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

AGENDA
CITY COUNCIL MEETING
Tuesday, February 11, 2025
7:00 p.m.
City Hall Council Chambers
Prairie Pointe Drive, Yorkville, IL

REVISED 2-7-25 @ 1:40 p.m.
Additional agenda item added.
Mayor's Report Item #5

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. Dave-Hamman – Kelaka Annexation and Rezoning

Citizen Comments on Agenda Items:

Consent Agenda:

1. Minutes of the Regular City Council – January 14, 2025
2. Minutes of the Regular City Council – January 28, 2025
3. Bill Payments for Approval
   $ 206,593.85 (vendors)
   $ 422,797.15 (payroll period ending 01/31/25)
   $ 629,391.00 (total)
4. EDC 2025-16 Resolution Approving an Intergovernmental Agreement for Reciprocal Building Inspection Services Between the United City of Yorkville and Kendall County – *authorize the Mayor and City Clerk to execute*

Mayor's Report:

1. CC 2025-10 Resolution Authorizing the Purchase of Lightning Detection Equipment in an Amount Not to Exceed $35,400
2. CC 2025-11 Settlement Agreement – Police Department

Mayor's Report (cont'd):

5. *CC 2025-12 Resolution of the United City of Yorkville, Kendall County, Illinois Approving a Sales Tax Revenue Sharing Agreement (Costco Wholesale Corporation)*

Public Works Committee Report:

1. PW 2025-11 Resolution Approving an Intergovernmental Agreement Between the United City of Yorkville and the State of Illinois (Route 47 Expansion – Waterpark Way to Jericho Road)

Economic Development Committee Report:

Public Safety Committee Report:

Administration Committee Report:

Park Board:

Planning and Zoning Commission:

1. PZC 2024-30 & EDC 2025-07 Kendall County Petition 24-30 – 1.5 Mile Review (South of 9949 and 10021 Ament Road)

City Council Report:

City Clerk's Report:

Community and Liaison Report:

Staff Report:

Mayor's Report (cont'd):

3. CC 2025-08 Public Works and Parks Department Facility Update
4. CC 2025-09 Lake Michigan Water Project Update

Additional Business:

Citizen Comments:

Executive Session:

1. 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.
2. 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.

Adjournment:

COMMITTEES, MEMBERS AND RESPONSIBILITIES

ADMINISTRATION: February 19, 2025 – 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: March 4, 2025 – 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: March 6, 2025 – 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: February 18, 2025 – 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		

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2. 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.

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PUBLIC WORKS: February 18, 2025 – 6:00 p.m. – East Conference Room #337

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Vice-Chairman:	Alderman Soling	Engineering	YBSD
Committee:	Alderman Marek	Parks and Recreation	
Committee:	Alderman Corneils		

UNITED CITY OF YORKVILLE
WORKSHEET
CITY COUNCIL
Tuesday, February 11, 2025
7:00 PM
CITY COUNCIL CHAMBERS

AMENDMENTS TO AGENDA:

PUBLIC HEARINGS:

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1. Dave-Hamman – Kelaka Annexation and Rezoning

CITIZEN COMMENTS ON AGENDA ITEMS:

CONSENT AGENDA:

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1. Minutes of the Regular City Council – January 14, 2025

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

   ☐ Removed _____

   ☐ Notes _____

   _____

   _____

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2. Minutes of the Regular City Council – January 28, 2025

   ☐ 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. EDC 2025-16 Resolution Approving an Intergovernmental Agreement for Reciprocal Building Inspection Services Between the United City of Yorkville and Kendall County

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

☐ Removed _____

☐ Notes _____

_____

_____

MAYOR'S REPORT:

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1. CC 2025-10 Resolution Authorizing the Purchase of Lightning Detection Equipment in an Amount Not to Exceed $35,400

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

☐ Removed _____

☐ Notes _____

_____

_____

---

2. CC 2025-11 Settlement Agreement – Police Department

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

☐ Removed _____

☐ Notes _____

_____

_____

PUBLIC WORKS COMMITTEE REPORT:

---

1. PW 2025-11 Resolution Approving an Intergovernmental Agreement Between the United City of Yorkville and the State of Illinois (Route 47 Expansion – Waterpark Way to Jericho Road)

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

☐ Removed _____

☐ Notes _____

_____

_____

PLANNING AND ZONING COMMISSION:

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1. PZC 2024-30 & EDC 2025-07 Kendall County Petition 24-30 – 1.5 Mile Review (South of 9949 and 10021 Ament Road)

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

☐ Removed _____

☐ Notes _____

_____

_____

MAYOR'S REPORT (CONT'D):

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3. CC 2025-08 Public Works and Parks Department Facility Update

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

☐ Removed _____

☐ Notes _____

_____

_____

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4. CC 2025-09 Lake Michigan Water Project 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: PZC 2024-31 Hamman-Kelaka, LLC (Annexation)

Meeting and Date: City Council – February 11, 2025

Synopsis: **PUBLIC HEARING** for requested annexation for future data center land use.

Council Action Previously Taken:

Date of Action: _____ Action Taken: _____

Item Number: _____

Type of Vote Required: _____

Council Action Requested: _____

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 Barksdale-Noble, Community Development Director
CC: Bart Olson, City Administrator
Sara Mendez, Planner I
Date: February 3, 2025
Subject: **PZC 2024-31 Hamman – Kelaka, LLC**
PUBLIC HEARING: Proposed Annexation Agreement Request

SUMMARY:

David Hamman, on behalf of Kelaka, LLC, has filed applications with the United City of Yorkville, Kendall County, Illinois, for both annexation and rezoning of certain properties. The annexation request involves two parcels totaling approximately 62.54 acres, located south of Faxon Road and west of Iroquois Lane, which are currently undeveloped and used for farming. This annexation, pursued through an annexation agreement, aims to facilitate future data center development. Additionally, the petitioner seeks rezoning of three parcels totaling approximately 112.44 acres, including the annexed parcels and one parcel north of West Veterans Parkway (US 34) and east of Eldamain Road. The rezoning request proposes a change from R-1 Single-Family Suburban Residential District and B-3 General Business District to M-2 General Manufacturing District to accommodate future uses consistent with a proposed data center development.

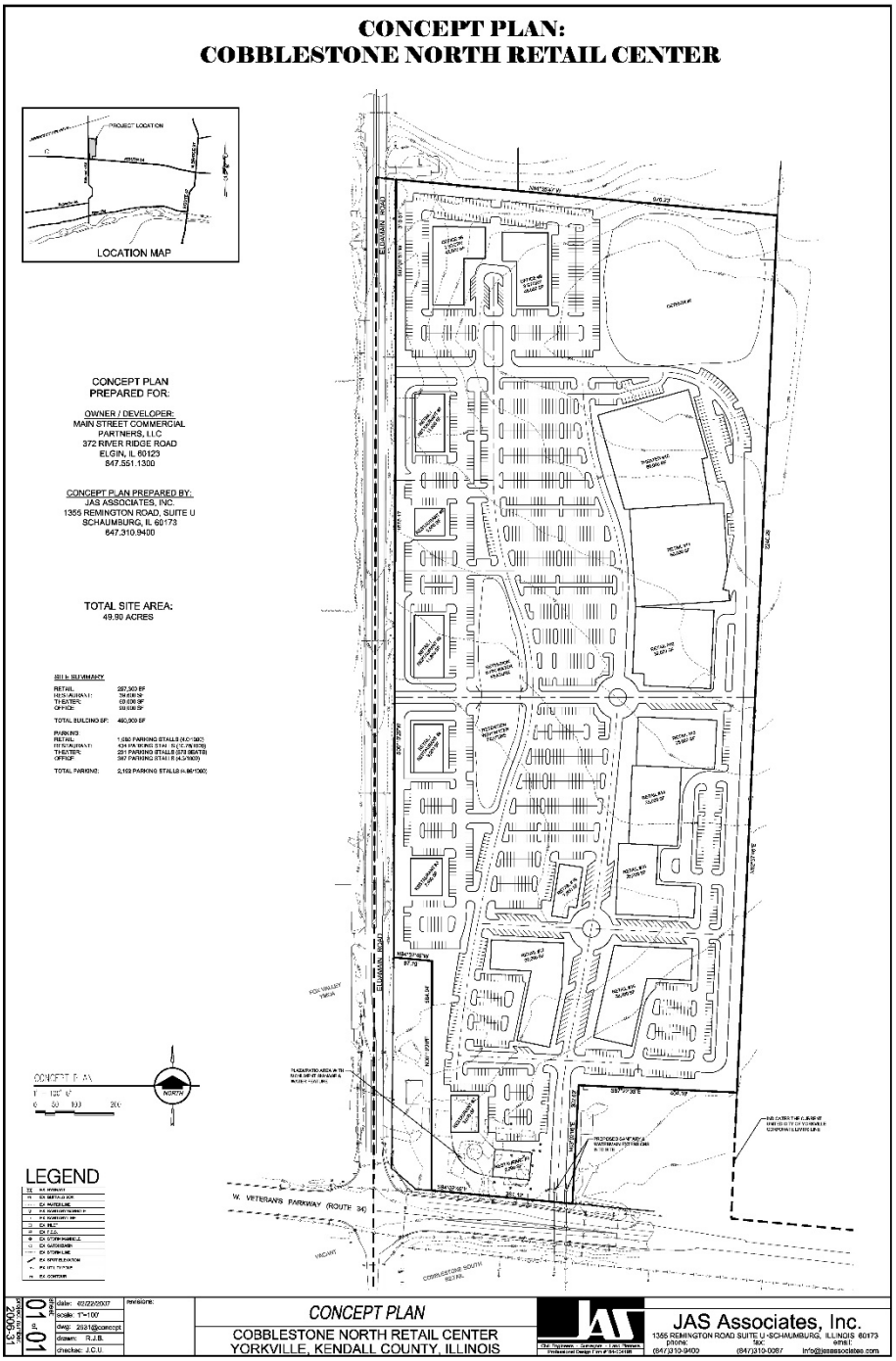


HAMMAN-KELAKA, LLC
United City of Yorkville, Illinois
Date: November 18, 2024
File Location: I:\ARCGIS TEMPLATES\HAMMAN-KELAKA,LLC

In 2007, a proposal for "Cobblestone North" was submitted to the City for the currently zoned B-3 parcel, featuring a Conceptual Plan (provided below). The plan was for a commercial center spanning approximately 50 acres including a mix of retail, restaurant, theater, and office uses. However, the development never materialized, and the land has remained undeveloped for the past 18 years.

ANNEXATION AGREEMENT:

Given the subject parcels location along a major arterial roadway (US 34) and its proximity to the Kylyn's Ridge residential development, staff recommends that the annexation agreement include a condition to consider restricting future manufacturing uses under the M-2 District if a data center campus is not developed on the site. This will be consistent with the recently recommended conditions for the DMYF, LLLP project.



Should a data center user not develop on the parcel, staff would recommend only the following M-2 General Manufacturing land uses be permitted on the subject property per Table 10-3-12(B) of the Unified Development Ordinance:

1. **Automobile sales and services (enclosed) –** defined as "An establishment engaged in the sale of automobiles where all operations take place entirely within an enclosed showroom in a primary building."
2. **Bakery (wholesale) -** defined as "a bakery in which there is permitted the production and/or wholesaling of baked goods, excluding retail bakery."
3. **Brewery/winery/distillery –** defined as "an establishment primarily engaged in brewing fermented malt beverages including beer, ale, malt liquors, and nonalcoholic beer (brewery), manufacturing and bottling wine on the premises (winery), or manufacturing, by distillation, intoxicating spirits on the premises (distillery) but not including on-premises consumption by patrons."
4. **Building material sales –** defined as "establishments or places of business primarily engaged in retail or wholesale sale, from the premises, of materials used in the construction of buildings or other structures."
5. **Microdistillery –** defined as "a small-scale artisan manufacturing business that blends, ferments, processes, packages, distributes and serves alcoholic spirits on and off the premises and produces no more than fifteen thousand (15,000) gallons per calendar year on-site. The microdistillery facility may include an ancillary tasting room and retail component in which guests/customers may sample and purchase the product. Off-site distribution of the alcoholic beverages shall be consistent with state law."
6. **Microbrewery/Microwinery –** defined as "a combination retail, wholesale, and/or small-scale artisan manufacturing business that brews, ferments, processes, packages, distributes, and serves either beer or wine for sale on- or off-site. A microbrewery shall produce no more than one-hundred fifty-five thousand (155,000) gallons of beer per year for sale on the premises for either on-premises or off-premises consumption. These facilities may include an ancillary tasting room and retail component in which guests/customers may sample and purchase the product. Off-site distribution of the beverages shall be consistent with state law."
7. **Nursery/greenhouse –** defined as "retail business whose principal activity is the selling of plants and having outdoor storage, growing and/or display of plants."
8. **Research laboratories –** defined as "a building or group of buildings in which are located facilities for scientific research, investigation, testing or experimentation, but not facilities for the manufacture or sale of products, except as incidental to the main purpose of the laboratory."
9. **Recreational vehicle sales and services –** defined as "an establishment engaged in the sale of recreational vehicles, including motorhomes and pickup campers, travel trailers, tent trailers, and similar vehicles that are designed and constructed for permit sleeping or housekeeping in an outdoor or a showroom enclosed in a primary building."
10. **Storage, single-building climate controlled –** defined as "a facility consisting of a single building where individual self-contained units are leased or rented to the general public for dead storage and where the individual storage units are accessed from the interior of the building."
11. **Refrigerated Warehouse (Cold Storage) -** defined as "a facility which is artificially or mechanically cooled in order to maintain the integrity and quality of perishable goods."
12. **Agricultural Use** – defined as "The employment of land for the primary purpose of raising, harvesting, and selling crops, or feeding (including grazing), breeding, managing, selling, or producing livestock, poultry, furbearing animals, or honeybees,

or by dairying and the sale of dairy products, by any other horticultural, floricultural or viticulture use, by animal husbandry, or by any combination thereof. It also includes the current employment of land for the primary purpose of obtaining a profit by stabling or training equines including, but not limited to, providing riding lessons, training clinics and schooling shows."

13. **Retail Store, General** – less than one (1) acre - defined as "A building or portion of a building providing area for the selling of new or used goods, wares, and merchandise directly to the consumer for whom the goods are furnished."
14. **Retail Store, General** – greater than one (1) acre - defined as "A building or portion of a building providing area for the selling of new or used goods, wares, and merchandise directly to the consumer for whom the goods are furnished."
15. **Medical Clinic/Office** – defined as "An establishment where patients are admitted for study and treatment by two (2) or more licensed physicians, dentists, psychologists, or similar professional healthcare practitioners and their professional associates. The term shall include but not be limited to offices of physicians, chiropractors, dentists, and acupuncturists."
16. **Treatment Center** – defined as "One (1) or more buildings designed and used for the medical and surgical diagnosis and treatment. This definition excludes hospitals and nursing homes."

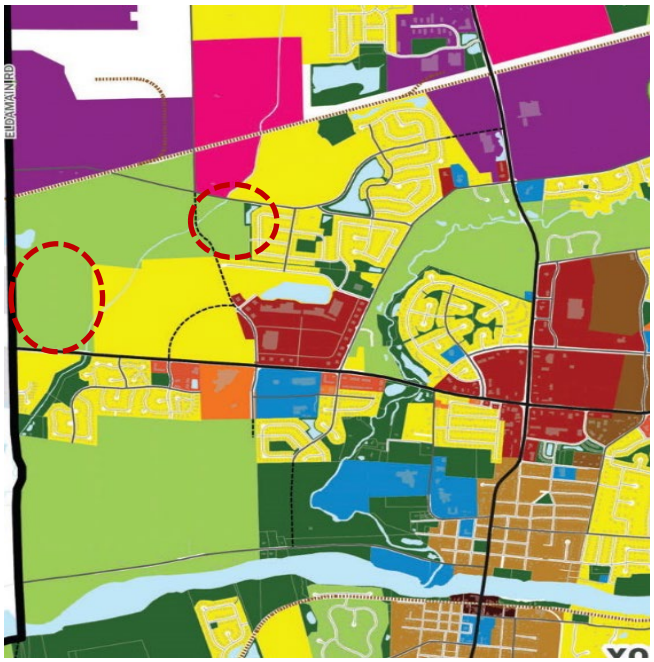
The above identified limited permitted land uses shall be in effect for the term of the annexation agreement, twenty (20) years and a sunset clause may also be recommended to revert the zoning of the annexed parcels to R-1 Single Family Suburban Residence District zoning if no development has occurred at the term of the agreement.

BUFFER SETBACK/TRANSITION ZONE – Due to the proximity of the subject parcels to an existing residential development and major roadways (US 34 and Eldamain Road), staff recommends that any future development incorporate a minimum 100-foot landscaped buffer. This buffer should include elements such as vegetation, solid fencing, green walls, stormwater management areas, living groundcover, and/or turf to ensure effective visual screening and physical separation between the land uses.

SITE PLAN REVIEW – Staff further recommends that any proposed development plan, regardless if it's an outright permitted land use, shall be required to submit any and all plans for review and approval by the City Council prior to commencing any construction, grading or other work or issuance of a building permit on the Subject Property due to the subject parcels' adjacency to an existing residential development and major roadways (US 34 & Eldamain Road).

THE COMPREHENSIVE PLAN:

The 2016 Comprehensive Plan Update designates these parcels as "Estate/Conservation Residential (ECR)" which is intended to provide flexibility for residential design to accommodate low-density detached single-family housing yet preserving sensitive environmental and scenic features. This land use designation has also been used as a holding category for parcels not likely to develop within the 10-year horizon of the comprehensive plan's timeline. Additionally, the Comprehensive Plan also states, "while the land use map should guide future land use and development and zoning decisions, it is also meant to be adjusted and changed when circumstances warrant a change in planning direction in a given area of the City."



Due to the recent trend in rezoning and development in the area, the Kelaka property annexation and rezoning to M-2 to the west/north and the DMYF, LLLP project pending approval to the south/east of the

subject parcels, staff supports the proposed M-2 General Manufacturing District zoning for a future data center campus development with conditions (see attached map).

Upon approval of the annexation and rezoning, the Comprehensive Plan will require an amendment to reflect the new M-2 General Manufacturing zoning district. The subject property's future land use designation will be revised from "Estate/Conservation Residential (ECR)" to "General Industrial (GI)".

COMMUNITY MEETING:

Per Section 10-8-13-B-1-a of the Unified Development Ordinance states a community meeting of area/neighborhood property owners, explaining the proposed Annexation conducted by the petitioner at their own expense and at a location of their choosing may be required as a recommendation from the Plan Council prior to the Planning and Zoning Commission public hearing date.

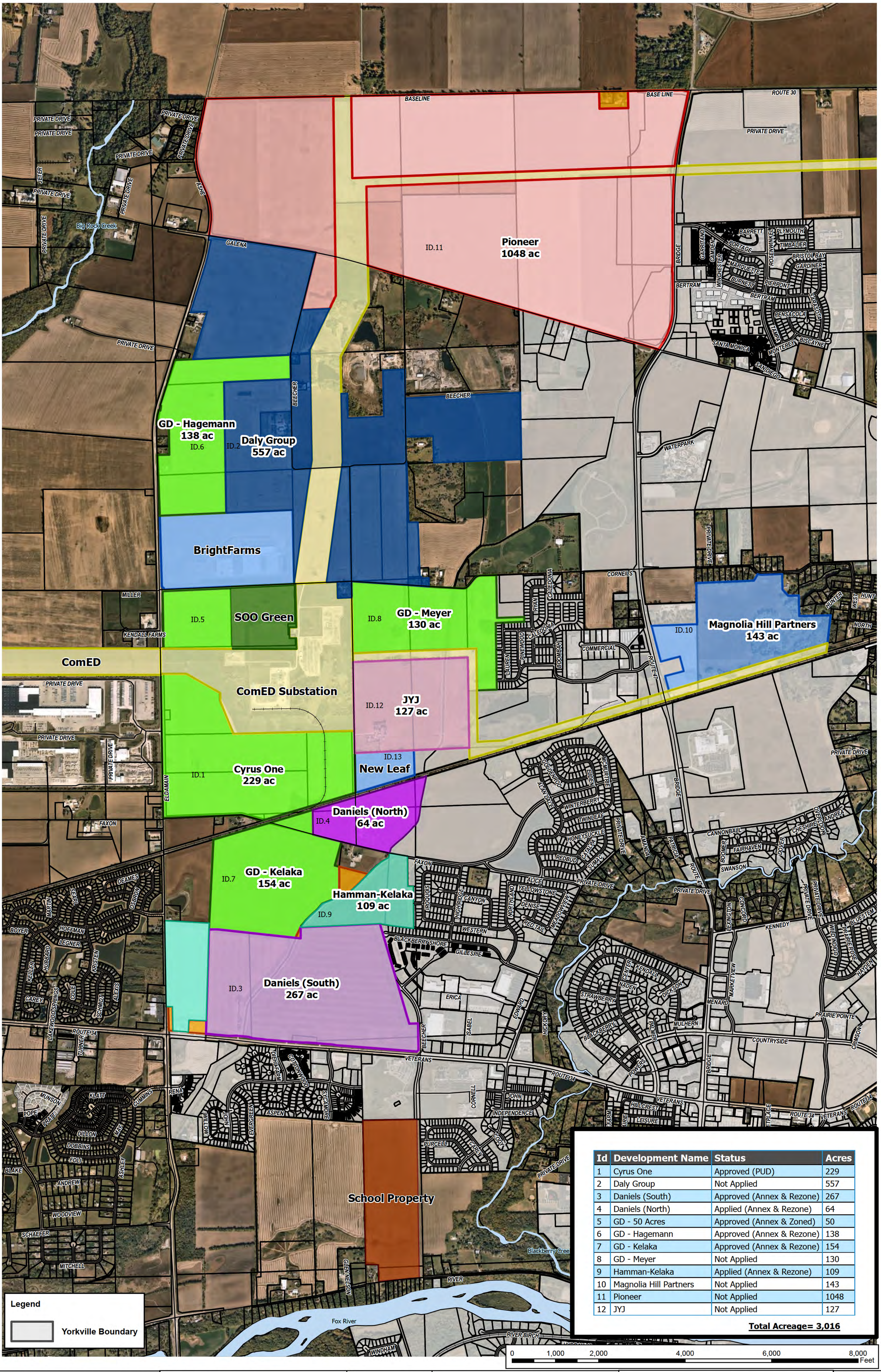
Due to the proximity of existing residential land uses immediately to the east, the Kylyn's Ridge subdivision, staff recommended the petitioner conduct a community meeting, possibly via the homeowners' association (HOA), regarding the proposed future land use of the subject property prior to the City Council and Planning and Zoning Commission public hearings. The petitioner held a community meeting on January 29th at the Old Second Bank.

STAFF COMMENTS:

The petitioner is requesting a straightforward annexation of the subject property into the City of Yorkville, without seeking any exceptions or variances from the M-2 General Manufacturing District zoning requirements. The proposed agreement includes additional restrictions on permitted land uses if the property does not develop as a data center, along with requirements for a minimum buffering setback and City Council site plan review. Staff supports this annexation request, as it aligns with the Comprehensive Plan's strategy to close unincorporated "gap" areas within Yorkville's corporate boundaries, promoting managed growth and ensuring high-quality future development.

ATTACHMENTS:

1. Map of Applied for and Approved Data Center Developments
2. Draft Annexation Agreement
3. Annexation Application
4. Public Hearing Notice
5. Plan Council Packet dated December 2, 2024



Id	Development Name	Status	Acres
1	Cyrus One	Approved (PUD)	229
2	Daly Group	Not Applied	557
3	Daniels (South)	Approved (Annex & Rezone)	267
4	Daniels (North)	Applied (Annex & Rezone)	64
5	GD - 50 Acres	Approved (Annex & Zoned)	50
6	GD - Hagemann	Approved (Annex & Rezone)	138
7	GD - Kelaka	Approved (Annex & Rezone)	154
8	GD - Meyer	Not Applied	130
9	Hamman-Kelaka	Applied (Annex & Rezone)	109
10	Magnolia Hill Partners	Not Applied	143
11	Pioneer	Not Applied	1048
12	JYJ	Not Applied	127

Total Acreage= 3,016

0 1,000 2,000 4,000 6,000 8,000 Feet

Engineering Enterprises, Inc.
52 Wheeler Road
Sugar Grove, Illinois 60554
(630) 466-6700
www.eeiweb.com

United City of Yorkville
651 Prairie Pointe Drive
Yorkville, IL 60560

DATE:	DECEMBER 2024
PROJECT NO.:	YO2442
BY:	MJT
PATH:	H:\GIS\PUBLIC\YORKVILLE\2024\YO2444
FILE:	Eldamain Transportation Planning\Eldamain Corridor Study

LOCATION MAP
UNITED CITY OF YORKVILLE, ILLINOIS

ELDAMAIN CORRIDOR PLANNING

NORTH

STATE OF ILLINOIS)
) ss.
COUNTY OF KENDALL)

ANNEXATION AGREEMENT

This Annexation Agreement (hereinafter *("Agreement")*, is made and entered into this __ day of _____ 2025, by and between the United City of Yorkville, a municipal corporation, hereinafter referred to as *"City"* and Kelaka LLC, an Illinois limited liability company, hereinafter 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 two parcels totaling approximately 62.54 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 M-2 General Manufacturing District; and

WHEREAS, it is the desire of the Mayor and City Council (the *"Corporate Authorities")* to annex the Subject Property and permit the zoning, 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 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 has duly held all public hearings relating to zoning, 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 M-2 General Manufacturing 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. Conditions of Annexation.

A. The City hereby agrees, contemporaneously with annexation, the City shall undertake procedures as required by the City's Unified Development Ordinance to rezone the Subject Property as M-2 General Manufacturing District.

B. Once rezoned as M-2 General Manufacturing District, should a Data Center not be developed on the Subject Property, only the following uses shall be permitted:

   Automobile sales and services (enclosed); Bakery (wholesale); Brewery/winery/distillery; Building material sales; Microdistillery; Microbrewery/Microwinery; Nursery/greenhouse; Research laboratories; Recreational vehicle sales and services; Storage, single-building climate controlled; Refrigerated Warehouse (Cold Storage); Agricultural; Retail store, general – less than one (1) acre; Retail store, general – greater than one (1) acre; Medical clinic/office; Treatment center; Data center.

C. Until such time as the Subject Property is developed as a Data Center or one of the permitted uses under Section 2(B) of this Agreement, the Owner may continue to grow and harvest crops on the Subject Property, as permitted in an Agricultural District.

D. Should the Subject Property not be developed as one of the permitted uses under Section 2(B) within 20 years of the effective date of this Agreement, the zoning designation for the Subject Property shall revert to R-1 Single Family Suburban Residence District.

E. Owner shall be required to submit any and all plans for review and approval by the City Council prior to commencing any construction, grading or other work on the Subject Property. No building or other permits shall be issued by the City regarding the Subject Property, nor shall any construction commence on the Subject Property without first obtaining approval from City Council under this Section 2(E).

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: David Hamman
Kelaka, LLC
13665 Townhouse Road
Newark, Illinois 60541

Section 5. 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 6. 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:

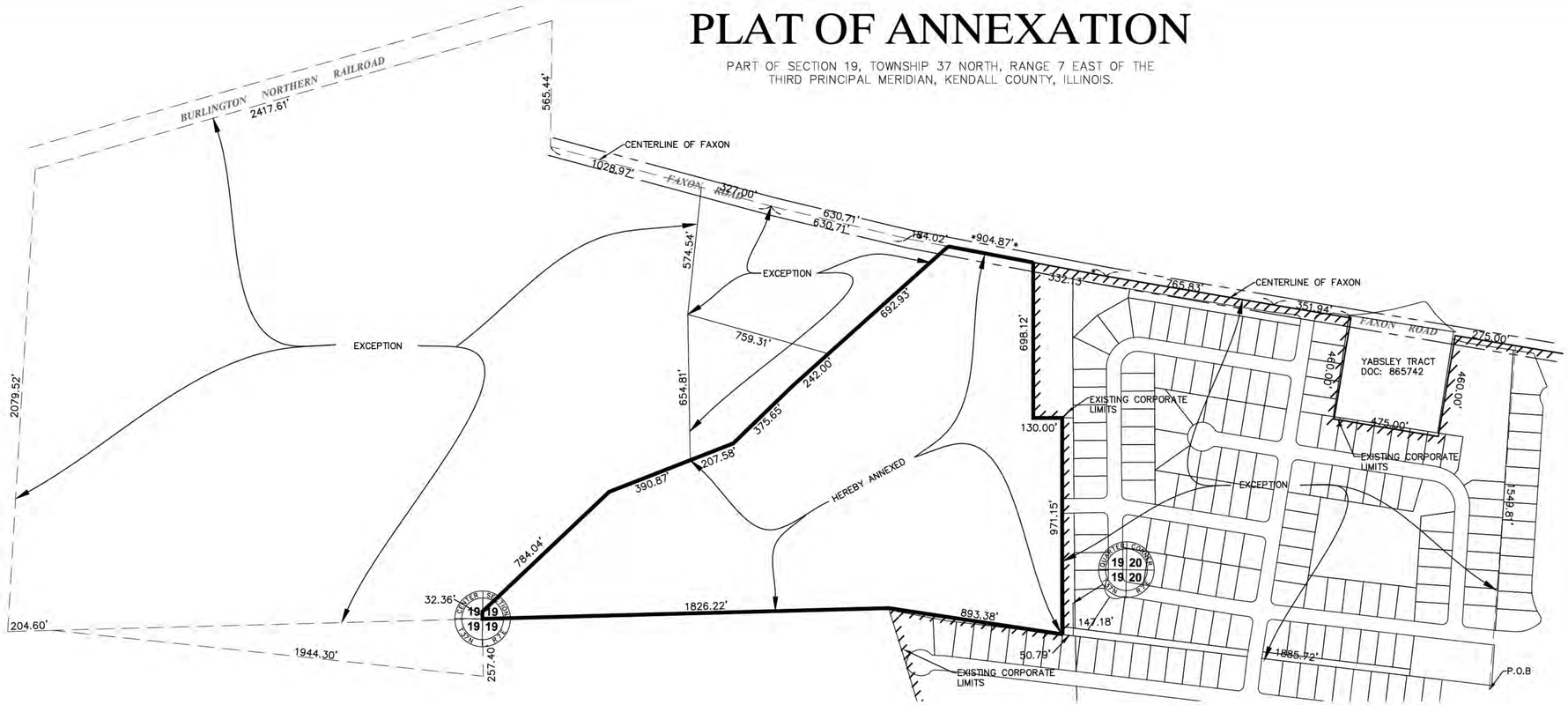
_____
City Clerk

KELAKA, LLC

By: _____

PLAT OF ANNEXATION

PART OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS.



PART OF SECTION 19, AND ALSO A PART OF THE NORTHWEST 1/4 OF SECTION 20, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 19; THENCE SOUTH 0 DEGREES, 39 MINUTES, 04 SECONDS EAST ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 147.18 FEET; THENCE SOUTH 82 DEGREES, 38 MINUTES, 28 SECONDS WEST, 1885.72 FEET TO THE EAST LINE OF SAID SECTION 19; THENCE NORTH 81 DEGREES, 25 MINUTES, 39 SECONDS WEST, 839.38 FEET TO A LINE DRAWN NORTH 88 DEGREES, 28 MINUTES, 32 SECONDS EAST FROM THE CENTER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES, 28 MINUTES, 32 SECONDS WEST, 1826.22 FEET TO THE CENTER OF SAID SECTION 19; THENCE SOUTH 0 DEGREES, 45 MINUTES, 07 SECONDS EAST ALONG THE QUARTER SECTION LINE, 257.40 FEET; THENCE NORTH 83 DEGREES, 55 MINUTES, 03 SECONDS WEST, 1944.30 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 19, WHICH IS 1930.58 FEET SOUTH 88 DEGREES, 28 MINUTES, 32 SECONDS WEST FROM THE CENTER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES, 28 MINUTES, 32 SECONDS WEST ALONG SAID NORTH LINE, 204.60 FEET; THENCE NORTH 3 DEGREES, 24 MINUTES, 35 SECONDS EAST, 2079.52 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF THE BURLINGTON NORTHERN RAILROAD, INC.; THENCE NORTHEASTERLY ALONG SAID OUTHERLY RIGHT-OF-WAY LINE ON A BEARING OF NORTH 73 DEGREES, 57 MINUTES, 26 SECONDS EAST, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, 2417.61 FEET; THENCE SOUTH 0 DEGREES, 41 MINUTES, 37 SECONDS WEST 565.44 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE SOUTH 74 DEGREES, 54 MINUTES, 09 SECONDS EAST, ALONG SAID CENTER LINE 1028.97 FEET; THENCE SOUTH 76 DEGREES, 33 MINUTES, 23 SECONDS EAST, ALONG SAID CENTERLINE 630.71 FEET; THENCE SOUTH 79 DEGREES, 19 MINUTES, 23 SECONDS EAST ALONG SAID CENTERLINE 904.87 FEET; THENCE SOUTH 80 DEGREES, 15 MINUTES, 53 SECONDS EAST ALONG SAID CENTER LINE 765.83 FEET; THENCE SOUTH 80 DEGREES, 27 MINUTES, 23 SECONDS EAST, ALONG SAID CENTER LINE 351.94 FEET TO THE NORTHWEST CORNER OF A TRACT OF LAND AS CONVEYED TO FRANCIS G. YABSLEY AND PHYLLIS A. YABSLEY, BY DOCUMENT NUMBER 865742, AS RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS, KENDALL COUNTY, ILLINOIS; THENCE ALONG THE WEST LINE OF SAID YABSLEY TRACT, SOUTH 09 DEGREES, 32 MINUTES, 37 SECONDS WEST, 460.00 FEET TO THE SOUTHWEST CORNER OF SAID YABSLEY TRACT; THENCE ALONG THE SOUTH LINE OF SAID YABSLEY TRACK, SOUTH 80 DEGREES, 27 MINUTES, 23 SECONDS EAST, 475.00 FEET TO THE SOUTHEAST CORNER OF SAID YABSLEY TRACT; THENCE ALONG THE EAST LINE OF SAID YABSLEY TRACT, NORTH 09 DEGREES, 32 MINUTES, 37 SECONDS EAST, 460.00 FEET TO THE NORTHEAST CORNER OF SAID YABSLEY TRACT, SAID POINT ALSO BEING ON THE CENTERLINE OF SAID FAXON ROAD; THENCE ALONG SAID CENTERLINE, SOUTH 80 DEGREES, 27 MINUTES, 23 SECONDS EAST, 275.00 FEET; THENCE SOUTH 04 DEGREES, 21 MINUTES, 17 SECONDS WEST, 1549.81 FEET TO THE POINT OF BEGINNING, IN THE TOWNSHIP OF BRISTOL, KENDALL COUNTY, ILLINOIS.

EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND:

THAT PART OF SECTION 19 AND ALSO THAT PART OF SECTION 20, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 19; THENCE SOUTH 00 DEGREES 39 MINUTES 04 SECONDS EAST, ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 147.18 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 82 DEGREES 38 MINUTES 28 SECONDS EAST, A DISTANCE OF 1885.72 FEET; THENCE NORTH 04 DEGREES 21 MINUTES 17 SECONDS EAST, A DISTANCE OF 1549.81 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE NORTH 80 DEGREES 27 MINUTES 23 SECONDS WEST ALONG THE CENTERLINE OF FAXON ROAD, A DISTANCE OF 275.00 FEET; THENCE SOUTH 09 DEGREES 32 MINUTES 37 SECONDS WEST, A DISTANCE OF 460.00 FEET; THENCE NORTH 80 DEGREES 27 MINUTES 23 SECONDS WEST A DISTANCE OF 475.00 FEET; THENCE NORTH 09 DEGREES 32 MINUTES 37 SECONDS EAST, A DISTANCE OF 460.00 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE NORTH 80 DEGREES 27 MINUTES 23 SECONDS WEST ALONG SAID ROAD CENTERLINE, A DISTANCE OF 351.94 FEET; THENCE NORTH 80 DEGREES 15 MINUTES 53 SECONDS WEST, ALONG THE CENTERLINE OF FAXON ROAD, A DISTANCE OF 765.83 FEET; THENCE NORTH 79 DEGREES 19 MINUTES 23 SECONDS WEST, ALONG SAID ROAD CENTERLINE, A DISTANCE OF 332.13 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 698.12 FEET; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 130.00 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 971.15 FEET; THENCE SOUTH 81 DEGREES 25 MINUTES 39 SECONDS EAST, A DISTANCE OF 50.79 FEET TO THE POINT OF BEGINNING, IN BRISTOL TOWNSHIP, KENDALL COUNTY,ILLINOIS.

AND EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND:

THAT PART OF THE NORTHEAST 1/4 OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:
COMMENCING AT THE CENTER OF SAID SECTION 19; THENCE SOUTH 00 DEGREE 46 MINUTES 07 SECONDS EAST ALONG THE QUARTER SECTION LINE, 257.40 FEET; THENCE NORTH 83 DEGREES 55 MINUTES 03 SECONDS WEST, 120.0 FEET; THENCE NORTH 22 DEGREES 13 MINUTES 31 SECONDS EAST, 296.51 FEET; THENCE NORTH 46 DEGREES 38 MINUTES 37 SECONDS EAST 788.19 FEET; THENCE NORTH 68 DEGREES 41 MINUTES 58 SECONDS EAST, 390.87 FEET FOR A POINT OF BEGINNING; THENCE NORTH 68 DEGREES 41 MINUTES 58 SECONDS EAST, 207.58 FEET; THENCE NORTH 45 DEGREES 58 MINUTES 23 SECONDS EAST, 375.65 FEET; THENCE NORTH 48 DEGREES 02 MINUTES 41 SECONDS EAST, 242.00 FEET; THENCE NORTH 48 DEGREES 12 MINUTES 10 SECONDS EAST, 692.93 FEET TO A POINT IN THE CENTER LINE OF FAXON ROAD; THENCE NORTH 79 DEGREES 19 MINUTES 23 SECONDS WEST ALONG SAID CENTER LINE, 184.02 FEET; THENCE NORTH 76 DEGREES 33 MINUTES 23 SECONDS WEST ALONG SAID CENTER LINE, 630.71 FEET TO THE CENTER LINE OF BEECHER ROAD; THENCE NORTH 74 DEGREES 54 MINUTES 09 SECONDS WEST ALONG SAID FAXON ROAD CENTER LINE, 327.00 FEET; THENCE SOUTH 06 DEGREES 6 MINUTES 20 SECONDS WEST, 574.54 FEET; THENCE SOUTH 00 DEGREES 57 MINUTES 56 SECONDS EAST, 654.81 FEET TO THE POINT OF BEGINNING, EXCEPTING THEREFROM THAT PART THEREOF CONVEYED TO WAYNE AND DELORES CRUISE BY A TRUSTEE'S DEED RECORDED JUNE 4, 1990 AS DOCUMENT NO. 903549 IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS.

AND EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND

THAT PART OF THE NE 1/4 OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE CENTER OF SAID SECTION 19, THENCE SOUTH 0 DEGREES 46 MINUTES 07 SECONDS EAST ALONG THE QUARTER SECTION LINE, 257.40 FEET; THENCE NORTH 83 DEGREES 55 MINUTES 03 SECONDS WEST, 120.00 FEET; THENCE NORTH 22 DEGREES 13 MINUTES 31 SECONDS EAST, 296.61 FEET; THENCE NORTH 46 DEGREES 38 MINUTES 37 SECONDS EAST, 788.19 FEET; THENCE NORTH 68 DEGREES 41 MINUTES 58 SECONDS EAST, 698.46 FEET; THENCE NORTH 45 DEGREES 68 MINUTES 23 SECONDS EAST, 375.65 FEET; THENCE NORTH 48 DEGREES 02 MINUTES 41 SECONDS EAST, 242.00 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 46 DEGREES 12 MINUTES 10 SECONDS EAST, 692.93 FEET TO A POINT IN THE CENTERLINE OF FAXON ROAD; THENCE NORTH 79 DEGREES 19 MINUTES 23 SECONDS WEST ALONG SAID CENTERLINE, 184.02 FEET, THENCE NORTH 76 DEGREES 33 MINUTES 23 SECONDS WEST ALONG SAID CENTERLINE, 630.71 FEET; THENCE NORTH 74 DEGREES 54 MINUTES 09 SECONDS WEST ALONG SAID CENTERLINE, 350.00 FEET; THENCE SOUTH 13 DEGREES 26 MINUTES 37 SECONDS WEST, 670.60 FEET; THENCE SOUTH 76 DEGREES 33 MINUTES 23 SECONDS EAST, 759.31 FEET TO THE POINT OF BEGINNING IN THE TOWNSHIP OF BRISTOL, KENDALL COUNTY, ILLINOIS.

AND EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND.

THAT PART OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: BEGINNING AT THE CENTER OF SAID SECTION 19; THENCE SOUTH 00 DEGREES 46 MINUTES 07 SECONDS EAST, ALONG THE QUARTER SECTION LINE, A DISTANCE OF 257.40 FEET; THENCE NORTH 83 DEGREES 55 MINUTES 03 SECONDS WEST, 1944.30 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19, WHICH IS 1930.58 FEET SOUTH 88 DEGREES 28 MINUTES 32 SECONDS WEST FROM THE CENTER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES 28 MINUTES 32 SECONDS WEST ALONG SAID NORTH LINE, 204.49 FEET; THENCE NORTH 03 DEGREES 24 MINUTES 35 SECONDS EAST, 2079.52 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF THE BURLINGTON NORTHERN – SANTE FE RAILWAY; THENCE NORTH 73 DEGREES 57 MINUTES 26 SECONDS EAST ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, 2417.61 FEET; THENCE SOUTH 00 DEGREES 41 MINUTES 37 SECONDS WEST, 565.44 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE SOUTH 74 DEGREES 54 MINUTES 09 SECONDS EAST ALONG THE CENTERLINE, 678.89 FEET TO A POINT THAT IS 350.00 FEET NORTH 74 DEGREES 54 MINUTES 09 SECONDS WEST OF THE CENTERLINE OF BEECHER ROAD; THENCE SOUTH 13 DEGREES 26 MINUTES 37 SECONDS WEST, 570.50 FEET; THENCE SOUTH 76 DEGREES 33 MINUTES 23 SECONDS EAST, 96.63 FEET; THENCE SOUTH 00 DEGREES 57 MINUTES 56 SECONDS EAST, 654.81 FEET; THENCE SOUTH 68 DEGREES 41 MINUTES 58 SECONDS WEST, 390.87 FEET; THENCE SOUTH 46 DEGREES 38 MINUTES 37 SECONDS WEST, 784.04 FEET TO THE QUARTER SECTION LINE; THENCE SOUTH 00 DEGREES 46 MINUTES 07 SECONDS EAST, ALONG SAID QUARTER SECTION LINE, 32.36 FEET TO THE POINT OF BEGINNING.

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 18th DAY OF DECEMBER 2024.

BY: _____
ILLINOIS PROFESSIONAL LAND SURVEYOR NO 3581
(EXP. 11/30/26)

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

NO.	DATE	REVISIONS

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

PLAT OF ANNEXATION

DATE: DECEMBER 18, 2024
PROJECT NO. YO2461
FILE NO YO2461 PLAT OF ANNEXATION

United City of Yorkville
651 Prairie Pointe Drive
Yorkville, Illinois, 60560
Telephone: 630-553-4350
Fax: 630-553-7575
Website: www.yorkville.il.us

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:

- ☐ 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

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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Yorkville, Illinois, 60560
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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

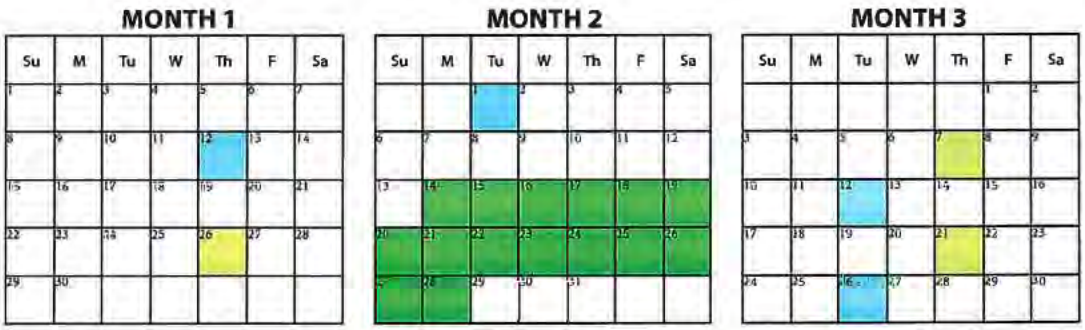
The entities listed below must be notified in writing, by certified or registered mail, of the proposed annexations at least ten (10) days prior to the action taken at City Council. Notices must be delivered to the individual board members at their respective home addresses:

- ☐ 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 ANNEXATION

INVOICE & WORKSHEET PETITION APPLICATION		
CONCEPT PLAN REVIEW	☐ Engineering Plan Review deposit $500.00	Total: $
AMENDMENT	☐ Annexation $500.00 ☐ Plan $500.00 ☐ Plat $500.00 ☐ P.U.D. $500.00	Total: $
ANNEXATION	☒ $250.00 + $10 per acre for each acre over 5 acres 62.54 (# of Acres) - 5 = 57.54 (Acres over 5) x $10 = $575.40 (Amount for Extra Acres) + $250 = $ 825.40 (Total Amount)	Total: $ 825.40
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* --- (# of Acres) - 5 = --- (Acres over 5) x $10 = --- (Amount for Extra Acres) + $200 = $ 200.00 (Total Amount)	Total: $ 200.00
SPECIAL USE	☐ $250.00 + $10 per acre for each acre over 5 acres _____ (# of Acres) - 5 = _____ (Acres over 5) x $10 = _____ (Amount for Extra Acres) + $250 = $ _____ (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 $5,000.00 ☐ 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	Total: $ 2,500.00 (minimum required)
OUTSIDE CONSULTANTS DEPOSIT *Legal, land planner, zoning coordinator, environmental services*	For Annexation, Subdivision, Rezoning, and Special Use: ☐ Less than 2 acres $1,000.00 ☐ Over 2 acres, less than 10 acres $2,500.00 ☒ Over 10 acres $5,000.00	Total: $ 5,000.00
	TOTAL AMOUNT DUE:	$ 8,525.40

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APPLICATION FOR ANNEXATION

DATE:	PZC NUMBER:	DEVELOPMENT NAME:

PETITIONER INFORMATION

NAME: David Hamman, Manager — COMPANY: Kelaka LLC

MAILING ADDRESS: 13665 Townhouse Road

CITY, STATE, ZIP: Newark, Illinois 60541 — TELEPHONE: ○ BUSINESS ○ HOME

EMAIL: daveh.hhstone@gmail.com — FAX:

PROPERTY INFORMATION

NAME OF HOLDER OF LEGAL TITLE: Kelaka LLC, an Illinois limited liability company

IS THE PROPERTY OCCUPIED OR VACANT: Vacant

IF OCCUPIED, PLEASE LIST ALL NAMES OF ELECTORS (THOSE REGISTERED TO VOTE) RESIDING ON THE PROPERTY: N/A

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

PROPERTY STREET ADDRESS: Faxon Road

DESCRIPTION OF PROPERTY'S PHYSICAL LOCATION:

62.54 acres of vacant land located south of Faxon Road, and West of Iroquois Lane

CURRENT ZONING CLASSIFICATION: A1 Kendall County

ZONING AND LAND USE OF SURROUNDING PROPERTIES

NORTH: Kendall County A1

EAST: R-2 Single-Family, Yorkville

SOUTH: R-2 Single-Family, Yorkville

WEST: Kendall County A1

KENDALL COUNTY PARCEL IDENTIFICATION NUMBER(S)

02-19-200-008			
02-19-200-011			

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APPLICATION FOR ANNEXATION

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

ATTORNEY INFORMATION

NAME: John F. Philipchuck	COMPANY: Dommermuth Cobine West Gensler Philipchuck and Corrigan, Ltd.
MAILING ADDRESS: 111 E. Jefferson Avenue, Suite 200	
CITY, STATE, ZIP: Naperville, Illinois 60540	TELEPHONE: 630-355-5800 ext 115
EMAIL: jfp@dbcw.com	FAX: 630-355-5976

ENGINEER INFORMATION

NAME:	COMPANY:
MAILING ADDRESS:	
CITY, STATE, ZIP:	TELEPHONE:
EMAIL:	FAX:

LAND PLANNER/SURVEYOR INFORMATION

NAME:	COMPANY:
MAILING ADDRESS:	
CITY, STATE, ZIP:	TELEPHONE:
EMAIL:	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
651 Prairie Pointe Drive
Yorkville, Illinois, 60560
Telephone: 630-553-4350
Fax: 630-553-7575
Website: www.yorkville.il.us

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.

Dave Hamman — 10-29-2024

PETITIONER SIGNATURE - David Hamman — DATE

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

Kelaka LLC, an Illinois limited liability company

Dave Hamman — 10-29-2024

OWNER SIGNATURE - David Hamman, Manager — DATE

SUBSCRIBED and SWORN to before me this 29th day of October, 2024.

John Fred Philipchuck

NOTARY PUBLIC

JOHN FRED PHILIPCHUCK
OFFICIAL SEAL
Notary Public - State of Illinois
Commission No. 987046
My Commission Expires February 13, 2028

THIS APPLICATION MUST BE NOTARIZED PLEASE NOTARIZE HERE:

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

APPLICANT DEPOSIT ACCOUNT/ ACKNOWLEDGMENT OF FINANCIAL RESPONSIBILITY

PROJECT NUMBER:	FUND ACCOUNT NUMBER:	PROPERTY ADDRESS: 21.12 acres of vacant land South of Faxon Road; West of Iroquois Lane

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: Kelaka LLC	COMPANY:
MAILING ADDRESS: 13665 Townhouse Road	
CITY, STATE, ZIP: Newark, Illinois 60541	TELEPHONE:
EMAIL: daveh.hhstone@gmail.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.

Kelaka LLC
PRINT NAME

Owner
TITLE

Dave Hamman
SIGNATURE* David Hamman, Manager

10-29-2024
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

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
651 Prairie Pointe Drive
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:	PARCEL NUMBER:
SUBDIVISION:	LOT/UNIT:
APPLICANT INFORMATION	
NAME:	TELEPHONE: ○ HOME ○ BUSINESS
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, 651 Prairie Pointe Drive, 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 DATE

DATE RETURNED: _____

RECEIVED BY: _____ PZC# _____

EXHIBIT A
LEGAL DESCRIPTION

PART OF SECTION 19, AND ALSO A PART OF THE NORTHWEST 1/4 OF SECTION 20, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 19; THENCE SOUTH 0 DEGREES, 39 MINUTES, 04 SECONDS EAST ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 147.18 FEET; THENCE SOUTH 82 DEGREES, 38 MINUTES, 28 SECONDS EAST, 1885.72 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 82 DEGREES, 38 MINUTES, 28 SECONDS WEST, 1885.72 FEET TO THE EAST LINE OF SAID SECTION 19; THENCE NORTH 81 DEGREES, 25 MINUTES, 39 SECONDS WEST, 839.38 FEET TO A LINE DRAWN NORTH 88 DEGREES, 28 MINUTES, 32 SECONDS EAST FROM THE CENTER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES, 28 MINUTES, 32 SECONDS WEST, 1826.22 FEET TO THE CENTER OF SAID SECTION 19; THENCE SOUTH 0 DEGREES, 45 MINUTES, 07 SECONDS EAST ALONG THE QUARTER SECTION LINE, 257.40 FEET; THENCE NORTH 83 DEGREES, 55 MINUTES, 03 SECONDS WEST, 1944.30 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 19, WHICH IS 1930.58 FEET SOUTH 88 DEGREES, 28 MINUTES, 32 SECONDS WEST FROM THE CENTER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES, 28 MINUTES, 32 SECONDS WEST ALONG SAID NORTH LINE, 204.60 FEET; THENCE NORTH 3 DEGREES, 24 MINUTES, 35 SECONDS EAST, 2079.52 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF THE BURLINGTON NORTHERN RAILROAD, INC.; THENCE NORTHEASTERLY ALONG SAID OUTHERLY RIGHT-OF-WAY LINE ON A BEARING OF NORTH 73 DEGREES, 57 MINUTES, 26 SECONDS EAST, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, 2417.61 FEET; THENCE SOUTH 0 DEGREES, 41 MINUTES, 37 SECONDS WEST 565.44 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE SOUTH 74 DEGREES, 54 MINUTES, 09 SECONDS EAST, ALONG SAID CENTER LINE 1028.97 FEET; THENCE SOUTH 76 DEGREES, 33 MINUTES, 23 SECONDS EAST, ALONG SAID CENTERLINE 630.71 FEET; THENCE SOUTH 79 DEGREES, 19 MINUTES, 23 SECONDS EAST ALONG SAID CENTERLINE 904.87 FEEET; THENCE SOUTH 80 DEGREES, 15 MINUTES, 53 SECONDS EAST ALONG SAID CENTER LINE 765.83 FEET; THENCE SOUTH 80 DEGREES, 27 MINUTES, 23 SECONDS EAST, ALONG SAID CENTER LINE 351.94 FEET TO THE NORTHWEST CORNER OF A TRACT OF LAND AS CONVEYED TO FRANCIS G. YABSLEY AND PHYLLIS A. YABSLEY, BY DOCUMENT NUMBER 865742, AS RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS, KENDALL COUNTY, ILLINOIS; THENCE ALONG THE WEST LINE OF SAID YABSLEY TRACT, SOUTH 09 DEGREES, 32 MINUTES, 37 SECONDS WEST, 460.00 FEET TO THE SOUTHWEST CORNER OF SAID YABSLEY TRACT; THENCE ALONG THE SOUTH LINE OF SAID YABSLEY TRACK, SOUTH 80 DEGREES, 27 MINUTES, 23 SECONDS EAST, 475.00 FEET TO THE SOUTHEAST CORNER OF SAID YABSLEY TRACT; THENCE ALONG THE EAST LINE OF SAID YABSLEY TRACT, NORTH 09 DEGREES, 32 MINUTES, 37 SECONDS EAST, 460.00 FEET TO THE NORTHEAST CORNER OF SAID YABSLEY TRACT, SAID POINT ALSO BEING IN THE CENTERLINE OF SAID FAXON ROAD; THENCE ALONG SAID CENTERLINE, SOUTH 80 DEGREES, 27 MINUTES, 23 SECONDS EAST, 275.00 FEET; THENCE SOUTH 04 DEGREES, 21 MINUTES, 17 SECONDS WEST, 1549.81 FEET TO THE POINT OF BEGINNING, IN THE TOWNSHIP OF BRISTOL, KENDALL COUNTY, ILLINOIS.

EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND:

THAT PART OF SECTION 19 AND ALSO THAT PART OF SECTION 20, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 19; THENCE SOUTH 00 DEGREES 39 MINUTES 04 SECONDS EAST, ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 147.18 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 82 DEGREES 38 MINUTES 28 SECONDS EAST, A DISTANCE OF 1885,72 FEET; THENCE NORTH 04 DEGREES 21 MINUTES 17 SECONDS EAST, A DISTANCE OF 1549.81 FEET TO THE CENTERLINE OF FAXON ROAD: THENCE NORTH 80 DEGREES 27 MINUTES 23

SECONDS WEST ALONG THE CENTERLINE OF FAXON ROAD, A DISTANCE OF 275.00 FEET; THENCE SOUTH 09 DEGREES 32 MINUTES 37 SECONDS WEST, A DISTANCE OF 460.00 FEET; THENCE NORTH 80 DEGREES 27 MINUTES 23 SECONDS WEST A DISTANCE OF 475.00 FEET; THENCE NORTH 09 DEGREES 32 MINUTES 37 SECONDS EAST, A DISTANCE OF 460.00 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE NORTH 80 DEGREES 27 MINUTES 23 SECONDS WEST ALONG SAID ROAD CENTERLINE, A DISTANCE OF 351.94 FEET; THENCE NORTH 80 DEGREES 15 MINUTES 53 SECONDS WEST, ALONG THE CENTERLINE OF FAXON ROAD, A DISTANCE OF 765.83 FEET; THENCE NORTH 79 DEGREES 19 MINUTES 23 SECONDS WEST, ALONG SAID ROAD CENTERLINE, A DISTANCE OF 332.13 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 698.12 FEET; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 130.00 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 971.15 FEET; THENCE SOUTH 81 DEGREES 25 MINUTES 39 SECONDS EAST, A DISTANCE OF 50.79 FEET TO THE POINT OF BEGINNING, IN BRISTOL TOWNSHIP, KENDALL COUNTY,ILLINOIS.

AND EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND:

THAT PART OF THE NORTHEAST 1/4 OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:
COMMENCING AT THE CENTER OF SAID SECTION 19; THENCE SOUTH 00 DEGREES 46 MINUTES 07 SECONDS EAST ALONG THE QUARTER SECTION LINE, 257.40 FEET; THENCE NORTH 83 DEGREES 55 MINUTES 03 SECONDS WEST, 120.0 FEET; THENCE NORTH 22 DEGREES 13 MINUTES 31 SECONDS EAST, 296.51 FEET; THENCE NORTH 46 DEGREES 38 MINUTES 37 SECONDS EAST 788.19 FEET; THENCE NORTH 68 DEGREES 41 MINUTES 58 SECONDS EAST, 390.87 FEET FOR A POINT OF BEGINNING; THENCE NORTH 68 DEGREES 41 MINUTES 58 SECONDS EAST, 207.58 FEET; THENCE NORTH 45 DEGREES 58 MINUTES 23 SECONDS EAST, 375.65 FEET; THENCE NORTH 48 DEGREES 02 MINUTES 41 SECONDS EAST, 242.00 FEET; THENCE NORTH 48 DEGREES 12 MINUTES 10 SECONDS EAST, 692.93 FEET TO A POINT IN THE CENTER LINE OF FAXON ROAD; THENCE NORTH 79 DEGREES 19 MINUTES 23 SECONDS WEST ALONG SAID CENTER LINE, 184.02 FEET; THENCE NORTH 76 DEGREES 33 MINUTES 23 SECONDS WEST ALONG SAID CENTER LINE, 630.71 FEET TO THE CENTER LINE OF BEECHER ROAD; THENCE NORTH 74 DEGREES 54 MINUTES 09 SECONDS WEST ALONG SAID FAXON ROAD CENTER LINE, 327.00 FEET; THENCE SOUTH 06 DEGREES 6 MINUTES 20 SECONDS WEST, 574.54 FEET; THENCE SOUTH 00 DEGREES 57 MINUTES 56 SECONDS EAST, 654.81 FEET TO THE POINT OF BEGINNING, EXCEPTING THEREFROM THAT PART THEREOF CONVEYED TO WAYNE AND DELORES CRUISE BY A TRUSTEE'S DEED RECORDED JUNE 4, 1990 AS DOCUMENT NO. 903549 IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS.

AND EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND

THAT PART OF THE NE 1/4 OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE CENTER OF SAID SECTION 19, THENCE SOUTH 0 DEGREES 46 MINUTES 07 SECONDS EAST ALONG THE QUARTER SECTION LINE, 257.40 FEET; THENCE NORTH 63 DEGREES 66 MINUTES 03 SECONDS WEST, 120.00 FEET; THENCE NORTH 22 DEGREES 13 MINUTES 31 SECONDS EAST, 296.61 FEET; THENCE NORTH 46 DEGREES 38 MINUTES 37 SECONDS EAST, 788.19 FEET; THENCE NORTH 68 DEGREES 41 MINUTES 68 SECONDS EAST, 698.46 FEET; THENCE NORTH 45 DEGREES 68 MINUTES 23 SECONDS EAST, 375.65 FEET; THENCE NORTH 48 DEGREES 02 MINUTES 41 SECONDS EAST, 242.00 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 46 DEGREES 12 MINUTES 10 SECONDS EAST, 692.93 FEET TO A POINT IN THE CENTERLINE OF FAXON ROAD; THENCE NORTH 79 DEGREES 19 MINUTES 23 SECONDS WEST ALONG SAID CENTERLINE, 184.02 FEET, THENCE NORTH 76 DEGREES 33 MINUTES 23 SECONDS WEST ALONG SAID CENTERLINE, 630.71 FEET; THENCE NORTH 74 DEGREES 54 MINUTES 09 SECONDS WEST ALONG SAID CENTERLINE, 350.00 FEET; THENCE SOUTH 13 DEGREES 26 MINUTES 37

SECONDS WEST, 670.60 FEET; THENCE SOUTH 76 DEGREES 33 MINUTES 23 SECONDS EAST, 759.31 FEET TO THE POINT OF BEGINNING IN THE TOWNSHIP OF BRISTOL, KENDALL COUNTY, ILLINOIS.

AND EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND

THAT PART OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE CENTER OF SAID SECTION 19; THENCE SOUTH 00 DEGREES 46 MINUTES 07 SECONDS EAST, ALONG THE QUARTER SECTION LINE, A DISTANCE OF 257.40 FEET; THENCE NORTH 83 DEGREES 55 MINUTES 03 SECONDS WEST, 1944.30 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 19, WHICH IS 1930.58 FEET SOUTH 88 DEGREES 28 MINUTES 32 SECONDS WEST FROM THE CENTER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES 28 MINUTES 32 SECONDS WEST ALONG SAID NORTH LINE, 204.49 FEET; THENCE NORTH 03 DEGREES 24 MINUTES 35 SECONDS EAST, 2079.52 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF THE BURLINGTON NORTHERN - SANTE FE RAILWAY; THENCE NORTH 73 DEGREES 57 MINUTES 26 SECONDS EAST ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, 2417.61 FEET; THENCE SOUTH 00 DEGREES 41 MINUTES 37 SECONDS WEST, 565.44 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE SOUTH 74 DEGREES 54 MINUTES 09 SECONDS EAST ALONG THE CENTERLINE, 678.89 FEET TO A POINT THAT IS 350.00 FEET NORTH 74 DEGREES 54 MINUTES 09 SECONDS WEST OF THE CENTERLINE OF BEECHER ROAD; THENCE SOUTH 13 DEGREES 26 MINUTES 37 SECONDS WEST, 570.50 FEET; THENCE SOUTH 76 DEGREES 33 MINUTES 23 SECONDS EAST, 96.63 FEET; THENCE SOUTH 00 DEGREES 57 MINUTES 56 SECONDS EAST, 654.81 FEET; THENCE SOUTH 68 DEGREES 41 MINUTES 58 SECONDS WEST, 390.87 FEET; THENCE SOUTH 46 DEGREES 38 MINUTES 37 SECONDS WEST, 784.04 FEET TO THE QUARTER SECTION LINE; THENCE SOUTH 00 DEGREES 46 MINUTES 07 SECONDS EAST, ALONG SAID QUARTER SECTION LINE, 32.36 FEET TO THE POINT OF BEGINNING.

