.092	0.198	0.056	0.346	0.074	1.776	2.196
3 bedroom	0.231	0.290	0.085	0.614	0.103	1.805	2.522
4 bedroom	0.332	0.452	0.130	0.914	0.205	2.243	3.362
Apartments							
Efficiency	0.000	0.064	0.018	0.082	0.037	1.360	1.479
1 bedroom	0.000	0.064	0.018	0.082	0.038	1.749	1.869
2 bedroom	0.042	0.160	0.045	0.247	0.079	1.614	1.940
3 bedroom	0.050	0.339	0.096	0.485	0.153	2.499	3.137

ADD PRE-SCHOOL TO ELEMENTARY TOTALS

TABLE 1

TABLE 2

	Acre	Capacity	Population
HS			
Coal City H.S.	50.000	600	480
Gardner/So. Wil	7.000	470	189
Morris H.S.	48.000	1240	796
Minooka H.S.	79.000	1300	733
Yorkville H.S.	24.720	600	583
Newark H.S.	48.790	350	154
Plano H.S.	19.170	834	617
Oswego H.S.	117.700	1314	1168
Totall	394.38		4720
Average	49.30		590.00
Middle School			
Coal City Middle	7.500	779	495
HVK Elementary	10.000	425	212
HVK Middle Schl	20.000	270	193
Saaoonna Jr. Hig	22.420	650	448
Minooka Jr. High	6.500	430	333
Circle Center	29.700	540	731
Thomason Jr. Hi	19.225	624	545
Traugnber Jr. Hi	12.000	618	482
Totall	127.345		3439
Average	15.92		429.88
Elementary			
Coal City Elemen	12.450	850	586
HVK Elementary	10.000	425	212
Nettle Creek	3.918	125	65
Saanna	3.000	60	19
Center	2.460	366	435
Garfield	1.810	480	323
Franklin	0.331	240	189
Saratoga	24.000	569	417
Gardner Elem.	7.000	375	240
So Wilmington E	2.300	285	107
Braceville Elem	5.300	325	141
Minooka Elem.	15.000	725	631
Newark Grade Sl	5.000	270	199
Millbrook	5.000	120	107
Centennial	2.530	298	268
I P H Miller	7.360	473	428
Lisbon	5.310	250	139
Yorkville Grade	3.620	332	341
Bristol	4.440	247	284
East View	17.600	1014	907
Boulder Hill	12.000	545	543
Long Beach	9.200	644	492
Totall	159.53		7073.00
Average	7.25		321.50

Sample Computations/ Formula and Student Factor

Example #1: three bedroom home					
Note: use 1993 table with special education weight on population estimates					
	Add pre-school to Elementary				
Step #1: determine total student factor					
Category	Pop. Factor	Min. Acres	Max. Pop	Total Student Factor	
Elem.	0.694	7.25	321.5	0.015650	
Middle	0.126	15.92	429.88	0.004666	
H.S.	0.179	49.3	590	0.014957	
				0.035273	
Step #2: Multiply Total Student Factor by FMV					
TSF	FMV	Contribution			
0.035273	37250	$1313.92			
Check: Full Formula					
Category	PF	Min Acres	Max Pop	FMV	Contribution
Elem	0.694	7.25	321.5	37250	$582.97
MS	0.126	15.92	429.88	37250	$173.82
HS	0.179	49.3	590	37250	$557.15
					$1313.94
Example #2: Four bedroom home			(Table: pre-school + Elementary)		
Category	Pop. Factor	Min. Acres	Max. Pop	Total Student Factor	
Elem	1.078	7.25	321.5	0.024309	
MS	0.19	15.92	429.88	0.007036	
HS	0.34	49.3	590	0.028410	
				0.059756	
Multiply Total Student Factor by FMV					
TSF	FMV	Contribution			
0.059756	37,250	$2225.91			
Check: Full Formula					
					Contribution
Category	PF	Min Acres	Max Pop	FMV	
Elem	1.078	7.25	321.5	37,250	$905.53
MS	0.19	15.92	429.88	37,250	$262.11
HS	0.34	49.3	590	37,250	$1058.28
					$2225.91

Total Student Factor: Single Family Detached

3 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.293	7.25	321.5	0.006607
Middle Sch	0.054	15.92	429.88	0.002000
High School	0.057	49.3	590	0.004763
				0.013370
3 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.694	7.25	321.5	0.015650
Middle Sch	0.126	15.92	429.88	0.004666
High School	0.179	49.3	590	0.014957
				0.035273
4 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	1.078	7.25	321.5	0.024309
Middle Sch	0.191	15.92	429.88	0.007036
High School	0.34	49.3	590	0.028410
				0.059756
5 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.724	7.25	321.5	0.016337
Middle Sch	0.139	15.92	429.88	0.005148
High School	0.249	49.3	590	0.020806
				0.042281

Total Student Factor: Attached Single Family

1 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.064	7.25	321.5	0.001443
Middle Sch	0.018	15.92	429.88	0.000667
High School	0.037	49.3	590	0.003092
				0.005202
2 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.029	7.25	321.5	0.000654
Middle Sch	0.056	15.92	429.88	0.002074
High School	0.074	49.3	590	0.006183
				0.008911
3 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.298	7.25	321.5	0.006720
Middle Sch	0.085	15.92	429.88	0.003148
High School	0.103	49.3	590	0.008607
				0.018475
4 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	1.015	7.25	321.5	0.022869
Middle Sch	0.13	15.92	429.88	0.004814
High School	0.205	49.3	590	0.017130
				0.044833

Total Student Factors: Apartments

EFFICIENCY				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.064	7.25	321.5	0.001443
Middle Sch	0.018	15.92	429.88	0.000667
High School	0.037	49.3	590	0.003092
				0.005202
1 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.064	7.25	321.5	0.001443
Middle Sch	0.018	15.92	429.88	0.000667
High School	0.038	49.3	590	0.003175
				0.005285
2 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.202	7.25	321.5	0.004555
Middle Sch	0.018	15.92	429.88	0.000667
High School	0.079	49.3	590	0.006601
				0.011823
3 BEDROOM				
Category	Pop Factor	Min Acres	Max Pop	Total Stdnt Fact
Elementary	0.369	7.25	321.5	0.008772
Middle Sch	0.096	15.92	429.88	0.003555
High School	0.153	49.3	590	0.012785
				0.025112

Unit District: Student Factor Computation

DETACHED SINGLE FAMILY			FMV	CONTRIBUTION
	TOTAL STUDENT FACTOR			
2 BEDROOMS	0.015537	X		
3 BEDROOMS	0.035273	X		
4 BEDROOMS	0.059756	X		
5 BEDROOMS	0.042281	X		
ATTACHED SINGLE FAMILY			FMV	CONTRIBUTION
	TOTAL STUDENT FACTOR			
1 BEDROOM	0.005202	X		
2 BEDROOMS	0.008911	X		
3 BEDROOMS	0.019475	X		
4 BEDROOMS	0.044835	X		
APARTMENTS			FMV	CONTRIBUTION
	TOTAL STUDENT FACTOR			
EFFICIENCY	0.005202	X		
1 BEDROOM	0.005285	X		
2 BEDROOM	0.011823	X		
3 BEDROOM	0.025112	X		

Resolution on Land Use and/or Expenditures
of the City of Yorkville Land Cash
Contributions

Whereas the City of Yorkville has established a Land Cash Ordinance dedicated to the concept that healthful, productive community life depends in part on the availability of recreational and park space and adequate school facilities and

Whereas the City of Yorkville has determined that the provision of park, recreation, and school sites to serve the immediate and future needs of adults and children of each new subdivision, planned unit development or individual construction is just as essential to proper land development as are street, water, sewers and sidewalks, and

Whereas the City of Yorkville has established ordinance procedures for the acquisition of land and/or the payment of cash in lieu of land, now

Therefore it is resolved by the Yorkville Community Unit School District #115 Board of Education that all conditions and requirements of said City of Yorkville Land Cash Ordinance shall be maintained and upheld by this governmental entity, and that any use of land or expenditure of contributions derived from the Yorkville Land Cash Ordinance shall be in conformance with stipulations and conditions so stated within the Yorkville Land Cash Ordinance.

2/26/96 — 2-26-96

President — Date — Secretary — Date

Activity / Facility	Recommended Space Requirements	Recommended Size and Dimensions	Recommended Orientation	No. of Units per Population	Service Radius	Location Notes
Beach Areas	N/A	Beach area should have 50 sq. ft. of land and 50 sq. ft. of water per user. There should be 3-4 acre supporting land per acre of beach.	N/A	N/A	N/A	Should have sand bottom with slope maximum of 5% (flat preferable). Boating areas completely segregated from swimming areas.

PARK ACREAGE STANDARDS

The National Recreation and Park Association (NRPA) set a standard of ten acres of park land, however per 1,000 residents in any community nationwide. Acreage allotment standards were divided into the following allotment standards: two and a half (2.5 ac) acres of minimum and neighborhood parks should be provided for each 1,000 people of a specified geographic neighborhood, seven and a half (7.5 ac) acres per 1,000 residents to equally distribute the parks throughout the community. Additional acreage comparisons can be made across Illinois, as indicated by state averages derived from the *Statewide Comprehensive Outdoor Recreation Plan* for existing facilities. Illinois does make a statement about regional resource-based recreation lands, noting an average of forty-nine (49) acres per 1,000 residents. This classification function can also be applied to County requirements, it is not included in the municipal analysis.

The national standard methodology was revised in mid 1996 to a Level of Service, or LOS. This research tool measures actual facility and park usage and translates these trends into new growth area projects. The NRPA advocates that local providers must review classifications of leisure events, needs, and park space as they specifically impact their individual communities. Physical distribution of actual park land does not calculate into these tables, therefore this information should be cross referenced with the spatial mapping research. The Illinois Department of Resources (IDNR) does not have park acreage standards, therefore it was not included in this analysis.

CURRENT PARK ACREAGE STANDARDS

STANDARDS			2008		
Park Type	City Standard per 1000 pop.	Recommended NRPA Standard per. 1000 pop.	Existing Parks (acreage)	City Standard 16,450	NRPA Standard 16,450
1. Mini Parks	0.0	0.5	6.8	0.0	8.2
2.Neighborhood Parks	2.0	2.0	76.7	32.9	32.9
3. Community / Athletic Parks	8.0	7.0	64.5	131.6	115.2
4. Special Facilities	0.0	0.5	80.0	0.0	8.2
SUBTOTAL	**10.0**	**10.0**	228.0	164.5	164.5
Natural Resource Area	0.0	15.0	51.0	0.0	246.8
TOTALS	**10.0**	**25.0**	279.0	164.5	411.3
SURPLUS (DEFICIT)				**114.5**	**(-132.3)**

The City is currently meeting the standards for overall community park land however it varies significantly by classification level. The above chart shows that the City is deficient in certain areas. Community parks are deficient from the City and NRPA standards. Neighborhood parkland requirements are being met, as well as Special Facilities.

FUTURE PARK ACREAGE STANDARDS

STANDARDS			2009			2014		
Park Type	City Std. per 1000 pop.	Recommended NRPA Standard per. 1000 pop.	Existing Parks (acreage)	City Std. 19,740	NRPA Std. 19,740	Existing Parks (acreage)	City Std. 36,190	NRPA Std. 36,190
1. Mini Parks	0.0	0.5	6.8	0.0	9.9	6.8	0.0	18.1
2.Neighborhood Parks	2.0	2.0	42.9	39.5	39.5	76.7	72.4	72.4
3. Community / Athletic Parks	8.0	7.0	44.5	157.9	138.2	64.5	289.5	253.3
4. Special Facilities	0.0	0.5	0.0	0.0	9.9	80.0	0.0	18.1
SUBTOTAL	**10.0**	**10.0**	94.2	197.4	197.4	228.0	361.9	361.9
Natural Resource Area	0.0	15.0	18.0	0.0	296.1	51.0	0.0	542.9
TOTALS	**10.0**	**25.0**	112.2	197.4	493.5	279.0	361.9	904.8
SURPLUS (DEFICIT)				**(-85.3)**	**(-381.4)**		**(-83.0)**	**(-625.8)**

The second chart helps to illustrate projected park land requirements by future populations. It is anticipated the City will require additional acreage, but some land acquisition may need to be initiated sooner, in order to keep up with future growth and allow for park development timeframes.

PARK DEVELOPMENT STANDARDS

Park development shall follow the most recent version of the Park Development Standards. See Section 7 for a complete copy.

United City of Yorkville Land Cash Analysis for Sample Development (1996-3 Ordinance)

16-Apr-24

ESTIMATED POPULATION PER DWELLING UNIT

TYPE	PRE-SCH	ELEMENT	JHS	HS	ADULTS	TOTAL
DETACHED SINGLE FAMILY						
2 BDRM	0.102	0.191	0.054	0.057	1.694	2.098
3 BDRM	0.254	0.44	0.126	0.179	1.921	2.92
4 BDRM	0.413	0.665	0.19	0.34	2.142	3.75
5 BDRM	0.236	0.488	0.139	0.249	2.637	3.749
ATTACHED SINGLE FAMILY (TOWNHOMES & DUPLEXES)						
1 BDRM	0	0.064	0.018	0.037	1.068	1.187
2 BDRM	0.092	0.198	0.056	0.074	1.776	2.196
3 BDRM	0.231	0.298	0.085	0.103	1.805	2.522
4 BDRM	0.332	0.452	0.13	0.205	2.243	3.362
APARTMENTS						
Efficiency	0	0.064	0.018	0.037	1.36	1.479
1 BDRM	0	0.64	0.18	0.038	1.749	1.869
2BDRM	0.042	0.16	0.045	0.079	1.614	1.94
3BDRM	0.05	0.339	0.096	0.153	2.499	3.137

DEVELOPMENT SPECIFICATIONS

Detached Single Family	=	**100**
Attached Duplex	=	**20**
Attached Townhomes	=	**50**
Attached Apartments	=	**0**
Total Units	=	170

POPULATION CALCULATIONS

TYPE	% of Units with BDRM Number	PRE-SCHOOL	ELEMENTARY	JUNIOR HIGH SCHOOL	HIGH SCHOOL	ADULTS	TOTAL PE
DETACHED SINGLE FAMILY							
2 BDRM	0%	0	0	0	0	0	0
3 BDRM	0%	0	0	0	0	0	0
4 BDRM	100%	41.3	66.5	19	34	214.2	375
5 BDRM	0%	0	0	0	0	0	0
TOTAL	100%	41.3	66.5	19	34	214.2	**375**
ATTACHED DUPLEX							
1 BDRM	0%	0	0	0	0	0	0
2 BDRM	50%	0.92	1.98	0.56	0.74	17.76	21.96
3 BDRM	50%	2.31	2.98	0.85	1.03	18.05	25.22
4 BDRM	0%	0	0	0	0	0	0
TOTAL	100%	3.23	4.96	1.41	1.77	35.81	**47.18**
ATTACHED TOWNHOMES							
BDRM 1	0%	0	0	0	0	0	0
BDRM 2	100%	4.6	9.9	2.8	3.7	88.8	109.8
BDRM 3	0%	0	0	0	0	0	0
BDRM 4	0%	0	0	0	0	0	0
TOTAL	100%	4.6	9.9	2.8	3.7	88.8	**109.8**
APARTMENTS				0			
Efficiency	0%	0	0	0	0	0	0
BDRM 1	0%	0	0	0	0	0	0
BDRM 2	100%	0	0	0	0	0	0
BDRM 3	0%	0	0	0	0	0	0
TOTAL	100%	0	0	0	0	0	**0**

PARKS CALCULATION

Land required for detached single family	3.750	acres
+ Land requirement for attached duplexes	0.472	acres
+ Land required for attached townhomes'	1.098	acres
+ Land required for apartments	0.000	acres
TOTAL PARK LAND-CASH REQUIREMENT FOR DEVELOPMENT	**5.320**	**ACRES**

Total park land-cash requirement for development	5.320	acres
- Park acreage dedicated	0	acres
REMAINING UNFULFILLED LAND-CASH REQUIREMENT	5.320	ACRES

Remaining unfulfilling land-cash requirement	5.320	acres
x Current land-cash acreage value	$101,000	per acre
REMAINING LAND-CASH REQUIREMENT LAND VALUE	$537,320	

What amount (if any) will be paid up front by the developer? $0

REVISED PARK LAND-CASH REQUIREMENT AFTER UP FRONT FUNDING: $537,320

		Unit PE as % of Total PE
Single Family PE	375	70%
Duplex PE	47.18	9%
Townhomes PE	109.8	21%
Apartments PE	0	0%

Single Family Permit:	**$3,787.64**
Duplex Permit:	**$2,382.68**
Townhomes Permit:	**$2,218.04**
Apartments Permit:	**N / A**

SCHOOL COMPUTATION

DETACHED SINGLE FAMILY ACRE REQUIREMENT

Elementary	2.431	acres
+ Junior HS	0.704	acres
+ High School	2.841	acres
TOTAL	5.976	ACRES

ATTACHED DUPLEX ACRE REQUIREMENT

Elementary	0.185	acres
+ Junior HS	0.052	acres
+ High School	0.148	acres
TOTAL	0.385	ACRES

ATTACHED TOWNHOMES ACRE REQUIREMENT

Elementary	0.327	acres
+ Junior HS	0.104	acres
+ High School	0.309	acres
TOTAL	0.740	ACRES

APARTMENTS ACRE REQUIREMENT

Elementary	0.000	acres
+ Junior HS	0.000	acres
+ High School	0.000	acres
TOTAL	0.000	ACRES

TOTAL SCHOOL LAND-CASH ACREAGE REQUIRED: 7.100 ACRES

Total school land-cash acreage required	7.100	acres
- School acreage dedicated	0	acres
REMAINING SCHOOL LAND CASH REQUIREMENT	7.100	ACRES

Remaining school land-cash requirement	7.100	acres
x Current land-cash acreage value	$101,000	per acre
REMAINING LAND CASH REQUIREMENT VALUE	$717,125.92	

What amount (if any) will be paid up front by the developer? $0

REVISED LAND-CASH REQUIREMENT AFTER UP FRONT FUNDING: $717,126

Single Family Permit:	**$5,055.12**
Duplex Permit:	**$3,180.01**
Townhomes Permit:	**$2,960.28**
Apartments Permit:	**N / A**

United City of Yorkville Land Cash Analysis for Sample Development Per UDO Table 10-7-9(D)

16-Apr-24

ESTIMATED POPULATION PER DWELLING UNIT

TYPE	PRE-SCH	ELEMENTARY	JHS	HS	ADULTS	TOTAL
DETACHED SINGLE FAMILY						
2 BDRM	0.113	0.136	0.048	0.020	1.700	2.017
3 BDRM	0.292	0.369	0.173	0.184	1.881	2.899
4 BDRM	0.418	0.530	0.298	0.360	2.158	3.764
5 BDRM	0.283	0.345	0.248	0.300	2.594	3.770
ATTACHED SINGLE FAMILY (TOWNHOMES & DUPLEXES)						
1 BDRM	0.000	0.000	0.000	0.000	1.193	1.193
2 BDRM	0.064	0.088	0.048	0.038	1.752	1.990
3 BDRM	0.212	0.234	0.058	0.059	1.829	2.392
4 BDRM	0.323	0.322	0.154	0.173	2.173	3.145
APARTMENTS (MULTI-FAMILY)						
Efficiency	0.000	0	0	0	1.294	1.294
1 BDRM	0.000	0.002	0.001	0.001	1.754	1.758
2BDRM	0.047	0.086	0.042	0.046	1.693	1.914
3BDRM	0.052	0.234	0.123	0.118	2.526	3.053

DEVELOPMENT SPECIFICATIONS

Detached Single Family	=	**100**
Attached Duplex	=	**20**
Attached Townhomes	=	**50**
Attached Apartments	=	**0**
Total Units	=	170

POPULATION CALCULATIONS

TYPE	% of Units with BDRM Number	PRE-SCHOOL	ELEMENTARY	JUNIOR HIGH SCHOOL	HIGH SCHOOL	ADULTS	TOTAL PE
DETACHED SINGLE FAMILY							
2 BDRM	0%	0	0	0	0	0	0
3 BDRM	0%	0	0	0	0	0	0
4 BDRM	100%	41.8	53	29.8	36	215.8	376.4
5 BDRM	0%	0	0	0	0	0	0
TOTAL	100%	41.8	53	29.8	36	215.8	**376.4**
ATTACHED DUPLEX							
1 BDRM	0%	0	0	0	0	0	0
2 BDRM	50%	0.64	0.88	0.48	0.38	17.52	19.9
3 BDRM	50%	2.12	2.34	0.58	0.59	18.29	23.92
4 BDRM	0%	0	0	0	0	0	0
TOTAL	100%	2.76	3.22	1.06	0.97	35.81	**43.82**
ATTACHED TOWNHOMES							
BDRM 1	0%	0	0	0	0	0	0
BDRM 2	100%	3.2	4.4	2.4	1.9	87.6	99.5
BDRM 3	0%	0	0	0	0	0	0
BDRM 4	0%	0	0	0	0	0	0
TOTAL	100%	3.2	4.4	2.4	1.9	87.6	**99.5**
APARTMENTS			0				
Efficiency	0%	0	0	0	0	0	0
BDRM 1	0%	0	0	0	0	0	0
BDRM 2	100%	0	0	0	0	0	0
BDRM 3	0%	0	0	0	0	0	0
TOTAL	100%	0	0	0	0	0	**0**

PARKS CALCULATION

Land required for detached single family	2.070	acres
+ Land requirement for attached duplexes	0.241	acres
+ Land required for attached townhomes'	0.547	acres
+ Land required for apartments	0.000	acres
TOTAL PARK LAND-CASH REQUIREMENT FOR DEVELOPMENT	**2.858**	**ACRES**
Total park land-cash requirement for development	2.858	acres
- Park acreage dedicated	0	acres
REMAINING UNFULFILLED LAND-CASH REQUIREMENT	2.858	ACRES
Remaining unfulfilling land-cash requirement	2.858	acres
x Current land-cash acreage value	$101,000	per acre
REMAINING LAND-CASH REQUIREMENT LAND VALUE	$288,658	
What amount (if any) will be paid up front by the developer?	$0	
REVISED PARK LAND-CASH REQUIREMENT AFTER UP FRONT FUNDING:	**$288,658**	

		Unit PE as % of Total PE
Single Family PE	376.4	72%
Duplex PE	43.82	8%
Townhomes PE	99.5	19%
Apartments PE	0	0%

Single Family Permit:	**$2,090.57**
Duplex Permit:	**$1,216.90**
Townhomes Permit:	**$1,105.27**
Apartments Permit:	**N / A**

SCHOOL COMPUTATION

DETACHED SINGLE FAMILY ACRE REQUIREMENT

Elementary	1.738	acres
+ Junior HS	0.629	acres
+ High School	0.751	acres
TOTAL	3.118	ACRES

ATTACHED DUPLEX ACRE REQUIREMENT

Elementary	0.110	acres
+ Junior HS	0.022	acres
+ High School	0.020	acres
TOTAL	0.152	ACRES

ATTACHED TOWNHOMES ACRE REQUIREMENT

Elementary	0.139	acres
+ Junior HS	0.051	acres
+ High School	0.040	acres
TOTAL	0.230	ACRES

APARTMENTS ACRE REQUIREMENT

Elementary	0.000	acres
+ Junior HS	0.000	acres
+ High School	0.000	acres
TOTAL	0.000	ACRES

TOTAL SCHOOL LAND-CASH ACREAGE REQUIRED:	**3.500**	**ACRES**
Total school land-cash acreage required	3.500	acres
- School acreage dedicated	0	acres
REMAINING SCHOOL LAND CASH REQUIREMENT	3.500	ACRES
Remaining school land-cash requirement	3.500	acres
x Current land-cash acreage value	$101,000	per acre
REMAINING LAND CASH REQUIREMENT VALUE	$353,532.54	
What amount (if any) will be paid up front by the developer?	$0	
REVISED LAND-CASH REQUIREMENT AFTER UP FRONT FUNDING:	**$353,533**	

Single Family Permit:	**$2,560.41**
Duplex Permit:	**$1,490.40**
Townhomes Permit:	**$1,353.67**
Apartments Permit:	**N / A**

PUBLIC NOTICE OF A HEARING BEFORE
THE UNITED CITY OF YORKVILLE
PLANNING AND ZONING COMMISION
PZC 2024-13

NOTICE IS HEREWITH GIVEN THAT the Planning and Zoning Commission of the United City of Yorkville will conduct a public hearing on May 8, 2024 at 7:00PM at the Yorkville City Hall, 651 Prairie Pointe Drive, Yorkville, Illinois, regarding an amendment to Section 10-7-9 Park and Recreation Land and School Site Dedication related to criteria and formula for determining the minimum required park and recreation and school site dedication.

The proposed text amendment will revise Table 10-7-9(A)(1): Parkland Dedication Requirements, Table 10-7-9(B)(1): School Dedication Requirements, and Table 10-7-9(D): Estimated Population Per Dwelling Unit within the United City of Yorkville's Unified Development Ordinance.

The public hearing may be continued from time to time to dates certain without further notice being published.

All interested parties are invited to attend the public hearing and will be given an opportunity to be heard. Any written comments should be addressed to the United City of Yorkville Community Development Department, City Hall, 651 Prairie Pointe Drive, Yorkville, Illinois, and will be accepted up to the date of the public hearing.

By order of the Corporate Authorities of the United City of Yorkville, Kendall County, Illinois.

JORI BEHLAND
City Clerk

Reviewed By:	
Legal	☐
Finance	■
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #9

Tracking Number

CC 2024-31

Agenda Item Summary Memo

Title: Proposed Water Rates Fee Increase – FY 2025

Meeting and Date: City Council – April 23, 2024

Synopsis:

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Rob Fredrickson (Name) Finance (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: City Council
From: Rob Fredrickson, Finance Director
Date: April 17, 2024
Subject: Proposed Water Rate Increase – FY 2025

Summary

Approval of water rate increase, as proposed in the Fiscal Year 2025 budget document.

Background

This item was last discussed at the February 27th City Council meeting in conjunction with the FY 25 budget presentation.

Prior to Fiscal Year 2023, water rates were last amended by City Council in April of 2014 (Ord. 2014-14) and were set to a five-year schedule, as shown below.

Fiscal Year	Water Rates (Bi-monthly base charge for 350 cu. ft. + volume rate for every 100 cu. ft. over 350 cu. ft.)
2014	$13.11 + $2.38
2015	$14.00 + $2.97
2016	$16.00 + $3.65 (amended per Ord. 2015-22 – base fee increased from $15 to $16)
2017	$17.00 + $4.30
2018	$17.00 + $4.30
2019	$17.00 + $4.30

The $17 (base) + $4.30 (volumetric) rates remained steady from May 1, 2016 (FY 2017) until FY 2023, when revised rates were implemented on a staggered basis. The base rate amount was increased first on September 1, 2022, by $7, from $17 to $24; followed by a volumetric rate increase of $0.50, from $4.30 to $4.80, on January 1, 2023. Water rates remained at $24 + $4.80 in FY 2024; however, the City did implement a new 1% Places of Eating Tax, which went into effect January 1, 2024. Proceeds from this tax, which will be utilized by the Water Fund to mitigate future rate increases, are expected to generate ~$200,000 for the remainder of FY 2024, and ~$700,000 in FY 2025 (first full year of implementation).

As you may recall, in December of 2021 Council identified the DuPage Water Commission (DWC) Lake Michigan water source as the preferred option for the City's long-term water supply. Since that time, the City has incurred an estimated $7.0 million (thru FYE 2024) in project related costs, primarily consisting of improvements to City-owned water main (to reduce water loss, as required by the Illinois Department of Natural Resources (IDNR)) and engineering services related the IDNR application, the WIFIA loan and the DWC transmission lines. Looking ahead at the upcoming fiscal year, the City has over $15.2 million budgeted for the DWC Water Sourcing and other related projects, including $4.91 million for existing water main improvements and $8.065 million for DWC transmission mains. In order to finance these necessary capital items, and to achieve the targeted water sales revenue amount of $5.4 million shown in the budget (this is a $1.1 million or 25.6% increase over the projected FY 2024 amount of $4.3 million), staff proposes to restart the phasing in of water rate increases starting in FY 2025 as identified below:

- Increase the bi-monthly base rate for the first 350 cubic feet of water used by $15, from $24 to $39, beginning on May 1, 2024. This increase will be broadly distributed to every residential, commercial, industrial and governmental account in the City at a flat rate of $7.50 per month. This increase would result in an individual annualized increase of $90 ($15 x 6 billing cycles) over the course of FY 2025 and would yield estimated incremental revenues of ~$350,000 (32% of $1.1 million), based on the City's current number of utility accounts.

- Increase the bi-monthly volumetric (i.e., every 100 cubic feet of water used over 350 cubic feet) by $0.50, from $4.80 to $5.30, beginning on May 1, 2024. This increase in the volumetric rate is expected to generate incremental revenues in FY 2025 of ~$750,000 (68% of $1.1 million), which is estimated based on actual usage by utility billing customers over the last six billing cycles. Individual bi-monthly increases are estimated to fluctuate between $0 and $10.25 ($5.13 monthly) for those customers using between 0 and 2,400 cubic feet – which encapsulates approximately 90% of all utility billing customers in the City. Additional usage amounts and the corresponding projected increases are itemized below:

    - For 11% of utility billing customers, this volumetric increase will have no impact, as they use 350 cubic feet, or less, in a billing cycle.

    - For approximately 39% of customers' (those using between the 351 cubic feet and 1,000 cubic feet per billing cycle), this volumetric increase would result in an additional ~$1.63 per month ($3.25 per billing cycle).

    - For about 27% of customers' (those using between 1,001 cubic feet and 1,600 cubic feet per billing cycle), this volumetric increase would result in an additional ~$3.13 per month ($6.25 per billing cycle).

    - For 14% of customers' (those using between 1,601 cubic feet and 2,400 cubic feet per billing cycle), this volumetric increase would result in an additional ~$5.13 per month ($10.25 per billing cycle).

    - For 4% of customers' (those using between 2,401 cubic feet and 3,300 cubic feet per billing cycle), this volumetric increase would result in an additional ~$7.38 per month ($14.75 per billing cycle).