EXHIBIT B

02-19-200-001 ROBERT M ILDEFONSA LIV TRUST LOFTUS 11159 FAXON RD YORKVILLE IL 60560	**02-19-200-002** YORKVILLE MEADOWS LLC C/O SHERRIE CHIOU 80 REMINGTON RD. SCHAUMBURG IL 60173	**02-20-100-011** YORKVILLE MEADOWS LLC C/O SHERRIE CHIOU 80 REMINGTON RD. SCHAUMBURG IL 60173
02-19-200-005 LA FORTALEZA LLC 1481 PLAINFIELD RD OSWEGO IL 60543	**02-19-200-011** KELAKA LLC 181 S LINCOLNWAY NORTH AURORA IL 60542	**02-19-400-009** DANIELS MALINSKI YORKVILLE FAMILY LLLP 405 E SHERIDAN RD LAKE BLUFF IL 60044
02-19-200-010 KYLYNS RIDGE HOMEOWNERS ASSN MAXIMUM PROPERTY MGMT PO BOX 1094 YORKVILLE IL 60560	**02-20-125-023** KYLYNS RIDGE HOMEOWNERS ASSN MAXIMUM PROPERTY MGMT PO BOX 1094 YORKVILLE IL 60560	**02-20-125-002** UNITED CITY OF YORKVILLE 651 PRAIRIE POINTE DR YORKVILLE IL 60560
02-20-125-008 LOUIS A ARCH 2389 IROQUOIS LN YORKVILLE IL 60560	**02-20-125-009** SEAN A CARA L BAKEL 2387 IROQUOIS LN YORKVILLE IL 60560	**02-20-125-010** RAYMOND E MICHELLE E SHIELDS 2385 IROQUOIS LN YORKVILLE IL 60560
02-20-125-011 KYLE NICOLE OSTERLOH 2383 IROQUOIS LN YORKVILLE IL 60560	**02-20-125-012** ALFREDA SOLISZKO 2381 IROQUOIS LN YORKVILLE IL 60560	**02-20-125-013** OSCAR JR URBINA 2361 IROQUOIS LN YORKVILLE IL 60560
02-20-125-014 DONALD T AMY L VANDERMYDE 2341 IROQUOIS LN YORKVILLE IL 60560	**02-20-125-015** THOMAS CHRISTY FALLON 2321 IROQUOIS LN YORKVILLE IL 60560	**2-20-125-016** JAMES P CAROL J KICHER 2301 IROQUOIS LN YORKVILLE IL 60560
02-20-125-017 TIMOTHY ANDREW MARIA JANE KESSLER 2281 IROQUOIS LN YORKVILLE IL 60560	**02-20-125-018** CHAD M AMBER R GREEN 2261 IROQUOIS LN YORKVILLE IL 60560	**02-20-125-019** ROBERT ELIZABETH DELGADO 2241 IROQUOIS LN YORKVILLE IL 60560
02-20-125-020 LUZ M DELACRUZ JUAN M SILVA 2221 IROQUOIS LN YORKVILLE IL 60560	**02-20-125-021** JEFFREY C GROS REV LIV TR 2201 IROQUOIS LN YORKVILLE IL 60560	**02-20-125-022** KYLYNS RIDGE HOMEOWNERS ASSN MAXIMUM PROPERTY MGMT PO BOX 1094 YORKVILLE IL 60560
02-20-126-015 ROBERTO VANESSA A GARCIA 2202 IROQUOIS LN YORKVILLE IL 60560	**02-20-126-014** JEAN INGEMUNSON DEC LIV TR 2222 IROQUOIS LN YORKVILLE IL 60560	**2-20-126-013** GARY E KRYSTAL L ANDERSON 2242 IROQUOIS LN YORKVILLE IL 60560
02-20-126-012 JERRY F CAROLE J NIEWOLD TR 2262 IROQUOIS LN YORKVILLE IL 60560	**02-20-126-011** SIRINTHONE SAMANTHA CHRISTOPHER MICHAEL DIPPING 2282 IROQUOIS LN YORKVILLE IL 60560	**02-20-126-010** ERIC D VIGH 2302 IROQUOIS LN YORKVILLE IL 60560
02-20-126-009 MICAHEL G ANTONETTE M PETERSEN 2322 IROQUOIS LN YORKVILLE IL 60560	**02-20-126-008** RYAN P MALLORY A SUPPLE 2342 IROQUOIS LN YORKVILLE IL 60560	**02-20-126-007** KAREN DEANGELIS REV TRUST 2384 IROQUOIS LN YORKVILLE IL 60560

EXHIBIT B

02-20-126-006 ARLENE M PEDERSEN TR 2386 IROQUOIS LN YORKVILLE IL 60560	**02-20-126-005** JOHN ANITA FAY 2388 IROQUOIS LN YORKVILLE IL 60560	**02-20-126-004** BLAKE CLOUGH MELINDA M HAFENRICHTER 2392 IROQUOIS LN YORKVILLE IL 60560
02-20-126-030 BRIAN JENNIFER BRASFIELD 981 CANYON TRL CT YORKVILLE IL 60560	**02-20-126-029** ROBERT ROSEMARY FISCHER 991 CANYON TRAIL CT YORKVILLE IL 60560	**02-20-126-028** NATHAN B SARAH S BAXA 1001 CANYON TRL CT YORKVILLE IL 60560
02-20-126-027 LORI A QUILES 1002 CANYON TRAIL CT YORKVILLE IL 60560	**02-20-126-026** DAVID V GINA M DAMATO 992 CANYON TRAIL CT YORKVILLE IL 60560	**02-20-126-025** STEV M MICHELLE HALBESMA 982 CANYON TRAIL CT YORKVILLE IL 60560
02-20-126-018 CHRISTOPHER JEANNE ARBET 1021 WHITE PLAINS LN YORKVILLE IL 60560	**02-20-126-017** KATHLEEN A WORLEY 1031 WHITE PLAINS LN YORKVILLE IL 60560	**02-20-126-016** SCOTT DOUGLAS SMITH 1041 WHITE PLAINS LN YORKVILLE IL 60560
02-20-128-005 KYLYNS RIDGE HOMEOWNERS ASSN MAXIMUM PROPERTY MGMT PO BOX 1094 YORKVILLE IL 60560	**02-20-128-001** MATTHEW HUBER 2181 IROQUOIS LN YORKVILLE IL 60560	**02-20-128-002** STEVEN CAROL F ROGERS 2161 IROQUOIS LN YORKVILLE IL 60560
02-20-128-003 PAUL P MARIE E REULAND 2141 IROQUOIS LN YORKVILLE IL 60560	**02-20-128-004** ETHAN ERIN TRZEBIATOWSKI 2121 IROQUOIS LN YORKVILLE IL 60560	**02-20-325-001** TODD W IDERAN LINDA A SKOGEN 2101 IROQUOIS LN YORKVILLE IL 60560
02-20-325-002 MICHAEL SARAH TESCH 1184 WESTERN LN YORKVILLE IL 60560	**02-20-325-003** NICOLE MATTHEW DABROS 1164 WESTERN LN YORKVILLE IL 60560	**02-20-325-004** JEFFREY NANCY HEWLETT 1144 WESTERN LN YORKVILLE IL 60560-4585
02-20-325-005 MUSTAFA MOHAMMED 1124 WESTERN LN YORKVILLE IL 60560	**02-20-325-006** JEREMY J RACHEL M ALLWAY 1104 WESTERN LN YORKVILLE IL 60560	**02-20-325-007** BRADLEY R BEACH 1084 WESTERN LN YORKVILLE IL 60560
02-20-127-008 IAROSLAV DERKACH 1163 WESTERN LN YORKVILLE IL 60560	**02-20-127-009** MUNOZ KAROLL Z PAYNE TYRELL M 1143 WESTERN LN YORKVILLE IL 60560	**02-20-127-010** ERIK R KRISTIN E ANDERSON 1123 WESTERN LN YORKVILLE IL 60560
2-20-127-011 ESCAMILLA ELIDIA CASTILLO ALFREDO 1103 WESTERN LN YORKVILLE IL 60560	**02-20-127-012** STEVEN R SR DEBRA J SEPE 1083 WESTERN LN YORKVILLE IL 60560	**02-20-127-003** DOUGLAS J MYNATT 1002 WHITE PLAINS LN YORKVILLE IL 60560
02-20-127-004 MATTHEW BERARD 1022 WHITE PLAINS LN YORKVILLE IL 60560	**02-20-127-005** MATTHEW C NICOLE KAHLE 1032 WHITE PLAINS LN YORKVILLE IL 60560	**02-20-127-006** GREGORY J JAMIE L PATRICIA A CHIPMAN 1042 WHITE PLAINS LN YORKVILLE IL 60560
2-20-127-007 MICHAEL J ZABRAMSKI 1052 WHITE PLAINS LN YORKVILLE IL 60560	**02-19-480-001** DONALD S MARY A MAHER BARTALONE 1171 BLACKBERRY SHORE LN YORKVILLE IL 60560	**02-19-480-002** JENNIFER L JONATHON D KLOTZ 1161 BLACKBERRY SHORE LN YORKVILLE IL 60560

EXHIBIT B

02-19-480-003 JONATHAN M KAREN D STALLER 1151 BLACKBERRY SHORE LN YORKVILLE IL 60560	**02-19-480-004** NANCY L MONDEK TRUST 1141 BLACKBERRY SHORE LN YORKVILLE IL 60560	**02-19-480-005** BRIAN ANTHONY BAILEY ROSE CARRABOTTA 1131 BLACKBERRY SHORE LN YORKVILLE IL 60560
02-19-480-006 KENNETH E MARY F CRISER 1121 BLACKBERRY SHORE LN YORKVILLE IL 60560	**2-19-480-007** ALAN PATRICIA STEPKA 1111 BLACKBERRY SHORE LN YORKVILLE IL 60560	**02-19-480-008** DONALD J JR SNYDER 1101 BLACKBERRY SHORE LN YORKVILLE IL 60560
02-19-480-009 CRUZ CONTRERAS MARIA GABRIELA DUARTE CARLOS JULIAN 1091 BLACKBERRY SHORE LN YORKVILLE IL 60560	**02-20-352-001** MCCUE DEVELOPMENT INC P O BOX 154 BRISTOL IL 60512	**02-20-352-002** RICARDO JR LOPEZ 1081 BLACKBERRY SHORE LN YORKVILLE IL 60560
02-20-352-003 MCCUE DEVELOPMENT INC P O BOX 154 BRISTOL IL 60512	**02-20-352-004** MCCUE DEVELOPMENT INC P O BOX 154 BRISTOL IL 60512	**02-20-352-005** MCCUE DEVELOPMENT INC P O BOX 154 BRISTOL IL 60512
02-20-352-006 ELLIS III KEISHA L BAILEY 1041 BLACKBERRY SHORE LN YORKVILLE IL 60560	**02-20-352-007** AGUIRRE GAMALIEL GALLEGOS OLGA L 1031 BLACKBERRY SHORE LN YORKVILLE IL 60560	**02-20-352-008** MCCUE DEVELOPMENT INC P O BOX 154 BRISTOL IL 60512
02-20-352-009 BRADLEY A ANGELA D REEVERTS 1011 BLACKBERRY SHORE LN YORKVILLE IL 60560	**02-20-353-073** ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-19-481-003** ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560
02-19-481-004 ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-19-481-005 thru 028** ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-20-353-073** ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560
2-20-353-074 ELIZABETH M BINGE 1060 GILLESPIE LN YORKVILLE IL 60560	**02-20-353-075 thru 078** ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**2-20-353-079** KYLE R HOGAN 1050 GILLESPIE LN YORKVILLE IL 60560
02-20-353-080 DIANE L EWING 1061 GILLESPIE LN YORKVILLE IL 60560	**02-20-353-081 thru 084** ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-20-353-085** JUAN O MORENO 1051 GILLESPIE LN YORKVILLE IL 60560
02-20-353-086 LORELEI K JACK A RENALDI 1609 VANTAGE DR SHOREWOOD IL 60404	**02-20-353-087** ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-20-353-088** CHARLOTTE MANFORD 1036 GILLESPIE LN YORKVILLE IL 60560
02-20-353-089, 090 ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-20-353-091** RICHARD D III MINNICK 1030 GILLESPIE LN YORKVILLE IL 60560	**02-20-353-092** ABEL JR SARA N MARIN 1041 GILLESPIE LN YORKVILLE IL 60560
02-20-353-093 thru 095 ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-20-353-096** RAY TREVINO 1033 GILLESPIE LN YORKVILLE IL 60560	**02-20-353-097** ALICIA LOVE 1031 GILLESPIE LN YORKVILLE IL 60560

EXHIBIT B

02-20-353-098 thru 101 ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-20-353-102** NICOLE NATHAN JOLLEY 1019 GILLESPIE LN YORKVILLE IL 60560	**02-20-353-103** TRENTON DANIEL JAI LY MARIE BROWNING 1021 GILLESPIE LN YORKVILLE IL 60560
02-20-353-104 NICOLE ROCHA 1020 GILLESPIE LN YORKVILLE IL 60560	**02-20-353-105** HILL COREY T GAVIN TONI A 1018 GILLESPIE LN YORKVILLE IL 60560	**02-20-353-106 thru 108** ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560
02-20-353-109 EDDIE MARILYN JACKSON 1010 GILLESPIE LN YORKVILLE IL 60560	**02-19-481-017 thru 027** ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-19-481-028** KATHRYN L PANTHER 1151 GILLESPIE LN YORKVILLE IL 60560
02-20-353-110 thru 115 ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-20-353-116** HAMES OLIVIA KLIMAVICIUS MICHAEL 1110 GILLESPIE LN YORKVILLE IL 60560	**02-20-353-117** MIGGINS DESIREE RAMSEY MIGGINS YOHANTZ 1108 GILLESPIE LN YORKVILLE IL 60560
02-20-353-118, 119 ABBY PROPERTIES LLC 1951 RENA LN YORKVILLE IL 60560	**02-20-353-120** REBECCA A JAKUBOWSKI 1102 GILLESPIE LN YORKVILLE IL 60560	**02-20-353-121** ANTHONY I MOLLY K ROSADO 1100 GILLESPIE LN YORKVILLE IL 60560
02-19-200-007 LA FORTALEZA LLC 1481 PLAINFIELD RD OSWEGO IL 60543	**02-19-200-005** LA FORTALEZA LLC 1481 PLAINFIELD RD OSWEGO IL 60543	**02-19-200-006** DONALD J CAROL S HAMMAN 13351 B FAXON RD PLANO IL 60545
02-19-100-013 JOSEPH HAMMAN DAVID HAMMAN HAMMAN JAMES 6275 STATE ROUTE 71 OSWEGO IL 60543		

From: John Philipchuck
To: Krysti Barksdale-Noble
Cc: daveh.hhstone@gmail.com; Anna Voightman; Kathleen West
Subject: Kelaka LLC, Annexation and Zoning
Date: Monday, December 30, 2024 12:19:10 PM

Hello Krysti. I am responding to your correspondence dated December 12th regarding the Plan Council meeting follow-up under the heading General Zoning/Annexation Agreement Comments. 1. My client is in agreement as to your list of future land uses for the property in the M-2 District should a data center campus not be developed on the property. 2. My client agrees to a minimum of a 100 foot landscaped buffer with the existing Kylyn's Ridge Subdivision. We do not agree with a similar buffer restriction along Eldamain Road or US Route 34. The Comprehensive Plan does not depict such a setback along Route 34 and there is no such requirement in the adjacent Daniels property agreement. The proposed rezoning and future land use along Eldamain Road is different than the anticipated residential uses in the Comprehensive Plan and therefore a 100 foot landscape buffer from Eldamain Road should not be imposed. The Eldamain corridor is now becoming an Industrial/Manufacturing center. 3. My client is in agreement with City Council review prior to commencing any construction, grading, other work or the issuance of a building permit on the property.

Thank you for your continuing efforts to support this annexation and land use change.

John F. Philipchuck
Dommermuth, Cobine, West, Gensler,
Philipchuck and Corrigan, Ltd.
111 E. Jefferson Avenue Suite 200
Naperville, IL 60540
(630)355-5800
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Order Number: 7754543
Purchase Order:

State of Illinois - Kendall

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 1/17/2025, and the last publication of the notice was made in the newspaper dated and published on 1/17/2025.

This notice was also placed on a statewide public notice website as required by 715 ILCS 5/2. 1.

PUBLICATION DATES: **Jan 17, 2025.**

The Beacon-News
In witness, an authorized agent of The Chicago Tribune Media Group has signed this certificate executed in Chicago, Illinois on this

18th Day of January, 2025, by

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NOTICE OF PUBLIC HEARING ON AN ANNEXATION AGREEMENT
BEFORE
UNITED CITY OF YORKVILLE
CITY COUNCIL

NOTICE IS HEREBY GIVEN THAT David Hamman, on behalf of Kelaka, LLC, petitioner/owner, 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 consists of two (2) parcels totaling approximately 62.54 acres and is generally located immediately south of Faxon Road and west of Iroquois Lane. The land is currently undeveloped and used for farming. The purpose of this annexation is to allow for a future data center development on the property pursuant to the terms of an annexation agreement.

The legal description of the subject parcels are as follows:

PART OF SECTION 19, AND ALSO A PART OF THE NORTHWEST 1/4 OF SECTION 20, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHEAST 1/4 OF SAID SECTION 19; THENCE SOUTH 0 DEGREES, 39 MINUTES, 04 SECONDS EAST ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 147.18 FEET; THENCE SOUTH 82 DEGREES, 38 MINUTES, 28 SECONDS EAST, 1885.72 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 82 DEGREES, 38 MINUTES, 28 SECONDS WEST, 1885.72 FEET TO THE EAST LINE OF SAID SECTION 19; THENCE NORTH 81 DEGREES, 25 MINUTES, 39 SECONDS WEST, 839.38 FEET TO A LINE DRAWN NORTH 88 DEGREES, 28 MINUTES, 32 SECONDS EAST FROM THE CENTER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES, 28 MINUTES, 32 SECONDS WEST, 1826.22 FEET TO THE CENTER OF SAID SECTION 19; THENCE SOUTH 0 DEGREES, 45 MINUTES, 07 SECONDS EAST ALONG THE QUARTER SECTION LINE, 257.40 FEET; THENCE NORTH 83 DEGREES, 55 MINUTES, 03 SECONDS WEST, 1944.30 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 19, WHICH IS 1930.58 FEET SOUTH 88 DEGREES, 28 MINUTES, 32 SECONDS WEST FROM THE CENTER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES, 28 MINUTES, 32 SECONDS WEST ALONG SAID NORTH LINE, 204.60 FEET; THENCE NORTH 3 DEGREES, 24 MINUTES, 35 SECONDS EAST, 2079.52 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF THE BURLINGTON NORTHERN RAILROAD, INC.; THENCE NORTHEASTERLY ALONG SAID OUTHERLY RIGHT-OF-WAY LINE ON A BEARING OF NORTH 73 DEGREES, 57 MINUTES, 26 SECONDS EAST, ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, 2417.61 FEET; THENCE SOUTH 0 DEGREES, 41 MINUTES, 37 SECONDS WEST 565.44 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE SOUTH 74 DEGREES, 54 MINUTES, 09 SECONDS EAST, ALONG SAID CENTER LINE 1028.97 FEET; THENCE SOUTH 76 DEGREES, 33 MINUTES, 23 SECONDS EAST, ALONG SAID CENTERLINE 630.71 FEET; THENCE SOUTH 79 DEGREES, 19 MINUTES, 23 SECONDS EAST ALONG SAID CENTERLINE 904.87 FEEET; THENCE SOUTH 80 DEGREES, 15 MINUTES, 53 SECONDS EAST ALONG SAID CENTER LINE 765.83 FEET; THENCE SOUTH 80 DEGREES, 27 MINUTES, 23 SECONDS EAST, ALONG SAID CENTER LINE 351.94 FEET TO THE NORTHWEST CORNER OF A TRACT OF LAND AS CONVEYED TO FRANCIS G. YABSLEY AND PHYLLIS A. YABSLEY, BY DOCUMENT NUMBER 865742, AS RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS, KENDALL COUNTY, ILLINOIS; THENCE ALONG THE WEST LINE OF SAID YABSLEY TRACT, SOUTH 09 DEGREES, 32 MINUTES, 37 SECONDS WEST, 460.00 FEET TO THE SOUTHWEST CORNER OF SAID YABSLEY TRACT; THENCE ALONG THE SOUTH LINE OF SAID YABSLEY TRACK, SOUTH 80 DEGREES, 27 MINUTES, 23 SECONDS EAST, 475.00 FEET TO THE SOUTHEAST CORNER OF SAID YABSLEY TRACT; THENCE ALONG THE EAST LINE OF SAID YABSLEY TRACT, NORTH 09 DEGREES, 32 MINUTES, 37 SECONDS EAST, 460.00 FEET TO THE NORTHEAST CORNER OF SAID YABSLEY TRACT, SAID POINT ALSO BEING IN THE CENTERLINE OF SAID FAXON ROAD; THENCE ALONG SAID CENTERLINE, SOUTH 80 DEGREES, 27 MINUTES, 23 SECONDS EAST, 275.00 FEET; THENCE SOUTH 04 DEGREES, 21 MINUTES, 17 SECONDS WEST, 1549.81 FEET TO THE POINT OF BEGINNING, IN THE TOWNSHIP OF BRISTOL, KENDALL COUNTY, ILLINOIS.

EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND:

THAT PART OF SECTION 19 AND ALSO THAT PART OF SECTION 20, TOWNSHIP 37 NORTH,
RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF THE NORTHEAST QUARTER OF SAID SECTION 19; THENCE SOUTH 00 DEGREES 39 MINUTES 04 SECONDS EAST, ALONG THE EAST LINE OF SAID SECTION 19, A DISTANCE OF 147.18 FEET TO THE POINT OF BEGINNING; THENCE SOUTH 82 DEGREES 38 MINUTES 28 SECONDS EAST, A DISTANCE OF 1885,72 FEET; THENCE NORTH 04 DEGREES 21 MINUTES 17 SECONDS EAST, A DISTANCE OF 1549.81 FEET TO THE CENTERLINE OF FAXON ROAD: THENCE NORTH 80 DEGREES 27 MINUTES 23 SECONDS WEST ALONG THE CENTERLINE OF FAXON ROAD, A DISTANCE OF 275.00 FEET; THENCE SOUTH 09 DEGREES 32

ALONG THE CENTERLINE OF FAXON ROAD, A DISTANCE OF 275.00 FEET; THENCE SOUTH 09 DEGREES 32 MINUTES 37 SECONDS WEST, A DISTANCE OF 460.00 FEET; THENCE NORTH 80 DEGREES 27 MINUTES 23 SECONDS WEST A DISTANCE OF 475.00 FEET; THENCE NORTH 09 DEGREES 32 MINUTES 37 SECONDS EAST, A DISTANCE OF 460.00 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE NORTH 80 DEGREES 27 MINUTES 23 SECONDS WEST ALONG SAID ROAD CENTERLINE, A DISTANCE OF 351.94 FEET; THENCE NORTH 80 DEGREES 15 MINUTES 53 SECONDS WEST, ALONG THE CENTERLINE OF FAXON ROAD, A DISTANCE OF 765.83 FEET; THENCE NORTH 79 DEGREES 19 MINUTES 23 SECONDS WEST, ALONG SAID ROAD CENTERLINE, A DISTANCE OF 332.13 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 698.12 FEET; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 130.00 FEET; THENCE SOUTH 00 DEGREES 00 MINUTES 00 SECONDS EAST, A DISTANCE OF 971.15 FEET; THENCE SOUTH 81 DEGREES 25 MINUTES 39 SECONDS EAST, A DISTANCE OF 50.79 FEET TO THE POINT OF BEGINNING, IN BRISTOL TOWNSHIP, KENDALL COUNTY,ILLINOIS.

AND EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND:

THAT PART OF THE NORTHEAST 1/4 OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:
COMMENCING AT THE CENTER OF SAID SECTION 19; THENCE SOUTH 00 DEGREES 46 MINUTES 07 SECONDS EAST ALONG THE QUARTER SECTION LINE, 257.40 FEET; THENCE NORTH 83 DEGREES 55 MINUTES 03 SECONDS WEST, 120.0 FEET; THENCE NORTH 22 DEGREES 13 MINUTES 31 SECONDS EAST, 296.51 FEET; THENCE NORTH 46 DEGREES 38 MINUTES 37 SECONDS EAST 788.19 FEET; THENCE NORTH 68 DEGREES 41 MINUTES 58 SECONDS EAST, 390.87 FEET FOR A POINT OF BEGINNING; THENCE NORTH 68 DEGREES 41 MINUTES 58 SECONDS EAST, 207.58 FEET; THENCE NORTH 45 DEGREES 58 MINUTES 23 SECONDS EAST, 375.65 FEET; THENCE NORTH 48 DEGREES 02 MINUTES 41 SECONDS EAST, 242.00 FEET; THENCE NORTH 48 DEGREES 12 MINUTES 10 SECONDS EAST, 692.93 FEET TO A POINT IN THE CENTER LINE OF FAXON ROAD; THENCE NORTH 79 DEGREES 19 MINUTES 23 SECONDS WEST ALONG SAID CENTER LINE, 184.02 FEET; THENCE NORTH 76 DEGREES 33 MINUTES 23 SECONDS WEST ALONG SAID CENTER LINE, 630.71 FEET TO THE CENTER LINE OF BEECHER ROAD; THENCE NORTH 74 DEGREES 54 MINUTES 09 SECONDS WEST ALONG SAID FAXON ROAD CENTER LINE, 327.00 FEET; THENCE SOUTH 06 DEGREES 6 MINUTES 20 SECONDS WEST, 574.54 FEET; THENCE SOUTH 00 DEGREES 57 MINUTES 56 SECONDS EAST, 654.81 FEET TO THE POINT OF BEGINNING, EXCEPTING THEREFROM THAT PART THEREOF CONVEYED TO WAYNE AND DELORES CRUISE BY A TRUSTEE'S DEED RECORDED JUNE 4, 1990 AS DOCUMENT NO. 903549 IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS.

AND EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND

THAT PART OF THE NE 1/4 OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

COMMENCING AT THE CENTER OF SAID SECTION 19, THENCE SOUTH 0 DEGREES 46 MINUTES 07 SECONDS EAST ALONG THE QUARTER SECTION LINE, 257.40 FEET; THENCE NORTH 63 DEGREES 66 MINUTES 03 SECONDS WEST, 120.00 FEET; THENCE NORTH 22 DEGREES 13 MINUTES 31 SECONDS EAST, 296.61 FEET; THENCE NORTH 46 DEGREES 38 MINUTES 37 SECONDS EAST, 788.19 FEET; THENCE NORTH 68 DEGREES 41 MINUTES 68 SECONDS EAST, 698.46 FEET; THENCE NORTH 45 DEGREES 68 MINUTES 23 SECONDS EAST, 375.65 FEET; THENCE NORTH 48 DEGREES 02 MINUTES 41 SECONDS EAST, 242.00 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 46 DEGREES 12 MINUTES 10 SECONDS EAST, 692.93 FEET TO A POINT IN THE CENTERLINE OF FAXON ROAD; THENCE NORTH 79 DEGREES 19 MINUTES 23 SECONDS WEST ALONG SAID CENTERLINE, 184.02 FEET, THENCE NORTH 76 DEGREES 33 MINUTES 23 SECONDS WEST ALONG SAID CENTERLINE, 630.71 FEET; THENCE NORTH 74 DEGREES 54 MINUTES 09 SECONDS WEST ALONG SAID CENTERLINE, 350.00 FEET; THENCE SOUTH 13 DEGREES 26 MINUTES 37 SECONDS WEST, 670.60 FEET; THENCE SOUTH 76 DEGREES 33 MINUTES 23 SECONDS EAST, 759.31 FEET TO THE POINT OF BEGINNING IN THE TOWNSHIP OF BRISTOL, KENDALL COUNTY, ILLINOIS.

AND EXCEPT THE PART FALLING IN THE FOLLOWING DESCRIBED LAND

THAT PART OF SECTION 19, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, IN BRISTOL TOWNSHIP, KENDALL COUNTY, ILLINOIS, DESCRIBED AS FOLLOWS:

BEGINNING AT THE CENTER OF SAID SECTION 19; THENCE SOUTH 00 DEGREES 46 MINUTES 07 SECONDS EAST, ALONG THE QUARTER SECTION LINE, A DISTANCE OF 257.40 FEET; THENCE NORTH 83 DEGREES 55 MINUTES 03 SECONDS WEST, 1944.30 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST

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QUARTER OF SAID SECTION 19, WHICH IS 1930.58 FEET SOUTH 88 DEGREES 28 MINUTES 32 SECONDS WEST FROM THE CENTER OF SAID SECTION 19; THENCE SOUTH 88 DEGREES 28 MINUTES 32 SECONDS WEST ALONG SAID NORTH LINE, 204.49 FEET; THENCE NORTH 03 DEGREES 24 MINUTES 35 SECONDS EAST, 2079.52 FEET TO THE SOUTHERLY RIGHT-OF-WAY LINE OF THE BURLINGTON NORTHERN - SANTE FE RAILWAY; THENCE NORTH 73 DEGREES 57 MINUTES 26 SECONDS EAST ALONG SAID SOUTHERLY RIGHT-OF-WAY LINE, 2417.61 FEET; THENCE SOUTH 00 DEGREES 41 MINUTES 37 SECONDS WEST, 565.44 FEET TO THE CENTERLINE OF FAXON ROAD; THENCE SOUTH 74 DEGREES 54 MINUTES 09 SECONDS EAST ALONG THE CENTERLINE, 678.89 FEET TO A POINT THAT IS 350.00 FEET NORTH 74 DEGREES 54 MINUTES 09 SECONDS WEST OF THE CENTERLINE OF BEECHER ROAD; THENCE SOUTH 13 DEGREES 26 MINUTES 37 SECONDS WEST, 570.50 FEET; THENCE SOUTH 76 DEGREES 33 MINUTES 23 SECONDS EAST, 96.63 FEET; THENCE SOUTH 00 DEGREES 57 MINUTES 56 SECONDS EAST, 654.81 FEET; THENCE SOUTH 68 DEGREES 41 MINUTES 58 SECONDS WEST, 390.87 FEET; THENCE SOUTH 46 DEGREES 38 MINUTES 37 SECONDS WEST, 784.04 FEET TO THE QUARTER SECTION LINE; THENCE SOUTH 00 DEGREES 46 MINUTES 07 SECONDS EAST, ALONG SAID QUARTER SECTION LINE, 32.36 FEET TO THE POINT OF BEGINNING.

PERMANENT TAX NUMBERS: **02-19-200-008 AND 02-19-200-011**

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 on **Tuesday, February 11, 2025 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. For more project information, please scan the QR code below.

By order of the Corporate Authorities of the United City of Yorkville, Kendall County, Illinois.

JORI BEHLAND
City Clerk

Jan. 17, 2025 - 7754543

Chicago Tribune - chicagotribune.com
160 N Stetson Avenue, Chicago, IL 60601
(312) 222-2222 - Fax: (312) 222-4014

Memorandum

To: Plan Council
From: Krysti Barksdale-Noble, Community Development Director
Date: December 2, 2024
Subject: **PZC 2024-31 Dave Hamman – Kelaka, LLC**
Proposed Annexation and Rezoning Request

I have reviewed the annexation and rezoning applications for the subject parcels submitted by David Hamman, on behalf of Kelaka, LLC, petitioner/owner. The real property consists of three (3) parcels totaling approximately 112.44 acres. Two (2) parcels are generally located immediately south of Faxon Road and west of Iroquois Lane and one (1) parcel is located immediately north of West Veterans Parkway (US 34) and east of Eldamain Road. The petitioner is requesting annexation and rezoning of two (2) parcels (#02-19-200-008 and #02-19-200-011) from R-1 Single-Family Suburban Residential District to M-2 General Manufacturing District, as well as rezoning one (1) parcel (#02-19-300-018) from B-3 General Business District to M-2 General Manufacturing District. These requests are for a proposed future data center land use.

Based upon my review of the application documents and plans, I have compiled the following comments:

GENERAL ZONING/LAND USE COMMENTS:

The three (3) subject parcels total 112.44 acres. Two (2) parcels, which abut each other, are currently unincorporated and zoned A-1 Agriculture in Kendall County. The larger parcel (#02-19-200-011) is approximately 35 acres in area and is a remnant from the former Kelaka parcel. The second parcel (#02-19-200-008) totals approximately 21-acres. The remaining parcel (#02-19-300-018), approximately 52-acres, is located approximately 2,400 feet southwest of the other parcels and separated by the Rob Roy Creek, is zoned B-3 General Business District within the City of Yorkville and previously planned for a commercial development known as Cobblestone North. The two largest parcels are also part of the Rob Roy Drainage District.

1. **ZONING** – The following are the current immediate surrounding zoning and land uses of parcels #02-19-200-008 and #02-19-200-011 which are proposed to be annexed and rezoned:

	Zoning	Land Use
North	R-2 Single-Family Traditional Residence District A-1 Agricultural District Faxon Road	Farmland (Whispering Meadows) Farmland (Loftus Property) Transportation Land Use
East	R-2 Single-Family Traditional Residence District	Kylyn's Ridge Subdivision
South	A-1 Agricultural District (Kendall County)	Farmland (DMYF, LLLP proposed rezoning for M-2 General Manufacturing)
West	A-1 Agricultural District (Kendall County) M-2 General Manufacturing District	Farmland Farmland (Kelaka)

   a. 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. Therefore, the petitioner is seeking rezoning within the M-2 General Manufacturing District.

2. **ZONING** - The following are the current immediate surrounding zoning and land uses of parcel #02-19-300-018 which is proposed to be rezoned:

	Zoning	Land Use
North	A-1 Agricultural District (Kendall County)	Farmland
East	A-1 Agricultural District (Kendall County)	Farmland (DMYF, LLLP proposed rezoning for M-2 General Manufacturing)
South	US 34 (Veterans Parkway) B-3 General Business District	Transportation Land Use Farmland/Undeveloped (Cobblestone Commons)
West	Eldamain Road B-4 Commercial Recreation (Kendall County) B-6 Business District PUD (Plano)	Transportation Land Use Commercial (Fox Valley YMCA) Undeveloped/Farmland

   a. **Petitioner has provided written responses to the Standards for Rezoning which will be entered into the record during the public hearing process**.

3. **PERMITTED USES** – Per Section 10-3-6-F of the Yorkville Unified Development Ordinance (UDO), the M-2 general manufacturing district zoning designation is intended to provide for the location of manufacturing, industrial, and related uses that have greater off-site impacts than those in the M-1 limited manufacturing district. The district is intended to ensure the compatibility of the manufacturing and industrial uses with surrounding residential and commercial uses and to minimize off-site impacts such as noise, traffic, and visual qualities.

   a. Further, per Table 10-3-12 (B) Permitted and Special Uses of the Unified Development Ordinance, under "Energy Industrial Uses" data centers are permitted land uses.

4. **M-2 BULK REGULATIONS** – Per the Table 10-3-9(A) Bulk and Dimensional Standards, the following are the current M-2 General Business District standards:

	M-2 Zoning Regulations
Min. Lot Area	N/A
Front Yard Setback	25 feet
Rear Yard Setback	N/A
Side Yard Setback	Min. 10% of lot width/Max. 20 feet
Corner Yard Setback	Min. 10% of lot width/Max. 20 feet
Max. Lot Coverage	85%
Max. Building Height	N/A

5. **COMPREHENSIVE PLAN** – The 2016 Comprehensive Plan Update designates these parcels as "Estate/Conservation Residential (ECR)" which is intended to provide flexibility for residential design to accommodate low-density detached single-family housing yet preserving sensitive environmental and scenic features. This land use designation has also been used as a holding category for parcels not likely to develop within the 10-year horizon of the comprehensive plan's timeline. Additionally, the Comprehensive Plan also states, "while the land use map should guide future land use and development and zoning decisions, it is also meant to be adjusted and changed when circumstances warrant a change in planning direction in a given area of the City."

    a. **Due to the recent trend in rezoning and development in the area, the Kelaka property annexation and rezoning to M-2 to the west/north and the DMYF, LLLP project pending approval to the south/east of the subject parcels, staff supports the proposed M-2 General Manufacturing District zoning for a future data center campus development with conditions.**

    b. **Upon approval of the annexation and rezoning, the Comprehensive Plan will require an amendment to reflect the new M-2 General Manufacturing zoning district. The subject property's future land use designation will be revised from "Estate/Conservation Residential (ECR)" to "General Industrial (GI)".**

ANNEXATION COMMENTS:

6. **ANNEXATION AGREEMENT** – Given the subject parcels location along a major arterial roadway (US 34) and its proximity to the Kylyn's Ridge residential development, staff recommends that the annexation agreement include a condition to consider restricting future manufacturing uses under the M-2 District if a data center campus is not developed on the site. This will be consistent with the recently recommended conditions for the DMYF, LLLP project.

    i. **Should a data center user not develop on the parcel, staff would recommend only the following M-2 General Manufacturing land uses be permitted on the subject property per Table 10-3-12(B) of the Unified Development Ordinance:**

        1. **Automobile sales and services (enclosed) –** defined as "An establishment engaged in the sale of automobiles where all operations take place entirely within an enclosed showroom in a primary building."

        2. **Bakery (wholesale) -** defined as "a bakery in which there is permitted the production and/or wholesaling of baked goods, excluding retail bakery."

        3. **Brewery/winery/distillery –** defined as "an establishment primarily engaged in brewing fermented malt beverages including beer, ale, malt liquors, and nonalcoholic beer (brewery), manufacturing and bottling wine on the premises (winery), or manufacturing, by distillation, intoxicating spirits on the premises (distillery) but not including on-premises consumption by patrons."

        4. **Building material sales –** defined as "establishments or places of business primarily engaged in retail or wholesale sale, from the premises, of materials used in the construction of buildings or other structures."

5. **Microdistillery –** defined as "a small-scale artisan manufacturing business that blends, ferments, processes, packages, distributes and serves alcoholic spirits on and off the premises and produces no more than fifteen thousand (15,000) gallons per calendar year on-site. The microdistillery facility may include an ancillary tasting room and retail component in which guests/customers may sample and purchase the product. Off-site distribution of the alcoholic beverages shall be consistent with state law."

6. **Microbrewery/Microwinery –** defined as "a combination retail, wholesale, and/or small-scale artisan manufacturing business that brews, ferments, processes, packages, distributes, and serves either beer or wine for sale on- or off-site. A microbrewery shall produce no more than one-hundred fifty-five thousand (155,000) gallons of beer per year for sale on the premises for either on-premises or off-premises consumption. These facilities may include an ancillary tasting room and retail component in which guests/customers may sample and purchase the product. Off-site distribution of the beverages shall be consistent with state law."

7. **Nursery/greenhouse –** defined as "retail business whose principal activity is the selling of plants and having outdoor storage, growing and/or display of plants."

8. **Research laboratories –** defined as "a building or group of buildings in which are located facilities for scientific research, investigation, testing or experimentation, but not facilities for the manufacture or sale of products, except as incidental to the main purpose of the laboratory."

9. **Recreational vehicle sales and services –** defined as "an establishment engaged in the sale of recreational vehicles, including motorhomes and pickup campers, travel trailers, tent trailers, and similar vehicles that are designed and constructed for permit sleeping or housekeeping in an outdoor or a showroom enclosed in a primary building."

10. **Storage, single-building climate controlled –** defined as "a facility consisting of a single building where individual self-contained units are leased or rented to the general public for dead storage and where the individual storage units are accessed from the interior of the building."

11. **Refrigerated Warehouse (Cold Storage) -** defined as "a facility which is artificially or mechanically cooled in order to maintain the integrity and quality of perishable goods."

12. **Agricultural Use** – defined as "The employment of land for the primary purpose of raising, harvesting, and selling crops, or feeding (including grazing), breeding, managing, selling, or producing livestock, poultry, furbearing animals, or honeybees, or by dairying and the sale of dairy products, by any other horticultural, floricultural or viticulture use, by animal husbandry, or by any combination thereof. It also includes the current employment of land for the primary purpose of obtaining a profit by stabling or training equines including, but not limited to, providing riding lessons, training clinics and schooling shows."

13. **Retail Store, General** – less than one (1) acre - defined as "A building or portion of a building providing area for the selling of new or used goods, wares, and merchandise directly to the consumer for whom the goods are furnished."

14. **Retail Store, General** – greater than one (1) acre - defined as "A building or portion of a building providing area for the selling of new or used goods, wares, and merchandise directly to the consumer for whom the goods are furnished."

15. **Medical Clinic/Office** – defined as "An establishment where patients are admitted for study and treatment by two (2) or more licensed physicians, dentists, psychologists, or similar professional healthcare practitioners and their professional associates. The term shall include but not be limited to offices of physicians, chiropractors, dentists, and acupuncturists."

16. **Treatment Center** – defined as "One (1) or more buildings designed and used for the medical and surgical diagnosis and treatment. This definition excludes hospitals and nursing homes."

ii. **The above identified limited permitted land uses shall be in effect for the term of the annexation agreement, twenty (20) years and a sunset clause may also be recommended to revert the zoning of the annexed parcels to R-1 Single Family Suburban Residence District zoning if no development has occurred at the term of the agreement.**

7. **BUFFER SETBACK/TRANSITION ZONE – Due to the proximity of the subject parcels to an existing residential development and major roadways (US 34 and Eldamain Road), staff recommends that any future development incorporate a minimum 100-foot landscaped buffer. This buffer should include elements such as vegetation, solid fencing, green walls, stormwater management areas, living groundcover, and/or turf to ensure effective visual screening and physical separation between the land uses.**

8. **SITE PLAN REVIEW – Staff further recommends that any proposed development plan, regardless if it's an outright permitted land use, shall be required to submit any and all plans for review and approval by the City Council prior to commencing any construction, grading or other work or issuance of a building permit on the Subject Property due to the subject parcels' adjacency to an existing residential development and major roadways (US 34 & Eldamain Road)**.

9. **PLAT OF ANNEXATION** – A plat of annexation shall be an exhibit to the annexing ordinance. The city engineer will prepare the exhibit.

10. **COMMUNITY MEETING** – Per Section 10-8-13-B-1-a of the Unified Development Ordinance states a community meeting of area/neighborhood property owners, explaining the proposed Annexation conducted by the petitioner at their own expense and at a location of their choosing may be required as a recommendation from the Plan Council prior to the Planning and Zoning Commission public hearing date.

    a. **Due to the proximity of existing residential land uses immediately to the east, the Kylyn's Ridge subdivision, staff recommends the petitioner conduct a community meeting, possibly via the homeowners' association (HOA), regarding the proposed future land use of the subject property prior to the City Council and Planning and Zoning Commission public hearings.**

December 6, 2024

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

Re: Hamman-Kelaka, LLC
Annexation and Rezoning Review
United City of Yorkville

Dear Krysti:

We have reviewed the application for annexation and rezoning for the above-referenced project dated October 29, 2024.

Our review of these plans 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 and land surveying 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:

1. Rob Roy Creek traverses a portion of the property and there is a floodplain and floodway that need to be taken into account during the ultimate land planning process. The best available data is available through our office for the design engineer to utilize.

2. The City is planning an extension of Beecher Road from Faxon Road to the existing location with the Kendall Marketplace Development. This should be accounted for during the land planning process.

3. Faxon Road will be required to be reconstructed across the frontage of the property.

4. The connections to the sanitary sewer will generally come from an existing interceptor sewer. Additional study will be required to analyze the ability of the City to provide sewer service.

5. The connections to the water distribution system will require additional study and will depend on the site plan. In addition, depending on the ultimate development additional water system infrastructure may be required.

6. Connections to US Route 34 and Eldamain Road will need to be coordinated during the land planning process.

7. Prior to construction, detailed final engineering plans will need to be submitted for review.

If you have any questions or require additional information, please call 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. Sara Mendez, City Planner (via email)
Ms. Gina Nelson, Admin Assistant (via email)
Building Department (via email) Bzpermits@yorkville.il.us
Ms. Jori Behland, City Clerk (via email)
Mr. John Philipchuck, (via email)
TNP, PGW2, EEI (Via e-mail)

From: [redacted]
Sent: Monday, February 3, 2025 2:23:35 PM
To: John Purcell <jpurcell@yorkville.il.us>
Subject: Yorkville Citizen Concerned with Potential Upcoming Rezoning

Dear Mayor Purcell,

Wanted to reach out to you as a concerned Yorkville citizen. I received documents for an upcoming Yorkville Public Hearing for Rezoning Residential to Manufacturing.
My current address is [redacted] with my wife and 2 small children.

I am new to participating in city public hearings and was hoping to see your opinions on this and some insite.
DMYF, LLLP (Annexation & Rezone) | Yorkville, IL - Official Website
I attended this Hearing and felt very out of place since it was all new to me.

The upcoming Public hearing will be Annexing and Rezoning of a section of land that will directly impact my residence, as well as 22 of my neighbors.
Hamman- Kelaka, LLC (Annexation and Rezone) | Yorkville, IL - Official Website

My concerns are on how close this potential rezoning of Residential to Manufacturing would be to a current residential neighborhood. When looking on a map you can see how far these potential rezoning from Residential to Manufacturing section will be to 23 residential houses. (Most North / West of the upcoming request)

I am in support of the growth in Yorkville; however I believe this potential rezoning to Manufacturing is too close to existing Yorkville Residence.
Yorkville City Council just approved to convert over 270acres of land to Manufacturing at the end of last year next door to my neighborhood. How much closer does Manufacturing zoning need to be to existing Yorkville Residence? I did not move to Yorkville to live in a Manufacturing Zone.

I and my wife's dream was to grow old in our current house however this won't be a possibility if 70ft tall warehouses are casting a shadow over my house.

Do you agree / understand my concerns with this upcoming Rezoning request?
Do you have any suggestions on how to approach the council during the hearing?

The Rezoning hearing is scheduled for February 12, 2025 at 19:00

Thank you for your time and hope to hear back soon!

Brian A. Carrabotta

[redacted]

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 – January 14, 2025

Meeting and Date: City Council – February 11, 2025

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

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, JANUARY 14, 2025

Mayor Purcell called the meeting to order at 7:01 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	(electronic attendance)
	Soling	Present	
Ward III	Funkhouser	Present	
	Marek	Present	
Ward IV	Tarulis	Absent	
	Corneils	Present	

Staff in attendance at City Hall: City Administrator Olson, City Clerk Behland, Chief of Police Jensen, Attorney Castaldo, Public Works Director Dhuse, Community Development Director Barksdale-Noble, Finance Director Fredrickson, Parks and Recreation Director Evans, Assistant City Administrator Willrett, and EEI Engineer Sanderson.

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/87958536308?pwd=Lx5k9OXrbaa33XWiAv1I8ohxryPHCf.1
The Zoom meeting ID was 879 5853 6308.

QUORUM

A quorum was established**.**

AMENDMENTS TO THE AGENDA

None.

PRESENTATIONS

YYTFC Nationals Recognition

Parks and Recreation Assistant Director Shay Remus shared with the Council that she is also a coach for the Yorkville Youth Tackle Football and Cheer League's Tiny Mites. She congratulated her squad for taking second place at Nationals last month. They also shared that two other teams, Jr Pee Wee Black and Jr Pee Wee White, participated at Nationals. This is the first time they have had teams go to Nationals.

PUBLIC HEARINGS

None.

CITIZEN COMMENTS ON AGENDA ITEMS

**Citizens who shared comments at this meeting referenced the Heartland Meadows West Project.*

Kim Cooper, a resident of Northland Lane in Yorkville, explained that parking is a huge issue near the park and that she is concerned about the children running back and forth. She mentioned that a new subdivision entrance is proposed right in that area. She thinks this area is an ongoing problem, and this project will add to the problem. She also mentioned that there are so many available places around Yorkville for commercial, so adding more commercial buildings is not beneficial. She said a berm exists between this new subdivision and theirs and wishes to see that built up.

Dawn Watson, a resident of Yellowstone Lane, shared she has concerns about the same proposed development. Her biggest concern is the commercial add-on piece. She shared that most units in Kendall Marketplace are vacant. These vacant businesses will cause issues in the future where crimes will increase. She also mentioned the parking concerns of the baseball field in the area, causing children to be on the street.

Stephine Funkhouser, a resident of Canyon Trail in Yorkville, shared that during the summertime, the baseball field is super busy, and many residents have to slam on their breaks due to the children on the road. She also shared that the City currently has many vacancies throughout the town. She asked the Council to please consider the commercial aspect. She agrees with the senior housing part of the project.

Rich McDonald thinks the whole project should be stopped. He says the City does not need commercial or senior housing. He shares that he fought to get the parking restrictions in, but the community does not listen to the signs and still park on both sides of the street. He thinks it should be a parking lot for the baseball field.

Dan Watson, a resident of Yellowstone Lane, said that the road becomes one-lane when there is practice or games. Kids dart back and forth through the road. He would like to back up the comment on all of the vacant store buildings in the city.

Sara Chilely, a resident of Iroquois Lane in Yorkville, shared that she agrees with everyone about the proposed subdivision. There is a massive problem with parking along Blackberry Shore Lane due to the ballfield. Kids are dashing in and out of the road, which is a huge issue. Adding more homes and commercial space to the area will increase the problem. She shared that she was fine with the senior housing part. There are a number of vacant storefronts already, which can cause an increase in crime.

CONSENT AGENDA

1. Minutes of the Regular City Council – November 26, 2024
2. Minutes of the Regular City Council – December 10, 2024
3. Bill Payments for Approval
   $ 2,468,856.21 (vendors)
   $ 2,537,903.67 (wire payments)
   $ 425,136.38 (payroll period ending 12/06/24)
   $ 416,007.45 (payroll period ending 12/20/24)
   $ 426,049.22 (payroll period ending 01/03/25)
   $ 6,273,952.93 (total)
4. **Resolution 2025-01** Approving a Change Order Relating to the Well No. 10 and Raw Water Main Improvements Project – *authorize the Mayor and City Clerk to execute* (PW 2024-100)
5. **Resolution 2025-02** Approving the Release of a Performance Guarantee Bond Related to Grande Reserve Unit 3 – *authorize the Mayor and City Clerk to execute* (PW 2024-110)

Mayor Purcell entertained a motion to approve the consent agenda. So moved by Alderman Transier; seconded by Alderman Soling.

Motion approved by a roll call vote. Ayes-7 Nays-0
Koch-aye, Plocher-aye, Funkhouser-aye, Transier-aye,
Soling-aye, Marek-aye, Corneils-aye

REPORTS

MAYOR'S REPORT

Ordinance 2025-01 **Approving a Water Easement Agreement with Commonwealth Edison Company (Eldamain Water Main Loop)** (CC 2025-01)

Mayor Purcell entertained a motion to approve an Ordinance Approving a Water Easement Agreement with Commonwealth Edison Company (Eldamain Water Main Loop) and authorize the Mayor and City Clerk to execute. So moved by Alderman Koch; seconded by Alderman Marek.

Motion approved by a roll call vote. Ayes-7 Nays-0
Plocher-aye, Funkhouser-aye, Transier-aye, Soling-aye,
Marek-aye, Corneils-aye, Koch-aye

Ordinance 2025-02 **Renaming the Streets of Big Grove Lane and Waterman Lane to "Big Grove Circle"** (CC 2025-02)

Mayor Purcell entertained a motion to approve an Ordinance Renaming the Streets of Big Grove Lane and Waterman Lane to "Big Grove Circle" and authorize the Mayor and City Clerk to execute. So moved by Alderman Soling; seconded by Alderman Transier.

Motion approved by a roll call vote. Ayes-7 Nays-0
Funkhouser-aye, Transier-aye, Soling-aye, Marek-aye,
Corneils-aye, Koch-aye, Plocher-aye

Public Works and Parks Facility – Final Plan, Cost Estimate, and Authorization to Bid
(CC 2025-03)

Mayor Purcell entertained a motion to endorse the building scope and cost estimates for the Public Works and Parks facility and authorize staff to proceed with putting the project out to bid. So moved by Alderman Marek; seconded by Alderman Corneils.

City Administrator Olson reported that RC Wegman's cost estimate came close to Kluber's, between $35 to $38 million. There have almost been no changes to the building since the Council saw it in August; one wall was moved a few feet, and some design decisions were made. If approved tonight, the plan is to start construction in the spring with a mid-2026 construction completion. Chris Hansen with Kluber then gave a brief presentation on the project *(see attached)*. Alderman Soling asked about the brine building and if a 2" water service is enough, and Mr. Hansen shared that Public Works Director Dhuse had gotten the specs needed directly from the company. Alderman Funkhouser asked if they looked at putting the water main closer to the building, to which Mr. Hansen said yes, the looped water main got tucked as close to the building as possible. Doug Bohr with RC Wegman reviewed the budget numbers and shared that they aligned with Kluber's original estimate. Kluber's estimate was between $36,747,848 and $39,514,461, and RC Wegman's final total project budget is between $35,922,718 and $39,434,785. Mayor Purcell asked Finance Director Fredrickson for clarification on what is currently budgeted for the building, which he said was $40 million. Mr. Bohr said if approved, the project will go out to bid on February 3, 2025, with bid openings on February 25, 2025. The goal is for the Council to give final approval in March, with construction starting in April. The projected project completion date is August 2026. Alderman Soling said he saw there was no conveyor belt for the salt dome and asked if they were confident with the current machinery the City has. Public Works Director Dhuse said that they were. He shared that they looked at Aurora's system, but the price and the amount of time they would use it wasn't worth it.

Motion approved by a roll call vote. Ayes-7 Nays-0
Transier-aye, Soling-aye, Marek-aye, Corneils-aye,
Koch-aye, Plocher-aye, Funkhouser-aye

Ordinance 2025-03 **Amending the Yorkville City Code (Municipal Utility Tax)**
(CC 2025-04)

Mayor Purcell entertained a motion to approve an Ordinance Amending the Yorkville City Code (Municipal Utility Tax) and authorize the Mayor and City Clerk to execute. So moved by Alderman Corneils; seconded by Alderman Marek.

Motion approved by a roll call vote. Ayes-7 Nays-0
Soling-aye, Marek-aye, Corneils-aye, Koch-aye,
Plocher-aye, Funkhouser-aye, Transier-aye

PUBLIC WORKS COMMITTEE REPORT

Ordinance 2025-04 **Amending the Code of Ordinances of the United City of Yorkville, Kendall County, Illinois Regulating On-Street Parking (Bailey Road)**
(PW 2024-101)

Alderman Koch made a motion to approve an Ordinance Amending the Code of Ordinances of the United City of Yorkville, Kendall County, Illinois Regulating On-Street Parking (Bailey Road) and authorize the Mayor and City Clerk to execute; seconded by Alderman Corneils.

Motion approved by a roll call vote. Ayes-7 Nays-0
Marek-aye, Corneils-aye, Koch-aye, Plocher-aye,
Funkhouser-aye, Transier-aye, Soling-aye

Resolution 2025-03 **Approving a Bid to Construct the Eldamain Water Loop North Portion of a Water and Sewer Extension Project *(C1 Yorkville, LLC)***
(PW 2024-102)

Alderman Koch made a motion to approve a Resolution Approving a Bid to Construct the Eldamain Water Loop North Portion of a Water and Sewer Extension Project (C1 Yorkville, LLC) and authorize the Mayor and City Clerk to execute; seconded by Alderman Transier.

Motion approved by a roll call vote. Ayes-7 Nays-0
Corneils-aye, Koch-aye, Plocher-aye, Funkhouser-aye,
Transier-aye, Soling-aye, Marek-aye

Resolution 2025-04 **Approving an Engineering Agreement with Engineering Enterprises, Inc. (Eldamain Water Main Loop – North Contract – Construction Engineering)**
(PW 2024-103)

Alderman Koch made a motion to approve a Resolution Approving an Engineering Agreement with Engineering Enterprises, Inc. (Eldamain Water Main Loop – North Contract – Construction Engineering) and authorize the Mayor and City Clerk to execute; seconded by Alderman Marek.

Motion approved by a roll call vote. Ayes-7 Nays-0
Koch-aye, Plocher-aye, Funkhouser-aye, Transier-aye,
Soling-aye, Marek-aye, Corneils-aye

Resolution 2025-05 **Approving a Bid to Construct the Eldamain Water Loop South Portion of a Water and Sewer Extension Project *(C1 Yorkville, LLC)***
(PW 2024-104)

Alderman Koch made a motion to approve a Resolution Approving a Bid to Construct the Eldamain Water Loop South Portion of a Water and Sewer Extension Project (C1 Yorkville, LLC) and authorize the Mayor and City Clerk to execute; seconded by Alderman Transier.

Motion approved by a roll call vote. Ayes-7 Nays-0
Plocher-aye, Funkhouser-aye, Transier-aye, Soling-aye,
Marek-aye, Corneils-aye, Koch-aye

Resolution 2025-06 **Approving an Engineering Agreement with Engineering Enterprises, Inc. (Eldamain Water Main Loop – South Contract – Construction Engineering)**
(PW 2024-105)

Alderman Koch made a motion to approve a Resolution Approving an Engineering Agreement with Engineering Enterprises, Inc. (Eldamain Water Main Loop – South Contract – Construction Engineering) and authorize the Mayor and City Clerk to execute; seconded by Alderman Soling.

Motion approved by a roll call vote. Ayes-7 Nays-0
Funkhouser-aye, Transier-aye, Soling-aye, Marek-aye,
Corneils-aye, Koch-aye, Plocher-aye

Resolution 2025-07 **Approving a Bid to Construct the Southern Sanitary Sewer Connection Portion of a Water and Sewer Extension Project *(C1 Yorkville, LLC)***
(PW 2024-106)

Alderman Koch made a motion to approve a Resolution Approving a Bid to Construct the Southern Sanitary Sewer Connection Portion of a Water and Sewer Extension Project, contingent upon the finalization of easements (C1 Yorkville, LLC) and authorize the Mayor and City Clerk to execute; seconded by Alderman Soling.

Motion approved by a roll call vote. Ayes-7 Nays-0
Transier-aye, Soling-aye, Marek-aye, Corneils-aye,
Koch-aye, Plocher-aye, Funkhouser-aye

Resolution 2025-08 **Approving an Engineering Agreement with Engineering Enterprises, Inc. (Southern Sanitary Sewer Connection – Construction Engineering)**
(PW 2024-107)

Alderman Koch made a motion to approve a Resolution Approving an Engineering Agreement with Engineering Enterprises, Inc. (Southern Sanitary Sewer Connection – Construction Engineering) and authorize the Mayor and City Clerk to execute; seconded by Alderman Marek.

Motion approved by a roll call vote. Ayes-7 Nays-0
Soling-aye, Marek-aye, Corneils-aye, Koch-aye,
Plocher-aye, Funkhouser-aye, Transier-aye

2024 Sanitary Sewer Lining Improvements
(PW 2024-108)

Resolution 2025-09 **a. Approving a Bid to Construct Sanitary Sewer Lining Improvements**

Alderman Koch made a motion to approve a Resolution Approving a Bid to Construct Sanitary Sewer Lining Improvements and authorize the Mayor and City Clerk to execute; seconded by Alderman Soling.

Motion approved by a roll call vote. Ayes-7 Nays-0
Marek-aye, Corneils-aye, Koch-aye, Plocher-aye,
Funkhouser-aye, Transier-aye, Soling-aye

Resolution 2025-10 **b. Approving a Change Order Relating to the 2024 Sanitary Sewer Lining Improvements Project**

Alderman Koch made a motion to approve a Resolution Approving a Change Order Relating to the 2024 Sanitary Sewer Lining Improvements Project and authorize the Mayor and City Clerk to execute; seconded by Alderman Transier.

Motion approved by a roll call vote. Ayes-7 Nays-0
Corneils-aye, Koch-aye, Plocher-aye, Funkhouser-aye,
Transier-aye, Soling-aye, Marek-aye

Resolution 2025-11 **Approving an Engineering Agreement with Engineering Enterprises, Inc. (2024 Sanitary Sewer Lining, Design and Construction Engineering)**
(PW 2024-109)

Alderman Koch made a motion to approve a Resolution Approving an Engineering Agreement with Engineering Enterprises, Inc. (2024 Sanitary Sewer Lining, Design and Construction Engineering) and authorize the Mayor and City Clerk to execute; seconded by Alderman Soling.

Motion approved by a roll call vote. Ayes-7 Nays-0
Koch-aye, Plocher-aye, Funkhouser-aye, Transier-aye,
Soling-aye, Marek-aye, Corneils-aye

Resolution 2025-12 **Approving an Amendment to the Professional Services Agreement to an Agreement with Kluber, Inc. for the Design of a Public Works Facility**
(PW 2024-111)

Alderman Koch made a motion to approve a Resolution Approving an Amendment to the Professional Services Agreement with Kluber, Inc. for the Design of a Public Works Facility and authorize the Mayor and City Clerk to execute; seconded by Alderman Marek.

Motion approved by a roll call vote. Ayes-6 Nays-1
Plocher-aye, Funkhouser-nay, Transier-aye, Soling-aye,
Marek-aye, Corneils-aye, Koch-aye

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

Heartland Meadows West
(PZC 2024-21 & EDC 2024-77)

Ordinance 2025-05 **a. Approving an Amendment to a Planned Unit Development for Kendall Marketplace**

Mayor Purcell entertained a motion to approve an Ordinance Approving an Amendment to a Planned Unit Development for Kendall Marketplace and authorize the Mayor and City Clerk to execute. So moved by Alderman Koch; seconded by Alderman Transier.

Attorney Kramer, an attorney representing the petitioner, spoke about the property's history. He shared that Marker was the only one who responded after the City put a bid out for the property. The closing on the property was contingent on the approval of the Heartland Meadows West project. He said that the commercial buildings going in will help with parking in the area. He said the commercial parking lots could be used after hours for people going to the ball fields. The use being proposed is consistent with the previous plans over the years. Attorney Kramer said that Marker is not asking for an SSA, and they are paying for all the costs themselves and at the approved zoned price.

Alderman Soling asked about the original plan to build only one of the retail centers, and if there was a need for more, they would add on then. Attorney Kramer explained that they are platting it as four lots, which could be one building on the four lots or two separate buildings. However, until they have a user, no commercial buildings will be built. Alderman Soling said then there could be the potential of no commercial buildings, to which Attorney Kramer said yes. Alderman Koch said if no commercial needs show up, would they still be willing to pave one of the pieces to help solve some of the parking issues? Alderman Funkhouser clarified that this site was intended to be a municipal site, not a commercial site. Alderman Funkhouser said the commercial was his first concern with this project over a year ago. He then asked the Council to consider sending this project back to the committee to discuss it further and said the commercial was not the right move. Alderman Soling asked about the traffic study, which Chief Jensen said was down at the curve, and they had no issues. Mayor Purcell noted the City could possibly look at a four-way stop sign to help the area. Mr. Marker shared that they are not looking for an SSA and are funding this independently. Alderman Soling asked about the requirement for electric charging stations. Attorney Kramer confirmed that it is just the Conduent that is required, not the actual stations. Alderman Transier shared concerns about the commercial side of the project. He said he does take some solace that they will not be spec buildings, and they will only be built when occupants are ready to move in. Attorney Kramer confirmed that Marker's past projects also did not build any commercial unless they had people under contract ready to move in. They will sit unbuilt if they do not find anyone for the commercial properties.

Motion approved by a roll call vote. Ayes-6 Nays-1
Funkhouser-nay, Transier-aye, Soling-aye, Marek-aye,
Corneils-aye, Koch-aye, Plocher-aye

Ordinance 2025-06 **b. Approving a Preliminary Plan of Subdivision and Final Planned Unit Development Plan for the Property Located North of Blackberry Shore Lane and Between Northland Lane and Cannonball Trail (Heartland Meadows West)**

Mayor Purcell entertained a motion to approve an Ordinance Approving a Preliminary Plan of Subdivision and Final Planned Unit Development Plan for the Property Located North of Blackberry Shore Lane and Between Northland Lane and Cannonball Trail (Heartland Meadows West) and authorize the Mayor and City Clerk to execute. So moved by Alderman Soling; seconded by Alderman Koch.

Motion approved by a roll call vote. Ayes-6 Nays-1
Transier-aye, Soling-aye, Marek-aye, Corneils-aye,
Koch-aye, Plocher-aye, Funkhouser-nay

Ordinance 2025-07 **Approving an Amendment to the Yorkville Unified Development Ordinance Regarding Fence Standards**
(PZC 2024-25 & EDC 2024-85)

Mayor Purcell entertained a motion to approve an Ordinance Approving an Amendment to the Yorkville Unified Development Ordinance Regarding Fence Standards and authorize the Mayor and City Clerk to execute. So moved by Alderman Soling; seconded by Alderman Marek.

Alderman Funkhouser explained that the UDO Committee and the Council approved the UDO a year ago without allowing chain-link fences. He said there was extensive conversation regarding this topic. He shared that there have been about a half dozen inquiries for chain-link fences. He would like the Council to consider not changing the UDO just for a few resident requests.

A motion was made by Alderman Funkhouser to send the matter back to the committee.

Motion failed due to a lack of a second.

Alderman Soling asked if the majority of the HOAs would prohibit chain-link fences, which Community Development Director Barksdale-Noble explained that the City does not know each HOA covenant, but we have had requests from all subdivisions. Alderman Soling shared that most of the HOAs probably would prohibit them. Mayor Purcell shared that he sees dozens of chain-link fences near his home, some even corner lots. Mayor Purcell shared his concern about the cost of fences vs. chain-link fences. He said he does not like the logic that we should not amend the UDO just because it was passed. Mayor Purcell shared that he does not want to be like Oswego or Naperville; he wants to be like Yorkville. He continues to share that is why the City does not have seven single-family homes per acre for an average subdivision. He asked why we would want residents to pay $2,000 - $10,000 more for a fence in their yard, all while there are developers who will not put an extra $500 - $1,000 on townhomes, and he believes it is hypocrisy. Alderman Soling shared that he sees more dilapidated wood fences than chain-link. Mayor Purcell also shared that the City has chain-link fences around the ball diamonds. Alderman Funkhouser noted for the record that he took offense to the Mayor's comment on the company he works for and their standards. Alderman Funkhouser then stated he takes exception to the derogatory comment made.

Motion approved by a roll call vote. Ayes-5 Nays-2
Soling-aye, Marek-aye, Corneils-aye, Koch-aye,
Plocher-aye, Funkhouser-nay, Transier-nay

Daniels, Malinski Yorkville Family LLLP
(PZC 2024-26 & EDC 2024-78)

Ordinance 2025-08 **a. Annexing Certain Territory Located North of US Route 34, West of Beecher Road and Kendall Marketplace, and East of Eldamain Road to the United City of Yorkville (DMYF LLLP Property)**

Mayor Purcell entertained a motion to approve an Ordinance Annexing Certain Territory Located North of US Route 34, West of Beecher Road and Kendall Marketplace, and East of Eldamain Road to the United City of Yorkville (DMYF LLLP Property) and authorize the Mayor and City Clerk to execute. So moved by Alderman Soling; seconded by Alderman Marek.

Alderman Funkhouser said that he talked to City Administrator Olson about the setback and that staff recommends a 100-foot. City Administrator Olson reported that this is not the final project approval, and a developer will have to come back to the Council for final approval, which would cover the setbacks then.

Motion approved by a roll call vote. Ayes-7 Nays-0
Marek-aye, Corneils-aye, Koch-aye, Plocher-aye,
Funkhouser-aye, Transier-aye, Soling-aye

Ordinance 2025-09 **b. Authorizing the Execution of an Annexation Agreement for Certain Territory Located North of US Route 34, West of Beecher Road and Kendall Marketplace, and East of Eldamain Road to the United City of Yorkville (DMYF LLLP Property)**

Mayor Purcell entertained a motion to approve an Ordinance Authorizing the Execution of an Annexation Agreement for Certain Territory Located North of US Route 34, West of Beecher Road and Kendall Marketplace, and East of Eldamain Road to the United City of Yorkville (DMYF LLLP Property) 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-7 Nays-0
Corneils-aye, Koch-aye, Plocher-aye, Funkhouser-aye,
Transier-aye, Soling-aye, Marek-aye

Ordinance 2025-10 **c. Approving the Rezoning to the M-2 General Manufacturing Zoning District of Certain Territory Generally Located North of US Route 34, West of Beecher Road and Kendall Marketplace, and East of Eldamain Road**

Mayor Purcell entertained a motion to approve an Ordinance Approving the Rezoning to the M-2 General Manufacturing Zoning District of Certain Territory Generally Located North of US Route 34, West of Beecher Road and Kendall Marketplace, and East of Eldamain Road and authorize the Mayor and City Clerk to execute. So moved by Alderman Soling; seconded by Alderman Funkhouser.

Motion approved by a roll call vote. Ayes-7 Nays-0
Koch-aye, Plocher-aye, Funkhouser-aye, Transier-aye,
Soling-aye, Marek-aye, Corneils-aye

CITY COUNCIL REPORT

No report.

CITY CLERK'S REPORT

No report.

COMMUNITY & LIAISON REPORT

F3 Outlands

Alderman Marek shared that 73 men participated in their Outlands workout this past Saturday in downtown Yorkville. The group is F3, a men's leadership workout group for fitness, fellowship, and faith. There is also a women's group. Please visit F3Outlands.com for more information.

Yorkville Bristol Sanitary District

Alderman Soling reported that he went to the YBSD Open House for the new pump station and garage facility. He said it was very well built and planned and suggested people check it out.

STAFF REPORT

No report.

MAYOR'S REPORT (cont'd)

City Building Updates
(CC 2021-04)

No update.

Water Study Update
(CC 2021-38)

No update.

ADDITIONAL BUSINESS

None.

CITIZEN COMMENTS

No comments.

EXECUTIVE SESSION

None

ADJOURNMENT

Mayor Purcell entertained a motion to adjourn the City Council meeting. So moved by Alderman Soling; seconded by Alderman Koch.

Motion unanimously approved by a viva voce vote.

Meeting adjourned at 8:46 p.m.

Minutes submitted by:

Jori Behland,
City Clerk, City of Yorkville, Illinois

FINAL BOARD PRESENTATION

January 14, 2025

Yorkville Combined Public Works & Parks Department Facility



SUBMITTED TO:

United City of Yorkville

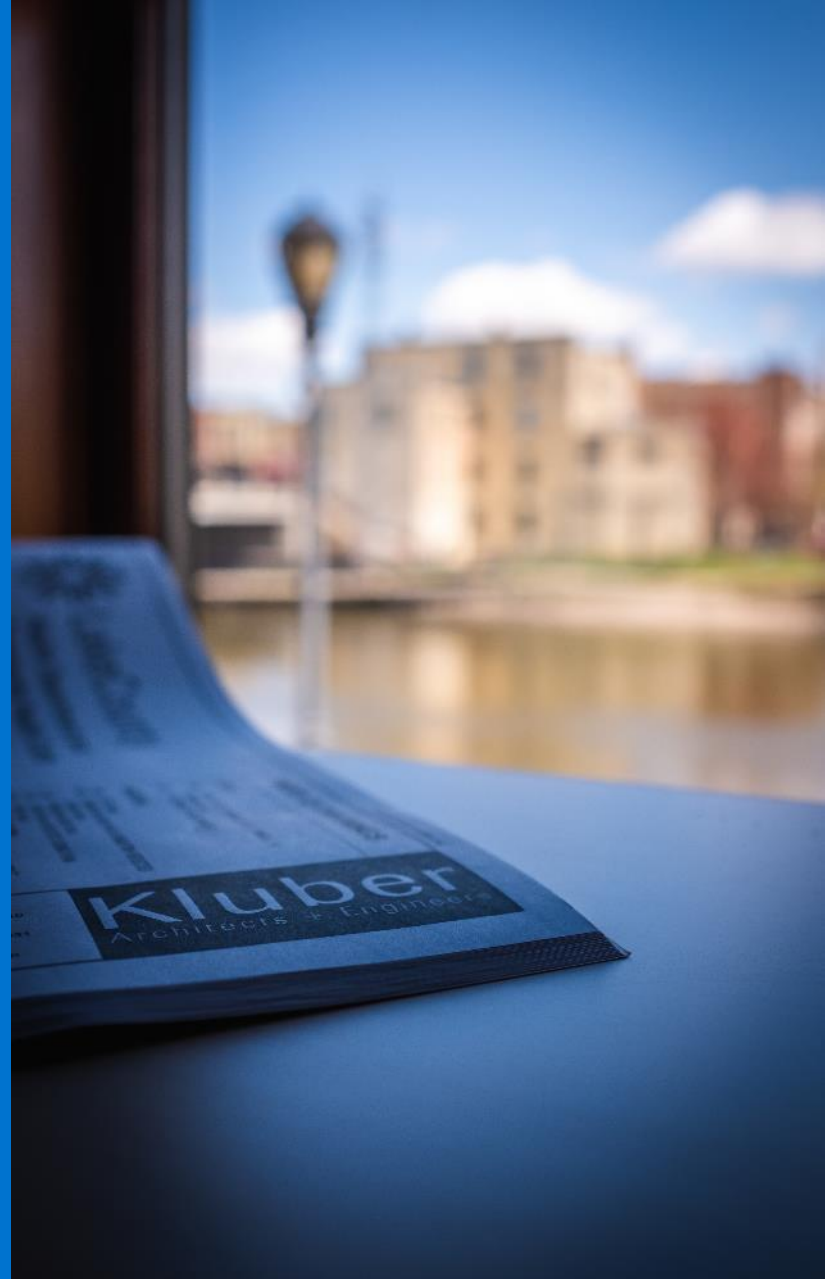
651 Prairie Point Drive

Yorkville, Illinois 60560

Kluber Architects + Engineers

R.C. WEGMAN CONSTRUCTION COMPANY

Final Floor Plans



Parks Apparatus ⟷ Public Works Apparatus

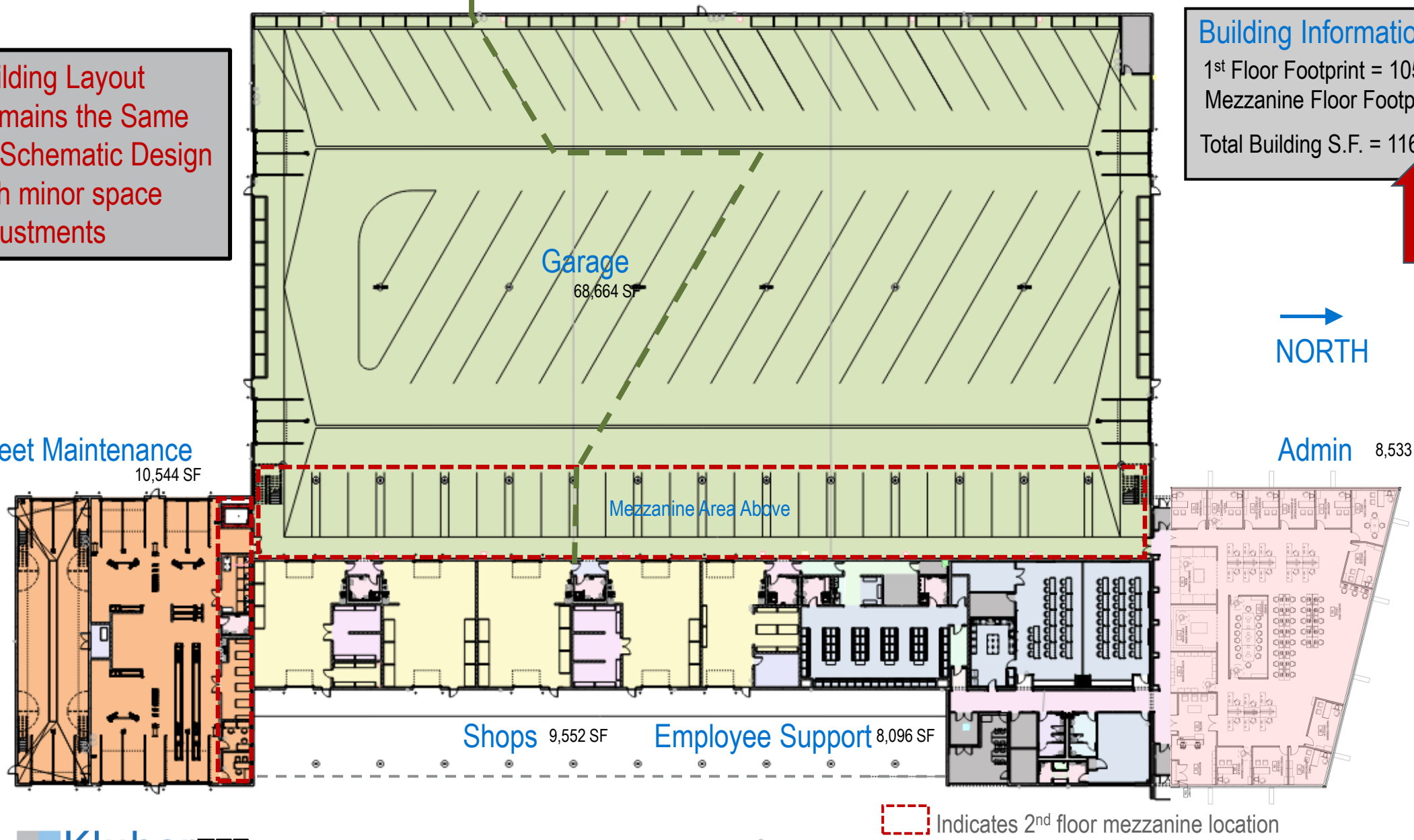
Building Layout Remains the Same as Schematic Design with minor space adjustments

Building Information:

1st Floor Footprint = 105, 390 SF
Mezzanine Floor Footprint = 10,922 SF

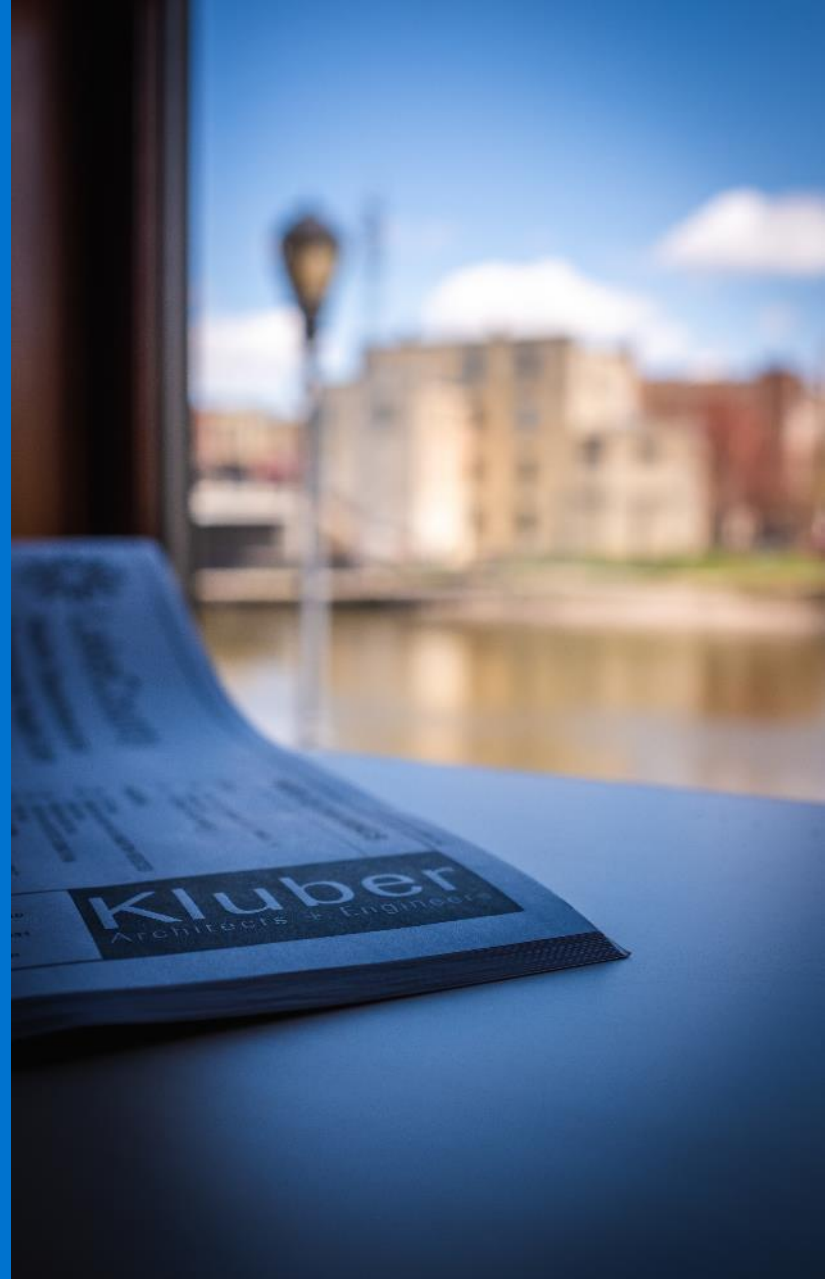
Total Building S.F. = 116,312 SF

Total SF Unchanged Since the Design Development Phase



Kluber Architects + Engineers | R.C. WEGMAN CONSTRUCTION COMPANY

Design Images

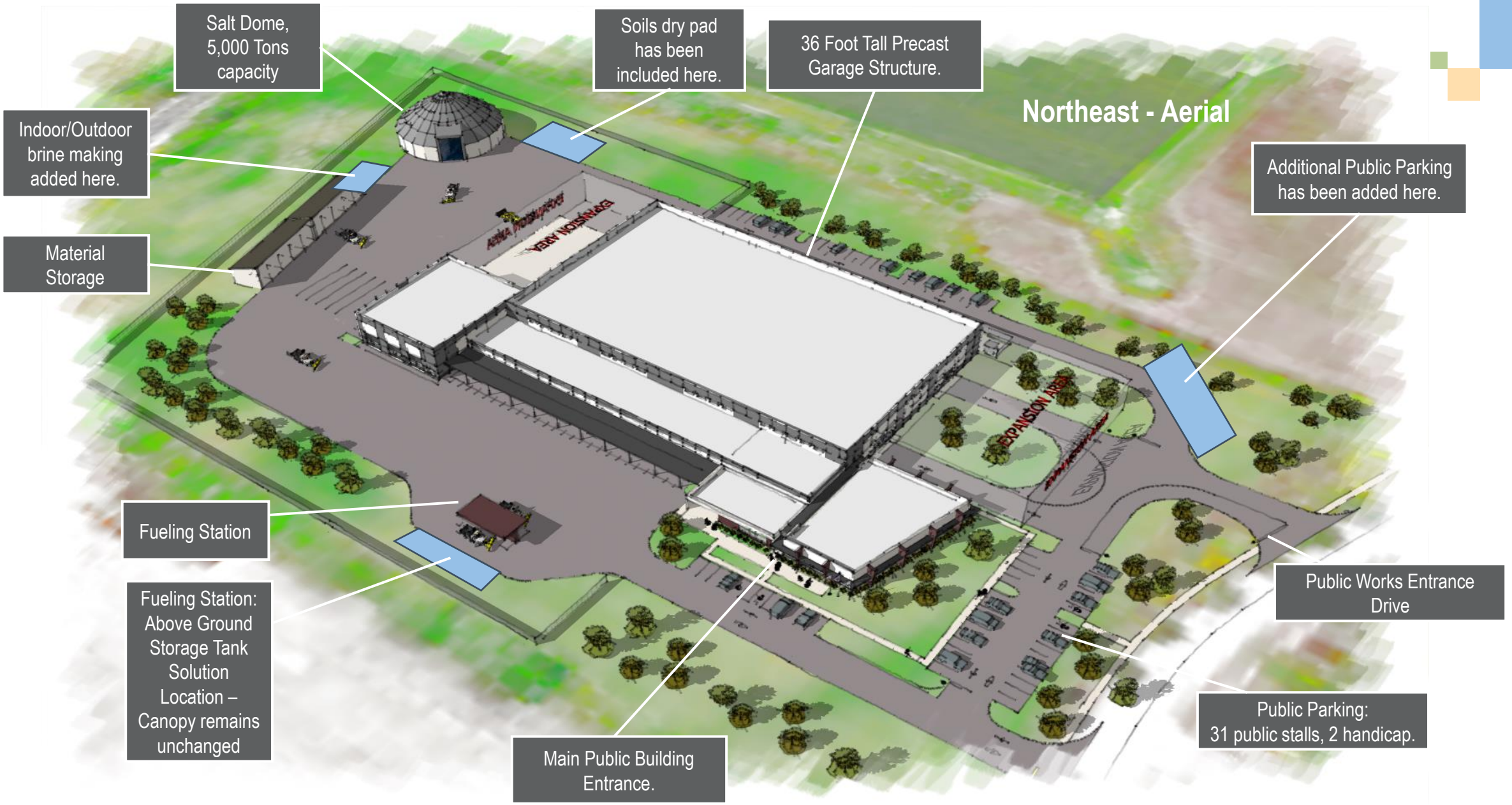


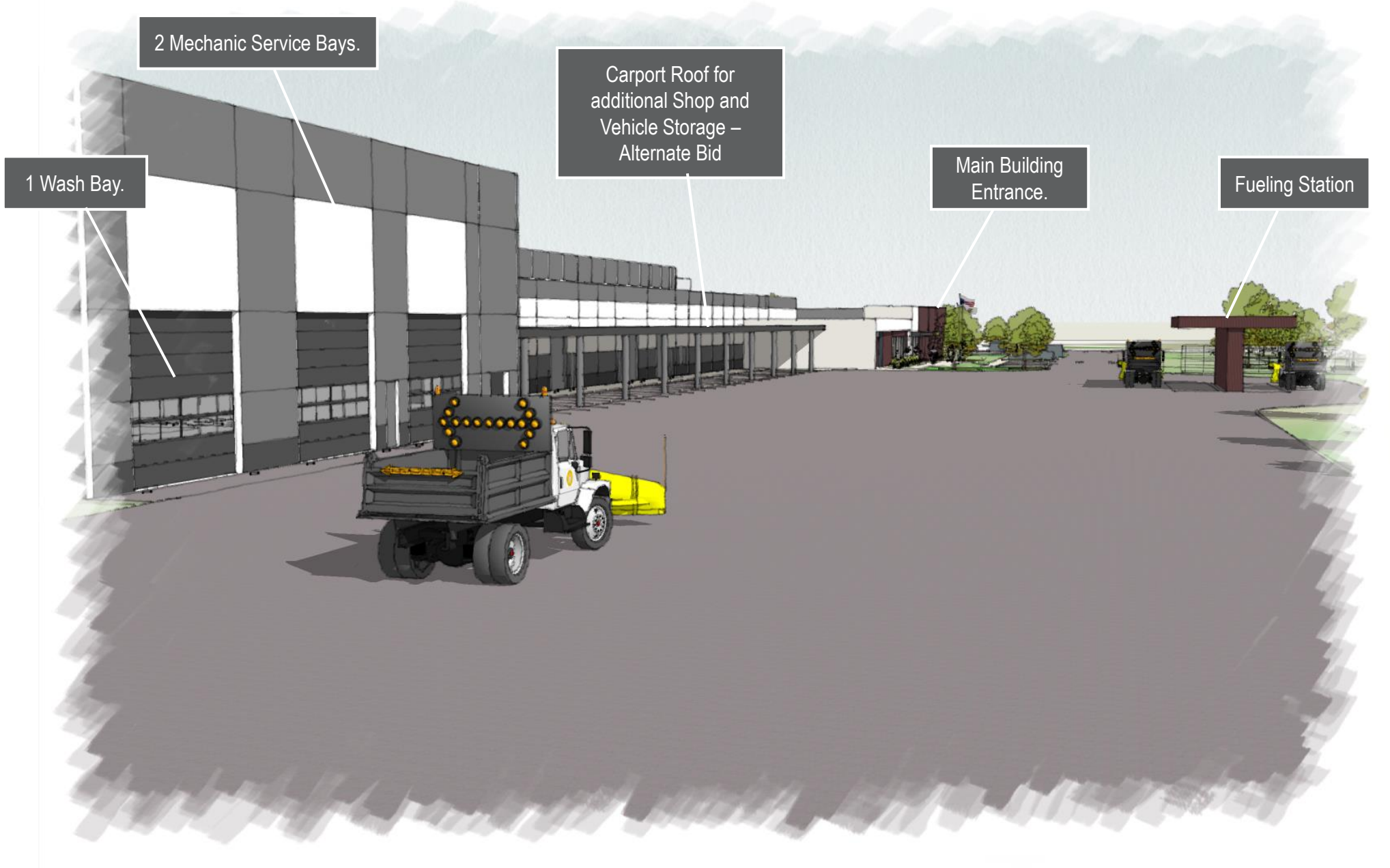

Public Parking:
10 public stalls, 3 handicap.
Main Building Entrance.
Street View

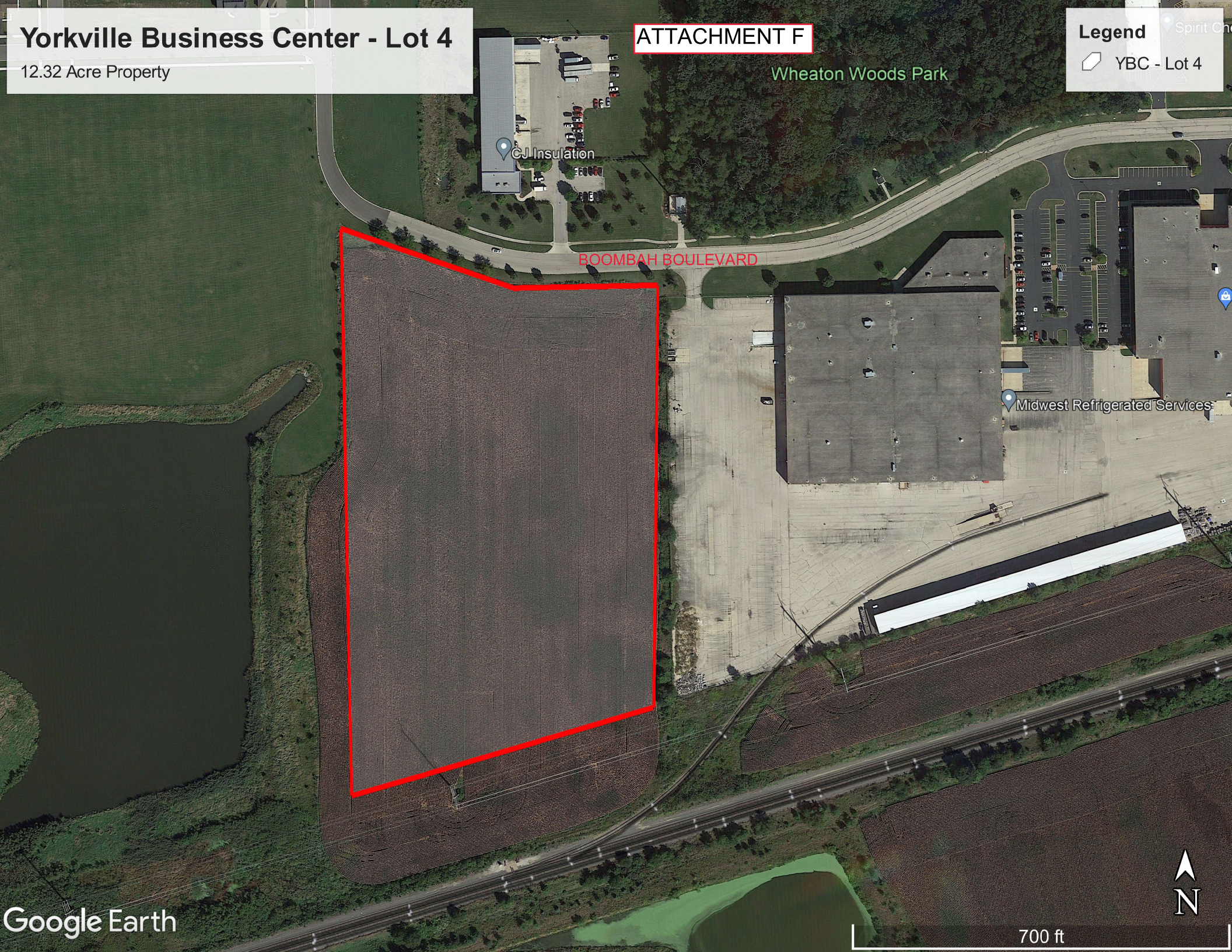

36 Foot Tall Precast Garage Structure.
Outdoor Patio area for staff.
Public Entrance
Public Entrance


Fueling Station
2 Mechanic Service Bays.
1 Wash Bay.
Carport Roof for additional Shop and vehicle storage.
Secure Fence.
Exit Drive

Northeast - Aerial




2 Mechanic Service Bays.
Carport Roof for additional Shop and Vehicle Storage – Alternate Bid
1 Wash Bay.
Main Building Entrance.
Fueling Station


Yorkville Business Center - Lot 4
12.32 Acre Property
ATTACHMENT F
Legend
YBC - Lot 4
Wheaton Woods Park
CJ Insulation
BOOMBAH BOULEVARD
Midwest Refrigerated Services
Google Earth
700 ft
N

Final Cost Opinion



Final Cost Opinion (12/18/2024)

R.C. WEGMAN CONSTRUCTION COMPANY

Item	Description: Construction Costs	Total SF	Kluber Original Budget Range:			RC Wegman Final Budget Range:			Comments
B	Sub-Total New Construction Cost	116,311	$ 23,950,546	to	$ 25,655,235	$ 23,428,593	to	$ 26,061,116	Building breakout - including RCW Fees and General Conditions reimbursables & Construction Testing.
C	Sub-Total Site Development Cost		$ 3,000,000	to	$ 3,300,000	$ 6,165,839	to	$ 6,834,358	Site breakout (Everything outside of building footprint: Salt Structure, Fuel Station, Materials Storage & Dry Pad) - including RCW Fees
D	Sub-Total Construction Cost		$ 26,950,546	to	$ 28,955,235	$ 29,594,432	to	$ 32,895,474	
E	Design Contingency (3% of Line D)		$ 808,516	to	$ 868,657	$ 540,538	to	$ 600,831	RCW Final Budget includes 2% Design Contingency, not 3%
F	Sub-Total Const. Cost with Design Contingency		$ 27,759,063	to	$ 29,823,892	$ 30,134,970	to	$ 33,496,305	
G	Construction Contingency		$ 2,775,906	to	$ 2,982,389	$ 1,351,344	to	$ 1,502,076	RCW Final Budget includes 5% Construction Contingency, not 10%
H	Sub-Total Const. Cost with Const. Contingency		$ 30,534,969	to	$ 32,806,281	$ 31,486,314	to	$ 34,998,381	

Final Cost Opinion (12/18/2024)

R.C. WEGMAN CONSTRUCTION COMPANY

Item	Description: Soft Costs	Total SF	Kluber Original Budget Range:			RC Wegman Final Budget Range:			Comments
J	Fixtures, Furniture and Equipment (10% of Line F)		$ 2,775,906	to	$ 2,982,389	$ 1,721,613	to	$ 1,721,613	DD Budget includes 6% of Construction Cost for FF&E, plus $100,000 owner moving expenses. Note: Fleet maintenance equipment and lifts, wash bay equipment and storage shelving now included in Construction Cost above.
K	Administrative Expenses* (2% of Line F)		$ 555,181	to	$ 596,478	$ 166,200	to	$ 166,200	Not percentage based. Includes RCW Preconstruction Services, Utility Connection Fee Allowances.
L	A/E Fees (Includes Civil Engineering Service Fees Contracted Direct By Owner)		$ 2,020,860	to	$ 2,171,179	$ 2,002,656	to	$ 2,002,656	Includes Kluber, EEI Design Fees + Soil Boring sampling costs
M	Total Soft Costs (J+K+L)		$ 5,351,947	to	$ 5,750,046	$ 3,890,469	to	$ 3,890,469	
N	Total Project Budget		$ 35,886,916	to	$ 38,556,327	$ 35,376,783	to	$ 38,888,850	
P	Alternates for Consideration:								
1	Alt. #1 - Carport Construction: East of Shops	6,943	$ 860,932	to	$ 958,134	$ 545,935	to	$ 545,935	
Q	Grand Total Project Budget with Alternate #1		$ 36,747,848		$ 39,514,461	$ 35,922,718		$ 39,434,785	

Updated, Final Total Project Budget is Comparable to the Kluber Initial Schematic Design Estimates

Project Schedule



YORKVILLE PUBLIC WORKS AND PARKS FACILITY
MILESTONE DATES

TASK	DATES
Receive "For Bid" Documents from Kluber	January 15, 2025
Review Drawings, Create Work Scopes and Front End	January 16 - 31, 2025
Project Out to Bid	February 3, 2025
Bid Opening	February 25, 2025
Scope Review Meetings / Create GMP	February 26 - March 7, 2025
GMP Amendment to Yorkville	March 10, 2025
Yorkville Council Approval Process	March 11 - 25, 2025
Start Construction	April 1, 2025
Project Complete	August 31, 2026

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 – January 28, 2025

Meeting and Date: City Council – February 11, 2025

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

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, JANUARY 28, 2025

Mayor Purcell called the meeting to order at 7:00 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	(electronic attendance)

Staff in attendance at City Hall: City Administrator Olson, City Clerk Behland, Chief of Police Jensen, Attorney Castaldo, Public Works Director Dhuse, Community Development Director Barksdale-Noble, Finance Director Fredrickson, Parks and Recreation Director Evans, Assistant City Administrator Willrett, EEI Engineer Sanderson, Senior Planner David Hansen, and Assistant Public Works Director John Sleezer.

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/87213676781?pwd=bU8IasiJ4Hagv28kOG0zMbnxxVcEwE.1.
The Zoom meeting ID was 872 1367 6781.

QUORUM

A quorum was established**.**

AMENDMENTS TO THE AGENDA

None.

PRESENTATIONS

Introduction of New Community Development Employee – David Hansen, Senior Planner

Community Development Director Barksdale-Noble introduced David Hansen as the new Senior Planner.

Introduction of Public Work Employee – John Sleezer, Assistant Director of Public Works

Public Works Director Dhuse thanked the Council for approving the creation of the new Assistant Director of Public Works position. He then congratulated John Sleezer on his new role and thanked him for 30 years of service with the City.

PUBLIC HEARINGS

None

CITIZEN COMMENTS ON AGENDA ITEMS

Mike Krempski, a Yorkville resident, reported that Kendall Township voted against Ament Solar Farm. Then, the County's regional planning commission also voted against this. People within Kendall Township are not enthusiastic about seeing this come in.

John Vose, a resident of Heartland Circle in Yorkville, commented on the Costco Development. He shared that their only access to 34 is on McHugh. Anything that affects 34 and McHugh is going to affect his family. He is also concerned about the walking path in the area and additional traffic coming in. He wants to ensure adequate safety concerns are resolved about the crossings now. He would like to see mitigation before someone gets hurt, not after. He also mentioned that 70 gas pumps are overkill.

CONSENT AGENDA

1. Bill Payments for Approval
   $ 3,099,206.07 (vendors)
   $ 435,615.01 (payroll period ending 01/17/25)
   $ 3,534,821.08 (total)
2. Water Reports for August 2024 – December 2024 (PW 2025-02)
3. **Resolution 2025-13** Approving a Change Order Relating to the 2024 Local Road Program – *authorize the Mayor and City Clerk to execute* (PW 2025-05)
4. **Resolution 2025-14** Approving the Release of a Performance Guarantee Bond Related to Grande Reserve Unit 20 – *authorize the Mayor and City Clerk to execute* (PW 2025-06)
5. **Ordinance 2025-11** Amending the Traffic Schedule and Index (Matlock Drive and Berrywood Lane) – *authorize the Mayor and City Clerk to execute* (PW 2025-08)

Mayor Purcell entertained a motion to approve the consent agenda. So moved by Alderman Tarulis; seconded by Alderman Plocher.

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

Fireworks Display Contract
(CC 2025-05)

Resolution 2025-15 **a. Authorizing a Contract with Mad Bomber Fireworks Productions for the Purchase of Fireworks for a City-Sponsored Fireworks Display**

Ordinance 2025-12 **b. Authorizing the Fourth Amendment to the Annual Budget of the United City of Yorkville, for the Fiscal Year Commencing on May 1, 2024 and Ending on April 30, 2025**

Mayor Purcell entertained a motion to approve a Resolution Authorizing a Contract with Mad Bomber Fireworks Productions for the Purchase of Fireworks for a City-Sponsored Fireworks Display and an Ordinance Authorizing the Fourth Amendment to the Annual Budget of the United City of Yorkville, for the Fiscal Year Commencing on May 1, 2024 and Ending on April 30, 2025 and authorize the Mayor and City Clerk to execute. So moved by Alderman Marek; seconded by Alderman Transier.

Alderman Funkhouser asked if the City plans to go out for bid next year for fireworks. Mayor Purcell said probably not, as next year is the 250th Fourth of July celebration, and they are already getting many requests. Mayor Purcell said that we would possibly go out to bid the following year. Alderman Funkhouser asked if we are doing one show this year, and Mayor Purcell said they might be able to do a second one but wanted to lock in for the Fourth of July.

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

Appointment to the Planning and Zoning Commission – Chad Green
(CC 2025-06)

Mayor Purcell entertained a motion to approve the Mayor's appointment to the Planning and Zoning Commission for a term ending May 2026. So moved by Alderman Koch; 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 Approving a Sales Tax Revenue Sharing Agreement (Costco Wholesale Corporation)
(CC 2025-07)

City Administrator Olson shared that the incentive agreement wasn't ready at packet creation. They hope to have it ready to vote at the February 11th City Council meeting. The incentive agreement will generally be a sales tax-sharing agreement generated from Costco's own sales. For the first six years of the agreement, they anticipate sharing .75% of the City's regular sales tax of 1%. Then, in the next fourteen years, they would share .5% out of the City's regular sales tax of 1%. That incentive goes away and is caped out at $10 million of total incentive for the life of the agreement. If the $10 million is not met within those 20 years, the agreement will be extended for an additional 10 years. The City's staff estimate, based on publicly available sales data from Costco, they believe the total incentive will be reached within 10 to 20 years. Costco does not warrant this estimate and did not participate in that estimate. City Administrator Olson then reviewed past incentive agreements the City approved for reference. Alderman Funkhouser asked if there were any projections on what the City could see on the sales tax numbers, which City Administrator Olson stated that based on available data if Costco hit the average of its annual sales, the City would see around $700,000. Mayor Purcell said the goal is to vote on this in two weeks.

PUBLIC WORKS COMMITTEE REPORT

Resolution 2025-16 **Authorizing the Purchase of 500 Replacement Water Meters in an Amount Not to Exceed $130,000**
(PW 2025-07)

Alderman Koch made a motion to approve a Resolution Authorizing the Purchase of 500 Replacement Water Meters in an Amount Not to Exceed $130,000 and authorize the Mayor and City Clerk to execute; seconded by Alderman Soling.

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

Resolution 2025-17 **Approving an Engineering Agreement with Engineering Enterprises, Inc. (Route 47 Utility Relocation – Carpenter St. to Waterpark Way)**
(PW 2025-09)

Alderman Koch made a motion to approve a Resolution Approving an Engineering Agreement with Engineering Enterprises, Inc. (Route 47 Utility Relocation – Carpenter St. to Waterpark Way) and authorize the Mayor and City Clerk to execute; seconded by Alderman Tarulis.

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

Resolution 2025-18 **Approving an Engineering Agreement with Engineering Enterprises, Inc. (Whispering Meadows Storm Sewer – Design Engineering Agreement)**
(PW 2025-10)

Alderman Koch made a motion to approve a Resolution Approving an Engineering Agreement with Engineering Enterprises, Inc. (Whispering Meadows Storm Sewer – Design Engineering Agreement) and authorize the Mayor and City Clerk to execute; seconded by Alderman Marek.

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

ECONOMIC DEVELOPMENT COMMITTEE REPORT

No report.

PUBLIC SAFETY COMMITTEE REPORT

No report.

ADMINISTRATION COMMITTEE REPORT

No report.

PARK BOARD

Mini Golf FUN Raiser

Parks and Recreation Director Evans announced that the Mini Golf FUN Raiser will be held at the library on Sunday, February 2, 2025, from 10:00 a.m. to 4:00 p.m. The cost is $5.00 per golfer.

PLANNING AND ZONING COMMISSION

Kendall County Petition 24-30 – 1.5 Mile Review
(South of 9949 and 10021 Ament Road)
(PZC 2024-30 & EDC 2024-07)

Mayor Purcell entertained a motion to table until the February 11, 2025 City Council meeting. So moved by Alderman Koch; seconded by Alderman Soling.

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

Costco
(PZC 2024-33 & EDC 2025-10)

Ordinance 2025-13 **a. Approving an Amendment to a Planned Unit Development for Yorkville Crossing (Costco Wholesale Corporation)**

Mayor Purcell entertained a motion to approve an Ordinance Approving an Amendment to a Planned Unit Development for Yorkville Crossing (Costco Wholesale Corporation) and authorize the Mayor and City Clerk to execute. So moved by Alderman Koch; seconded by Alderman Marek.

Stephen Cross, Costco's Real Estate and Development Director, stated that Larry Dziurdzik, a Real Estate Representative; Dan Free, a Civil Engineer; Peter Reinhofer, a Traffic Consultant; Risa Yuki, an MG2 Architect; and Amanda McAbee, a Project Landscape Architect, will be present tonight for any questions. Larry Dziurdzik gave a brief presentation to the City Council (see attached).

Alderman Koch asked about the trail system that is currently in place and asked if it will stay in place, to which Mr. Dziurdzik said yes, they are providing a connection from the front of the building through their parking lot to that trail system. Alderman Funkhouser asked about the traffic mitigation and traffic study. Peter Reinhofer stated they did the traffic study, and there were a couple of impacts. They have proposals for the light timing to mitigate those impacts. There are also multiple proposals for turning lanes in the area, which they are working on with IDOT. Alderman Funkhouser acknowledged and thanked them for the changes they made based on his feedback. He would still like more masonry on top of the added increase.

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

Ordinance 2025-14 **b. Approving a Special Use Permit Allowing the Operation of a Gasoline Service Station on Certain Territory Located at the Southeast Corner of East Countryside Parkway and McHugh Road, Yorkville, Illinois (Costco Wholesale Corporation)**

Mayor Purcell entertained a motion to approve an Ordinance Approving a Special Use Permit Allowing the Operation of a Gasoline Service Station on Certain Territory Located at the Southeast Corner of East Countryside Parkway and McHugh Road, Yorkville, Illinois (Costco Wholesale Corporation) and authorize the Mayor and City Clerk to execute. So moved by Alderman Plocher; seconded by Alderman Transier.

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

Ordinance 2025-15 **c. Approving the Final Plat of Subdivisions for *Costco Wholesale***

Mayor Purcell entertained a motion to approve an Ordinance Approving the Final Plat of Subdivisions for *Costco Wholesale* and authorize the Mayor and City Clerk to execute. So moved by Alderman Tarulis; 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,

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)

Public Works and Parks Department
Facility Update
(CC 2025-08)

No update.

Lake Michigan Water
Project Update
(CC 2025-09)

City Administrator Olson reported that the federal government released a memo freezing some discretionary loans and grants last evening. According to the executive order, the WIFIA and IEPA loans are federally backed and could be in jeopardy. There is a possibility of a temporary freeze on these funds, but they believe it won't impact the City's timeline as closing isn't planned until September. Staff will keep monitoring and updating as needed.

ADDITIONAL BUSINESS

None.

CITIZEN COMMENTS

Mike Krempski, a Yorkville resident, asked the Council to consider Consume Cannabis's newly proposed location next to Jewel. Mr. Krempski said he does not believe it is an appropriate location. He asked the Council to look at it from the view of the residents who live nearby and the entire community.

EXECUTIVE SESSION

Mayor Purcell entertained a motion to go into executive session 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.
So moved by Alderman Marek; seconded by Alderman Soling.

Motion approved by a roll call vote. Ayes-6 Nays-1 Abstain-1
Funkhouser-aye, Tarulis-aye, Transier-aye, Soling-aye,
Marek-aye, Corneils-abstain, Koch-aye, Plocher-nay

ADJOURNMENT

Mayor Purcell entertained a motion to adjourn the City Council meeting. So moved by Alderman Funkhouser; seconded by Alderman Koch.

Motion unanimously approved by a viva voce vote.

Meeting adjourned at 8:16 p.m.

Minutes submitted by:

Jori Behland,
City Clerk, City of Yorkville, Illinois

PUD Amendment, Special Use, & Final Plat
for a
Proposed Wholesale Retail Warehouse & Fuel Facility
NW Corner of Veteran's Parkway & E. Countryside Parkway

UNITED CITY OF YORKVILLE

City Council Meeting
January 28, 2025

Costco Wholesale Corporation

Costco Wholesale Development Team

Mike Stratis
Costco Real Estate-Intrepid Properties, Inc.

Stephen Cross
Costco Real Estate

Larry Dziurdzik
Costco Real Estate

Risa Yuki, Principal
MG2 Architects, Inc.

Dan Free, P.E.
Project Engineer, V3 Companies

Peter Reinhofer, P.E.
Traffic Consultant , V3 Companies

Amanda McAbee, PLA
Project Landscape Architect
Kimley-Horn

Costco Wholesale Property Location



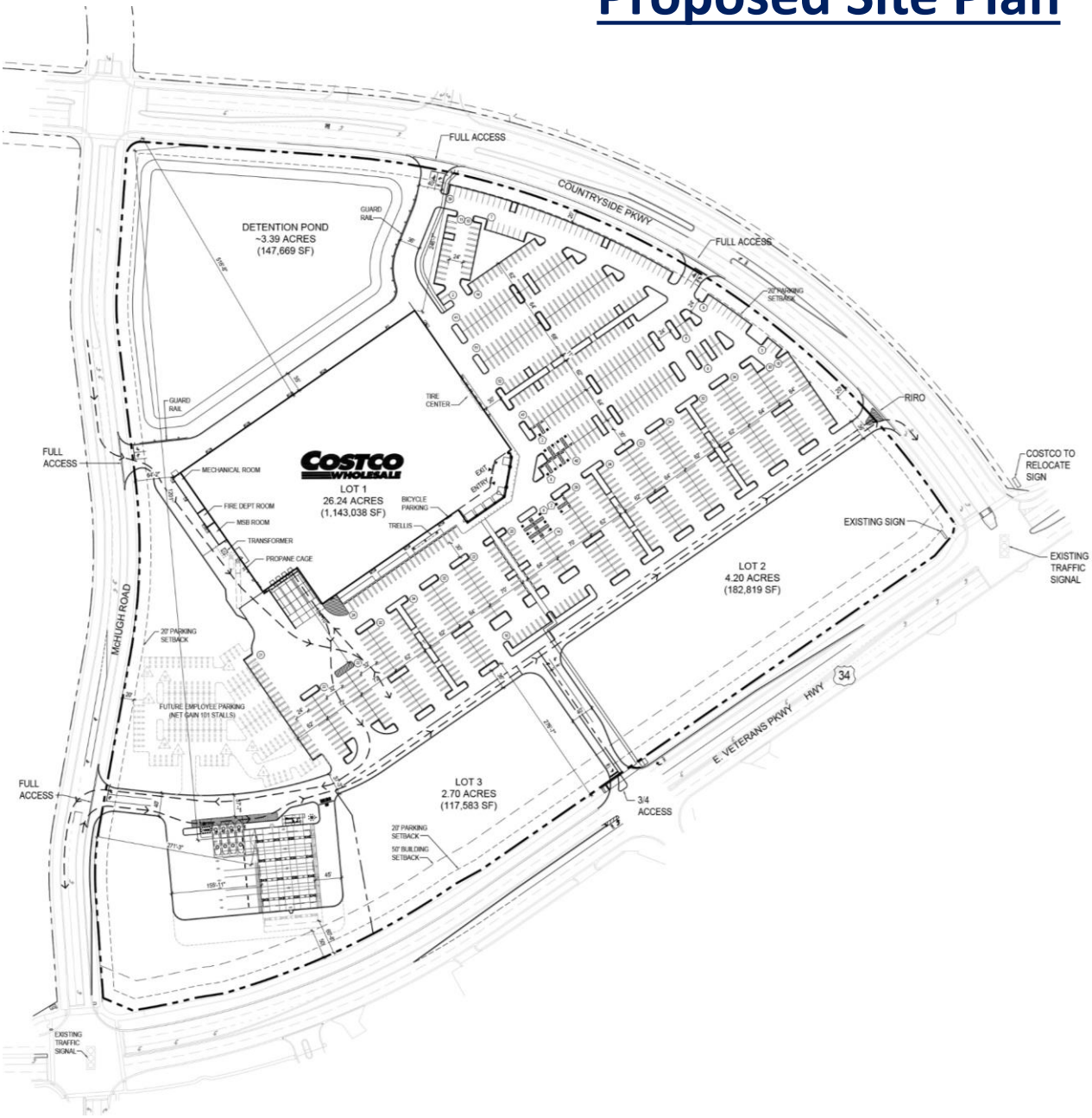
Requested Zoning Approvals

- Costco is under contract to Purchase 33.14 Acres from Joda Land Holding, LLC
- Amend the Yorkville Crossing Planned Unit Development Agreement to Include Costco's Proposed Site Plan with certain Deviations from the City's Unified Development Code
- Special Use Authorization for a Fueling Facility
- Final Plat Approval

Requested UDO Deviations

- #1 –Relief from Maximum Parking Requirement to allow 956 Parking Stalls
- #2 – Relief from Electric Vehicle Charging Infrastructure Requirements.
- #3-Relief from the maximum height for outdoor light standards in the B-3, General Business District to allow a 36’-6” pole light.
- #4-Relief from Building Foundation Landscape and Parking Area Interior Landscaping Zones.
- #5-Relief from the Minimum Masonry Requirements and the placement of the loading bays at the front of the building and adjacent to a public right- of-way.

Proposed Site Plan



Site Plan Summary

Lot 1: Costco Wholesale &
Fuel Facility: 26.24 Acres
Lot 2: 4.20 Acres
Lot 3: 2.70 Acres
Total: 33.14 Acres

Building Data

Total Building Area: 161,562 SF
Main Sales Floor Area: 116,000 SF

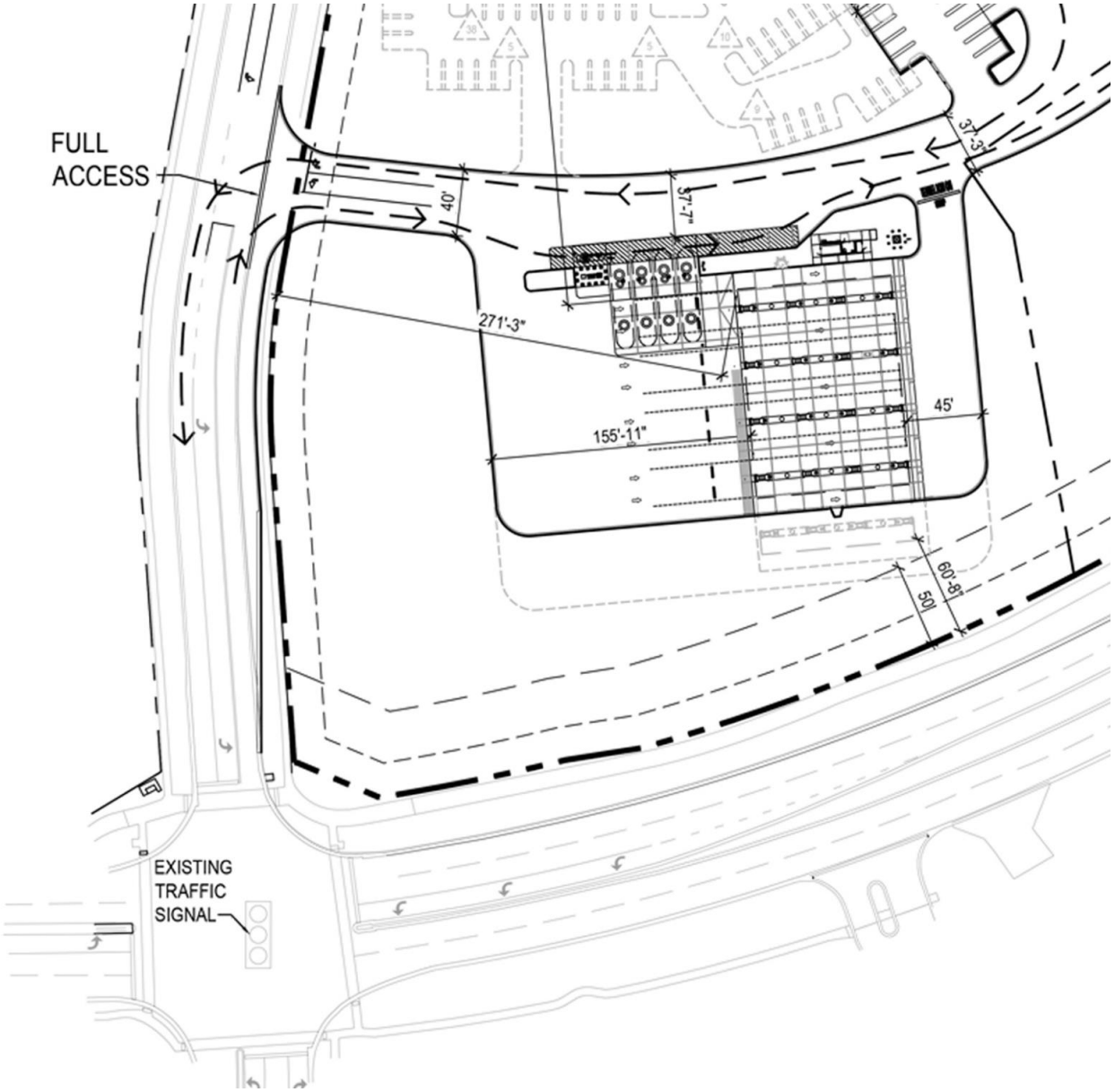
Parking Data

Proposed Parking: 855
Future Parking Expansion:101
Total Parking: 956

Fuel Facility

Proposed Pumps: 16
32 Fuel Dispensers
Expansion to 20 pumps
40 Fuel Dispensers

Proposed Fuel Facility



Site Plan Summary

Fuel Facility

Proposed Pumps: 16

32 Fuel Dispensers

Expansion to 20 pumps

40 Fuel Dispensers

Allows 32 Vehicles at Fuel Dispensers

40 Cars in Queue Storage Area

72 Total Vehicles

COSTCO WHOLESALE

Building Materials



VERTICAL METAL PANEL
PROFILE: "MEGA RIB"
COLOR: "TAUPESTONE"

CMU
PROFILE: SMOOTHFACE
COLOR: "DARK BURNT UMBER"

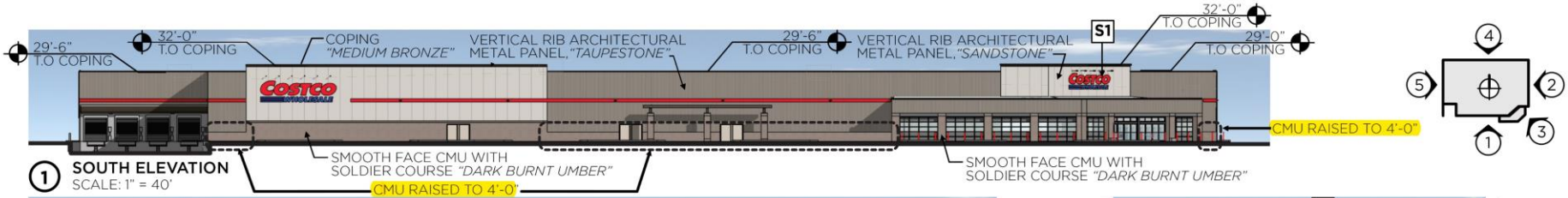
INSULATED METAL PANEL
PROFILE: "GRANITESTONE"
COLOR: "SANDSTONE"

METAL TRIM
PROFILE: COPING/CORNICE
COLOR: "MEDIUM BRONZE"

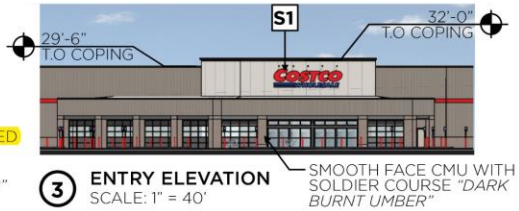
SIGNAGE & ACCENT BAND
MANUFACTURER: METAL SALES
COLOR: "SAFETY RED" AND "LAPIS LAZULI"

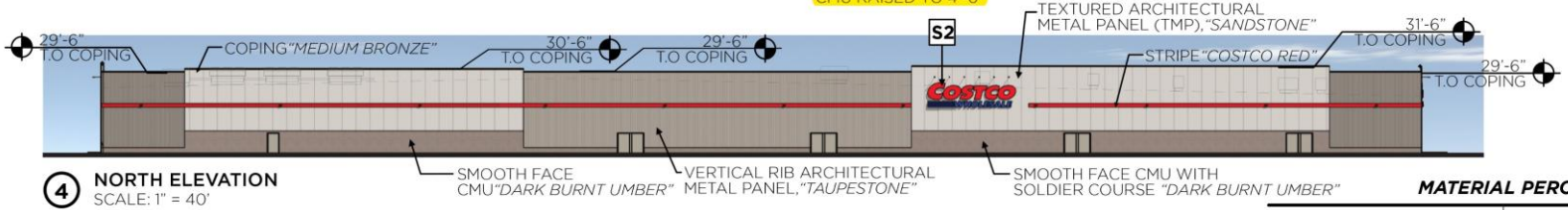
COSTCO WHOLESALE

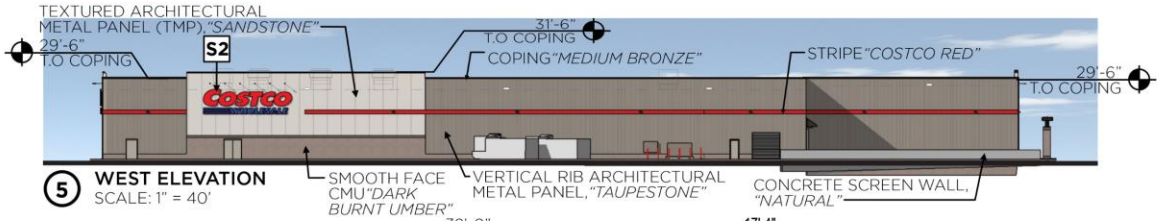
Building Elevations













MATERIAL PERCENTAGES

MATERIAL	ELEVATION SOUTH	EAST	NORTH	WEST	ENTRY	TOTAL
SMOOTH FACE CMU "DARK BURNT AMBER"	1,633 SF 13%	1,516SF 18%	2,347 SF 18%	1,188 SF 12%	905 SF 21%	15.78%
GLAZING		390 SF 5%			993 SF 23%	2.87%
TEXTURED ARCHITECTURAL METAL PANEL "SANDSTONE"	2,549 SF 21%	2,867SF 34%	5,850 SF 44%	1,911 SF 20%	1,470 SF 34%	30.45%
VERTICAL RIBBED ARCHITECTURAL METAL PANEL "TAUPESTONE"	7,633 SF 62%	3,703 SF 44%	5,108 SF 38%	6,557 SF 68%	939 SF 22%	49.77%
CONCRETE "NATURAL"	546 SF 4%					1.14%

* CALCULATION DOES NOT INCLUDE EXTERIOR EGRESS DOORS

SIGN TABLE

IDENTITY	QUANTITY	SIGN	SIZE	AREA (EACH)	TOTAL SF
S1	1	COSTCO WHOLESALE	5'-0" C	175 SF	*175 SF*
S2	4	COSTCO WHOLESALE	6'-0" C	280 SF	*1120 SF*
S3	1	TIRE CENTER	17'-4" x 1'-9"	31 SF	*31 SF*
				TOTAL SIGN AREA:	1326 SF

Building Entrance



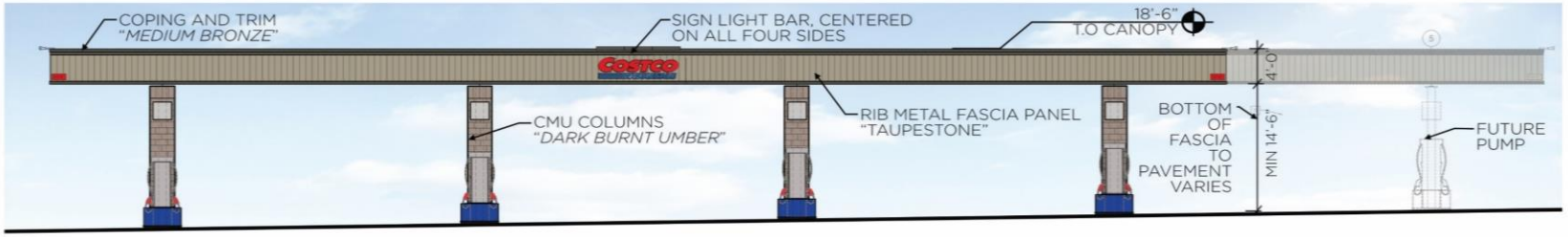
Northwest Building Rendering



Southeast Building Rendering



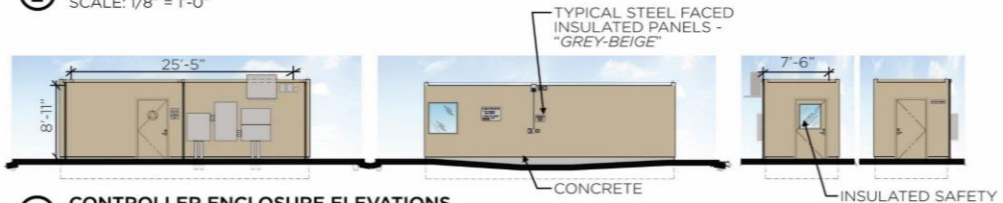
Fuel Facility Elevations



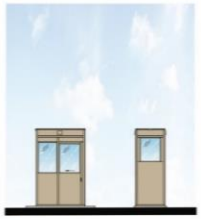
① EAST/WEST ELEVATIONS
SCALE: 1/8" = 1'-0"

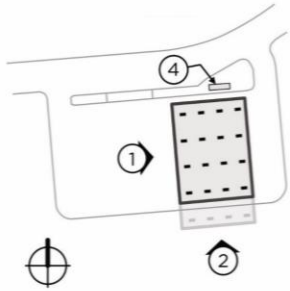


② NORTH/SOUTH ELEVATIONS
SCALE: 1/8" = 1'-0"

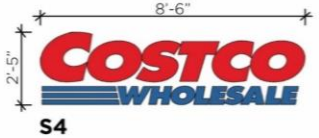


④ CONTROLLER ENCLOSURE ELEVATIONS
SCALE: 1/8" = 1'-0"