    - The remaining ~5% of customers (primarily non-residential), using more than 3,300 cubic feet per billing cycle, this volumetric increase will result in varying costs. Average bi-monthly consumption for the City's Top 10 water users is ~70,000 cubic feet (based on FY 2023 volume figures), which would result in a monthly increase of $174.13 ($348.25 per billing cycle). The largest users (200,000 cubic feet to 300,000 cubic feet) would see an average increase of ~$500 to ~$750 per month ($1,000 to $1,500 per billing cycle).

Please note that this revenue source can be modeled and discussed at different base rates and volumetric rates as desired by Council. However, as noted during the FY 2025 budget discussion, this proposed water rate increase is undoubtedly the first of several water rate increases over the next four fiscal years, as water sale revenues will need to continue to grow between 15% and 20% per year in order to support estimated debt service figures stemming from the Lake Michigan water sourcing project. Moreover, as this project continues to progress, Council will eventually need to adopt a multi-year water rate plan, to satisfy the revenue pledge of 1.25 times (125%) annual debt service amounts required for WIFIA and other related debt (the multi-year rate plan can be adjusted up or down, depending on actual water sale revenues). In order to develop a multi-year rate plan, it is recommended that the City conduct a water rate study, funding for which has been included in the FY 2025 budget (estimated at $100,000 in Engineering Services – Water Fund). Beyond the obvious reason of establishing a multi-year rate structure, the primary purpose of conducting a water rate study is to provide assurance to WIFIA, and other bond holders, that the City will meet it debt coverage requirements. In order to close on the WIFIA loan and future bond issues for the project, the City must prove that revenues equal at least 125% of total debt service. If the revenues used to demonstrate coverage are projected and based on future rate increases, those increases must have already been approved by City Council. The projections must be made by an outside firm, not related to the City or the bond/WIFIA loan issuance. The City will be able to rely on the projected revenues from the water rate study to demonstrate sufficiency of pledged revenues on future debt service. Additional materials regarding the scope and timing of a rate study will be presented to Council for consideration at a future meeting.

Recommendation

Staff recommends approval of the attached ordinance.

Ordinance No. 2024-_____

AN ORDINANCE OF THE UNITED CITY OF YORKVILLE, ILLINOIS AMENDING WATER SERVICE RATES

WHEREAS, the United City of Yorkville (the "*City*") is a duly organized and validly existing non home-rule municipality created in accordance with the Constitution of the State of Illinois of 1970 and the laws of the State; and

WHEREAS, expenses to be paid by the City's water fund include operational expenses and expenses incurred in expansion of the water system, namely repayment of bonds; and

WHEREAS, the City has planned future water infrastructure projects that are anticipated to cause a water fund deficit; and

WHEREAS, to diminish the anticipated water fund deficit, the City now desires to increase the water service rates; and

WHEREAS, Mayor and City Council have determined that the fees established by this ordinance are reasonable to pay for the cost of providing such services.

NOW, THEREFORE, BE IT ORDAINED by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1. The foregoing recitals shall be and are hereby incorporated as findings of fact as if set forth herein.

Section 2. That Title 7 of Chapter 5, Section 7-5-5-1A2. of the Yorkville City Code is hereby amended to read as follows:

"2. The water rates shall be:

$39.00 up to 350 cubic feet of usage, effective May 1, 2024

$5.30 per 100 cubic feet of usage over 350 cubic feet, effective May 1, 2024."

Section 3. This Ordinance shall be in full force and effect on May 1, 2024, after its passage, approval, and publication as provided by law.

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

CITY CLERK

KEN KOCH	_____	DAN TRANSIER	_____
ARDEN JOE PLOCHER	_____	CRAIG SOLING	_____
CHRIS FUNKHOUSER	_____	MATT MAREK	_____
SEAVER TARULIS	_____	RUSTY CORNEILS	_____

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

MAYOR

Attest:

_____

CITY CLERK

WATER RATE PRESENTATION

FISCAL YEAR 2025

CITY COUNCIL

APRIL 23, 2024

United City of Yorkville

City Council Goals

- #3 – Lake Michigan Water Source
  - Water turn on date still possible in 2027, although 2028 looking more likely
  - Route updates, land acquisition, and phase II preliminary engineering updates expected in next few months
    - Intra-regional discussion of cost sharing and DuPage Water Commission intergovernmental agreement are dependent on this info
  - WIFIA loan documents being prepared

City Council Goals

- #3 – Lake Michigan Water Source
  - Financing plan listed in budget document is preliminary and will change
    - Current assumption is that no IEPA low interest loans will be received. City will attempt to receive these loans though.
  - Water sales are shown as aggregate increases, without a specific proposal:
    - FY 25 – 25% increase
    - FY 26 – 20% increase
    - FY 27 – 15% increase
    - FY 28 – 20% increase
    - FY 29 – 20% increase

City Council Goals

- #3 – Lake Michigan Water Source
  - City's current water sales are around $4.3m City-wide
  - Most recent estimate of peak year WIFIA debt service payment is ~$11m, expected in FY 55
  - Based on City's robust water capital plan and the City Council's appetite to pre-fund future Lake Michigan work, any revenue increase between 25% and 100% could be justified in FY 25

City Council Goals

- #3 Lake Michigan Water Source
  - Rate increase in FY 23 of ~17% aggregate increase that generated $350,000 in year one and $650,000 each year thereafter looked like:
    - Base rate went from $17 bi-monthly to $24 bi-monthly on Sept 1, 2022
    - Volumetric rate went from $4.30 per 100 cubic feet to $4.80 per 100 cubic feet on Jan 1, 2023
      - 78% of customers saw increases of $10.25 per billing cycle or less

City Council Goals

- #3 – Lake Michigan Water Source
  - City Council should make a decision on FY 25 water rates in April / May 2024
  - A parallel water rate increase in FY 25 to FY 23 would be:
    - Base rate could go from $24 bi-monthly to $31 bi-monthly
    - Volumetric rate could go from $4.80 per 100 cubic feet to $5.30 per 100 cubic feet
      - Estimated Revenue = $5,010,139 (assumes May 1 implementation base/volume rate increases)

Fiscal Year - Water Rate History

Water Rates

- Bi-monthly base charge for 350 cubic feet + volume rate for every 100 cubic feet over 350 cubic feet.
  - 2014 $13.11 (base) + $2.38 (volume rate)
  - 2015 $14.00 (base) + $2.97 (volume rate)
  - 2016 $16.00 (base) + 3.65 (volume rate)
  - 2017 $17.00 (base) + $4.30 (volume rate)
  - 2023* $24.00 (base) + $4.80 (volume rate)

* Base rate increased Sept 1st; Volume rate increased Jan 1st.

Fiscal Year - Water Sales Revenue

Fiscal Year	Base Rate	Volumetric Rate	Water Sales Revenue	% Inc	$ Inc	# of Customers at FYE	% Inc	$ Inc
2014	$ 13.11	$ 2.38	$ 1,789,296			6,251		
2015	14.00	2.97	2,019,810	12.88%	$ 230,514	6,360	1.74%	109
2016	16.00	3.65	2,463,058	21.95%	443,248	6,465	1.65%	105
2017	17.00	4.30	2,952,074	19.85%	489,015	6,644	2.77%	179
2018	17.00	4.30	3,094,564	4.83%	142,490	6,805	2.42%	161
2019	17.00	4.30	3,117,978	0.76%	23,414	7,038	3.42%	233
2020	17.00	4.30	3,049,572	-2.19%	(68,407)	7,265	3.23%	227
2021	17.00	4.30	3,300,613	8.23%	251,041	7,492	3.12%	227
2022	17.00	4.30	3,447,225	4.44%	146,612	7,913	5.62%	421
2023	17.00 / 24.00	4.30 / 4.80	3,919,451	13.70%	472,225	8,203	3.66%	290
2024	24.00	4.80	4,300,000	9.71%	380,549	8,400	2.40%	197
Estimated								

Water Rate Analysis – FY 2025

- Projections - Actual Water Usage from last 6 billing cycles

Feb 2024	Dec 2023
Oct 2023	Aug 2023
Jun 2023	Apr 2023

FY 25 Budgeted Target - $5,400,000

- **Staff Recommendations for Rate Increases**
  - May 1 Implementation Date – for both Base & Volumetric
  - Increase Bi-Monthly Base Rate (up to 350 cu ft) from $24 to $39
    - $15 Bi-Monthly ($7.50 Monthly) increase
  - Increase Volumetric Rate (every 100 cu ft over 350) from $4.80 to $5.30
  - Last Water Rate increase was on January 1, 2023

May 1st – Proposed Base and Volumetric Rate Increases

Current Water Rates		FY 2025 - Proposed Water Rates			FY 25 Budget	Increase (Decrease)	
Bi-Monthly		*Bi-Monthly*			Target	over Current	
Base	Volumetric	Base	Volumetric	Projected	$ 5,400,000	Bi-Monthly Water Rates	
Rate	Rate	Rate	Rate	Water Sale Revenues	Over(Under)	Base	Volumetric
$ 24.00	$ 4.80	$ 39.00	$ 5.30	$ 5,410,339	$ 10,339	$ 15.00	$ 0.50

- **Every $1 increase in the Base Rate yields an estimated - $50,025**
- **Every $0.50 increase in the Volumetric Rate yields an estimated - $326,355**

Resident Impact - May 1st - Base and Volumetric Rate Increases

Current Water Rates		Proposed Water Rates		Average Residential UB Customer - 1,000 Cubic Feet				Larger Residential UB Customer - 1,600 Cubic Feet			
Base Rate	Volumetric Rate	Base Rate	Volumetric Rate	Current Rate Amount	Proposed Rate Amount	Bi-Monthly Increase	Monthly Increase	Current Rate Amount	Proposed Rate Amount	Bi-Monthly Increase	Monthly Increase
$ 24.00	$ 4.80	$ 39.00	$ 5.30	$ 55.20	$ 73.45	$ 18.25	$ 9.13	$ 84.00	$ 105.25	$ 21.25	$ 10.63

- **Approx 11% of all UB Customers use 350 cubic feet or less each billing cycle**
- **Approx 39% of all UB Customers use 351 to 1,000 cubic feet each billing cycle**
- **Approx 27% of all UB Customers use 1,001 to 1,600 cubic feet each billing cycle**

Non-Residential Impact - May 1st - Base and Volumetric Rate Increases

Current Water Rates		Proposed Water Rates		Low-Mid Non-Residential - 2,400 Cubic Feet				Mid-High Non-Residential - 3,300 Cubic Feet			
Base Rate	Volumetric Rate	Base Rate	Volumetric Rate	Current Rate Amount	Proposed Rate Bi-Monthly Amount	Increase	Monthly Increase	Current Rate Amount	Proposed Rate Bi-Monthly Amount	Increase	Monthly Increase
$ 24.00	**$ 4.80**	$ 39.00	$ 5.30	**$ 122.40**	$ 147.65	$ 25.25	$ 12.63	**$ 165.60**	$ 195.35	$ 29.75	$ 14.88

- **Approx 14% of all UB Customers use 1,601 to 2,400 cubic feet each billing cycle**
- **Approx 4% of all UB Customers use 2,401 to 3,300 cubic feet each billing cycle**

Non-Residential Impact - May 1st - Base and Volumetric Rate Increases

Current Water Rates		Proposed Water Rates		Largest Non-Residential - 70,000 Cubic Feet			
Base Rate	Volumetric Rate	Base Rate	Volumetric Rate	Current Rate Amount	Proposed Rate Amount	Bi-Monthly Increase	Monthly Increase
$ 24.00	**$ 4.80**	$ 39.00	$ 5.30	**$ 3,367.20**	$ 3,730.45	$ 363.25	$ 181.63

- **Only ~5% of UB Customers (non-residential) use more than 3,300 cubic feet each billing cycle**
- **Average for Top Ten users - ~70,000 cubic feet per billing cycle (FY 2023)**

Future Water Rate Considerations

- As we move forward with the Lake Michigan/DWC Water Sourcing Project, City Council will need to adopt a multi-year rate plan, in order to satisfy the revenue pledge of 1.25x debt service required for WIFIA and other debt.
  - Multi-year rate plan can be adjusted up or down, depending on actual water sale revenues.

- In order to develop a multi-year rate plan, it is recommended that a Water Rate Study be conducted.
  - Typically takes around 6-months to complete.
  - Currently Budgeted in FY 25 - $100,000 in Engineering Services (Water Fund).
  - Add'l materials, regarding scope & timing will be presented for consideration at a future Council meeting.

Reviewed By:	
Legal	■
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	■
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #10

Tracking Number

CC 2024-32

Agenda Item Summary Memo

Title: Revised IGA with Bristol Township

Meeting and Date: City Council – April 23, 2024

Synopsis: Please see the attached memo.

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Eric Dhuse (Name) Public Works (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: Mayor and City Council
From: Eric Dhuse, Director of Public Works
CC: Bart Olson, City Administrator
Date: April 18, 2024
Subject: Revised IGA with Bristol Township

Summary

Attached is a revised IGA with Bristol Township for the paving of certain roads in Bristol Township and the City of Yorkville. There were two minor changes to the document that Bristol Township requested.

Background

The City Council passed the original IGA on March 26, 2024. Since that time, Bristol Township has requested two (2) minor changes.

- The addition of a clause that stated that Bristol Township will not have to maintain any section of road that annexes to the City of Yorkville.

- To shorten the term of the agreement from 99 years to 10 years.

Attorney Orr has accepted the changes and revised the document accordingly. This will not affect the timing or budget of either of the projects.

Recommendation

Staff recommends approval of the revised IGA with Bristol Township.

Memorandum

To: Public Works Committee
From: Eric Dhuse, Director of Public Works
CC: Bart Olson, City Administrator
Date: March 11, 2024
Subject: Bristol Township agreement for Paving

Summary

Proposed agreement between the City and Bristol Township for repaving certain roads in Bristol Township and in the City of Yorkville.

Background

Last year we replaced water main in a large portion of Conover's Subdivision. Some streets are city streets as outlined in Exhibit 1. Bristol Township is planning on paving all their streets in that subdivision this year. The Township has offered to repave the city streets in exhibit 1 that were affected by the water main project as part of their project. In return, the City would pave certain areas in Bristol Township that are adjacent to one of our paving projects. The specific streets are parts McHugh Rd. between Farmstead and Marketplace and Walnut St. and McHugh intersection. These areas are highlighted in Exhibit 2.

No money would change hands, we would each treat the other's paving area as our own. The agreement would be in effect to ensure we both perform the paving to certain specifications and to indemnify and hold each other harmless.

I believe this is a win for the Township and the City. Both entities get better pricing, and a higher quality road since most of the paving can be done at once so there are less joints which gives a better ride for motorists and has less areas for water to permeate.

Recommendation

I recommend that we approve this agreement with Bristol Township.

RESOLUTION APPROVING AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE UNITED CITY OF YORKVILLE AND BRISTOL TOWNSHIP

WHEREAS, the United City of Yorkville (the "*City*"), and Bristol Township (the "*Township*") are units of local government (collectively the "*Parties"*); and

WHEREAS, the Constitution of the State of Illinois of 1970, Article VII, Section 10, and the Intergovernmental Cooperation Act, 5 ILCS 220/1 et seq., (collectively, the "*Authority"*) authorize unites of local government to contract or otherwise associate amongst themselves to obtain or share services and to exercise, combine, or transfer any power or function in any manner not prohibited by law; and

WHEREAS, Conover's Subdivision is partially incorporated into the City, with certain roads within this subdivision being controlled by the Township and others controlled by the City; and

WHEREAS, the Township plans to pave all Township controlled streets within Conover's Subdivision during the 2024 calendar year, and has offered to pave some damaged portions of City controlled streets within Conover's Subdivision as part of this project; and

WHEREAS, in exchange for the Township's paving of certain City controlled streets in Conover's Subdivision, the City shall pave certain Township controlled portions of McHugh Road and Walnut Street that are connected to an upcoming City-planned paving project; and

WHEREAS, the City has determined that it is in the best interest of its residents to enter into an Intergovernmental Agreement, attached hereto as Exhibit "A", in furtherance of the stated goals and desires set forth above.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and the City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1. The recitals set forth above are incorporated into this Resolution as if fully restated herein.

Section 2. Resolution 2024-15, a *Resolution Approving an Intergovernmental Agreement Between the United City of Yorkville and Bristol Township* is hereby repealed in its entirety.

Section 3. The *Revised Intergovernmental Agreement Between Bristol Township, Illinois and the United City of Yorkville, Illinois, Relating to the Resurfacing of Certain Streets*, in the form attached hereto and made a part hereof, is hereby approved; and, the Mayor and City Clerk are hereby authorized to execute said Agreement.

Section 4. That this Resolution shall be in full force and effect from and after its passage and approval as provided by law.

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

CITY CLERK

KEN KOCH	_____	DAN TRANSIER	_____
ARDEN JOE PLOCHER	_____	CRAIG SOLING	_____
CHRIS FUNKHOUSER	_____	MATT MAREK	_____
SEAVER TARULIS	_____	RUSTY CORNEILS	_____

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

MAYOR

Attest:

_____

CITY CLERK

REVISED INTERGOVERNMENTAL AGREEMENT BETWEEN BRISTOL TOWNSHIP, ILLINOIS AND THE UNITED CITY OF YORKVILLE, ILLINOIS, RELATING TO THE RESURFACING OF CERTAIN STREETS

THIS INTERGOVERNMENTAL AGREEMENT (*the* "*Agreement"*) is by and between the Township of Bristol, a unit of local government of the State of Illinois ("*Bristol Township*"), and the United City of Yorkville, a municipal corporation of the State of Illinois (the *"City"*).

WITNESSETH:

WHEREAS, the City and Bristol Township (the "*Parties*") are units of local government within the meaning of Article VII, Section 1 of the Illinois Constitution of 1970 who are authorized to enter into intergovernmental agreements pursuant to the Intergovernmental Cooperation Act, 5 ILCS 220/1 *et seq.*; and

WHEREAS, the Constitution of the State of Illinois of 1970, Article VII, Section 10, provides that units of local government may contract or otherwise associate among themselves to obtain or share services and to exercise, combine, or transfer any power or function in any manner not prohibited by law or by ordinance and may use their credit, revenues, and other resources to pay costs related to intergovernmental activities; and

WHEREAS, the Intergovernmental Cooperation Act, 5 ILCS 220/1 *et seq*., provides that any unit of local government may participate in an intergovernmental agreement under this Act notwithstanding the absence of specific authority under the State law to perform the service involved, provided that the unit of local government contracting with each other has authority to perform the service; and

WHEREAS, it is deemed to be in the best interest of Bristol Township, the City and the motoring public to improve and maintain the various roadways throughout Bristol Township and

the City pursuant to the Illinois Highway Code under 605 ILCS 5/9-101 and 605 ILCS 5/4-409, whereby municipalities and the townships may form cooperative agreements with each other for the construction, maintenance and improvement of streets, highways and any portions thereof; and

WHEREAS, the City intends to make certain improvements to Sunset Ave. and Prairie Lane in the Countryside Subdivision as depicted in Exhibit 1 (the "City Project"), and Bristol Township intends to make certain improvements to McHugh Rd and Walnut St. as depicted in Exhibit 2, (the "Township Project"); and

WHEREAS, the City Project is adjacent to roadways Bristol Township intends to improve other than the Township Project and the Township Project is adjacent to roadways the City intends to improve other than the City Project, and after reviewing the improvement plans and the location of the City Project and the Township Project in relation to the other roadway improvements both Parties intend to undertake, it would serve the residents and all of the motoring public to have the City construct the Township Project and Bristol Township to construct the City Project thereby coordinating all the construction of all roadway improvements by permitting one construction team to complete the improvements in each of the project areas; all as hereinafter set forth.

NOW, THEREFORE, in consideration of the foregoing preambles, the mutual covenants contained herein and for good and valuable consideration, the sufficiency of which is agreed to by the Parties hereto, Bristol Township and the City covenant, agree and bind themselves as follows, to wit:

1. The foregoing preambles are hereby incorporated into this Agreement as if fully restated in this paragraph 1.
2. Bristol Township shall select and contract with all contractors and subcontractors necessary to complete the City Project in compliance with state and federal laws and regulations, including

competitive bidding and prevailing wage requirements. The City shall select and contract with all contractors and subcontractors necessary to complete the Township Project in compliance with state and federal regulations including competitive bidding and prevailing wage requirements.

3. During the course of the work, both Parties shall certify that each contractor and/or subcontractor performing work on the City Project and the Township Project (collectively the "Project") shall obtain and continue in force during the term of the construction of the Project insurance coverage in not less than the following amounts: Comprehensive General Liability - $1,000,000 per occurrence; Auto Liability – Combined single limit amount of $1,000,000 on any contractor-owned, hired, and/or non-owned vehicles; Workers Compensation – Statutory requirements and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury and property damage; Umbrella Coverage - $2,000,000 per occurrence. Each contractor and/or subcontractor contracted to perform work on the Project shall name both Bristol Township and the City as additional insureds on a primary and non-contributory basis with respect to all liability coverage. Each contractor and/or subcontractor shall grant to Bristol Township and the City a waiver of any right to subrogation which any insurer may acquire against Bristol Township or the City by virtue of the payment of any loss under such insurance.
4. Neither party shall make any alterations to the existing parkways or rights-of-way, except as required for the Project.
5. Upon completion of the Project, Bristol Township shall, at its sole cost and expense, maintain the roadway pavement, including thru-lanes, shoulders, parking stalls, concrete curb and

gutter, pavement markings, and roadway signing included in the Township Project as identified in Exhibit 2.

6. Should any portion of the Bristol Project become annexed to the City during the term of this Agreement, Bristol Township shall not be required to maintain such annexed portion, but instead maintenance responsibility for any portion of the Township Project that has been annexed to the City shall become the responsibility of the City.
7. Upon completion of the Project, the City shall, at its sole cost and expense, maintain the roadway pavement, including thru-lanes, shoulders, parking stalls, concrete curb and gutter, pavement markings, and roadway signing included in the City Project as identified on Exhibit 1.
8. The Parties hereby understand and agree that this Agreement shall not require, nor confer, any additional responsibility on either of the Parties to undertake maintenance, repairs or improvements, except as are already provided by law or otherwise described in this Agreement or other agreement.
9. To the extent permitted by law, each Party shall hold harmless, indemnify and defend the other Party, including such Party's past, present, and future board members, aldermen, elected officials, insurers, employees, and agents from and against all liability, claims, suits, demands, proceedings and actions, including costs, reasonable fees and expense of defense, arising from, any loss, damage, injury, death, or loss or damage to property (collectively, the "Claims"), to the extent such Claims result from either 1) intentional, willful, wanton, reckless or negligent conduct by such indemnifying Party in the use, maintenance, repair, and/or improvement of the Project, or 2) such indemnifying Party's failure to adequately perform its obligations pursuant to this Agreement. However, no Party shall be indemnified hereunder for any loss,

liability, damage, or expense resulting from its own intentional, willful, wanton, reckless or negligent misconduct.

Nothing contained herein shall be construed as prohibiting Bristol Township and/or the City, and their respective officials, directors, officers, agents and employees, from defending through the selection and use of their own agents, attorneys and experts, any claims, suits, demands, proceedings and actions brought against them. The City's and/or Bristol Township's participation in their own defense shall not remove the other Party's and/or contractors and subcontractors' duty to indemnify, defend, and hold the other Party harmless, as set forth herein. The City and Bristol Township do not waive their defenses or immunities under the Local Government and Governmental Employees Tort Immunity Act (745 ILCS 10/1, *et seq*.) or other such Acts by reason of indemnification or insurance.

10. This Agreement and the rights of the Parties hereunder may not be assigned (except by operation of law), and the terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the Parties hereto. Nothing in this Agreement, express or implied, is intended to confer upon any party, other than the Parties and their respective successors and assigns, any rights, remedies, obligations or liabilities under or by reason of such agreements.
11. Any notice required or permitted to be given pursuant to this Agreement shall be duly given if sent by fax, email, certified mail, or courier service and received. As such, all notices required or permitted hereunder shall be in writing and may be given by either (a) depositing the same in the United States mail, addressed to the Party to be notified, postage prepaid and certified with the return receipt requested, (b) delivering the same in person, or (c) telecopying the same with electronic confirmation of receipt:

If to Bristol Township Road Commissioner
Bristol Township Highway Dept.
9075 Corneils Rd.
Bristol, Illinois 60512

If to the City: Mayor John Purcell
United City of Yorkville
800 Game Farm Road
Yorkville, Illinois 60560

or such address or counsel as any Party hereto shall specify in writing pursuant to this Section from time to time.

12. This Agreement shall be interpreted and enforced under the laws of the State of Illinois. Any legal proceeding related to enforcement of this Agreement shall be brought in the Circuit Court of Kendall County, Illinois. In case any provision of this Agreement shall be declared and/or found invalid, illegal or unenforceable by a court of competent jurisdiction, such provision shall, to the extent possible, be modified by the court in such manner as to be valid, legal and enforceable so as to most nearly retain the intent of the Parties, and, if such modification is not possible, such provision shall be severed from this Agreement, and in either case the validity, legality, and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby.
13. This Agreement may be executed in counterparts (including facsimile signatures), each of which shall be deemed to be an original and each of which shall constitute one and the same Agreement.
14. This Agreement represents the entire agreement between the Parties regarding this subject matter and there are no other promises or conditions in any other agreement whether oral or written. Except as stated herein, this agreement supersedes any other prior written or oral

agreements between the Parties about the Project and may not be further modified except in writing acknowledged by all Parties.

15. Nothing contained in this Agreement, nor any act of Bristol Township or the City pursuant to this Agreement, shall be deemed or construed by any of the Parties hereto or by third persons, to create any relationship of third-party beneficiary, principal, agent, limited or general partnership, joint venture, or any association or relationship involving Bristol Township and the City.
16. This Agreement shall be in full force and effect for a period of ten (10) years from the date of the last signature below unless terminated in writing signed by both parties.
17. This Agreement shall be effective upon approval by Bristol Township and the City and the date of this Agreement shall be deemed as the last date of acceptance provided below.
18. Bristol Township and the City each hereby warrant and represent that their respective signatures set forth below have been, and are on the date of this Agreement, duly authorized by all necessary and appropriate corporate and/or governmental action to execute this Agreement.

[Remainder of Page Intentionally Blank; Signature Page to Follow]

IN WITNESS WHEREOF, the Parties hereto have caused this Intergovernmental Agreement to be executed by their duly authorized officers on the below date.

BRISTOL TOWNSHIP, A UNIT OF LOCAL GOVERNMENT OF THE STATE OF ILLIINOIS

By: _____ _____
Bristol Township Road Commissioner Date

Attest: _____
Clerk

(Seal)

CITY OF YORKVILLE, A MUNICIPAL CORPORATION OF THE STATE OF ILLINOIS

By: _____ _____
Mayor Date

Attest: _____
City Clerk

REVISED INTERGOVERNMENTAL AGREEMENT BETWEEN BRISTOL TOWNSHIP, ILLINOIS AND THE UNITED CITY OF YORKVILLE, ILLINOIS, RELATING TO THE RESURFACING OF CERTAIN STREETS

THIS INTERGOVERNMENTAL AGREEMENT (*the* "*Agreement"*) is by and between the Township of Bristol, a unit of local government of the State of Illinois ("*Bristol Township*"), and the United City of Yorkville, a municipal corporation of the State of Illinois (the *"City"*).

WITNESSETH:

WHEREAS, the City and Bristol Township (the "*Parties*") are units of local government within the meaning of Article VII, Section 1 of the Illinois Constitution of 1970 who are authorized to enter into intergovernmental agreements pursuant to the Intergovernmental Cooperation Act, 5 ILCS 220/1 *et seq.*; and

WHEREAS, the Constitution of the State of Illinois of 1970, Article VII, Section 10, provides that units of local government may contract or otherwise associate among themselves to obtain or share services and to exercise, combine, or transfer any power or function in any manner not prohibited by law or by ordinance and may use their credit, revenues, and other resources to pay costs related to intergovernmental activities; and

WHEREAS, the Intergovernmental Cooperation Act, 5 ILCS 220/1 *et seq*., provides that any unit of local government may participate in an intergovernmental agreement under this Act notwithstanding the absence of specific authority under the State law to perform the service involved, provided that the unit of local government contracting with each other has authority to perform the service; and

WHEREAS, it is deemed to be in the best interest of Bristol Township, the City and the motoring public to improve and maintain the various roadways throughout Bristol Township and

the City pursuant to the Illinois Highway Code under 605 ILCS 5/9-101 and 605 ILCS 5/4-409, whereby municipalities and the townships may form cooperative agreements with each other for the construction, maintenance and improvement of streets, highways and any portions thereof; and

WHEREAS, the City intends to make certain improvements to Sunset Ave. and Prairie Lane in the Countryside Subdivision as depicted in Exhibit 1 (the "City Project"), and Bristol Township intends to make certain improvements to McHugh Rd and Walnut St. as depicted in Exhibit 2~~;~~, (the "Township Project"); and

WHEREAS, the City Project is adjacent to roadways Bristol Township intends to improve other than the Township Project and the Township Project is adjacent to roadways the City intends to improve other than the City Project, and~~,~~ after reviewing the improvement plans and the location of the City Project and the Township Project in relation to the other roadway improvements both Parties intend to undertake, it would serve the residents and all of the motoring public to have the City construct the ~~Bristol~~Township Project and Bristol Township to construct the City Project thereby coordinating all the construction of all roadway improvements by permitting one construction team to complete the improvements in each of the project areas; all as hereinafter set forth.

NOW, THEREFORE, in consideration of the foregoing preambles, the mutual covenants contained herein and for good and valuable consideration, the sufficiency of which is agreed to by the Parties hereto, Bristol Township and the City covenant, agree and bind themselves as follows, to wit:

1. The foregoing preambles are hereby incorporated into this Agreement as if fully restated in this paragraph 1.

2. Bristol Township shall select and contract with all contractors and subcontractors necessary to complete the City Project in compliance with state and federal laws and regulations, including competitive bidding and prevailing wage requirements. The City shall select and contract with all contractors and subcontractors necessary to complete the ~~Bristol~~Township Project in compliance with state and federal regulations including competitive bidding and prevailing wage requirements.
3. During the course of the work, both Parties shall certify that each contractor and/or subcontractor performing work on the City Project and the ~~Bristol~~Township Project (collectively the "Project") shall obtain and continue in force during the term of the construction of the Project insurance coverage in not less than the following amounts: Comprehensive General Liability - $1,000,000 per occurrence; Auto Liability – Combined single limit amount of $1,000,000 on any contractor-owned, hired, and/or non-owned vehicles; Workers Compensation – Statutory requirements and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury and property damage; Umbrella Coverage - $2,000,000 per occurrence. Each contractor and/or subcontractor contracted to perform work on the Project shall name both Bristol Township and the City as additional insureds on a primary and non-contributory basis with respect to all liability coverage. Each contractor and/or subcontractor shall grant to Bristol Township and the City a waiver of any right to subrogation which any insurer may acquire against Bristol Township or the City by virtue of the payment of any loss under such insurance.
4. Neither party shall make any alterations to the existing parkways or rights-of-way, except as required for the Project.