② WARMING HUT ELEVATIONS
SCALE: 1/8" = 1'-0"



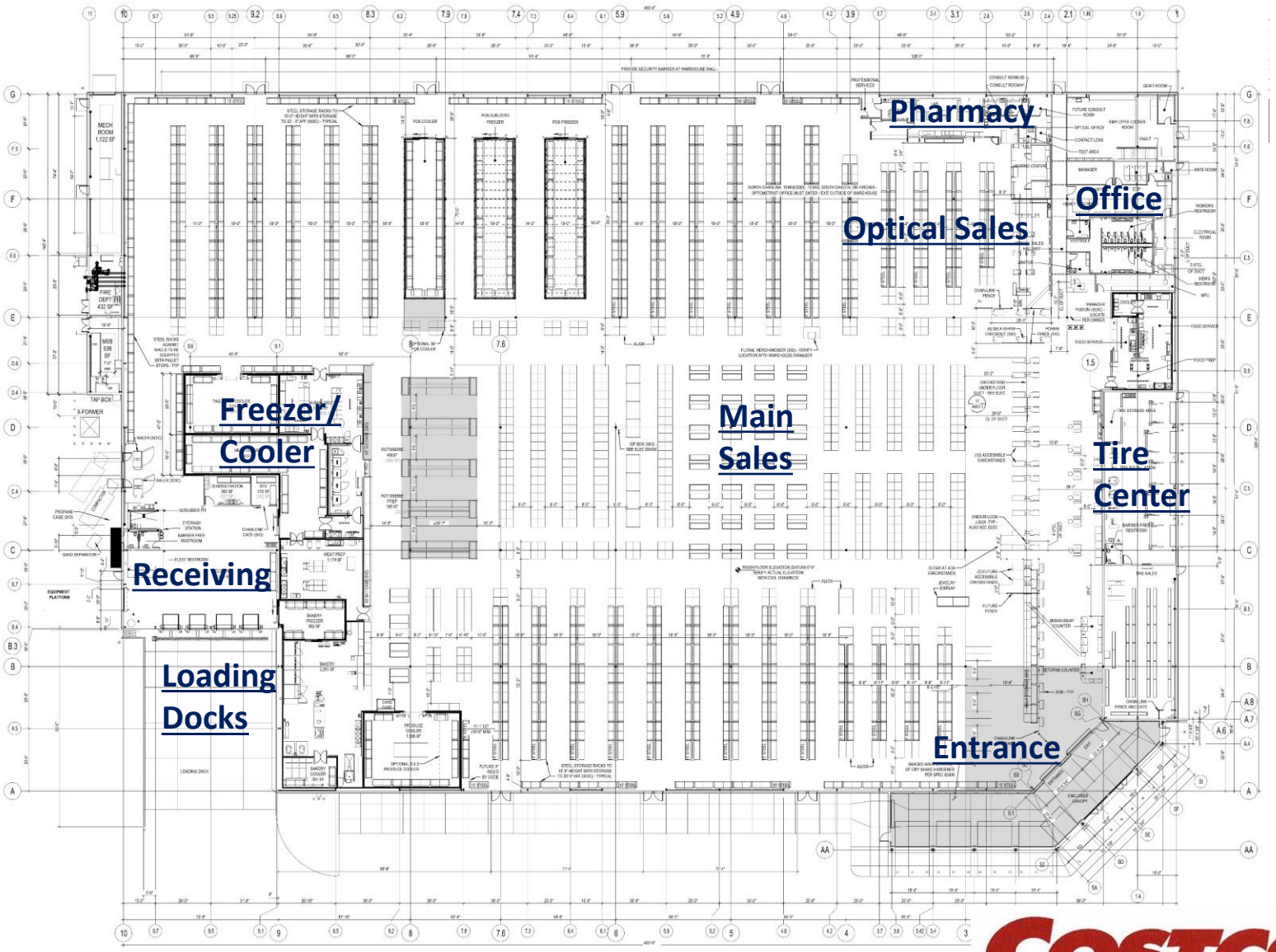
S4

SIGN AREA TABULATION (CANOPY SIGNS)

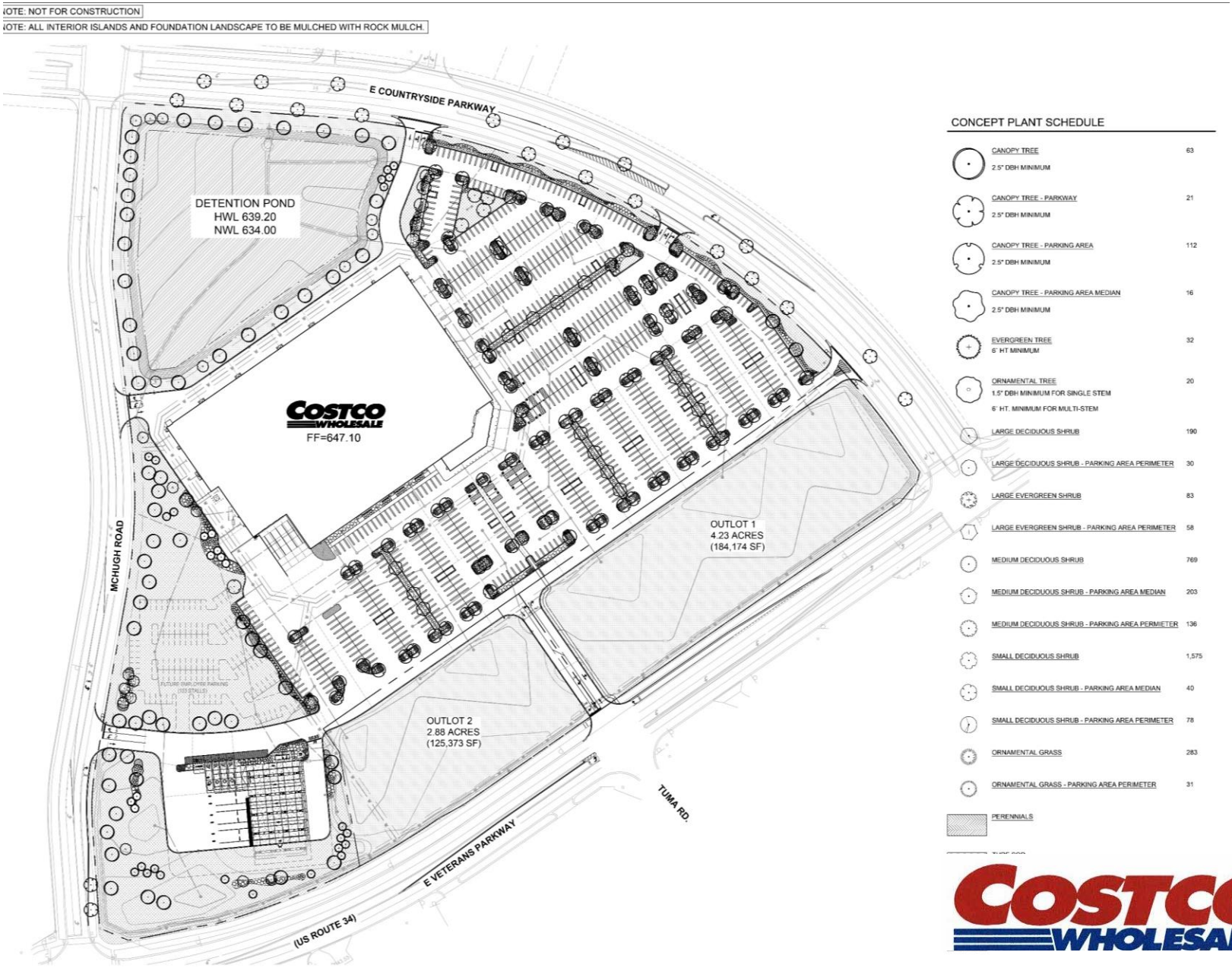
QUANTITY	*SIGN*	*SIZE*	*AREA (EACH)*	*TOTAL SF*
4	COSTCO WHOLESALE	2'-5 1/4" "C"	21 SF	***84 SF***
			TOTAL SIGNAGE AREA:	**84 SF**

COSTCO WHOLESALE

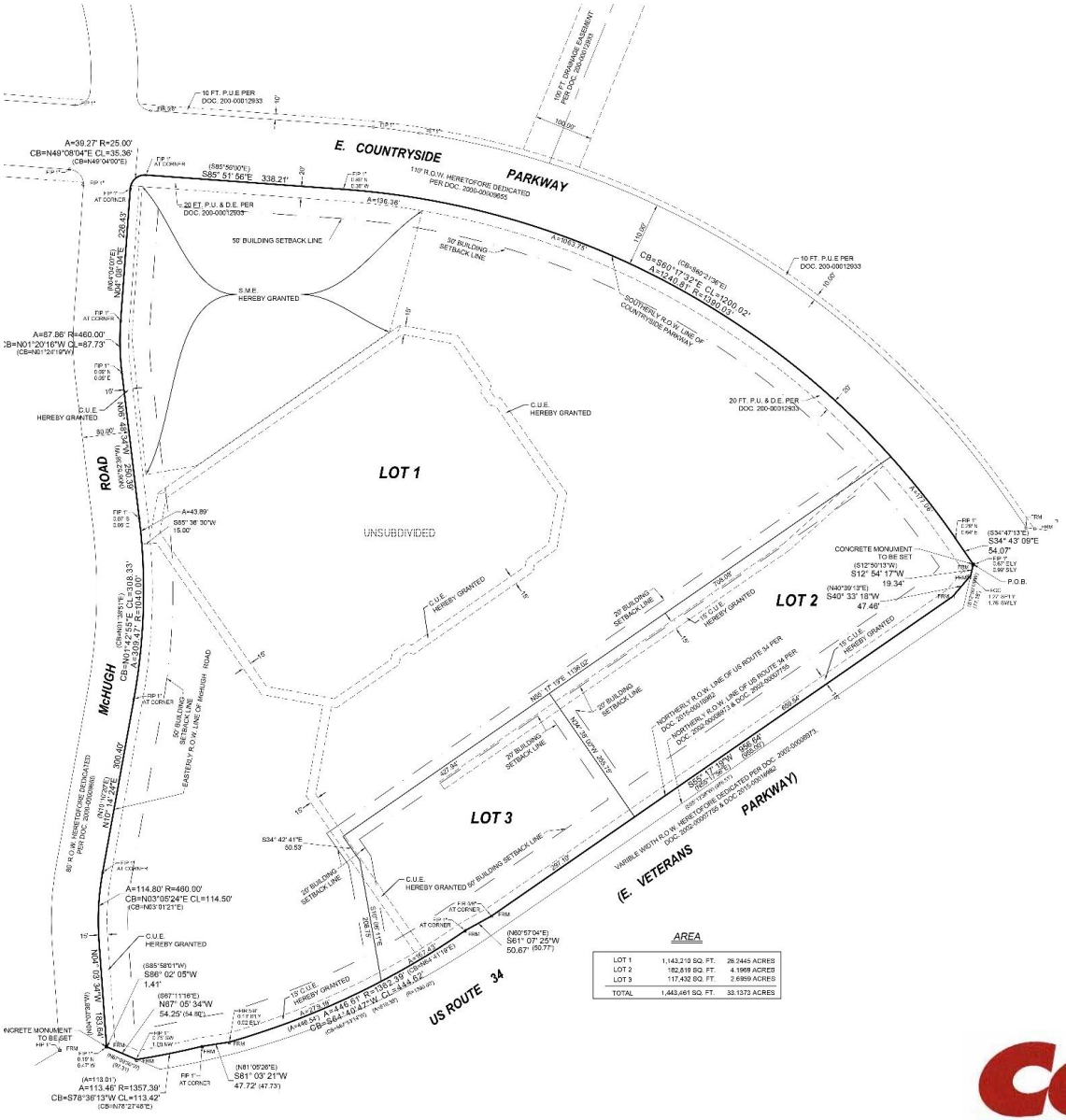
Floor Plan


Pharmacy
Office
Optical Sales
Freezer/
Cooler
Main
Sales
Tire
Center
Receiving
Loading
Docks
Entrance

Landscape Plan



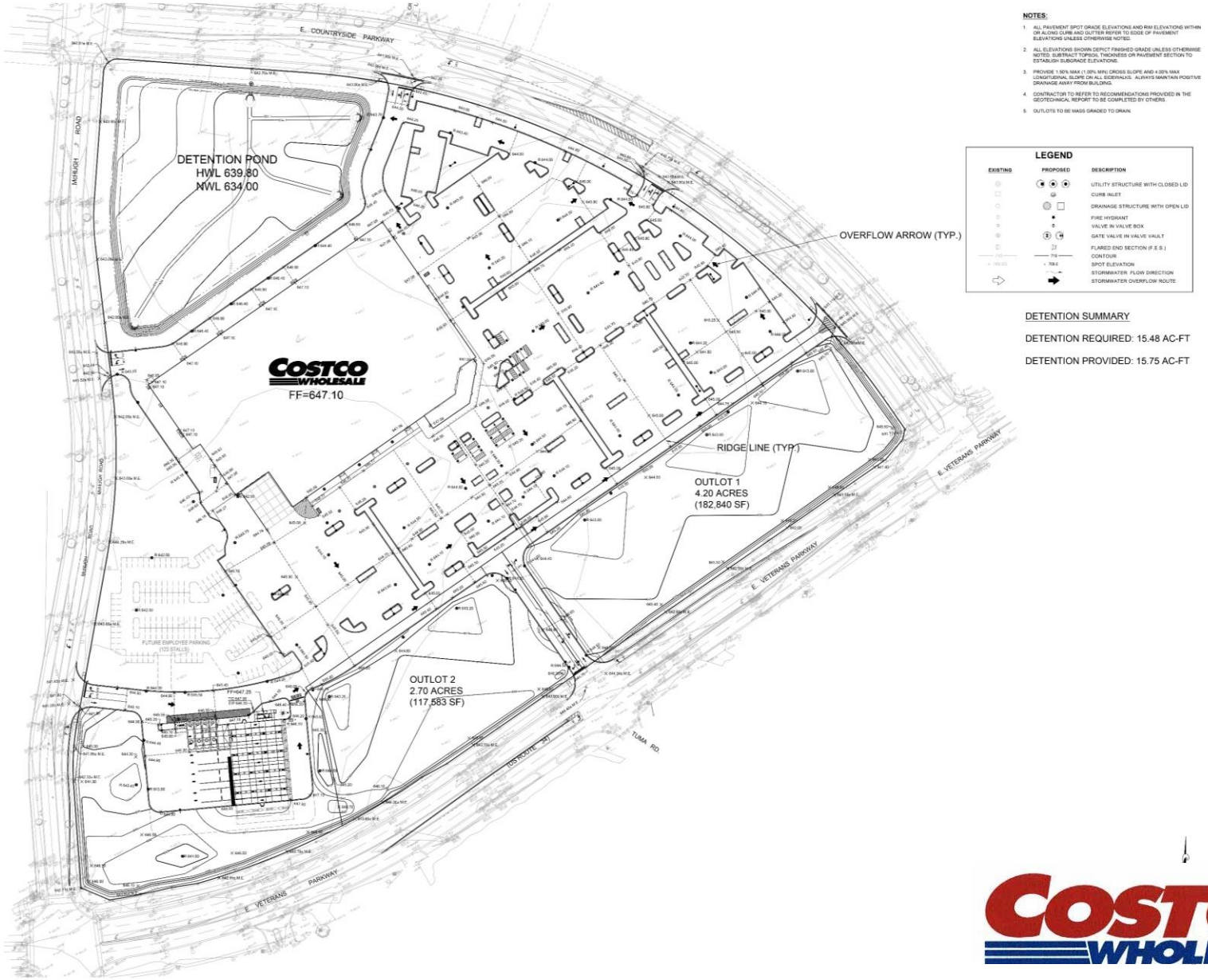
Final Plat of Subdivision



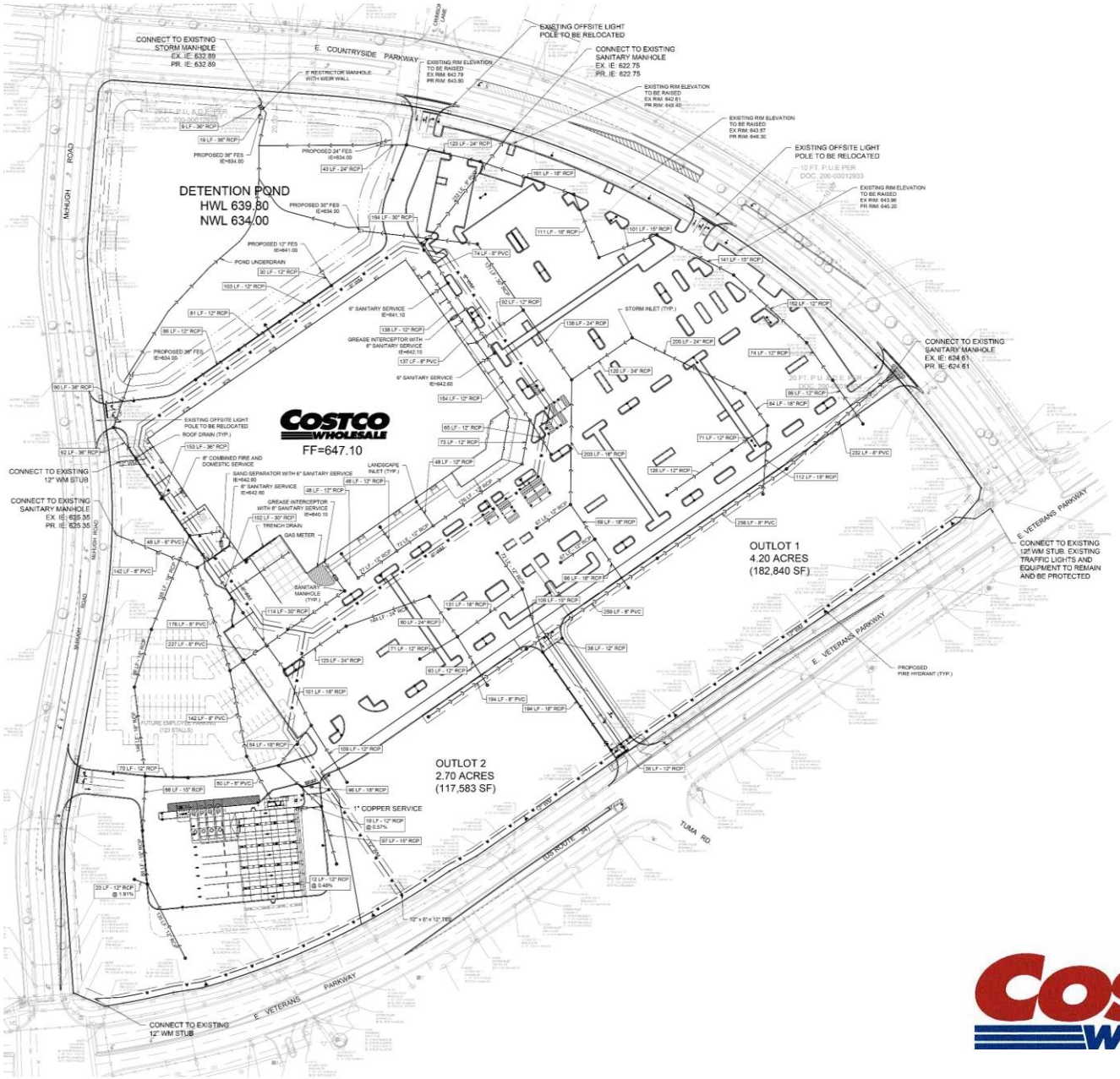
COSTCO WHOLESALE

Thank You!

Civil Engineering



Civil Engineering



Traffic Improvements

Driveway 1: Countryside Parkway Full Access aligns with Crimson Lane

- **Restripe existing westbound left turn lane**

Driveway 2: Countryside Parkway Full Access

- **Construct westbound left turn lane within existing landscaped median**

Driveway 3: Countryside Parkway Right In/Right Out

Driveway 4: US 34/Veterans Parkway Right In/Right Out/Left In aligns with Tuma Road

- **Construct westbound right turn lane**
- **Construct eastbound left turn lane within existing median**

Driveway 5: McHugh Road Full Access

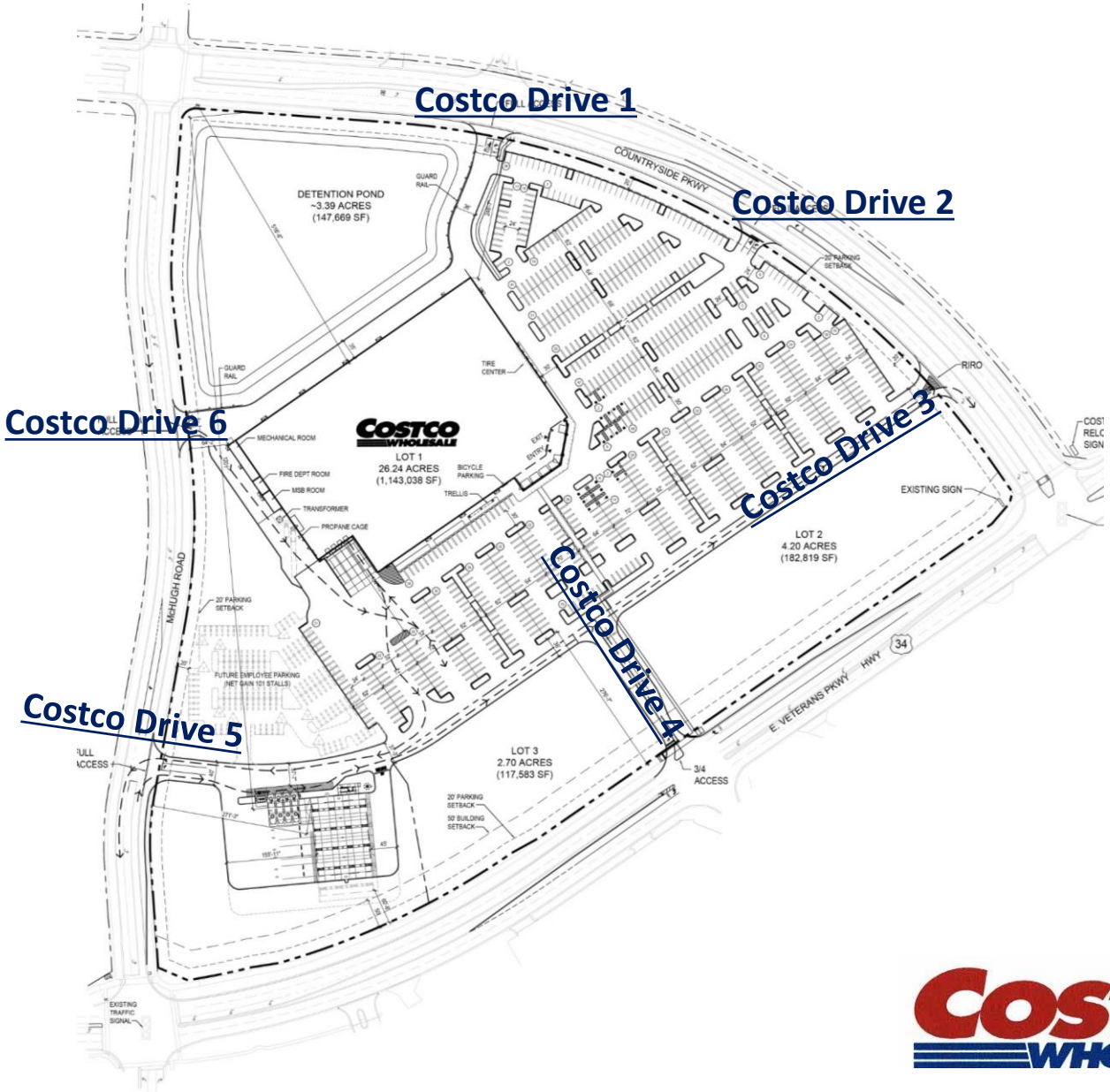
- **Construct northbound right turn lane**
- **Restripe median to provide dedicated southbound left turn lane**

Driveway 6: McHugh Road Full Access

- **Restripe median to provide dedicated southbound left turn lane**

COSTCO WHOLESALE

Site Plan with Access Improvements

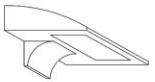


Site Lighting

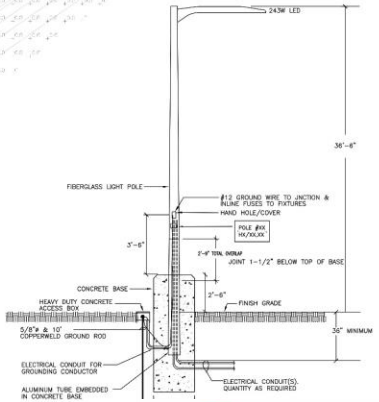


SITE PHOTOMETRIC PLAN
SCALE: 1" = 50'-0"

FIXTURE DESCRIPTION	
P	COOPER GALN-SABB-740-U-SWQ-BZ, 325W TYPE 5 DISTRIBUTION. FIBERGLASS POLE 36'-6" ABOVE GRADE, WITH 2'-6" BASE.
P1	COOPER GALN-SABB-740-U-SL3-HSS-BZ, 325W TYPE 3 WITH SPILL CONTROL DISTRIBUTION. FIBERGLASS POLE 36'-6" ABOVE GRADE, WITH 2'-6" BASE.
P2	COOPER GALN-SABB-740-U-SL4-HSS-BZ, 325W TYPE 4 WITH SPILL CONTROL DISTRIBUTION. FIBERGLASS POLE 36'-6" ABOVE GRADE, WITH 2'-6" BASE.
P3	COOPER GALN-SABB-840-U-T2-BZ, 325W TYPE 2. FIBERGLASS POLE 36'-6" ABOVE GRADE, WITH 2'-6" BASE.
P4	COOPER GALN-SAAB-840-U-SL3-HSS-BZ, 164W TYPE 3 WITH SPILL CONTROL DISTRIBUTION. FIBERGLASS POLE 36'-6" ABOVE GRADE, WITH 2'-6" BASE.
B	LITHONIA DSXW2 LED 40K 30C 1000 T2M, 109W LED, 18' MOUNTING HEIGHT
B2	LITHONIA DSXW2 LED 40K 20C 700 T4W, 47W LED, 18' MOUNTING HEIGHT
GA	CREE LIGHTING, SPY250-C-13L-57K7-F-UL-XX-XXX 86W LED, SURFACE SYMETRIC DOWN LIGHT, FLAT LENS, 17' MOUNTING HEIGHT



TYPICAL WALLPACKS DETAIL (B & B2)
SCALE: NTS



FOR QA REVIEW. NOT FOR CONSTRUCTION

ISSUE DATE: JULY 2024 | DRAWN: BJT | CHECKED: JDM

ARCHITECT REFERENCE NO 24-3744-01

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ETING UPGRADE

DD PACKAGE

NEW WAREHOUSE
YORKVILLE, IL

COSTCO WHOLESALE

T.E. Inc.
830 N. RIVERSIDE DRIVE
SUITE #200
SEDRO WOOLLEY, WA 98257
PHONE: 206-241-2012
FAX: 206-241-3101

Lighting

Light Pole Height: 36’-6”

LED Flat Lens , Downward Directed

COSTCO WHOLESALE

Site Plan Context



Architecture

- A combination of Modern and Traditional Sustainable Materials in a warm color Palette of Browns, and Beige
- Vertical Articulation is achieved through Color, Texture and Material Distribution along the Facades Proportional to the Scale of the Building
- Materials have been selected for Durability, Ease of Maintenance & Energy Efficiency:
  - Recycled, Insulated Textured Metal Architectural Panels
  - Smooth Face CMU Masonry
  - Glazing
  - Ribbed Architectural Metal Panels
- Costco's Trademark Red Horizontal Metal Band

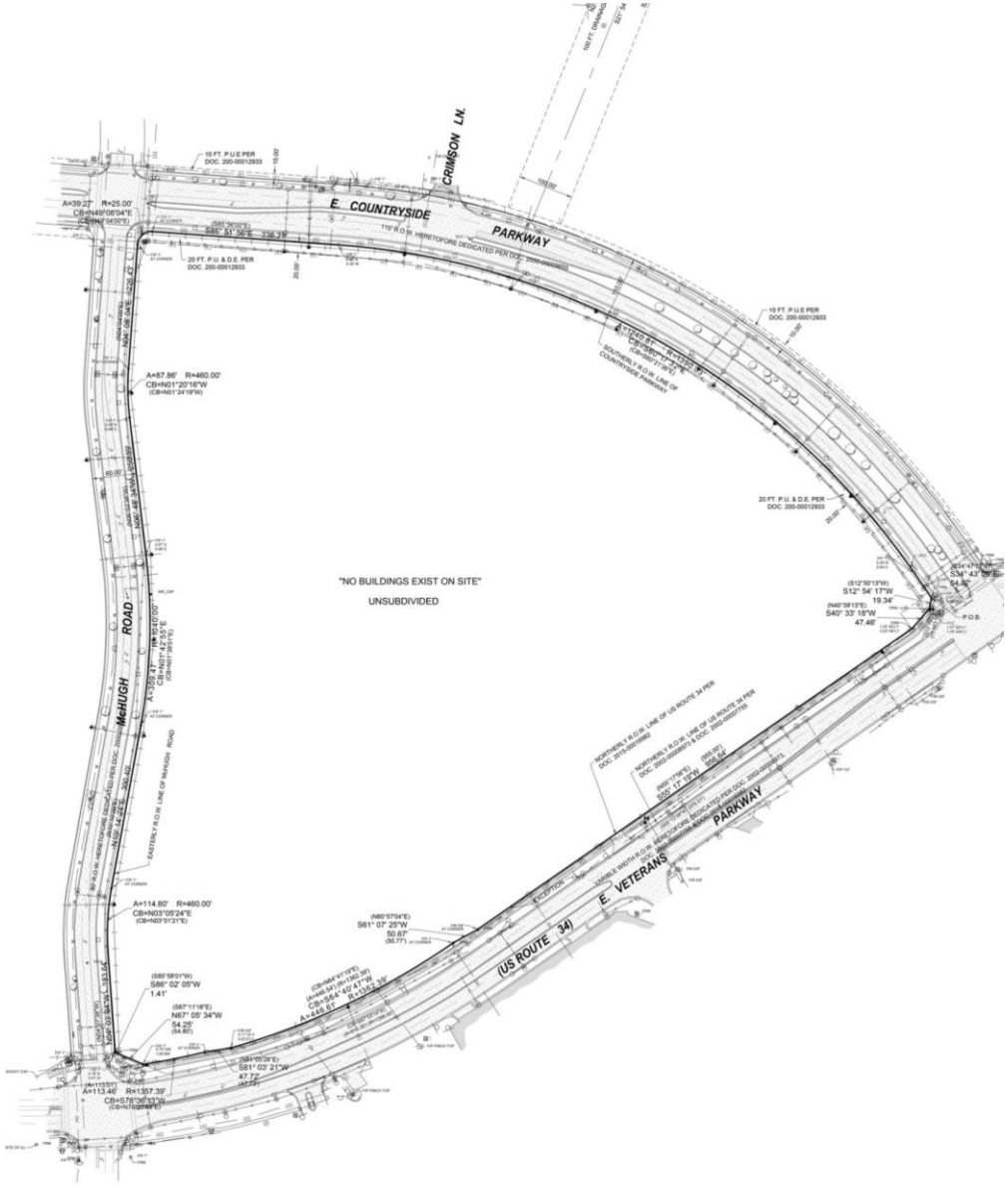
COSTCO WHOLESALE

Architecture

Sustainable Design: **Awareness and responsibility to design, construct and operate Costco sites and buildings into an energy-efficient, sustainable, and environmentally responsible manner are embedded into the Costco program. This includes, but are not limited to:**

- **The building structure steel system and architectural metal panels are comprised of 80% recycled content with the associated batt insulation comprised of greater than 50% recycled content.**
- **The roof maintains reflectance, emittance and SRI rates that lessen heat gain, and the premanufactured building system provides erection efficiency reducing impacts to the carbon footprint.**
- **Landscaping has been designed to create a high impact with seasonal interest incorporating many native and drought tolerant species, which in turn minimizes irrigation and maintenance needs.**
- **All site and building lighting systems utilize LED Technology.**
- **Implementation of the water management system drives operational efficiency to lower wastewater and sewer use.**

ALTA SURVEY



ALTA/ NSPS LAND TITLE SURVEY & TOPOGRAPHIC SURVEY
OF

COSTCO WHOLESALE, YORKVILLE, IL

NWC US 34/VETERANS & COUNTYSIDE - W#, CW23-0023

THAT PART OF THE NORTHWEST QUARTER OF SECTION 27, AND PART OF THE NORTHEAST QUARTER OF SECTION 28, TOWNSHIP 37 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: BEGINNING AT THE INTERSECTION OF THE SOUTHERLY RIGHT OF WAY LINE OF COUNTRYSIDE PARKWAY PER PLAT OF DEDICATION DOCUMENT NO. 2000-00009655, WITH THE NORTHERLY RIGHT OF WAY LINE OF U.S. ROUTE NO. 34 PER DOCUMENT NUMBERS 2002-00008973 AND 2002-00007755; THENCE SOUTH 12 DEGREES 50 MINUTES 13 SECONDS WEST, ALONG THE NORTHERLY RIGHT OF WAY LINE OF SAID U.S. ROUTE NO. 34, 77.16 FEET; THENCE SOUTH 55 DEGREES 12 MINUTES 38 SECONDS WEST, ALONG SAID NORTHERLY RIGHT OF WAY LINE, 976.51 FEET; THENCE WESTERLY ALONG SAID NORTHERLY RIGHT OF WAY LINE, BEING ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 1390.00' AND A CHORD BEARING OF SOUTH 67 DEGREES 53 MINUTES 14 SECONDS WEST, AN ARC LENGTH OF 616.39 FEET; THENCE NORTH 67 DEGREES 09 MINUTES 38 SECONDS WEST, ALONG SAID NORTHERLY RIGHT OF WAY LINE, 97.31 FEET; THENCE SOUTH 85 DEGREES 58 MINUTES 01 SECONDS WEST, ALONG SAID NORTHERLY RIGHT OF WAY LINE, 1.41 FEET TO THE EASTERLY RIGHT OF WAY LINE OF MCHUGH ROAD PER PLAT OF DEDICATION DOCUMENT NO. 2000-00009655; THENCE NORTH 04 DEGREES 07 MINUTES 38 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, 183.64 FEET; THENCE NORTHERLY ALONG SAID EASTERLY RIGHT OF WAY LINE, BEING ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 460.00 FEET AND A CHORD BEARING OF NORTH 03 DEGREES 01 MINUTES 21 SECONDS EAST, AN ARC LENGTH OF 114.80 FEET; THENCE NORTH 10 DEGREES 10 MINUTES 20 SECONDS EAST, ALONG SAID EASTERLY RIGHT OF WAY LINE, 300.40 FEET; THENCE NORTHERLY ALONG SAID EASTERLY RIGHT OF WAY LINE, BEING ALONG A CURVE TO THE LEFT WITH A RADIUS OF 1040.00 FEET AND A CHORD BEARING OF NORTH 01 DEGREES 38 MINUTES 51 SECONDS EAST, AN ARC LENGTH OF 309.47 FEET; THENCE NORTH 06 DEGREES 52 MINUTES 38 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, 250.39 FEET; THENCE NORTHERLY ALONG SAID EASTERLY RIGHT OF WAY LINE, BEING ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 460.00 FEET AND A CHORD BEARING OF NORTH 01 DEGREES 24 MINUTES 19 SECONDS WEST, AN ARC LENGTH OF 87.86 FEET; THENCE NORTH 04 DEGREES 04 MINUTES 00 SECONDS EAST, ALONG SAID EASTERLY RIGHT OF WAY LINE, 226.43 FEET; THENCE NORTHEASTERLY ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 25.00 FEET AND A CHORD BEARING OF NORTH 49 DEGREES 04 MINUTES 00 SECONDS EAST, AN ARC LENGTH OF 39.27 FEET TO A POINT ON SAID SOUTHERLY RIGHT OF WAY LINE OF COUNTRYSIDE PARKWAY; THENCE SOUTH 85 DEGREES 56 MINUTES 00 SECONDS EAST, ALONG SAID SOUTHERLY RIGHT OF WAY LINE, 338.21 FEET; THENCE SOUTHEASTERLY ALONG SAID SOUTHERLY RIGHT OF WAY LINE, BEING ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 1390.03 FEET AND CHORD BEARING OF SOUTH 60 DEGREES 21 MINUTES 36 SECONDS EAST, AN ARC LENGTH OF 1240.81 FEET TO A POINT DRAWN NORTH 34 DEGREES 47 MINUTES 13 SECONDS WEST, 54.08 FEET FROM THE POINT OF BEGINNING; THENCE SOUTH 34 DEGREES 47 MINUTES 13 SECONDS EAST ALONG SAID SOUTHERLY RIGHT OF WAY LINE, 54.08 FEET TO THE POINT OF BEGINNING, ALL IN KENDALL COUNTY, ILLINOIS.

EXCEPTING THEREFROM: THAT PART TAKEN FOR ROAD PURPOSES BY ORDER VESTING TITLE ENTERED IN CASE NO. 15-ED-10, CIRCUIT COURT OF KENDALL COUNTY, ILLINOIS, RECORDED OCTOBER 28, 2015 AS DOCUMENT NO. 201500016982.

AREA

1,443,461 SQ. FT.

33.1373 ACRES

FLOOD HAZARD NOTE

THIS PROPERTY IS IN AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN (ZONE X) AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP OF KENDALL COUNTY, ILLINOIS & INCORPORATED AREAS (COMMUNITY PANEL NO. 17093C0045H, EFFECTIVE ON 1/8/2014).

COSTCO WHOLESALE

Parking Facts at Costco

Parking Design Factors

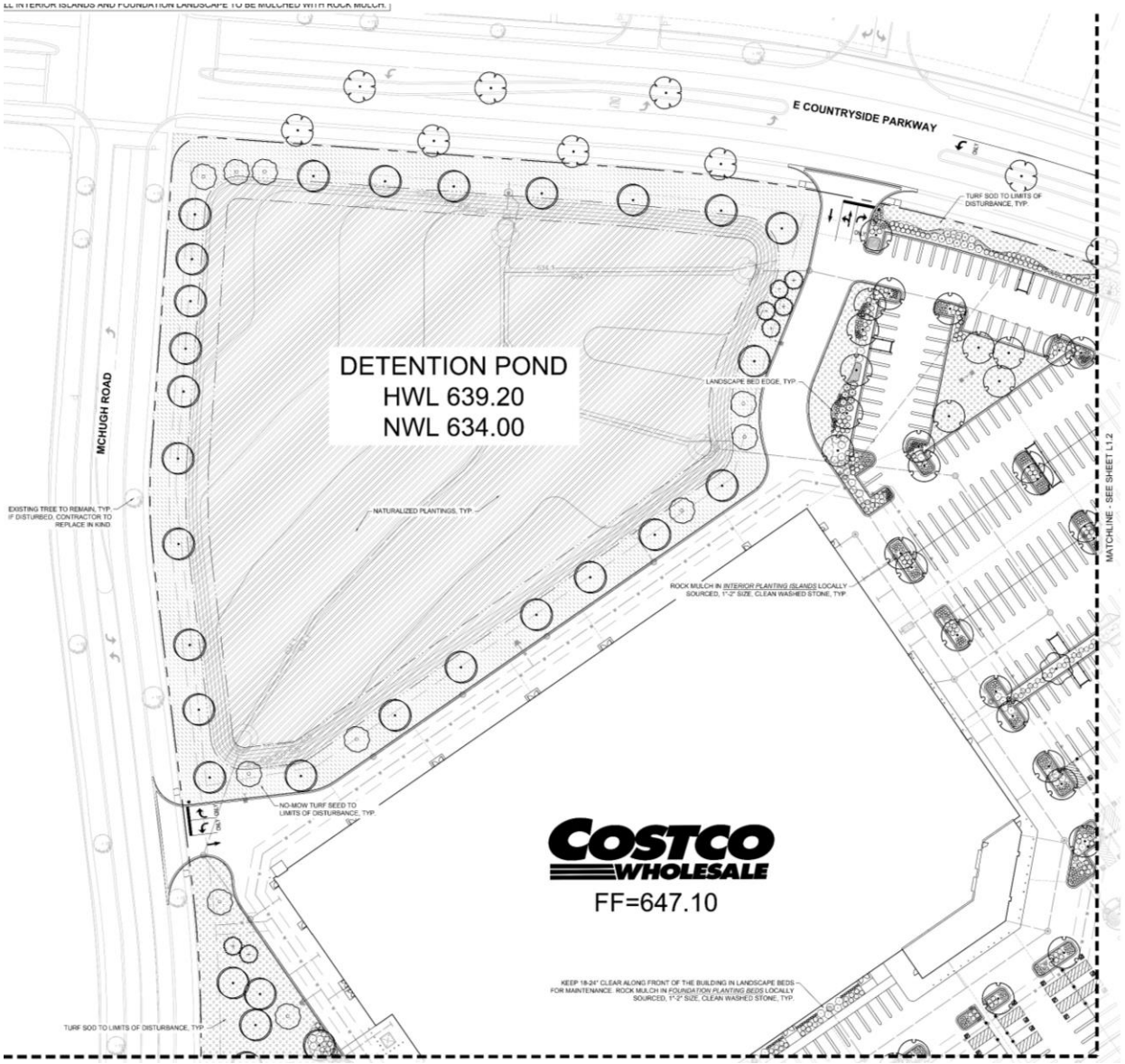
- Costco member vehicle sizes tend to be larger and capable of hauling bulk quantities
- Costco's carts & flat bed carts are larger and require larger loading areas & wider parking spaces.
- Average trip shopping durations are longer, resulting in less turnover frequency as compared to most big box retail stores
- Parking peak periods occur daily and on weekends & holidays
- Parking demand varies seasonally with peak months occurring in May, August, October, and December

Factors Influencing Parking at Costco

Costco's Commitment to the Community

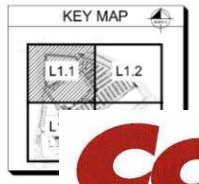
- To provide a high level of customer service to members
- To maintain safe and efficient on-site operations and circulation
- To be a good neighbor and not negatively impact operations of adjacent development
- To ensure that circulation, or parking constraints on Costco's site do not negatively impact operations or safety on the surrounding transportation system

Proposed Landscape Plan Detention Basin



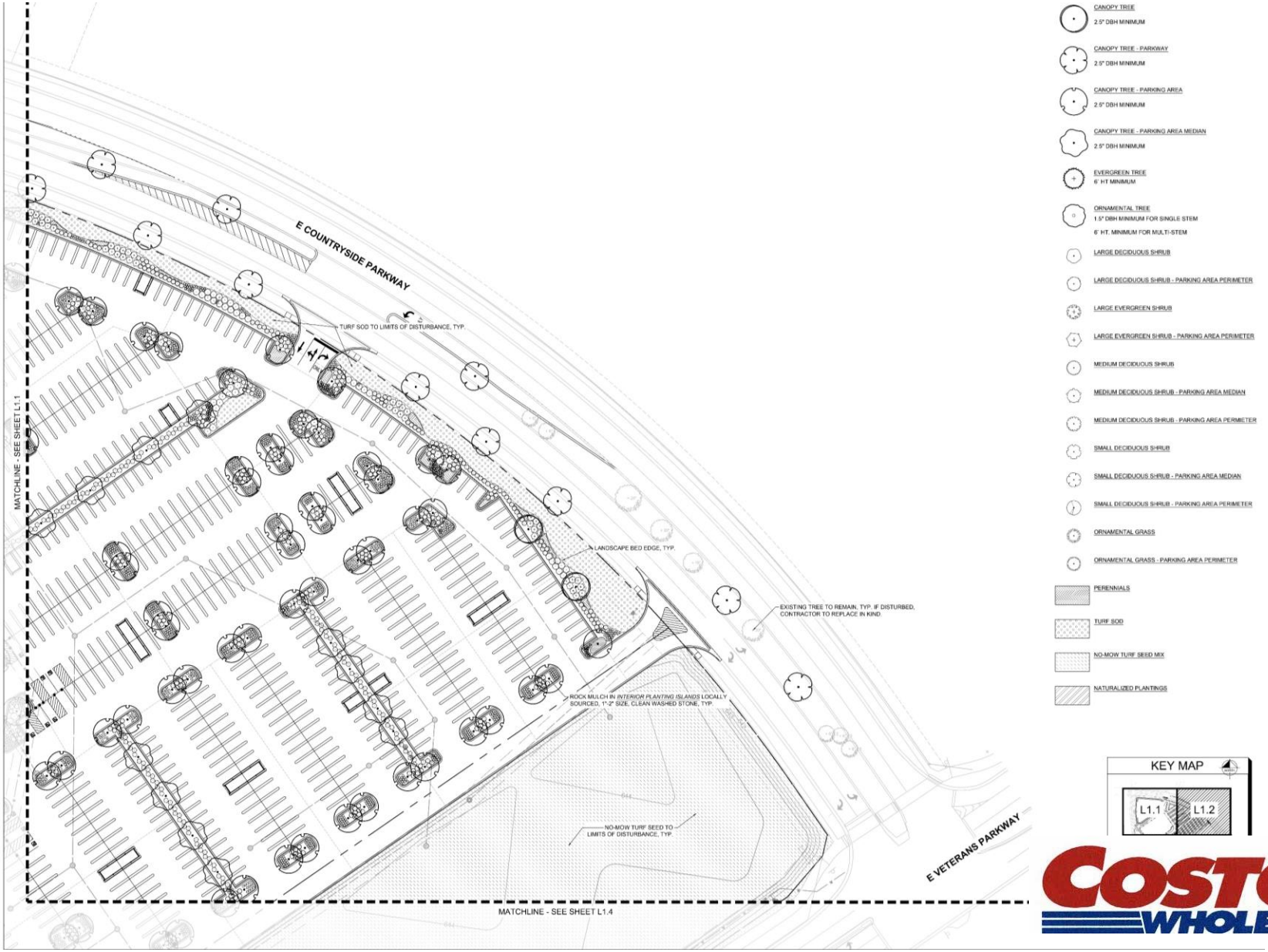
CONCEPT PLANT SCHEDULE

- CANOPY TREE — 2.5" DBH MINIMUM
- CANOPY TREE - PARKWAY — 2.5" DBH MINIMUM
- CANOPY TREE - PARKING AREA — 2.5" DBH MINIMUM
- CANOPY TREE - PARKING AREA MEDIAN — 2.5" DBH MINIMUM
- EVERGREEN TREE — 6' HT MINIMUM
- ORNAMENTAL TREE — 1.5" DBH MINIMUM FOR SINGLE STEM; 6' HT. MINIMUM FOR MULTI-STEM
- LARGE DECIDUOUS SHRUB
- LARGE DECIDUOUS SHRUB - PARKING AREA PERIMETER
- LARGE EVERGREEN SHRUB
- LARGE EVERGREEN SHRUB - PARKING AREA PERIMETER
- MEDIUM DECIDUOUS SHRUB
- MEDIUM DECIDUOUS SHRUB - PARKING AREA MEDIAN
- MEDIUM DECIDUOUS SHRUB - PARKING AREA PERIMETER
- SMALL DECIDUOUS SHRUB
- SMALL DECIDUOUS SHRUB - PARKING AREA MEDIAN
- SMALL DECIDUOUS SHRUB - PARKING AREA PERIMETER
- ORNAMENTAL GRASS
- ORNAMENTAL GRASS - PARKING AREA PERIMETER
- PERENNIALS
- TURF SOD
- NO-MOW TURF SEED MIX
- NATURALIZED PLANTINGS

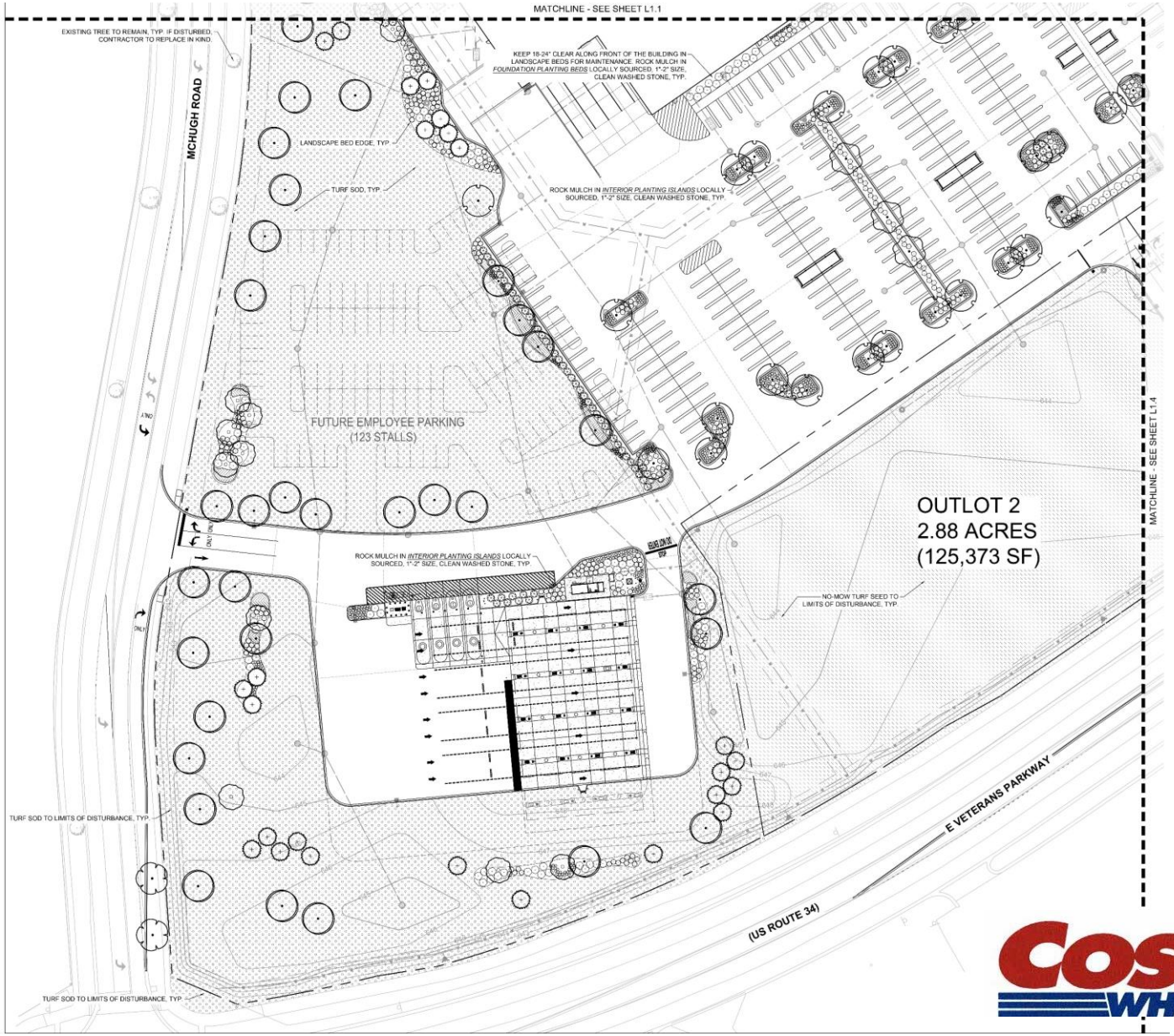


COSTCO WHOLESALE

Proposed Landscape Plan



Proposed Landscape Plan



Landscape Plant List

PLANT SCHEDULE

BOTANICAL / COMMON NAME

TREES
ACER MIYABEI 'MORTON' / STATE STREET™ MIYABE MAPLE
ACER X FREEMANII 'AUTUMN BLAZE' / AUTUMN BLAZE MAPLE
CELTIS OCCIDENTALIS / COMMON HACKBERRY
GINKGO BILOBA 'AUTUMN GOLD' / AUTUMN GOLD MAIDENHAIR TREE
GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE' / SKYLINE HONEY LOCUST
GYMNOCLADUS DIOICUS 'ESPRESSO' / KENTUCKY COFFEETREE
OSTRYA VIRGINIANA / AMERICAN HOPHORNBEAM
QUERCUS BICOLOR / SWAMP WHITE OAK
QUERCUS MACROCARPA / BURR OAK
TAXODIUM DISTICHUM 'SHAWNEE BRAVE' / SHAWNEE BRAVE BALD CYPRESS
TILIA AMERICANA 'BOULEVARD' / BOULEVARD AMERICAN LINDEN
ULMUS AMERICANA 'PRINCETON' / PRINCETON AMERICAN ELM
ULMUS X 'FRONTIER' / FRONTIER ELM
ULMUS X 'MORTON' / ACCOLADE™ ELM
ZELKOVA SERRATA 'GREEN VASE' / GREEN VASE JAPANESE ZELKOVA

EVERGREEN TREES
ABIES CONCOLOR / WHITE FIR
PICEA ABIES / NORWAY SPRUCE
PICEA OMORIKA / SERBIAN SPRUCE
PINUS FLEXILIS 'VANDERWOLF'S PYRAMID' / VANDERWOLF'S PYRAMID LIMBER PINE
PSEUDOTSUGA MENZIESII / DOUGLAS FIR

ORNAMENTAL TREES
AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / AUTUMN BRILLIANCE APPLE SERVICEBERRY
MALUS X 'PRAIRIFIRE' / PRAIRIFIRE CRABAPPLE
SYRINGA RETICULATA 'IVORY SILK' / IVORY SILK JAPANESE TREE LILAC

SHRUBS
ARONIA MELANOCARPA 'MORTON' / IROQUOIS BEAUTY™ BLACK CHOKEBERRY
ARONIA MELANOCARPA 'UCONNAM165' / LOW SCAPE MOUND CHOKEBERRY
CEANOTHUS AMERICANUS / NEW JERSEY TEA
CORNUS ALBA 'BAILHALO' / IVORY HALO® TATARIAN DOGWOOD
CORNUS SANGUINEA 'CATO' / ARCTIC SUN® BLOODTWIG DOGWOOD
DEUTZIA X 'NCDX1' / YUKI SNOWFLAKE® DEUTZIA
DIERVILLA X 'G2X88544' / KODIAK® ORANGE DIERVILLA
FORSYTHIA X INTERMEDIA 'NIMBUS' / SHOW OFF® SUGAR BABY® DWARF FORSYTHIA
HYDRANGEA PANICULATA 'JANE' / LITTLE LIME® PANICLE HYDRANGEA
PHYSOCARPUS OPULIFOLIUS 'DONNA MAY' / LITTLE DEVIL™ DWARF NINEBARK
PHYSOCARPUS OPULIFOLIUS 'SEWARD' / SUMMER WINE® NINEBARK
POTENTILLA FRUTICOSA 'JACKMANII' / JACKMAN'S BUSH CINQUEFOIL
SPIRAEA BETULIFOLIA 'TOR GOLD' / GLOW GIRL® BIRCHLEAF SPIREA
SPIRAEA JAPONICA 'NEON FLASH' / NEON FLASH JAPANESE SPIREA
SPIRAEA JAPONICA 'WALBUMA' / MAGIC CARPET JAPANESE SPIREA
VIBURNUM DENTATUM 'BLUE MUFFIN' / BLUE MUFFIN ARROWWOOD VIBURNUM
WEIGELA FLORIDA 'ALEXANDRA' / WINE & ROSES® WEIGELA
WEIGELA FLORIDA 'BRAMWELL' / FINE WINE® WEIGELA
WEIGELA FLORIDA 'VERWEIG' / MY MONET® WEIGELA

EVERGREEN SHRUBS
JUNIPERUS CHINENSIS 'SEA GREEN' / SEA GREEN JUNIPER
TAXUS X MEDIA 'TAUNTONII' / TAUNTON'S ANGLO-JAPANESE YEW

ORNAMENTAL GRASSES
CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER' / KARL FOERSTER FEATHER REED GRASS
PANICUM VIRGATUM 'CHEYENNE SKY' / CHEYENNE SKY PRAIRIE WINDS® SWITCH GRASS
PANICUM VIRGATUM 'HEAVY METAL' / HEAVY METAL SWITCH GRASS
PENNISETUM ALOPECUROIDES 'BURGUNDY BUNNY' / BURGUNDY BUNNY DWARF FOUNTAIN GRASS
PENNISETUM ALOPECUROIDES 'HAMELN' / HAMELN FOUNTAIN GRASS
PENNISETUM ALOPECUROIDES 'PIGLET' / PIGLET DWARF FOUNTAIN GRASS
SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED

PERENNIALS
ALLIUM X 'SUMMER BEAUTY' / SUMMER BEAUTY ORNAMENTAL ONION
AMSONIA TABERNAEMONTANA 'BLUE ICE' / BLUE ICE EASTERN BLUESTAR
ECHINACEA X 'BUTTERFLY KISSES' / BUTTERFLY KISSES CONEFLOWER
HEMEROCALLIS X 'ROSY RETURNS' / ROSY RETURNS DAYLILY
RUDBECKIA FULGIDA 'LITTLE GOLDSTAR' / LITTLE GOLDSTAR BLACK-EYED SUSAN
SEDUM X 'AUTUMN JOY' / AUTUMN JOY SEDUM

NATURALIZED POND PLANTINGS, POND DESIGN AND EXACT SEED MIXES TO BE DETERMINED AT A LATER DATE:

Pizzo NATIVE PLANT NURSERY

Pizzo Native Plant Nursery, LLC • 10729 Pine Road • Leland, IL 60531 • Phone : 815-981-8000 • www.pizzonursery.com

Economy Prairie Seed Mix (Dry-Mesic Soils)

Designed as the most economical way to establish an ecologically functional prairie while maintaining the highest aesthetic value. This mix includes prairie species that quickly establish for a more immediate naturalized setting in sunny areas that remain mesic to dry for the most of the growing season. Over 55% of this mix is composed of wildflowers that provide an array of blooms from April through October. When installed and managed correctly, this mix typically begins flowering in its second growing season, starting with the yellow blooms of annual Partridge Pea and biennial Black-Eyed Susan. An additional colorful matrix of perennial species appears in the succeeding 3 to 5 years. This is a medium-short height prairie with an average height of 2.9' by seed count.

MIX STATISTICS	
Average Mix Height (ft)	2.0
Median Mix Height (ft)	2.1
Species Heights (# of Occurrences in Mix)	2' (11), 3' (5), 4' (8), 5' (1)
Number of Native Species in Mix	25
Native PLI	18.0
Native Mean C Value	4.2
Native Mean W Value	2.2
National Wetland Category	FACW-
Live/Acre of Native Seed	15.7
Seeds per Square Foot	90.7
Percent of Mix (by Seed Count) Requiring Stratification:	38.9%

Grasses, Sedges, & Rushes

CODE	SCIENTIFIC NAME	COMMON NAME	C-VALUE	W-VALUE	WETNESS	HEIGHT Min-Max	HEIGHT Typical	BLOOM COLOR	BLOOM TIME A	M	J	J	A	S	O	SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX by Weight	% OF MIX by Seed Count	GERMINATION	TOP SOW
BOUCUR	*Bouteloua curtipendula*	Side oats Grama	8	5	UPL	1.5-3.5	2	N/A								6,000	32.00	2.00	13.29%	3.81%	N/A	
CAREVU	*Carex brevior*	Plains Oval Sedge	4	0	FAC	1-3	2	N/A								29,000	2.00	0.13	0.85%	1.47%	CM-40C	
SORNUT	*Sorghastrum nutans*	Indian Grass	5	3	FACU	3-7	4	N/A								22,000	16.00	1.00	6.65%	4.86%	N/A	
LLYLAN	*Elymus canadensis*	Canada Wild Rye	4	3	FACU	3-5	5	N/A								5,200	48.00	3.00	19.94%	6.32%	N/A	
PANVIR	*Panicum virgatum*	Switch Grass	5	0	FAC	5-8	6	N/A								34,000	32.00	2.00	13.29%	11.34%	N/A	
SCHSCO	*Schizachyrium scoparium*	Little Bluestem	5	3	FACU	2-3	3	N/A								35,000	32.00	2.00	13.29%	12.15%	N/A	
																	Grass/Sedge Subtotals		10.12%	67.29%	40.99%		

Wildflowers

CODE	SCIENTIFIC NAME	COMMON NAME	C-VALUE	W-VALUE	WETNESS	HEIGHT Min-Max	HEIGHT Typical	BLOOM COLOR	BLOOM TIME A	M	J	J	A	S	O	SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX by Weight	% OF MIX by Seed Count	GERMINATION	TOP SOW
ASCSPE	*Asclepias speciosa*	Common Milkweed	0	5	FACU	2-6	4	Pink								4,000	4.00	0.25	1.66%	0.44%	CM-30	
CHAFAS	*Chamaecrista fasciculata*	Partridge Pea	5	5	FACU	0.5-2'	2	Yellow								2,700	16.00	1.00	6.65%	1.09%	CM-30, H, S	
CORLAN	*Coreopsis lanceolata*	Sand Coreopsis	5	3	FACU	1.5-2'	2	Yellow								20,000	4.00	0.25	1.66%	2.02%	CM-30	
DESCAN	*Desmodium canadense*	Showy Tick Trefoil	4	3	FACU	3-6	4	Purple								5,500	2.50	0.16	1.04%	0.75%	S	
ECHPUR	*Echinacea purpurea*	Purple Coneflower	3	5	UPL	2-5	4	Purple								6,600	12.00	0.75	4.98%	2.00%	N/A	
HELHEL	*Helianthus helianthoides*	Early Sunflower	5	3	FACU	3-5	5	Yellow								6,300	8.00	0.50	3.32%	1.28%	CM-30	
MONFI	*Monarda fistulosa*	Wild Bergamot	4	3	FACU	2.5-4'	4	Purple								70,000	2.00	0.13	0.83%	5.14%	N/A	
PENDIG	*Penstemon digitalis*	Foxglove Beardtongue	0	0	FAC	2-3	3	White								130,000	1.75	0.11	0.73%	5.76%	CM-30, G	
RUDHIR	*Rudbeckia hirta*	Black-eyed Susan	1	3	FACU	2-3	2	Yellow								92,000	16.00	1.00	6.65%	17.21%	CM-30	
SILINT	*Silphium integrifolium*	Rosin Weed	5	5	UPL	3-6	5	Yellow								3,200	3.00	0.19	1.25%	0.09%	CM-40	
SYMNOV	*Symphyotrichum novae-angliae*	New England Aster	4	-3	FACW	5-9	4	Purple								86,000	1.00	0.06	0.42%	1.87%	CM-40	
TRADHI	*Tradescantia ohiensis*	Ohio Spiderwort	2	3	FACU	2-4'	3	Blue								8,000	1.52	0.09	0.63%	0.38%	CM 120 or M, G	
VERBOS	*Verbena stricta*	Hoary Vervain	4	5	UPL	1-3'	2	Blue								76,000	3.00	0.19	1.25%	2.13%	CM-60	
ZIZAUR	*Zizia aurea*	Golden Alexanders	7	0	FAC	1-2.5'	2	Yellow								12,000	8.00	0.25	1.66%	1.33%	CM-60 or M, G	
																	Wildflower Subtotals		4.922	32.71%	59.01%		
																	Mix TOTALS		15.047	100.00%	100.00%		

NO-MOW TURF SEED MIX

BOTANICAL NAME	COMMON NAME	LBS / ACRE	% OF TOTAL
GRASSES, SEDGES, & RUSHES			
Lolium perenne	Perennial Rye	25.0	13%
Agrostis gigantea	Red Top	15.0	8%
Festuca rubra	Creeping Red Fescue	80.0	40%
Festuca arundinacea	Tall Fescue	20.0	10%
Festuca ovina	Sheep's Fescue	20.0	10%
Poa pratensis	Kentucky Bluegrass	40.0	20%
	SEED MIX TOTAL LBS PER ACRE:	200	

COSTCO WHOLESALE

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 – February 11, 2025

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

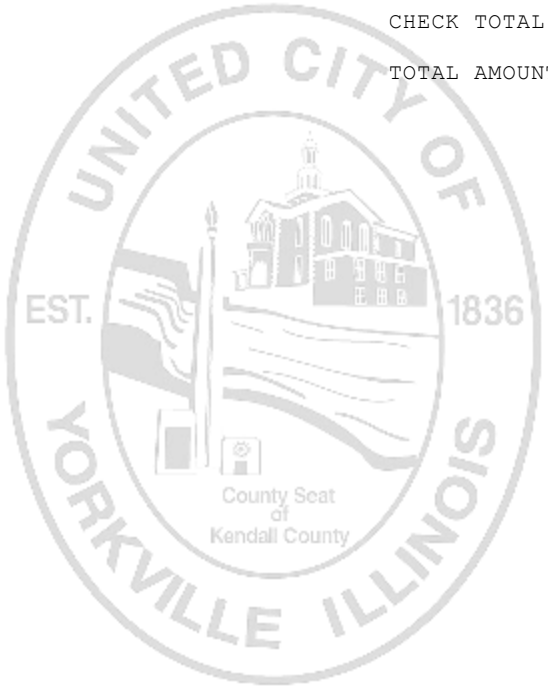
UNITED CITY OF YORKVILLE
MANUAL CHECK REGISTER

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	CHECK DATE	ACCOUNT #	ITEM AMT	
131255	KCR	KENDALL COUNTY RECORDER'S			01/14/25			
	4018347	01/14/25	01	GRANDE RESERVE UNIT 18 FINAL		90-228-00-00-0011	93.00	
			02	PLAT		** COMMENT **		
			03	GRANDE RESERVE UNIT 25 FINAL		90-228-00-00-0011	93.00	
			04	PLAT		** COMMENT **		
			05	GRANDE RESERVE UNITS 25 & 21		90-228-00-00-0011	93.00	
			06	FINAL PLATS		** COMMENT **		
						INVOICE TOTAL:	279.00 *	
						CHECK TOTAL:		279.00
						TOTAL AMOUNT PAID:		279.00

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
MANUAL CHECK REGISTER

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	CHECK DATE	ACCOUNT #	ITEM AMT	
131256	KCR	KENDALL COUNTY RECORDER'S			01/24/25			
	4018700	01/24/25	01	PUD AMENDMENT ORDINANCE		90-234-00-00-0011	57.00	
			02	ORDINANCE APPROVING PRELIM		90-232-00-00-0011	57.00	
			03	PLANS		** COMMENT **		
			04	ORDINANCE ANNEXING DMYF		90-234-00-00-0011	57.00	
			05	DMYF ANNEXATION AGREEMENT		90-234-00-00-0011	57.00	
			06	DMYF REZONING ORDINANCE		90-234-00-00-0011	57.00	
						INVOICE TOTAL:	285.00 *	
						CHECK TOTAL:		285.00
						TOTAL AMOUNT PAID:		285.00



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 01/24/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
D003935	DIETERG	GARY M. DIETER							
	01/18/25		01/21/25	01	REFEREE	79-795-54-00-5462		300.00	
								300.00	*
							INVOICE TOTAL:		300.00
							DIRECT DEPOSIT TOTAL:		
D003936	OLEARYM	MARTIN J. O'LEARY							
	01/18/25		01/21/25	01	REFEREE			300.00	
						79-795-54-00-5462		300.00	*
							INVOICE TOTAL:		300.00

CHECK TOTAL: 0.00

TOTAL DIRECT DEPOSITS PAID: 600.00

UNITED CITY OF YORKVILLE
MANUAL CHECK REGISTER

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	CHECK DATE	ACCOUNT #	ITEM AMT
131257	KCR	KENDALL COUNTY RECORDER'S			01/27/25		
	4018789	01/27/25	01	DMYF ANNEXATION ORDINANCE		90-234-00-00-0011	57.00
						INVOICE TOTAL:	57.00 *
						CHECK TOTAL:	57.00
						TOTAL AMOUNT PAID:	57.00

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 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
541997	AACVB	AURORA AREA CONVENTION							
	12/24-HAMPTON		01/23/25	01	DEC 2024 HAMPTON INN HOTEL TAX	01-640-54-00-5481		3,209.58	
						INVOICE TOTAL:		3,209.58	*
						CHECK TOTAL:		3,209.58	
D003937	ALVAREZA	AARON ALVAREZ							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
541998	AMEHOIST	AMERICAN HOIST & MANLIFT, INC							
	32360		01/16/25	01	BALANCE OWED FOR CAR FIRE	24-216-54-00-5446		58.20	
				02	SERVICE PHASE II 3 WITH FIRE	** COMMENT **			
				03	KEY BOX	** COMMENT **			
						INVOICE TOTAL:		58.20	*
						CHECK TOTAL:		58.20	
541999	AMPERAGE	AMPERAGE ELECTRICAL SUPPLY INC							
	6585-2176228		01/20/25	01	STRESSCRETE	23-230-60-00-6005		21,017.65	
						INVOICE TOTAL:		21,017.65	*
						CHECK TOTAL:		21,017.65	
542000	ANDERSJA	JARED ANDERSON							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						CHECK TOTAL:		45.00	

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 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
542001	ARTLIP	ARTLIP & SONS, INC.							
	213703		01/27/25	01	651 PRAIRIE POINTE SERVICE	24-216-54-00-5446		166.00	
				02	CALL	** COMMENT **			
						INVOICE TOTAL:		166.00	*
						CHECK TOTAL:		166.00	
542002	BARBANEM	MARISA BARBANENTE							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-795-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						CHECK TOTAL:		45.00	
D003938	BEDFORDR	RYAN BEDFORD							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
D003939	BEHLANDJ	JORI BEHLAND							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-110-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
542003	BFCONSTR	B&F CONSTRUCTION CODE SERVICES							
	20391		12/30/24	01	OCT 2024 INSPECTIONS	01-220-54-00-5459		4,200.00	
						INVOICE TOTAL:		4,200.00	*

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 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
542003	BFCONSTR	B&F CONSTRUCTION CODE SERVICES							
	20392		12/30/24	01	NOV 2024 INSPECTIONS	01-220-54-00-5459		1,880.00	
						INVOICE TOTAL:		1,880.00	*
	20477		01/17/25	01	DEC 2024 INSPECTIONS	01-220-54-00-5459		2,800.00	
						INVOICE TOTAL:		2,800.00	*
						CHECK TOTAL:		8,880.00	
542004	BOWERINJ	JAMIE R. BOWERING							
	2025 ST PATRICKS DAY		01/17/25	01	2025 ST PATRICKS DAY BAND	79-795-56-00-5606		900.00	
						INVOICE TOTAL:		900.00	*
						CHECK TOTAL:		900.00	
D003940	BROWND	DAVID BROWN							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
542005	CECCHIN	CECCHIN PLUMBING & HEATING INC							
	#4-FINAL		01/21/25	01	ENGINEERS PAYMENT ESTIMATE 4	51-510-60-00-6029		10,703.00	
				02	AND FINAL FOR WELL 10 RAW	** COMMENT **			
				03	WATER MAIN IMPROVEMENTS	** COMMENT **			
						INVOICE TOTAL:		10,703.00	*
						CHECK TOTAL:		10,703.00	
542006	COMED	COMMONWEALTH EDISON							
	0228182000-122024		01/13/25	01	11/25-12/27 102 W VAN EMMON	23-230-54-00-5482		25.60	
						INVOICE TOTAL:		25.60	*

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
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12-112	SUNFLOWER SSA
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25-215	PUBLIC WORKS CAPITAL
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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 02/11/2025

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
542006	COMED COMMONWEALTH EDISON						
	3059341222-1224	01/15/25	01	12/12-01/14 9257 GALENA PARK	79-795-54-00-5480		62.50
					INVOICE TOTAL:		62.50 *
	5336617000-0125	01/15/25	01	12/12-01/14 RT47 & ROSENWINKLE	23-230-54-00-5482		71.21
					INVOICE TOTAL:		71.21 *
	9193732222-1224	01/15/25	01	12/12-01/14 4600 BRIDGE ST	51-510-54-00-5480		114.28
					INVOICE TOTAL:		114.28 *
					CHECK TOTAL:		273.59
D003941	CONARDR RYAN CONARD						
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	51-510-54-00-5440		45.00
			02	REIMBURSEMENT	** COMMENT **		
					INVOICE TOTAL:		45.00 *
					DIRECT DEPOSIT TOTAL:		45.00
542007	COREMAIN CORE & MAIN LP						
	W029511	01/08/25	01	FLEXNET ANNUAL SOFTWARE	51-510-56-00-5664		3,500.00
			02	SUPPORT RENEWAL	** COMMENT **		
					INVOICE TOTAL:		3,500.00 *
					CHECK TOTAL:		3,500.00
542008	COREMAIN CORE & MAIN LP						
	W240538	01/08/25	01	40 REPROGRAMMED 100CF METERS	51-510-56-00-5665		5,200.00
					INVOICE TOTAL:		5,200.00 *
					CHECK TOTAL:		5,200.00
D003942	DHUSEE DHUSE, ERIC						

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 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
D003942	DHUSEE	DHUSE, ERIC							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	51-510-54-00-5440		15.00	
				02	REIMBURSEMENT	** COMMENT **			
				03	JAN 2025 MOBILE EMAIL	52-520-54-00-5440		15.00	
				04	REIMBURSEMENT	** COMMENT **			
				05	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		15.00	
				06	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
542009	DIAZS	STACY DIAZ							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-110-54-00-5440		36.25	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		36.25	*
						CHECK TOTAL:			36.25
542010	DIRECT	MARLO, INC							
	12770		01/20/25	01	ADA SIGN	24-216-56-00-5656		385.00	
						INVOICE TOTAL:		385.00	*
						CHECK TOTAL:			385.00
542011	DIRENRGY	DIRECT ENERGY BUSINESS							
	250150056117108-1704		01/15/25	01	05/31-07/02 MCHUGH RD	23-230-54-00-5482		75.61	
						INVOICE TOTAL:		75.61	*
	250150056117109-1704		01/15/25	01	05/31-07/01 1 COUNTRYSIDE PKWY	23-230-54-00-5482		39.56	
						INVOICE TOTAL:		39.56	*
						CHECK TOTAL:			115.17

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 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
D003943	DLK	DLK, LLC							
	290		01/29/25	01	JAN 2025 ECONOMIC DEVELOPMENT	01-640-54-00-5486		10,042.50	
				02	HOURS	** COMMENT **			
						INVOICE TOTAL:		10,042.50	*
						DIRECT DEPOSIT TOTAL:		10,042.50	
D003944	EVANST	TIM EVANS							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		22.50	
				02	REIMBURSEMENT	** COMMENT **			
				03	JAN 2025 MOBILE EMAIL	79-795-54-00-5440		22.50	
				04	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
542012	FOXVALLE	FOX VALLEY TROPHY & AWARDS							
	T204		01/14/25	01	BASKETBALL MEDALS	79-795-56-00-5606		37.50	
						INVOICE TOTAL:		37.50	*
						CHECK TOTAL:		37.50	
D003945	FREDRICR	ROB FREDRICKSON							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-120-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
D003946	GALAUNEJ	JAKE GALAUNER							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-795-54-00-5440		45.00	

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 02/11/2025

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
D003946	GALAUNEJ JAKE GALAUNER						
	020125	02/01/25	02	REIMBURSEMENT	** COMMENT **		
					INVOICE TOTAL:		45.00 *
					DIRECT DEPOSIT TOTAL:		45.00
542013	GLATFELT GLATFELTER UNDERWRITING SRVS.						
	164243131-2	12/16/24	01	LIABILITY INS INSTALLMENT#2	01-640-52-00-5231		20,655.67
			02	LIABILITY INS INSTALLMENT#2-P	01-640-52-00-5231		4,294.81
			03	LIABILITY INS INSTALLMENT#2	51-510-52-00-5231		2,277.66
			04	LIABILITY INS INSTALLMENT#2	52-520-52-00-5231		1,091.82
			05	LIABILITY INS INSTALLMENT#2	82-820-52-00-5231		1,712.04
					INVOICE TOTAL:		30,032.00 *
					CHECK TOTAL:		30,032.00
542014	HARRIS HARRIS COMPUTER SYSTEMS						
	MSIXT0000593	01/27/25	01	MYGOVHUB FEES-JAN 2025	01-120-54-00-5462		340.73
			02	MYGOVHUB FEES-JAN 2025	51-510-54-00-5462		511.10
			03	MYGOVHUB FEES-JAN 2025	52-520-54-00-5462		150.33
					INVOICE TOTAL:		1,002.16 *
					CHECK TOTAL:		1,002.16
D003947	HENNED DURK HENNE						
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00
			02	REIMBURSEMENT	** COMMENT **		
					INVOICE TOTAL:		45.00 *
					DIRECT DEPOSIT TOTAL:		45.00
D003948	HERNANDN NOAH HERNANDEZ						

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
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89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
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UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
D003948	HERNANDN	NOAH HERNANDEZ							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
542015	HIGHSTAR	HIGH STAR TRAFFIC							
	10721		01/23/25	01	STREET SIGN	23-230-56-00-5619		245.45	
						INVOICE TOTAL:		245.45	*
						CHECK TOTAL:			245.45
542016	HODOUSR	RICHARD HODOUS							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		45.00	
				02	REIMBRSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						CHECK TOTAL:			45.00
D003949	HORNERR	RYAN HORNER							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
D003950	HOULEA	ANTHONY HOULE							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
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12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
23-230	CITY WIDE CAPITAL
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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
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
CHECK REGISTER

INVOICES DUE ON/BEFORE 02/11/2025

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
D003951	IHRIGK KIRSTEN IHRIG							
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	79-795-54-00-5440		45.00	
			02	REIMBURSEMENT	** COMMENT **			
					INVOICE TOTAL:		45.00	*
					DIRECT DEPOSIT TOTAL:		45.00	
542017	ILPD4778 ILLINOIS STATE POLICE							
	20241204790	12/31/24	01	LIQUOR LICENSE BACKGROUND	01-110-54-00-5462		28.25	
			02	CHECKS	** COMMENT **			
					INVOICE TOTAL:		28.25	*
					CHECK TOTAL:		28.25	
542018	IPRF ILLINOIS PUBLIC RISK FUND							
	97310	01/15/25	01	MAR 2025 WORK COMP INS	01-640-52-00-5231		13,402.34	
			02	MAR 2025 WORK COMP INS-P	01-640-52-00-5231		2,726.36	
			03	MAR 2025 WORK COMP INS	51-510-52-00-5231		1,270.93	
			04	MAR 2025 WORK COMP INS	52-520-52-00-5231		574.09	
			05	MAR 2025 WORK COMP INS	82-820-52-00-5231		1,083.28	
					INVOICE TOTAL:		19,057.00	*
					CHECK TOTAL:		19,057.00	
D003952	JACKSONJ JAMIE JACKSON							
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	52-520-54-00-5440		45.00	
			02	REIMBURSEMENT	** COMMENT **			
					INVOICE TOTAL:		45.00	*
					DIRECT DEPOSIT TOTAL:		45.00	
542019	JIMSTRCK JIM'S TRUCK INSPECTION LLC							

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

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542019	JIMSTRCK JIM'S TRUCK INSPECTION LLC							
	207061	12/17/24	01	TRUCK INSPECTION	01-410-54-00-5490		43.00	
					INVOICE TOTAL:		43.00	*
	207311	01/06/25	01	TRUCK INSPECTION	79-790-54-00-5495		41.00	
					INVOICE TOTAL:		41.00	*
	207332	01/06/25	01	TRUCK INSPECTION	79-790-54-00-5495		41.00	
					INVOICE TOTAL:		41.00	*
	207343	01/06/25	01	TRUCK INSPECTION	79-790-54-00-5495		41.00	
					INVOICE TOTAL:		41.00	*
	207348	01/06/25	01	TRUCK INSPECTION	79-790-54-00-5495		41.00	
					INVOICE TOTAL:		41.00	*
	207349	01/06/25	01	TRUCK INSPECTION	79-790-54-00-5495		41.00	
					INVOICE TOTAL:		41.00	*
	207358	01/07/25	01	TRUCK INSPECTION	79-790-54-00-5495		41.00	
					INVOICE TOTAL:		41.00	*
	207389	01/07/25	01	TRUCK INSPECTION	79-790-54-00-5495		41.00	
					INVOICE TOTAL:		41.00	*
	207519	01/14/25	01	TRUCK INSPECTION	79-790-54-00-5495		41.00	
					INVOICE TOTAL:		41.00	*
	207634	01/17/25	01	TRUCK INSPECTION	01-410-54-00-5490		43.00	
					INVOICE TOTAL:		43.00	*
					CHECK TOTAL:			414.00
D003953	JOHNGEOR GEORGE JOHNSON							
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	51-510-54-00-5440		22.50	

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

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CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
D003953	JOHNGEOR	GEORGE JOHNSON							
	020125		02/01/25	02	REIMBURSEMENT	** COMMENT **			
				03	JAN 2025 MOBILE EMAIL	52-520-54-00-5440		22.50	
				04	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
542020	JULIE	JULIE, INC.							
	2025-14992-022025		01/28/25	01	QUARTERLY LOCATING CHARGE	01-410-54-00-5483		2,037.80	
						INVOICE TOTAL:		2,037.80	*
						CHECK TOTAL:			2,037.80
D003954	KLEEFISG	GLENN KLEEFISCH							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
542021	LANDAP	PAUL LANDA							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIIL	79-790-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
	CDL PERMIT		01/03/25	01	CDL PERMIT TEST REIMBURSEMENT	79-790-54-00-5412		50.00	
						INVOICE TOTAL:		50.00	*
						CHECK TOTAL:			95.00
542022	LANEMUCH	LANER, MUCHIN, LTD							

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

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542022	LANEMUCH LANER, MUCHIN, LTD							
	679824	01/01/25	01	LEGAL SERVICES THROUGH DEC	01-640-54-00-5463		393.75	
			02	20, 2024	** COMMENT **			
					INVOICE TOTAL:		393.75	*
					CHECK TOTAL:			393.75
542023	LEGENDRP PATRICK LEGENDRE							
	020125	02/01/25	01	JAN 2025 MOBILE EMAIIL	51-510-54-00-5440		45.00	
			02	REIMBURSEMENT	** COMMENT **			
					INVOICE TOTAL:		45.00	*
					CHECK TOTAL:			45.00
542024	LOMBARDS STEVEN LOMBARDO							
	020125	02/01/25	01	JAN 2025 MOBILE EMAIIL	79-790-54-00-5440		45.00	
			02	REIMBURSEMENT	** COMMENT **			
					INVOICE TOTAL:		45.00	*
	CDL PERMIT	01/03/25	01	CDL PERMIT TEST REMIBURSMENT	79-790-54-00-5412		50.00	
					INVOICE TOTAL:		50.00	*
					CHECK TOTAL:			95.00
D003955	MCGREGOM MATTHEW MCGREGORY							
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00	
			02	REIMBURSEMENT	** COMMENT **			
					INVOICE TOTAL:		45.00	*
					DIRECT DEPOSIT TOTAL:			45.00
542025	MECHANIC MECHANICS LAB LLC							

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				

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542025	MECHANIC MECHANICS LAB LLC							
	6078	01/23/25	01	BRAKE CHAMBER REPAIR	01-410-54-00-5490		250.15	
					INVOICE TOTAL:		250.15	*
					CHECK TOTAL:		250.15	
542026	METRONET METRO FIBERNET LLC							
	1872272-011825	01/18/25	01	01/18-02/17 651 PP INTERNET	01-110-54-00-5440		66.87	
			02	01/18-02/17 651 PP INTERNET	01-220-54-00-5440		76.42	
			03	01/18-02/17 651 PP INTERNET	01-120-54-00-5440		38.21	
			04	01/18-02/17 651 PP INTERNET	79-795-54-00-5440		76.42	
			05	01/18-02/17 651 PP INTERNET	01-210-54-00-5440		382.08	
					INVOICE TOTAL:		640.00	*
					CHECK TOTAL:		640.00	
542027	MIDWSALT MIDWEST SALT							
	p478762	01/03/25	01	BULK ROCK SALT	51-510-56-00-5638		3,300.29	
					INVOICE TOTAL:		3,300.29	*
	p478866	01/07/25	01	BULK ROCK SALT	51-510-56-00-5638		3,185.90	
					INVOICE TOTAL:		3,185.90	*
	p478913	01/09/25	01	BULK ROCK SALT	51-510-56-00-5638		3,269.27	
					INVOICE TOTAL:		3,269.27	*
					CHECK TOTAL:		9,755.46	
D003956	MILSCHET TED MILSCHEWSKI							
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	24-216-54-00-5440		45.00	
			02	REIMBURSEMENT	** COMMENT **			
					INVOICE TOTAL:		45.00	*
					DIRECT DEPOSIT TOTAL:		45.00	

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
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12-112	SUNFLOWER SSA
15-155	MOTOR FUEL TAX (MFT)
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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

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542028	MORTON	MORTON SALT, INC					
	5403290379	01/16/25	01	SALT	15-155-56-00-5618		13,417.73
					INVOICE TOTAL:		13,417.73 *
	5403293225	01/17/25	01	SALT	15-155-56-00-5618		3,019.83
					INVOICE TOTAL:		3,019.83 *
	5403300040	01/21/25	01	SALT	15-155-56-00-5618		19,459.47
					INVOICE TOTAL:		19,459.47 *
					CHECK TOTAL:		35,897.03
D003957	NASUTAE	EMILY NASUTA					
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	01-120-54-00-5440		45.00
			02	REIMBURSEMENT	** COMMENT **		
					INVOICE TOTAL:		45.00 *
					DIRECT DEPOSIT TOTAL:		45.00
D003958	NAVARROJ	JESUS NAVARRO					
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	24-216-54-00-5440		45.00
			02	REIMBURSEMENT	** COMMENT **		
					INVOICE TOTAL:		45.00 *
					DIRECT DEPOSIT TOTAL:		45.00
542029	NEOPOST	QUADIENT FINANCE USA, INC					
	012925-CITY	01/29/25	01	POSTAGE MACHINE REFILL	01-000-14-00-1410		300.00
					INVOICE TOTAL:		300.00 *
					CHECK TOTAL:		300.00
542030	NICOR	NICOR GAS					

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

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542030	NICOR	NICOR GAS							
	95-16-10-1000 4-1224		01/14/25	01	12/12-01/13 1 RT47	01-110-54-00-5480		52.18	
						INVOICE TOTAL:		52.18	*
						CHECK TOTAL:		52.18	
542031	OTTOSEN	OTTOSEN DINOLFO							
	11873		12/31/24	01	MISC ADMIN LEGAL MATTERS	01-640-54-00-5456		7,823.19	
						INVOICE TOTAL:		7,823.19	*
	11874		12/31/24	01	KENDALL MARKETPLACE	90-232-00-00-0011		897.00	
				02	SUBDIVISION MATTERS	** COMMENT **			
						INVOICE TOTAL:		897.00	*
	11875		12/31/24	01	DEC 2024 MEETINGS	01-640-54-00-5456		800.00	
						INVOICE TOTAL:		800.00	*
	11876		12/31/24	01	CYRUS ONE MATTERS	90-227-00-00-0011		184.00	
						INVOICE TOTAL:		184.00	*
	11877		12/31/24	01	WIDENING OF KENNEDY RD MATTER	01-640-54-00-5456		897.00	
						INVOICE TOTAL:		897.00	*
	11878		12/31/24	01	COSTCO MATTERS	90-239-00-00-0011		1,955.00	
						INVOICE TOTAL:		1,955.00	*
	11880		12/31/24	01	GRANDE RESERVE MATTERS	01-640-54-00-5456		437.00	
						INVOICE TOTAL:		437.00	*
	11881		12/31/24	01	TIMBER RIDGE MATERS	01-640-54-00-5456		287.50	
						INVOICE TOTAL:		287.50	*
	11885		12/31/24	01	CYRUS ONE MATTERS	90-227-00-00-0011		368.00	
						INVOICE TOTAL:		368.00	*

01-110	ADMIN
01-120	FINANCE
01-210	POLICE
01-220	COMMUNITY DEVELOPMENT
01-410	STREETS OPERATIONS
01-640	ADMINISTRATIVE SERVICES
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52-520	SEWER OPERATIONS
79-790	PARKS DEPARTMENT
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89-890	DOWNTOWN II TIF
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542031	OTTOSEN	OTTOSEN DINOLFO							
	11886		12/31/24	01	APPLIED COMMUNICATION VS.	01-640-54-00-5461		207.00	
				02	LITE CONSTRUCTION	** COMMENT **			
						INVOICE TOTAL:		207.00	*
	11887		12/31/24	01	DMYF, LLLP MATTERS	90-234-00-00-0011		345.00	
						INVOICE TOTAL:		345.00	*
	11888		12/31/24	01	1115, LLC MATTERS	90-236-00-00-0011		460.00	
						INVOICE TOTAL:		460.00	*
						CHECK TOTAL:		14,660.69	
D003959	PIAZZA	AMY SIMMONS							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-120-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
D003960	PRUITTC	CAYLA PRUITT							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-795-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
	2025 IPRA MILEAGE		01/25/25	01	IPRA CONFERENCE MILEAGE	79-795-54-00-5415		76.72	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		76.72	*
						DIRECT DEPOSIT TOTAL:		121.72	
542032	PURCELLJ	JOHN PURCELL							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-110-54-00-5440		45.00	

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
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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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542032	PURCELLJ	JOHN PURCELL							
	020125		02/01/25	02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						CHECK TOTAL:		45.00	
542033	R0001653	BOB & SUE MANGERS							
	011525-DEP		01/15/25	01	BEECHER DEPOSIT REFUND	01-000-24-00-2410		50.00	
						INVOICE TOTAL:		50.00	*
						CHECK TOTAL:		50.00	
D003961	RATOSP	PETE RATOS							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-220-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
D003962	REDMONST	STEVE REDMON							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIIL	79-795-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
542034	REINDERS	REINDERS, INC.							
	4076998-00		01/14/25	01	ALL SEASON MAINTENANCE & LUBE	79-790-54-00-5495		864.53	
						INVOICE TOTAL:		864.53	*
						CHECK TOTAL:		864.53	

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 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
D003963	ROSBOROS	SHAY REMUS							
	012525-IPRA MILEAGE		01/25/25	01	IPRA CONFERENCE MILEAGE	79-795-54-00-5415		68.04	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		68.04	*
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-795-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			113.04
542035	RUSHTRCK	RUSH TRUCK CENTER							
	3040319414		01/23/25	01	FUEL OUTLET FITTING	01-410-56-00-5628		46.90	
						INVOICE TOTAL:		46.90	*
						CHECK TOTAL:			46.90
542036	RUSSPOWE	RUSSO HARDWARE INC.							
	SPI20894869		01/08/25	01	SPREADER MODULE	01-410-56-00-5628		396.99	
						INVOICE TOTAL:		396.99	*
						CHECK TOTAL:			396.99
D003964	SCODROP	PETER SCODRO							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	51-510-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
D003965	SCOTTTR	TREVOR SCOTT							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		45.00	

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 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
D003965	SCOTTTR	TREVOR SCOTT							
	020125		02/01/25	02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
542037	SEBIS	SEBIS DIRECT							
	111864		01/13/25	01	DEC 2025 UTILITY BILLING	01-120-54-00-5430		22.11	
				02	DEC 2025 UTILITY BILLING	51-510-54-00-5430		29.62	
				03	DEC 2025 UTILITY BILLING	52-520-54-00-5430		13.82	
				04	DEC 2025 UTILITY BILLING	79-795-54-00-5426		178.00	
						INVOICE TOTAL:		243.55	*
						CHECK TOTAL:		243.55	
D003966	SENDRAS	SAMANTHA SENDRA							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIIL	79-795-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
	2025 IPRA MILEAGE		01/24/25	01	IPRA CONFERENCE MILEAGE	79-795-54-00-5415		76.72	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		76.72	*
						DIRECT DEPOSIT TOTAL:		121.72	
D003967	SENGM	MATT SENG							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	

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 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
D003968	SLEEZERJ	JOHN SLEEZER							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
D003969	SLEEZERS	SCOTT SLEEZER							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
D003970	SMITHD	DOUG SMITH							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
D003971	STEFFANG	GEORGE A STEFFENS							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	52-520-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00
D003972	THOMASL	LORI THOMAS							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-120-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:			45.00

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 02/11/2025

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
542038	TRICO	TRICO MECHANICAL , INC					
	15260	01/24/25	01	REPLACED SURFACE IGNITOR	24-216-54-00-5446		888.25
			02	AT 610 TOWER	** COMMENT **		
					INVOICE TOTAL:		888.25 *
					CHECK TOTAL:		888.25
542039	UNIMAX	UNI-MAX MANAGEMENT CORP					
	5238	01/15/25	01	CITY HALL OFFICE CLEANING-JAN	01-110-54-00-5488		369.55
			02	2025	** COMMENT **		
			03	CITY HALL OFFICE CLEANING-JAN	01-120-54-00-5488		369.55
			04	2025	** COMMENT **		
			05	CITY HALL OFFICE CLEANING-JAN	01-210-54-00-5488		1,061.38
			06	2025	** COMMENT **		
			07	CITY HALL OFFICE CLEANING-JAN	79-795-54-00-5488		318.11
			08	2025	** COMMENT **		
			09	CITY HALL OFFICE CLEANING-JAN	01-220-54-00-5488		203.41
			10	2025	** COMMENT **		
			11	PW FACILITY CLEANING-JAN 2025	01-410-54-00-5488		153.00
			12	PW FACILITY CLEANING-JAN 2025	51-510-54-00-5488		153.00
			13	PW FACILITY CLEANING-JAN 2025	52-520-54-00-5488		153.00
			14	LIB OFFICE CLEANING-JAN 2025	82-820-54-00-5488		2,106.00
			15	185 WOLF ST CLEANING-JAN 2025	79-790-54-00-5488		230.00
			16	PRESCHOOL CLEANING-JAN 2025	79-795-54-00-5488		702.00
			17	VAN EMMON CLEANING-JAN 2025	79-795-54-00-5488		230.00
					INVOICE TOTAL:		6,049.00 *
					CHECK TOTAL:		6,049.00
542040	VITOSH	CHRISTINE M. VITOSH					
	2282	01/28/25	01	01/08/25 P&Z MEETING	90-239-00-00-0011		465.00
					INVOICE TOTAL:		465.00 *
					CHECK TOTAL:		465.00

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 02/11/2025

CHECK #	VENDOR # / INVOICE #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT	
542041	WATERSYS	WATER SOLUTIONS UNLIMITED, INC							
	6951378		01/02/25	01	CHLORINE	51-510-56-00-5638		5,134.00	
						INVOICE TOTAL:		5,134.00	*
						CHECK TOTAL:		5,134.00	
D003973	WEBERR	ROBERT WEBER							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
542042	WEX	WEX BANK							
	102575038		01/31/25	01	JAN 2025 GASOLINE	01-210-56-00-5695		7,676.69	
				02	JAN 2025 GASOLINE	01-220-56-00-5695		646.10	
						INVOICE TOTAL:		8,322.79	*
						CHECK TOTAL:		8,322.79	
D003974	WILLRETE	ERIN WILLRETT							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	01-110-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	
D003975	WOLFB	BRANDON WOLF							
	020125		02/01/25	01	JAN 2025 MOBILE EMAIL	79-790-54-00-5440		45.00	
				02	REIMBURSEMENT	** COMMENT **			
						INVOICE TOTAL:		45.00	*
						DIRECT DEPOSIT TOTAL:		45.00	

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 02/11/2025

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
542043	YBSD YORKVILLE BRISTOL						
	133-0-011425	01/14/25	01	10/31-12/31 SANITARY SERVICE	51-510-54-00-5480		136.00
			02	FOR 610 TOWER	** COMMENT **		
					INVOICE TOTAL:		136.00 *
	32-0-011425	01/14/25	01	10/31-12/31 SANITARY SERVICE	01-110-54-00-5480		162.00
			02	FOR 102 VAN EMMON	** COMMENT **		
					INVOICE TOTAL:		162.00 *
	365-0-011425	01/14/25	01	10/31-12/31 SANITARY SERVICE	01-110-54-00-5480		456.00
			02	FOR 651 PRAIRIE POINTE	** COMMENT **		
					INVOICE TOTAL:		456.00 *
	420-0-011425	01/14/25	01	10/31-12/31 SANITARY SERVICE	79-795-54-00-5480		94.00
			02	FOR 185 WOLF	** COMMENT **		
					INVOICE TOTAL:		94.00 *
	445-0-011425	01/14/25	01	10/31-12/31 SANITARY SERVICE	79-795-54-00-5480		118.00
			02	FOR 201 W HYDRAULIC	** COMMENT **		
					INVOICE TOTAL:		118.00 *
	487-0-011425	01/14/25	01	10/31-12/31 SANITARY SERVICE	01-110-54-00-5480		94.00
			02	FOR 651 PRAIRIE POINTE	** COMMENT **		
					INVOICE TOTAL:		94.00 *
					CHECK TOTAL:		1,060.00
D003976	YODERD DAVID YODER						
	020125	02/01/25	01	JAN 2025 MOBILE EMAIL	01-410-54-00-5440		45.00
			02	REIMBURSEMENT	** COMMENT **		
					INVOICE TOTAL:		45.00 *
					DIRECT DEPOSIT TOTAL:		45.00
542044	YOUNGM MARLYS J. YOUNG						

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 02/11/2025

CHECK #	VENDOR # / INVOICE #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	PROJECT CODE	ITEM AMT
542044	YOUNGM MARLYS J. YOUNG						
	010725-EDC	01/21/25	01	01/07/25 EDC MEETING MINUTES	01-110-54-00-5462		85.00
					INVOICE TOTAL:		85.00 *
	010825-P&Z	01/24/25	01	01/05/25 P&Z MEETING MINUTES	90-239-00-00-0011		85.00
					INVOICE TOTAL:		85.00 *
					CHECK TOTAL:		170.00

TOTAL CHECKS PAID: 193,353.87

TOTAL DIRECT DEPOSITS PAID: 12,018.98

TOTAL AMOUNT PAID: 205,372.85

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
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52-520	SEWER OPERATIONS
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79-795	RECREATION DEPARTMENT
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88-880	DOWNTOWN TIF
89-890	DOWNTOWN II TIF
90-XXX	DEVELOPER ESCROW
95-000	ESCROW DEPOSIT

UNITED CITY OF YORKVILLE
PAYROLL SUMMARY
January 31, 2025

	REGULAR	OVERTIME	TOTAL	IMRF	FICA	TOTALS
ADMINISTRATION	19,686.40	-	19,686.40	1,307.17	1,488.21	22,481.78
FINANCE	14,719.09	-	14,719.09	977.35	1,124.42	16,820.86
POLICE	153,809.25	2,439.49	156,248.74	461.65	11,908.57	168,618.96
COMMUNITY DEV.	30,746.54	-	30,746.54	1,993.75	2,324.91	35,065.20
STREETS	26,656.05	1,243.45	27,899.50	1,852.56	2,127.98	31,880.04
BUILDING & GROUNDS	6,356.06	-	6,356.06	422.04	486.21	7,264.31
WATER	23,172.79	1,804.38	24,977.17	1,610.71	1,904.08	28,491.96
SEWER	16,176.18	-	16,176.18	1,074.06	1,237.38	18,487.62
PARKS	34,869.88		34,869.88	2,258.92	2,660.56	39,789.36
RECREATION	29,793.22	-	29,793.22	1,523.54	2,279.20	33,595.96
LIBRARY	18,149.87	-	18,149.87	770.10	1,381.13	20,301.10
TOTALS	$ 374,135.33	$ 5,487.32	$ 379,622.65	$ 14,251.85	$ 28,922.65	$ 422,797.15

TOTAL PAYROLL **$ 422,797.15**

UNITED CITY OF YORKVILLE

BILL LIST SUMMARY

Tuesday, February 11, 2025

ACCOUNTS PAYABLE	**DATE**		
Clerk's Check #131255 Kendall County Recorder *(Page 1)*	01/14/2025	$	279.00
Clerk's Check #13126 Kendall County Recorder *(Page 2)*	01/24/2025		285.00
Manual City Check Register (Page 3)	01/24/2025		600.00
Clerk's Check #131257 Kendall County Recorder *(Page 4)*	01/27/2025		57.00
City Check Register *(Pages 5 - 28)*	02/11/2025		205,372.85
SUB-TOTAL:			**$206,593.85**
PAYROLL			
Bi - Weekly *(Page 29)*	01/31/2025	$	422,797.15
SUB-TOTAL:		**$**	**422,797.15**
TOTAL DISBURSEMENTS:		**$**	**629,391.00**

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

Agenda Item Number

Consent Agenda #4

Tracking Number

EDC 2025-16

Agenda Item Summary Memo

Title: Kendall County Intergovernmental Agreement Renewal – Inspection Services

Meeting and Date: City Council – February 11, 2025

Synopsis: Annual renewal of the Intergovernmental Agreement between the United City of Yorkville and Kendall County related to building & plumbing inspection services.

Council Action Previously Taken:

Date of Action: EDC – 2/4/25 Action Taken: Moved forward to CC consent agenda.

Item Number: EDC 2025-16

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Krysti J. Barksdale-Noble (Name) Community Development (Department)

Agenda Item Notes:

Memorandum

To: Economic Development Committee
From: Krysti J. Barksdale-Noble, Community Development Director
CC: Bart Olson, City Administrator
Pete Ratos, Building Code Official
Date: January 17, 2025
Subject: **Renewed Kendall County Intergovernmental Agreement**
Reciprocal Building Inspection and Plumbing Inspection Services

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Summary

In May 2013, the City approved Resolution 2013-13 which executed an intergovernmental agreement between the City of Yorkville and Kendall County for shared building inspection services, on an as need basis, for a term of three (3) years. And in 2014, the City approved an amendment to the agreement which added shared plumbing services via Resolution 2014-34 and a renewal to this agreement was approved in March 2016 via Resolution 2016-08; Resolution 2017-15 in March 2017; Resolution 2018-05 in March 2018; Resolution 2019-11 in March 2019; Resolution 2020-08 in March 2020; Resolution 2021-05; and Resolution 2023-04. Each extending the reciprocal service for an additional year. Last year's agreement renewal was approved via Res. 2024-10.

Although the City now outsources a portion of its inspection services to B&F, staff feels this arrangement has worked very well for both the County and the City over the last twelve (12) years. The following chart illustrates the number of reciprocal inspections conducted by each governmental entity for calendar years from 2016 to 2024:

	2016	2017	2018	2019	2020	2021	2022	2023	2024
Kendall County inspections conducted by City	148	23	40	5	3	10	70	38	27
City inspections conducted by Kendall County	58	11	0	0	0	0	7	0	0

Since the existing agreement is set to expire on February 13, 2025, the proposed attached draft agreement is intended to continue the existing shared services agreement for an additional year with an option to renew annually upon written agreement between the City and the County.

Proposed Agreement

The basic substance of the agreement offers substitute inspection services for the City of Yorkville and Kendall County should the Code Officials of the respective government agencies be on vacation or otherwise unavailable to conduct their normal duties.

The agreement, which is on an as need basis, consists of the following services when requested: footing inspections; backfill inspections; foundation wall inspections; concrete slab inspections; rough framing inspections; rough electric inspections; underground electric inspections; electrical service inspections; insulation inspections; roofing inspections and final inspections. In addition to these services, the agreement also includes rough plumbing and final plumbing inspections but does not include plan review or permit approval of plumbing work.

Staff Comments/Recommendation

Both Yorkville's Building Department staff and Kendall County's Building Department believe that this back-up for inspection services is beneficial. Therefore, we support the extension of the agreement for an additional year. Kendall County's Planning Building and Zoning Committee (PB&Z) will be reviewing this proposed amendment in within the next month, as well. Should you have any specific questions regarding the attached proposal; staff will be available at Tuesday night's meeting.

Attachments

1. Draft Resolution
2. Draft Yorkville-Kendall County Intergovernmental Agreement
3. Resolution 2024-10

Resolution No. _____

A RESOLUTION APPROVING AN INTERGOVERNMENTAL AGREEMENT FOR RECIPROCAL BUILDING INSPECTION SERVICES BETWEEN THE UNITED CITY OF YORKVILLE AND KENDALL COUNTY

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

Section 1. That the *Intergovernmental Agreement for Reciprocal Building Inspections Services Between Kendall County, Illinois and the United City of Yorkville, Illinois - 2025*, attached hereto and made a part hereof by reference as Exhibit A, is hereby approved, and John Purcell, Mayor, and Jori Behland, City Clerk, be and are hereby authorized to execute said agreement on behalf of the United City of Yorkville.

Section 2. 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. 2025.

_____

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. 2025.

_____

MAYOR

Exhibit A

INTERGOVERNMENTAL AGREEMENT FOR RECIPROCAL BUILDING INSPECTION SERVICES BETWEEN KENDALL COUNTY, ILLINOIS AND THE UNITED CITY OF YORKVILLE, ILLINOIS - 2025

THIS INTERGOVERNMENTAL AGREEMENT ("*the Agreement"*) by and between the County of Kendall, a unit of local government of the State of Illinois ("*Kendall County*") and the United City of Yorkville, Kendall County, Illinois (the "*City*") a municipal corporation of the State of Illinois, is as follows:

WITNESSETH:

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 City and Kendall County 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, pursuant to the authority granted by the Illinois Counties Code and Illinois Municipal Code (55 ILCS 5/1-1001, *et seq*. and 65 ILCS 5/1-1-1, *et seq*.), the County and City (collectively referred to as the "*Parties*") are both authorized to perform inspections of buildings within their respective jurisdictions to promote the health and safety of the public; and

WHEREAS, units of local government may establish agreements with other units of local government within the State of Illinois to enforce building codes pursuant to 20 ILCS 3105/10.09-1(f), which is commonly known as the Capital Development Board Act; and

WHEREAS, the County and City wish to share their resources and assist each other in the performance of inspections on an as needed basis, while not surrendering their own jurisdiction or relinquishing any of their rights.

NOW, THEREFORE, in consideration of the premises and the mutual covenants hereafter set forth, the parties agree as follows:

Section 1. The foregoing preambles are hereby incorporated into this Agreement as if fully restated in this Section 1.

Section 2.

a. The Parties agree that Kendall County Code Official Brian Holdiman and the United City of Yorkville Building Code Official Peter Ratos shall perform the following services on the other party's behalf when requested: footing inspections; backfill inspections; foundation wall inspections; concrete slab inspections; rough framing inspections; rough electric inspections; underground electric inspections; electric service inspections; insulation inspections; roofing inspections and final inspections. In instances where Holdiman or Ratos inspect and find violations and a code enforcement action is required in court or administrative adjudication, Holdiman or Ratos may be requested to be a witness to verify any violations found during their inspection. If it is requested that either Ratos or Holdiman attend an administrative or court hearing in regard to violations, then they shall be given reasonable notice of no less than fourteen (14) days for such hearing and they shall attend as requested.

b. The Parties agree that the United City of Yorkville Building Code Official Peter Ratos may, in his discretion, perform plumbing inspections on Kendall County's behalf when requested. In instances where Ratos performs plumbing inspections and finds

violations and a code enforcement action is required in court or administrative adjudication, Ratos may be requested to be a witness to verify any violations found during his inspection. If it is requested that Ratos attend an administrative or court hearing in regard to violations, then he shall be given reasonable notice of no less than fourteen (14) days for such hearing and he shall attend as requested.

Section 3. The Parties agree that the following inspection services shall not be provided under this agreement: plan review; permit approval, and; initial site inspections prior to a permit being issued.

Section 4. Upon request, the Parties agree to coordinate and assist each other in the parties' performance of the inspections set forth in Section 2 of this Agreement only under the following circumstances:

a. If Kendall County Code Official Holdiman or City Building Code Official Ratos is absent from work due to illness, vacation, on an approved leave of absence, or otherwise unavailable to perform one or more of the above listed inspections within Section 2(a) for their respective jurisdiction; and/or
b. If Kendall County Code Official Holdiman or City Building Code Official has a conflict of interest in performing one or more of the inspections set forth in Section 2(a) for their respective jurisdiction; and/or
c. If the Kendall County Plumbing Contractor is absent from work due to illness, vacation, on an approved leave of absence, or otherwise unavailable to perform plumbing inspections for his or her respective jurisdiction; and/or
d. If the Kendall County Plumbing Contractor has a conflict of interest in performing plumbing inspections for his or her respective jurisdiction.

For purposes of this Agreement, the party requesting assistance shall be referred to as "the home jurisdiction" and the party providing the inspection services assistance as set forth in Section 2 shall be referred to as "the visiting inspector".

Section 5. In the event the visiting inspector is unable to perform the inspection services set forth in Section 2 of this Agreement, the home jurisdiction shall be responsible for performing its inspection or shall be responsible for retaining and payment of a third party to perform the inspection.

Section 6. When the visiting inspector performs an inspection on behalf of the home jurisdiction, the visiting inspector shall utilize the building codes of the home jurisdiction where the inspection is taking place. As such, when an inspection is within the corporate limits of the City, the Kendall County inspector shall use the building codes that are currently adopted and enforced by the City at the time of the inspection. When an inspection is in an unincorporated portion of Kendall County, where the County has jurisdiction, the City inspector shall utilize the building codes that are currently adopted and enforced by Kendall County at the time of the inspection.

Section 7. When a home jurisdiction requests the visiting inspector's assistance, the home jurisdiction shall provide a minimum of twenty-four (24) hours' notice when there is a foreseeable need for the other party's inspection services. In the event of an illness or other emergency, the parties agree to provide each other with as much advance notice as possible if a visiting inspector's services are needed pursuant to Section 4.

Section 8. Inspections must be completed using the proper jurisdiction's forms. Prior to the commencement of any requested inspection, the home jurisdiction requesting assistance will prepare and provide all necessary inspection reports/forms for use by the visiting inspector

and deliver them to the visiting inspector prior to the inspection taking place. Following an inspection, the original, completed inspection reports/forms shall be returned to the home jurisdiction within twenty-four (24) hours after completion of the inspection. After the visiting inspector has returned the original, completed inspection reports/forms to the home jurisdiction, the visiting inspector shall not be required to retain the records of inspections for the home jurisdiction after performing inspections under this Agreement.

Section 9. Neither the City nor Kendall County shall subcontract the services provided to the other under this agreement to a third-party inspector without the prior written consent of the other party.

Section 10. There will be no compensation paid to, or by, either jurisdiction for the sharing of services under this Agreement.

Section 11. When a visiting inspector performs an inspection under this Agreement for the home jurisdiction, the visiting inspector shall use their own equipment, tools and vehicles, and the home jurisdiction shall not be responsible for reimbursing the visiting inspector for mileage or any other expenses incurred by the visiting inspector.

Section 12. The City and Kendall County shall each defend, with counsel of the other party's own choosing, indemnify and hold harmless the other party, including past, present and future board members, elected officials, insurers, employees, and agents from and against any and all claims, liabilities, obligations, losses, penalties, fines, damages, and expenses and costs relating thereto, including but not limited to attorneys' fees and other legal expenses, which the other party, its past, present and future board members, elected officials, insurers, employees, and/or agents may hereafter sustain, incur or be required to pay relating to or arising in any manner out of the inspections to be performed by the other party under this agreement. As such,

when the City performs an inspection for Kendall County, the City will defend with counsel of Kendall County's own choosing, indemnify and hold harmless Kendall County as set forth above relating to the City's and the City Building Code Official's actions in the performance of their duties under this Agreement. When Kendall County performs an inspection for the City, Kendall County will defend with counsel of the City's own choosing, indemnify and hold harmless the City as set forth above relating to Kendall County's and the County Code Official's actions in the performance of their duties under this Agreement.

Section 13. Nothing in this agreement shall be deemed to change or alter the jurisdiction of either the City or Kendall County in any respect, including, but not limited to their building and zoning regulations, powers and duties.

Section 14. 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.

Section 15. 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, Twenty-Third Judicial Circuit. 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.

Section 16. All notices required or permitted hereunder shall be in writing and may be given by (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 the County: Director
Kendall County Planning, Building & Zoning
111 West Fox Street
Yorkville, Illinois 60560
Fax: 630-553-4179

With copy to:
Kendall County State's Attorney
807 John Street
Yorkville, Illinois, 60560
Fax: 630-553-4204

If to the City: Community Development Director
United City of Yorkville Building Safety and Zoning
651 Prairie Pointe Drive
Yorkville, Illinois 60560
Fax: 630-553-7264

Or any such other person, counsel or address as any party hereto shall specify pursuant to this Section from time to time.

Section 17. This Agreement may be executed in counterparts (including facsimile signatures), each of which shall be deemed to be an original and both of which shall constitute one and the same Agreement.

Section 18. This Agreement represents the entire agreement between the parties 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 and may not be further modified except in writing acknowledged by both parties.

Section 19. Nothing contained in this Agreement, nor any act of Kendall County 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 Kendall County and the City. Further, nothing in this agreement should be interpreted to give Kendall County or the City any control over the other's employees or imply a power to direct the employees of the other government body, which neither entity may exercise.

Section 20. When performing inspections under the terms of this Agreement, Kendall County and City intend that any injuries to their respective employee shall be covered and handled exclusively by their jurisdiction's own worker's compensation insurance in place at the time of such injury. It is further agreed that all employee benefits, wage and disability payments, pension and worker's compensation claims, damage to or destruction of equipment, facilities, clothing and related medical expenses of the City or Kendall County and their respective inspectors, which may result from their activities under this Agreement, shall be the responsibility of the jurisdiction which employs the inspector making such a claim.

Section 21. The Parties will obtain and continue in force, during the term of this Agreement, all insurance as set forth below: (a) Commercial General Liability (CGL): Insurance Services Office Form CG 00 01 (or its equivalent) covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than $1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall

apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit; (b) Automobile Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than $1,000,000 per accident for bodily injury and property damage; (c) Workers' Compensation: as required by the State of Illinois, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease. If the Jurisdiction maintains broader coverage and/or higher limits than the minimums shown above, the both Jurisdictions require and shall be entitled to the broader coverage and/or the higher limits maintained by the contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to both Jurisdictions. The insurance policies are to contain, or be endorsed to contain, the following provisions: (a) Additional Insured Status-Both jurisdictions, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the jurisdiction including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the jurisdiction's insurance; (b) Notice of Cancellation-Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the Entity; (c) Verification of Coverage-Each Jurisdiction shall furnish the other with original Certificates of Insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing all policy endorsements to other before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the other's obligation to provide them.

Each Jurisdiction reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

Section 22. This Agreement shall be in full force and effect for a period of one (1) year from the date of the last signature below, however it may be renewed upon agreement of the parties in writing.

Section 23. Either party may terminate this Agreement by providing thirty (30) calendar days' advance written notice to the other party. However, any act of bad faith in the execution of duties under this Agreement shall result in immediate termination of the other party's duties as laid out herein. For the purpose of this agreement, "bad faith" is an intentional dishonest act by not fulfilling legal or contractual obligations, misleading another, entering into an agreement without the intention or means to fulfill it, or violating basic standards of honesty in dealing with others. Also, the parties agree to provide prompt written notice within fifteen (15) calendar days to the other party if Kendall County Code Official Brian Holdiman's or City Building Code Official Pete Ratos' employment ceases for whatever reason. In such event, this Agreement shall immediately terminate upon receipt of said written notice.

Section 24. The parties understand and agree that this Agreement in no way creates a joint employment relationship between the Parties. The Parties understand and agree that they are solely responsible for paying all wages, benefits, and any other compensation due and owing to its employees for the performance of visiting inspector services set forth in this Agreement. The parties further understand and agree that the parties are solely responsible for making all required payroll deductions and other tax and wage withholdings pursuant to state and federal law for its employees who perform visiting inspector services as set forth in this Agreement.

Section 25. Kendall County 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.

IN WITNESS WHEREOF, the parties hereto have caused this Intergovernmental Agreement to be executed by their duly authorized officers on the date below in the United City of Yorkville, Illinois.

County of Kendall, a unit of local government of the State of Illinois	United City of Yorkville, Kendall County, Illinois, a municipal corporation
By: _____	By: _____
Chair, Kendall County Board	Mayor
Date: _____	Date: _____
Attest:	*Attest*:
_____	_____
County Clerk	City Clerk

Resolution No. 2024-10

A RESOLUTION APPROVING AN INTERGOVERNMENTAL AGREEMENT FOR RECIPROCAL BUILDING INSPECTION SERVICES BETWEEN THE UNITED CITY OF YORKVILLE AND KENDALL COUNTY

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

Section 1: That the *Intergovernmental Agreement for Reciprocal Building Inspections Services Between Kendall County, Illinois and the United City of Yorkville, Illinois - 2024*, attached hereto and made a part hereof by reference as Exhibit A, is hereby approved, and John Purcell, Mayor, and Jori Behland, City Clerk, be and are hereby authorized to execute said agreement on behalf of the United City of Yorkville.

Section 2: 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 13th day of February, A.D. 2024.

Jori Behland

CITY CLERK

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

APPROVED by me, as Mayor of the United City of Yorkville, Kendall County, Illinois this 16th day of February, A.D. 2024.

MAYOR

COUNTY OF KENDALL, ILLINOIS
RESOLUTION 2024-06

RESOLUTION APPROVING AN INTERGOVERNMENTAL AGREEMENT FOR RECIPROCAL BUILDING INSPECTION SERVICES BETWEEN KENDALL COUNTY, ILLINOIS AND THE UNITED CITY OF YORKVILLE, ILLINOIS

WHEREAS, the Constitution of the State of Illinois of 1970, Article VII, Section 10, provides that units of local government may contract 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, Kendall County and the United City of Yorkville 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, pursuant to the authority granted by the Illinois Counties Code and Illinois Municipal Code (55 ILCS 5/1-1001, *et seq.* and 65 ILCS 5/1-1-1, *et seq.*), Kendall County and the United City of Yorkville are both authorized to perform inspections of buildings within their respective jurisdictions to promote the health and safety of the public; and

WHEREAS, Kendall County and the United City of Yorkville wish to share their resources and assist each other in the performance of building inspections.

NOW, THEREFORE, BE IT RESOLVED that the Kendall County Board hereby approves the *Intergovernmental Agreement for Reciprocal Building Inspection Services Between Kendall County, Illinois and the United City of Yorkville, Illinois*, which is attached hereto and made a part hereof by reference as Exhibit A; and

BE IT FURTHER RESOLVED that the Kendall County Board Chairman is hereby authorized to execute said intergovernmental agreement on behalf of Kendall County.

Approved and adopted by the County Board of Kendall County, Illinois, this 20th day of February, 2024.

Board Chairman Signature:

Matt Kellogg, Chairman
County Board

Attest:

Debbie Gillette
County Clerk

Exhibit A

INTERGOVERNMENTAL AGREEMENT FOR RECIPROCAL BUILDING INSPECTION SERVICES BETWEEN KENDALL COUNTY, ILLINOIS AND THE UNITED CITY OF YORKVILLE, ILLINOIS - 2024

THIS INTERGOVERNMENTAL AGREEMENT ("*the Agreement*") by and between the County of Kendall, a unit of local government of the State of Illinois ("*Kendall County*") and the United City of Yorkville, Kendall County, Illinois (the "*City*") a municipal corporation of the State of Illinois, is as follows:

WITNESSETH:

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 City and Kendall County 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, pursuant to the authority granted by the Illinois Counties Code and Illinois Municipal Code (55 ILCS 5/1-1001, *et seq.* and 65 ILCS 5/1-1-1, *et seq.*), the County and City (collectively referred to as the "*Parties*") are both authorized to perform inspections of buildings within their respective jurisdictions to promote the health and safety of the public; and

WHEREAS, units of local government may establish agreements with other units of local government within the State of Illinois to enforce building codes pursuant to 20 ILCS 3105/10.09-1(f), which is commonly known as the Capital Development Board Act; and

WHEREAS, the County and City wish to share their resources and assist each other in the performance of inspections on an as needed basis, while not surrendering their own jurisdiction or relinquishing any of their rights.

NOW, THEREFORE, in consideration of the premises and the mutual covenants hereafter set forth, the parties agree as follows:

Section 1. The foregoing preambles are hereby incorporated into this Agreement as if fully restated in this Section 1.

Section 2.

a. The Parties agree that Kendall County Code Official Brian Holdiman and the United City of Yorkville Building Code Official Peter Ratos shall perform the following services on the other party's behalf when requested: footing inspections; backfill inspections; foundation wall inspections; concrete slab inspections; rough framing inspections; rough electric inspections; underground electric inspections; electric service inspections; insulation inspections; roofing inspections and final inspections. In instances where Holdiman or Ratos inspect and find violations and a code enforcement action is required in court or administrative adjudication, Holdiman or Ratos may be requested to be a witness to verify any violations found during their inspection. If it is requested that either Ratos or Holdiman attend an administrative or court hearing in regard to violations, then they shall be given reasonable notice of no less than fourteen (14) days for such hearing and they shall attend as requested.

b. The Parties agree that the United City of Yorkville Building Code Official Peter Ratos may, in his discretion, perform plumbing inspections on Kendall County's behalf when requested. In instances where Ratos performs plumbing inspections and finds

violations and a code enforcement action is required in court or administrative adjudication, Ratos may be requested to be a witness to verify any violations found during his inspection. If it is requested that Ratos attend an administrative or court hearing in regard to violations, then he shall be given reasonable notice of no less than fourteen (14) days for such hearing and he shall attend as requested.

Section 3. The Parties agree that the following inspection services shall not be provided under this agreement: plan review; permit approval, and; initial site inspections prior to a permit being issued.

Section 4. Upon request, the Parties agree to coordinate and assist each other in the parties' performance of the inspections set forth in Section 2 of this Agreement only under the following circumstances:

a. If Kendall County Code Official Holdiman or City Building Code Official Ratos is absent from work due to illness, vacation, on an approved leave of absence, or otherwise unavailable to perform one or more of the above listed inspections within Section 2(a) for their respective jurisdiction; and/or

b. If Kendall County Code Official Holdiman or City Building Code Official has a conflict of interest in performing one or more of the inspections set forth in Section 2(a) for their respective jurisdiction; and/or

c. If the Kendall County Plumbing Contractor is absent from work due to illness, vacation, on an approved leave of absence, or otherwise unavailable to perform plumbing inspections for his or her respective jurisdiction; and/or

d. If the Kendall County Plumbing Contractor has a conflict of interest in performing plumbing inspections for his or her respective jurisdiction.

For purposes of this Agreement, the party requesting assistance shall be referred to as "the home jurisdiction" and the party providing the inspection services assistance as set forth in Section 2 shall be referred to as "the visiting inspector".

Section 5. In the event the visiting inspector is unable to perform the inspection services set forth in Section 2 of this Agreement, the home jurisdiction shall be responsible for performing its inspection or shall be responsible for retaining and payment of a third party to perform the inspection.

Section 6. When the visiting inspector performs an inspection on behalf of the home jurisdiction, the visiting inspector shall utilize the building codes of the home jurisdiction where the inspection is taking place. As such, when an inspection is within the corporate limits of the City, the Kendall County inspector shall use the building codes that are currently adopted and enforced by the City at the time of the inspection. When an inspection is in an unincorporated portion of Kendall County, where the County has jurisdiction, the City inspector shall utilize the building codes that are currently adopted and enforced by Kendall County at the time of the inspection.

Section 7. When a home jurisdiction requests the visiting inspector's assistance, the home jurisdiction shall provide a minimum of twenty-four (24) hours' notice when there is a foreseeable need for the other party's inspection services. In the event of an illness or other emergency, the parties agree to provide each other with as much advance notice as possible if a visiting inspector's services are needed pursuant to Section 4.

Section 8. Inspections must be completed using the proper jurisdiction's forms. Prior to the commencement of any requested inspection, the home jurisdiction requesting assistance will prepare and provide all necessary inspection reports/forms for use by the visiting inspector

and deliver them to the visiting inspector prior to the inspection taking place. Following an inspection, the original, completed inspection reports/forms shall be returned to the home jurisdiction within twenty-four (24) hours after completion of the inspection. After the visiting inspector has returned the original, completed inspection reports/forms to the home jurisdiction, the visiting inspector shall not be required to retain the records of inspections for the home jurisdiction after performing inspections under this Agreement.

Section 9. Neither the City nor Kendall County shall subcontract the services provided to the other under this agreement to a third-party inspector without the prior written consent of the other party.

Section 10. There will be no compensation paid to, or by, either jurisdiction for the sharing of services under this Agreement.

Section 11. When a visiting inspector performs an inspection under this Agreement for the home jurisdiction, the visiting inspector shall use their own equipment, tools and vehicles, and the home jurisdiction shall not be responsible for reimbursing the visiting inspector for mileage or any other expenses incurred by the visiting inspector.

Section 12. The City and Kendall County shall each defend, with counsel of the other party's own choosing, indemnify and hold harmless the other party, including past, present and future board members, elected officials, insurers, employees, and agents from and against any and all claims, liabilities, obligations, losses, penalties, fines, damages, and expenses and costs relating thereto, including but not limited to attorneys' fees and other legal expenses, which the other party, its past, present and future board members, elected officials, insurers, employees, and/or agents may hereafter sustain, incur or be required to pay relating to or arising in any manner out of the inspections to be performed by the other party under this agreement. As such,

when the City performs an inspection for Kendall County, the City will defend with counsel of Kendall County's own choosing, indemnify and hold harmless Kendall County as set forth above relating to the City's and the City Building Code Official's actions in the performance of their duties under this Agreement. When Kendall County performs an inspection for the City, Kendall County will defend with counsel of the City's own choosing, indemnify and hold harmless the City as set forth above relating to Kendall County's and the County Code Official's actions in the performance of their duties under this Agreement.

Section 13. Nothing in this agreement shall be deemed to change or alter the jurisdiction of either the City or Kendall County in any respect, including, but not limited to their building and zoning regulations, powers and duties.

Section 14. 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.

Section 15. 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, Twenty-Third Judicial Circuit. 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.

Section 16. All notices required or permitted hereunder shall be in writing and may be given by (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 the County: Director
Kendall County Planning, Building & Zoning
111 West Fox Street, Room 203
Yorkville, Illinois 60560
Fax: 630-553-4179

With copy to:
Kendall County State's Attorney
807 John Street
Yorkville, Illinois, 60560
Fax: 630-553-4204

If to the City: Community Development Director
United City of Yorkville Building Safety and Zoning
651 Prairie Pointe Drive
Yorkville, Illinois 60560
Fax: 630-553-7264

Or any such other person, counsel or address as any party hereto shall specify pursuant to this Section from time to time.

Section 17. This Agreement may be executed in counterparts (including facsimile signatures), each of which shall be deemed to be an original and both of which shall constitute one and the same Agreement.