5. Upon completion of the Project, Bristol Township shall, at its sole cost and expense, maintain the roadway pavement, including thru-lanes, shoulders, parking stalls, concrete curb and gutter, pavement markings, and roadway signing included in the ~~Bristol~~Township Project as identified in Exhibit 2.

6. Should any portion of the Bristol Project become annexed to the City during the term of this Agreement, Bristol Township shall not be required to maintain such annexed portion, but instead maintenance responsibility for any portion of the Township Project that has been annexed to the City shall become the responsibility of the City.

~~6.~~7. Upon completion of the Project, the City shall, at its sole cost and expense, maintain the roadway pavement, including thru-lanes, shoulders, parking stalls, concrete curb and gutter, pavement markings, and roadway signing included in the City Project as identified on Exhibit 1.

~~7.~~8. The Parties hereby understand and agree that this Agreement shall not require, nor confer, any additional responsibility on either of the Parties to undertake maintenance, repairs or improvements, except as are already provided by law or otherwise described in this Agreement or other agreement.

~~8.~~9. To the extent permitted by law, each Party shall hold harmless, indemnify and defend the other Party, including such Party's past, present, and future board members, aldermen, elected officials, insurers, employees, and agents from and against all liability, claims, suits, demands, proceedings and actions, including costs, reasonable fees and expense of defense, arising from, any loss, damage, injury, death, or loss or damage to property (collectively, the "Claims"), to the extent such Claims result from either 1) intentional, willful, wanton, reckless or negligent conduct by such indemnifying Party in the use, maintenance, repair, and/or improvement of

the Project, or 2) such indemnifying Party's failure to adequately perform its obligations pursuant to this Agreement. However, no Party shall be indemnified hereunder for any loss, liability, damage, or expense resulting from its own intentional, willful, wanton, reckless or negligent misconduct.

Nothing contained herein shall be construed as prohibiting Bristol Township and/or the City, and their respective officials, directors, officers, agents and employees, from defending through the selection and use of their own agents, attorneys and experts, any claims, suits, demands, proceedings and actions brought against them. The City's and/or Bristol Township's participation in their own defense shall not remove the other Party's and/or contractors and subcontractors' duty to indemnify, defend, and hold the other Party harmless, as set forth herein. The City and Bristol Township do not waive their defenses or immunities under the Local Government and Governmental Employees Tort Immunity Act (745 ILCS 10/1, *et seq*.) or other such Acts by reason of indemnification or insurance.

~~9.~~10. This Agreement and the rights of the Parties hereunder may not be assigned (except by operation of law), and the terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the Parties hereto. Nothing in this Agreement, express or implied, is intended to confer upon any party, other than the Parties and their respective successors and assigns, any rights, remedies, obligations or liabilities under or by reason of such agreements.

~~10.~~11. Any notice required or permitted to be given pursuant to this Agreement shall be duly given if sent by fax, email, certified mail, or courier service and received. As such, all notices required or permitted hereunder shall be in writing and may be given by either (a) depositing the same in the United States mail, addressed to the Party to be notified, postage prepaid and

certified with the return receipt requested, (b) delivering the same in person, or (c) telecopying the same with electronic confirmation of receipt:

If to Bristol Township Road Commissioner
Bristol Township Highway Dept.
9075 Corneils Rd.
Bristol, Illinois 60512

If to the City: Mayor John Purcell
United City of Yorkville
800 Game Farm Road
Yorkville, Illinois 60560

or such address or counsel as any Party hereto shall specify in writing pursuant to this Section from time to time.

~~11.~~12. This Agreement shall be interpreted and enforced under the laws of the State of Illinois. Any legal proceeding related to enforcement of this Agreement shall be brought in the Circuit Court of Kendall County, Illinois. In case any provision of this Agreement shall be declared and/or found invalid, illegal or unenforceable by a court of competent jurisdiction, such provision shall, to the extent possible, be modified by the court in such manner as to be valid, legal and enforceable so as to most nearly retain the intent of the Parties, and, if such modification is not possible, such provision shall be severed from this Agreement, and in either case the validity, legality, and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby.

~~12.~~13. This Agreement may be executed in counterparts (including facsimile signatures), each of which shall be deemed to be an original and each of which shall constitute one and the same Agreement.

~~13.~~14. This Agreement represents the entire agreement between the Parties regarding this subject matter and there are no other promises or conditions in any other agreement whether oral or written. Except as stated herein, this agreement supersedes any other prior written or oral agreements between the Parties about the Project and may not be further modified except in writing acknowledged by all Parties.

~~14.~~15. Nothing contained in this Agreement, nor any act of Bristol Township or the City pursuant to this Agreement, shall be deemed or construed by any of the Parties hereto or by third persons, to create any relationship of third-party beneficiary, principal, agent, limited or general partnership, joint venture, or any association or relationship involving Bristol Township and the City.

~~15.~~16. This Agreement shall be in full force and effect for a period of ~~ninety-nine (99~~ten (10) years from the date of the last signature below unless terminated in writing signed by both parties.

~~16.~~17. This Agreement shall be effective upon approval by Bristol Township and the City and the date of this Agreement shall be deemed as the last date of acceptance provided below.

~~17.~~18. Bristol Township and the City each hereby warrant and represent that their respective signatures set forth below have been, and are on the date of this Agreement, duly authorized by all necessary and appropriate corporate and/or governmental action to execute this Agreement.

[Remainder of Page Intentionally Blank; Signature Page to Follow]

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IN WITNESS WHEREOF, the Parties hereto have caused this Intergovernmental Agreement to be executed by their duly authorized officers on the below date.

BRISTOL TOWNSHIP, A UNIT OF LOCAL GOVERNMENT OF THE STATE OF ILLIINOIS

By: _____ _____
Bristol Township Road Commissioner Date

Attest: _____
Clerk

(Seal)

CITY OF YORKVILLE, A MUNICIPAL CORPORATION OF THE STATE OF ILLINOIS

By: _____ _____
Mayor Date

Attest: _____
City Clerk

Reviewed By:	
Legal	■
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #11

Tracking Number

CC 2024-33

Agenda Item Summary Memo

Title: Sublease Agreement with School District No. 115

Meeting and Date: City Council – April 23, 2024

Synopsis:

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Bart Olson (Name) Administration (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Resolution No. 2024-_____

RESOLUTION APPROVING A SUBLEASE AGREEMENT BETWEEN THE UNITED CITY OF YORKVILLE AND YORKVILLE COMMUNITY UNIT SCHOOL DISTRICT NO. 115

WHEREAS, the United City of Yorkville, Kendall County, Illinois, is an Illinois municipal corporation (the "City"), and Yorkville Community Unit School District No. 115 is an Illinois school district (the "District") (collectively the "Parties"); and

WHEREAS, the District has entered into a Lease Agreement (the "District's Lease Agreement") dated July 9, 2023, with Bristol Township, the owner of certain property located south of the District's high school building on Game Farm Road, Yorkville, Illinois, (the "Premises") for the purpose of maintaining an athletic and band practice field and providing access and parking area for school buses and automobile traffic; and

WHEREAS, the City has acquired a permanent easement from the District near the Premises for the purpose of drilling a well ("Well 10") to ensure the availability of a water supply to City residents and businesses and also a temporary easement to permit access to the District's property during construction of Well 10; and

WHEREAS, in order to access the construction area for Well 10, it is also necessary to utilize that portion of the Premises used by the District for ingress and egress of the school buses (the "Private Roadway") for the ingress and egress of the trucks and equipment to drill for, construct, and thereafter maintain or replace Well 10 and the watermain leading thereto; and

WHEREAS, the District recognizes the need of the City to utilize the Private Roadway to provide ingress and egress, and is prepared to permit the City to utilize it; and

WHEREAS, the City has determined that it is in the best interest of its residents to enter into a Sublease Agreement attached hereto as Exhibit "A", in furtherance of the stated goals and desires set forth above.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and the City Council of the United City of Yorkville, Kendall County, Illinois, as follows:

Section 1. The recitals set forth above are incorporated into this Resolution as if fully restated herein.

Section 2. A *Sublease Agreement* between the United City of Yorkville and the Board of Education of Yorkville Community Unit School District No. 115, in the form attached hereto and made a part hereof, is hereby approved; and the Mayor and City Clerk are hereby authorized to execute said Agreement.

Section 3. That this Resolution shall be in full force and effect from and after its passage and approval as provided by law.

Passed by the City Council of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

CITY CLERK

KEN KOCH	_____	DAN TRANSIER	_____
ARDEN JOE PLOCHER	_____	CRAIG SOLING	_____
CHRIS FUNKHOUSER	_____	MATT MAREK	_____
SEAVER TARULIS	_____	RUSTY CORNEILS	_____

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this ____ day of _____, A.D. 2024.

_____

MAYOR

Attest:

_____

CITY CLERK

SUBLEASE AGREEMENT

This Sublease Agreement (the *"Sublease"*) is dated this _____ day of April 2024 by and between Yorkville Community Unit School District #115, an Illinois public school district (the *"District"*) and the United City of Yorkville, Kendall County, Illinois, a non-home rule municipality of the State of Illinois (*"City"*).

WHEREAS, the District has entered into a Lease Agreement (the "District's Lease Agreement") dated July 9, 2023, with Bristol Township, the owner of certain property located south of the District's high school building on Game Farm Road, Yorkville, Illinois, legally described in Exhibit A attached hereto (the *"Premises"*) for the purpose of maintaining an athletic and band practice field and providing access and parking area for school buses and automobile traffic; and

WHEREAS, the City has acquired a permanent easement from the District near the Premises for the purpose of drilling a well ("Well 10") to ensure the availability of a water supply to the City residents and businesses and also a temporary easement to permit access to the District's property during construction of Well 10; and

WHEREAS, in order to access the construction area for Well 10, it is also necessary to utilize that portion of the Premises used by the District for ingress and egress of the school buses (the *"Private Roadway"*) for the ingress and egress of the trucks and equipment to drill for, construct, and thereafter maintain or replace Well 10 and the watermain leading thereto; and

WHEREAS, the District recognizes the need of the City to utilize the Private Roadway to provide ingress and egress and as depicted in Exhibit B attached hereto and is prepared to permit the City to utilize it pursuant to the terms and conditions as hereinafter set forth.

NOW THEREFORE, in consideration of the foregoing including the public purposes of this Sublease, the District and the City agree as follows:

Section 1. The preambles hereinabove set forth are hereby incorporated herein as of fully restated.

Section 2. The District hereby agrees to allow the City the use of the Private Roadway as depicted for Exhibit B for the sole purpose permitting trucks and equipment ingress and egress to the specific area to construct, maintain and repair Well 10and the watermain leading thereto.

Section 3. The City covenants and agrees that the use of the Private Roadway for ingress and egress of the trucks and equipment to construct Well 10 shall not interfere with the District's use of the Private Roadway.

Section 4. The term of this Sublease shall commence with the date of commencement of construction of Well 10 by the City, notice thereof shall be given to the District no less than ten (10) business days prior thereto. This Sublease shall terminate upon the termination of the District's Lease Agreement.

Section 5. The City covenants and agrees that it shall remove any earth, gravel, machinery of any kind from the Private Roadway on a daily basis and shall not permit any truck or equipment to block the Private Roadway at any time during the term of this Sublease and shall repair any damage caused to the Private Roadway resulting from its use by the City.

Section 6. The City shall defend, indemnify, and hold harmless the District, its Board of Education, officers, employees, and agents against and from any and all liabilities, claims, losses, costs, damages and expenses of every nature whatsoever, including without limitation reasonable attorneys' fees, suffered, incurred or sustained by anyone of them, including without limitation liabilities of the death of or injury to any person or the loss, destruction or damage to any property, relating directly or indirectly to its use of the Private Roadway. Such obligation, however, shall not extend to any act, negligence, or misconduct by any of the aforesaid indemnified parties.

Section 7. The City shall keep in full force and effect at all times general public liability insurance, Workers' Compensation insurance, and such other types of insurance with coverage in amounts as currently held by the City and shall name the School District, its Board of Education, officers, employees and agents as additional insureds on any such insurance, to be evidenced by a Certificate of Insurance delivered to the School District. The City shall require any contractor(s) or subcontractor(s) using the Private Roadway to obtain and keep in full force and effect and for so long as any claim relating to the construction of Well 10 legally may be asserted, all insurance coverage as mandated by the City's Code.

Section 8. The City shall conduct all activities on the Private Roadway, and shall require its employees, agents, and contractors to conduct all activities on the Private Roadway at all times in a safe and sound manner so as to avoid any damage to the Private Roadway, and in accordance with all applicable laws, rules, regulations and ordinances. Moreover, City shall comply with all applicable provisions of the District's Lease Agreement.

Section 9. Notices to the parties shall be in writing and delivered by personal service or by the U.S.P.S. certified or registered mail, postage prepaid, to the parties at the following addresses:

If to the City:	United City of Yorkville Attn: City Administrator 651 Prairie Pointe Dr. Yorkville, Illinois 60560
With a copy to:	Kathleen Field Orr, City Attorney Ottosen DiNolfo Hasenbalg & Castaldo, Ltd. 1804 N. Naper Blvd., Suite 350 Naperville, Illinois 60563
If to the School District:	Yorkville Community Unit School District No. 115 Attn: Superintendent 800 Game Farm Rd. Yorkville, Illinois 60560

With a copy to: Hodges, Loizzi, Eisenhammer, Rodick & Kohn
Attn: Kerry B. Pipal
500 Park Blvd., Suite 1000
Itasca, Illinois 60143

Section 10. This Sublease may be executed in counterparts.

Section 11. This Sublease contains the entire understanding of the parties with respect to the subject matter hereof and all prior or contemporaneous agreements, understandings, representations and statements, oral or written, and merged herein. This Agreement may be modified only by written instrument executed by the City and the District.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized on the above date at Yorkville, Illinois.

United City of Yorkville, Kendall County, Illinois, a municipal corporation

By: _____
Mayor

Attest:

_____
City Clerk

Board of Education of Yorkville Community Unit School District No. 115, Kendall and Kane Counties, Illinois

By: _____
President

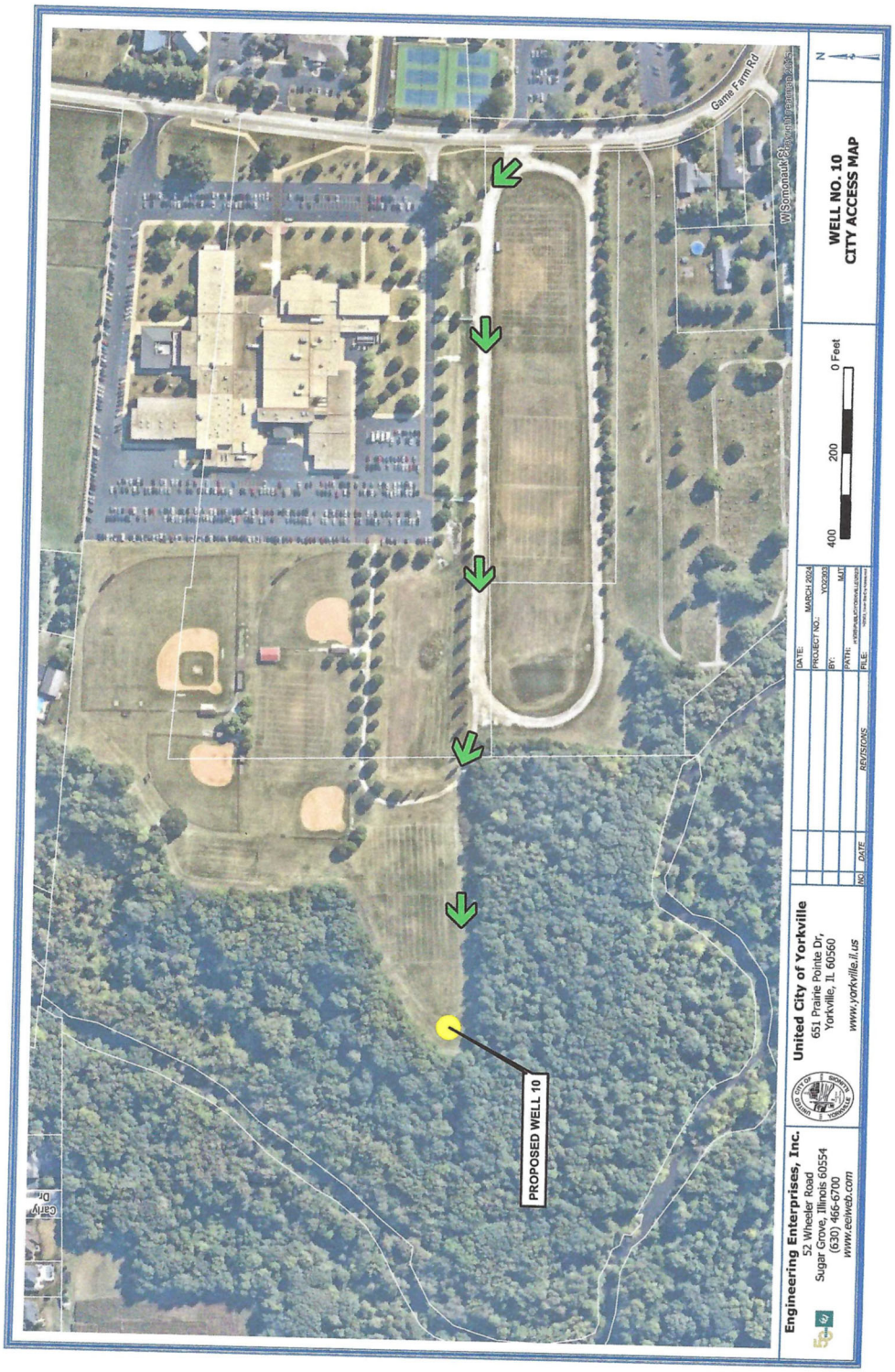
EXHIBIT A

THAT PART OF THE SOUTHEAST QUARTER OF SECTION 29, TOWNSHJP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN AND PART OF BLOCK 6 AND PART OF VACATED PARK STREET, ALL IN THE ORIGINAL TOWN OF BRISTOL, LYING WESTERLY OF THE CENTER LINE OF GAME FARM ROAD BEING DESCRIBED COMMENCING AT THE NORTHWEST CORNER OF LOT 1 OF CONOVER1S FIRST SUBDNISION: THENCE WEST ALONG THE EASTERLY EXTENSION OF THE NORTH LINE OF ELMWOOD CEMETERY AND SAID NORTH LINE A DISTANCE OF 715.0 FEET MORE OR LESS TO THE SOUTHEAST CORNER OF A TRACT OF LAND CONVEYED TO THE BRISTOL-KENDALL CEMETERY COMMITTEE BY QUIT CLAIM DEED RECORDED MARCH 18, 1985 AS DOCUMENT 85-1042; THENCE NORTH ALONG THE EAST LINE AND SAID EAST LINE EXTENDED NORTHERLY A DISTANCE 190 FEET; THENCE NORTH 87 DEGREES 35 MINUTES 18

SECONDS EAST PARALLEL WITH SAID NORTH LINE OF ELMWOOD CEMETERY A DISTANCE OF 1130.98 FEET TO THE CENTERLINE OF GAME FARM ROAD FOR THE POINT OF BEGINNING; IBENCE SOUTH 87 DEGREES 35 MINUTES 18 SECONDS WEST A DISTANCE OF 1472.0 FEET TO A POINT ON THE EAST LINE OF THE YORKVILLE HIGH SCHOOL PROPERTY; THENCE NORTH 01 DEGREES 23 MINUTES 13 SECONDS WEST ALONG SAID EAST LINE A DISTANCE OF 287.34 FEET TO THE SOUTH LINE OF SAID YORKVILLE HIGH SCHOOL PROPERTY; THENCE NORTH 88 DEGREES 17 MINUTES 40 SECONDS EAST ALONG SAID SOUTH LINE YORKVILLE HIGH SCHOOL PROPERTY, A DISTANCE 340.96 FEET; THENCE SOUTH 89 DEGREES 44 :MINUTES 23 SECONDS EAST

CONTINUE ALONG SAID SOUTH LINE OF YORKVJLLE HIGH SCHOOL PROPERTY A DISTANCE OF 1127.77 FEET TO THE CENTER LINE OF GAME FARM ROAD. THENCE SOUTH ALONG SAID CENTER LINE A DISTANCE OF 230 FEET MORE OR LESS TO THE POINT OF BEGINNING CONTAINING 8.89 ACRES MORE OR LESS IN THE TOWNSHJP OF BRISTOL, KENDALL COUNIY, ILLINOIS

EXHIBIT B


PROPOSED WELL 10
Game Farm Rd
W Somonauk St
Carry Dr
Engineering Enterprises, Inc.
52 Wheeler Road
Sugar Grove, Illinois 60554
(630) 466-6700
www.eeiweb.com
United City of Yorkville
651 Prairie Pointe Dr,
Yorkville, IL 60560
www.yorkville.il.us
NO. DATE REVISIONS
DATE: MARCH 2024
PROJECT NO: Y02003
BY: MJT
PATH:
FILE:
400 200 0 Feet
N
WELL NO. 10
CITY ACCESS MAP

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	■
Parks and Recreation	☐

Agenda Item Number

Public Works Committee #1

Tracking Number

PW 2024-34

Agenda Item Summary Memo

Title: Leak Detection Proposal

Meeting and Date: City Council – April 23, 2024

Synopsis: Proposals from leak detection companies to leak detection services on all water main as part of the non-revenue water loss calculation as required for LM water.

Council Action Previously Taken:

Date of Action: PW – 4/16/24 Action Taken: Moved forward to City Council agenda.

Item Number: PW 2024-34

Type of Vote Required: Supermajority (6 out of 9)

Council Action Requested: Approval

Submitted by: Eric Dhuse (Name) Public Works (Department)

Agenda Item Notes:

Please note, there is no page 7 of 9 for the Associated Technical Services LTD (ATS) proposal.

Memorandum

To: Public Works Committee
From: Eric Dhuse, Director of Public Works
CC: Bart Olson, City Administrator
Date: April 8, 2024
Subject: Proposed Leak Detection Quote

Summary

Staff is proposing a multi-year contract with M.E.Simpson to perform leak detection on all 156 miles of water main as required by our decision to use Lake Michigan water. The proposal is for a 3-year term.

Background

Each year we are required to survey all our water mains for leaks. This is to ensure that we stay below the mandated 10% non-revenue water loss that has been set for Lake Michigan water users. Even though we are not current users, we must be below the 10% threshold to receive Lake Michigan water.

For the past few years, we have used M.E.Simpson to perform the leak detection surveys. They have been thorough, affordable, and good to work with. There are very few companies that perform this service, and even fewer that perform to the level we expect. They have earned our respect and trust by being thorough with their surveys, and very accurate with pinpointing the location of leaks. This is a very important aspect of the service, having accurate locations saves time, energy, and money when staff repairs the leaks.

To be sure that we are getting the best price, we asked another leak detection company to provide a quote for the same services that M.E. Simpson provides for us. We solicited Associated Technical Services, ATS, to provide the quote. I have attached the proposal for your review. ATS is a good company, we have used their services on and off for over 25 years.

When we compare the quotes, ATS did not quote 3 years, but the 1-year quote was $54,834.20 which was considerably higher than M.E. Simpson's quote of $40,560. ATS also offered an incentive-based survey for $30,957.16 plus $425 for any water main leaks, and $125 for any fire hydrant leaks. I do not recommend this service at this time. Once we have our non - revenue water losses consistently under 10%, we can look at that type of option.

When we asked ATS to amend their quote for 3 years, they simply changed the dates, but nothing else. I take that as the price will stay at $54,834.20 for each year.

M.E. Simpson quoted us $40,560 in year 1, $40,560 in year 2, and $41,340 in year 3 of the contract. The increase in year 3 is a 2% increase. I feel that we are getting better pricing from M.E. Simpson, and we have been very satisfied with their work through the years.

At this time, we have $40,000 budgeted within the Lake Michigan Capital Project Projection that was approved as part of the FY 25 budget.

Recommendation

Staff recommends the approval of the quote from M.E. Simpson Co., Inc. for the 3 year term.

M.E. SIMPSON Co., Inc.

February 1, 2024

Mr. Jon Bauer
Water & Sewer Foreman
City of Yorkville
800 Game Farm Rd.
Yorkville, IL 60560

RE: PROPOSAL FOR A WATER DISTRIBUTION SYSTEM LEAK SURVEY

Dear Mr. Bauer,

M.E. Simpson Co., Inc. is pleased to present the City of Yorkville, Illinois our proposal for a Water Distribution System Leak Detection Survey Program. We are honored to be considered for this work and are confident our team will help make the project a success.

M.E. Simpson Co., Inc. is a Professional Services Firm dedicated to developing and providing programs and services designed to maximize peak performance for our clients' water distribution systems. Many of these programs are universally recognized as a part of "Best Management Practices" (BMPs) for utilities. We pride ourselves on delivering solid solutions using the highest quality technical and professional services by way of state-of-the-art technology and a skilled and well-trained staff of professionals. Our highly educated engineers and technical team are committed to the success of this project. They will be ready at a moment's notice to relieve your staff's burden and ensure a seamless continuation of your services.

Our services were developed and refined to provide utilities with programs that can be customized to meet their needs. From complete "Turn-Key" services to assisting with the development of "in-house" programs for utilities, M.E. Simpson Co., Inc. serves our clients with this ultimate goal: to deliver to the public the implicit faith that **"the water is always safe to drink"**.

Thank you for your consideration and this opportunity to acquaint you with our Water Distribution System Leak Detection Services and offer this response. We are committed to exceeding your expectations.

Sincerely,

Joe Nepras
Regional Manager

Joe Nepras
Regional Manager

3406 Enterprise Avenue
Valparaiso, IN 46383

800.255.1571 P
888.531.2444 F

joen@mesimpson.com

SCOPE OF WORK

Water Distribution System Leak Survey

The Field Scope of Service for the Leak Survey is understood to be the following:

M.E. Simpson Co., Inc. will furnish all labor, material, transportation, tools, and equipment necessary to survey the water distribution system areas selected by the City. M.E. Simpson Co., Inc. shall be required to provide such skilled and trained personnel and equipment necessary to complete the work herein specified. **There will be a minimum of Two Persons per team working on the survey at all times.**

- Work in an orderly and **safe** manner to insure protection of the local residents, Utility employees, and the Field Staff so that no **avoidable** accidents occur.
- All Field Staff will have readily observable identification badges worn while in the field.
- The leak detection equipment to be used will be that which was described in the "Equipment to be used" section.
- Initially listen to **all fire hydrants, all accessible main line valves**, and when necessary, selected service connections in the entire distribution system by making physical contact with the valve, hydrant, pipe, or B-box. (Listening points that are not accessible will be given to the Utility and when corrected they will be listened to.)
- Listening points of contact will be: valves, hydrants, service valves or meter settings. The preference of listening points in order as follows; direct contact with the pipe, main line valves, hydrant valves, hydrants, then service valves or meter settings.
- Specific listening distances will be determined by pipe material. Metallic type pipes; no greater than 500' between listening points. Non-Metallic AC/Concrete type pipes; no greater than 300' between listening points. Non-Metallic PVC/HDPE type pipes; no greater than 150' between listening points.
- A "suspected leak" log shall be maintained indicating all areas where suspected leak noise was heard. This log will be reviewed when the Project Team is verifying the suspected leak area for confirmation of the actual existence of a leak. This log will be a part of the periodic reports turned into the Utility regardless of an actual leak located in the area or not, with an explanation of the noise source.
- When leak noise has been detected and or suspected, the Project Team will verify the suspected area a second time to confirm the noise. At least four hours will pass between the initial listening of the area before a second listen and confirmation is attempted.
- The Project Team will line locate the water main and service lines in the immediate area so the correct pipe distances can be input into the leak correlator and also so that the Water Utility will have an idea of where the water main is located prior to excavation. Non-metallic pipe locations will be "interpolated" as best that can be identified, given the line location of metallic services, Utility knowledge of the area, or other information regarding the actual location of the main.

- The Project Team will use "State of the Art" Electronic Leak Correlators to determine if a leak is present and use the same equipment to pinpoint the leak.
- For PVC water mains only the Echologics LeakFinder-ST w/hydrophones leak correlator or Fluid Conservation Systems (FCS) TriCorr Touch leak correlator, will be used for correlations because of the ability for these correlators to be able to analyze the particular sound frequencies inherent to PVC pipe.
- The leak location will be marked in the field (on the surface) using environmentally formulated Precautionary Blue paint.
- The Project Team will document all leak locations with a diagram indicating the location of the leak. Other information related to that correlation will be included as part of the field sheet such as the filters used for the correlation, line locations, distances between sensors, etc.
- The locations of leaks requiring immediate attention (immediate threat to life, injury or traffic) will be turned in as quickly as possible to facilitate the repair process.
- The Project Team will report daily or per request of the Utility, to assigned Utility Professional and go over the progress of the previous day, as well as cover what will be surveyed the current day.
- It may be necessary to conduct parts of the Leak Survey during "off hours" such as at night. This may be required in areas of high traffic volume where traffic noise may affect the ability to detect leak noise, and traffic volume may affect the ability of the Project Team to be able to safely access main line valves in the middle of the street. The Project Team will give 24-hour advanced notice of intent to survey a particular area that may require after hours surveying or nighttime surveying. This is so the Utility can plan for the area to be surveyed, give notification to the Police department, as well as other Public Works Divisions as to the activity that will take place.
- As a part of the leak program, mapping discrepancies found, distribution assets found in disrepair will be noted and turned into the utility.
- Leaks verified on the customer's side of a service shut-off will not be located beyond the shut-off. If a leak appears to be on the Customers' side, the Utility will be notified first, then the customer notified and permission granted prior to the water being shut off even for short periods of time where possible and as time allows, as well as the ability for the customer to respond.
- If the Utility requests leak locations beyond the service shut off on the customer's side of the service line, this will result in an additional charge to the leak survey based on an hourly rate and this service must be agreed upon between the Utility and M.E. Simpson Co., Inc. prior to the start of the survey.
- Valves and hydrants will not be operated without Utility permission. Valves and hydrants that break during this type of operation are the sole responsibility of the Utility. M.E. Simpson Co., Inc. cannot be responsible for valves and hydrants that break due to pre-existing conditions.

- The Utility is encouraged to dig up and repair the leaks located as soon as possible so that the area may be re-surveyed while the Project Team is still working on the survey in that general geographical location to ensure no other leaks are present in that area.

Equipment List

- FCS **S30** Gutermann **AquaScope** electronically enhanced listening device.
- Echologics **LeakFinder-ST w/hydrophones**; FCS **AC Digital**, **TriCorr Touch** or Vivax-Metrotech **HL6000X** leak correlator systems.
- **RADIO Detection** Line Locators.
- **Chicago Tape**, **Fisher M-Scope** or **Schonstedt** magnetic locators.
- **All necessary valve keys and hand tools**
- Truck mounted arrow board/signage and warning lights.
- Traffic control equipment, including properly sized traffic cones with reflective stripes.

Quality Control and Accuracy of Leak Locations

The level of accuracy of leak detection is a matter of taking in all the above considerations and applying those considerations to each individual potential leak location as it is being evaluated. Any statement made as to the level of accuracy of leak locations must be considered based on the individual conditions of each leak.

Locating leaks on a distribution system can be very challenging. It is not a perfect science. Pipes and fittings can leak for a variety of reasons (age, poor installation, material failures, bad soils, etc.), and the ability to locate leaks is dependent on the stated variables listed in the "Project Approach". By employing a strict methodology in the field for conducting a leak survey, these variables can be accounted for and mitigated. The depth of experience of the Project Team is extremely important to maintaining the ability to have accurate locations of leaks. Additionally, crews work as Two-Person Teams in the field, double checking the progress of the work as the survey progresses. The systematic procedure for leak confirmation has been stated in the Scope of Field Service and is restated here.

"Suspected leak areas are always listened to a second time, preferably at a different time of day than originally listened to. The mains and services will be line located to insure correct pipe distances are used for the correlations. Correlations may need to be performed several times with several configurations to insure all the possible scenarios have been covered. Sewer manholes may need to be opened and flows observed. If there is any doubt as to the existence of a leak, the area may be checked and correlated at different times to rule out water usage or other factors. The progress of the survey will be monitored by the use of daily logs and a progression map with suspected leak noise indications marked and possible leak locations will be maintained. Field leak location forms will be turned into the Utility according to the agreed schedule. The Project Team will follow up on leak locations by monitoring the repair schedule of the Utility. That way in case a potential leak location is wrong, the Project Team can return to the site and determine why the leak location was incorrect, and correct it. This means maintaining a good level of communication between the Project Team in the field, and the Utility.

As a matter of Quality Control for leaks in the field, our Correlators, FCS TriCorr Touch and Echologics LeakFinder-ST have the distinct ability to be able to detect and pinpoint more than one leak in the same relative area, thus allowing better leak coverage and insuring that one leak is not "masking" another leak in the same area. The use of progress reports and meetings will allow for open discussions of problems encountered so solutions can be examined."

Utility Observations

The M.E. Simpson Co., Inc. Project Team will welcome having staff of the Utility observe field procedures while the Leak Survey is in progress. They will be happy to explain and demonstrate the equipment and techniques that are employed by M.E. Simpson Co., Inc. for detecting and locating leaks on the Water System.

Final Reports, Documentations & Communications

M.E. Simpson Co, Inc. will perform the following:

- Project Team will **meet daily** with assigned Utility personnel to go over areas of survey for prior workday and plan current day and area to survey.
- The field technicians will be readily available by cellular phone. This will facilitate communications between the Utility and the field technicians. A **24-hour toll-free 800 number** is available for direct contact with M.E. Simpson Co., Inc. for emergencies.
- **Diagram all leak locations**, date of location, and classify according to severity and an estimate of loss.
- **The Project Manager will** meet with the Utility regularly for a progress report.
- **Prepare a progress report** at monthly intervals for the Utility if requested.
- Develop a **Leak Survey log** of activity which will also have confirmed leaks listed and this list will be turned in weekly (in Excel format). The list will also be included with the final report that will include the following;
  1. Mechanical deficiencies discovered
  2. Mapping errors on the water atlas
  3. Type of monitored appurtenances
  4. Location of same for leaks discovered
  5. Total estimated loss

Effective communication... accurate documentation... **Insuring the success for the leak survey**

- **Prepare the final report** at the completion of the project which will include all leak location reports with drawings, total of estimated water loss, total pipe distance investigated, a description of the area surveyed, and other problems found in the system during the course of the survey that need the attention of the Water Utility. The leak summary will list leak types such as main leaks, service line leaks, valve leaks, or hydrant leaks.

  A cost benefit analysis of the survey based on the "cost to produce" water will also be included that describes the financial impact to the Utility for water loss. Recommendations for system maintenance will be a part of this report based on field observations made during the survey. **This final report shall be made available for submission to the Utility within thirty (30) working days of the completion of the fieldwork.**

Assumptions & Services Provided by the Utility

- The Utility will furnish all maps in an electronic format or paper atlases (two copies), and records necessary to properly conduct the survey.
- The Utility will assist as necessary to clean out service valves, meter pits and valve-boxes needed for listening.
- The Utility will provide a Primary Contact Person and/or secondary contact person for the Field Staff to report to on a periodic basis. This person shall act as the official liaison for the duration of the Leak Survey. This person shall have a working knowledge of the water system and will be helpful in attempting to locate particularly hard-to-find water valves for listening and for general information about the water system. *This person will not need to assist the Project Team on a full time basis*, but only on an "as needed" basis.
- The Utility will assist, if needed, to help gain entry into sites that may be difficult to get into due to security issues or other concerns.
- The Utility will assist, if needed, to locate all nonmetallic pipe within the service area. This would include all Concrete Cylinder pipe, Asbestos Cement Pipe, PVC pipe and HDPE pipe.
- We will encourage the immediate digging of major leaks (main breaks) so that if there are problems with the leak location, the problems can be corrected while the Project Team is close by and can verify the site.

PROJECT SAFETY PLAN

M.E. Simpson Co., Inc.'s Safety Programs cover all aspects of the work performed by M.E. Simpson Co., Inc. We take great pride in our safety plan/policy/program and that is evident in our EMR scores over the last five years. The safety of our employees, the utilities employees and that of the general public is our #1 priority.

Our Safety Plan/Policy/Program, with all of its parts, is 60 pages in length. In an effort to be more efficient and less wasteful we do not print copies of the safety program for RFPs. There is nothing secretive or proprietary contained within our plan/policy/program and we are happy to share its contents. If you would like a PDF copy of our plan/policy/program please contact Terrence Williams, Operations Manager, at 800.255.1521 and a copy of our program will be sent via email to you.

Below is an overview of our plan/policy/program:

Safety is a major part of any project. M.E. Simpson Co., Inc. always provides a safe work environment for its employees. **Our staff is trained in General Industry OSHA rules, Confined Space Entry & Self-Rescue, First Responder First Aid, CPR, and Traffic Control.** While in the field on your project, M.E. Simpson Co., Inc. and its employees will follow all of the necessary safety procedures to protect themselves, your staff and the general public.

M.E. Simpson Co., Inc. uses Two-Man Teams for Safety and Quality Assurance.

The use of a "one-person" leak detection team is dangerous and impractical where water mains run under roadways. It would be a dangerous precedent to allow a "one-person" team to access main line valves located in the roadway, attempt to listen to the valve with headphones on, and at the same time try to control traffic flow at that person's location in the street.

Therefore M.E. Simpson Co., Inc. adheres to the following:

- The Project Manager and the Field Manager will be trained in accordance with OSHA Standard 1910 (General Industry) and be in possession of an OSHA 10 Hour or 30 Hour Card.
- Any listening points located in a **"confined space"** such as pit and vault installations that **require entry** will be treated in accordance with the safety rules regarding **Confined Space Entry, designated by the Utility, The Department of Labor and OSHA**.
  - All personnel are **trained and certified** in Confined Space Entry & Self-Rescue.
- We will follow all safety rules regarding **First Responder First Aid & CPR, designated by the Utility, The Department of Labor and OSHA**.
  - All personnel are **trained and certified** in First Responder First Aid & CPR.
- We will follow all **traffic safety rules, designated by the Utility, The Department of Labor, OSHA, and the Illinois Department of Transportation (per MUTCD).**
  - All personnel are **trained and certified**, by the **AMERICAN TRAFFIC SAFTEY SERVICES ASSOCIATION (ATSSA)** in Traffic Control and Safety.

Current documentations of safety training and certifications can be provided for all project personnel for the Utility. These certifications are current and up to date for all project personnel.

INVESTMENT

A commitment to improving and maximizing the City of Yorkville's water distribution system for future generations.

M.E. Simpson Co., Inc. is pleased to present our "Proposal" for a Water Distribution System Leak Detection program for the City of Yorkville, Illinois. M.E. Simpson Co., Inc. will perform our leak detection services on approximately **156** miles of watermain within the City of Yorkville's water distribution system. The survey will be completed by listening on the accessible main line valves, fire hydrants and as needed services by one of our two-man teams with all necessary equipment furnished by M.E. Simpson Co., Inc. as described within this document. The project will also include complete reporting of all issues found, with a final comprehensive report.

2024 Leak Survey

Water Distribution System Leak Survey Program Fee (lump sum) ---------- **$40,560.00****

2025 Leak Survey

Water Distribution System Leak Survey Program Fee (lump sum) ---------- **$40,560.00****

2026 Leak Survey

Water Distribution System Leak Survey Program Fee (lump sum) ---------- **$41,340.00****

****Any water main surveyed in addition to the above **156** original miles of watermain will be surveyed at the rate of **$260.00** per mile of pipe for 2024 and 2025. That fee raises to **$265.00** in 2026.

We thank you for this opportunity to acquaint you with our Water Distribution System Leak Detection services and offer this proposal. If you have further inquiries or you wish to discuss our service in more detail, do not hesitate to call us.

ASSOCIATED TECHNICAL SERVICES LTD

www.ATSLIMITED.com

321 E Kenilworth Ave., VILLAPARK, IL

Office: 630.834.1558

Established 1979

February 21, 2024

City of Yorkville
610 Tower Ln.
Yorkville, Illinois 60560

Attn: Mr. Jon Bauer
Water/Sewer Department Foreman

RE: 2024-26 Water Distribution System Leak Detection & Location Survey Proposal

Dear Mr. Bauer,

We are pleased to present the following proposal to perform a multi-phase *"ATS COMPREHENSIVE LEAK DETECTION & LOCATION SURVEY"* for the *City of Yorkville*.

With an *"ATS Leak Survey Program"* your water conservation program will fast track to its best possible course. Of the three factors that create an *"unaccounted for water loss figure"* (UAW): System Leakage, Metering Errors, and Accounting Procedures, an "*ATS* Leak Survey Program" is the most cost-effective and time-efficient measure that a water utility can take to reduce its Unaccounted-for Water Loss. This is water which is treated and pumped out to your customers only to be lost through leaks into the ground and adjacent sewers lines without generating any revenue.

As each newly discovered leak is repaired, the *Village* will realize immediate returns on your leak survey dollars. In fact, over the years, *ATS Leak Surveys* have averaged a $15: $1 return in recovered water vs. the cost of hiring *ATS*. Nationwide studies have determined that of these three major factors, a properly performed leak survey will have the biggest positive impact in reducing water loss in the least amount of time while spending a fraction of the cost of a typical meter testing & replacement program. We also recommend that both metering and accounting procedures be assessed as an important part of any comprehensive water system audit. Annual Fire Hydrant Flushing and Flow Testing, plus Valve Assessment Programs will help ensure that your water system operates at peak efficiency.

"Why Is ATS Your Best Choice?"

QUALITY: "Quality is never an accident. It is always the result of high intention, sincere effort, intelligent direction, and skillful execution. It represents the wise choice of many alternatives."

ATS has earned its standing as one of the most innovative and successful leak location firms in America. We have conducted literally hundreds of leak surveys in cities of all sizes, ages, and make-ups, all across the Midwest region. Many of these cities have also had experience with other leak survey firms in addition to *ATS*. In every one of those cities, *ATS* has never failed to find less than 2 to 10 times the amount of leakage than the competitor's survey that preceded the *ATS Survey*.

A Comprehensive ATS Leak Survey is typically accomplished with these steps:

- Pre-Survey Meeting – conducted with *ATS Survey Project Manager*, to discuss all aspects of the project from methodology, equipment, documentation, and results with the Village.

- The Designated Survey Area is divided up into manageable "survey sub-areas" which are scaled directly from your maps to get the quantity of water main in each area.

- ATS Crews will check in with the Village at the start of every survey workday. You will always know where we will be that day and what kind of progress we are making. Our office never closes. *ATS Crews* and *Offices are available 24 hours a day / 365 days a year*.

- Ultrasonic Leak Detection Phase of each survey sub-area. We will log every monitored appurtenance, every detected suspect leak site, all map discrepancies and any inaccessible points that need to be found or exposed, so they can be surveyed.

- Map Discrepancies - All appurtenances that are shown incorrectly or not shown at all on your maps will be logged on our survey sheets.

- Computerized Electronic Leak Location Phase – Re-survey every suspect leak site and accurately pinpoint every subsequently detected leak.

- Leak Location Reports are submitted as leaks are located. Leak locations are marked, diagramed, and documented in detail.

- Final Survey Report - Gather Leak Repair Data, Recovery calculations, Leak Locations and assemble Final Report. Present the comprehensive Final Survey Report to the Village

WATER SYSTEM DATA AND SURVEY HISTORY

The *New Lenox Water Distribution System* contains 156 lineal miles (836,680 lineal feet) of Gray Cast Iron and Ductile Iron Water Main. All these pipe materials adequately transmit leak sounds for leak detection. The *New Lenox* water system serves a population of 26,141 residents through approx. 8,900 metered water services. This is significant because water service line leaks are the most common leak that we find with *ATS Leak Surveys*.

The water system contains 2,250 Fire Hydrants and 2,160 Mainline Valves. Every single one of them in the designated survey area will be used as primary checkpoints for leak sounds. Every accessible Hydrant Auxiliary Valve will also be monitored for leak sounds. Hundreds of Curb Stops (B-Boxes) will also be checked for leak sounds as needed.

There are good reasons why choosing ATS makes excellent business sense.

Superior Experience - ATS helped introduce leak location correlators, and subsequently started to specialize in leak detection in 1979. As a result, *ATS* has performed more leak surveys and pinpointed more leaks with this technology than anyone. *ATS* developed the leak survey techniques, correlator survey specs and field strategies that have become the standards for the industry. Over the years many of *FCS – Fluid Conservation Systems*' top people including Regional Managers, Sales Staff, Instructors, and their longtime Director of Operations also received training from *ATS*. *FCS* also uses *ATS* for Beta testing new equipment innovations plus software upgrades and developments.

Conserving Municipal Manpower and Resources - Many public works departments are already stretched to their limit, providing quality services to your citizens. With our tremendous amount of municipal leak survey experience, *ATS* frees up your staff so that they can concentrate on their normal duties without distraction. Municipal involvement is normally answering questions and freeing up inaccessible points \ during the location phase on an *"as-needed basis"*.

24 Hour Customer Support During and After the Survey – ATS never has less than two crews on call 24 hours a day / 365 days a year. ATS has a fleet of 10 Correlator Equipped "ATS Leakmobiles" out in the field five days a week. Every mobile van is fully equipped with an experienced and trained two-person crew capable of handling any leak location or utility location situation you will ever have. While other water suppliers typically wait 3 or more hours for our competitors to arrive, *ATS* is almost always on the scene in 60 - 90 minutes or less of your call for help. No other firm consistently responds to emergencies as quickly as *ATS*.

Superior Results - Like anything in life, the person who practices their craft every day is going to have distinct and measurable advantages over the person that does not do it as often, and subsequently, as well. For 43 years, *ATS* has been out in the field everyday performing leak surveys, utility locations and leak pinpointing. Subsequently our listening skills are going to be that much more acute. Your survey is more effectively accomplished while we detect more leaks and pinpoint them with more consistent accuracy than a more infrequent correlator operator can do.

- No one listens more intently to every accessible access point than *ATS*. Therefore, we detect more suspect leak sounds than anyone else.
- No one works at a suspect leak site more aggressively than *ATS*. Therefore, we turn more suspect leak sounds into confirmed leak locations than anyone else.
- No one spends more time analyzing a suspect leak site as thoroughly as *ATS*. Therefore no one pinpoints more leaks as accurately as *ATS* does. For our clients, more precise leak pinpointing means less digging and less restoration costs.
- *ATS* spends more time performing your leak survey so you can spend less time repairing them and get a greater return in recovering precious water and reducing your water losses.

ESTIMATE OF COST

The *ATS Comprehensive Leak Survey Program* is the most thorough and successful leak survey program in business on two fronts – *Superior Findings and Consistently Accurate Pinpointing*. Put it all together and you will get the most cost-effective leak survey possible.

OPTION A: All-Inclusive (lump sum) Based Survey Pricing - With this type of contract proposal, the detection phase is a lump sum figure and pinpointing is priced per pinpointed leak. Final billing will be based upon the total amount of surveyed water main. Total price is locked in regardless of the actual total number and types of pinpointed leaks. This is our most popular survey program. Without guaranteed money beyond the detection phase, this unique contract pricing puts the incentive on *ATS* to produce results.

OPTION B: *Incentive-Based Pricing* gives the Village the most flexibility and the opportunity to save money if the water system turns out to be tighter than expected. The Village still wins if it ends up that your water system contains a good number of leaks because you won't spend an extra dollar without getting an accurate leak location in return. Since there are no fee guarantees for *ATS* beyond the detection phase, there is obvious incentive for *ATS* to find as many leaks as possible for the Village. The more leaks we find, the more money you save.

OPTION C: Fire Hydrant Survey allows ATS to move through system swiftly and timely. This is your best choice when you have limited funds in your budget. Also allows for repairs to be done in a timely fashion and prepare for the next year's fiscal budget.

All-Inclusive Based Pricing

Detection and Location Phase:

836,680 lineal feet of water main @ $ 0.065 per L.F. = $ 54,384.20

Incentive- Based Pricing

Detection Phase: 836,680 @ $ 0.037 per lineal foot of water main = $ 30,957.16

Location Phase: $ 425.00 per leak that is pinpointed in the field.

$ 125.00 per leak that is determined to be a leaking Fire Hydrant.

Hydrant Survey Only

Option C:

Detection Phase: 836,680 per lineal feet of water main @ $ 0.025 per LF = $ 20,917.00

Location Phase: $ 425.00 for Every Pinpointed Main Line and Service Line Leak.

$ 125.00 for Every Fire Hydrant Leak and Valve Leak.

SURVEY COMPLETION TIME: We estimate the *DETECTION PHASE* of the survey can be completed in approximately 35 - 50 workdays (Weather permitting). The duration of the *LOCATION PHASE* will depend upon the number of suspect leak sites to investigate and actual number, type and location of those pinpointed leaks. Based upon our experience, another 15 - 20 workdays for pinpointing are possible.

Scope of Work

ATS Comprehensive Survey Program: Every fire hydrant, accessible hydrant auxiliary valve, and every mainline valve will be monitored for leak sounds. When a water system starts to get tighter, there is more emphasis on the surveyor to have to dig deeper to find the leaks that are not making obvious leak sounds. This fact makes monitoring every valve essential to finding these tough leaks. Valves are the best quality listening point possible. The thoroughness of this technique ensures that every detectable leak is found.

ULTRASONIC LEAK DETECTION: The existence and general neighborhood of every detected suspect leak is established with *FCS S-30 Ultrasonic Leak Detection Equipment*. A preliminary leak size and leak type classification is also made at that time. A significant difference between an *ATS Leak Survey* and the other surveyors is in the ultrasonic leak detection phase's number of checkpoints. You put yourself in the best position to detect more leaks by listening to as many points as possible, especially mainline valves. No one checks more points for leak sounds as accurately and as thoroughly as *ATS*.

DETECTION SURVEY RECORDS: Every accessible fire hydrant, hydrant auxiliary valve and mainline valve is monitored for suspect leak sounds. B-Boxes are checked only in the vicinity of a detected suspect leak site. Valuable survey and system data is collected and logged on these records. *This data includes* Appurtenance Type and Location, General Conditions Encountered, Accessibility, Map Discrepancies and Leak Sound Characteristics.

COMPUTERIZED LEAK ANALYSIS & PINPOINTING: Every suspect leak site, no matter how slight the sound, is electronically confirmed with one of our 10 computerized *FCS AccuCorr, FCS Tri-Corr 2002, FCS 9090 or Sewerin SeCorr Leak Noise Correlator Systems.* The pinpointing phase begins with ultrasonically resurveying every suspect leak site, electronic Correlator analysis of every suspect leak site to either eliminate a suspect leak site or accurately confirm the presence of the leak and pinpoint its exact location. By analyzing, timing, and measuring leak sound waves simultaneously from two monitoring points, the leak's exact location is pinpointed with unmatched consistent accurately.

WATER MAIN and VALVE LOCATION: All of the water main and service connections are accurately located in the vicinity of every leak location. This helps ensure that every survey leak is pinpointed as accurately as possible. All utility line location work is expertly performed with *Radiodetection RD7000, RD8000 High Performance Utility Location Systems, Schonstedt, CTS Berger and Radiodetection Ferromagnetic Metal Locators. No one works a leak site harder than ATS!*

"X" MARKS THE SPOT! The pinpointed location of every mainline, service line and valve leak will be marked in the field with spray marking paint with an "*X*". The exceptions are homeowner's side service leaks and hydrant leaks. A *"Leak Location Report"* form documents the location and type, characteristics of every pinpointed leak.

LEAK LOCATION REPORTS: This is an individual report form that details the exact location and characteristics of each pinpointed leak. These forms are submitted daily as the leaks are pinpointed. The *Village* with actual leak repair information updates each *Leak Report* which is used to calculate water loss and revenue recovery data for the *Final Report*

FINAL REPORT: Three (3) copies of a comprehensive *FINAL SURVEY REPORT* will be submitted after the completion of the survey. Additional copies are available upon request. Your Final Report will concisely detail all our survey activities and findings, estimated & calculated leak sizes, and revenue recovery calculations for each leak. We also include survey area maps showing leak locations in each area and system-wide leak locations, plus each individual leak location report with Village repair and calculated leak size information, general observations, and recommendations.

INITIATING THE SURVEY: We only need your verbal authorization followed by your Purchase Order and / or signed *ATS Leak Survey Contracts*, to schedule your *Pre-Survey Meeting*, and initiate your Survey. The *Pre-Survey Meeting* details all aspects of the survey.

Yours Truly,
ASSOCIATED TECHNICAL SERVICES LTD.

Marcia A. Kaplar

Marcie A. Kaplar
Survey
Manager

GENERAL CONDITIONS

LEAK DETECTION & LOCATION SURVEYS

Responsibility of ATS / Associated Technical Services Ltd.

A) Two-Person crew qualified to operate the *ATS Leak Detection & Location System*.

B) The *"ATS Leak Detection & Location System"* consists of:

- *FCS S30 Ultrasonic Leak Surveyor Instruments (Leak Detection Phase)*
- *FCS/Fluid Conservation Systems and Sewerin Leak Noise Correlators (Leak Location Phase)*
- *FCS and Sewerin Ultrasonic Preamplifiers (Leak Location Phase)*
- *FCS, Wilcoxen, Vibrometer, Sewerin Accelerometers, Gas Sensors, Hydrophone Sensors*
- *Radcom FCS SoundSens Programmable Leak Correlation / Localization System*
- *Radiodetection RD7000 and RD8000 Utility Location Systems; CST Berger, Fisher, Schonstedt and Radiodetection Ferro Magnetic Location Equipment for buried valve enclosures.*

C) *"ATS Leakmobile"* - Mobile Van with self-contained power supply and /or capability of operating from an alternate VAC 60 Hz source, or suitable alternate vehicle at the discretion of *ATS*.

D) *Mobilization / Mileage* – Round Trip, Portal-to-Portal and On-Site.

E) *On-Site Consultation with the Owner* or their representatives, as necessary.

F) The entire area designated by the *Owner* shall be surveyed for leakage. Detected leaks shall be pinpointed only on that part of the water system maintained by the *Owner*. Unless it is previously specified and ordered, customer service line leaks will only be pinpointed up to the municipal side of the curb stop without additional charges. Leaks on the customer side of the curb stop typically require a separate appointment so *ATS* can contact the service line inside the building.

G) Only those leaks that are detected by the *ATS Leak Survey* are to be included in the pinpointing phase of this contract. Unless other previous arrangements are made, any pinpointing of any incidentally or coincidentally occurring leakage, main breaks or previously known leakage that was not initially included in our proposal or as a part of this agreement shall be charged at our normal rates for scheduled / emergency service callouts.

H) If the *"Re-monitoring of Repaired Leak Sites"* service is specified, included in our proposal and ordered, this agreement, leak repairs to that site must be completed within 30 days after that leak's location report was submitted to the *Owner*. The *Owner* then must notify *ATS* at the time of repairs so re-monitoring can be scheduled. All subsequently detected leakage will be located.

I) *ATS* will establish and mark the location of a leak or leaks in the field with either marking paint, a field stake and / or written individual *"ATS Leak Location Report".*

J) *ATS* will provide basic traffic warning equipment and traffic control and re-direction with flagmen. on an *as-needed basis*, whenever conditions dictate the necessity of these safety precautions. *ATS Work Zone Safety Equipment* includes but is not limited to safety vests, vehicle arrow. boards, strobe warning lights and safety cones that are used whenever our vehicles are parked during the leak survey on residential and other light or slower traffic areas.

GENERAL CONDITIONS FOR LEAK SURVEYS

RESPONSIBILITY OF OWNER

The *Owner* will ensure easy access to all main line valves, valve boxes or other strategically necessary access points. This may also include exposing and cleaning out auxiliary valves and b-boxes on an as-needed basis if they will facilitate the accurate confirmation and pinpointing of a detected leak. *This could include* breaking loose needed valve covers; pumping water out all valve vaults and boxes and, if necessary, removing debris from those enclosures to make the valves and adjoining pipelines accessible. The *Owner* will also make access available to any point or location strategically needed by *ATS* to perform said work at the discretion of *ATS*.

- If the *Owner* orders leak pinpointing between the curb stop and the customer's building, the *Owner* shall be responsible for contact with the customer. Pinpointing can be performed on a weekday from 9:00 AM to 1:00 PM without incurring overtime charges.

- The *Owner* will make available to *ATS* all available location maps, schematics, as-built drawings, final reports from previous leak surveys, and any other data pertaining to the area being surveyed. Access to the "IDOT LMO-2" Annual Water Audit Reports is also very helpful.

- The *Owner* will make available knowledgeable, qualified personnel for consultation and assistance regarding the *Owner's* water system.

- Identify the authorized representatives of the *Owner* to act on behalf of the *Owner* and sign *ATS* agreements, purchase orders and additional work orders.

- Give *ATS* right of access, and necessary identification required, and notify appropriate authorities (Police, Fire Dept., Public Works Dept., etc.) as needed of program underway.

- The *Owner* will at its option, provide Traffic Warning Equipment, Traffic Control and Re-Direction with Flagmen on an ***as-needed basis***, should conditions dictate the necessity of this safety precaution. Instances such as a lane closure in a heavy traffic area may require hiring the services of a Work Zone Safety Vendor to provide the necessary traffic control equipment such as barricades, warning lights, arrow panels and temporary barriers. The *Owner* must approve any use of a Work Zone Safety Vendor in advance. *The owner* will be responsible for the costs of the Work Zone Safety Vendor.

- *Owner's* repair crews shall make a reasonable effort to provide *ATS* with accurate leak repair information whenever this data is available. *Repair data should detail the following:* Date of repair; type of leak; approximate size and shape of the leak orifice; approximate water pressure; and method of repair. This information is necessary for *ATS* to make leak size, water loss and revenue recovery calculations for a comprehensive *"Leak Survey Final Report".*

Please Note: ATS does not guarantee the detection or accurate pinpointing of a leak or leaks but does assure that the best effort in that regard will be put forward.

Certain input data to the *ATS Leak Detection & Location System* is based upon information received from the *Owner*. The accuracy of the *Owner's* data will directly affect the results of the Leak Survey. *ATS* will attempt to verify such data by consultation with the *Owner* and thereupon will have a right to rely upon the accuracy of the *Owner's* data. *ATS* is not liable for any costs to the Owner as a result of incomplete or inaccurate data supplied by the *Owner* or their representatives.

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Reviewed By:	
Legal	☐
Finance	☐
Engineer	■
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	☐
Public Works	■
Parks and Recreation	☐

Agenda Item Number

Public Works Committee #2

Tracking Number

PW 2024-35

Agenda Item Summary Memo

Title: Pavement Management Program Update – Preliminary Engineering Agreement

Meeting and Date: City Council – April 23, 2024

Synopsis: Please see the attached memo.

Council Action Previously Taken:

Date of Action: PW – 4/16/24 Action Taken: Moved forward to City Council Agenda.

Item Number: PW 2024-35

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Eric Dhuse (Name) Public Works (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: Public Works Committee
From: Eric Dhuse, Director of Public Works
CC: Bart Olson, City Administrator
Date: April 10, 2024
Subject: Pavement Management Update Engineering Agreement

Summary

Proposed construction engineering agreement with EEI for the Pavement Management Update.

Background

Attached is the proposed Construction Engineering Agreement for the Pavement Management Update. This update will score the roads for us and assist us in deciding which roads need attention in the 5-year CIP. This will be the second update to the plan, the original work was performed in 2013, an update in 2018, and now an update in 2023.