Section 18. This Agreement represents the entire agreement between the parties 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 and may not be further modified except in writing acknowledged by both parties.

Section 19. Nothing contained in this Agreement, nor any act of Kendall County 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 Kendall County and the City. Further, nothing in this agreement should be interpreted to give Kendall County or the City any control over the other's employees or imply a power to direct the employees of the other government body, which neither entity may exercise.

Section 20. When performing inspections under the terms of this Agreement, Kendall County and City intend that any injuries to their respective employee shall be covered and handled exclusively by their jurisdiction's own worker's compensation insurance in place at the time of such injury. It is further agreed that all employee benefits, wage and disability payments, pension and worker's compensation claims, damage to or destruction of equipment, facilities, clothing and related medical expenses of the City or Kendall County and their respective inspectors, which may result from their activities under this Agreement, shall be the responsibility of the jurisdiction which employs the inspector making such a claim.

Section 21. The Parties will obtain and continue in force, during the term of this Agreement, all insurance as set forth below: (a) Commercial General Liability (CGL): Insurance Services Office Form CG 00 01 (or its equivalent) covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than $1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall

apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit; (b) Automobile Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limit no less than $1,000,000 per accident for bodily injury and property damage; (c) Workers' Compensation: as required by the State of Illinois, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease. If the Jurisdiction maintains broader coverage and/or higher limits than the minimums shown above, the both Jurisdictions require and shall be entitled to the broader coverage and/or the higher limits maintained by the contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to both Jurisdictions. The insurance policies are to contain, or be endorsed to contain, the following provisions: (a) Additional Insured Status-Both jurisdictions, its officers, officials, employees, and volunteers are to be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the jurisdiction including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the jurisdiction's insurance; (b) Notice of Cancellation-Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the Entity; (c) Verification of Coverage-Each Jurisdiction shall furnish the other with original Certificates of Insurance including all required amendatory endorsements (or copies of the applicable policy language effecting coverage required by this clause) and a copy of the Declarations and Endorsement Page of the CGL policy listing all policy endorsements to other before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the other's obligation to provide them.

Each Jurisdiction reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

Section 22. This Agreement shall be in full force and effect for a period of one (1) year from the date of the last signature below, however it may be renewed upon agreement of the parties in writing.

Section 23. Either party may terminate this Agreement by providing thirty (30) calendar days' advance written notice to the other party. However, any act of bad faith in the execution of duties under this Agreement shall result in immediate termination of the other party's duties as laid out herein. For the purpose of this agreement, "bad faith" is an intentional dishonest act by not fulfilling legal or contractual obligations, misleading another, entering into an agreement without the intention or means to fulfill it, or violating basic standards of honesty in dealing with others. Also, the parties agree to provide prompt written notice within fifteen (15) calendar days to the other party if Kendall County Code Official Brian Holdiman's or City Building Code Official Pete Ratos' employment ceases for whatever reason. In such event, this Agreement shall immediately terminate upon receipt of said written notice.

Section 24. The parties understand and agree that this Agreement in no way creates a joint employment relationship between the Parties. The Parties understand and agree that they are solely responsible for paying all wages, benefits, and any other compensation due and owing to its employees for the performance of visiting inspector services set forth in this Agreement. The parties further understand and agree that the parties are solely responsible for making all required payroll deductions and other tax and wage withholdings pursuant to state and federal law for its employees who perform visiting inspector services as set forth in this Agreement.

Section 25. Kendall County 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.

IN WITNESS WHEREOF, the parties hereto have caused this Intergovernmental Agreement to be executed by their duly authorized officers on the date below in the United City of Yorkville, Illinois.

County of Kendall, a unit of local government of the State of Illinois

By: _____
Chair, Kendall County Board

Date: 2/20/24

United City of Yorkville, Kendall County, Illinois, a municipal corporation

By: _____
Mayor

Date: 2/16/2024

Attest:

_____
County Clerk

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 #1

Tracking Number

CC 2025-10

Agenda Item Summary Memo

Title: Beecher (Central Zone) Lightning Detector Proposal

Meeting and Date: City Council – February 11, 2025

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: 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: February 5, 2025
Subject: Beecher (Central Zone) Lightning Detector Proposal

Subject

Beecher (Central Zone) Lightning Detector Proposal

Background

Please see the attached, current City's lightning detector location map and user information to understand that the City has seven (7) lightning detectors which are controlled by three (3) main systems and four (4) subunits. The seven (7) existing units are strategically placed at park sites with high traffic. The purpose of the system is to notify staff and the public of possible lightning in the designated park areas for park patrons to cease operations and activities then seek shelter. The system is used by park patrons attending sporting events, special events and general park operations to keep the public safe during possible lightning weather events. It takes the guesswork out of monitoring potential lightning situations and allows for quick notification to mass groups of park users. The City's current lightning detector system exists in the following three zones:

1) North Zone: Bridge Park hosts the main control system for Bridge Park and the subunits at Bristol Bay and Rotary parks.
2) Central Zone: Beecher Park hosts the main control system for Beecher and the subunits at Riverfront Park and Yorkville Immediate School.
3) South Zone: Raintree Park B is the sole unit. This covers Raintree Park B Park and Yorkville Middle School.

The current software and equipment for the City's lightning detectors are provided by Thor Guard and are at least fifteen (15) years old. Due to the age of the equipment and software, these lightning detectors are becoming obsolete and will need to be replaced soon, especially the Central Zone (Beecher) which will need to be replaced as soon as possible as we continue to have on-going maintenance issues.

Parks & Recreation staff and the Park Board have been investigating and reviewing options to upgrade or replace the current lightning detector equipment and systems. Due to the current and on-going issues with the Central Zone (Beecher), this unit needs to be replaced for the 2025 outdoor sports season. Because of the immediate need, staff reviewed the following options with the Park Board:

A) Upgrade the Central Zone (Beecher) through Perry Weather:

The pros of Perry Weather option are:

- Total cost of $34,500 is about $9,000 less than Thor Guard.
- Internet hard line not needed.
- Can be installed anywhere.
- Solar powered with battery back-up.

- 5-year warranty.
- Monitored by Perry Weather.
- Access to a smartphone app.
- Can easily be moved.
- The three Central Zone units will be separate and no longer connect to one another.
- It allows staff to adjust the sound alarm based on the policies we create.
- Staff will also have the ability to manually send text-to-speech messages out through the sirens.
- Includes a software subscription with the following:
    - 24/7 Meteorologist support.
    - Custom alerts for heat, lightning, rain, and wind.
    - Possible "mass notify" staff feature.
    - Ability to monitor each site separately.
    - Cellular connection.
    - Custom text to speech to the speaker PA on the detector.

The cons of Perry Weather Option:

- The yearly software maintenance fee is about $4,200 ($2,700 per year) higher than the Thor Guard option.
- Equipment that must be maintained by staff.
- It's a new system with new features that staff will have to learn.

B) Upgrade the Central Zone (Beecher) through Thor Guard:

Central Zone unit hosted within the Beecher Park area for $43,085, plus internet hard line needed (undetermined cost) & $2,700 yearly software maintenance.

The pros of staying with Thor Guard is:

- It will be a system similar to what we are already using.
- It has similar features as listed in the Pros Perry Weather section.

The cons of the Thor Guard system is:

- The new main control unit will cost $43,085, which is about $9,000 more than Perry Weather.
- We will need to install and pay for an internet connection plus monthly fees to each of the three systems for which we currently do not pay.
- $2,700 yearly software maintenance fee.
- This system would require a hard internet line meaning it would need the capability to connect to the internet through a cat 5 cable and not through a Wi-Fi signal.
- Thor Guard's system does not offer the option for alerts or its own mobile app like Perry Weather.
- Equipment has more components onsite to detect lightning making trouble shooting more difficult and more labor intensive.

C) App Based System Only Option from Perry Weather

All seven (7) detectors would be decommissioned and removed, and all the lightning detector information would be communicated to staff through their smartphones by an app. Ten to twenty City Staff members would be designated as administrators with the option to add more users at an additional cost (volunteer coaches, school officials and etc.) who would be notified by text of the potential of lightning. Yearly fee of $5,950.

The Pros of the App Based-Only Option:

- Requires City staff, City volunteer sports coaches, school officials and anyone else that the City designates that need to be notified by text, would instantly know that there is the potential for lightning throughout Yorkville.
- It only cost $5,950 yearly.
- No equipment to maintain.
- Under the existing program, an individual needs to be near a detector to know the detector has gone off but this App-Based program would allow all those designated to receive a text to immediately

The Cons of the App Based Only Option:

- Only the individuals who have the app and are on the approved list would be notified by text.

Recommendation

Staff seeks City Council approval of the Park Board recommendation on replacing the Central Zone (Beecher) Lightning Detector System with Perry Weather in the amount of $35,400 ($31,200 for the equipment and software and $4,200 the yearly maintenance fee) to be paid for out of the Parks & Recreation Capital & Parks Professional Services expense line items accounts for the following reasons:

a) The unit is about $9,000 less expensive than Thor Guard.
b) The unit can easily be moved as needed.
c) While the yearly maintenance fee is about $2,000 more expensive than Thor Guard, it allows for 30 Users w/ mobile app + computer dashboard users, Custom text alerts for heat, lightning & etc. and 24/7 Meteorologist support (call, text, and email).
d) By purchasing the three units now, staff will be able to start using the app features and see if it is possible to move to an app-only lightning detector system for the City in the future.
e) Perry Weather provides a cellular VPN subscription that is included in the yearly maintenance fee.
f) Perry Weather alert options and mobile app will be more effective for staff use.
g) Ten days to receive after purchase.
h) No internet line is needed and the yearly cost associated with an internet connection.

Resolution No. 2025-_____

A RESOLUTION OF THE UNITED CITY OF YORKVILLE, ILLINOIS, AUTHORIZING THE PURCHASE OF LIGHTNING DETECTION EQUIPMENT IN AN AMOUNT NOT TO EXCEED $35,400

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, the City's Municipal Code provides that the City may approve contracts for supplies and equipment that have not been competitively bid by a two-thirds affirmative vote of the City Council; and

WHEREAS, the City currently has seven lightning detectors, which are controlled by three main systems and four subunits; and

WHEREAS, the City's lightning detectors are broken out into three zones across the City, the North Zone, the Central Zone, and the South Zone; and

WHEREAS, the Central Zone hosts the main control system for Beecher Park and subunits at Riverfront Park and Yorkville Intermediate School; and

WHEREAS, the City's current lightning detection software, provided by Thor Guard, is at least 15 years old, and as a result the lightning detectors are becoming obsolete and will require replacement in the near future; and

WHEREAS, the Central Zone's lightning detectors are experiencing ongoing maintenance issues and therefore require replacement before the 2025 outdoor sports and special events season begins; and

WHEREAS, adequate funds have been allocated toward lightning detector replacement in the current fiscal year budget; and

WHEREAS, the City's Parks Department has explored various options for replacing the Central Zone lightning detectors, including soliciting quotes from Thor Guard, the current provider, and Perry Weather, another provider of lightning detector systems; and

WHEREAS, as evidenced by a quote provided by Perry Weather (the "Quote"), attached hereto as "*Exhibit A*", Perry Weather is offering a replacement system for the Central Zone, including five years of software use, for approximately $31,200, plus a $4,200 yearly software maintenance fee; and

WHEREAS, the Perry Weather detectors cost $9,000 less than a similar replacement system offered by Thor Guard, and while the yearly maintenance is $2,700 more expensive than that offered by Thor Guard, the Perry Weather system provides 30 users the ability to monitor the

equipment, along with around-the-clock meteorologist support, features that are not available with the current lightning detector system; and

WHEREAS, the Mayor and City Council (the *"Corporate Authorities"*) have determined that it is in the best interests of the health and safety of the City and its residents to waive the competitive bidding requirement and to authorize and approve the purchase of the Perry Weather lightning detection system in accordance with the provisions of the Quote.

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. In consideration of the foregoing recitals, the competitive bidding requirement is waived and the City Administrator is hereby authorized and directed to proceed with the purchase of the lightning detector system, as described in the Quote, from Perry Weather in an amount not to exceed $35,400.

Section 3. 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. 2025.

_____

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. 2025.

_____

MAYOR

Attest:

_____

CITY CLERK

2025 City of Yorkville, IL - 3 Siren Unit Purchase + Software Subscription

City of Yorkville, IL
800 Game Farm Road
Yorkville, IL 60560

Tony Houle
thoule@yorkville.il.us
630-885-3569

Reference: 20250106-192557587
Quote created: January 6, 2025
Quote expires: April 6, 2025

Comments from Delanie O'Connell

Full Service Installation available at $1,600/unit.

Products & Services

Name	Qty	Unit price	Total
Software Subscription SOFTWARE: - 30 Users w/ mobile app + computer dash-board - Custom alerts for heat, lightning, rain, wind, etc. - 24/7 Meteorologist support (call, text, and email) - Widget for website, TV, QR Code, etc. - Mass Notify Staff feature - Monitor each facility separately - GPS Specific alerts as you travel	1	$4,200.00 / year	$4,200.00 / year for 3 years
Outdoor Warning System (OWS) OUTDOOR WARNING SYSTEM: - Automated and Manually triggered - Custom text-to-speech PA - Full Control of Active Siren Days/Times - Flashing Strobe Light - Cellular Connection	3	$12,500.00	$30,000.00 after $7,500.00 discount
Shipping, per Unit	3	$400.00	$1,200.00

Name	Qty	Unit price	Total
Self-Installation	3	$0.00	$0.00

Subtotals

Annual subtotal	$4,200.00
One-time subtotal	$31,200.00 after $7,500.00 discount

Total
$35,400.00

Important Notes: Customer is responsible for providing a lift or bucket truck if needed for hardware installation (if applicable). Quote does not include any applicable taxes. Tax exemption certificates may be emailed to billing@perryweather.com.

Questions? Contact me

Delanie O'Connell, Senior Account Executive
delanie@perryweather.com, +18172292325

perry weather
for **Cities and Municipalities**

Protect your city, safeguard public safety, and optimize operations with Perry Weather

- On-site weather stations provide precise weather data from your facilities across the city
- A single, easy-to-use dashboard via mobile app or web browser to monitor all key properties in your municipality
- Automatically notify the right officials when weather conditions reach policy limits or when lightning is detected



Perry Weather Platform Features

On-Site Weather Data
Real-time, on-site weather data specific to your city's unique microclimates

Centralized Dashboard
Monitor all your city's infrastructure, parks, and public spaces in one dashboard

Automated Warnings
Automated alerts via text, push notification, or outdoor warning systems to reach everyone

Customizable Public Address
Instantly broadcast messages for lightning, park closures across your properties

Lightning Detection & Alerts
Automatically notify staff members when lightning strikes too close to critical infrastructure or public areas

Meteorologists on Call 24x7
Call our team of in-house meteorologists when you need help making critical decisions

Custom Weather Widgets
Display custom weather information on public displays, keeping citizens informed

Effortless User Management
Easily create user groups so staff members only get the notifications that are relevant to them

TRUSTED BY CITIES IN ILLINOIS AND NATIONWIDE

West Chicago Park District · Fox Valley Park District · Batavia Park District · Bolingbrook Park District · Lemont Park District · Oak Brook Park District

Automate Weather Safety Operations
Take all of the guesswork and operational challenges out of weather safety decisions

Get More Accurate Weather Data
No more relying on data from miles away or handheld devices prone to human error

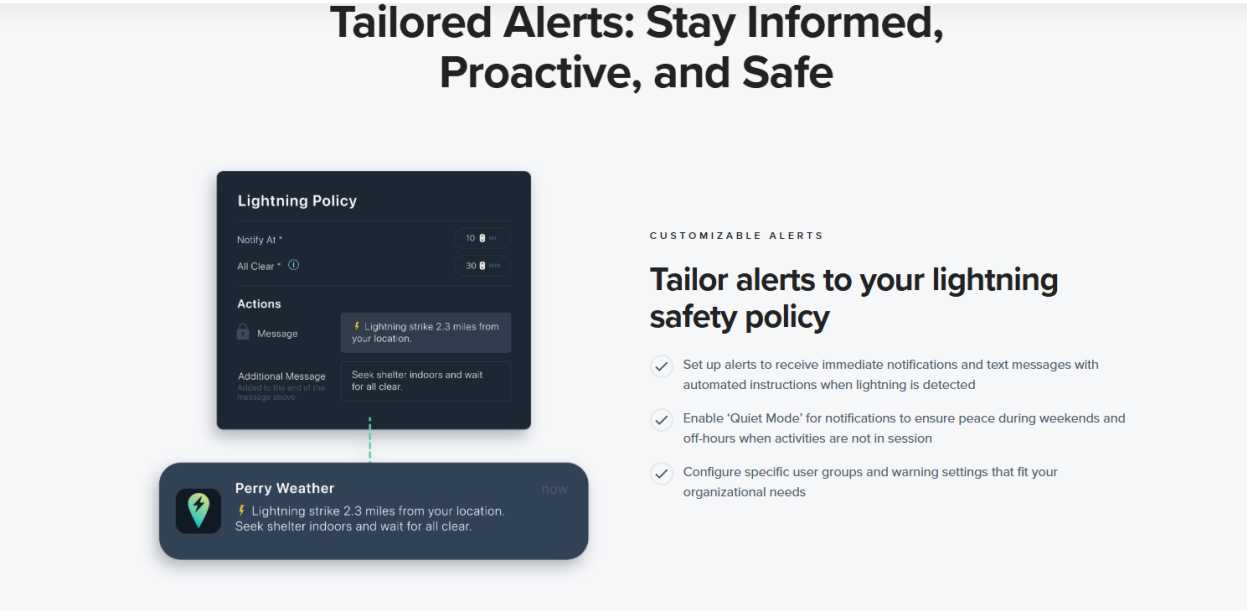
Weather Policy Integration
Integrate your municipality's weather policies and streamline compliance

Start a free 2-week trial

Scan QR Code
perryweather.com/free-trial/

4.8 out of 5 Trustpilot

© 2024 Perry Weather perryweather.com (469) 546-5082



How does Perry Weather detect lightning?

Perry Weather detects all lightning strikes within your area down to 100 meters of accuracy, using the National Lightning Detection Network, the same system used by the U.S. government and military.

No more scrambling to figure out what to do when lightning strikes. Our system gives you an accurate weather forecast, sends alerts based on your policies, and triggers an outdoor warning system to alert everyone else, ensuring a coordinated, swift response to keep everyone safe.

perry weather
for **Illinois Park Districts**

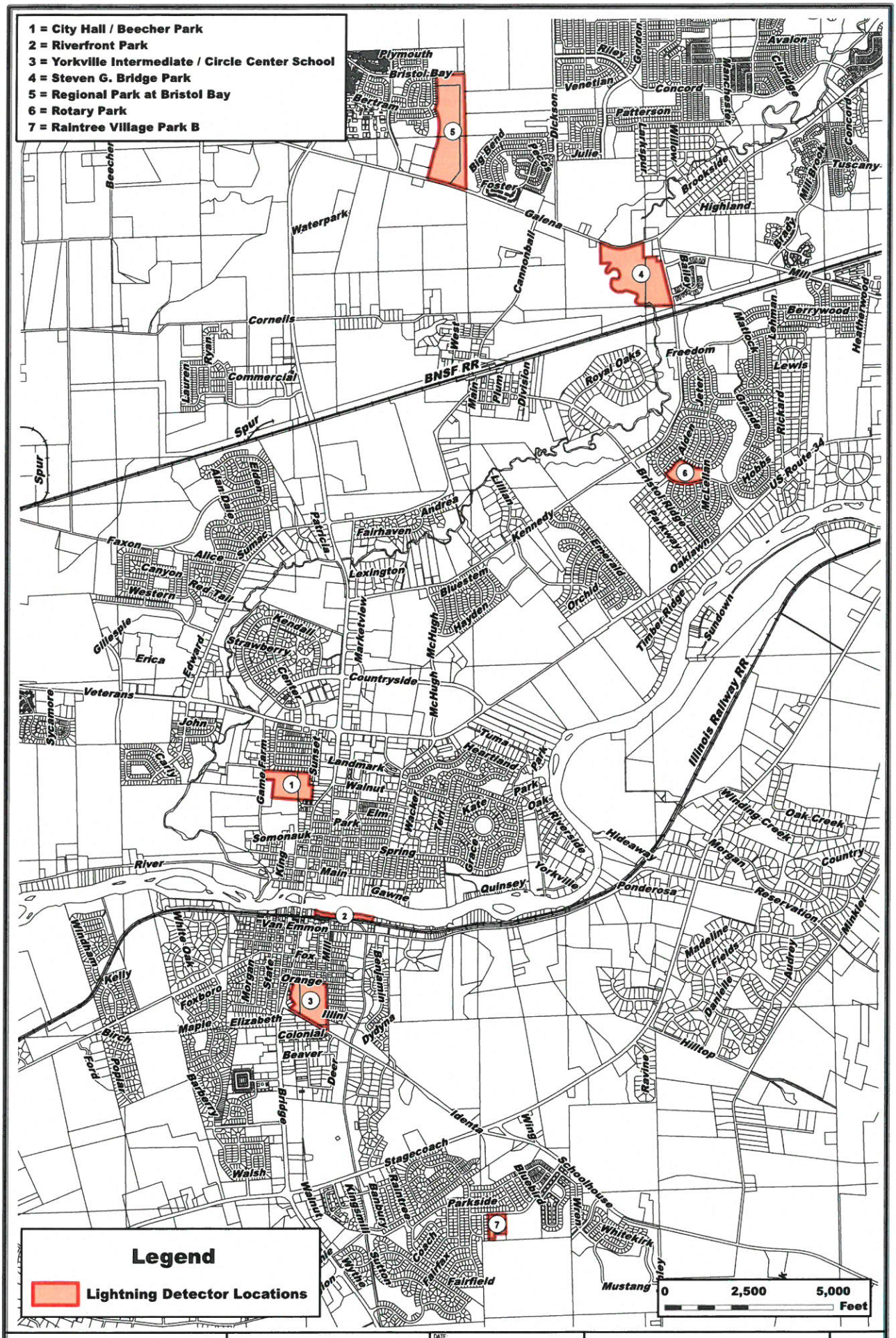
TRUSTED BY PARK DISTRICTS IN ILLINOIS

Contact us | perryweather.com | delanie@perryweather.com | 817-229-2325

Park & Recreation Capital (25-225) - Vehicles / Equipment / Park Improvements Summary

Account Number / Description	FY 2025 Projected	FY 2026 Proposed	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	FY 2030 Projected
25-225-60-00-6070						
Vehicles	**$ 91,840**	**$ 337,000**	**$ 93,000**	**$ 126,000**	**$ 225,000**	**$ 226,000**
Pickup Truck	39,680	54,000	55,000	56,000	-	60,000
Pickup Truck	52,160	54,000	-	-	-	60,000
Bucket Truck	-	175,000	-	-	-	-
Recreation Van	-	-	38,000	-	45,000	46,000
Pickup Truck	-	54,000	-	-	60,000	60,000
Dump Truck	-	-	-	70,000	-	-
Utility Truck	-	-	-	-	60,000	-
Utility Truck	-	-	-	-	60,000	-
25-225-60-00-6060						
Equipment	**$ 197,310**	**$ 314,000**	**$ 153,500**	**$ 80,000**	**$ 43,500**	**$ 104,000**
Mower	15,520	16,000	16,000	16,500	16,500	17,000
Boom Sprayer	-	28,000	-	-	-	-
Forester / Chipper	-	65,000	-	-	-	-
Skid Steer	72,440	-	-	-	-	-
Watering Trailer and Tank	12,650	-	-	-	-	-
Safety Barriers	-	150,000	-	-	-	-
Lightening Detectors	36,500	-	-	-	-	-
Gator	-	-	20,000	-	-	-
Forrester Attachment	45,000	-	-	-	-	-
Wing Mower	-	-	70,000	-	-	-
Fork Truck	-	30,000	-	-	-	-
Miscellaneous Recreation Equipment	5,000	15,000	15,000	15,000	15,000	15,000
Utility Brush Mower	-	-	8,000	-	-	-
Replace Trash Cans	10,200	10,000	10,000	12,000	12,000	12,000
Trailer	-	-	6,500	-	-	-
Trailer	-	-	8,000	-	-	-
Paint Sprayer	-	-	-	20,000	-	-
Mower	-	-	-	16,500	-	-
John Deere 4500 Tractor	-	-	-	-	-	60,000


Current Lightning Detector


1 = City Hall / Beecher Park
2 = Riverfront Park
3 = Yorkville Intermediate / Circle Center School
4 = Steven G. Bridge Park
5 = Regional Park at Bristol Bay
6 = Rotary Park
7 = Raintree Village Park B
Legend
Lightning Detector Locations
0 2,500 5,000
Feet
Plymouth
Bristol Bay
Bertram
Riley
Gordon
Avalon
Venetian
Concord
Manchester
Claridge
Patterson
Dickson
Julie
Lakefront
Willow
Brookside
Highland
Tuscany
Mill Brook
Concord
Big Bend
Foster
Galena
Waterpark
Beecher
Cannonball
Mill
Berrywood
Heatherwood
Cornells
Ryan
Lauren
Commercial
BNSF RR
Spur
Main
Plum
Division
Royal Oaks
Freedom
Lewis
Matlock
Lehman
Rickard
Granada
Hobbs
US Route 34
Bristol Ridge
McClellan
Parkway
Oakhaven
Alden
Faxon
Canyon
Western
Alice
Sumac
Elden
Dale
Patricia
Fairhaven
Andrea
Lillian
Kennedy
Lexington
Emerald
Orchid
Timber Ridge
Sundown
Illinois Railway RR
Gillespie
Erica
Edward
Strawberry
Center
Aeneall
Marketview
Bluestem
Hayden
McHugh
Countryside
Veterans
Sycamore
John
Carly
Game Farm
Sunset
Landmark
Walnut
Tuma
Heartland
Park
Oak
Riverside
Elm
Park
Wacker
Teri
Kate
Somonauk
King
Spring
Grace
Main
Gawne
Quinsey
Yorkville
Hideaway
Winding Creek
Oak Creek
Morgan
Country
Ponderosa
Reservation
Wikler
River
Van Emmon
White Oak
Windham
Fox
Mill
Benjamin
Orange
State
Morgan
Foxboro
Kelly
Maple
Elizabeth
Illinois
Colonial
Beaver
Deer
Dryns
Birch
Ford
Pioneer
Barberry
Briggs
Madeline
Fields
Audrey
Danielle
Hilltop
Ravine
Identa
Wing
Stagecoach
Walsh
Walnut
Kingsmill
Raintree
Bembury
Parkside
Bluebird
Schoolhouse
Wren
Whitekirk
Coach
Fairfax
Sutton
Fairfield
Mustang
Ferguson
Wyndhurst
Engineering Enterprises, Inc.
CONSULTING ENGINEERS
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
http://www.yorkville.il.us
DATE: JULY 2014
PROJECT NO.: Y01433
PATH: H:/GIS/PUBLIC/YORKVILLE/2014/
FILE: Y01433_LOCATION.MXD
LIGHTING DETECTOR MAP
UNITED CITY OF YORKVILLE
KENDALL COUNTY, ILLINOIS
NORTH

ATTENTION

THIS PARK IS EQUIPPED WITH A LIGHTNING DETECTION SYSTEM

IF SIREN SOUNDS (SOLID TONE)
& STROBE LIGHT IS ON
——— TAKE SHELTER ———

STROBE LIGHT REMAINS ON DURING LIGHTNING DETECTION

WHEN SIREN SOUNDS THREE FIVE-SECOND INTERMITTENT BLASTS AND THE STROBE LIGHT IS OFF
———IT IS SAFE TO RETURN———

THIS SYSTEM IS NOT ABSOLUTE PROTECTION
USE COMMON SENSE

SEEK SHELTER IMMEDIATELY IF:

YOU HEAR ONE LONG SIREN
YOU HEAR THUNDER (REGARDLESS OF SIREN)
YOU SEE LIGHTNING (REGARDLESS OF SIREN)
YOU SEE THE STROBE LIGHT ON WHEN ARRIVING TO THE PARK

There is a lighting detector present at the park. One loud horn blast and strobe light will come on when lighting has been detected in the area. This may even occur when clouds and/or rain is not present. When the detector comes on, the fields must be evacuated and everyone must seek shelter. The concession stands will be closed. We will not be able to resume games until the lighting detector gives the all clear, which is three short blast. –

If a tornado siren is heard, the grounds will be immediately evacuated. Games will be cancelled for the rest of the day.


Proposed New Detector

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 2025-11

Agenda Item Summary Memo

Title: Settlement Agreement – Police Department

Meeting and Date: City Council – February 11, 2025

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?
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Docusign Envelope ID: C8C63098-161D-409C-AB4F-C72031E2EBE7

RELEASE OF ALL CLAIMS

KNOW ALL MEN BY THESE PRESENTS, that I, Katherine Kumle, for and in consideration of the sum of FIVE HUNDRED THOUSAND DOLLARS ($500,000.00), the receipt of which is hereby acknowledged, does hereby and for herself, her children, heirs, successors and assigns, release and forever discharge the THE UNITED CITY OF YORKVILLE; Kyle Davis his wife, children, heirs, successors and assigns; AMERICAN INTERNATIONAL GROUP, INC.; and GLATFELTER CLAIMS MANAGEMENT, INC. (the "RELEASED PARTIES"), and all other persons or organizations, both known and unknown (collectively referred to as the "PARTIES"), from all claims, including but not limited to any demands, actions and causes of action, which have arisen or may arise from or by reason of any and all known and unknown, foreseen and unforeseen, and any and all consequential injuries and damages which have resulted or may result from the occurrences which form the bases for the cause of action, entitled KATHERINE KUMLE v. THE UNITED CITY OF YORKVILLE, bearing Kendall County Docket No. 2022 LA 96, resulting from the alleged conduct of Kyle Davis in his capacity as a police officer for the United City of Yorkville on August 17, 2022.

It is understood and agreed that this Settlement is the compromise of a doubtful and disputed claim and that the payment is not to be construed as an admission of any liability or wrongdoing on the part of the RELEASED PARTIES. This Release and Settlement shall not be used by the undersigned or anyone on their behalf against the parties hereby released, their agents or servants, as a waiver or estoppel or as a defense in any action which is now pending or may be brought hereafter, whether such action be asserted in a complaint or by way of cross-action, counterclaim or set off.

Katherine Kumle also acknowledges, warrants, and agrees that she will satisfy all liens, including workers' compensation liens, reimbursement rights, subrogation interests

Docusign Envelope ID: C8C63098-161D-409C-AB4F-C72031E2EBE7

or claims, including any automatic liens or obligations created by federal and/or state law, income tax, and any insurance carrier, state or governmental agency, attorney or any other person, firm, or corporation which have been made or may be made in the future against the payments described in this Settlement Agreement and Release of All Claims.

Katherine Kumle further agrees to hold the RELEASED PARTIES harmless from, and to defend and indemnify the RELEASED PARTIES against, any now pending or subsequently initiated suits, claims, judgments, costs or expenses of any kind, including attorney's fees, contribution, and/or indemnification by any government agency or other person or organization (or for subrogation by an insurer of such person or organization) on account of judgment, assertion or settlement of any claim asserted by or on behalf of herself or her relatives as a result of the injuries or damages allegedly sustained by her and arising out of the above described injury, accident, illness, or incident, from any action, cause of action, claim, penalty, statutory fine, and attorney's fees, including past, present and future payments, benefits and/or liens, and including any such claims, actions, causes of action, enforcement proceedings, penalties, liabilities, and similar sanctions related to subrogation and liens including but not limited to any related to workers' compensation liens. It is Katherine Kumle's intention and purpose under this paragraph to provide for the fullest protection and indemnification of the RELEASED PARTIES from and against any claims, actions, causes of action, enforcement proceedings, penalties, fines, liabilities, and other sanctions available under the law.

Counsel for Katherine Kumle will agree to withhold sufficient funds from the settlement to fully satisfy any and all Medicare, Medicare Advantage plan, Medicaid, private health insurance, or any other liens, such as workers' compensation liens, that may exist. In the event such liens (Medicare, Medicare Advantage Plan, Medicaid, private health insurance, or any other liens that may exist) do exist, Katherine Kumle must provide

Docusign Envelope ID: C8C63098-161D-409C-AB4F-C72031E2EBE7

Released Party(ies) with a copy of any and all correspondence reflecting that such liens have been fully satisfied.

It is further agreed that if any portion of this Agreement is found to be invalid, unenforceable, or prohibited the remainder of this Agreement shall remain in full force and effect. It is agreed that Illinois law will govern this Agreement.

The Undersigned further agrees that, except as otherwise provided herein, the parties will bear their own litigation costs incurred as a result of prosecuting this matter and that except as expressly provided herein neither party owes the other any costs or fees.

The Undersigned agrees that this Release contains the entire agreement between the parties hereto and that the terms hereof are contractual and not a mere recital.

SIGNED this 5th day of February, 2025.

THIS IS A COMPLETE RELEASE. READ IT BEFORE SIGNING.

DocuSigned by:

By: katherine kumle
74D5CAD9419654F8...
KATHERINE KUMLE

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 2025-11

Agenda Item Summary Memo

Title: Route 47 Expansion – Waterpark Way and Jericho Road – IGA

Meeting and Date: City Council – February 11, 2025

Synopsis: A verbal overview will be given at the meeting.

Council Action Previously Taken:

Date of Action: PW – 1/21/25 Action Taken: Moved forward to the City Council agenda.

Item Number: PW 2025-11

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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Resolution No. 2025-_____

A RESOLUTION OF THE UNITED CITY OF YORKVILLE, KENDALL COUNTY, ILLINOIS, APPROVING AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE UNITED CITY OF YORKVILLE AND THE STATE OF ILLINOIS

WHEREAS, the United City of Yorkville, Kendall County, Illinois (the *"City")* is a duly organized and validly existing municipality of the State of Illinois pursuant to the 1970 Illinois Constitution and the Illinois Municipal Code, as from time to time amended (the *"Municipal Code")* (65 ILCS 5/65-1-1-2, *et seq.);* and

WHEREAS, the State of Illinois, acting through its Department of Transportation (the "State"), has authority to improve and construct public highways and roadways throughout the state; 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 units 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, the State is desirous of improving approximately 11,900 lineal feet of FAP Route 326, IL 47/US 30 from Waterpark Way to Jericho Road, identified as STATE Job No.: C-91-396-20, Contract Number 62M71, STATE Section No. 2020-198-W&T (the "Project"); and

WHEREAS, the City has requested that the State include in the Project along Bristol Bay Drive extension, combination lighting at IL 47 and Waterpark Way, watermain relocation and emergency vehicle pre-emption equipment; and

WHEREAS, the State has agreed to the City's request, and agrees to undertake the requested improvements, subject to terms and conditions as set forth in an Intergovernmental

Agreement by and between the State of Illinois, acting through its Department of Transportation, and the United City of Yorkville of the State of Illinois, attached hereto.

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. That the *Intergovernmental Agreement by and between the State of Illinois, acting through its Department of Transportation, and the United City of Yorkville of the State of Illinois*, attached hereto and made a part hereof by reference, 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. 2025.

_____

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. 2025.

_____

MAYOR

Attest:

_____

CITY CLERK

FAP 326
IL 47/US 30 from Waterpark Way to Jericho Road
State Section: 2020-198-W&T
County: Kane and Kendall
Job No.: C-91-396-20
Contract No.: 62M71
Agreement No.: JN-125-013

AGREEMENT

This Agreement entered into this _____day of _____, 20___ A.D., by and between the STATE OF ILLINOIS, acting by and through its DEPARTMENT OF TRANSPORTATION, hereinafter called the STATE, and UNITED CITY OF YORKVILLE of the State of Illinois, hereinafter called the CITY.

WITNESSETH:

WHEREAS, the STATE, in order to facilitate the free flow of traffic and ensure safety to the motoring public, is desirous of improving approximately 11,900 lineal feet of FAP Route 326, IL 47/US 30 from Waterpark Way to Jericho Road, identified as STATE Job No.: C-91-396-20, Contract Number 62M71, STATE Section No. 2020-198-W&T as follows:

The general scope of work consists of pavement reconstruction with add lanes and culvert replacements along the IL 47/US 30 corridor. This includes replacing the existing reinforced concrete slab bridge with a double cell box culvert 14’ x 11’ box culvert that is 112’-5 ¾” in length along Baseline Road over Rob Roy Creek (SN 045-8306), traffic signal modernization, combination lighting, intersection lighting, a

proposed 10’ shared use path and sidewalk improvements and all other work necessary to complete the improvement in accordance with the approved plans and specifications; and

WHEREAS, the CITY has requested that the STATE include in its contract roadway work along Bristol Bay Drive extension, combination lighting at IL 47 and Waterpark Way, watermain relocation and emergency vehicle pre-emption equipment, and

WHEREAS, the STATE has agreed to the CITY’s request, and

WHEREAS, the CITY is desirous of said improvement in that same will be of immediate benefit to the CITY residents and permanent in nature.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. The STATE agrees to make the surveys, obtain all necessary rights of way, prepare plans and specifications, receive bids and award the contract, furnish engineering inspection during construction and cause the improvement to be built in accordance with the approved plans, specifications and contract.

2. The STATE agrees to pay for all right of way, construction, and engineering cost subject to partial reimbursement by the CITY, as hereinafter stipulated.

3. It is mutually agreed by and between the parties hereto that the estimated cost and cost proration for this improvement is as shown on Exhibit A attached hereto and made a part hereof.

4. The CITY has passed a resolution appropriating sufficient funds to pay its share of the cost for this improvement, a copy of which is attached hereto as Exhibit B and made a part hereof.

5. The CITY agrees to pass a supplemental resolution to provide necessary funds for its share of the cost of this improvement if the amount appropriated in Exhibit B proves to be insufficient to cover said cost.

6. The CITY further agrees that, upon award of the contract for this improvement, the CITY will pay to the STATE, in a lump sum from any funds allotted to the CITY, an amount equal to 33% of its obligation incurred under this AGREEMENT. On or before July 31, 2026, the CITY will pay its second installment to the STATE, in a lump sum from any funds allotted to the CITY, an amount equal to $33% of its obligation incurred under this AGREEMENT. Upon receipt of a final invoice the CITY will pay to the STATE the remainder of the obligation (including any non-participating costs on FA Projects) in a lump sum, upon completion of the project, based upon final costs.

7. The CITY has adopted a resolution, will send a letter, or sign the Plan Approval page, which is part of this document, prior to the STATE advertising for the work to be performed hereunder, approving the plans and specifications as prepared.

8. The CITY agrees not to permit driveway entrance openings to be made in the curb, as constructed, or the construction of additional entrances, private or commercial, along IL 47/US 30 without the consent of the STATE.

9. The CITY shall exercise its franchise rights to cause private utilities to be relocated, if required, at no expense to the STATE.

10. The CITY agrees to cause its utilities installed on right of way after said right of way was acquired by the STATE or installed within the limits of a roadway after the said roadway's jurisdiction was assumed by the STATE, to be relocated and/or adjusted, if required, at no expense to the STATE.

11. All CITY owned utilities, on STATE right of way within the limits of this improvement, which are to be relocated/adjusted under the terms of this Agreement, will be relocated/adjusted in accordance with the applicable portions of the "Accommodation of Utilities of Right of Way of the Illinois State Highway System." (92 Ill. Adm. Code 530).

12. The CITY agrees to obtain from the STATE an approved permit for any CITY owned utility relocated/adjusted as part of this improvement and shall abide by all conditions set forth therein.

13. Upon final field inspection of the improvement and so long as IL 47/US 30 is used as a STATE Highway, the STATE agrees to maintain or cause to be maintained the through traffic lanes, the left-turn lanes and right turn lanes, and

the curb and gutter or stabilized shoulders and ditches adjacent to those traffic lanes and turn lanes.

14. Upon final field inspection of the improvement, the CITY agrees to maintain or cause to be maintained those portions of the improvement which are not maintained by the STATE from Waterpark Way to the United City of Yorkville limits at Baseline Road as shown on Exhibit D attached hereto, including the proposed double cell box culvert 14' x 11' box culvert that is 112'-5 ¾" in length along Baseline Road over Rob Roy Creek (SN 045-8306) including the wingwalls, the Bristol Bay Drive roadway extension, the shared use path from Waterpark Way to Baseline Road, sidewalk, grass medians, combination highway lighting at the intersections of IL 47 at Waterpark Way and IL 47 at Galena Road, including furnishing the electrical energy thereof, new and existing sidewalks, crosswalk, and stop line markings, mowing the ditches and parkways beyond the curb and gutter adjacent to the traffic lanes, CITY owned utilities including watermain and including appurtenances thereto and shall maintain the storm sewers and appurtenances by performing those functions necessary to keep the sewer in a serviceable condition including cleaning sewer lines, inlets, manholes, and catch basins. The maintenance, repair and/or reconstruction of storm sewers constructed as part of this improvement beyond the aforedescribed responsibilities shall be that of the STATE.

15. The CITY further agrees to continue its existing maintenance responsibilities on all side road approaches under its jurisdiction within the limits of the improvement, including all left and right turn lanes on said side road approaches, up to the through edge of pavement of IL 47 as shown on Exhibit D attached

hereto. Drainage facilities, if any, at the aforementioned side roads located within the STATE right-of-way shall be the joint maintenance responsibility of the STATE and the CITY unless there is an agreement specifying different responsibilities. The CITY agrees to inspect stopline markings, symbols, special pavement treatments, crosswalks and replace as necessary to ensure proper motorist and pedestrian guidance.

16. Upon acceptance by the STATE of the new traffic signal and lighting work included herein the financial responsibility for maintenance and energy charges for the operation of the traffic signal at the intersection(s) listed below shall be proportioned as follows:

Intersection	Maintenance	Energy
IL 47 at Galena Road		
STATE Share (District 3)	50%	50%
CITY Share	50%	50%
IL 47 at Waterpark Way		
STATE Share (District 3)	67%	67%
CITY Share	33%	33%
IL 47 at US 30/Baseline Road		
STATE Share (District 1)	100%	100%
CITY Share	0%	0%

And shall continue as outlined in the Traffic Signal Master Agreement executed between the STATE (District 3) and the CITY on January 24, 2022, and remains in full enforcement for IL 47 at Galena Road and IL 47 at Waterpark Way. It is mutually agreed that the actual traffic signal maintenance at IL 47 at US 30/Baseline Road will be performed by the STATE (District 1) either with its own forces or through an ongoing contractual agreement.

17. It is mutually agreed that the maintenance of the traffic signals, the EMERGENCY VEHICLE PRE-EMPTION system and highway lighting on combination poles shall be in accordance with the Traffic Signal Master Agreement executed between the STATE and the CITY on January 24, 2022, for the intersections of IL 47 at Galena Road and IL 47 at Waterpark Way.

18. For the traffic signal at IL 47 at US 30/Baseline Road, the STATE's Electrical Maintenance Contractor will inspect, make note, and keep inventory of the CITY Owned "EMERGENCY VEHICLE PRE-EMPTION" system to support the maintenance of the "EMERGENCY VEHICLE PRE-EMPTION" system. Inspection of the "EMERGENCY VEHICLE PRE-EMPTION" system shall include the phase selector, field wiring, optical detectors, and cabinet appurtenances. When repair is necessary, the STATE's electrical contractor shall notify the CITY that their "EMERGENCY VEHICLE PRE-EMPTION" system is in need of maintenance repairs. When approved by the CITY, maintenance of their "EMERGENCY VEHICLE PRE-EMPTION" system is then performed accordingly. The STATE's electrical contractor shall invoice the CITY directly for all maintenance costs of the "EMERGENCY VEHICLE PRE-EMPTION" system. The CITY may require end users of the emitters within its jurisdiction to enter into separate agreements with the STATE's electrical contractor to have the emergency vehicle emitters tested in accordance with the recommendation of the Manufacturer of such equipment.

19. It is mutually agreed, if, in the future, the STATE adopts a roadway or traffic signal improvement passing through the traffic signal included herein which requires modernization or reconstruction to said traffic signal then the CITY

agrees to be financially responsible for its proportionate share in accordance with STATE policy to modernize or reconstruct said installation and will be responsible for all costs to relocate or reconstruct the Emergency Preemption equipment in conjunction with the STATE's proposed improvement.

20. Under penalties of perjury, the CITY certifies that its correct Federal Tax Identification number is _____ and it is doing business as a GOVERNMENTAL ENTITY, whose mailing address is:

United City of Yorkville

651 Prairie Pointe Drive

Yorkville, IL 60560

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

SEE NEXT PAGE FOR SIGNATURES

Obligations of the STATE and the CITY will cease immediately without penalty or further payment being required if, in any fiscal year, the Illinois General Assembly or Federal funding source fails to appropriate or otherwise make available funds for this contract.

This AGREEMENT and the covenants contained herein shall be null and void in the event the contract covering the construction work contemplated herein is not awarded within the three years subsequent to execution of the agreement.

This Agreement shall be binding upon and to the benefit of the parties hereto, their successors and assigns.

UNITED CITY OF YORKVILLE

By: _____
(Signature)

Attest:

By: _____
(Print or Type)

_____
Clerk

Title: _____

Date: _____

(SEAL)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

By: _____
Trisha Thompson, P.E.
Region Two Engineer

Date: _____

Job No.: C-91-396-20
Agreement No.: JN-125-013

PLAN APPROVAL

WHEREAS, in order to facilitate the improvement of FAP Route 326, IL 47/ US 30, State Section No: 2020-198-W&T, Contract No. 62M71, the CITY agrees to that portion of the plans and specifications relative to the CITY's financial and maintenance obligations described herein, prior to the STATE's advertising for the aforedescribed proposed improvement.

Approved_____

Title _____

Date _____

Exhibit B
FUNDING RESOLUTION

WHEREAS, the UNITED CITY OF YORKVILLE (CITY) has entered into an AGREEMENT with the STATE OF ILLINOIS (STATE) for the improvement of IL 47/ US 30 from Waterpark Way to Jericho Road, known as Contract No. 62M71, STATE Section No.: 2020-198-W&T; and

WHEREAS, in compliance with the aforementioned AGREEMENT, it is necessary for the CITY to appropriate sufficient funds to pay its share of the cost of said improvement.

NOW THEREFORE, BE IT RESOLVED, by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois that there is hereby appropriated the sum of One Hundred Eighty-Seven Thousand and Ninety-Five Dollars ($187,095) or so much thereof as may be necessary, from any money now or hereinafter allotted to the CITY, to pay its share of the cost of this improvement as provided in the AGREEMENT; and

BE IT FURTHER RESOLVED, that upon award of the contract for this improvement, the CITY will pay to the STATE in a lump sum from any funds allotted to the CITY, an amount equal to 80% of its obligation incurred under this AGREEMENT, and, upon completion of the project, will pay to said STATE the remainder of its obligation, based on final costs; and

BE IT FURTHER RESOLVED that the CITY agrees to pass a supplemental resolution to provide any necessary funds for its share of the cost of this improvement if the amount appropriated herein proves to be insufficient, to cover said cost.

STATE OF ILLINOIS

(COUNTIES OF KANE AND KENDALL)

I, _____, CITY Clerk in and for the UNITED CITY of YORKVILLE, hereby certify the foregoing to be a true perfect and complete copy of the resolution adopted by the CITY Board at a meeting on _____, 20___ A.D.

IN TESTIMONY WHEREOF, I have hereunto set my hand seal this _____ day of _____. 20___ A.D.

_____

CITY Clerk

(SEAL)

EXHIBIT A
ESTIMATE OF COST Contract 62M71

Type of Work	FEDERAL		STATE		KENDALL COUNTY		KANE COUNTY		CITY OF YORKVILLE		TOTAL
	$	%	$	%	$	%	$	%	$	%	$
All roadway work excluding the following:	$28,779,360	80%	$7,194,840	20%							$35,974,200
P&C Engineering (15%)	$4,316,904	80%	$1,079,226	20%							$5,396,130
ROADWAY WORK											
Bristol Bay Extension									$109,500	100%	$109,500
P&C Engineering (15%)									$16,425	100%	$16,425
TRAFFIC SIGNALS											
IL 47 at Galena Road	$336,960	80%	$42,120	10%	$42,120	10%					$421,200
P&C Engineering (15%)	$50,544	80%	$6,318	10%	$6,318	10%					$63,180
Emergency Vehicle Pre-emption System Equipment									$6,400	100%	$6,400
P&C Engineering (15%)									$960	100%	$960
IL 47 at Jericho Road	$341,360	80%	$42,670	10%			$42,670	10%			$426,700
P&C Engineering (15%)	$51,204	80%	$6,401	10%			$6,401	10%			$64,005
IL 47 at Waterpark Way	$269,760	80%	$44,949	13.3%					$22,491	6.7%	$337,200
P&C Engineering (15%)	$40,464	80%	$6,742	13.3%					$3,374	6.7%	$50,580
Emergency Vehicle Pre-emption System Equipment									$6,400	100%	$6,400
P&C Engineering (15%)									$960	100%	$960
IL 47 at US30/Baseline Road	$386,640	80%	$96,660	20%							$483,300
P&C Engineering (15%)	$57,996	80%	$14,499	20%							$72,495
Emergency Vehicle Pre-emption System Equipment									$8,600	100%	$8,600
P&C Engineering (15%)									$1,290	100%	$1,290
STREET LIGHTING											
IL 47 at Galena Road - Combination Lighting					$11,800	100%					$11,800
P&C Engineering (15%)					$1,770	100%					$1,770
IL 47 at Waterpark Way - Combination Lighting									$7,300	100%	$7,300
P&C Engineering (15%)									$1,095	100%	$1,095
IL 47 at US 30/Baseline Road - Full Intersection Lighting	$353,920	80%	$88,480	20%							$442,400
P&C Engineering (15%)	$53,088	80%	$13,272	20%							$66,360
UTILITY ADJUSTMENTS											
Fire Hydrants to be Adjusted									$2,000	100%	$2,000
P&C Engineering (15%)									$300	100%	$300
Watermain			$1,084,000	100%							$1,084,000
P&C Engineering (15%)			$162,600	100%							$162,600
TOTAL	**$35,038,200**		**$9,882,777**		**$62,008**		**$49,071**		**$187,095**		**$ 45,219,150**

NOTE: Local participation shall be predicated upon the percentages shown above for the specified work. Local Agency cost shall be determined by multiplying the final quantities times contract unit price plus the percentage shown for construction and/or preliminary engineering unless otherwise noted.

AGENCY:
UNITED CITY OF YORKVILLE (SIGNAL MODERNIZATION, E LEG)
UNITED CITY OF YORKVILLE (COMBINATION LIGHTING)
UNITED CITY OF YORKVILLE (EVP)

225+00

IL ROUTE 47

EX. IL ROUTE 47

ROB ROY CREEK

AGENCY: UNITED CITY OF YORKVILLE
5' SIDEWALK

102+75

WATERPARK WAY

AGENCY: UNITED CITY OF YORKVILLE
LANDSCAPED MEDIAN (TYP.)
SOUTH LIMIT TO GALENA ROAD

AGENCY:
UNITED CITY OF YORKVILLE
(WATER MAIN RELOCATION)
STA 250+00 TO STA 278+00
REIMBURSIBLE 100% IDOT COST

91+25

AGENCY: KENDALL COUNTY
PROPOSED SN 047-3180
BOX CULVERT

AGENCY:
UNITED CITY OF YORKVILLE (SIGNAL MODERNIZATION, E AND W LEGS)
UNITED CITY OF YORKVILLE (COMBINATION LIGHTING)
UNITED CITY OF YORKVILLE (EVP)

AGENCY: UNITED CITY OF YORKVILLE
LANDSCAPED MEDIAN (TYP.)
GALENA ROAD TO US 30/BASELINE ROAD

AGENCY:
UNITED CITY OF YORKVILLE
(WATER MAIN RELOCATION)
STA 250+00 TO STA 278+00
REIMBURSIBLE 100% IDOT COST

GALENA ROAD CULVERT GUARDRAIL MAINTENANCE

AGENCY: KENDALL COUNTY
STRONG POST GUARDRAIL AND
STEEL PLATE BEAM GUARDRAIL

GALENA ROAD

AGENCY: KENDALL COUNTY
STRONG POST GUARDRAIL AND
STEEL PLATE BEAM GUARDRAIL

STRONG POST GUARDRAIL ATTACHED TO CULVERT
(LIMIT OF KENDALL COUNTY MAINTENANCE)

AGENCY: IDOT
STEEL PLATE BEAM GUARDRAIL

IL ROUTE 47

AGENCY:
UNITED CITY OF YORKVILLE
SHARED-USE PATH
STA 234+64 TO 322+00

GALENA ROAD

108+90

BERTRAM DRIVE

101+25

103+40

BRISTOL BAY DRIVE

AGENCY: YORKVILLE
BRISTOL BAY DRIVE
EXTENSION

MATCH LINE
SEE BELOW

BASELINE ROAD

998+75

JERICHO ROAD

91+00

EX. IL ROUTE 47

MATCH LINE
SEE ABOVE

AGENCY:
UNITED CITY OF YORKVILLE
PROPOSED SN 045-8306
BOX CULVERT, GUARDRAIL
AND BARRIER WALL

AGENCY: IDOT
PROPOSED SN 045-9200
RETAINING WALL
FROM STA 322+48
TO STA 323+96

STAR LANE

AGENCY:
KANE COUNTY
(SIGNAL MODERNIZATION,
E AND W LEGS)
KANE COUNTY (EVP)

97+55

IL ROUTE 47 /
US ROUTE 30

349+00

62M71 | 62G40

AGENCY: SUGAR GROVE
SHARED-USE PATH
STA 348+53 TO 349+00

AGENCY:
UNITED CITY OF YORKVILLE
SHARED-USE PATH
STA 234+64 TO 322+00

AGENCY: UNITED CITY OF YORKVILLE
LANDSCAPED MEDIAN (TYP.)
GALENA ROAD TO US 30/BASELINE ROAD

UNITED CITY OF YORKVILLE

AGENCY: KANE COUNTY
SHARED-USE PATH
STA 322+00 TO 348+53

VILLAGE OF SUGAR GROVE
CORPORATE LIMITS STA 348+53

AGENCY: IDOT
PROPOSED
SN 045-8305
BOX CULVERT

ROB ROY CREEK

AGENCY:
UNITED CITY OF YORKVILLE
(SIGNAL MODERNIZATION, W LEG)
UNITED CITY OF YORKVILLE
(EVP)

108+55

US ROUTE 30

1026+86

LEGEND

- UNITED CITY OF YORKVILLE
- KENDALL COUNTY
- KANE COUNTY
- VILLAGE OF SUGAR GROVE
- SUGAR GROVE TOWNSHIP

IL ROUTE 47

32'

10' 12' 12' | 12' 12' 10'

TEMP EASE
EX ROW

PR ROW

4.0% 2.0% 4.0% 4.0% 2.0% 4.0%

1:4 1:3 1.5%

6 3 1 2 4 2 1 3 6 5

TYPICAL SHOULDER SECTION A-A

IL ROUTE 47

32'

12' 12' | 12' 12'

TEMP EASE
EX ROW

PR ROW

2.0% 4.0% 4.0% 2.0% 1.5%

1:4

6 2 1 2 4 2 1 2 5 6

TYPICAL CURB SECTION B-B

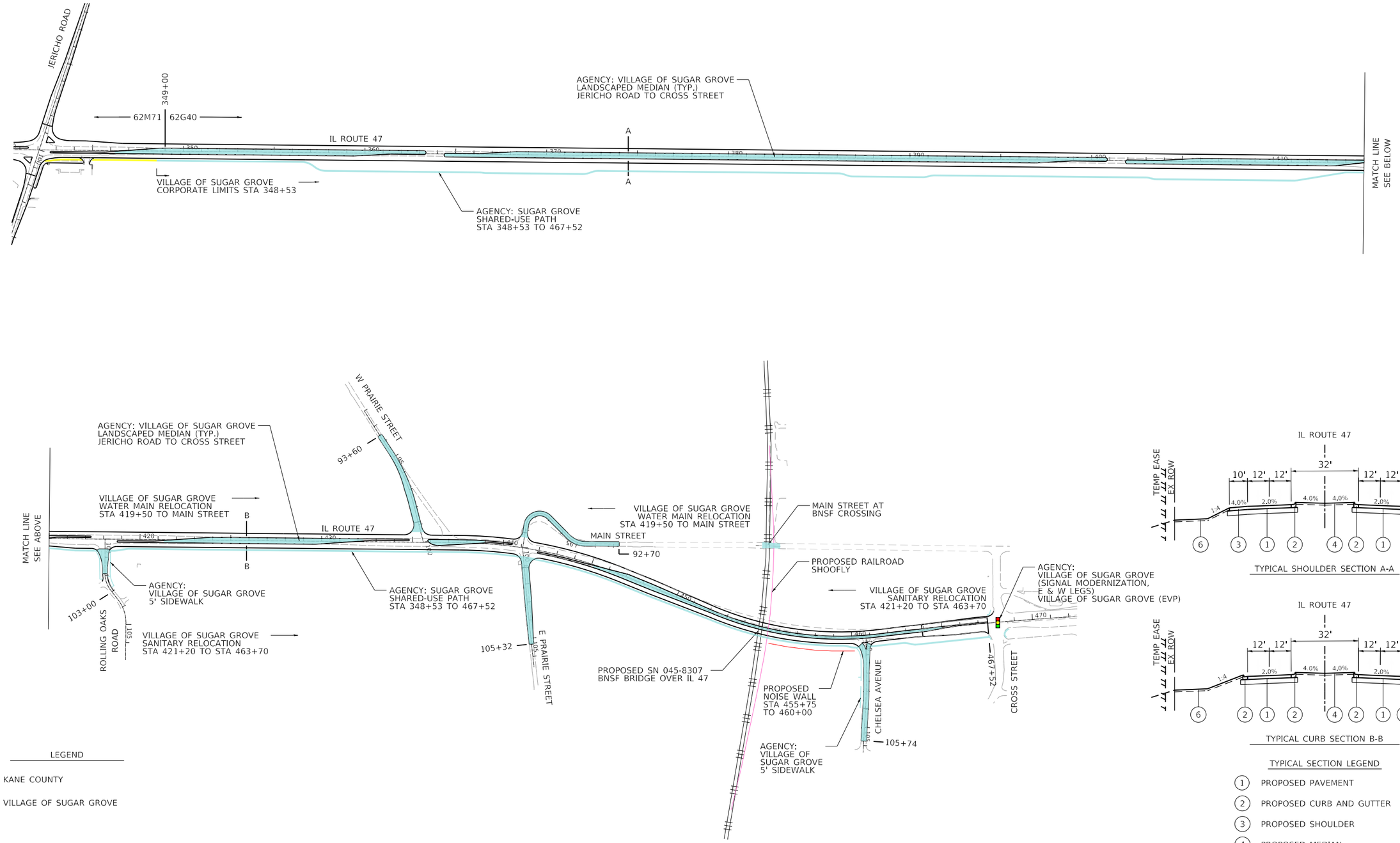
TYPICAL SECTION LEGEND

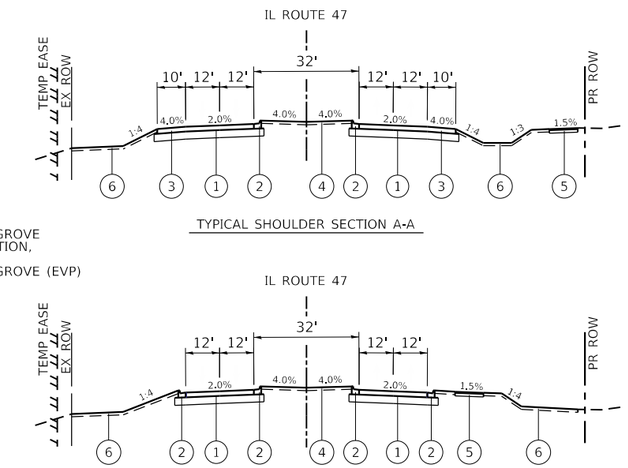
1. PROPOSED PAVEMENT
2. PROPOSED CURB AND GUTTER
3. PROPOSED SHOULDER
4. PROPOSED MEDIAN
5. PROPOSED SHARED-USE PATH
6. PROPOSED TOPSOIL AND SEEDING

Illinois Department of Transportation
District One, Region One

MAINTENANCE EXHIBIT
EXHIBIT D - 62M71: IL ROUTE 47 FROM WATERPARK WAY TO JERICHO ROAD

0 1200 2400 3600
SCALE IN FEET





Illinois Department of Transportation
District One, Region One

MAINTENANCE EXHIBIT

EXHIBIT D - 62G40: IL ROUTE 47 FROM JERICHO ROAD TO CROSS STREET

PAGE 2 OF 2

0 1200 2400 3600
SCALE IN FEET

Packet materials from 1/21/25 Public Works meeting to follow

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

Agenda Item Number

New Business #11

Tracking Number

PW 2025-11

Agenda Item Summary Memo

Title: Route 47 Expansion – Waterpark Way and Jericho Road – IGA

Meeting and Date: Public Works Committee – January 21, 2025

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: 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

Memorandum

To: City Council
From: Bart Olson, City Administrator
CC:
Date: January 16, 2025
Subject: Intergovernmental agreement, Route 47 expansion between Waterpark Way and Jericho Road

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Summary

Review of the intergovernmental agreement between the City and the state for the expansion of Route 47 between Jericho Road and Waterpark Way.

Background

This item was last discussed by the City Council in March 2019, when the City Council approved a memorandum of understanding (MOU) covering financial and operational commitments for the Route 47 expansion between Kennedy Road and Cross Street in Sugar Grove. Since then, the City has approved a five year budget that contains funds to meet the City's financial commitment, and the state is coming close to finalizing design details on the project between Jericho Road and Waterpark Way and expects to put it out to bid in April 2025. Accordingly, the state has drafted an intergovernmental agreement for the City's commitments on the project and has forwarded it for our consideration.

At the Public Works Committee meeting, the City staff will review the highlights of the agreement and the current status of the negotiations with IDOT, because as of time of packet creation, the City staff and IDOT staff have not agreed upon all components of the agreement. Since IDOT plans to put the project out to bid in April 2025, they have asked for the City Council to approve the agreement by the end of January. In general, most of the financial and operational commitments in the 2019 MOU have not changed in the proposed intergovernmental agreement. However, the state has asked the City to perform some maintenance of the culvert under the future Route 47 and Baseline Road intersection which the City staff does not feel should be our responsibility, and the state is asking the City to contribute intersection improvements at Galena Road and Route 47 (the intersection of a County highway and a state highway). City staff have communicated to IDOT staff that we reject those requests, and IDOT has not yet concurred.

Recommendation

Pending resolution of the remaining outstanding issues, City staff recommends approval of the intergovernmental for the expansion of Route 47 between Jericho Road and Waterpark Way.

Illinois Department of Transportation
Office of Highways Project Implementation / Region 2 / District 3
700 East Norris Drive / Ottawa, Illinois 61350-1628

March 25, 2019

Honorable Gary Golinski
Mayor of Yorkville
800 Game Farm Road
Yorkville, IL 60560

FAP 326 (IL 47/US 30)
Section (107, 108, 108S)R-1
Reconstruction of IL 47 From Kennedy Road in Yorkville to
Cross Street in Sugar Grove
Kane & Kendall Counties
Job No. P-93-013-07
Contract No. 66989

Dear Mayor Golinski:

The Illinois Department of Transportation, District 3 office in Ottawa, is nearing completion of the engineering study to reconstruct IL 47 from Kennedy Road in Yorkville to Cross Street in Sugar Grove. Proposed improvements include pavement reconstruction to provide two lanes in each direction with a raised median, shoulder or curb and gutter, pedestrian and bicycle accommodations, and intersection and safety improvements as needed.