EEI's proposed contract would manage the project, process and analyze the data, make recommendations, and assist in the budgeting for the projects. The cost for these services would be a fixed fee of $89,920. This money is budgeted in the approved FY25 budget in the Engineering Services line within the City-Wide Capital Fund.

Recommendation

Staff recommends approval of the construction engineering agreement with EEI for the Pavement Management Update.

Pavement Management Program Update
United City of Yorkville
Professional Services Agreement – Preliminary Engineering

THIS AGREEMENT, by and between the United City of Yorkville, hereinafter referred to as the "City" or “OWNER” and Engineering Enterprises, Inc. hereinafter referred to as the "Contractor" or “ENGINEER” agrees as follows:

A. Services:

ENGINEER agrees to furnish to the City the following services: The ENGINEER shall provide any and all necessary engineering services to the City as indicated on the Scope of Services (Attachment B). Preliminary Engineering for a Pavement Management System update for the City’s approximate 120 miles of roadways will be provided.

B. Term:

Services will be provided beginning on the date of execution of this agreement and continuing, until terminated by either party upon 7 days written notice to the non-terminating party or upon completion of the Services. Upon termination the Contractor shall be compensated for all work performed for the City prior to termination.

C. Compensation and maximum amounts due to Contractor:

ENGINEER shall receive as compensation for all work and services to be performed herein, an amount based on the Estimated Level of Effort and Associated Cost included in Attachment C. Preliminary Engineering will be paid for as a Fixed Fee (FF) in the amount of $89,920, of which direct expenses are estimated at $45,500. The hourly rates for this project are shown in the attached 2024 Standard Schedule of Charges (Attachment E). All payments will be made according to the Illinois State Prompt Payment Act and not less than once every thirty days.

D. Changes in Rates of Compensation:

In the event that this contract is designated in Section B hereof as an Ongoing Contract, ENGINEER, on or before February 1st of any given year, shall provide written notice of any change in the rates specified in Section C hereof (or on any attachments hereto) and said changes shall only be effective on and after May 1st of that same year.

E. Ownership of Records and Documents:

Contractor agrees that all books and records and other recorded information developed specifically in connection with this agreement shall remain the property of the City. Contractor agrees to keep such information confidential and not to disclose or disseminate the information to third parties without the consent of the City. This confidentiality shall not apply to material or information, which would otherwise be subject to public disclosure through the freedom of information act or if already previously disclosed by a third party. Upon termination of this agreement, Contractor agrees to return all such materials to the City. The City agrees not to modify any original documents produced by Contractor without contractors consent. Modifications of any signed duplicate original document not authorized by ENGINEER will be at OWNER's sole risk and without legal liability to the ENGINEER. Use of any incomplete, unsigned document will, likewise, be at the OWNER's sole risk and without legal liability to the ENGINEER.

F. Governing Law:

This contract shall be governed and construed in accordance with the laws of the State of Illinois. Venue shall be in Kendall County, Illinois.

G. Independent Contractor:

Contractor shall have sole control over the manner and means of providing the work and services performed under this agreement. The City's relationship to the Contractor under this agreement shall be that of an independent contractor. Contractor will not be considered an employee to the City for any purpose.

H. Certifications:

Employment Status: The Contractor certifies that if any of its personnel are an employee of the State of Illinois, they have permission from their employer to perform the service.

Anti-Bribery: The Contractor certifies it is not barred under 30 Illinois Compiled Statutes 500/50-5(a) - (d) from contracting as a result of a conviction for or admission of bribery or attempted bribery of an officer or employee of the State of Illinois or any other state.

Loan Default: If the Contractor is an individual, the Contractor certifies that he/she is not in default for a period of six months or more in an amount of $600 or more on the repayment of any educational loan guaranteed by the Illinois State Scholarship Commission made by an Illinois institution of higher education or any other loan made from public funds for the purpose of financing higher education (5 ILCS 385/3).

Felony Certification: The Contractor certifies that it is not barred pursuant to 30 Illinois Compiled Statutes 500/50-10 from conducting business with the State of Illinois or any agency as a result of being convicted of a felony.

Barred from Contracting: The Contractor certifies that it has not been barred from contracting as a result of a conviction for bid-rigging or bid rotating under 720 Illinois Compiled Statutes 5/33E or similar law of another state.

Drug Free Workplace: The Contractor certifies that it is in compliance with the Drug Free Workplace Act (30 Illinois Compiled Statutes 580) as of the effective date of this contract. The Drug Free Workplace Act requires, in part, that Contractors, with 25 or more employees certify and agree to take steps to ensure a drug free workplace by informing employees of the dangers of drug abuse, of the availability of any treatment or assistance program, of prohibited activities and of sanctions that will be imposed for violations; and that individuals with contracts certify that they will not engage in the manufacture, distribution, dispensation, possession, or use of a controlled substance in the performance of the contract.

Non-Discrimination, Certification, and Equal Employment Opportunity: The Contractor agrees to comply with applicable provisions of the Illinois Human Rights Act (775 Illinois Compiled Statutes 5), the U.S. Civil Rights Act, the Americans with Disabilities Act, Section 504 of the U.S. Rehabilitation Act and the rules applicable to each. The equal opportunity clause of Section 750.10 of the Illinois Department of Human Rights Rules is specifically incorporated herein. The Contractor shall comply with Executive Order 11246, entitled Equal Employment Opportunity, as amended by Executive Order 11375, and as supplemented by U.S. Department of Labor regulations (41 C.F.R. Chapter 60). The Contractor agrees to incorporate this clause into all subcontracts under this Contract.

International Boycott: The Contractor certifies that neither it nor any substantially owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act (30 ILCS 582).

Record Retention and Audits: If 30 Illinois Compiled Statutes 500/20-65 requires the Contractor (and any subcontractors) to maintain, for a period of 3 years after the later of the date of completion of this Contract or the date of final payment under the Contract, all books and records relating to the performance of the Contract and necessary to support amounts charged to the City under the Contract. The Contract and all books and records related to the Contract shall be available for review and audit by the City and the Illinois Auditor General. If this Contract is funded from contract/grant funds provided by the U.S. Government, the Contract, books, and records shall be available for review and audit by the Comptroller General of the U.S. and/or the Inspector General of the federal

sponsoring agency. The Contractor agrees to cooperate fully with any audit and to provide full access to all relevant materials.

United States Resident Certification: (This certification must be included in all contracts involving personal services by non-resident aliens and foreign entities in accordance with requirements imposed by the Internal Revenue Services for withholding and reporting federal income taxes.) The Contractor certifies that he/she is a: _x_ United States Citizen ___ Resident Alien ___ Non-Resident Alien The Internal Revenue Service requires that taxes be withheld on payments made to non resident aliens for the performance of personal services at the rate of 30%.

Tax Payer Certification : Under penalties of perjury, the Contractor certifies that its Federal Tax Payer Identification Number or Social Security Number is (provided separately) and is doing business as a (check one): ___ Individual ___ Real Estate Agent ___ Sole Proprietorship ___ Government Entity ___ Partnership ___ Tax Exempt Organization (IRC 501(a) only) _x_ Corporation ___ Not for Profit Corporation ___ Trust or Estate ___ Medical and Health Care Services Provider Corp.

I. Indemnification:

Contractor shall indemnify and hold harmless the City and City's agents, servants, and employees against all loss, damage, and expense which it may sustain or for which it will become liable on account of injury to or death of persons, or on account of damage to or destruction of property resulting from the performance of work under this agreement by Contractor or its Subcontractors, or due to or arising in any manner from the wrongful act or negligence of Contractor or its Subcontractors of any employee of any of them. In the event that the either party shall bring any suit, cause of action or counterclaim against the other party, the non-prevailing party shall pay to the prevailing party the cost and expenses incurred to answer and/or defend such action, including reasonable attorney fees and court costs. In no event shall the either party indemnify any other party for the consequences of that party's negligence, including failure to follow the ENGINEER's recommendations.

J. Insurance:

The ENGINEER agrees that it has either attached a copy of all required insurance certificates or that said insurance is not required due to the nature and extent of the types of services rendered hereunder. (Not applicable as having been previously supplied)

K. Additional Terms or Modification:

The terms of this agreement shall be further modified as provided on the attached Exhibits. Except for those terms included on the Exhibits, no additional terms are

included as a part of this agreement. All prior understandings and agreements between the parties are merged into this agreement, and this agreement may not be modified orally or in any manner other than by an agreement in writing signed by both parties. In the event that any provisions of this agreement shall be held to be invalid or unenforceable, the remaining provisions shall be valid and binding on the parties. The list of Attachments are as follows:

Attachment A:	Standard Terms and Conditions
Attachment B:	Scope of Services
Attachment C:	Estimate of Level of Effort and Associated Cost
Attachment D:	Estimated Schedule
Attachment E:	2024 Standard Schedule of Charges

L. Notices:

All notices required to be given under the terms of this agreement shall be given mail, addressed to the parties as follows:

For the City:

City Administrator and City Clerk
United City of Yorkville
651 Prairie Pointe Drive
Yorkville, IL 60560

For the ENGINEER:

Engineering Enterprises, Inc.
52 Wheeler Road
Sugar Grove Illinois 60554

Either of the parties may designate in writing from time to time substitute addresses or persons in connection with required notices.

Agreed to this _____day of _____, 2024.

United City of Yorkville:

_____
John Purcell
Mayor

_____
Jori Behland
City Clerk

Engineering Enterprises, Inc.:

_____
Brad Sanderson, PE
Chief Operating Officer / President

_____
Angie Smith
Executive Assistant

STANDARD TERMS AND CONDITIONS

Agreement: These Standard Terms and Conditions, together with the Professional Services Agreement, constitute the entire integrated agreement between the OWNER and Engineering Enterprises, Inc. (EEI) (hereinafter "Agreement"), and take precedence over any other provisions between the Parties. These terms may be amended, but only if both parties consent in writing.

Standard of Care: In providing services under this Agreement, the ENGINEER will endeavor to perform in a matter consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under same circumstances in the same locality. ENGINEER makes no other warranties, express or implied, written or oral under this Agreement or otherwise, in connection with ENGINEER'S service.

Construction Engineering and Inspection: The ENGINEER shall not supervise, direct, control, or have authority over any contractor work, nor have authority over or be responsible for the means, methods, techniques sequences, or procedures of construction selected or used by any contractor, or the safety precautions and programs incident thereto, for security or safety of the site, nor for any failure of a contractor to comply with laws and regulations applicable to such contractor's furnishing and performing of its work.

The ENGINEER neither guarantees the performance of any contractor nor assumes responsibility for contractor's failure to furnish and perform the work in accordance with the contract documents.

The ENGINEER is not responsible for the acts or omissions of any contractor, subcontractor, or supplies, or any of their agents or employees or any other person at the site or otherwise furnishing or performing any work.

Shop drawing and submittal review by the ENGINEER shall apply to only the items in the submissions and only for the purpose of assessing if upon installation or incorporation in the project work they are generally consistent with the construction documents. OWNER agrees that the contractor is solely responsible for the submissions and for compliance with the construction documents. OWNER further agrees that the ENGINEER'S review and action in relation to these submissions shall not constitute the provision of means, methods, techniques, sequencing or procedures of construction or extend or safety programs or precautions. The ENGINEER'S consideration of a component does not constitute acceptance of the assembled items.

The ENGINEER'S site observation during construction shall be at the times agreed upon in the Project Scope. Through standard, reasonable means the ENGINEER will become generally familiar with observable completed work. If the ENGINEER observes completed work that is inconsistent with the construction documents, that information shall be communicated to the contractor and OWNER for them to address.

Opinion of Probable Construction Costs: ENGINEER'S opinion of probable construction costs represents ENGINEER'S best and reasonable judgment as a professional engineer. OWNER acknowledges that ENGINEER has no control over construction costs of contractor's methods of determining pricing, or over competitive bidding by contractors, or of market conditions or changes thereto. ENGINEER cannot and does not guarantee that proposals, bids or actual construction costs will not vary from ENGINEER'S opinion of probable construction costs.

Copies of Documents & Electronic Compatibility: Copies of Documents that may be relied upon by OWNER are limited to the printed copies (also known as hard copies) that are signed or sealed by the ENGINEER. Files in electronic media format of text, data, graphics, or of other types that are furnished by ENGINEER to OWNER are only for convenience of OWNER. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. When transferring documents in electronic media format, ENGINEER makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by ENGINEER at the beginning of the project.

Changed Conditions: If, during the term of this Agreement, circumstances or conditions that were not originally contemplated by or known to the ENGINEER are revealed, to the extent that they affect the scope of services, compensation, schedule, allocation of risks, or other material terms of this Agreement, the ENGINEER may call for renegotiation of appropriate portions of this Agreement. The ENGINEER shall notify the OWNER of the changed conditions necessitating renegotiation, and the ENGINEER and the OWNER shall promptly and in good faith enter into renegotiation of this Agreement to address the changed conditions. If terms cannot be agreed to, the parties agree that either party has the absolute right to terminate this Agreement, in accordance with the termination provision hereof.

Hazardous Conditions: OWNER represents to ENGINEER that to the best of its knowledge no Hazardous Conditions (environmental or otherwise) exist on the project site. If a Hazardous Condition is encountered or alleged, ENGINEER shall have the obligation to notify OWNER and, to the extent of applicable Laws and Regulations, appropriate governmental officials. It is acknowledged by both parties that ENGINEER's scope of services does not include any services related to a Hazardous Condition. In the event ENGINEER or any other party encounters a Hazardous Condition, ENGINEER may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the project affected thereby until OWNER: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the Hazardous Condition; and (ii) warrants that the project site is in full compliance with applicable Laws and Regulations.

Consequential Damages: Notwithstanding any other provision of this Agreement, and to the fullest extent permitted by law, neither the OWNER nor the ENGINEER, their respective officers, directors, partners, employees, contractors, or subcontractors shall be liable to the other or shall make any claim for any incidental, indirect, or consequential damages arising out of or connected in any way to the Project or to this Agreement. This mutual waiver of consequential damages shall include, but is not limited to, loss of use, loss of

profit, loss of business, loss of income, loss of reputation, or any other consequential damages that either party may have incurred from any cause of action including negligence, strict liability, breach of contract, and breach of strict or implied warranty. Both the OWNER and the ENGINEER shall require similar waivers of consequential damages protecting all the entities or persons named herein in all contracts and subcontracts with others involved in this project.

Termination: This Agreement may be terminated for convenience, without cause, upon fourteen (14) days written notice of either party. In the event of termination, the ENGINEER shall prepare a final invoice and be due compensation as set forth in the Professional Services Agreement for all costs incurred through the date of termination.

Either party may terminate this Agreement for cause upon giving the other party not less than seven (7) calendar days' written notice for the following reasons:

(a) Substantial failure by the other party to comply with or perform in accordance with the terms of the Agreement and through no fault of the terminating party;

(b) Assignment of the Agreement or transfer of the project without the prior written consent of the other party;

(c) Suspension of the project or the ENGINEER'S services by the OWNER for a period of greater than ninety (90) calendar days, consecutive or in the aggregate.

(d) Material changes in the conditions under which this Agreement was entered into, the scope of services or the nature of the project, and the failure of the parties to reach agreement on the compensation and schedule adjustments necessitated by such changes.

Payment of Invoices: Invoices are due and payable within 30 days of receipt unless otherwise agreed to in writing.

Third Party Beneficiaries: Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the OWNER or the ENGINEER. The ENGINEER'S services under this Agreement are being performed solely and exclusively for the OWNER'S benefit, and no other party or entity shall have any claim against the ENGINEER because of this Agreement or the performance or nonperformance of services hereunder. The OWNER and ENGINEER agree to require a similar provision in all contracts with contractors, subcontractors, vendors and other entities involved in this Project to carry out the intent of this provision.

Force Majeure: Each Party shall be excused from the performance of its obligations under this Agreement to the extent that such performance is prevented by force majeure (defined below) and the nonperforming party promptly provides notice of such prevention to the other party. Such excuse shall be continued so long as the condition constituting force majeure continues. The party affected by such force majeure also shall notify the other party of the anticipated duration of such force majeure, any actions being taken to avoid or minimize its effect after such occurrence, and shall take reasonable efforts to remove the condition constituting such force majeure. For purposes of this Agreement, "force majeure" shall include conditions beyond the control of the parties, including an act of God, acts of terrorism, voluntary or involuntary compliance with any regulation, law or order of any government, war, acts of war (whether war be declared or not), labor strike or lock-out, civil commotion, epidemic, failure or default of public utilities or common carriers, destruction of production facilities or materials by fire, earthquake, storm or like catastrophe. The payment of invoices due and owing hereunder shall in no event be delayed by the payer because of a force majeure affecting the payer.

Additional Terms or Modification: All prior understandings and agreements between the parties are merged into this Agreement, and this Agreement may not be modified orally or in any manner other than by an Agreement in writing signed by both parties. In the event that any provisions of this Agreement shall be held to be invalid or unenforceable, the remaining provisions shall be valid and binding on the parties.

Assignment: Neither party to this Agreement shall transfer or assign any rights or duties under or interest in this Agreement without the prior written consent of the other party. Subcontracting normally contemplated by the ENGINEER shall not be considered an assignment for purposes of this Agreement.

Waiver: A party's waiver of, or the failure or delay in enforcing any provision of this Agreement shall not constitute a waiver of the provision, nor shall it affect the enforceability of that provision or of the remainder of this Agreement.

Attorney's Fees: In the event of any action or proceeding brought by either party against the other under this Agreement, the prevailing party shall be entitled to recover from the other all costs and expenses including without limitation the reasonable fees of its attorneys in such action or proceeding, including costs of appeal, if any, in such amount as the Court may adjudge reasonable.

Fiduciary Duty: Nothing in this Agreement is intended to create, nor shall it be construed to create, a fiduciary duty owed to either party to the other party. EEI makes no warranty, express or implied, as to its professional services rendered.

Headings: The headings used in this Agreement are inserted only as a matter of convenience only, and in no way define, limit, enlarge, modify, explain or define the text thereof nor affect the construction or interpretation of this Agreement.

Pavement Management Program Update
United City of Yorkville, IL
Professional Services Agreement - Preliminary Engineering

Attachment B – Scope of Services

1. **Project Management and Coordination**
   - Budget Tracking
   - Management of Personnel and the Engineering Contract
   - Coordination with the City
   - Coordination with Sub-Consultants

2. **Project Meetings**
   - Kick-Off Meeting with IMS and City Staff
   - Progress Meeting to Review Data with City Staff
   - Progress Meeting to Review Project Budgeting & 5-Year Plan with City Staff

3. **Yearly Pavement Management Update**
   - Update City's Pavement Management Database
   - Gather Most Up to Date Budget Information
   - Update Roadway Costs Based on Current Unit Prices
   - Finalize 2025 Roadway Program and Get Approval from City Council

4. **Data Inventory & Processing**
   - Perform Surface Condition Assessment on City Maintained Streets (includes 2-passes on all roads)
   - Conduct Pavement Surface Distress Testing including the following:
     - Linear Cracking,
     - Fatigue Cracking
     - Block Cracking
     - Rutting
     - Raveling
   - Distresses Will be Captures by Type, Extent and Severity
   - Gather Asset Management Information
     - Crosswalks
     - Parkway Trees
   - Obtain Photographs at 25' Intervals
   - Identify Other Appurtenances and Include General Notes Regarding Items such as Presence of Curbing and Type of Roadway Surface

5. **Data Analysis/Condition Evaluation**
   - Utilize Road Inspection Pavement Distress Detection to determine PCI Calculation for Each Street (0-100)
   - Perform QC/QA check on all data in comparison to 2019 Pavement Management Study
   - Make Future Condition Projections
   - Meet with City Staff to Review Data for Any Discrepancies or Issues

6. **Budgeting**
   - Review Past Road Program Budgets with City Staff

- Run Different Budget Scenarios for New 5-Year Plan
- Establish Unit Costs Based on Local Cost Factors and Historical Bid Tabs
- Compute Conceptual Cost Estimates Based on Factors Above

7. Five Year Plan Development

- Compile and Tabulate a Priority Listing of the Maintenance, Rehabilitation or Reconstruction Request For Each Street in the Program System
- Meet with City Staff to Determine Future Priorities for Rehabilitation Work and Determine Draft 5-Year Plan
- Develop Draft 5-Year Plan for Repair of the System Streets That Takes Into Account Different Funding Scenarios

8. Final Memo and Exhibits

- Make Revisions to Draft 5-Year Plan based on Input from City Staff
- Put Together Final 5-Year Plan, Memo and Exhibits for Approval by City Council
- Provide a Presentation to the City Council for Final 5-Year Plan Approval

9. GIS Integration

- Integrate Pavement Inspection Data into City's GIS Database
- Integrate Paving History and 5-Year Plan into City's GIS Database

ATTACHMENT C: ESTIMATED LEVEL OF EFFORT AND ASSOCIATED COST
PROFESSIONAL ENGINEERING SERVICES

CLIENT	PROJECT NUMBER	
United City of Yorkville	YO2413-P	
PROJECT TITLE	**DATE**	**PREPARED BY**
Pavement Management Program Update	4/5/24	CJO

TASK NO.	TASK DESCRIPTION	ROLE	PIC	PM	SPE 1	PE	SPT 2	ST	ADMIN	HOURS	COST
		PERSON									
		RATE	$246	$210	$186	$168	$175	$140	$72		
PRELIMINARY ENGINEERING											
1.1	Project Management and Coordination		4	12						16	$ 3,504
1.2	Project Meetings		4	4		6				14	$ 2,832
1.3	Yearly Pavement Management Update		2	8	8	16		6		40	$ 7,188
1.4	Data Inventory and Processing			2		4	2	4		12	$ 2,002
1.5	Data Analysis & Condition Evaluation			2		6				8	$ 1,428
1.6	Budgeting		2	6	8	8				24	$ 4,584
1.7	Five Year Plan Development		2	12	8	28	2	6		58	$ 10,394
1.8	Final Memo and Exhibits		2	12	8	28	2	6	4	62	$ 10,682
1.9	GIS Integration					2	2	8		12	$ 1,806
	Insert Task Subtotal:		**16**	**58**	**32**	**98**	**8**	**30**	**4**	246	$ 44,420
	PROJECT TOTAL:		**16**	**58**	**32**	**98**	**8**	**30**	**4**	**246**	**44,420**

EEI STAFF

PIC	Principal In Charage
PM	Project Manager
SPE 1	Senior Project Engineer I
PE	Project Engineer
SPT 2	Senior Project Technician II
ST	Senior Technician
ADMIN	Adminstrative Assistant

DIRECT EXPENSES		
Printing/Scanning =	$	500
IMS (Data Collection) =	$	45,000
DIRECT EXPENSES =	**$**	**45,500**

LABOR SUMMARY		
EEI Labor Expenses =	$	44,420
TOTAL LABOR EXPENSES	**$**	**44,420**

TOTAL COSTS	**$**	**89,920**

ATTACHMENT D: ESTIMATED SCHEDULE

CLIENT	PROJECT NUMBER	
United City of Yorkville	YO2413-P	
PROJECT TITLE	**DATE**	**PREPARED BY**
Pavement Management Program Update	4/5/24	CJO

TASK NO.	TASK DESCRIPTION	2024								2025	
		MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB
1.1	Project Management and Coordination										
1.2	Project Meetings										
1.3	Yearly Pavement Management Update										
1.4	Data Inventory and Processing										
1.5	Data Analysis & Condition Evaluation										
1.6	Budgeting										
1.7	Five Year Plan Development										
1.8	Final Memo and Exhibits										
1.9	GIS Integration										

Engineering Enterprises, Inc.

STANDARD SCHEDULE OF CHARGES ~ JANUARY 1, 2024

50 Years

EMPLOYEE DESIGNATION	CLASSIFICATION	HOURLY RATE
Senior Principal	E-4	$246.00
Principal	E-3	$241.00
Senior Project Manager	E-2	$234.00
Project Manager	E-1	$210.00
Senior Project Engineer/Surveyor II	P-6	$200.00
Senior Project Engineer/Surveyor I	P-5	$186.00
Project Engineer/Surveyor	P-4	$168.00
Senior Engineer/Surveyor	P-3	$155.00
Engineer/Surveyor	P-2	$140.00
Associate Engineer/Surveyor	P-1	$127.00
Senior Project Technician II	T-6	$175.00
Senior Project Technician I	T-5	$164.00
Project Technician	T-4	$153.00
Senior Technician	T-3	$140.00
Technician	T-2	$127.00
Associate Technician	T-1	$111.00
GIS Technician II	G-2	$125.00
GIS Technician I	G-1	$114.00
Engineering/Land Surveying Intern	I-1	$ 82.00
Executive Administrative Assistant	A-4	$ 77.00
Administrative Assistant	A-3	$ 72.00

VEHICLES. REPROGRAPHICS, DIRECT COSTS, DRONE AND EXPERT TESTIMONY

Vehicle for Construction Observation		$ 20.00
In-House Scanning and Reproduction	$0.25/Sq. Ft. (Black & White) $1.00/Sq. Ft. (Color)	
Reimbursable Expenses (Direct Costs)	Cost	
Services by Others (Direct Costs)	Cost + 10%	
Unmanned Aircraft System / Unmanned Aerial Vehicle / Drone		$ 225.00
Expert Testimony		$ 275.00

Reviewed By:	
Legal	☐
Finance	☐
Engineer	■
City Administrator	☐
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Public Works Committee #3

Tracking Number

PW 2024-36

Agenda Item Summary Memo

Title: Kennedy Road and Freedom Place Intersection Improvements

Meeting and Date: City Council – April 23, 2024

Synopsis: Kennedy Road and Freedom Place Intersection Improvements – Recommendation of Award

Council Action Previously Taken:

Date of Action: PW – 4/16/24 Action Taken: Moved forward to City Council agenda.

Item Number: PW 2024-36

Type of Vote Required: Majority

Council Action Requested: Consideration of Contract Award

Submitted by: Brad Sanderson (Name) Engineering (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: Bart Olson, City Administrator
From: Brad Sanderson, EEI
CC: Eric Dhuse, Director of Public Works
Jori Behland, City Clerk
Rob Fredrickson, Finance Director

Date: April 8, 2024
Subject: Kennedy Road and Freedom Place Intersection Improvements

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Bids were received, opened and tabulated for work to be done on the Kennedy Road and Freedom Place Intersection Improvements at 10:00 a.m., April 8, 2024. Representatives of contractors bidding the project and our firm were in attendance. A tabulation of the bids and the engineer's estimate is attached for your information and record. The low bid was below our Engineer's Estimate and within the FY2025 budget.

We recommend the acceptance of the bid and approval of award be made to the low bidder, "D" Construction, Inc., 1488 So. Broadway, Coal City, IL 60416, in the total amount of **$567,530.89.**

If you have any questions or require additional information, please let us know.

BID SUMMARY
KENNEDY ROAD AND FREEDOM PLACE INTERSECTION IMPROVEMENTS
UNITED CITY OF YORKVILLE

BID TABULATION BIDS RECEIVED 10:00 A.M. 04/08/24	**ENGINEER'S ESTIMATE** 52 Wheeler Road Sugar Grove, IL 60554	**GENEVA CONSTRUCTION** 1350 Aurora Ave Aurora, IL 60505	**D CONSTRUCTION** 1488 S. Broadway Coal City, IL 60416	**BUILDERS PAVING, LLC** 4413 Roosevelt Road Suite 108 Hillside, IL 60514
TOTAL BID	$724,707.65	$592,433.83	$567,530.89	$682,000.88
BID BOND	N/A	X	X	X
SIGNED BID	N/A	X	X	X
	CURRAN CONTRACTING CO. 286 Memorial Court Crystal Lake, IL 60014			
TOTAL BID	$684,376.38			
BID BOND	X			
SIGNED BID	X			

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BID TABULATION
KENNEDY ROAD AND FREEDOM PLACE INTERSECTION IMPROVEMENTS
UNITED CITY OF YORKVILLE

		BID TABULATION BIDS REC'D 4/8/2024		**D CONSTRUCTION** 1488 S. Broadway Coal City, IL 60416		**GENEVA CONSTRUCTION** 1350 Aurora Ave Aurora, IL 60505		**BUILDERS PAVING, LLC** 4413 Roosevelt Road Suite 108 Hillside, IL 60514		**CURRAN CONTRACTING CO.** 286 Memorial Court Crystal Lake, IL 60014		**ENGINEER'S ESTIMATE** 52 Wheeler Road Sugar Grove, IL 60554	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
1	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	326	$ 26.40	$ 8,606.40	$ 22.75	$ 7,416.50	$ 22.75	$ 7,416.50	$ 24.00	$ 7,824.00	$ 40.00	$ 13,040.00
2	NITROGEN FERTILIZER NUTRIENT	POUND	69	$ 2.20	$ 151.80	$ 3.00	$ 207.00	$ 2.00	$ 138.00	$ 3.00	$ 207.00	$ 3.00	$ 207.00
3	PHOSPHORUS FERTILIZER NUTRIENT	POUND	69	$ 2.20	$ 151.80	$ 3.00	$ 207.00	$ 2.00	$ 138.00	$ 3.00	$ 207.00	$ 3.00	$ 207.00
4	POTASSIUM FERTILIZER NUTRIENT	POUND	69	$ 2.20	$ 151.80	$ 3.00	$ 207.00	$ 2.00	$ 138.00	$ 3.00	$ 207.00	$ 3.00	$ 207.00
5	EARTH EXCAVATION	CU YD	465	$ 40.00	$ 18,600.00	$ 55.00	$ 25,575.00	$ 80.00	$ 37,200.00	$ 85.00	$ 39,525.00	$ 70.00	$ 32,550.00
6	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	832	$ 40.00	$ 33,280.00	$ 50.00	$ 41,600.00	$ 55.00	$ 45,760.00	$ 40.00	$ 33,280.00	$ 50.00	$ 41,600.00
7	POROUS GRANULAR EMBANKMENT	CU YD	465	$ 50.00	$ 23,250.00	$ 55.00	$ 25,575.00	$ 35.00	$ 16,275.00	$ 60.00	$ 27,900.00	$ 75.00	$ 34,875.00
8	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	2,046	$ 3.00	$ 6,138.00	$ 2.00	$ 4,092.00	$ 2.00	$ 4,092.00	$ 1.25	$ 2,557.50	$ 3.00	$ 6,138.00
9	TOPSOIL FURNISH AND PLACE, 8"	SQ YD	3,722	$ 12.10	$ 45,036.20	$ 10.74	$ 39,974.28	$ 11.00	$ 40,942.00	$ 6.00	$ 22,332.00	$ 15.00	$ 55,830.00
10	SEEDING, CLASS 2A	ACRE	0.8	$ 2,662.00	$ 2,129.60	$ 4,500.00	$ 3,600.00	$ 3,611.00	$ 2,888.80	$ 4,500.00	$ 3,600.00	$ 6,000.00	$ 4,800.00
11	EROSION CONTROL BLANKET	SQ YD	3,399	$ 2.75	$ 9,347.25	$ 3.25	$ 11,046.75	$ 1.50	$ 5,098.50	$ 3.55	$ 12,066.45	$ 2.00	$ 6,798.00
12	TURF REINFORCEMENT MAT	SQ YD	323	$ 6.60	$ 2,131.80	$ 8.50	$ 2,745.50	$ 4.50	$ 1,453.50	$ 9.00	$ 2,907.00	$ 15.00	$ 4,845.00
13	TEMPORARY EROSION CONTROL SEEDING	POUND	77	$ 11.00	$ 847.00	$ 3.00	$ 231.00	$ 6.00	$ 462.00	$ 3.00	$ 231.00	$ 6.50	$ 500.50
14	TEMPORARY DITCH CHECKS	FOOT	210	$ 19.80	$ 4,158.00	$ 12.00	$ 2,520.00	$ 8.00	$ 1,680.00	$ 12.00	$ 2,520.00	$ 20.00	$ 4,200.00
15	PERIMETER EROSION BARRIER	FOOT	2,435	$ 2.75	$ 6,696.25	$ 3.00	$ 7,305.00	$ 2.00	$ 4,870.00	$ 3.00	$ 7,305.00	$ 5.00	$ 12,175.00
16	INLET AND PIPE PROTECTION	EACH	8	$ 198.00	$ 1,584.00	$ 210.00	$ 1,680.00	$ 250.00	$ 2,000.00	$ 210.00	$ 1,680.00	$ 275.00	$ 2,200.00
17	AGGREGATE SUBGRADE IMPROVEMENT 12"	SQ YD	1,486	$ 17.00	$ 25,262.00	$ 23.07	$ 34,282.02	$ 26.00	$ 38,636.00	$ 35.00	$ 52,010.00	$ 25.00	$ 37,150.00
18	SUBBASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	560	$ 12.00	$ 6,720.00	$ 12.00	$ 6,720.00	$ 18.00	$ 10,080.00	$ 15.00	$ 8,400.00	$ 11.00	$ 6,160.00
19	HOT-MIX ASPHALT BASE COURSE, 6"	SQ YD	1,486	$ 26.00	$ 38,636.00	$ 38.00	$ 56,468.00	$ 30.00	$ 44,580.00	$ 45.00	$ 66,870.00	$ 55.00	$ 81,730.00
20	BITUMINOUS MATERIALS (TACK COAT)	POUND	3,443	$ 0.01	$ 34.43	$ 0.01	$ 34.43	$ 0.01	$ 34.43	$ 0.01	$ 34.43	$ 0.75	$ 2,582.25
21	LONGITUDINAL JOINT SEALANT	FOOT	3,388	$ 7.70	$ 26,087.60	$ 4.00	$ 13,552.00	$ 3.75	$ 12,705.00	$ 3.75	$ 12,705.00	$ 4.00	$ 13,552.00
22	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	41	$ 0.01	$ 0.41	$ 32.00	$ 1,312.00	$ 35.00	$ 1,435.00	$ 21.00	$ 861.00	$ 30.00	$ 1,230.00
23	HOT-MIX ASPHALT BINDER COURSE, IL- 9.5, N50	TON	450	$ 75.00	$ 33,750.00	$ 100.00	$ 45,000.00	$ 125.00	$ 56,250.00	$ 100.00	$ 45,000.00	$ 80.00	$ 36,000.00
24	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N50	TON	520	$ 85.00	$ 44,200.00	$ 100.00	$ 52,000.00	$ 140.00	$ 72,800.00	$ 85.00	$ 44,200.00	$ 85.00	$ 44,200.00
25	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	318	$ 20.00	$ 6,360.00	$ 15.00	$ 4,770.00	$ 23.00	$ 7,314.00	$ 23.00	$ 7,314.00	$ 16.00	$ 5,088.00
26	DETECTABLE WARNINGS	SQ FT	48	$ 50.00	$ 2,400.00	$ 45.00	$ 2,160.00	$ 40.00	$ 1,920.00	$ 40.00	$ 1,920.00	$ 45.00	$ 2,160.00
27	PAVEMENT REMOVAL	SQ YD	168	$ 20.00	$ 3,360.00	$ 20.00	$ 3,360.00	$ 61.00	$ 10,248.00	$ 60.00	$ 10,080.00	$ 40.00	$ 6,720.00
28	DRIVEWAY PAVEMENT REMOVAL	SQ YD	278	$ 20.00	$ 5,560.00	$ 11.35	$ 3,155.30	$ 12.00	$ 3,336.00	$ 17.00	$ 4,726.00	$ 20.00	$ 5,560.00
29	COMBINATION CURB AND GUTTER REMOVAL	FOOT	168	$ 10.00	$ 1,680.00	$ 8.00	$ 1,344.00	$ 25.00	$ 4,200.00	$ 16.00	$ 2,688.00	$ 13.00	$ 2,184.00
30	SIDEWALK REMOVAL	SQ FT	301	$ 5.00	$ 1,505.00	$ 1.50	$ 451.50	$ 6.00	$ 1,806.00	$ 3.50	$ 1,053.50	$ 5.00	$ 1,505.00
31	AGGREGATE SHOULDERS, TYPE B 6"	SQ YD	828	$ 9.00	$ 7,452.00	$ 22.00	$ 18,216.00	$ 11.50	$ 9,522.00	$ 17.00	$ 14,076.00	$ 15.00	$ 12,420.00
32	PIPE CULVERT REMOVAL	FOOT	33	$ 20.00	$ 660.00	$ 43.00	$ 1,419.00	$ 135.00	$ 4,455.00	$ 200.00	$ 6,600.00	$ 40.00	$ 1,320.00

Engineering Enterprises, Inc.

Outstanding Service ~ Every Client ~ Every Day

BID TABULATION
KENNEDY ROAD AND FREEDOM PLACE INTERSECTION IMPROVEMENTS
UNITED CITY OF YORKVILLE

			BID TABULATION BIDS REC'D 4/8/2024		**D CONSTRUCTION** 1488 S. Broadway Coal City, IL 60416		**GENEVA CONSTRUCTION** 1350 Aurora Ave Aurora, IL 60505		**BUILDERS PAVING, LLC** 4413 Roosevelt Road Suite 108 Hillside, IL 60514		**CURRAN CONTRACTING CO.** 286 Memorial Court Crystal Lake, IL 60014		**ENGINEER'S ESTIMATE** 52 Wheeler Road Sugar Grove, IL 60554	
ITEM NO.	DESCRIPTION	UNIT	QUANTITY		UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
33	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	1	$	2,000.00	$ 2,000.00	$ 1,795.00	$ 1,795.00	$ 2,700.00	$ 2,700.00	$ 4,000.00	$ 4,000.00	$ 1,500.00	$ 1,500.00
34	STORM SEWERS, CLASS A, TYPE 1 12"	FOOT	495	$	80.00	$ 39,600.00	$ 97.00	$ 48,015.00	$ 47.00	$ 23,265.00	$ 70.00	$ 34,650.00	$ 90.00	$ 44,550.00
35	STORM SEWERS, CLASS B, TYPE 1 6"	FOOT	20	$	100.00	$ 2,000.00	$ 51.00	$ 1,020.00	$ 115.00	$ 2,300.00	$ 170.00	$ 3,400.00	$ 75.00	$ 1,500.00
36	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	1	$	500.00	$ 500.00	$ 560.00	$ 560.00	$ 1,100.00	$ 1,100.00	$ 1,650.00	$ 1,650.00	$ 800.00	$ 800.00
37	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	1	$	4,000.00	$ 4,000.00	$ 3,315.00	$ 3,315.00	$ 8,500.00	$ 8,500.00	$ 13,000.00	$ 13,000.00	$ 7,500.00	$ 7,500.00
38	INLETS, TYPE A, TYPE 8 GRATE	EACH	3	$	2,000.00	$ 6,000.00	$ 2,406.00	$ 7,218.00	$ 2,100.00	$ 6,300.00	$ 3,100.00	$ 9,300.00	$ 2,000.00	$ 6,000.00
39	INLETS TO BE ADJUSTED	EACH	2	$	1,000.00	$ 2,000.00	$ 636.00	$ 1,272.00	$ 1,050.00	$ 2,100.00	$ 1,555.00	$ 3,110.00	$ 1,200.00	$ 2,400.00
40	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	198	$	40.00	$ 7,920.00	$ 50.00	$ 9,900.00	$ 60.00	$ 11,880.00	$ 58.65	$ 11,612.70	$ 55.00	$ 10,890.00
41	SHORT TERM PAVEMENT MARKING	FOOT	1,156	$	0.01	$ 11.56	$ 1.15	$ 1,329.40	$ 1.00	$ 1,156.00	$ 0.35	$ 404.60	$ 1.00	$ 1,156.00
42	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	249	$	0.01	$ 2.49	$ 1.75	$ 435.75	$ 5.00	$ 1,245.00	$ 2.50	$ 622.50	$ 4.00	$ 996.00
43	TEMPORARY PAVEMENT MARKING - LINE 4"- PAINT	FOOT	2,190	$	0.01	$ 21.90	$ 0.50	$ 1,095.00	$ 0.85	$ 1,861.50	$ 0.10	$ 219.00	$ 1.75	$ 3,832.50
44	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	78	$	5.50	$ 429.00	$ 6.00	$ 468.00	$ 5.00	$ 390.00	$ 5.00	$ 390.00	$ 6.50	$ 507.00
45	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	6,129	$	1.00	$ 6,129.00	$ 1.00	$ 6,129.00	$ 0.90	$ 5,516.10	$ 0.90	$ 5,516.10	$ 1.60	$ 9,806.40
46	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	473	$	1.22	$ 577.06	$ 1.50	$ 709.50	$ 1.10	$ 520.30	$ 1.10	$ 520.30	$ 2.50	$ 1,182.50
47	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	831	$	3.30	$ 2,742.30	$ 3.00	$ 2,493.00	$ 3.00	$ 2,493.00	$ 3.00	$ 2,493.00	$ 3.50	$ 2,908.50
48	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	22	$	6.60	$ 145.20	$ 6.00	$ 132.00	$ 6.00	$ 132.00	$ 6.00	$ 132.00	$ 6.00	$ 132.00
49	REMOVE EXISTING FLARED END SECTION	EACH	1	$	1,000.00	$ 1,000.00	$ 295.00	$ 295.00	$ 710.00	$ 710.00	$ 1,050.00	$ 1,050.00	$ 400.00	$ 400.00
50	BIKE PATH REMOVAL	SQ YD	571	$	20.00	$ 11,420.00	$ 6.00	$ 3,426.00	$ 17.50	$ 9,992.50	$ 8.50	$ 4,853.50	$ 15.00	$ 8,565.00
51	TRIAXIAL GEOGRID REINFORCEMENT, TYPE I	SQ YD	1,486	$	8.00	$ 11,888.00	$ 7.65	$ 11,367.90	$ 5.00	$ 7,430.00	$ 3.00	$ 4,458.00	$ 6.00	$ 8,916.00
52	PARTIAL DEPTH PATCHING (SPECIAL)	SQ YD	150	$	100.00	$ 15,000.00	$ 70.50	$ 10,575.00	$ 65.00	$ 9,750.00	$ 85.00	$ 12,750.00	$ 85.00	$ 12,750.00
53	EXPLORATION TRENCH, SPECIAL	FOOT	100	$	50.00	$ 5,000.00	$ 25.00	$ 2,500.00	$ 100.00	$ 10,000.00	$ 50.00	$ 5,000.00	$ 80.00	$ 8,000.00
54	TEMPORARY ACCESS (COMMERCIAL ENTRANCE)	EACH	2	$	500.00	$ 1,000.00	$ 400.00	$ 800.00	$ 250.00	$ 500.00	$ 555.00	$ 1,110.00	$ 1,200.00	$ 2,400.00
55	TEMPORARY ACCESS (ROAD)	EACH	1	$	1,000.00	$ 1,000.00	$ 300.00	$ 300.00	$ 500.00	$ 500.00	$ 775.00	$ 775.00	$ 1,500.00	$ 1,500.00
56	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	3,612	$	5.42	$ 19,577.04	$ 6.00	$ 21,672.00	$ 5.50	$ 19,866.00	$ 4.15	$ 14,989.80	$ 6.00	$ 21,672.00
57	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	$	30,000.00	$ 30,000.00	$ 8,000.00	$ 8,000.00	$ 74,830.75	$ 74,830.75	$ 80,000.00	$ 80,000.00	$ 50,000.00	$ 50,000.00
57	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	730	$	5.00	$ 3,650.00	$ 1.50	$ 1,095.00	$ 1.00	$ 730.00	$ 0.10	$ 73.00	$ 2.00	$ 1,460.00
58	RELOCATE SIGN PANEL AND POST	EACH	5	$	200.00	$ 1,000.00	$ 260.00	$ 1,300.00	$ 200.00	$ 1,000.00	$ 150.00	$ 750.00	$ 400.00	$ 2,000.00
59	ALLOWANCE - ITEMS ORDERED BY THE ENGINEER	UNIT	20,000	$	1.00	$ 20,000.00	$ 1.00	$ 20,000.00	$ 1.00	$ 20,000.00	$ 1.00	$ 20,000.00	$ 1.00	$ 20,000.00
60	HOT-MIX ASPHALT DRIVEWAY PAVEMENT, 2"	SQ YD	233	$	30.00	$ 6,990.00	$ 30.00	$ 6,990.00	$ 23.00	$ 5,359.00	$ 20.00	$ 4,660.00	$ 50.00	$ 11,650.00
	TOTAL BID (Items 1 - 60)					**$ 567,530.89**		**$ 592,433.83**		**$ 682,000.88**		**$ 684,376.38**		**$ 724,707.65**
	% BELOW/ABOVE ENGINEER'S ESTIMATE					-21.69%		-18.25%		-5.89%		-5.57%		

ENGINEERING ENTERPRISES, INC.
52 WHEELER ROAD, SUGAR GROVE, ILLINOIS

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	■
Parks and Recreation	☐

Agenda Item Number

Public Works Committee #4

Tracking Number

PW 2024-38

Agenda Item Summary Memo

Title: Supplemental MFT Resolution for Bulk Rock Salt

Meeting and Date: City Council – April 23, 2024

Synopsis: Annual resolution appropriating MFT funds for the purchase of bulk rock salt

Council Action Previously Taken:

Date of Action: PW – 4/16/24 Action Taken: Moved forward to City Council agenda.

Item Number: PW 2024-38

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Eric Dhuse (Name) Public Works (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: Public Works Committee
From: Eric Dhuse, Director of Public Works
CC: Bart Olson, City Administrator
Date: April 8, 2024
Subject: MFT Resolution for Salt Purchase

Summary

Staff is brining forward the required forms to purchase bulk rock salt using MFT funds.

Background

Each year we participate in the bulk rock salt purchasing program through the State of Illinois using MFT funds. The program opens in March of each year, but we won't learn the winning bidder or price until late October of this year.

In the meantime, we need to formally approve anticipated spending of MFT funds through a resolution (attached) and submit the Maintenance Expenditure Statement which tracks our fund usage. Once this is completed and approved by IDOT, we will be allowed to use MFT funds to purchase bulk rock salt for the upcoming snow removal season.

Our bid for this year was for 1600 tons of salt. The program we selected allows us to purchase a minimum of 80% (1280 tons) up to 120% (1920 tons) under the contract price. I have asked to appropriate $190,000 for salt purchase this year. This amount is the total amount that is in the approved FY 25 budget. This is a conservative number and I do not expect to spend all the funds. This past year the salt bid came in at $79.22 per ton and I have budgeted upwards of $100/per ton to be safe. If we do not use the funds, it will return to our MFT fund as an unencumber amount of money that can be used on other approved projects.

Recommendation

I recommend the approval of the IDOT resolution for maintenance to allow the City to purchase bulk rock salt using MFT funds.

Illinois Department of Transportation

Resolution for Maintenance Under the Illinois Highway Code

District	County	Resolution Number	Resolution Type	Section Number
3	Kendall		Supplemental	25-00000-00-GM

BE IT RESOLVED, by the Council (Governing Body Type) of the City (Local Public Agency Type) of Yorkville (Name of Local Public Agency) Illinois that there is hereby appropriated the sum of _____

One Hundred Ninety Thousand Dollars Dollars ($190,000.00)

of Motor Fuel Tax funds for the purpose of maintaining streets and highways under the applicable provisions of Illinois Highway Code from

05/01/24 (Beginning Date) to 04/30/25 (Ending Date).

BE IT FURTHER RESOLVED, that only those operations as listed and described on the approved Estimate of Maintenance Costs, including supplemental or revised estimates approved in connection with this resolution, are eligible for maintenance with Motor Fuel Tax funds during the period as specified above.

BE IT FURTHER RESOLVED, that City (Local Public Agency Type) of Yorkville (Name of Local Public Agency) shall submit within three months after the end of the maintenance period as stated above, to the Department of Transportation, on forms available from the Department, a certified statement showing expenditures and the balances remaining in the funds authorized for expenditure by the Department under this appropriation, and

BE IT FURTHER RESOLVED, that the Clerk is hereby directed to transmit four (4) certified originals of this resolution to the district office of the Department of Transportation.

I Jori Behland (Name of Clerk) City (Local Public Agency Type) Clerk in and for said City (Local Public Agency Type)

of Yorkville (Name of Local Public Agency) in the State of Illinois, and keeper of the records and files thereof, as provided by statute, do hereby certify the foregoing to be a true, perfect and complete copy of a resolution adopted by the

Council (Governing Body Type) of Yorkville (Name of Local Public Agency) at a meeting held on _____ (Date).

IN TESTIMONY WHEREOF, I have hereunto set my hand and seal this _____ (Day) day of _____ (Month, Year).

(SEAL, if required by the LPA)

Clerk Signature & Date

APPROVED

Regional Engineer Signature & Date
Department of Transportation

Instructions for BLR 14220

This form shall be used when a Local Public Agency (LPA) wants to perform maintenance operations using Motor Fuel Tax (MFT) funds. Refer to Chapter 14 of the Bureau of Local Roads and Streets Manual (BLRS Manual) for more detailed information. This form is to be used by a Municipality or a County. Road Districts will use BLR 14221. For signature requirements refer to Chapter 2, Section 3.05(b) of the BLRS Manual.

When filling out this form electronically, once a field is initially completed, fields requiring the same information will be auto-populated.

Resolution Number	Insert the resolution number as assigned by the LPA, if applicable.
Resolution Type	From the drop down box, choose the type of resolution: -Original would be used when passing a resolution for the first time for this project. -Supplemental would be used when passing a resolution increasing appropriation above previously passed resolutions. -Amended would be used when a previously passed resolution is being amended.
Section Number	Insert the section number of the improvement covered by the resolution.
Governing Body Type	From the drop down box choose the type of administrative body. Choose Board for County; Council or President and Board of Trustees for a City, Village or Town.
LPA Type	From the drop down box choose the LPA body type; County, City, Town or Village.
Name of LPA	Insert the name of the LPA.
Resolution Amount	Insert the dollar value of the resolution for maintenance to be paid for with MFT funds in words, followed by the same amount in numerical format in the ().
Beginning Date	Insert the beginning date of the maintenance period. Maintenance periods must be a 12 or 24 month consecutive period.
Ending Date	Insert the ending date of the maintenance period.
LPA Type	From the drop down box choose the LPA body type; County, City, Town or Village.
Name of LPA	Insert the name of the LPA.
Name of Clerk	Insert the name of the LPA Clerk.
LPA Type	From the drop down box choose the LPA body type; County, City, Town or Village.
LPA Type	From the drop down box choose the LPA body type; County, City, Town or Village.
Name of LPA	Insert the name of the LPA.
Governing Body Type	From the drop down box choose the type of administrative body. Choose Board for County; Council or President and Board of Trustees for a City, Village or Town.
Name of LPA	Insert the name of the LPA.
Date	Insert the date of the meeting.
Day	Insert the day the Clerk signed the document.
Month, Year	Insert the month and year of the clerk's signature.
Clerk Signature	Clerk shall sign here.
Seal	The Clerk shall seal the document here, if required. If a seal is required, electronic signatures should not be used.
Approved	The Department of Transportation representative shall sign and date here upon approval.

A minimum of three (3) certified signed originals must be submitted to the Regional Engineer's District office OR email PDF completed form with electronic signatures to your local District LRS office.

Following IDOT's approval, distribution will be as follows:

Local Public Agency Clerk
Engineer (Municipal, Consultant or County)

Illinois Department of Transportation

Local Public Agency General Maintenance

Estimate of Maintenance Costs

Submittal Type: Supplemental

District	Estimate of Cost For
3	Municipality

Local Public Agency	County	Section Number	Maintenance Period Beginning	Ending
City of Yorkville	Kendall	25-00000-00-GM	05/01/24	04/30/25

Maintenance Items

Maintenance Operation	Maint Eng Category	Insp. Req.	Material Categories/ Point of Delivery or Work Performed by an Outside Contractor	Unit	Quantity	Unit Cost	Cost	Total Maintenance Operation Cost
Snow Removal	IIA			TON	1,900	$100.00	$190,000.00	$190,000.00
							Total Operation Cost	$190,000.00

Estimate of Maintenance Costs Summary

Maintenance	MFT Funds	RBI Funds	Other Funds	Estimated Costs
Local Public Agency Labor				
Local Public Agency Equipment				
Materials/Contracts(Non Bid Items)				
Materials/Deliver & Install/Materials Quotations (Bid Items)				
Formal Contract (Bid Items)				
Maintenance Total				

Estimated Maintenance Eng Costs Summary

Maintenance Engineering	MFT Funds	RBI Funds	Other Funds	Total Est Costs
Preliminary Engineering				
Engineering Inspection				
Material Testing				
Advertising				
Bridge Inspection Engineering				
Maintenance Engineering Total				
Total Estimated Maintenance				

Remarks

SUBMITTED

Local Public Agency Official Signature & Date

Title

County Engineer/Superintendent of Highways Signature & Date

APPROVED

Regional Engineer Signature & Date
Department of Transportation

Estimate of Maintenance Costs

Submittal Type: Supplemental

Local Public Agency	County	Section	Maintenance Period Beginning	Ending
City of Yorkville	Kendall	25-00000-00-GM	05/01/24	04/30/25

IDOT Department Use Only

Received Location	Received Date	Additional Location?
		☐

WMFT Entry By	Entry Date

NOTE: Form instructions should not be included when the form is submitted

This form is used by all Local Public Agencies (LPAs) to submit their maintenance program and also submit their maintenance expenditure statements. A resolution (BLR 14220) must be submitted and approved by the Illinois Department of Transportation (IDOT) prior to incurring any expenditures. For items required to be bid the estimate of cost must be submitted prior to submittal of required bidding documents. Authorizations will be made based on the resolution and/or the approved contract/acceptance/material quotations documents.

The maintenance expenditure statement must be submitted within 3 months of the end of the maintenance period. Maintenance resolutions and estimates submitted for future maintenance periods after that date will not be processed until the delinquent maintenance expenditure statement has been submitted. Only one form needs to be completed per maintenance period, combine all operations on one form.

For additional information refer to the Bureau of Local Roads Manual (BLRS), Chapter 14. For signature requirements refer to Chapter 2, section 3.05(b) of the BLRS Manual.

For items being completed for the estimate all materials, equipment, labor and contract amounts are considered estimates. For estimates where LPA equipment is completed, an Equipment Rental Schedule (BLR 12110) must also be submitted for approval. When completing the form for the Maintenance Expenditure all items must be actual amounts spent.

Maintenance — From the drop down choose which type of document is being submitted. Choose Estimate of Cost if an estimate is being submitted, choose Maintenance Expenditure Statement if a maintenance expenditure statement is being submitted

Submittal — Choose the type of submittal, if this is the first submittal choose original, if revising a previous submittal choose, revised. If adding to a previous submittal choose supplemental.

Estimate of Cost For — Select the type of LPA submitting this form from the drop down. Types to choose are County, Municipality, or Road District/Township.

Local Public Agency — Insert the name of the Local Public Agency.

County — Insert the County in which the Local Public Agency is located.

Maintenance Period

Beginning — Insert the beginning date of the maintenance period.

Ending — Insert the ending date of the maintenance period.

Section — Insert the section number assigned to this project. The letters at the end of the section number will always be a "GM".

Maintenance Operations — List each maintenance operation separately

Maintenance Eng. Category — From the drop down choose the maintenance engineering category as it applies to the operation listed to the left. The definitions of the categories can be found in the BLRS Manual Chapter 14, section 14-2.04

Maintenance Engineering Categories are:

Category I — Services purchased without a proposal such as electric energy or materials purchased from Central Management Services' Joint Purchasing Program or another joint purchasing program that has been approved by the District BLRS or CBLRS.

Category II-A — Maintenance items that are not included in Maintenance Engineering Category I or do not require competitive sealed bids according to Section 12-1.02(a) or a local ordinance/resolution.

Category II-B — Routine maintenance items that require competitive sealed bids according to Section12-1.02(a) or a local ordinance/ resolution. Routine maintenance includes all items in the following work categories: snow removal, street sweeping, lighting and traffic signal maintenance, cleaning ditches or drainage structures, tree trimming or removal, mowing, crack sealing, pavement marking, shoulder maintenance limited amounts of concrete curb and gutter repair, scour mitigation, pavement patching, and minor drainage repairs.

Category III — Maintenance items that are not covered by Maintenance Engineering Category I or Category II-B and require competitive bidding with a material proposal, a deliver and install proposal or material quotation.

Category IV — Maintenance items that are not covered by Maintenance Engineering Category I or Category II-B and require competitive bidding with a formal contract proposal.

The instructions listed below only apply to the maintenance estimate of cost. For LPA's using Local Public Agency Labor and/or Local Public Agency Equipment Rental, the estimated amounts are only listed on those specific lines and are not to be included with each operation on the estimate of cost.

Insp Req — From the drop down choose No or Yes as it applies to the maintenance operation listed to the left. Items requiring no engineering inspection should be no.

Material Categories/Point of Delivery or Work Performed by an Outside Contractor — List the items for each operation on a separate line, grouping items for the same operation together, for the operation listed to the left. If work being done as a contract list work by contractor.

Unit — Insert the unit of measure for the material listed to the left, if applicable.

Quantity — Insert the quantity for the material listed to the left, if applicable.

Unit Cost — Insert the unit cost of the material listed to the left, if applicable.

Cost — No entry necessary, this is a calculated field. This is the quantity times the unit cost.

Total Maintenance Operation Cost — Insert the total of the Maintenance Operation Cost, for items done by a contract insert the estimated contract amount.

Maintenance

Estimate of Maintenance Costs Summary — Under each item listed below, list the amount of estimated MFT funds, Rebuild Illinois (RBI) funds and local funds to be expended, if applicable. The total Estimated cost is a calculated field.

Local Public Agency Labor — Insert the estimated amount for LPA labor for all maintenance operations, if applicable.

Local Public Agency Equipment Rental — Insert the estimated amount for LPA equipment rental for all maintenance operations, if applicable.

Materials/Contracts (Non Bid Items) — Insert the estimated amount for materials and/or contracts for items the LPA is not required to bid, if applicable.

Materials/Deliver & Install, Material Quotations — For the operation listed to the left insert the estimate amount to be expended using a bidding process for material/deliver & install proposal and/or material quotations, if applicable.

Formal Contracts — Insert the total amount estimated to be expended on formal contracts. This will be for items required to be bid.

Total Estimated Cost — This is a calculated field and will be automatically filled in for each type. This is the sum of all funding for the item.

Total Maintenance Operation Cost — This is a calculated field, no entry is necessary. This is the sum of all items estimated to be expended on this operation.

Total Maintenance Cost — This is a calculated field, no entry is necessary. This is the sum of all maintenance operation costs.

Maintenance Engineering Cost Summary — For each item listed below, list under the funding type what the estimated amount to be expended for each item.

Preliminary Engineering Fee — Insert the amount of funds estimated to be expended for Preliminary Engineering, if applicable.

Engineering Inspection Fee — Insert the amount of funds estimated to be expended for Engineering Inspection, if applicable.

Material Testing Costs — Insert the dollar amount of funds estimated to be expended on material testing costs, if applicable.

Advertising Costs — Insert the amount of funds estimated to be expended on advertising costs, if applicable.

Bridge Inspection Costs — Insert the amount of funds estimated to be expended on bridge inspection costs, if applicable.

Total Maintenance Engineering — This is a calculated field, no entry is necessary. This is the sum of all maintenance engineering costs listed above.

Totals — This is a calculated field. It is the total of the estimated maintenance cost plus the estimated maintenance engineering cost.

These instructions apply to the Maintenance Expenditure Statement.

Maintenance Operation — Type in the name of the maintenance operation for which the amounts to the right will be completed. For a form that was completed as an Estimate of Cost and is now being changed to a Maintenance Expenditure Statement, this field will be completed from the estimate.

Maint Eng Category — From the drop down select the Maintenance Engineering Category that applies to the operation listed to the left.

LPA Labor — For the operation listed to the left insert the amount expended for LPA labor, if applicable.

LPA Equipment Rental — For the operation listed to the left insert the amount expended on LPA equipment rental if applicable.

Materials/Contracts (Non-Bid) — For the operation listed to the left insert the amount expended for materials and/or contracts that was not required to be bid, if applicable.

Materials/Deliver & Install/Material Quotations (Bid Items) — Insert the total amount expended on Materials Proposals, Deliver and Install proposals, Materials Quotations (Bid Items). This will be for items that were required to be bid.

Formal Contract — For the operation listed to the left insert the amount expended for items bid using the formal contract process, if applicable.

Total Operation Cost — This is a calculated field, it will sum the amounts expended for the operation listed to the left.

Operation Engineering Inspection Fee — For the operation listed to the left insert the amount of engineering inspection charged for this operation, if applicable.