Based on previous meetings and correspondence, the local agencies with jurisdiction along the project, including the United City of Yorkville, and the district have jointly developed the proposed improvements. Items identified that require a local cost share include: traffic signal installation/modernization including traffic signal pre-emption devices, highway lighting, shared use path, and sidewalk. Extension of Bristol Bay Drive to intersect with IL 47 will be included at the city's request. A description, estimated total cost, and estimated cost share for each item are listed in the paragraphs and table below:

Existing traffic signals will be replaced at Kennedy Road, Cannonball Trail, Boombah Boulevard (formerly Wheaton Avenue), Waterpark Way, and Baseline Road. Traffic signal installation/modernization costs are estimated at $220,000 for three-legged intersections and $280,000 for four-legged intersections. Traffic signal costs are assumed to be 80 percent federal funds with the remaining 20 percent divided by jurisdiction of the legs of the intersection. The state has jurisdiction of two or three legs of each intersection on the project so the 20 percent is proportioned between the state and city accordingly. The estimated cost of construction and engineering (15 percent of construction cost) is shown in the table below based on the number of legs. After construction, the maintenance and energy costs of traffic signals will be shared based on the number of local legs.

Traffic signal replacement or upgrades will be required at the intersection of IL 47 with Wrigley Way (full replacement is assumed for cost estimating purposes). This location serves a private industry and is identified as a private benefit traffic signal. Subsequently, the signal work will be at 100 percent city cost. After construction, all energy costs and maintenance of the traffic signals at IL 47 and Wrigley Way will continue to be 100 percent city responsibility.

Traffic signal emergency pre-emption devices will be installed at the intersections of IL 47 with Kennedy Road (three arms), Cannonball Trail (four arms), Boombah Boulevard (three arms), Wrigley Way (four arms), Waterpark Way (three arms), and Baseline Road (four arms). The total estimated construction cost for light detectors and amplifiers is approximately $40,000. Estimated local cost share (100 percent of construction cost by policy) is approximately $40,000 estimated construction cost along with $6,000 (15 percent of construction cost share) for engineering. After construction, maintenance of pre-emption devices will be 100 percent city responsibility.

Highway lighting will be provided in combination with traffic signals at Kennedy Road, Cannonball Trail, Boombah Boulevard, Wrigley Way, Waterpark Way, and Baseline Road. The total estimated construction cost for highway lighting is approximately $50,000. Estimated local cost share (100 percent of construction cost by policy) is $50,000 estimated construction cost along with $7,500 (15 percent of construction cost share) for engineering. After construction, energy costs and maintenance of combination highway lighting and all appurtenances will be 100 percent city responsibility.

Extension of Bristol Bay Drive to intersect with IL 47 is proposed at the city's request. The cost estimate includes 24 foot wide asphalt pavement with improved subgrade, concrete curb and gutter and concrete sidewalk. The estimated cost of construction is $50,000 along with $7,500 (15 percent) for engineering. The work and associated engineering cost will be 100 percent city responsibility. Maintenance responsibility and jurisdiction of Bristol Bay Drive will remain with the United City of Yorkville.

Installation of new shared use path is proposed along the east side of IL 47 from Kennedy Road to Baseline Road. The path will consist of a 10 foot wide hot-mix asphalt surface on an aggregate base. The total estimated construction cost for new shared use path is approximately $326,000. Estimated local cost share (20 percent of construction by policy) is $65,000 and $10,000 (15 percent of construction cost share) for engineering. After construction, maintenance of the shared use path will be 100 percent city responsibility.

Installation of new sidewalk is proposed to connect to existing networks at intersections. Existing sidewalk to be removed by the project will be replaced at 100 percent state cost so little or no additional cost is anticipated.

No city water or sewer relocations have been identified for inclusion in the project. Utility relocations are 100 percent city cost for city owned utilities. After construction, maintenance of city utilities will remain 100 percent city responsibility.

A portion of each local road intersecting IL 47 within the project limits will be reconstructed as part of the project at the state's cost. Jurisdiction and maintenance responsibility for these roads will remain with the local agency.

A bridge, SN 045-3044, carrying Baseline Road over Rob Roy Creek will be replaced as part of the project at the state's cost. Maintenance and jurisdiction of the replacement structure will remain with the city.

The total estimated local cost share for all items is approximately $656,400 including engineering costs. See the table below for a summary of costs and credits.

Cost share item	Est. Const. Cost	Est. Local Share of Const. Cost	Est. Local Share of Eng. Cost	Total Est. Local Cost Share
Kennedy Road Signals	$220,000	$14,500	$2,200	$16,700
Cannonball Trail Signals	$280,000	$28,000	$4,200	$32,200
Wrigley Way Signals (100% City)	$280,000	$280,000	$42,000	$322,000
Boombah Boulevard Signals	$220,000	$14,500	$2,200	$16,700
Waterpark Way Signals	$220,000	$14,500	$2,200	$16,700
Baseline Road Signals	$280,000	$14,000	$2,100	$16,100
Emergency Pre-Emption	$40,000	$40,000	$6,000	$46,000
Comb. Highway Lighting	$50,000	$50,000	$7,500	$57,500
Shared Use Path	$326,000	$65,000	$10,000	$75,000
Extension of Bristol Bay Rd.	$50,000	$50,000	$7,500	$57,500
Total:	$1,966,000	$570,500	$85,900	$656,400

Please mark the appropriate box and sign below to indicate if you concur or not with the proposed improvements and estimated local cost share. If you do not concur with any or all of the proposed improvements, please provide any comments explaining the reasons and any changes you recommend. Return one copy of the letter and retain the second for your files.

The city will be included in review of contract plans during detailed design. Please note that additional enhancements or scope changes requested by the city could incur additional cost participation and/or charges for additional engineering effort. Final participation will be based on final plan quantities multiplied by awarded unit prices and cost share percentages based on the policy in place at the time the city/state agreement is written prior to construction. The portion of the project from Galena Road to Cross Street in Sugar Grove is tentatively funded in the Proposed Highway Improvement Program, subject to plan readiness and funding availability. The portion of the project from Kennedy Road to Galena Road in Yorkville is currently unfunded and will continue to be monitored for inclusion in future Proposed Highway Improvement Programs.

If you have any questions or need further information, please contact Mr. Dave Alexander, Location and Environmental Studies Engineer, at (815) 434-8468.

Sincerely,

Kevin Marchek, P.E.
Region Two Engineer

By: Wayne Phillips, P.E.
Program Development Engineer

cc: Ms. Lisa Pickering, Deputy Clerk
Mr. Bart Olson, City Administrator
Mr. Brad Sanderson, City Engineer

☒ The United City of Yorkville concurs with the preliminary local cost participation as stated above and hereby agrees to participate in the funding and assume maintenance responsibilities as stated above.

☐ The United City of Yorkville does not concur with the preliminary local cost participation as stated above. (Please provide comments below.)

Comments

_____

_____

_____

_____

JPR

JOHN PURCELL
Mayor, United City of Yorkville

6.7.19
Date

FAP 326
IL 47/US 30 from Waterpark Way to Jericho Road
State Section: 2020-198-W&T
County: Kane and Kendall
Job No.: C-91-396-20
Contract No.: 62M71
Agreement No.: JN-125-013

AGREEMENT

This Agreement entered into this _____day of _____, 20___ A.D., by and between the STATE OF ILLINOIS, acting by and through its DEPARTMENT OF TRANSPORTATION, hereinafter called the STATE, and UNITED CITY OF YORKVILLE of the State of Illinois, hereinafter called the CITY.

WITNESSETH:

WHEREAS, the STATE, in order to facilitate the free flow of traffic and ensure safety to the motoring public, is desirous of improving approximately 11,900 lineal feet of FAP Route 326, IL 47/US 30 from Waterpark Way to Jericho Road, identified as STATE Job No.: C-91-396-20, Contract Number 62M71, STATE Section No. 2020-198-W&T as follows:

The general scope of work consists of pavement reconstruction with add lanes and culvert replacements along the IL 47/US 30 corridor. This includes replacing the existing reinforced concrete slab bridge with a double cell box culvert 14’ x 11’ box culvert that is 112’-5 ¾” in length along Baseline Road over Rob Roy Creek (SN 045-8306), traffic signal modernization, combination lighting, intersection lighting, a

proposed 10’ shared use path and sidewalk improvements and all other work necessary to complete the improvement in accordance with the approved plans and specifications; and

WHEREAS, the CITY has requested that the STATE include in its contract roadway work along Bristol Bay Drive extension, combination lighting at IL 47 and Waterpark Way, watermain relocation and emergency vehicle pre-emption equipment, and

WHEREAS, the STATE has agreed to the CITY’s request, and

WHEREAS, the CITY is desirous of said improvement in that same will be of immediate benefit to the CITY residents and permanent in nature.

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

1. The STATE agrees to make the surveys, obtain all necessary rights of way, prepare plans and specifications, receive bids and award the contract, furnish engineering inspection during construction and cause the improvement to be built in accordance with the approved plans, specifications and contract.

2. The STATE agrees to pay for all right of way, construction, and engineering cost subject to partial reimbursement by the CITY, as hereinafter stipulated.

3. It is mutually agreed by and between the parties hereto that the estimated cost and cost proration for this improvement is as shown on Exhibit A attached hereto and made a part hereof.

4. The CITY has passed a resolution appropriating sufficient funds to pay its share of the cost for this improvement, a copy of which is attached hereto as Exhibit B and made a part hereof.

5. The CITY agrees to pass a supplemental resolution to provide necessary funds for its share of the cost of this improvement if the amount appropriated in Exhibit B proves to be insufficient to cover said cost.

6. The CITY further agrees that, upon award of the contract for this improvement, the CITY will pay to the STATE, in a lump sum from any funds allotted to the CITY, an amount equal to 33% of its obligation incurred under this AGREEMENT. On or before July 31, 2026, the CITY will pay its second installment to the STATE, in a lump sum from any funds allotted to the CITY, an amount equal to $33% of its obligation incurred under this AGREEMENT. Upon receipt of a final invoice the CITY will pay to the STATE the remainder of the obligation (including any non-participating costs on FA Projects) in a lump sum, upon completion of the project, based upon final costs.

7. The CITY has adopted a resolution, will send a letter, or sign the Plan Approval page, which is part of this document, prior to the STATE advertising for the work to be performed hereunder, approving the plans and specifications as prepared.

8. The CITY agrees not to permit driveway entrance openings to be made in the curb, as constructed, or the construction of additional entrances, private or commercial, along IL 47/US 30 without the consent of the STATE.

9. The CITY shall exercise its franchise rights to cause private utilities to be relocated, if required, at no expense to the STATE.

10. The CITY agrees to cause its utilities installed on right of way after said right of way was acquired by the STATE or installed within the limits of a roadway after the said roadway's jurisdiction was assumed by the STATE, to be relocated and/or adjusted, if required, at no expense to the STATE.

11. All CITY owned utilities, on STATE right of way within the limits of this improvement, which are to be relocated/adjusted under the terms of this Agreement, will be relocated/adjusted in accordance with the applicable portions of the "Accommodation of Utilities of Right of Way of the Illinois State Highway System." (92 Ill. Adm. Code 530).

12. The CITY agrees to obtain from the STATE an approved permit for any CITY owned utility relocated/adjusted as part of this improvement and shall abide by all conditions set forth therein.

13. Upon final field inspection of the improvement and so long as IL 47/US 30 is used as a STATE Highway, the STATE agrees to maintain or cause to be maintained the through traffic lanes, the left-turn lanes and right turn lanes, and

the curb and gutter or stabilized shoulders and ditches adjacent to those traffic lanes and turn lanes.

14. Upon final field inspection of the improvement, the CITY agrees to maintain or cause to be maintained those portions of the improvement which are not maintained by the STATE from Waterpark Way to the United City of Yorkville limits at Baseline Road as shown on Exhibit D attached hereto, including the proposed double cell box culvert 14' x 11' box culvert that is 112'-5 ¾" in length along Baseline Road over Rob Roy Creek (SN 045-8306) including the wingwalls, the Bristol Bay Drive roadway extension, the shared use path from Waterpark Way to Baseline Road, sidewalk, grass medians, combination highway lighting at the intersections of IL 47 at Waterpark Way and IL 47 at Galena Road, including furnishing the electrical energy thereof, new and existing sidewalks, crosswalk, and stop line markings, mowing the ditches and parkways beyond the curb and gutter adjacent to the traffic lanes, CITY owned utilities including watermain and including appurtenances thereto and shall maintain the storm sewers and appurtenances by performing those functions necessary to keep the sewer in a serviceable condition including cleaning sewer lines, inlets, manholes, and catch basins. The maintenance, repair and/or reconstruction of storm sewers constructed as part of this improvement beyond the aforedescribed responsibilities shall be that of the STATE.

15. The CITY further agrees to continue its existing maintenance responsibilities on all side road approaches under its jurisdiction within the limits of the improvement, including all left and right turn lanes on said side road approaches, up to the through edge of pavement of IL 47 as shown on Exhibit D attached

hereto. Drainage facilities, if any, at the aforementioned side roads located within the STATE right-of-way shall be the joint maintenance responsibility of the STATE and the CITY unless there is an agreement specifying different responsibilities. The CITY agrees to inspect stopline markings, symbols, special pavement treatments, crosswalks and replace as necessary to ensure proper motorist and pedestrian guidance.

16. Upon acceptance by the STATE of the new traffic signal and lighting work included herein the financial responsibility for maintenance and energy charges for the operation of the traffic signal at the intersection(s) listed below shall be proportioned as follows:

Intersection	Maintenance	Energy
IL 47 at Galena Road		
STATE Share (District 3)	50%	50%
CITY Share	50%	50%
IL 47 at Waterpark Way		
STATE Share (District 3)	67%	67%
CITY Share	33%	33%
IL 47 at US 30/Baseline Road		
STATE Share (District 1)	100%	100%
CITY Share	0%	0%

And shall continue as outlined in the Traffic Signal Master Agreement executed between the STATE (District 3) and the CITY on January 24, 2022, and remains in full enforcement for IL 47 at Galena Road and IL 47 at Waterpark Way. It is mutually agreed that the actual traffic signal maintenance at IL 47 at US 30/Baseline Road will be performed by the STATE (District 1) either with its own forces or through an ongoing contractual agreement.

17. It is mutually agreed that the maintenance of the traffic signals, the EMERGENCY VEHICLE PRE-EMPTION system and highway lighting on combination poles shall be in accordance with the Traffic Signal Master Agreement executed between the STATE and the CITY on January 24, 2022, for the intersections of IL 47 at Galena Road and IL 47 at Waterpark Way.

18. For the traffic signal at IL 47 at US 30/Baseline Road, the STATE's Electrical Maintenance Contractor will inspect, make note, and keep inventory of the CITY Owned "EMERGENCY VEHICLE PRE-EMPTION" system to support the maintenance of the "EMERGENCY VEHICLE PRE-EMPTION" system. Inspection of the "EMERGENCY VEHICLE PRE-EMPTION" system shall include the phase selector, field wiring, optical detectors, and cabinet appurtenances. When repair is necessary, the STATE's electrical contractor shall notify the CITY that their "EMERGENCY VEHICLE PRE-EMPTION" system is in need of maintenance repairs. When approved by the CITY, maintenance of their "EMERGENCY VEHICLE PRE-EMPTION" system is then performed accordingly. The STATE's electrical contractor shall invoice the CITY directly for all maintenance costs of the "EMERGENCY VEHICLE PRE-EMPTION" system. The CITY may require end users of the emitters within its jurisdiction to enter into separate agreements with the STATE's electrical contractor to have the emergency vehicle emitters tested in accordance with the recommendation of the Manufacturer of such equipment.

19. It is mutually agreed, if, in the future, the STATE adopts a roadway or traffic signal improvement passing through the traffic signal included herein which requires modernization or reconstruction to said traffic signal then the CITY

agrees to be financially responsible for its proportionate share in accordance with STATE policy to modernize or reconstruct said installation and will be responsible for all costs to relocate or reconstruct the Emergency Preemption equipment in conjunction with the STATE's proposed improvement.

20. Under penalties of perjury, the CITY certifies that its correct Federal Tax Identification number is _____ and it is doing business as a GOVERNMENTAL ENTITY, whose mailing address is:

United City of Yorkville

651 Prairie Pointe Drive

Yorkville, IL 60560

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

SEE NEXT PAGE FOR SIGNATURES

Obligations of the STATE and the CITY will cease immediately without penalty or further payment being required if, in any fiscal year, the Illinois General Assembly or Federal funding source fails to appropriate or otherwise make available funds for this contract.

This AGREEMENT and the covenants contained herein shall be null and void in the event the contract covering the construction work contemplated herein is not awarded within the three years subsequent to execution of the agreement.

This Agreement shall be binding upon and to the benefit of the parties hereto, their successors and assigns.

UNITED CITY OF YORKVILLE

By: _____
(Signature)

Attest:

By: _____
(Print or Type)

_____
Clerk

Title: _____

Date: _____

(SEAL)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

By: _____
Trisha Thompson, P.E.
Region Two Engineer

Date: _____

Job No.: C-91-396-20
Agreement No.: JN-125-013

PLAN APPROVAL

WHEREAS, in order to facilitate the improvement of FAP Route 326, IL 47/ US 30, State Section No: 2020-198-W&T, Contract No. 62M71, the CITY agrees to that portion of the plans and specifications relative to the CITY's financial and maintenance obligations described herein, prior to the STATE's advertising for the aforedescribed proposed improvement.

Approved_____

Title _____

Date _____

Exhibit B
FUNDING RESOLUTION

WHEREAS, the UNITED CITY OF YORKVILLE (CITY) has entered into an AGREEMENT with the STATE OF ILLINOIS (STATE) for the improvement of IL 47/ US 30 from Waterpark Way to Jericho Road, known as Contract No. 62M71, STATE Section No.: 2020-198-W&T; and

WHEREAS, in compliance with the aforementioned AGREEMENT, it is necessary for the CITY to appropriate sufficient funds to pay its share of the cost of said improvement.

NOW THEREFORE, BE IT RESOLVED, by the Mayor and City Council of the United City of Yorkville, Kendall County, Illinois that there is hereby appropriated the sum of One Hundred Eighty-Seven Thousand and Ninety-Five Dollars ($187,095) or so much thereof as may be necessary, from any money now or hereinafter allotted to the CITY, to pay its share of the cost of this improvement as provided in the AGREEMENT; and

BE IT FURTHER RESOLVED, that upon award of the contract for this improvement, the CITY will pay to the STATE in a lump sum from any funds allotted to the CITY, an amount equal to 80% of its obligation incurred under this AGREEMENT, and, upon completion of the project, will pay to said STATE the remainder of its obligation, based on final costs; and

BE IT FURTHER RESOLVED that the CITY agrees to pass a supplemental resolution to provide any necessary funds for its share of the cost of this improvement if the amount appropriated herein proves to be insufficient, to cover said cost.

STATE OF ILLINOIS)

COUNTIES OF KANE AND KENDALL)

I, _____, CITY Clerk in and for the UNITED CITY of YORKVILLE, hereby certify the foregoing to be a true perfect and complete copy of the resolution adopted by the CITY Board at a meeting on _____, 20___ A.D.

IN TESTIMONY WHEREOF, I have hereunto set my hand seal this _____ day of _____. 20___ A.D.

_____

CITY Clerk

(SEAL)

EXHIBIT A
ESTIMATE OF COST Contract 62M71

	FEDERAL		STATE		KENDALL COUNTY		KANE COUNTY		CITY OF YORKVILLE		TOTAL
Type of Work	**$**	**%**	**$**	**%**	**$**	**%**	**$**	**%**	**$**	**%**	**$**
All roadway work excluding the following:	$28,779,360	80%	$7,194,840	20%							$35,974,200
P&C Engineering (15%)	$4,316,904	80%	$1,079,226	20%							$5,396,130
ROADWAY WORK											
Bristol Bay Extension									$109,500	100%	$109,500
P&C Engineering (15%)									$16,425	100%	$16,425
TRAFFIC SIGNALS											
IL 47 at Galena Road	$336,960	80%	$42,120	10%	$42,120	10%					$421,200
P&C Engineering (15%)	$50,544	80%	$6,318	10%	$6,318	10%					$63,180
Emergency Vehicle Pre-emption System Equipment									$6,400	100%	$6,400
P&C Engineering (15%)									$960	100%	$960
IL 47 at Jericho Road	$341,360	80%	$42,670	10%			$42,670	10%			$426,700
P&C Engineering (15%)	$51,204	80%	$6,401	10%			$6,401	10%			$64,005
IL 47 at Waterpark Way	$269,760	80%	$44,949	13.3%					$22,491	6.7%	$337,200
P&C Engineering (15%)	$40,464	80%	$6,742	13.3%					$3,374	6.7%	$50,580
Emergency Vehicle Pre-emption System Equipment									$6,400	100%	$6,400
P&C Engineering (15%)									$960	100%	$960
IL 47 at US30/Baseline Road	$386,640	80%	$96,660	20%							$483,300
P&C Engineering (15%)	$57,996	80%	$14,499	20%							$72,495
Emergency Vehicle Pre-emption System Equipment									$8,600	100%	$8,600
P&C Engineering (15%)									$1,290	100%	$1,290
STREET LIGHTING											
IL 47 at Galena Road - Combination Lighting					$11,800	100%					$11,800
P&C Engineering (15%)					$1,770	100%					$1,770
IL 47 at Waterpark Way - Combination Lighting									$7,300	100%	$7,300
P&C Engineering (15%)									$1,095	100%	$1,095
IL 47 at US 30/Baseline Road - Full Intersection Lighting	$353,920	80%	$88,480	20%							$442,400
P&C Engineering (15%)	$53,088	80%	$13,272	20%							$66,360
UTILITY ADJUSTMENTS											
Fire Hydrants to be Adjusted									$2,000	100%	$2,000
P&C Engineering (15%)									$300	100%	$300
Watermain			$1,084,000	100%							$1,084,000
P&C Engineering (15%)			$162,600	100%							$162,600
TOTAL	**$35,038,200**		**$9,882,777**		**$62,008**		**$49,071**		**$187,095**		**$ 45,219,150**

NOTE: Local participation shall be predicated upon the percentages shown above for the specified work. Local Agency cost shall be determined by multiplying the final quantities times contract unit price plus the percentage shown for construction and/or preliminary engineering unless otherwise noted.

AGENCY:
UNITED CITY OF YORKVILLE (SIGNAL MODERNIZATION, E LEG)
UNITED CITY OF YORKVILLE (COMBINATION LIGHTING)
UNITED CITY OF YORKVILLE (EVP)

225+00

IL ROUTE 47

EX. IL ROUTE 47

ROB ROY CREEK

AGENCY: UNITED CITY OF YORKVILLE
5' SIDEWALK

102+75

WATERPARK WAY

AGENCY: UNITED CITY OF YORKVILLE
LANDSCAPED MEDIAN (TYP.)
SOUTH LIMIT TO GALENA ROAD

AGENCY:
UNITED CITY OF YORKVILLE
(WATER MAIN RELOCATION)
STA 250+00 TO STA 278+00
REIMBURSIBLE 100% IDOT COST

91+25

AGENCY: KENDALL COUNTY
PROPOSED SN 047-3180
BOX CULVERT

AGENCY:
UNITED CITY OF YORKVILLE (SIGNAL MODERNIZATION, E AND W LEGS)
UNITED CITY OF YORKVILLE (COMBINATION LIGHTING)
UNITED CITY OF YORKVILLE (EVP)

AGENCY: UNITED CITY OF YORKVILLE
LANDSCAPED MEDIAN (TYP.)
GALENA ROAD TO US 30/BASELINE ROAD

AGENCY:
UNITED CITY OF YORKVILLE
(WATER MAIN RELOCATION)
STA 250+00 TO STA 278+00
REIMBURSIBLE 100% IDOT COST

GALENA ROAD CULVERT GUARDRAIL MAINTENANCE

AGENCY: KENDALL COUNTY
STRONG POST GUARDRAIL AND
STEEL PLATE BEAM GUARDRAIL

GALENA ROAD

AGENCY: KENDALL COUNTY
STRONG POST GUARDRAIL AND
STEEL PLATE BEAM GUARDRAIL

STRONG POST GUARDRAIL ATTACHED TO CULVERT
(LIMIT OF KENDALL COUNTY MAINTENANCE)

AGENCY: IDOT
STEEL PLATE BEAM GUARDRAIL

IL ROUTE 47

AGENCY:
UNITED CITY OF YORKVILLE
SHARED-USE PATH
STA 234+64 TO STA 322+00

GALENA ROAD

108+90

BERTRAM DRIVE

101+25

103+40

BRISTOL BAY DRIVE

AGENCY: YORKVILLE
BRISTOL BAY DRIVE
EXTENSION

MATCH LINE
SEE BELOW

BASELINE ROAD

998+75

JERICHO ROAD

91+00

AGENCY: KANE COUNTY
LANDSCAPED MEDIAN (TYP.)
US 30/BASELINE ROAD TO JERICHO ROAD

EX. IL ROUTE 47

AGENCY:
UNITED CITY OF YORKVILLE
PROPOSED SN 045-8306
BOX CULVERT, GUARDRAIL
AND BARRIER WALL

MATCH LINE
SEE ABOVE

AGENCY:
UNITED CITY OF YORKVILLE
SHARED-USE PATH
STA 234+64 TO 322+00

AGENCY: UNITED CITY OF YORKVILLE
LANDSCAPED MEDIAN (TYP.)
GALENA ROAD TO US 30/BASELINE ROAD

UNITED CITY OF YORKVILLE

AGENCY: IDOT
PROPOSED SN 045-9200
RETAINING WALL
FROM STA 322+48
TO STA 323+96

STAR LANE

AGENCY:
KANE COUNTY
(SIGNAL MODERNIZATION,
E AND W LEGS)
KANE COUNTY (EVP)

97+55

IL ROUTE 47 /
US ROUTE 30

349+00

62M71 | 62G40

AGENCY: SUGAR GROVE
SHARED-USE PATH
STA 348+53 TO 349+00

VILLAGE OF SUGAR GROVE
CORPORATE LIMITS STA 348+53

AGENCY: KANE COUNTY
SHARED-USE PATH
STA 322+00 TO 348+53

AGENCY: IDOT
PROPOSED
SN 045-8305
BOX CULVERT

AGENCY:
UNITED CITY OF YORKVILLE
(SIGNAL MODERNIZATION, W LEG)
UNITED CITY OF YORKVILLE
(EVP)

ROB ROY CREEK

108+55

US ROUTE 30

1026+86

LEGEND

- UNITED CITY OF YORKVILLE
- KENDALL COUNTY
- KANE COUNTY
- VILLAGE OF SUGAR GROVE
- SUGAR GROVE TOWNSHIP

IL ROUTE 47

32'

10' 12' 12' | 12' 12' 10'

TEMP EASE
EX ROW

PR ROW

4.0% 2.0% 4.0% 4.0% 2.0% 4.0% 1:4 1:3 1.5%

6 3 1 2 4 2 1 3 6 5

TYPICAL SHOULDER SECTION A-A

IL ROUTE 47

32'

12' 12' | 12' 12'

TEMP EASE
EX ROW

PR ROW

1:4 2.0% 4.0% 4.0% 2.0% 1.5% 1:4

6 2 1 2 4 2 1 2 5 6

TYPICAL CURB SECTION B-B

TYPICAL SECTION LEGEND

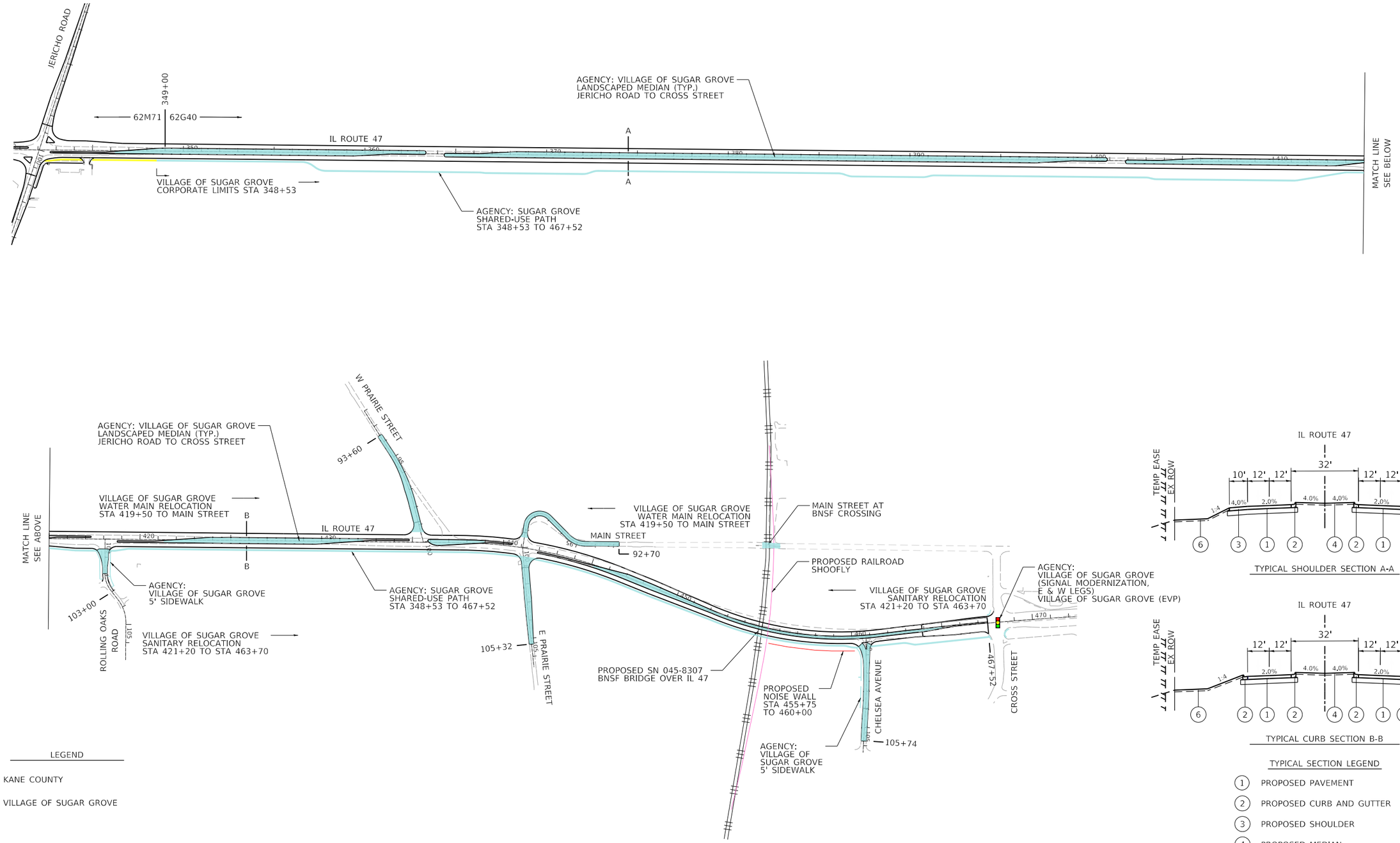
1. PROPOSED PAVEMENT
2. PROPOSED CURB AND GUTTER
3. PROPOSED SHOULDER
4. PROPOSED MEDIAN
5. PROPOSED SHARED-USE PATH
6. PROPOSED TOPSOIL AND SEEDING

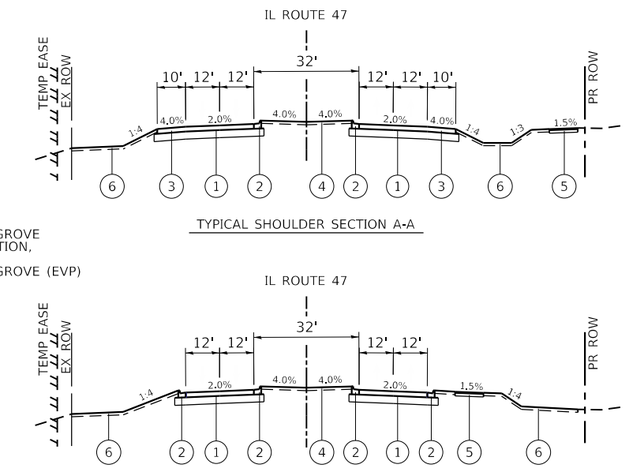
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Illinois Department of Transportation
District One, Region One

MAINTENANCE EXHIBIT
EXHIBIT D - 62M71: IL ROUTE 47 FROM WATERPARK WAY TO JERICHO ROAD

0 1200 2400 3600
SCALE IN FEET





Illinois Department of Transportation
District One, Region One

MAINTENANCE EXHIBIT

EXHIBIT D - 62G40: IL ROUTE 47 FROM JERICHO ROAD TO CROSS STREET

PAGE 2 OF 2

0 1200 2400 3600
SCALE IN FEET

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

Agenda Item Number

Planning and Zoning Commission #1

Tracking Number

PZC 2024-30 & EDC 2025-07

Agenda Item Summary Memo

Title: Kendall County Petition 24-30 – 1.5-Mile Review (South of 9949 and 10021 Ament Rd)

Meeting and Date: City Council – February 11, 2025

Synopsis: Please see the attached memo.

Council Action Previously Taken:

Date of Action: CC – 1/28/25 Action Taken: This agenda item was tabled to the 2/11/25 City Council meeting.

Item Number: PZC 2024-30 & EDC 2025-07

Type of Vote Required: Majority

Council Action Requested: Approval

Submitted by: Sara Mendez (Name) Community Development (Department)

Agenda Item Notes:

Nicholas S. Bellone on Behalf of Ament Road Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)

Memorandum

To: City Council
From: Sara Mendez, Planner I
Krysti Barksdale-Noble, Community Development Director
CC: Bart Olson, City Administrator
Date: January 29, 2025
Subject: **PZC 2024-30 – Nicholas S. Bellone on Behalf of Ament Road Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)**
1.5 Mile Review

UPDATE:

Staff was informed that at the November 18, 2024 meeting, the Kendall Township Planning Commission recommended approval of the proposed solar farm with conditions related to stormwater issues. However, on January 21, 2025, the Kendall Township Board voted to deny the proposal, citing the Planning Commission's recommendation as contingent upon resolving those issues. Additionally, on January 22, 2025, the Kendall County Regional Planning Commission voted 2-8 against the proposed solar farm.



SUMMARY:

Staff has reviewed a request from Kendall County Planning and Zoning Department along with the subsequent documents attached. This property is located within one and a half miles of the planning boundary for Yorkville, allowing the City the opportunity to review and provide comments to Kendall County. The petitioner, Nicholas S. Bellone on behalf of Ament Road Solar 1, LLC (Tenant) and Janet M. Dhuse on behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner) are seeking a special use permit for a commercial solar energy facility and a variance to Section 36-282(17)(a) of the Kendall County Zoning Ordinance to allow a commercial solar energy facility on land within 1.5 miles of municipality without an annexation agreement.

The real property is located immediately south of Ament Road and approximately 0.33 miles west of Route 47 in unincorporated Kendall County.

PROPOSED MOTION

In consideration of the proposed mile and one-half review of Kendall County Petition 24-30 by Ament Road Solar 1, LLC, seeking a special use permit for a commercial solar energy system and variance to allow a commercial solar energy system on land within 1.5 miles of a municipality without an annexation agreement consisting of (2) parcels totaling ~93.4 acres, the Planning and Zoning Commission recommends to the City Council to not object to the request.

Action:

Linnane – aye; Vineyard – aye; Crouch – aye; Forristall – aye.

4 ayes; 0 nays

ATTACHMENTS

1. Application with Attachments

Memorandum

To: Planning and Zoning Commission
From: Sara Mendez, Planner I
Krysti Barksdale-Noble, Community Development Director
CC: Bart Olson, City Administrator
Date: January 2, 2025
Subject: **PZC 2024-30 – Nicholas S. Bellone on Behalf of Ament Road Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)**
1.5 Mile Review

SUMMARY:

Staff has reviewed a request from Kendall County Planning and Zoning Department along with the subsequent documents attached. This property is located within one and a half miles of the planning boundary for Yorkville, allowing the City the opportunity to review and provide comments to Kendall County. The petitioner, Nicholas S. Bellone on behalf of Ament Road Solar 1, LLC (Tenant) and Janet M. Dhuse on behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner) are seeking a special use permit for a commercial solar energy facility and a variance to Section 36-282(17)(a) of the Kendall County Zoning Ordinance to allow a commercial solar energy facility on land within 1.5 miles of municipality without an annexation agreement.



The real property is located immediately south of Ament Road and approximately 0.33 miles west of Route 47 in unincorporated Kendall County.

PROPERTY BACKGROUND:

The property is located south of 9949 and 10021 Ament Road in unincorporated Kendall County and comprised of two (2) parcels totaling ~93.4 acres. The parcel located closest to the left (PIN #05-17-400-005) consists of ~35.4 acres. The parcel closest to Route 47 (PIN #05-16-300-006) is larger in area at ~58 acres. Currently owned by Janet Dhuse Family Trust, the site is undeveloped and utilized for agricultural purposes. While the parcel is not immediately adjacent to incorporated Yorkville, it is approximately 0.82 miles (~4,000 feet) south of the Towns at Windett Reserve subdivision.

In August 2024, New Leaf Energy, dba Ament Road Solar 1, LLC, formally requested confirmation from the City Council on whether Yorkville wished to enter a pre-annexation agreement for the proposed solar energy facility on parcels #05-17-400-005 and #05-16-300-006. Although the site is unincorporated and not contiguous to the City of Yorkville, it falls within Yorkville's 1.5-mile planning jurisdiction. As such, New Leaf Energy sought guidance on the City's interest in pursuing a pre-annexation agreement.

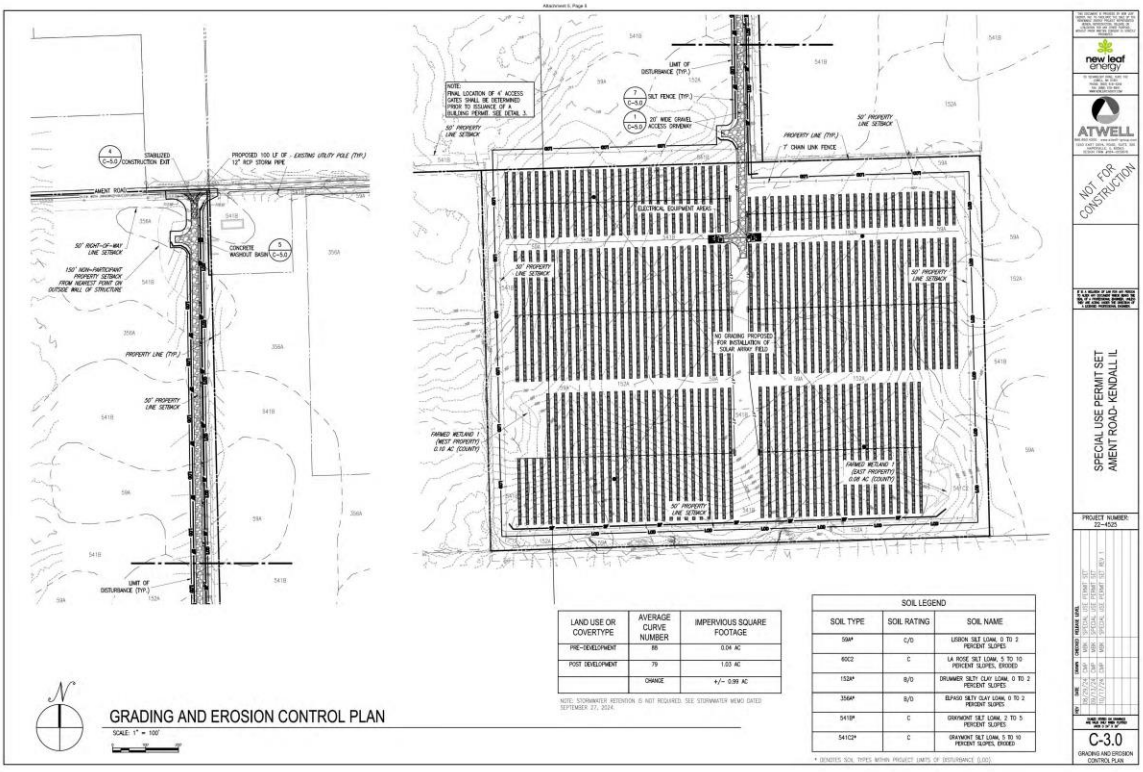
At the August 27, 2024, City Council meeting, the Council formally confirmed that Yorkville would not pursue a pre-annexation agreement for the proposed solar energy facility. Per Section 36-282(17)(a) of the Kendall County Zoning Ordinance: "All commercial solar energy facilities and test solar energy systems located within one and one-half (1½) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property."

Given Yorkville's decision not to enter a pre-annexation agreement, the applicant, Ament Road Solar 1, LLC, has filed for a variance to Section 36-282(17)(a) with Kendall County. This variance would allow the proposed solar energy facility to proceed without annexation or an annexation agreement.

PROPOSED DEVELOPMENT:

The property is currently zoned A-1 Agricultural District. Per Kendall County's Zoning Ordinance, all development proposed in the district must obtain site plan approval from the County Board. According to the application and site plans provided, the applicant is proposing a 5 MW AC community solar farm on two parcels (PIN #05-17-400-005 and #05-16-300-006) in Kendall County. The project encompasses an approximate 39.34-acre portion of the total 95.3 acres. Per Section 36-282 of Kendall County's Zoning Ordinance, construction and operation of Commercial Solar Energy Facilities are permitted in the Agricultural District by Special Use Permit.

The proposed setback of 1,442 feet from the Ament Road is consistent with the City of Yorkville's required setback of 1,000 feet from the nearest roadway network and Kendall County's required 50 feet from the nearest edge of public road rights-of-way.



YORKVILLE COMPREHENSIVE PLAN:

Yorkville's 2016 Comprehensive Plan designation for this property is Agricultural Zone (AZ). The agricultural zone future land use designation is primarily intended for lands expected to remain for agricultural uses, both general farming and restricted forms such as pastures, gardening, kennel, riding stables, nurseries, and greenhouses. The proposed commercial solar energy facility, along with the A-1 zoning in Kendall County is consistent with Yorkville's Comprehensive Plan.

STAFF COMMENTS

Staff is seeking input from the Planning and Zoning Commission as the one-and-a-half-mile review allows for the City to make comments and requests to the petitioner and County prior to their public meetings. This review will also be brought to City Council at the January 28, 2025 meeting. This item was delivered to the City on October 25, 2024.

PROPOSED MOTION

In consideration of the proposed mile and one-half review of Kendall County Petition 24-30 by Ament Road Solar 1, LLC, seeking a special use permit for a commercial solar energy system and variance to allow a commercial solar energy system on land within 1.5 miles of a municipality without an annexation agreement consisting of (2) parcels totaling ~93.4 acres, the Planning and Zoning Commission recommends to the City Council to not object to the request.

ATTACHMENTS

1. Application with Attachments

DEPARTMENT OF PLANNING, BUILDING & ZONING
807 West John Street • Yorkville, IL • 60560
(630) 553-4141 Fax (630) 553-4179

Petition 24-30
Nicholas S. Bellone on Behalf of Ament Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)
A-1 Special Use Permit for Commercial Solar Energy Facility and Variance to Allow the Facility on Land Within 1.5 Miles of a Municipality Without an Annexation Agreement

INTRODUCTION

The Petitioner is seeking a special use permit for a commercial solar energy facility and a variance to Section 36-282(17)a of the Kendall County Code to allow a commercial solar energy facility on land within one point five (1.5) miles of municipality without an annexation agreement.

The application materials are included as Attachment 1. The wetland delineation reports, including EcoCat information is included as Attachment 2. The NRI Report is included as Attachment 3. The property survey is included as Attachment 4. An amended site plan reflecting WBK's comments contained in their letter dated December 30, 2024 (Attachment 26), and two (2) stormwater basins requested by Kendall Townships is included as Attachment 5. The vegetative management plan is included as Attachment 6. Decommissioning information is included as Attachment 7. Amended stormwater information reflecting comments from WBK's letter of December 30, 2024 (Attachment 26) is included as Attachment 8. Drain tile information is included as Attachment 9. A glare study is included as Attachment 10. A property value study is included as Attachment 11.

On November 7, 2024, the property owner submitted a letter supporting the project. This letter is included as Attachment 16.

SITE INFORMATION

PETITIONER: Nicholas S. Bellone on Behalf of Ament Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)

ADDRESS: South of 9949 and 10021 Ament Road, Yorkville

LOCATION: Approximately 0.33 Miles West of Route 47 on the South Side of Ament Road

Aerial of Entire Property



TOWNSHIP: Kendall

PARCEL #s: 05-16-300-006 and 05-17-400-005

LOT SIZE: 93.4 +/- Acres (Total Parcel), 42.4 +/- (Disturbed Area), 35.7 +/- (Fenced Area)

EXISTING LAND USE: Agricultural

ZONING: A-1

LRMP:

Future Land Use	Rural Residential (Max 0.65 DU/Acre) (County) Agricultural (Yorkville)
Roads	Ament Road is a Local Road maintained by Kendall Township.
Trails	The United City of Yorkville has a trail planned along Ament Road.
Floodplain/ Wetlands	There are no floodplains on the property. There are two (2) farmed wetlands in the vicinity of the proposed use.

REQUESTED ACTIONS: Special Use Permit for a Commercial Solar Energy System

Variance to Allow a Commercial Solar Energy System on Land with One Point Five (1.5) Miles of a Municipality without an Annexation Agreement

APPLICABLE REGULATIONS: §36-282(17) – A-1 Special Uses

§36-39 – Variance Procedures

Chapter 36, Article II, Division 3, Subdivision I – Special Use Procedures

SURROUNDING LAND USE

Location	Adjacent Land Use	Adjacent Zoning	Land Resource Management Plan	Zoning within ½ Mile
North	Agricultural/Farmstead/ Public Institutional (Cemetery)	A-1 and A-1 SU	Rural Residential (Max 0.65 DU/Acre) and Commercial (County) Agricultural (Yorkville)	A-1, A-1 SU, R-1, R-3, and M-1 (County)
South	Agricultural/Farmstead	A-1	Rural Residential (County) Agricultural (Yorkville)	A-1
East	Agricultural/Single-Family Residential	A-1 and R-3	Rural Residential and Transportation Corridor (County) Agricultural (Yorkville)	A-1, A-1 SU, and R-3 (County)

West	Agricultural	A-1	Rural Residential (County) Agricultural (Yorkville)	A-1, R-1 PUD, and RPD-2

The A-1 special use permit to the north is for a cemetery. The A-1 special use permits to the east are for a church and school and for agricultural implement sales and service.

The Deere Crossing subdivision is located near the subject property. Approximately fourteen (14) homes are located within a half mile (0.5) miles of the subject property.

PHYSICAL DATA

ENDANGERED SPECIES REPORT

EcoCAT Report was submitted on July 10, 2023, for the eastern parcel and November 16, 2023, for the western parcel and consultation was terminated for both parcels, see Attachment 2, Pages 42 and 133.

NATURAL RESOURCES INVENTORY

A LESA Score was not generated for the property. The land evaluation was 96 out of 100 indicating the soils were well suited for agricultural. The NRI Report is included as Attachment 3.

ACTION SUMMARY

KENDALL TOWNSHIP

Petition information was sent to Kendall Township on October 25, 2024. The Kendall Township Planning Commission met on November 18, 2024. The Kendall Township Planning Commission recommended approval of the proposal with the following conditions:

"The entity will maintain and repair the subsurface drainage throughout the entirety of the lease to be repaired within the timeframe indicated in the special use permit (sup). The entity will commit to, as part of their maintenance schedule, perform a physical inspection of the property to include drain tile observation for damage and necessary repair. The surrounding property owners shall be provided a copy of the existing drain tile survey of subject property as well as any changes made as part of this project.

We would request that there be a subsurface drainage repair bond to ensure there are sufficient funds available for any required repair of materials and labor at the time of agreement. All replacement tile shall equal to or greater than its current flow.

The planning and zoning committee also recommends as part of the comprehensive MONITORING AND MANAGEMENT PLAN AMENT ROAD SOLAR FARM – KENDALL COUNTY (section 1-6) specific attention to the noxious weeds including but not limited to water hemp, and Giant Ragweed."

The Kendall Township Board met on November 19, 2024, and requested that the County layover this proposal until the following items have been addressed to Kendall Township's satisfaction:

1. "That it appears specifically and in writing that any fiduciary instrument (i.e. Bond) be attached to the Title and or abstract of the Subject Property presently identified as *AMENT ROAD SOLAR FARM.* In so much as that responsibility will pass to any and all owners until the end of the deconstruction phase of the project.

2. That the concerns expressed above regarding the subsoil drainage issues be specifically addressed in any SUP, and failure to do so will result in a violation of the terms of the agreement and a monetary penalty will be applied.

3. That the concerns regarding the noxious weeds shall be specifically spelled out in the SUP and future agreements."

An email outlining Kendall Township's position is included as Attachment 17.

On December 3, 2024, the Petitioner submitted a letter responding to Kendall Township's requests and requesting that the proposal be continued to the January Kendall County Regional Planning Commission meeting and the January Zoning Board of Appeals hearing. This letter is included as Attachment 18.

On December 6, 2024, the Petitioner submitted an email to Kendall Township with the addresses of the abutting property owners for other solar projects in Kendall County. This email is included as Attachment 20.

On December 16, 2024, the Kendall Township Planning Commission met and reaffirmed their previous approval recommendation. The Kendall Township Board will take up the proposal on January 21, 2025. An email to that effect is included as Attachment 21.

On January 21, 2025, the Kendall Township Board met and voted not to approve the proposal. They clarified that the Kendall Township Planning Commission's recommendation was contingent upon addressing stormwater issues. An email to that effect is included as Attachment 27.

UNITED CITY OF YORKVILLE
Petition information was sent to the United City of Yorkville on October 25, 2024. Prior to formal application submittal, the United City of Yorkville submitted a letter stating they would not pursue annexation at this time, see Attachment 1, Page 16. Yorkville also submitted an email requesting a forty foot (40') right-of-way dedication; Kendall Township was agreeable to this request. The emails related to the right-of-way dedication are included as Attachment 12.

The Yorkville Economic Development Committee reviewed the original proposal on January 7, 2025, and the Yorkville Planning and Zoning Committee reviewed the original on January 8, 2025. Both boards recommended approval. An email from Yorkville is included as Attachment 22. The proposal goes to the Yorkville City Council on January 28, 2025.

BRISTOL-KENDALL FIRE PROTECTION DISTRICT
Petition information was sent to the Bristol-Kendall Fire Protection District on October 25, 2024.

ZPAC
ZPAC reviewed the original proposal at their meeting on November 5, 2024. ZPAC voted to forward the proposal to the Kendall County Regional Planning Commission by a vote of seven (7) in favor and zero (0) in opposition with three (3) members absent. The minutes of the meeting are included as Attachment 13.

RPC
The Kendall County Regional Planning Commission started their review of the proposal at their meeting on December 11, 2024. Discussion occurred regarding actionable items related to Kendall Township's concerns. Kendall Township's drainage concerns were centered on the impact of the proposal on neighboring property owners. Discussion occurred regarding Illinois Drainage Law and the need to have bonds of sufficient size to cover the complete cost of decommissioning and site cleanup. Discussion occurred regarding the ability of the County to place additional conditions on the special use permit. It was noted that Ament 1, LLC was created by New Leaf Energy. The Kendall County Regional Planning Commission voted to continue the Petition to the January 22, 2025, meeting at the Petitioner's request by a vote of nine (9) in favor and zero (0) in opposition with one (1) member absent. The minutes are included as Attachment 23.

The Kendall County Regional Planning Commission continued their review of the proposal at their meeting on January 22, 2025. Discussion occurred regarding the County's requirement for such projects to seek annexation or pre-annexation, if they were located near municipality. Discussion occurred regarding outstanding stormwater issues. Discussion occurred regarding requiring the decommissioning bond be recorded and requiring the Petitioner to pay for an independent consultant to conduct a separate decommissioning study. Discussion occurred regarding the rationale for the numbers contained in the decommissioning plan. Discussion occurred regarding whether or not the

proposed land use was the best use of the land, both now and in the future. Discussion occurred regarding updating the County's Land Resource Management Plan. Discussion occurred why this site was chosen; it has to do with the location of substations and feeder lines. Discussion occurred regarding potential tax revenue at the property. Discussion occurred regarding placing solar panels on commercial buildings. Discussion occurred regarding landowners generating revenue from their property and the impact of denying the proposal. The motion at the Kendall County Regional Planning Commission was to recommend approval of the special use permit and variance with the conditions proposed by Staff, adding a condition that the decommissioning bond be attached to the decommissioning plan which would be recorded against the real estate, and adding a condition that an independent evaluation of the decommissioning cost occur at the Petitioner's expense which failed by a vote of two (2) in favor and eight (8) in opposition.

Member Landovitz voted no because of the potential land uses at the property. He gave deference to the voice of the elected officials, both the County and Kendall Township. He hoped that the updating of the Land Resource Management Plan will remove some of the differences. He felt bad for the landowners and the people that worked on the project.

Member Bernacki voted no because of the current classification of the land in the Land Resource Management Plan. He noted that Plainfield redid their plan recently and reclassified land to agricultural that had annexation agreements. He noted that Yorkville could redo their plan, which was completed in 2016. He felt working with Kendall Township was important. He also said that the Regional Planning Commission recommended denial of the solar project on Simons Road partially due to a lack of an annexation agreement with a municipality.

Member Wilson discussed balancing interests and unknowns. She noted that for farmers, their retirement is in their land. She understood the need to use farmland as a revenue source. She did not like the fact that farmer land is disappearing. In this case, she did not see an aesthetic issue and comparatively little farmland was being lost. She noted that solar panels have to be in certain locations related to substations and related infrastructure. She noted the project would comply with State law and she was unsure if the County's law related to annexation would hold in court. She favored the landowner and noted that the land could revert back to farm ground.

Member Hamman voted in favor of the proposal because the Petitioner presented a good case with the site setback from the roads. He favored being landowner's rights because selling the land may not be an option for tax reasons. He also had concerns regarding the legal aspects of denying this proposal.

Chairman Ashton voted no because of the high land evaluation score. He favored solar panels on ground that was not as productive for farming purposes.

Member Rodriguez discussed new developments and future land use in Kendall County. He voted no because of developments going on in Kendall County and future land uses in the County.

Member Casey favored commercial solar developments on commercial buildings.

Member McCarthy-Lange voted no because the proposal would look in the land use for twenty to forty (20-40) years. The County has changed drastically in the last forty (40) years. She did not want to lock in the land use that close to a municipality for such a long period of time. She would have liked the landowner to be present at the meeting; if the situation was dire, the landowner would appear at the meeting.

The minutes of the meeting, including the Petitioner's presentation, are included as Attachment 28.

ZBA

The Kendall County Zoning Board of Appeals initiated a public hearing on this proposal on December 16, 2024, and voted to continue the Petition to the January 27, 2025, hearing by a vote of seven (7) in favor and zero (0) in opposition. The minutes are included as Attachment 24.

GENERAL INFORMATION

Per § 36-282(17) of the Kendall County Code, commercial solar energy facilities businesses can be special uses on A-1 zoned property subject to the following conditions (Staff Comments in Bold):

a. All commercial solar energy facilities and test solar energy systems located within one point five (1.5) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property. **Petitioner is requesting a variance.**

b. The setbacks for commercial solar energy facilities shall be measured from the nearest edge of any component of the facility as follows:

   Occupied Community Buildings or Dwellings on Nonparticipating Properties-One hundred fifty feet (150') from the nearest point on the outside wall of the structure

   Boundary Lines of Participating Properties-None

   Boundary Lines of Nonparticipating Properties- Fifty feet (50') to the nearest point on the property line of the nonparticipating property

   Public Road Rights-Of-Way-Fifty feet (50') from the nearest edge

   The above setbacks do not exempt or excuse compliance with electric facility clearances approved or required by the National Electrical Code, the National Electrical Safety Code, Commerce Commission, Federal Energy Regulatory Commission, and their designees or successors. **Per the site plan, see Attachment 5, Page 4, the closet nonparticipating structure is approximately one thousand, thirty feet (1,030') to the southeast of the commercial solar energy facility. A church is located approximately one thousand, four hundred thirty-three feet (1,433') to the northeast of the commercial solar energy facility. The perimeter fence is setback fifty feet (50') from the adjoining property line. The commercial solar energy facility is approximately one thousand, four hundred forty-two feet (1,442') from the Ament Road. At their closest points, the panels are approximately forty-nine feet (49') south of the northern fence line, twenty-nine point five feet (29.5) west of the eastern fence line, just under nineteen feet (19') north of the southern fence line, and twenty-one point five feet (21.5') east of the western fence line.**

c. A commercial solar energy facility's perimeter shall be enclosed by fencing having a height of at least six feet (6') and no more than twenty-five feet (25'). **This is true. Per the site plan, see Attachment 5, Page 5, the fence is proposed to be seven feet (7') in height and will be chain link.**

d. No component of a solar panel as part of a commercial solar energy facility shall have a height of more than twenty feet (20') above ground when the solar energy facility's arrays are at full tilt. **This is true. Per the site plan, see Attachment 5, Page 4, the maximum height will be nine feet (9'). The Petitioner does not want a restriction setting the maximum height at this level.**

e. The above setback, fencing, and component height requirements may be waived subject to written consent of the owner of each affected nonparticipating property. This written consent shall be submitted at the time of application submittal. **No such consent requested or needed.**

f. Sound limitations for components in commercial solar energy facilities shall follow the sound limitations established by the Illinois Pollution Control Board. **A noise study was provided; see Attachment 15.**

g. The County shall not require standards for construction, decommissioning, or deconstruction of a commercial solar energy system or related financial assurances to be more restrictive than agricultural impact mitigation agreement set in State law. The amount of any decommissioning payment shall be limited to the cost identified in the decommissioning or deconstruction plan, as required by the agricultural impact mitigation agreement, minus the salvage value of the project. A copy of the agricultural impact mitigation agreement shall be submitted with the application materials. **The decommissioning plan is included as Attachment 7 and is outlined in the AIMA provided in Attachment 1, starting on page 18. As noted on Page 6 of Attachment 7, the estimated cost of**

decommissioning is Four Hundred Twenty-Five Thousand, Eight Hundred Ninety-Seven Dollars and Thirty-Seven Cents ($425,897.37). This money will be provided to the County in the form of a bond as outlined in the AIMA on Pages 28 and 29 of Attachment 1.

h. A vegetative screening shall be placed around the commercial solar energy facility. **The landscaping plan was included on Pages 7 and 8 of the site plan (Attachment 5) with more detailed landscaping information included in the vegetative management plan (Attachment 6). The plan includes a cover crop seed mix, a native pollinator seed mix, and a native grazing seed mix. The performance standards and ground cover maintenance requirements were included in the vegetative management plan.**

i. Commercial solar energy facility applicants shall provide the results and recommendations from consultations with the Illinois Department of Natural Resources obtained through the Ecological Compliance Assessment Tool (EcoCat) or a comparable successor tool. The commercial solar energy facility applicant shall adhere to the recommendations provided through this consultation. **The EcoCat was submitted and consultation was terminated without any specific recommendations.**

j. Commercial solar energy facility applicants shall provide the results of the United States Fish and Wildlife Service's Information for Planning and Consulting environmental review or a comparable successor toll that is consistent with the U.S. Fish and Wildlife Service's Land-Based Wind Energy Guidelines and any applicable United States Fish and Wildlife Service solar wildlife guidelines that have been subject to public review. **This was provided on Pages 21 and 117 of both wetland delineation reports (Attachment 2). Six (6) threatened or endangered species were in the area, but no impacts were anticipated.**

k. A facility owner shall demonstrate avoidance of protected lands as identified by the Illinois Department of Natural Resources and the Illinois Nature Preserve Commission or consider the recommendations of the Illinois Department of Natural Resources for setbacks from protected lands, including areas identified by the Illinois Nature Preserve Commission. **This is true. The site is designed around the farmed wetlands.**

l. A facility owner shall provide evidence at the time of application submittal of consultation with the Illinois State Historic Preservation Office to assess potential impacts on State-registered historic sites under applicable State law. **No potential impacts to State-registered historic sites exists, see Attachment 1, Page 74.**

m. A commercial solar energy facility owner shall plant, establish, and maintain for the life of the facility vegetative ground cover consistent with State law and the guidelines of the Illinois Department of Natural Resources' vegetative management plans. The vegetation management plan shall be required at the time of application submittal. **The vegetation management plan, including timelines for planting and maintenance of the vegetation was provided, see Attachment 6.**

n. The facility owner shall enter into a road use agreement with the jurisdiction having control over the applicable roads. The road use agreement shall follow applicable law. The facility owner shall supply the Kendall County Planning, Building and Zoning Department with a copy of the road use agreement. This provision shall be waived if the jurisdiction having control over the applicable roads does not wish to enter into an agreement. **As of the date of this memo, the road use agreement negotiations are ongoing. No transportation or access plan was provided. The site plan (Attachment 5) shows one (1) twenty foot (20') wide gravel driveway approximately thirty feet (30') west of the eastern property line.**

o. The facility owner shall repair or pay for the repair of all damage to the drainage system caused by the construction of the commercial solar energy system within a reasonable time after construction of the commercial solar energy facility is complete. The specific time shall be set in the special use permit. **A tentative drain tile study was provided (See Attachment 9). The foundations for the racking will be placed in a manner that minimizes impacts on the drain tile.**

BUILDINGS AND BUILDING CODES
No buildings are planned for the site. Any structures proposed for the site, including the solar arrays, shall obtain applicable permits.

ENVIRONMENTAL HEALTH
The property is presently farmland. No wells, septic systems, or refuse collection points were identified.

STORMWATER
The proposed area of disturbance is slightly less than one (1) acre. The County requested that the Petitioner submit an escrow payment so that WBK can evaluate the proposal; the Petitioner agreed to this request.

On November 15, 2024, WBK submitted a letter (Attachment 19) with several comments and questions. On December 23, 2024, the Petitioner submitted a response including a revised site plan and revised stormwater information. The cover letter outlining the changes is included as Attachment 25. On December 30, 2024, WBK submitted a response letter (Attachment 26). On January 15, 2025, the Petitioner submitted an amendment site plan which incorporated the changes recommended by WBK and included two (2) basins requested by Kendall Township. They also submitted revised stormwater information (Attachment 8). The basins are shown on Attachment 5, Pages 4 and 5. The western basin has a depth of two point four feet (2.4') from the berm to the bottom of the basin. At the highest elevation, it has a surface area of forty-two thousand, five hundred thirty-five (42,535) square feet and will have a volume of forty-five thousand, three hundred nine (45,309) cubic feet. The eastern basin has a depth of one point eight (1.8') from the berm to the bottom of the basin. At the highest elevation, it has a surface area of thirty-nine thousand, seven hundred seventy-three (39,773) square feet and will have a volume of twenty-nine thousand, five hundred forty-six (29,546) cubic feet.