Total Maintenance — This is a calculated field, no entry necessary. It is the sum of all maintenance operations.

Maintenance Engineering Cost Summary Preliminary Engineering Fee — Insert the dollar amount of funds spent on preliminary engineering for this maintenance section.

Engineering Inspection Fee — Insert the amount of funds expended for Engineering Inspection, if applicable.

Material Testing Costs — Insert the dollar amount of funds spent on material testing costs, if applicable.

Advertising Costs — Insert the dollar amount of funds spent on advertising costs, if applicable.

Bridge Inspection Costs — Insert the dollar amount of funds spent on bridge inspection costs, if applicable.

Total Maintenance Engineering — This is a calculated field, no entry is necessary. This is the sum of all maintenance engineering costs listed above.

Total Maintenance Program Costs — Insert the total cost of the Maintenance and Maint. Engineering. The maintenance amount will be the amount from the Total Cost from the Maintenance Items table. The Maint. Eng will be the Maintenance Engineering Total from above.

Contributions, Refunds, Paid with Other Funds — Enter the dollar amount of contributions, refunds or amounts paid with other funds for this maintenance section, if applicable, for both maintenance and maintenance engineering.

Total Motor Fuel Tax/Rebuild Illinois Portion — These are calculated fields, no entry is necessary. This is the sum of the total cost minus the amount paid with local funds.

Motor Fuel Tax Portion — Insert the amount of the total cost that was paid for with Motor Fuel Tax funds for Maintenance and Maint. Engineering, as applicable.

Motor Fuel Tax Funds Authorized — Insert the net amount of Motor Fuel Tax Funds authorized for each type.

Motor Fuel Tax Surplus/Deficit — These are calculated fields, no entry is necessary. This is the sum of the Total Motor Fuel Tax funds expended minus the amount of Motor Fuel Tax funds authorized. A positive number will result in a credit to the unobligated fund of the Motor Fuel Tax fund. A negative number means more funds were spent than authorized. If the negative number has a resolution to cover the overage, the item(s) that resulted in the overage have been approved by IDOT, and are covered in the overrun policy, this amount will be authorized. If these conditions are not met you must contact your District office for guidance.

Rebuild Illinois Portion — Insert the amount of the total cost that was paid for with Rebuild Illinois funds for Maintenance and Maint. Engineering, as applicable.

Rebuild Illinois Funds Authorized — Insert the net amount of Rebuild Illinois Funds authorized for each type.

Rebuild Illinois Surplus/Deficit — These are calculated fields, no entry is necessary. This is the sum of the Total Rebuild Illinois funds expended minus the amount of Rebuild Illinois funds authorized. A positive number will result in a credit to the unobligated fund of the Motor Fuel Tax fund. A negative number means more funds were spent than authorized. If the negative number has a resolution to cover the overage, the item(s) that resulted in the overage have been approved by IDOT, and are covered in the overrun policy, this amount will be authorized. If these conditions are not met you must contact your District office for guidance.

Difference — No entry necessary, this field is automatically calculated. It is the difference between Total Motor Fuel Tax/Rebuild Illinois Portion for Maintenance and Maint. Engineering. The fields must equal zero; if not, review the amounts inserted under Motor Fuel Tax and Rebuild Illinois need to be corrected.

Remarks — Enter remarks as applicable covering the items entered.

Certification — Upon submittal of this form as the maintenance expenditure statement the LPA official shall check this box as certification.

End of instructions for Maintenance Expenditure Statement

Submitted

Local Public Agency Official — The proper official shall sign, insert their title and date here. For Estimates of Cost covering a Township/Road District the road commissioner shall sign and date as Local Public Agency Official. For Municipalities the municipal official shall sign and date here.

County Engineer/Superintendent of Highways — For County project and/or Township/Road District projects the county engineer/superintendent of highways shall sign here.

Approved — Upon approval the Regional Engineer shall sign and date here. This approval is subject to change based upon a documentation review by the Department.

When submitting the form via USPS mail, submit a minimum of three (3) signed original must be submitted to the Regional Engineer's District office. This form may be submitted electronically with electronic signatures.
Following the Regional Engineer's approval, distribution will be as follows:

Local Public Agency Clerk
Engineer (Consultant or County Engineer)
District File

IDOT Department Use Only The Following fields are for IDOT use only.

Received

Location Enter the location received from the drop down.

Date Enter the date the document was received.

WMFT Entry

By Enter the name of the person entering the information into the WMFT system.

Date Enter the date on which the information was entered.

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Administration Committee #1

Tracking Number

ADM 2024-20

Agenda Item Summary Memo

Title: Aurora Area Convention & Visitors Bureau (AACVB) 2024 Marketing Plan

Meeting and Date: City Council – April 23, 2024

Synopsis: Please see attached memo.

Council Action Previously Taken:

Date of Action: ADM – 4/17/24 Action Taken: Moved forward to City Council agenda.

Item Number: ADM 2024-20

Type of Vote Required: Approval

Council Action Requested: Majority

Submitted by: Erin Willrett (Name) Administration (Department)

Agenda Item Notes:

Staff is requesting feedback on the AACVB plan.

Have a question or comment about this agenda item?
Call us Monday-Friday, 8:00am to 4:30pm at 630-553-4350, email us at agendas@yorkville.il.us, post at www.facebook.com/CityofYorkville, tweet us at @CityofYorkville, and/or contact any of your elected officials at http://www.yorkville.il.us/320/City-Council

Memorandum

To: Administration Committee
From: Erin Willrett, Assistant City Administrator
CC: Bart Olson, City Administrator
Date: April 17, 2024
Subject: AACVB 2024 Municipal Marketing Plan

Summary

Review of the 2024 municipal marketing plan from the Aurora Area Convention and Visitors Bureau.

Background

The City last reviewed a municipal marketing plan in March 2023. Staff met with AACVB representatives in advance of their written recommendation on the 2024 marketing plan. The proposed 2024 marketing plan from the AACVB is attached. AACVB Director of Marketing James Cardis will be present at the meeting to go over each one of the ad buys and the overall plan.

The AACVB is recommending that the 2024 plan contain $53,000 worth of marketing. The split of funding is proposed to be:

- $15,00 Datafy: destination campaign
- $12,500 WGN Hometown Takeover (NEW)
- $9,500 Social/Digital Advertising
- $8,000 print marketing (Go West Guide, Chicago Magazine, Midwest Living and AAA Living)
- $8,000 Video/Photo production

New this year in the marketing plan, is the WGN Hometown Takeover. WGN radio reached out to city staff at the beginning of the calendar year to see if this is something we would be interested. With AACVB's budgetary help, we were able to make it happen. In June 2024, WGN is going to send on-air personality, Jon Hansen to Yorkville to uncover what makes this such a special town. Jon will be visiting different locations, talking to city officials, and creating a fun video that will be shared across WGN social channels. The video will be filmed during the month of June. Then, on the last Thursday of June, WGN will dedicate that day (on-air) to feature Yorkville. Each show during that day (AM Drive, Midday, PM Drive and Evening) will feature a Yorkville business or city influencer (mayor, business owner, etc.) and they'll be interviewed for a 5-minute segment. In addition to the live segment, Yorkville will be included in all pre-promotion on-air, social media and a commercial spot bank to be used during the year. The city will have access to the video and social promotions to use after the event. Staff is very excited for this new opportunity.

Recommendation

Staff requests feedback on the AACVB plan. Staff is generally supportive of the 2024 marketing plan. If the committee agrees with the plan, the recommendation can be taken to the April 23rd City Council meeting for a vote.

United City of Yorkville ILLINOIS

Marketing Co-op

2023 Results & 2024 Plan

AURORA AREA convention & visitors bureau

Marketing Co-op Plan Overview

The objective of our marketing plan is to increase awareness and enhance visitation to Yorkville, Illinois.

We pursue audiences of likely visitors to match what Yorkville has to offer in the areas of:

- lodging
- dining
- nightlife
- outdoor recreation
- family fun

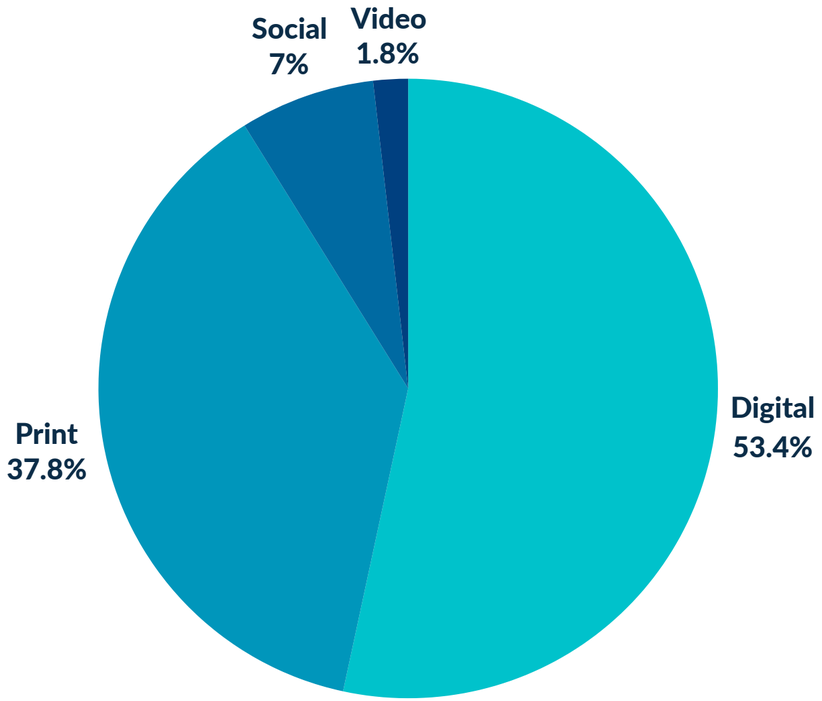
The purchasing power of the Aurora Area CVB benefits Yorkville in negotiating add-ons, reducing advertising costs, and securing expanded placement in select venues.

Our budget for Yorkville's co-op marketing plan is $53,000.

AURORA AREA
convention & visitors bureau

2023 Co-op Marketing Spend

For 2023, our marketing spend for Yorkville included digital and print advertising, as well as social media promotion and video production.



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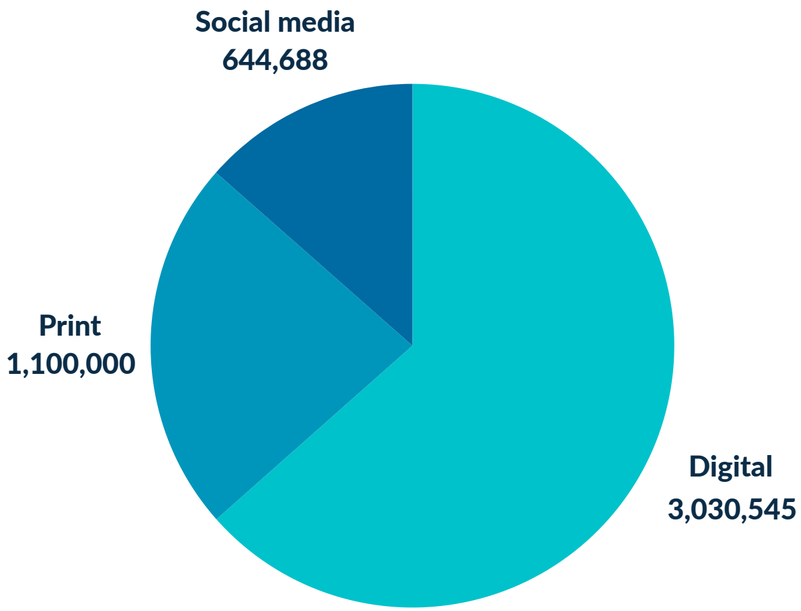
2023 Co-op Impact

In 2023, the Aurora Area CVB delivered 4.7 million impressions on behalf of Yorkville via print, social media, and digital advertising.



Share of impressions delivered by Aurora Area CVB

AURORA AREA
convention & visitors bureau

2023 Co-op Ad Creative

How Yorkville appeared in 2023 co-op advertising.

GO WEST!

SPECIAL ADVERTISING FEATURE

YORKVILLE

Things to do in Yorkville, Illinois
Visitors from near and far travel to Yorkville for summer festivals, outdoor adventure, its vibrant downtown nightlife scene, and to make a splash at the largest water park in Illinois!

FESTIVAL LINEUP:
Summer Solstice — June 23 & 24
Celebrate summer's longest days with an electrifying lineup of independent music and craft beer in Downtown Yorkville.

Yorkville River Fest — July 14 & 15
Enjoy fun activities for the whole family, including live music and thrilling river sports on the Marge Cline Whitewater Course at historic Bicentennial River Park.

Yorkville Hometown Days — September 1–3
Yorkville's signature family-oriented Labor Day weekend event features a carnival, the Pride & Joy Car Show, live music, and the fan favorite Ultimate Air Dogs Dock Diving Show, where canines of all sizes and breeds compete to see who's the Ultimate Air Dog!

Raging Waves Waterpark
At Raging Waves, you'll find 58 acres of family-friendly water attractions. With 32 different waterslides, experience gravity-defying thrills on rides like Wonambi and PJ's Plummet. More easygoing onsite attractions include a quarter-mile-long lazy river, three kiddie areas, and a 350,000-gallon wave pool. New to the park: Aussie Mat Dash, a six-lane, wet and wild racetrack that was one of the first of its kind in the world. A variety of tasty concessions and private cabana rentals make Raging Waves the perfect summer getaway.

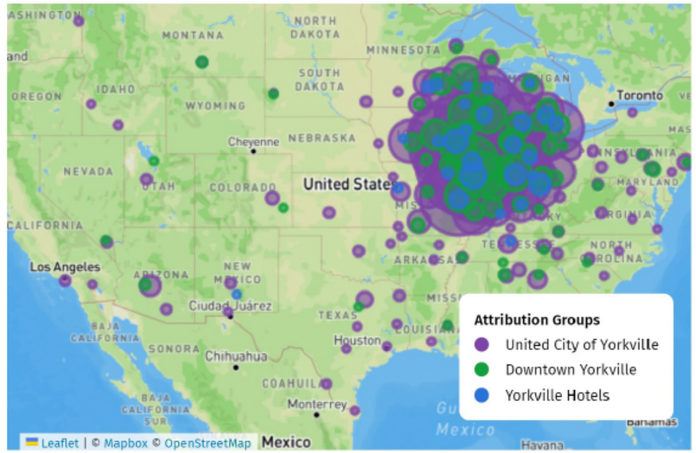
Downtown Yorkville
Enjoy drinking, dining, and wrap-around views of a picturesque stretch of the Fox River in Downtown Yorkville. Highlights include craft beverages and upscale-casual dining at Dakotas; bold and flavorful burgers at Crusade Burger Bar and Rowdy's; wood-fired pizza at Parma; and mouthwatering barbecue at Southbank Original BBQ. The Law Office Pub & Music Hall and the new Fox River's Edge Theatre offer outstanding options for nightlife and live entertainment, ranging from concerts and silent discos to standup comedy.

Outdoor Adventure
Marge Cline Whitewater Course is a state-of-the-art paddling facility where paddlers can rent kayaks or canoes and test their skills against a quarter-mile of rapids at a forgiving grade. Pick up and drop back in or battle back waves in the eddy line for a great workout. Get a glimpse at the rich natural and agricultural history of Yorkville at the historic Kendall County Courthouse, where the Kendall County Forest Preserve District hosts a nature center display and information about parks and forests for hiking, cycling, fishing, and horseback riding. Northern Illinois Hunting & Fishing Days is held at nearby Silver Springs Forest Preserve, a family-friendly event featuring kids activities, a fishing tournament, and outdoor sports from archery to trap shooting and falconry shows.

Make it a Getaway! Visit **GoYorkville.com** to get more info on events, attractions, and family fun in beautiful Yorkville, Illinois, as well as hotel deals and packages to make it a great stay.

124 CHICAGO | JUNE/JULY 2023

Datafy Destination Marketing Campaign



United City of Yorkville Visitor Markets

Top DMAs	Share	Avg Length of Stay
Peoria-Bloomington	17 %	1.5 days
Champaign&Sprngfld-Decatur	11 %	1.8 days
Davenport-R.Island-Moline	11 %	1.7 days
St. Louis	6%	1.9 days
Milwaukee	6%	1.6 days

We produced an online advertising campaign with our visitor analytics partner, Datafy, promoting Yorkville as a foodie & fall fun destination.

Campaign dates 9/1/2023 - 11/30/2023.

1,270,936 impressions

Impressions were delivered with an average frequency of 15.65 per viewer and 2/3 of total impressions were dedicated to prospecting.

4,414 clicks

Datafy reported 4,414 clicks from Yorkville creative in our campaigns, accounting for about 15% of all Yorkville landing page views for this year's co-op program.

10,009 visits

Datafy's attribution model indicated 10,0009 visits to Yorkville based on this campaign.

Visitors spent an average of 1.8 days in-market, increasing to an average of 2.3 days for visitors who were tracked to downtown Yorkville.

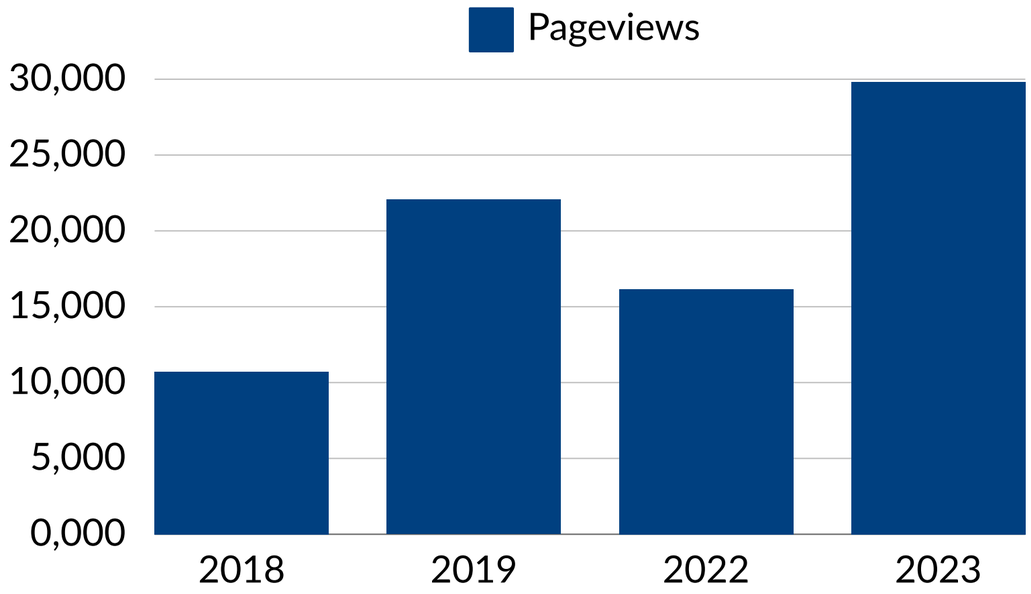
$1.8 million est. impact

Datafy estimates total economic impact for the campaign at $1,791,611 for a total return on ad spend (ROAS) of $179:$1 based on $10,000 spend.

AURORA AREA
convention & visitors bureau

2023 Yorkville Landing Page Views

Yorkville's landing page at enjoyaurora.com was viewed 29,834 times, the highest count on record for the co-op marketing program.



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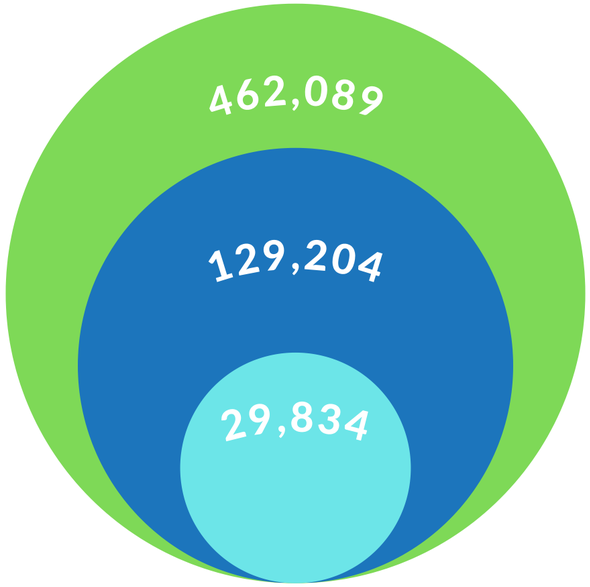
2023 Yorkville Total Page Views

Yorkville travel content was included in about a third of all page views at enjoyaurora.com — this includes mentions of events, restaurants, hotels, and attractions throughout the site.



- Total page views sitewide enjoyaurora.com
- Total Yorkville content views at enjoyaurora.com
- Yorkville landing page views at enjoyaurora.com

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2024 Co-op Marketing Plan

Based on a discovery session with Yorkville city staff, we have identified the following priorities to pursue for the 2024 co-op:

- WGN “Your Hometown” Takeover
- Produce new video/photo media of Yorkville attractions
- Position Yorkville as an attractive destination for traveling families

Our plan for 2024 includes destination advertising and event promotion that complement these priorities.

AURORA AREA
convention & visitors bureau

2024 Co-op Marketing Plan

To maximize the impact of Yorkville's co-op marketing fund, we propose allocating resources to targeted digital campaigns, expanded promotion for events via social media, and engaging content creation that highlights unique attractions in Yorkville.
This plan aims to inspire travelers and locals to experience all that Yorkville has to offer.

Tactic	Spend	Deliverables	Timing
Datafy: Yorkville Destination Campaign	$15,000	Destination campaign powered by Datafy includes visitor analytics and attribution	May-December 2024
WGN Hometown Takeover	$12,500	Includes live on-air segments, inclusion in on-air promos, social media and digital advertising, email newsletters, giveaway promotion and online video.	May/June 2024
Social & Digital Advertising	$9,500	A mix of paid social media promotion for traveler-friendly events occurring in Yorkville and display/video/search advertising that positions Yorkville as an attractive travel destination	May-December 2024
Go West Guide	$8,000	Two-page spread in highly relevant local travel section of *Chicago* magazine	May 2024
Video production	$8,000	Video highlights of Yorkville businesses and attractions Production of a Yorkville destination reel	May-December 2024
TOTAL	**$53,000**		

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Administration Committee #2

Tracking Number

ADM 2024-22

Agenda Item Summary Memo

Title: Salary Ranges

Meeting and Date: City Council – April 23, 2024

Synopsis: Please see the attached memo.

Council Action Previously Taken:

Date of Action: ADM – 4/17/24 Action Taken: Moved forward to City Council agenda.

Item Number: ADM 2024-22

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Bart Olson (Name) Administration (Department)

Agenda Item Notes:

Have a question or comment about this agenda item?
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Memorandum

To: City Council
From: Bart Olson, City Administrator
CC:
Date: April 10, 2024
Subject: Salary ranges

Summary

Consideration of a new salary schedule for all City employees, based on external compensation surveys and internal equity considerations.

Background

This item was last discussed by the City Council in February 2024, when the City Council heard during the FY 25 budget presentation that the City staff was conducting a salary survey of surrounding towns with the intent to adopt a new salary schedule for all employees. Since then, we have completed our data compilation efforts and have made recommendations for salary ranges for all non-union City employees.

These salary ranges do not have to approved by City Council, but we are asking the City Council to endorse them to make sure there is no question about how future position recruitments will be posted with salary ranges. When the City has a vacant employment position, we have to draft a recruitment ad, and having a recently adopted salary range that is tied to a market study of what other towns are paying similar employees (external equity) and is cross-referenced with what our current employees are being paid (internal equity) helps us attract good candidates and retain good employees. As further described below, we are not proposing any individual salary changes for employees based on these ranges; they will only be used for position recruitment ads and guiding us when we are making salary decisions during normal performance evaluations.

The City Council has reviewed these salary ranges every few years and has sometimes formally approved them, usually when a broader salary study is done and then executed with specific salary increases for employees to match the new range. In this case, we feel that the City's compensation strategy within the budget for the next few years is adequate to keep employees at competitive wages and no specific employee salary movements are recommended because of approving the proposed salary ranges. There are a few employees who will fall through the bottom of the new salary range, but we will administratively adjust those individuals' salaries on a one-off basis as part of our normal performance and compensation reviews in April/May. As in, we expect that our FY 25 budget figures will be able to cover any salary adjustments for employees without further City Council approval.

One of the attached exhibits to this memo includes the town-by-town salary ranges for specific positions. The external comparable towns listed in the study were chosen after careful deliberation of population size, EAV, number of employees within the organization, etc. This group contains the same towns that the City used in the staffing study presented in the FY 25 budget presentation and includes towns larger, smaller, more developed, less developed, etc. Generally, this exhibit will show us the market compensation rates for individual positions. In some cases like Parks and Recreation, finding good comparable compensation information is difficult.

A second attached exhibit compiles information about any existing salary ranges for City positions, how those salary ranges would be impacted if we simply increased the low and high ranges at 5.5% each, what the average salary range of each position in comparable towns is, what our City staff recommendation is for the FY 25 salary range for each position, and the basic reasoning underlying that City staff recommendation. To summarize that exhibit:

1) When we conducted the salary survey of our neighboring towns, most of the Department Head positions ended up very close to $120,000 to $165,000 in range. Rather than have a unique range for each position that was only a few hundred dollars apart, I suggest we lump all of the Department Heads together into one salary range ("Director")

2) There are five other positions (Building Code Official, Facilities Manager, Superintendent of Parks, Superintendent of Recreation, future Superintendent of Water and Sewer) who had similar salary ranges in other towns, and who have similar roles and responsibilities. For internal equity considerations, we recommend putting these positions into a "sub-director" range at $90,000 to $120,000.

3) There are three different Public Works and Parks Foremen, and the salary ranges in other towns was roughly equal. We recommend combining these positions into one "Foreman" range at $80,000 to $105,000.

4) For all other groupings in this attachment, we tried to lump the positions together by department so you could judge how the external equity (i.e. salary ranges in other towns) impacted internal equity considerations (i.e. how close should a Police Records Clerk be, salary-wise, to their boss, the Police Supervisor?). Generally, we tried to make sure that the recommended salary ranges were close to the salary ranges in other towns but also that there was some separation in the ranges between positions that have a supervisor/subordinate relationship. For instance, the Senior Accountant in Finance has a higher salary range than the Accounting Clerk, and the Utility Billing Clerk respectively. While there is no supervisory relationship between these positions (as they all report to the Finance Director), the Senior Accountant is an exempt position and generally works on more complex processes and has higher requirements for education (Bachelor's Degree) and experience.

The final exhibit to this memo is a clean version of the recommended salary ranges, sorted by value of the maximum end of the range. This is the exhibit we would request City Council to approve.

Recommendation

Staff requests approval of the recommended FY 25 salary ranges.

Department	Title	FLSA Class	FY 24 Min	FY 24 Max	FY 25 5.5% Min	FY 25 5.5% Max	FY 25 Salary Survey Min	FY 25 Salary Survey Max	Bart's Recommendations Min	Bart's Recommendations Max	Reason for adjustment in range
Admin	Assistant City Administrator	Exempt	$ 102,289	$ 144,267	$ 107,915	$ 152,202	$ 119,584	$ 165,992	$ 120,000	$ 165,000	External comps, "Director" range
PW	Public Works Director	Exempt	$ 100,653	$ 142,915	$ 106,189	$ 150,775	$ 120,659	$ 163,266	$ 120,000	$ 165,000	External comps, "Director" range
ComDev	Community Development Director	Exempt	$ 101,485	$ 143,178	$ 107,067	$ 151,053	$ 119,063	$ 160,585	$ 120,000	$ 165,000	External comps, "Director" range
Finance	Finance Director	Exempt	$ 99,278	$ 138,588	$ 104,738	$ 146,210	$ 119,169	$ 157,481	$ 120,000	$ 165,000	External comps, "Director" range
Parks and Rec	Parks and Recreation Director	Exempt	$ 99,278	$ 148,397	$ 104,738	$ 156,559	Only 1, 130k	Only 1, 162k	$ 120,000	$ 165,000	External comps, "Director" range
Police	Deputy Chief	Exempt			$ 102,078	$ 145,629	$ 118,823	$ 157,558	$ 115,000	$ 155,000	Internal and external equity
Police	Commander	Exempt			$ 81,662	$ 116,503	$ 106,494	$ 145,360	$ 105,000	$ 140,000	Internal and external equity
ComDev	Building Code Official	Exempt	$ 78,685	$ 128,196	$ 83,013	$ 116,034	$ 91,206	$ 120,583	$ 90,000	$ 120,000	External comps, "Sub-director" range
PW	Facilities Manager	Exempt	$ 85,000	$ 105,000	$ 89,675	$ 110,775	$ 84,160	$ 114,092	$ 90,000	$ 120,000	External comps, "Sub-director" range
Parks and Rec	Superintendent of Parks	Exempt	$ 75,000	$ 105,000	$ 79,125	$ 110,775	Only 2, 87k	Only 2, 115k	$ 90,000	$ 120,000	External comps, "Sub-director" range
Parks and Rec	Superintendent of Recreation	Exempt	$ 75,000	$ 105,000	$ 79,125	$ 110,775	Only 2, 87k	Only 2, 115k	$ 90,000	$ 120,000	External comps, "Sub-director" range
Public Works	Superintendent of Water & Sewer	Exempt			$ 87,000	$ 118,000			$ 90,000	$ 120,000	External comps, "Sub-director" range
PW	Water/Sewer Foreman	Exempt	$ 67,465	$ 95,000	$ 71,176	$ 100,225	$ 80,142	$ 104,547	$ 80,000	$ 105,000	External comps, "Foreman" range
PW	Streets Foreman	Exempt	$ 67,465	$ 95,000	$ 71,176	$ 100,225	$ 78,032	$ 102,818	$ 80,000	$ 105,000	External comps, "Foreman" range
Parks and Rec	Parks Foreman	Exempt	$ 67,546	$ 95,000	$ 71,176	$ 100,225	None	None	$ 80,000	$ 105,000	Internal equity
Finance	Senior Accountant	Exempt	$ 70,528	$ 95,038	$ 74,407	$ 100,265	$ 78,981	$ 106,131	$ 79,000	$ 105,000	External comps
Finance	Accounting Clerk	Hourly	$ 56,674	$ 76,369	$ 59,791	$ 80,569	$ 63,295	$ 86,261	$ 63,000	$ 86,000	Internal and external equity
Finance	Utility Billing Clerk	Hourly	$ 53,748	$ 72,425	$ 56,704	$ 76,408	$ 51,214	$ 69,681	$ 55,000	$ 75,000	Internal and external equity
ComDev	Planner I	Exempt	$ 65,000	$ 85,000	$ 68,575	$ 89,675	$ 70,660	$ 93,806	$ 70,000	$ 95,000	Internal and external equity
ComDev	Building Inspector	Hourly	$ 61,000	$ 82,198	$ 64,355	$ 86,719	$ 66,194	$ 91,011	$ 67,000	$ 92,000	Internal and external equity
ComDev	Code Enforcement Inspector	Hourly	$ 62,377	$ 84,054	$ 65,808	$ 88,677	$ 61,200	$ 83,636	$ 65,000	$ 90,000	Internal and external equity
ComDev	Building Permit Clerk	Hourly	$ 49,042	$ 66,086	$ 51,739	$ 69,721	$ 50,816	$ 67,977	$ 52,000	$ 70,000	Internal equity and 5.5%
Police	Records Supervisor	Hourly	$ 67,316	$ 90,708	$ 67,316	$ 92,724	$ 67,316	$ 92,724	$ 67,000	$ 92,000	Internal Equity and 5.5%
Police	Records Clerk	Hourly	$ 48,440	$ 65,273	$ 51,104	$ 68,863	$ 47,226	$ 64,758	$ 52,000	$ 70,000	Internal Equity and 5.5%
Admin	Executive Assistant/City Clerk	Exempt	$ 49,578	$ 66,929	$ 52,305	$ 70,610	$ 67,262	$ 88,820	$ 67,000	$ 92,000	Internal and external equity
Admin	Administrative Assistant/Deputy Clerk	Hourly	$ 52,253	$ 70,411	$ 55,127	$ 74,284	$ 52,992	$ 68,457	$ 55,000	$ 74,000	Internal Equity and 5.5%
Admin	Support Assistant	Hourly	$ 46,454	$ 47,864	$ 49,009	$ 66,041	$ 45,639	$ 63,245	$ 49,000	$ 67,000	Internal Equity and 5.5%
Parks and Rec	Recreation Manager	Exempt	$ 44,356	$ 63,396	$ 46,796	$ 66,883	only 3, 63k	only 3, 83k	$ 67,000	$ 92,000	Internal equity and current recruitments
Parks and Rec	Marketing Coordinator	Exempt	$ 45,000	$ 50,000	$ 47,475	$ 52,750	$ 64,700	$ 86,000	$ 50,000	$ 70,000	Internal equity
Parks and Rec	Recreation Coordinator	Exempt	$ 38,389	$ 57,538	$ 40,500	$ 60,703	only 1, 55k	only 1, 73k	$ 50,000	$ 70,000	Internal equity
Parks and Rec	Child Development Coordinator	Exempt	$ 34,133	$ 44,880	$ 36,010	$ 47,348	None	None	$ 40,000	$ 55,000	Internal equity

			FY 25 Salary Ranges	
Department	**Title**	**FLSA Class**	**Min**	**Max**
Admin	Assistant City Administrator	Exempt	$ 120,000	$ 165,000
PW	Public Works Director	Exempt	$ 120,000	$ 165,000
ComDev	Community Development Director	Exempt	$ 120,000	$ 165,000
Finance	Finance Director	Exempt	$ 120,000	$ 165,000
Parks and Rec	Parks and Recreation Director	Exempt	$ 120,000	$ 165,000
Police	Deputy Chief	Exempt	$ 115,000	$ 155,000
Police	Commander	Exempt	$ 105,000	$ 140,000
ComDev	Building Code Official	Exempt	$ 90,000	$ 120,000
PW	Facilities Manager	Exempt	$ 90,000	$ 120,000
Parks and Rec	Superintendent of Parks	Exempt	$ 90,000	$ 120,000
Parks and Rec	Superintendent of Recreation	Exempt	$ 90,000	$ 120,000
Public Works	Superintendent of Water & Sewer	Exempt	$ 90,000	$ 120,000
PW	Water/Sewer Foreman	Exempt	$ 80,000	$ 105,000
PW	Streets Foreman	Exempt	$ 80,000	$ 105,000
Parks and Rec	Parks Foreman	Exempt	$ 80,000	$ 105,000
Finance	Senior Accountant	Exempt	$ 79,000	$ 105,000
ComDev	Planner I	Exempt	$ 70,000	$ 95,000
ComDev	Building Inspector	Hourly	$ 67,000	$ 92,000
Police	Records Supervisor	Hourly	$ 67,000	$ 92,000
Admin	Executive Assistant/City Clerk	Exempt	$ 67,000	$ 92,000
Parks and Rec	Recreation Manager	Exempt	$ 67,000	$ 92,000
ComDev	Code Enforcement Inspector	Hourly	$ 65,000	$ 90,000
Finance	Accounting Clerk	Hourly	$ 63,000	$ 86,000
Finance	Utility Billing Clerk	Hourly	$ 55,000	$ 75,000
Admin	Administrative Assistant/Deputy Clerk	Hourly	$ 55,000	$ 74,000
ComDev	Building Permit Clerk	Hourly	$ 52,000	$ 70,000
Police	Records Clerk	Hourly	$ 52,000	$ 70,000
Parks and Rec	Marketing Coordinator	Exempt	$ 50,000	$ 70,000
Parks and Rec	Recreation Coordinator	Exempt	$ 50,000	$ 70,000
Admin	Support Assistant	Hourly	$ 49,000	$ 67,000
Parks and Rec	Child Development Coordinator	Exempt	$ 40,000	$ 55,000

	FY24			
	Assistant City Administrator			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	136,648	188,372	167,583	Deputy Village Manager/CFO - outlier removed from average calculation
Dekalb	87,118	126,321		Currently Vacant
Geneva	134,431	188,203	148,210	Assistant City Administrator/Director of Administrative Services
Lemont				N/A
Lockport				N/A
Montgomery				N/A
North Aurora				N/A
Oswego	117,966	176,949	150,000	
Plano				N/A
Shorewood				N/A
South Elgin	138,819	172,494	169,125	Director of Administrative Services/Deputy Village Administrator
Sugar Grove				N/A
Average	119,584	165,992	155,778	
Yorkville	102,289	144,267	137,566	
Difference	(17,295)	(21,725)	(18,212)	
% Difference	-14%	-13%	-12%	

Village/City	FY24 Public Works Director Minimum	Maximum	Current	Notes
Algonquin	136,648	188,372	161,438	
Dekalb	112,745	163,750	142,885	Director of Streets Facilities and Airport
Geneva	134,431	188,203	163,017	
Lemont	103,999	147,615	149,572	
Lockport	150,000	175,000	168,075	Director of Public Works and Engineering
Montgomery	114,667	160,534	152,740	
North Aurora	113,000	160,834	142,981	
Oswego	117,966	176,949	175,885	
Plano	80,906	126,344		Vacant
Shorewood	116,133	147,805	134,469	
South Elgin	138,819	172,494	162,552	
Sugar Grove	128,597	151,291	143,764	
Average	120,659	163,266	154,307	
Yorkville	100,653	142,915	157,206	
Difference	(20,006)	(20,351)	2,899	
% Difference	-17%	-12%	2%	

	FY24			
	Community Development Director			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	128,121	170,765		Currently Vacatn Deputy Director Filling In
Dekalb				Performed by City Manager
Geneva	134,431	188,203	161,317	Director of Community Development (and Building Division)
Lemont	103,999	147,615	137,570	
Lockport	145,000	165,000	151,504	Community and Economic Development Director
Montgomery	114,667	160,534	135,049	
North Aurora	113,000	160,834	127,110	
Oswego	117,966	176,949	144,560	Development Services Director
Plano	77,644	126,344	90,598	Director of Building Planning and Zoning
Shorewood				N/A Do have an Economic Development Director
South Elgin	130,957	162,739	150,342	
Sugar Grove	124,840	146,871	132,251	
Average	119,063	160,585	136,700	
Yorkville	**101,485**	**143,178**	**161,519**	
Difference	**(17,578)**	**(17,407)**	**24,819**	
% Difference	**-15%**	**-11%**	**18%**	

	FY24			
	Finance Director			
Village/City	Minimum	Maximum	Current	Notes
Algonquin				Deputy Chief Finanancial Officer
Dekalb				Director of Financial Services (Finance Director currently vacant)
Geneva	134,431	188,203	141,153	
Lemont	109,199	154,996	147,084	
Lockport	145,000	165,000	155,625	
Montgomery	114,667	160,534	118,818	
North Aurora	113,000	160,834	148,700	
Oswego	117,966	176,949	161,595	
Plano	74,658	97,630	99,280	City Treasurer Budget Officer
Shorewood	116,133	147,805	137,802	
South Elgin	138,819	172,494	169,125	Director of Administrative Services/Deputy Village Administrator
Sugar Grove	127,812	150,367	137,576	
Average	119,169	157,481	141,676	
Yorkville	**99,278**	**138,588**	**160,384**	
Difference	**(19,891)**	**(18,893)**	**18,708**	
% Difference	**-17%**	**-12%**	**13%**	

	FY24			
	Parks and Recreation Director			
Village/City	Minimum	Maximum	Current	Notes
Algonquin				N/A
Dekalb				N/A
Geneva				N/A
Lemont				N/A
Lockport				N/A
Montgomery				N/A
North Aurora				N/A
Oswego				N/A
Plano				N/A
Shorewood				N/A
South Elgin	130,957	162,739	150,342	
Sugar Grove				N/A
Average	130,957	162,739	150,342	
Yorkville	99,278	148,397	139,541	
Difference	(31,679)	(14,342)	(10,801)	
% Difference	-24%	-9%	-7%	

	FY24			
	Support Assistant			
Village/City	Minimum	Maximum	Current	Notes
Algonquin				Office Assistant (PT)
Dekalb				N/A
Geneva				N/A
Lemont				N/A
Lockport				N/A
Montgomery				N/A
North Aurora	48,840	69,515	72,188	Customer Service Specialist
Oswego	49,956	70,938	53,040	Administrative Assistant
Plano	32,053	45,053	40,768	Utility Billing Administrative Assistant III
Shorewood				N/A
South Elgin	51,709	67,475	59,592	Curstomer Service Specialist avg
Sugar Grove				N/A
Average	45,639	63,245	56,397	
Yorkville	46,454	62,598	47,864	Avg. Current Salary of 2 Support Assistants
Difference	815	(647)	(8,533)	
% Difference	2%	-1%	-15%	

	FY24			
	Administrative Assistant/Deputy Clerk			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	70,326	82,318	78,385	Administrative Assistant (current is avg of 2 people)
Dekalb	50,574	73,332	57,779	Administrative Assistant
Geneva				N/A
Lemont				N/A
Lockport	50,889	67,864	67,864	
Montgomery				N/A
North Aurora				N/A
Oswego	53,703	76,258	65,998	Deputy Village Clerk
Plano	32,053	45,053	44,699	Utility Billing Administrative Assistant II Deputy Clerk
Shorewood				N/A
South Elgin	57,013	70,381	70,242	Administrative Assistant Avg
Sugar Grove	56,387	63,996	62,396	Office Assistant
Average	52,992	68,457	63,909	
Yorkville	52,253	70,411	53,013	
Difference	(739)	1,954	(10,896)	
% Difference	-1%	3%	-17%	

	FY24			
	Executive Assistant/City Clerk			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	70,326	82,318	90,831	Executive Assistant/Deputy Clerk
Dekalb	66,301	96,135	80,000	Executive Assistant
Geneva	62,557	84,452	78,978	Executive Assistant/Deputy Clerk
Lemont			67,496	Executive Assistant/Deputy Clerk
Lockport	60,000	75,000	70,389	City Clerk is PT elected; salary provided is for Assistant to City Administration
Montgomery	60,299	84,427	67,891	Executive Assistant/Deputy Clerk
North Aurora	64,000	91,092	69,222	Community Relations and Board Coordinator
Oswego	74,970	106,457	91,166	Village Clerk
Plano	74,658	97,630		City Clerk Collector Vacant
Shorewood			86,300	Deputy Clerk (City Clerk is elected PT)
South Elgin	72,758	94,931	84,344	Executive Assistant
Sugar Grove	66,748	75,755	72,015	
Average	67,262	88,820	78,057	
Yorkville	**49,578**	**66,929**	**65,100**	
Difference	**(17,684)**	**(21,891)**	**(12,957)**	
% Difference	**-26%**	**-25%**	**-17%**	

	FY24			
	Chief Code Official			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	111,195	149.287.57	133,455	Building Commissioner
Dekalb	100,130	145,188	102,633	Chief Building Official
Geneva	101,000	141,400	101,000	Building Commissioner
Lemont	83,199	118,092	119,642	Chief Building Official
Lockport	85,000	100,000	93,644	
Montgomery	86,151	120,612	106,904	
North Aurora	80,424	114,469	110,066	Chief Building Inspector
Oswego	94,042	141,063	104,000	Building and Permits Manager
Plano				N/A
Shorewood	87,311	110,854	99,702	Chief Building Official
South Elgin	92,872	121,160	122,408	Building and Code Enforcement Manager
Sugar Grove	81,940	92,997	86,195	Chief Building Inspector
Average	91,206	120,583	107,241	
Yorkville	78,685	109,985	128,196	
Difference	(12,521)	(10,598)	20,955	
% Difference	-14%	-9%	20%	

	FY24			
	Building Inspector			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	76,222	104,898		Vacant
Dekalb	50,525	70,746	64,161	Buiding Inspector I
Geneva	101,000	141,400	78,017	
Lemont	57,199	81,188	81,143	
Lockport	65,000	85,000	79,598	
Montgomery	60,299	84,427	74,526	
North Aurora				N/A
Oswego	66,715	94,735	74,880	
Plano	58,864	79,019	74,693	Property Maintenance Buildig Inspector
Shorewood	56,813	78,278	73,065	Also a plumbing inspector
South Elgin	69,306	90,418	87,776	
Sugar Grove				N/A
Average	66,194	91,011	76,429	
Yorkville	61,000	82,198	87,360	Avg. Current Salary of 2 Building Inspectors
Difference	(5,194)	(8,813)	10,931	
% Difference	-8%	-10%	14%	

	FY24			
	Code Enforcement Inspector			
Village/City	Minimum	Maximum	Current	Notes
Yorkville	**62,377**	**84,054**	**63,157**	
Algonquin	61,896	83,333	67,801	Property Maintenance Inspector (current avg of 2 people)
Dekalb	66,301	96,135	89,500	Code Compliance Coordinator
Geneva	68,813	92,897	70,000	community Code Compliance Officer
Lemont	57,199	81,188	71,952	
Lockport	60,000	75,000	69,125	
Montgomery				N/A
North Aurora	64,000	91,092	91,092	Code Enforcement Officer
Oswego	57,731	81,977	68,162	Code Enforcement Officer
Plano				N/A
Shorewood	55,000	73,000	67,999	also is a building inspector
South Elgin	59,862	78,104	59,862	Code Enforcement Officer
Sugar Grove				PT Position
Average	61,200	83,636	72,833	
Yorkville	**62,377**	**84,054**	**63,157**	
Difference	**1,177**	**418**	**(9,676)**	
% Difference	**2%**	**0%**	**-13%**	

	FY24			
	Planner I			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	70,326	94,310		Currently Vacant
Dekalb				Principal Planner (Planning Director)
Geneva	82,231	111,012	82,500	City Planner
Lemont				Consultant
Lockport	70,000	95,000	90,053	
Montgomery				Senior Planner
North Aurora	64,000	91,092	74,871	
Oswego	71,718	101,840	80,746	
Plano				N/A
Shorewood	60,000	78,000		Vacant
South Elgin	72,758	94,931	79,498	Community Development Coordinator
Sugar Grove	74,244	84,263	76,147	Planning and Zoning Administrator
Average	70,660	93,806	80,636	
Yorkville	65,000	85,000	67,500	range per the job description 2023
Difference	(5,660)	(8,806)	(13,136)	
% Difference	-8%	-9%	-16%	

	FY24			
	Building Permit Clerk/Receptionist			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	52,158	70,688	55,000	Permit Clerk
Dekalb	45,760	66,351	52,520	Administrative Associate - Com Dev
Geneva	56,870	72,775	64,149	Permit Technician
Lemont	41,600	59,047	49,392	avg. of 2 employees
Lockport	45,000	60,000	55,168	
Montgomery			56,410	Administrative Assistant
North Aurora	52,747	75,076	57,051	Buiding Permit Technician
Oswego	49,956	70,938	53,040	Administrative Assistant
Plano				N/A
Shorewood	50,669	66,518	51,508	Receptionist
South Elgin	57,013	74,381	74,381	Permit Technician
Sugar Grove	56,387	63,996	62,396	Office Assistant CDD
Average	50,816	67,977	57,365	
Yorkville	49,042	66,086	64,847	Avg. Current Salary of 2 Permits Clerks
Difference	(1,774)	(1,891)	7,482	
% Difference	-3%	-3%	13%	

	FY24			
	Senior Accountant			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	81,977	109,469	96,863	
Dekalb	75,159	108,832	85,288	
Geneva	93,269	125,913	98,916	Accounting Supervisor
Lemont				N/A
Lockport	100,000	125,000	119,313	Assistant Finance/HR Director
Montgomery	69,352	97,092	79,181	Accounting Manager
North Aurora	87,900	125,109	115,670	Finance and HR Manager
Oswego				N/A
Plano	55,640	81,746		Vacant
Shorewood	77,070	105,575	101,073	Assistant Finance Director
South Elgin	76,398	99,674	99,674	Accounting Manager
Sugar Grove	73,041	82,898	76,835	Accounting Manager
Average	78,981	106,131	96,979	
Yorkville	70,528	95,038	92,421	
Difference	(8,453)	(11,093)	(4,558)	
% Difference	-11%	-10%	-5%	

	FY24			
	Accounting Clerk			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	76,222	104,898		Vacant
Dekalb	61,662	89,410	63,555	
Geneva				Administrative Analyst (PT)
Lemont				N/A
Lockport	60,000	75,000		Vacant
Montgomery				N/A
North Aurora				PT Accounting Asst. 38.8/hour
Oswego	66,715	94,735	72,696	Staff Accountant
Plano	52,312	71,510	54,454	
Shorewood				N/A
South Elgin	62,858	82,014	82,014	Accounting Specialist
Sugar Grove				N/A
Average	63,295	86,261	68,180	
Yorkville	56,674	76,369	74,288	
Difference	(6,621)	(9,892)	6,108	
% Difference	-10%	-11%	9%	

	FY24			
	Utility Billing Coordinator			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	61,896	83,333	82,425	
Dekalb	40,716	57,915	44,249	Account Tech
Geneva	56,870	76,775	56,870	
Lemont	50,199	73,807	56,160	
Lockport	50,889	67,864	67,864	Utility Billing Clerk
Montgomery	48,568	65,562	56,160	Finance Assistant Utility Billing
North Aurora	52,747	75,076	72,188	Utility Biling Specialist
Oswego	53,703	76,258	68,578	
Plano	45,386	55,910	55,078	Utility Billing Administrative Assistant II
Shorewood	50,669	66,518	65,678	UB Clerk
South Elgin	51,709	67,475	67,475	Utility Billing Clerk
Sugar Grove				PT Finance Clerk
Average	51,214	69,681	62,975	
Yorkville	53,748	72,425	54,064	Is this position non-exempt?
Difference	2,534	2,744	(8,911)	
% Difference	5%	4%	-14%	

	FY24			
	Police Records Clerk			
Village/City	Minimum	Maximum	Current	Notes
Algonquin			54,335	Records Clerk (current avg of 3 people)
Dekalb	40,716	57,915	44,249	Office Associate I
Geneva	56,870	76,775	48,803	Records Specialist (average of 9 employees including 4 PT)
Lemont	46,800	66,427	59,301	
Lockport	45,650	60,877		Vacant
Montgomery	48,568	65,562	54,205	Police Support Services Specialist (current avg of 4 employees)
North Aurora	52,747	75,076	61,201	Police Records Specialits (current is avg. of 3 employees)
Oswego	46,471	65,989	50,253	Records Clerk (current is avg. of 4 employees)
Plano	32,053	44,970	46,821	
Shorewood	50,676	66,512	58,177	current is avg of 2 employees
South Elgin	51,709	67,475	66,498	average
Sugar Grove				PT Position
Average	47,226	64,758	54,384	
Yorkville	48,440	65,273	49,556	avg of 2 positions
Difference	1,214	515	(4,828)	
% Difference	3%	1%	-9%	

	FY24			
	Police Deputy Chief			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	119,213	161,434	147,285	average of 2 for current salary
Dekalb	109,577	158,888	142,150	
Geneva				
Lemont	129,999	154,996	155,898	
Lockport	130,000	155,000	151,475	
Montgomery				
North Aurora	106,691	151,855	137,698	average of 2 for current salary
Oswego	105,327	157,990	142,760	average of 2 for current salary
Plano				N/A
Shorewood				
South Elgin	130,957	162,739	139,006	average
Sugar Grove				N/A
Average	118,823	157,558	145,182	
Yorkville			129,081	No range established
Difference	(118,823)	(157,558)	(16,101)	
% Difference	-100%	-100%	-11%	

	FY24			
	Police Commander			
Village/City	Minimum	Maximum	Current	Notes
Algonquin				N/A
Dekalb	106,409	154,293	136,750	
Geneva				
Lemont	98,799	140,234	140,222	average of 2 for current salary
Lockport	125,000	150,000	148,000	
Montgomery				
North Aurora				N/A
Oswego	94,042	141,063	134,219	
Plano				N/A
Shorewood				
South Elgin	108,222	141,211	113,818	average
Sugar Grove				N/A
Average	106,494	145,360	134,602	
Yorkville			122,851	No range established
Difference	(106,494)	(145,360)	(11,751)	
% Difference	-100%	-100%	-9%	

	FY24			
	Police Records Supervisor			
Village/City	Minimum	Maximum	Current	Notes
Algonquin			63,037	Records Coordinator
Dekalb	66,301	96,135	68,291	Records Supervisor
Geneva	82,231	111,012	103,817	
Lemont	67,599	95,950	78,093	
Lockport	55,000	75,000	64,859	
Montgomery				N/A
North Aurora				N/A
Oswego	74,697	106,457	87,922	
Plano				N/A
Shorewood	58,066	71,791	65,289	
South Elgin				N/A
Sugar Grove				N/A
Average	67,316	92,724	75,901	
Yorkville	67,316	90,708	71,810	No range established
Difference	0	(2,016)	(4,091)	
% Difference	0%	-2%	-5%	

	FY24			
	Superintendent of Parks			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	91,387	120,812	130,119	General services Superintendent
Dekalb				N/A
Geneva				N/A
Lemont				N/A
Lockport				N/A
Montgomery				N/A
North Aurora				N/A
Oswego				N/A
Plano				N/A
Shorewood				N/A
South Elgin	84,240	109,907	97,635	Parks and Recreation Superintendent
Sugar Grove				N/A
Average	87,813	115,359	113,877	
Yorkville	75,000	105,000	122,459	
Difference	(12,813)	(10,359)	8,582	
% Difference	-15%	-9%	8%	

	FY24			
	Superintendent of Recreation			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	91,387	120,812	106,600	
Dekalb				N/A
Geneva				N/A
Lemont				N/A
Lockport				N/A
Montgomery				N/A
North Aurora				N/A
Oswego				N/A
Plano				N/A
Shorewood				N/A
South Elgin	84,240	109,907	97,635	Parks and Recreation Superintendent
Sugar Grove				N/A
Average	87,813	115,359	102,118	
Yorkville	75,000	105,000	102,825	
Difference	(12,813)	(10,359)	708	
% Difference	-15%	-9%	1%	

	FY24			
	Recreation Manager			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	65,507	88,033	73,000	
Dekalb				N/A
Geneva				N/A
Lemont				N/A
Lockport				N/A
Montgomery				N/A
North Aurora				N/A
Oswego				N/A
Plano				N/A
Shorewood	67,000	87,000	79,632	Recreation and Events Manager
South Elgin	57,013	74,381	69,285	Recreation Supervisor Avg salary
Sugar Grove				N/A
Average	63,173	83,138	73,972	
Yorkville	44,356	63,396	61,526	
Difference	(18,817)	(19,742)	(12,446)	
% Difference	-30%	-24%	-17%	

	FY24			
	Recreation Coordinator			
Village/City	Minimum	Maximum	Current	Notes
Algonquin				N/A
Dekalb				N/A
Geneva				N/A
Lemont				N/A
Lockport				N/A
Montgomery				N/A
North Aurora				N/A
Oswego				N/A
Plano				N/A
Shorewood	55,000	73,000	56,000	Recreation Specialist
South Elgin				N/A
Sugar Grove				N/A
Average	55,000	73,000	56,000	
Yorkville	38,389	57,538	51,522	avg of 3 employees
Difference	(16,611)	(15,462)	(4,478)	
% Difference	-30%	-21%	-8%	

	FY24			
	Child Developent Coordinator			
Village/City	Minimum	Maximum	Current	Notes
Algonquin				N/A
Dekalb				N/A
Geneva				N/A
Lemont				N/A
Lockport				N/A
Montgomery				N/A
North Aurora				N/A
Oswego				N/A
Plano				N/A
Shorewood				N/A
South Elgin				N/A
Sugar Grove				N/A
Average	#DIV/0!	#DIV/0!	#DIV/0!	
Yorkville	34,133	44,880	39,534	avg of 2 employees
Difference	#DIV/0!	#DIV/0!	#DIV/0!	
% Difference	#DIV/0!	#DIV/0!	#DIV/0!	

	FY24			
	Marketing Coordinator			
Village/City	Minimum	Maximum	Current	Notes
Algonquin				N/A
Dekalb				N/A
Geneva	72,500	97,875	85,188	Communication Coordinator
Lemont				N/A
Lockport	65,000	85,000	80,173	Marketing and Events Coordinator
Montgomery	53,414	74,298	65,000	Community Engagement & Events Coordinator
North Aurora				N/A
Oswego				N/A
Plano				N/A
Shorewood	60,000	78,000	60,000	Economic Development and communications assistant
South Elgin	72,758	94,931	86,882	Communications Coordinator
Sugar Grove				N/A
Average	64,734	86,021	75,449	
Yorkville	45,000	50,000	53,943	range per the job posting 2022
Difference	(19,734)	(36,021)	(21,506)	
% Difference	-30%	-42%	-29%	

	FY24			
	Water/Sewer Foreman			
Village/City	Minimum	Maximum	Current	Notes
Algonquin			119,383	Chief Water Operator Chief Waste Water Operator (current avg of 2 people)
Dekalb	84,517	112,549	94,997	Utility Superintendent
Geneva	87,576	118,228	103,988	Lead Water/Sewer Maintenance Worker
Lemont	57,199	81,188	77,377	
Lockport	84,894	99,616	99,616	Crew Leader
Montgomery	94,766	132,673	103,000	Water and Sewer Superintendent
North Aurora	72,114	96,158	80,850	Lead Water Operator plus .75/hour for class b license; Union Position
Oswego	74,098	102,145	83,325	Utilities Supertintendent Local 150
Plano	72,671	90,438	99,980	Water Superintendent
Shorewood				N/A
South Elgin	92,872	121,160	104,520	Water Superintendent
Sugar Grove	80,710	91,316	86,916	
Average	80,142	104,547	95,814	
Yorkville	67,465	95,000	110,210	
Difference	(12,677)	(9,547)	14,396	
% Difference	-16%	-9%	15%	

	FY24			
	Street Foreman			
Village/City	Minimum	Maximum	Current	Notes
Algonquin	91,387	120,812	107,595	Streets Supervisor
Dekalb	84,517	112,549	105,000	Street Superintendent
Geneva	59,384	93,641	84,719	Street Maintenance Lead Worker union position
Lemont	57,199	81,188	85,168	Avg. of 2 positions
Lockport	84,894	99,616	87,654	Crew Leader
Montgomery	86,151	120,612	108,656	Street Superintendent
North Aurora	72,114	96,158	80,850	Union Position
Oswego	74,098	102,145	96,408	Field Operation Superintendnt Local 150
Plano	83,652	103,054	78,593	Street Superintendent
Shorewood			91,527	Union Position
South Elgin	84,240	109,907	100,568	Streets and Forestry Superintendent
Sugar Grove	80,710	91,316	86,916	
Average	78,032	102,818	92,805	
Yorkville	67,465	95,000	114,027	
Difference	(10,567)	(7,818)	21,222	
% Difference	-14%	-8%	23%	

	FY24			
	Facilities Manager			
Village/City	Minimum	Maximum	Current	Notes
Algonquin			114,455	Internal Services Supervisor
Dekalb				N/A
Geneva	93,269	125,913	104,000	
Lemont				N/A
Lockport				N/A
Montgomery				N/A
North Aurora				N/A
Oswego	74,970	106,457	106,267	
Plano				N/A
Shorewood			91,527	Union Position
South Elgin	84,240	109,907	89,357	Building and Grounds Superintendent
Sugar Grove				N/A
Average	84,160	114,092	101,121	
Yorkville	85,000	105,000	90,000	range per the job posting 2023
Difference	840	(9,092)	(11,121)	
% Difference	1%	-8%	-11%	

Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #12

Tracking Number

CC 2021-04

Agenda Item Summary Memo

Title: City Buildings Updates

Meeting and Date: City Council – April 23, 2024

Synopsis:

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: None

Council Action Requested: Informational

Submitted by: Bart Olson (Name) Administration (Department)

Agenda Item Notes:

If new information is available at the time of the meeting, then a discussion will be held.

Have a question or comment about this agenda item?
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Reviewed By:	
Legal	☐
Finance	☐
Engineer	☐
City Administrator	■
Community Development	☐
Purchasing	☐
Police	☐
Public Works	☐
Parks and Recreation	☐

Agenda Item Number

Mayor's Report #13

Tracking Number

CC 2021-38

Agenda Item Summary Memo

Title: Water Study Update

Meeting and Date: City Council – April 23, 2024

Synopsis:

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: None

Council Action Requested: Informational

Submitted by: Bart Olson (Name) Administration (Department)

Agenda Item Notes:

If new information is available at the time of the meeting, then a discussion will be held.

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