ACCESS
Per the site plan (See Attachment 5), the Petitioner proposes one (1) twenty foot (20') wide access road.

There is one (1) forty foot (40') wide vehicular access gate and approximately ten (10) four foot (4') access gates proposed around the perimeter of the property. The locations of the smaller gates have not been determined. Knox box information will be provided to the County.

PARKING AND INTERNAL TRAFFIC CIRCULATION
No permeant parking was proposed. There will be a staging area during construction; the specific location of the staging area was undetermined, but will likely be northwest of the vehicular access gate.

LIGHTING
No lighting was proposed.

SIGNAGE
No specific signage was planned. The Petitioner was agreeable to installing one (1) sign at the vehicular access gate stating emergency contact information.

GLARE
The Petitioner provided a glare study, see Attachment 10.

IMPACT ON PROPERTY VALUES
The Petitioner provided a general property values study, see Attachment 11. The same firm that prepared the property value study for this proposal also provided the property value study for the solar project on Simons Road. The differences between the two studies are included as Attachment 14.

ODORS
No odors were foreseen.

NOISE
The Petitioner provided noise information, see Attachment 15.

RELATION TO OTHER SPECIAL USES
If approved, this would be the second special use permit for a commercial solar energy facility in unincorporated Kendall County.

FINDINGS OF FACT-SPECIAL USE PERMIT
§ 36-119 of the Kendall County Code outlines findings that the Zoning Board of Appeals must make in order to recommend in favor of the applicant on special use permit applications. They are listed below in *italics.* Staff has provided findings in **bold** below based on the recommendation:

The establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. **The Project will generate clean, renewable electricity while producing no air, noise, or water pollution, or ground contamination. The front portion of the parcel closest to Ament Road will be retained for agricultural use as well as the surrounding land of the other parcel, which will create a natural screening during the growing season. The Petitioner submitted a vegetative management plan outlining the types of vegetation that will be planted, the timing of planting, and a maintenance plan for the vegetation.**

The special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use makes adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole. **The proposal will not interfere with the use and enjoyment of nearby properties. The surrounding properties are zoned primarily A-1 and will not be prevented from continuing any existing use or from pursuing future uses. The proposal's operations would be quiet and minimal traffic will occur after installation is completed. The solar panels are setback from Ament Road and neighboring houses to avoid negative visual impacts.**

Adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided. **The proposal will have adequate utility interconnections designed in collaboration with ComEd. The proposal does not require water, sewer, or any other public utility facilities to operate. The Petitioner will also build all roads and entrances at the facility and will enter into an agreement with Kendall Township regarding road use. After initial construction traffic, landscape maintenance and maintenance to the project components are anticipated to occur on an as-needed basis, consistent with the vegetative management plan. Existing traffic patterns will not be impacted in the post-construction operations phase. A drain tile survey will be completed prior to construction and foundation design will work around or reroute any identified drain tiles to ensure proper drainage.**

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 County Board pursuant to the recommendation of the Zoning Board of Appeals. **If the requested variance is granted, the proposal meets all applicable regulations.**

The special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies. **The proposal is also consistent with a goal and objective found on page 3-34 of the Land Resource Management Plan**, **"Support the public and private use of sustainable energy systems (examples include wind, solar, and geo-thermal)." However, the proposal is located on property classified as Rural Residential on the Future Land Use Map and the Kendall County Regional Planning Commission recommended denial of the proposal.**

FINDINGS OF FACT-VARIANCE
§36-39 of the Kendall County Code outlines findings that the Zoning Board of Appeals must make in order to grant variations. They are listed below in *italics.* Staff has provided findings in **bold** below based on the recommendation:

The particular physical surroundings, shape, or topographical condition of the specific property involved would

result in a particular hardship or practical difficulty upon the owner if the strict letter of the regulations were carried out. **The subject property is located within one point five (1.5) miles of the United City of Yorkville. The Petitioner provided a letter from the United City of Yorkville stating that Yorkville did not wish to annex the property or enter into a pre-annexation agreement.**

The conditions upon which the requested variation is based would not be applicable, generally, to other property within the same zoning classification. **Other A-1 zoned properties within one point five (1.5) miles of a municipality could request a similar variance, if the municipality refuses to annex or enter into a pre-annexation agreement.**

The alleged difficulty or hardship has not been created by any person presently having an interest in the property. **The difficulty was created because the United City of Yorkville did not wish to enter into a pre-annexation agreement or annex the property.**

The granting of the variation will not materially be detrimental to the public welfare or substantially injurious to other property or improvements in the neighborhood in which the property is located. **Granting the variance would not be detrimental to the public or substantially injurious to other properties.**

That the proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets or increase the danger of fire, or endanger the public safety or substantially diminish or impair property values within the neighborhood. **The proposed variance would not impair light or air on adjacent property, cause congestion, increase the danger of fire, or negatively impact property values.**

RECOMMENDATION
Given that the Kendall County Regional Planning Commission recommended denial of the proposal, Staff's recommendation is neutral because of lack of clarity in State law regarding using the LaSalle and Sinclar Factors in evaluating applications of special use permits for commercial solar facilities. Assuming that conditions can be imposed on the special use permit, the proposed conditions and restrictions are as follows:

1. The site shall be developed substantially in accordance with the submitted site plan (Attachment 5), vegetative management plan, (Attachment 6), decommissioning plan, (Attachment 7), road access plan (yet to be submitted), and Agricultural Impact Mitigation Agreement (Attachment 1, Pages 18-31).
2. A variance to section 36-282(17)(a) of the Kendall County Code is hereby granted allowing a commercial solar energy facility within one point five (1.5) miles of a municipality without an annexation or pre-annexation agreement. (**Added after ZPAC**).
3. Within ninety (90) days of the approval of the special use permit, the owners of the subject property shall dedicate a strip of land forty feet (40') in depth along the northern property line to Kendall Township. The Kendall County Planning, Building and Zoning Committee may grant an extension to this deadline.
4. None of the vehicles or equipment parked or stored on the subject property allowed by the special use permit shall be considered agricultural vehicles or agricultural equipment.
5. All of the vehicles and equipment stored on the subject property allowed by the special use permit shall be maintained in good condition with no deflated tires and shall be licensed if required by law.
6. Any structures, included solar arrays, constructed, installed, or used allowed by this special use permit shall not be considered for agricultural purposes and must secure applicable building permits.
7. One (1) warning sign shall be placed near or on the vehicular entrance gate. This sign shall include, at minimum, the address of the subject property and a twenty-four (24) hour emergency contact phone number. Additional signage may be installed, if required by applicable law.
8. KenCom and other applicable public safety agencies shall be supplied the access code to the Knox Box/security gate.
9. The operators of the use allowed by this special use permit acknowledge and agree to follow Kendall

County's Right to Farm Clause.

10. The property owner and operator of the use allowed by this special use permit shall follow all applicable Federal, State, and Local laws related to the operation of this type of use.

11. Failure to comply with one or more of the above conditions or restrictions could result in the amendment or revocation of the special use permit.

12. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid.

13. This special use permit and variance shall be treated as a covenant running with the land and is binding on the successors, heirs, and assigns as to the same special use conducted on the property.

ATTACHMENTS

1. Application Materials
2. Wetland Delineation Reports
3. NRI Report
4. Property Survey
5. Site Plan Dated January 15, 2025
6. Vegetative Management Plan
7. Decommissioning Information
8. Stormwater Management Memo Dated January 14, 2025
9. Drain Tile Information
10. Glare Study
11. Property Value Study
12. Right-of-Way Dedication Emails
13. November 5, 2024, ZPAC Meeting Minutes (This Petition Only)
14. Property Value Study Email
15. Noise Study
16. November 7, 2024, Letter from Janet Dhuse
17. November 22, 2024, Email from Kendall Township
18. December 3, 2024, Email and Letter from Nicholas Bellone and Tom Ryan
19. November 15, 2024, Letter from WBK Engineering
20. December 6, 2024, Email from Nicholas Bellone
21. December 17, 2024, Email from Kendall Township
22. January 9, 2025, Email from the United City of Yorkville
23. December 11, 2024, Kendall County Regional Planning Commission Meeting Minutes (This Petition Only)
24. December 16, 2024, Kendall County Zoning Board of Appeals Hearing Minutes (This Petition Only)
25. December 23, 2024, Stormwater Letter from New Leaf
26. December 30, 2024, Letter from WBK Engineering
27. January 21, 2025, Email from Kendall Township
28. January 22, 2025, Kendall County Regional Planning Commission Meeting Minutes (This Petition Only)

DEPARTMENT OF PLANNING, BUILDING & ZONING
111 West Fox Street • Yorkville, IL • 60560
(630) 553-4141 Fax (630) 553-4179

APPLICATION

PROJECT NAME AMENT ROAD SOLAR **FILE #:**_____

NAME OF APPLICANT (Including First, Middle Initial, and Last Name)
Ament Road Solar 1, LLC

CURRENT LANDOWNER/NAME(s)
Janet M. Dhuse as Trustee of the Janet Dhuse Declaration of Family Trust dated March 1, 2013

SITE INFORMATION ACRES	SITE ADDRESS OR LOCATION	ASSESSOR'S ID NUMBER (PIN)
95.3	Ament Road	05-16-300-006 05-17-400-005

EXISTING LAND USE	CURRENT ZONING	LAND CLASSIFICATION ON LRMP
Agriculture	A-1 Agricultural District	

REQUESTED ACTION (Check All That Apply):

- X SPECIAL USE
- ___ MAP AMENDMENT (Rezone to ____)
- ___ VARIANCE
- ____ ADMINISTRATIVE VARIANCE
- ___ A-1 CONDITIONAL USE for:_____
- ___ SITE PLAN REVIEW
- ___ TEXT AMENDMENT
- ___ PRELIMINARY PLAT
- ___ RPD (___Concept; ___ Preliminary; ___ Final)
- ___ FINAL PLAT
- ___ ADMINISTRATIVE APPEAL
- ___ OTHER PLAT (Vacation, Dedication, etc.)
- ___ AMENDMENT TO A SPECIAL USE (____Major; _____ Minor)

[1]PRIMARY CONTACT	PRIMARY CONTACT MAILING ADDRESS	PRIMARY CONTACT EMAIL
Nicholas S. Bellone	[redacted]	[redacted]
PRIMARY CONTACT PHONE #	**PRIMARY CONTACT FAX #**	**PRIMARY CONTACT OTHER #**(Cell, etc.)
[redacted]		

[2]ENGINEER CONTACT	ENGINEER MAILING ADDRESS	ENGINEER EMAIL
Michael Keith	[redacted]	[redacted]
ENGINEER PHONE #	**ENGINEER FAX #**	**ENGINEER OTHER #** (Cell, etc.)
[redacted]		

I UNDERSTAND THAT BY SIGNING THIS FORM, THAT THE PROPERTY IN QUESTION MAY BE VISITED BY COUNTY STAFF & BOARD/ COMMISSION MEMBERS THROUGHOUT THE PETITION PROCESS AND THAT THE PRIMARY CONTACT LISTED ABOVE WILL BE SUBJECT TO ALL CORRESPONDANCE ISSUED BY THE COUNTY.

I CERTIFY THAT THE INFORMATION AND EXHIBITS SUBMITTED ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I AM TO FILE THIS APPLICATION AND ACT ON BEHALF OF THE ABOVE SIGNATURES. **THE APPLICANT ATTESTS THAT THEY ARE FREE OF DEBT OR CURRENT ON ALL DEBTS OWED TO KENDALL COUNTY AS OF THE DATE OF THE APPLICATION.**

SIGNATURE OF APPLICANT [redacted] **DATE** 9/11/2024

FEE PAID:$_____
CHECK #:_____

[1]*Primary Contact will receive all correspondence from County*
[2]*Engineering Contact will receive all correspondence from the County's Engineering Consultants*

Date Stamp Here If
Checklist Is Complete

Please fill out the following findings of fact to the best of your capabilities. §13:08.J of the Zoning Ordinance outlines findings that the Zoning Board of Appeals shall consider in rendering a decision, but is not required to make an affirmative finding on all items in order to grant a **special use**. They are as follows:

That the establishment, maintenance, and operation of the special use will not be detrimental to, or endanger, the public health, safety, morals, comfort, or general welfare. This Solar facility will not be detrimental to the public. It will provide power to the grid and will be completely enclosed by a fence. The panels will not give off any energy, static, glare or harmful chemicals. The electrical equipment will be enclosed and securded to avoid any public access.

That the special use will not be substantially injurious to the use and enjoyment of other properties in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use shall make adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole.

The proposed site meets all county required setbacks and state required buffers. Fencing meets the county's required fencing height along with the national electric code for fencing around a solar facility. There is no proposed lighting. Building materials will meet all local, state and federal requirements. This site meets all Kendall County Zoning Oordinance requiremetns.

That adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided.

This site does not require the use of any public utilities (i.e. water or sewer). Access to the site will made via Ament Road. Majority of site related traffic generation will be made during construction. After the site is constructed, site access will be made for general monthly maintenance. This site does not propose increasing stormwater run-off. A culvert will be provided at the access for the road side ditch

That 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 County Board pursuant to the recommendation of the Zoning Board of Appeals This site meets all requirements in the Kendall County Zoning Oridance.

That the special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies.

This site is consistent with the purpose and objections fo the Land Resourse Manament Plan and other adopted County and municipal plans and policies.

DEPARTMENT OF PLANNING, BUILDING & ZONING
111 West Fox Street • Yorkville, IL • 60560
(630) 553-4141 Fax (630) 553-4179

APPLICATION

PROJECT NAME AMENT ROAD SOLAR **FILE #:**_____

NAME OF APPLICANT (Including First, Middle Initial, and Last Name)
Ament Road Solar 1, LLC

CURRENT LANDOWNER/NAME(s)
Janet M. Dhuse as Trustee of the Janet Dhuse Declaration of Family Trust dated March 1, 2013

SITE INFORMATION ACRES	SITE ADDRESS OR LOCATION	ASSESSOR'S ID NUMBER (PIN)
95.3	Ament Road	05-16-300-006 05-17-400-005

EXISTING LAND USE	CURRENT ZONING	LAND CLASSIFICATION ON LRMP
Agriculture	A-1 Agricultural District	

REQUESTED ACTION (Check All That Apply):

_____SPECIAL USE
___ MAP AMENDMENT (Rezone to ____)
X VARIANCE
____ADMINISTRATIVE VARIANCE
___ A-1 CONDITIONAL USE for:_____
___ SITE PLAN REVIEW
___ TEXT AMENDMENT
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___ OTHER PLAT (Vacation, Dedication, etc.)
___ AMENDMENT TO A SPECIAL USE (_____Major; _____ Minor)

[1]PRIMARY CONTACT	PRIMARY CONTACT MAILING ADDRESS	PRIMARY CONTACT EMAIL
Nicholas S. Bellone	[redacted]	[redacted]

PRIMARY CONTACT PHONE #	PRIMARY CONTACT FAX #	PRIMARY CONTACT OTHER #(Cell, etc.)
[redacted]		

[2]ENGINEER CONTACT	ENGINEER MAILING ADDRESS	ENGINEER EMAIL
Michael Keith	[redacted]	[redacted]

ENGINEER PHONE #	ENGINEER FAX #	ENGINEER OTHER # (Cell, etc.)
[redacted]		

I UNDERSTAND THAT BY SIGNING THIS FORM, THAT THE PROPERTY IN QUESTION MAY BE VISITED BY COUNTY STAFF & BOARD/ COMMISSION MEMBERS THROUGHOUT THE PETITION PROCESS AND THAT THE PRIMARY CONTACT LISTED ABOVE WILL BE SUBJECT TO ALL CORRESPONDANCE ISSUED BY THE COUNTY.

I CERTIFY THAT THE INFORMATION AND EXHIBITS SUBMITTED ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I AM TO FILE THIS APPLICATION AND ACT ON BEHALF OF THE ABOVE SIGNATURES. **THE APPLICANT ATTESTS THAT THEY ARE FREE OF DEBT OR CURRENT ON ALL DEBTS OWED TO KENDALL COUNTY AS OF THE APPLICATION DATE.**

SIGNATURE OF APPLICANT [redacted] **DATE** 10/17/2024

FEE PAID:$_____
CHECK #:_____

[1]*Primary Contact will receive all correspondence from County*
[2]*Engineering Contact will receive all correspondence from the County's Engineering Consultants*

Last Revised:
10.17.22

Date Stamp Here If Checklist Is Complete

Please fill out the following findings of fact to the best of your capabilities. § 13:04 of the Zoning Ordinance outlines findings that the Zoning Board of Appeals shall take into consideration the extent to which the following conditions have been established by the evidence:

See below for the findings of fact.

That the particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship or practical difficulty upon the owner if the strict letter of the regulations were carried out.

The City of Yorkville expressed to us via a letter that they would not like to annex or pre-annex this parcel. Therefore, if the current regulations were to be carried out we would not be able to have our petition heard.

That the conditions upon which the requested variation is based would not be applicable, generally, to other property within the same zoning classification.

The variation may not be applicable to properties within the same zoning classification if the City of Yorkville wanted to annex one of those specific parcels.

That the alleged difficulty or hardship has not been created by any person presently having an interest in the property.

Ament Road Solar 1, LLC is the first entity to apply for a Special Use Permit for a Solar Farm on this property.

That the granting of the variation will not materially be detrimental to the public welfare or substantially injurious to other property or improvements in the neighborhood in which the property is located.

The variation will not be detrimental to the public welfare or injurious to other properties. The variation will allow our petition to be heard by the board.

That the proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets or increase the danger of fire, or endanger the public safety or substantially diminish or impair property values within the neighborhood.

The variation will not impair light or air to adjacent properties, create congestion, risk of fire or endanger public welfare. The variation will allow our petition to be heard by the board.

DocuSign Envelope ID: 654446D0-ABAC-4EE7-BF10-2D264C5115B7

EXHIBIT F

Date: 9-12-22

To Whom It May Concern

New Leaf Energy and its employees and affiliates are hereby authorized to act as our agent for submission of applications and related plans and documents, and to appear before boards and other officials, with respect to obtaining approvals for solar installations and/or energy storage systems to be constructed on my property located at Ament Rd in Yorkville, Kendall County, IL 60560 {Parcel: 05-16-300-006}.

Sincerely,

[redacted]

Janet Dhuse

ATWELL

AMENT ROAD

PROJECT NARRATIVE

Ament Road, Kendall County, IL

Job No. 23002398

Prepared for:

New Leaf Energy

[redacted]

Prepared by:

Atwell, LLC

[redacted]

September 12, 2024

ATWELL

AMENT ROAD

PROJECT NARRATIVE

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B. AGRICULTURAL IMPACT MITIGATION AGREEMENT (AIMA)

1.0 INTRODUCTION

New Leaf Energy, Inc. (New Leaf) is requesting a Special Use Permit (SUP) to allow for development of a 5 MW AC community solar farm on two parcels of land in Kendall County, Illinois with the parcel numbers (PIN) of 05-16-300-006 and 05-17-400-005. The project encompasses an approximate 39.34-acre portion of the total 95.3 acres. The parcels are zoned Agricultural District (A-1). Per Kendall County Code, *Section 7:01.D.17*, construction and operation of Commercial Solar Energy Facilities are permitted in the Agricultural District by Special Use Permit. Once constructed, the solar farm will fit well within the surrounding low-density agricultural uses, and the property will not be occupied more than 3 or 4 times per year for maintenance. The residual acreage will continue to be maintained by the property owners and may continue to be farmed if the property owners choose to do so. New Leaf is requesting a Special Use Permit to allow for the Commercial Solar Energy Facility use.

To assist in the review of this Special Use Permit request, a SUP Set of plans is included with the SUP Application packet, which illustrates the proposed solar farm use and site improvements. This report will outline how this project meets all standards, requirements, and factors for consideration that Kendall County has set forth.

2.0 APPROVAL STANDARDS FOR SPECIAL USE PERMITS

Per the Kendall County Zoning Ordinance, *Section 13:08.J*, "no special use shall be recommended by the ZBA unless said ZBA shall make a written finding. The ZBA shall consider the following in rendering a decision but is not required to make an affirmative finding on all items."

2.1 STANDARD 1

That the establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare.

- The proposed solar facility will be located near the southwest corner of the two parcels to reduce the visual impacts to nearby residents. The front portion of the parcel closest to Ament Road will be retained for agricultural use as well as the surrounding land of the other parcel, which will create a natural screening during the growing season.

2.2 STANDARD 2

That the special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The

Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use shall make adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole.

- The proposed solar facility is a quiet neighbor and a low-impact use. The project will have no on-site employees once built. Thus, the project will not add to any neighborhood traffic. The system is located near the rear of the property, away from public rights-of-way. The nearest component of the proposed solar facility is 1,434' from adjacent residences and 1,442' from public rights-of-way.

2.3 STANDARD 3

That adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided.

- The proposed solar facility does not require access to traditional utilities such as natural gas, water, or sanitary sewer. The routing of electrical infrastructure is required to connect to the ComEd electric system as shown on the SUP plan set. The solar farm will not require additional public expense for fire protection, rescue, or relief.
- During the initial construction timeframe of approximately 4 to 6 months, there will be a mix of trucks ranging from semi-trucks for panel and racking delivery, flatbed trucks for fencing, dump trucks for driveway gravel, and various delivery trucks – averaging 2-3 per day. Many of the major materials/suppliers travel from across the area and their arrival times are fluid. Temporary, on-site locations for truck staging will be proposed on site. Access to the site will be available each day during the work hours of 7:30am and 5:00pm. Any truck that will not be off-loaded will not be allowed to idle for more than five minutes. "No Idling" signs will be placed at appropriate locations. In addition to material and equipment deliveries, workers will be arriving at the site each weekday using personal vehicles. For similar projects of this scale, approximately 40 personal vehicles may be on site at one time. These vehicles will arrive each day in the morning and leave in the afternoon. The total number of vehicles on site will fluctuate depending on the phase of the project.
- Once construction is complete, there will be little to no traffic to or from the site other than occasional maintenance visits 3 to 4 times per year.

2.4 STANDARD 4

That 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 County Board pursuant to the recommendation of the Zoning Board of Appeals.

- The proposed solar facility is located on parcels in the Agricultural District. The solar farm is designed to comply with the applicable regulations set forth in the Kendall County Zoning Code, Section 7:01 *Agricultural District*.

2.5 STANDARD 5

That the special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies.

- The proposed solar facility will follow all applicable requirements of the Land Resource Management Plan and any other adopted County or municipal plans/policies.

3.0 DEVELOPMENT REQUIREMENTS

3.1 PROXIMITY TO MUNICIPALITY

All commercial solar energy facilities and test solar energy systems located within one point five (1.5) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property.

- The project site is located outside of the 1.5-mile radius from the City of Yorkville. Per the letter provided in **Appendix A** dated August 27, 2024, the City of Yorkville notified Kendall County that the City does not currently seek to annex the project parcels or enter into a pre-annexation agreement with the landowner and developer of these properties.

3.2 SETBACKS

The setbacks for commercial solar energy facilities shall be measured from the nearest edge of any component of the facility as follows:

	REQUIRED	PROVIDED
Occupied Community Buildings or Dwellings on Nonparticipating Properties	150' from the nearest point on the outside wall of the structure	1,434'
Boundary Lines of Participating Properties	None	N/A
Boundary Lines of Nonparticipating Properties	50' to the nearest point on the property line of the nonparticipating property	50'
Public Road Rights-of-Way	50' from the nearest edge	1,442'

3.3 HEIGHT

No component of a solar panel as part of a commercial solar energy facility shall have a height of more than twenty feet (20') above ground when the solar energy facility's arrays are at full tilt.

- Photovoltaic solar panel arrays are currently planned at approximately 9 feet in height with trackers/racking/string inverters. If other module configurations are considered in the future, the maximum height would be less than 20 feet. The racking system is to be installed via posts or augured screws. On-site power lines will be placed underground to the maximum extent possible until the point of interconnection.

3.4 FENCING

A commercial solar energy facility's perimeter shall be enclosed by fencing having a height of at least six feet (6') and no more than twenty-five feet (25').

- The solar facility will be enclosed by a National Electric Code-compliant perimeter security fence that is 7 feet high and includes a KnoxBox and keys provided to the County. The proposed fencing will secure all four sides of the array field. Refer to the SUP plan set, Sheet C-5.0, for additional information on the proposed perimeter fence.

3.5 VEGETATIVE GROUND COVER

A commercial solar energy facility owner shall plant, establish, and maintain for the life of the facility vegetative ground cover consistent with State law and the guidelines of the Illinois Department of Natural Resources' vegetative management plans. The vegetation management plan shall be required at the time of application submittal.

- The project area will be planted with native pollinator friendly prairie seed mixes. Refer to the SUP plan set, Sheet C-6.0, for additional information on seeding of the project area. A vegetation management plan will be provided with final engineering documents for construction permits.

3.6 LANDSCAPE SCREENING

A vegetative screening shall be placed around the commercial solar energy facility.

- The solar facility is located 1,434 feet away from the closest nonparticipating residence. Any existing vegetation on the property boundaries will be protected during construction and operation of the facility. Refer to the SUP plan set for additional information on the location of existing vegetation in relation to the solar facility components.

3.7 AGRICULTURAL IMPACT MITIGATION AGREEMENT

The County shall not require standards for construction, decommissioning, or

deconstruction of a commercial solar energy system or related financial assurances to be more restrictive than agricultural impact mitigation agreement set in State law… A copy of the agricultural impact mitigation agreement shall be submitted with application materials.

- An Agricultural Impact Mitigation Agreement (AIMA) with the Illinois Department of Agriculture is provided in **Appendix B**.

3.8 ROAD USE AGREEMENT

The facility owner shall enter into a road use agreement with the jurisdiction having control over the applicable roads. The road use agreement shall follow applicable law. The facility owner shall supply the Kendall County PBZ Department with a copy of the road use agreement. This provision shall be waived if the jurisdiction having control over the applicable roads does not wish to enter into an agreement.

- The proposed access road is off Ament Road. It is understood that an executed road use agreement between the applicable road jurisdictions and the applicant will be provided with final engineering plans.

4.0 SPECIAL USE APPLICATION CHECKLIST

4.1 APPLICATION FORM

A completed and signed application form is included in the SUP application packet.

4.2 APPLICATION FEE

The Special Use Permit application fee of $1,155 will be provided with the SUP application packet.

4.3 DETAILED DESCRIPTION OF PROPOSED USE

This narrative contains all information required in this checklist item and is part of the SUP application packet.

4.4 LEGAL DESCRIPTION OF PROPERTY INVOLVED

This document is included in the SUP application packet.

4.5 PROOF OF OWNERSHIP

This document is included in the SUP application packet.

4.6 BENEFICIARY DISCLOSURE STATEMENT, IF HELD IN TRUST

This document is included in the SUP application packet.

4.7 PROOF OF APPLICATION TO SWCD FOR NRI

The letter confirming receipt of the Natural Resources Inventory (NRI) report from the Soil & Water Conservation District (SWCD) is included in the SUP application packet.

4.8 **ENDANGERED SPECIAL CONSULTATION REPORT**
This document is included in the SUP application packet.

4.9 **SPECIAL USE FINDINGS OF FACT**
This document is included in the SUP application packet.

4.10 **ENGINEERING CONSULTANTS FEE DEPOSIT FORM**
This document is included in the SUP application packet.

4.11 **PLAT OF SURVEY**
There will be **15 copies** of the plat of survey signed with the Surveyor's seal provided in the SUP application packet.

4.12 **SITE PLAN**
There will be **15 copies** of the SUP plan set provided in the SUP application packet.

4.13 **SITE DATA**
All required site data is provided on the SUP plan set in the SUP application packet.

4.14 **PHOTOMETRIC PLAN**
There are no lights proposed with this project.

4.15 **LANDSCAPE PLAN**
There will be **2 copies** of the landscape plan, Sheet C-6.0, included in the SUP application packet. There are no trees proposed with the project, only pollinator friendly seed mixes.

4.16 **PHASING PLAN**
A phasing plan is not applicable to this project.

4.17 **BUILDING ELEVATIONS**
Building elevation sheets are not applicable to this project.

4.18 **SUPPLEMENTAL INFORMATION**
A wetland delineation report and stormwater memorandum are included in the SUP application packet.

APPENDIX A

LETTER FROM CITY OF YORKVILLE RE: ANNEXATION

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

August 27, 2024

Matthew H. Asselmeier, AICP, CFM (VIA E-MAIL: masselmeier@kendallcountyil.gov)
Kendall County
Planning, Building & Zoning
111 West Fox Street
Yorkville, Illinois 60560

RE: Ament Road Solar // PINS: 05-16-300-006 & 05-17-400-005

Dear Mr. Asselmeier,

Section 7:01(D)(17)(a) of the Kendall County Zoning Ordinance states as follows:

> 17. Commercial Solar Energy Facility and Test Solar Energy Systems subject to the following conditions (Amended 5/16/23): a. All commercial solar energy facilities and test solar energy systems located within one point five (1.5) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property.

Please let this letter serve as the City of Yorkville's ("City") notice to Kendall County that the City does not currently seek to annex the above-referenced property or to enter into a pre-annexation agreement with the landowner and developer of this property.

[redacted]
Krysti J. Barksdale-Noble, AICP
Community Development Director

Cc: Kathleen F. Orr, City Attorney kfo@ottosenlaw.com
Bart Olson, City Administrator BOlson@yorkville.il.us
Tom Ryan tryan@newleafenergy.com
Nicholas Sandiford nstandiford@schainbanks.com

APPENDIX B

AGRICULTURAL IMPACT MITIGATION AGREEMENT (AIMA)

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT
between
Ament Solar 1, 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).

Ament Solar 1, LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 4.99MW Commercial Solar Energy Facility in Kendall County [GPS Coordinates: 41.591540, -88.443737], 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 Ament Solar 1, 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

[redacted]

By: Jerry Costello II, Director

[redacted]

By Clay Nordsiek, Deputy General Counsel

801 E. Sangamon Avenue,
State Fairgrounds, POB 19281
Springfield, IL 62794-9281

7/19, 2024

Ament Solar 1, LLC

[redacted]

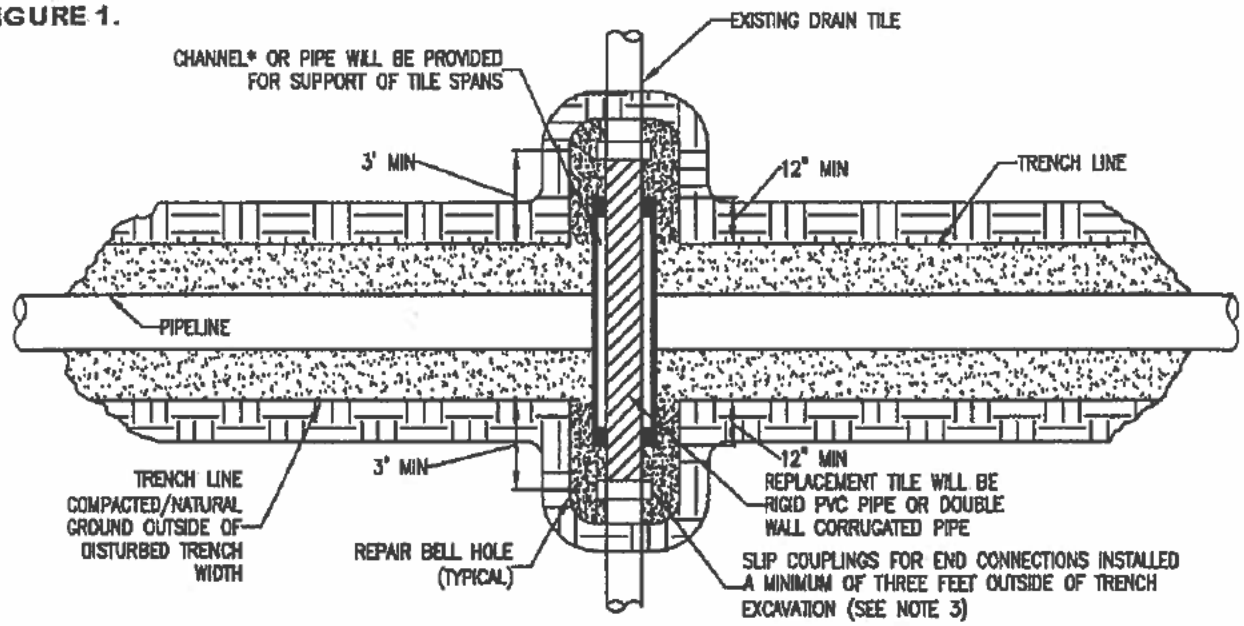
By Nicholas Bellone

[redacted]

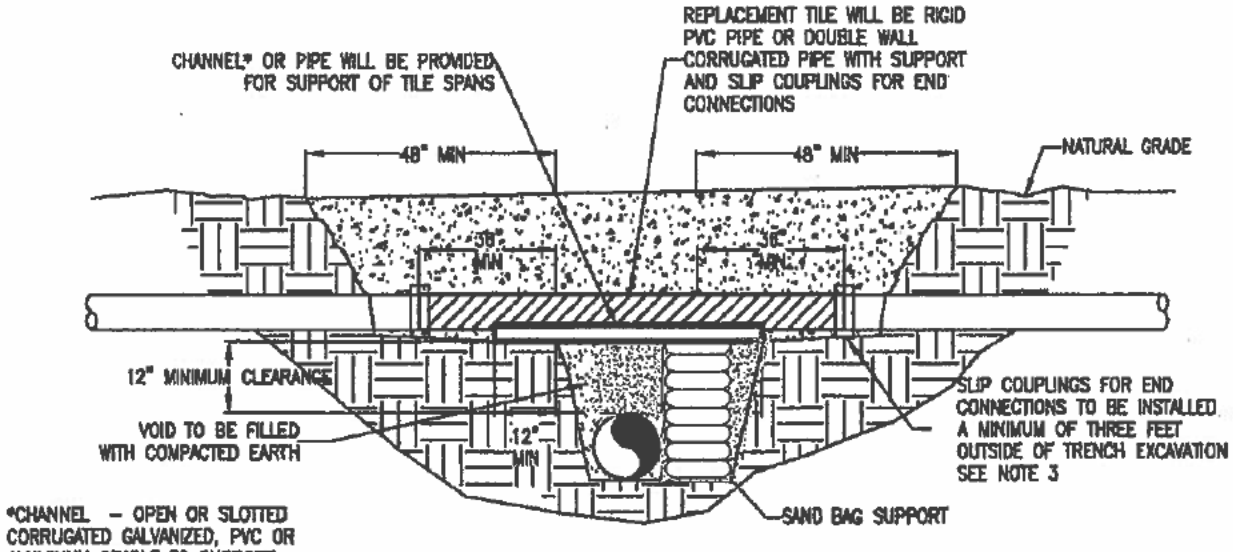
Address

July 16, 2024

FIGURE 1.



PLAN
N.T.S.



*CHANNEL – OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

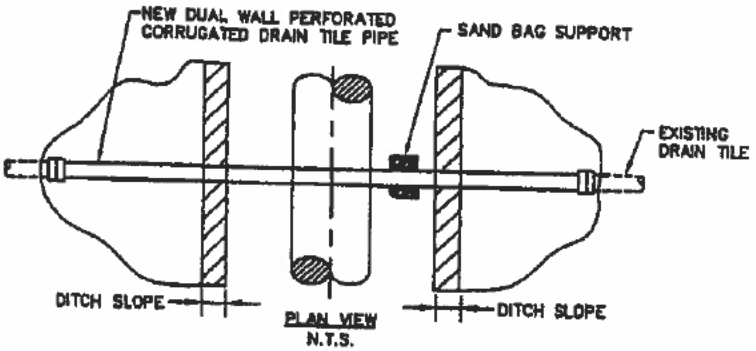
CROSS SECTION
N.T.S.

NOTE:

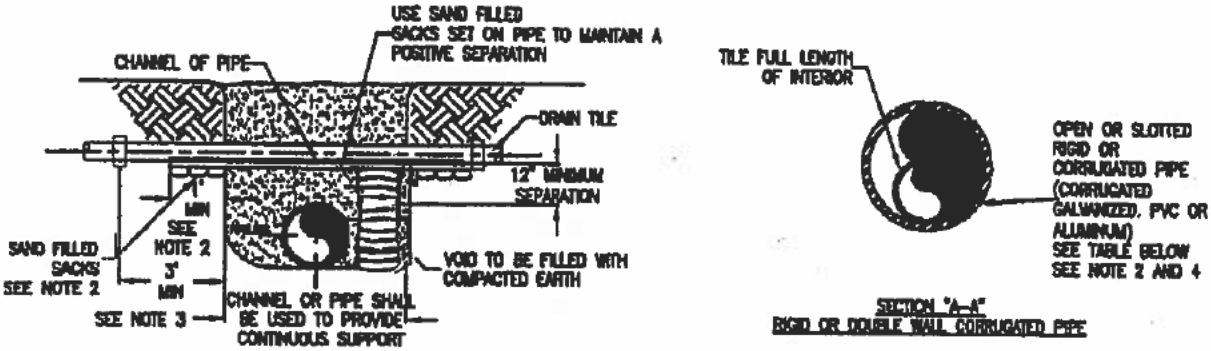
1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE 'NIGHT CAP' SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.
2. CHANNEL OR 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

SCHEDULE A - EXHIBIT A

Parcel 1:
Parcel ID No.: 05-16-300-006

58.0 acres, more or less, being out of Section 16, Township 36 North, Range 7 East of the Third Principal Meridian, Kendall County, Illinois, and being a part of that certain 93.4 acres, more or less, of land, and said 58.0 acres being all of the 93.4 acres, more or less, that lies within the lateral boundaries of said Section 16, Township 36 North, Range 7 East of the Third Principal Meridian, Kendall County, Illinois, more particularly described as follows:

The Southerly 93.4 acres, more or less, of the following described parcels 1 and 2, said acreage lying South of a line being the center of Ament Road:

Parcel One
That part of the Southwest Quarter of the Southwest Quarter of Section 16 and part of the Southeast Quarter of the Southeast Quarter of Section 17, Township 36 North, Range 7 East of the Third Principal Meridian described as follows: Commencing at the Northwest Corner of the Southwest Quarter of said Section 16; thence due East along the North line of said Southwest Quarter, 665.69 feet to the West line of the East 10.04 chains of the West half of the West half of said Section 16; thence South 0° 30' 2" West along said West line 1485.28 feet to a line drawn parallel with and 1155 feet North of, as measured along the East line of the Southwest Quarter of said Southwest Quarter the South line of said Southwest Quarter for the point of beginning; thence South 89° 50' 27" East along said parallel line 662.63 feet to the East line of said Quarter Quarter; thence South 0° 30' 2" West along said East line 1155 feet to the Southeast Corner of said Quarter Quarter; thence North 89° 50' 27" West along the South line of .said Quarter Quarter 1330.09 feet to the Southwest Corner thereof; thence North 89° 46' 8" West along the South line of the Southeast Quarter of said Section 17, 188.76 feet; thence North 0° 32' 21" East parallel with the East line of said Southeast Quarter, 1155 feet; thence Easterly to the point of beginning in the Township of Kendall, Kendall County, Illinois.

Parcel Two
That part of the West half of Section 16 and part of the East half of Section 17, Township 36 North, Range 7 East of the Third Principal Meridian, described as follows: Commencing at the Southeast corner of said Section 17; thence North 89° 46' 8" West along the South line of said Section 17, 188.76 feet; thence North 0° 32' 21" East parallel with the East line of said Section 17, 1155 feet for the point of beginning; thence North 89° 46' 8" West parallel with the South line of said Section 17, 758.94 feet; thence North 0° 30' 2" East parallel with the West line of the East 10.04 chains of the West half of the West half of said Section 16, 2285.72 feet; thence South 89° 29' 58" East 128.7 feet; thence North 0º 30' 2" East parallel with the West line of the East 10.04 chains of the West half of the West half of Section 16, 1188 feet; thence South 89° 29' 58" East 1485.66 feet to the West line of the East 10.04 chains of the West half of the West half of said Section 16; thence South 0º 30' 2" West along said West line 3465.28 feet to a line drawn parallel with and 1155 feet North of the South line of the Southwest Quarter of the Southwest Quarter of said Section 16, as measured along the East line of said Quarter Quarter; thence Westerly to the point of beginning; Excepting therefrom the following: That part of the Northeast Quarter of Section 17, Township 36 North, Range 7 East of the Third Principal Meridian, described as follows: Commencing at the Southeast corner of said Northeast Quarter; thence Northerly along the East line of said Northeast Quarter, 4.13 feet to the center line of Ament Road; thence Westerly along said center line, 65.0 feet for the point of beginning; thence Westerly along said center line, 220.0 feet; thence Northerly at right angles to said center line, 348.0 feet; thence Easterly parallel with said center line, 220.0 feet; thence Southerly at right angles to the last described course, 348.0 feet to the point of beginning, in Kendall Township, Kendall County, Illinois; AND that part of the Southwest Quarter of Section 16, Township 36 North, Range 7 East of the Third Principal Meridian described as follows: Commencing at the Northwest corner of said Southwest Quarter; thence Easterly along the North line of said Southwest Quarter, 658.60 feet for the point of beginning; thence Southerly along the line of a fence which forms an angle of 89° 13' 17" with the last described course (measured counter-clockwise therefrom) 255.63 feet; thence Easterly parallel with said North line to the West line of the Easterly 10.04 chains of the West Half of said Southwest Quarter; thence Northerly along said West line to said North line; thence Westerly along said North line to the point of beginning, all in the Township of Kendall, Kendall County, Illinois.

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Parcel 2:
Parcel ID No.: 05-17-400-005

35.4 acres, more or less, being out of Section 17, Township 36 North, Range 7 East of the Third Principal Meridian, Kendall County, Illinois, and being a part of that certain 93.4 acres, more or less, of land, and said 35.4 acres being all of the 93.4 acres, more or less, that lies within the lateral boundaries of said Section 17, Township 36 North, Range 7 East of the Third Principal Meridian, Kendall County, Illinois, more particularly described as follows:

The Southerly 93.4 acres, more or less, of the following described Parcels1 and 2, said acreage lying South of a line being the center of Ament Road:

Parcel One
That part of the Southwest Quarter of the Southwest Quarter of Section 16 and part of the Southeast Quarter of the Southeast Quarter of Section 17, Township 36 North, Range 7 East of the Third Principal Meridian described as follows: Commencing at the Northwest corner of the Southwest Quarter of said Section 16; thence due East along the North line of said Southwest Quarter, 665.69 feet to the West line of the East 10.04 chains of the West half of the West half of said Section 16; thence South 0° 30' 2" West along said West line 1485.28 feet to a line drawn parallel with and 1155 feet North of, as measured along the East line of the Southwest Quarter of said Southwest Quarter the South line of said Southwest Quarter for the point of beginning; thence South 89° 50' 27" East along said parallel line 662.63 feet to the East line of said Quarter Quarter; thence South 0° 30' 2" West along said East line 1155 feet to the Southeast corner of said Quarter Quarter; thence North 89° 50' 27" West along the South line of said Quarter Quarter 1330.09 feet to the Southwest corner thereof; thence North 89° 46' 8" West along the South line of the Southeast Quarter of said Section 17, 188.76 feet; thence North 0° 32' 21" East parallel with the East line of said Southeast Quarter, 1155 feet; thence Easterly to the point of beginning in the Township of Kendall, Kendall County, Illinois.

Parcel Two
That part of the West half of Section 16 and part of the East half of Section 17, Township 36 North, Range 7 East of the Third Principal Meridian, described as follows: Commencing at the Southeast corner of said Section 17; thence North 89° 46' 8" West along the South line of said Section 17, 188.76 feet; thence North 0° 32' 21" East parallel with the East line of said Section 17, 1155 feet for the point of beginning; thence North 89° 46' 8" West parallel with the South line of said Section 17, 758.94 feet; thence North 0° 30 '2" East parallel with the West line of the East 10.04 chains of the West half of the West half of said Section 16, 2285.72 feet; thence South 89° 29' 8" East 128.7 feet; thence North 0° 30' 2" East parallel with the West line of the East 10.04 chains of the West half of the West half of Section 16, 1188 feet; thence South 89° 29' 58" East 1485.66 feet to the West line of the East 10.04 chains of the West half of the West half of said Section 16; thence South 0° 30' 2" West along said West line 3465.28 feet to a line drawn parallel with and1155 feet North of the South line of the Southwest Quarter of the Southwest Quarter of said Section 16, as measured along the East line of said Quarter Quarter; thence Westerly to the point of beginning; excepting therefrom the following: That part of the Northeast Quarter of Section 17, Township 36 North, Range 7 East of the Third Principal Meridian, described as follows: Commencing at the Southeast corner of said Northeast Quarter; thence Northerly along the East line of said Northeast Quarter, 4.13 feet to the center line of Ament Road; thence Westerly along said center line, 65.0 feet for the point of beginning; thence Westerly along said center line, 220.0 feet; thence Northerly at right angles to said center line, 348.0 feet; thence Easterly parallel with said centerline, 220.0 feet; thence Southerly at right angles to the last described course, 348.0 feet to the point of beginning, in Kendall Township, Kendall County, Illinois; AND that part of the Southwest Quarter of Section 16,Township 36 North, Range 7 East of the Third Principal Meridian described as follows: Commencing at the Northwest corner of said Southwest Quarter; thence Easterly along the North line of said Southwest Quarter, 658.60 feet for the point of beginning; thence Southerly along the line of a fence which forms an angle of 89° 13' 17" with the last described course (measured counter-clockwise therefrom) 255.63 feet; thence Easterly parallel with said North line to the West line of the Easterly 10.04 chains of the West Half of said Southwest quarter; thence Northerly along said West line to said North line; thence Westerly along said North line to the point of beginning ,all in the Township of Kendall, Kendall County, Illinois.

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QUIT CLAIM DEED
Statutory (ILLINOIS)

201300005788

DEBBIE
GILLETTE
KENDALL COUNTY, IL

RECORDED: 3/15/2013 11:52 AM
QCD: 50.00 RHSPS FEE: 10.00
PAGES: 5

THE GRANTOR Janet Dhuse
of the [redacted]n
the [redacted]d State
[redacted]or and in consideration
of Ten and No/100 Dollars in hand paid
CONVEYS and QUIT CLAIMS to

Janet Dhuse as trustee of The Janet Dhuse Family Trust,
Declaration of Trust dated March 1, 2013
[redacted]

Any and all interest she may have in the following described real estate, situated in the County of Kendall in the State of Illinois, to-wit

SEE ATTACHED

Hereby releasing and waiving all rights under and by virtue of the Homestead Exemption Laws of the State of Illinois

This transaction exempt under the provisions of Paragraph 35 ILCS 200/31-45(e) of the Real Estate Transfer Tax Law

DATE 3-1-2013 [redacted]
LEGAL REPRESENTATIVE

Permanent Real Estate Index Number(s) 05-16-300-006 and 05-17-400-005

Address(es) of Real Estate Rural Route, Ament Road, Yorkville, Illinois 60560

DATED this 1st day of March, 2013

[redacted] (SEAL)
JANET DHUSE

5

QUIT CLAIM DEED
Statutory (ILLINOIS)

State of Illinois, County of Kendall SS I the undersigned, a Notary Public in and for said County, in the State aforesaid, DO HEREBY CERTIFY that JANET DHUSE

Personally known to me to be the same person whose name subscribed to the foregoing instrument, appeared before me this day in person, and acknowledged that she signed, sealed and delivered the instrument as her free and voluntary act, for the uses and purposes therein set forth, including the release and waiver of the right of homestead

Given under my hand and official seal this 1st day of March, 2013

Commission expires 7-28, 2014

[redacted]
NOTARY PUBLIC

"OFFICIAL SEAL"
PAM MONKEMEYER
[redacted]F ILLINOIS
[redacted]S 7/28/2014

This instrument was prepared by Joseph R Voiland, [redacted]

Mail to

Joseph R Voiland
[redacted]

Send Subsequent Tax Bills to

Janet Dhuse
[redacted]

Recorder's Office Box No _____

RIDER

Legal Description

The Southerly 93 4 acres of the following described parcels 1 and 2, said acreage lying South of a line being the center of Ament Road

PARCEL 1

That part of the Southwest quarter of the Southwest quarter of Section 16 and part of the Southeast quarter of the Southeast quarter of Section 17, Township 36 North, Range 7, East of the Third Principal Meridian, described as follows: Commencing at the Northwest corner of the Southwest quarter of said Section 16; thence due East along the North line of said Southwest quarter, 665.69 feet to the West line of the East 10.04 chains of the West half of the West half of said Section 16, thence South 0°30'2" West along said West line 1485 28 feet to a line drawn parallel with and 1155 feet North of, as measured along the East line of the Southwest quarter of said Southwest quarter the South line of said Southwest quarter for the point of beginning; thence South 89°50'27" East along said parallel line 662 63 feet to the East line of said quarter quarter, thence South 0°30'2" West along said East line 1155 feet to the Southeast corner of said quarter quarter; thence North 89°50'27" West along the South line of said quarter quarter 1330.09 feet to the Southwest corner thereof, thence North 89°46'8" West along the South line of the Southeast quarter of said Section 17, 188 76 feet, thence North 0°32'21" East parallel with the East line of said Southeast quarter, 1155 feet, thence Easterly to the point of beginning, in the Township of Kendall, Kendall County, Illinois,

PARCEL 2

That part of the West 1/2 of Section 16 and part of the East 1/2 of Section 17, Township 36 North, Range 7 East of the Third Principal Meridian, described as follows Commencing at the Southeast corner of said Section 17, thence North 89°46'8" West along the South line of said Section 17, 188 76 feet, thence North 0°32'21" East parallel with the East line of said Section 17, 1155 feet for the point of beginning; thence North 89°46'8" West parallel with the South line of said Section 17, 758.94 feet; thence North 0°30'2" East parallel with the West line of the East 10.04 chains of the West 1/2 of the West 1/2 of said Section 16, 2285 72 feet, thence South 89°29'58" East 128.7 feet, thence North 0°30'2" East parallel with the West line of the East 10.04 chains of the West 1/2 of the West 1/2 of Section 16, 1188 feet, thence South 89°29'58" East 1485 66 feet to the West line of the East 10 04 chains of the West 1/2 of the West 1/2 of said Section 16; thence South 0°30'2" West along said West line 3465.28 feet to a line drawn parallel with and 1155 feet North of the South line of the Southwest quarter of the Southwest quarter of said Section 16, as measured along the East line of said quarter quarter; thence Westerly to the point of beginning, excepting therefrom the following· That part of the North East 1/4 of Section 17, Township 36 North, Range 7 East of the Third Principal Meridian, described as follows: Commencing at the South East corner of said North East 1/4; thence Northerly along the East line of said North East 1/4, 4 13 feet to the center line of Ament Road, thence Westerly along said center line, 65.0 feet for the point of

beginning, thence Westerly along said center line, 220 0 feet; thence Northerly at right angles to said center line, 348 0 feet, thence Easterly parallel with said center line, 220.0 feet; thence Southerly at right angles to the last described course, 348 0 feet to the point of beginning, in Kendall Township, Kendall County, Illinois, AND that part of the Southwest Quarter of Section 16, Township 36 North, Range 7 East of the Third Principal Meridian described as follows: Commencing at the Northwest corner of said Southwest Quarter, thence Easterly along the North line of said Southwest Quarter, 658.60 feet for the point of beginning; thence Southerly along the line of a fence which forms an angle of 89°13'17" with the last described course (measured counter-clockwise therefrom) 255 63 feet; thence Easterly parallel with said North line to the West line of the Easterly 10.04 chains of the West Half of said Southwest Quarter; thence Northerly along said West line to said North line; thence Westerly along said North line to the point of beginning, all in Kendall Township, Kendall County, Illinois.

PLAT ACT AFFIDAVIT – METES AND BOUNDS DESCRIPTION

STATE OF ILLINOIS)
) ss
COUNTY OF KENDALL)

Joseph R. Voiland, being duly sworn on oath, states that he resides at [redacted]

And further states that (please check the appropriate box)

A [X] That the attached deed is not in violation of 765 ILCS 205/1(a), in that the sale or exchange is of an entire tract of land not being a part of a larger tract of land, or

B [ ] That the attached deed is not in violation of 765 ILCS 205/1(b) for one of the following reasons (please circle the appropriate number)

1. The division or subdivision of land into parcels or tracts of 5 acres or more in size which does not involve any new streets or easements of access,
2. The division of lots or blocks of less than 1 acre in any recorded subdivision which does not involve any new streets or easements of access,
3. The sale or exchange of parcels of land between owners of adjoining and contiguous land,
4. The conveyance of parcels of land or interests therein for use as right of way for railroads or other public utility facilities and other pipe lines which does not involve any new streets or easements of access,
5. The conveyance of land owned by a railroad or other public utility which does not involve any new streets or easements of access,
6. The conveyance of land for highway or other public purposes or grants or conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use,
7. Conveyances made to correct descriptions in prior conveyances,
8. The sale or exchange of parcels or tracts of land following the division into no more than 2 parts of a particular parcel or tract of land existing on July 17, 1959 and not involving any new streets or easements of access,
9. The sale is of a single lot of less than 5 acres from a larger tract when a survey is made by an Illinois Registered Land Surveyor, provided, that this exemption shall not apply to the sale of any subsequent lots from the same larger tract of land, as determined by the dimensions and configuration of the larger tract on October 1, 1973, and provided also that this exemption does not invalidate any local requirements applicable to the subdivision of land,
10. This conveyance is of land described in the same manner as title was taken by grantor(s)

AFFIANT further states the he makes this affidavit for the purpose of inducing the Recorder of Kendall County, Illinois, to accept the attached deed for recording.

[redacted]
Signature of Affiant

SUBSCRIBED AND SWORN TO BEFORE ME
THIS 8th DAY OF March, 2013

[redacted]
Notary Public

"OFFICIAL SEAL"
PAM MONKEMEYER
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 7/28/2014

KENDALL COUNTY
DISCLOSURE OF BENEFICIARIES FORM

1. Applicant Ament Solar 1, LLC

Address [redacted]

City [redacted] State [redacted] Zip [redacted]

2. Nature of Benefit Sought _____

3. Nature of Applicant: (Please check one)
   - ___ Natural Person (a)
   - ___ Corporation (b)
   - ___ Land Trust/Trustee (c)
   - ___ Trust/Trustee (d)
   - ___ Partnership (e)
   - ___ Joint Venture (f)

4. If applicant is an entity other than described in Section 3, briefly state the nature and characteristics of the applicant:

   Limited Liability Corporation

5. If your answer to Section 3 you have checked letter b, c, d, e, or f, identify by name and address each person or entity who is a 5% shareholder in case of a corporation, a beneficiary in the case of a trust or land trust, a joint venture in the case of a joint venture, or who otherwise has proprietary interest, interest in profits and losses or right to control such entity:

NAME	ADDRESS	INTEREST
1115 Solar Development	[redacted]	100%

6. Name, address, and capacity of person making this disclosure on behalf of the applicant:

   Sarah Wochos, Vice President, [redacted]

VERIFICATION

I, Sarah Wochos, being first duly sworn under oath that I am the person making this disclosure on behalf of the applicant, that I am duly authorized to make the disclosure, that I have read the above and foregoing Disclosure of Beneficiaries, and that the statements contained therein are true in both substance and fact> [redacted] Sept. 12, 2024

Subscribed and sworn to before me this 12 day of September, A.D. 2024

(seal) [redacted]

Notary Public

THOMAS RYAN
OFFICIAL SEAL
Notary Public, State of Illinois
My Commission Expires
December 30, 2026

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COVER SHEET

OPTION AND LEASE AGREEMENT

Effective Date	9/12/2022
Lease Commencement Date	[*To be completed on the date the option is exercised*]
Lessor	Janet Dhuse
Lessee	312 Solar Development, LLC
Property Address	Ament Rd in Yorkville, Kendall County, IL 60560 [redacted]
Option Payment	[redacted]
First Additional Option Payment	[redacted]
Second Additional Option Payment	[redacted]
Rent	[redacted]
Lease Term	The term commencing on the date of delivery of the Exercise Notice and ending on the Expiration Date, subject to Lessee's option to extend the Lease Term for up to four (4) additional and successive periods of five (5) years each.
Expiration Date	The date that is twenty (20) years from the Commercial Operation Date, as may be extended pursuant to this Agreement.
Addresses for Notices	Lessee: 312 Solar Development, LLC [redacted] Attn: EVP Project Finance With a copy to: [redacted] Lessor: Janet Dhuse [redacted]

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OPTION AND LEASE AGREEMENT

This Option and Lease Agreement (this "***Agreement***") is dated as of the Effective Date and is entered into by and between Lessor and Lessee (each a "***Party***" and together, the "***Parties***").

RECITALS

A. Lessor owns the real property, together with any rights, benefits and easements appurtenant to such real property more particularly described in the attached **Exhibit A** (the "***Property***").

B. Lessee desires to obtain, the exclusive right to occupy all or a portion of the Property (the "***Land***") and, if applicable, the Easements (the Easements together with the Land are collectively referred to as the "***Premises***") more particularly described in the attached **Exhibit B**, and to enjoy all the rights necessary for Lessee to occupy, develop, design, engineer, access, construct, monitor, install, own, maintain, and operate one or more solar photovoltaic electric power generating and/or energy storage Systems (as defined in Exhibit C attached hereto) as well as ancillary buildings, structures, fixtures, or enclosures necessary or desirable in connection therewith to be located upon, under, on and within the Premises, or any portion thereof and all rights necessary or desirable for Lessee to sell the energy generated by, stored within and/or injected by such System and any and all other credits, solar renewable energy credits, and any other environmental financial attributes created as a result of such energy generation and/or storage.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements herein contained, the receipt and sufficiency of which are acknowledged, Lessee and Lessor hereby agree to and intend to be bound by the foregoing recitals and as follows:

1. **Definitions**. Capitalized terms used but not otherwise defined in this Agreement have the meanings assigned to them on the Cover Sheet or in the attached **Exhibit C**.

2. **Access to Property**. Commencing on the Effective Date and throughout the Option Term, Lessee and its employees, agents, contractors and current or potential lenders or investors, shall have the right to enter upon the Property to perform all effort and labor necessary to carry out tests, inspections, surveys and investigations that Lessee deems necessary or advisable to assess the feasibility of the Property for the construction and operation of the System ("***Tests***"). During the Lease Term, Lessee shall have exclusive access to the Land and non-exclusive access to the Easements to design, engineer, construct, install, inspect, test, operate, upgrade, repair and maintain the System. Lessor shall not interfere with the Tests during the Option Term and during the Lease Term, Lessor shall not enter on the Land or interfere with the installation of the System, move, adjust, alter, tamper with, or otherwise handle any Lessee equipment or any component of the System. Tests shall include identification of all underground drain tiles on the Property. If Lessee damages any drain tile during the construction, operation or removal of the System, Lessee shall either repair such drain tile or construct a new drain tile, at Lessee's option.

3. **Option to Lease the Premises.**

(a) Grant of Option. Lessor hereby grants to Lessee the exclusive option to lease all or a portion of the Land and acquire the Easements on the terms and conditions set forth in this Agreement (the "***Option***").

(b) Time and Manner of Exercise of the Option. The Option shall be for an initial term of five hundred forty (540) days after the Effective Date (as it may be extended, the "***Option Term***"). The Option Term may be extended by Lessee for up to two (2) additional three hundred sixty-five (365) day periods upon notice to Lessor prior to the end of the then-current Option Term.

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(c) Option Payment. Lessee shall pay to Lessor the Option Payment within forty-five (45) Business Days after the Effective Date of this Agreement, and any Option extension payments are to be paid within thirty (30) days after the end of the then-current Option Term; provided that Lessor, its successors, assigns and/or designee, if any, has submitted to Lessee any documents reasonably required by Lessee in connection with the payment of the Option Payment, including, without limitation, an IRS Form W-9.

(d) Lessor Cooperation. During the Option Term and throughout the Lease Term, Lessor shall fully cooperate with (i) the performance of Tests, at Lessee's expense, (ii) the obtaining by Lessee, at Lessee's expense, of all licenses, and Permits or authorizations required for Lessee's use of the Premises from all applicable government and/or regulatory entities, including any approvals required to obtain a tax abatement for the Premises, as may be applicable, and any subdivision of the Property to be sought by Lessee in connection with the construction, operation and maintenance of the Systems, (collectively, "***Governmental Approvals***"), (iii) the securing by Lessee at Lessee's expense of all other leases, agreements, licenses, and Permits or authorizations that relate to either the Property or Premises, and (iv) the securing by Lessee of any amendments to this Agreement that are reasonably necessary to accommodate the System, or to facilitate an assignment pursuant to Section 21. Lessor agrees and acknowledges that any amendment to the Agreement pursuant to this Section 3(d) that does not materially increase any obligation or materially decrease any right of Lessor hereunder, shall not result in adjustment of the Rent unless otherwise required under this Agreement. Lessor authorizes Lessee and its Affiliates to act as Lessor's agent for submission of applications and related plans, documents and recordings, and to appear before boards and other officials, with respect to obtaining approvals for the Systems to be constructed on the Premises, and shall execute an authorization letter to that effect ("***Authorization Letter***"), in substantially the form in the attached **Exhibit F**. Lessor agrees to use reasonable efforts in assisting Lessee to acquire necessary utility service at the Premises. In the event that a utility company requires an easement in connection with Lessee's use of the Premises during the Option Term or Lease Term, Lessor shall grant such necessary easement to the utility company, provided that such easement is in a commercially reasonable and recordable form.

(e) Use of the Property. During the Option Term, Lessor may continue to use the Property in the ordinary course, *provided*, *however*, Lessor shall not commit waste on the Property or otherwise materially change the Property, nor will Lessor agree to grant or permit any easement, lease, license, right of access or other encumbrance or possessory right in the Premises to any third party without the prior written consent of Lessee. Notwithstanding the foregoing, if Lessor leases the Property to a third party during the Option Term, such lease shall be terminable upon thirty (30) days' notice such that upon notice from Lessee that it will exercise the Option ("***Pre-Exercise Notice***") and/or start construction, Lessor shall terminate any lease on the Property and such termination shall be effective in no more than thirty (30) days. If crops have been planted on the Property by Lessor or Lessor's tenant, and such crops will not be harvested within thirty (30) days of receiving the Pre-Exercise Notice, Lessee shall reimburse Lessor or Lessor's tenant for the value of the crops located within the Premises ("***Crop Compensation***"). Crop Compensation will be calculated by multiplying the acreage of crop land within the Premises by the Fair Market Price per acre of such crop. The *"**Fair Market Price***" shall be equal to the average value of the applicable crop as provided by the Illinois crop budget Farmer Return figures. Crop Compensation shall be pro-rated for partial acres affected. Lessee will make any Crop Compensation payment to Lessor or Lessor's tenant within thirty (30) days of delivery of the Pre-Exercise Notice.

4. **Exercise of Option; Lease; Easements; and Related Rights.**

(a) Exercise of Option. In order to exercise the Option, Lessee must deliver to Lessor a notice of exercise (the "***Exercise Notice***") prior to the expiration of the Option Term. The date of the Exercise Notice shall be the commencement of the Lease Term (the "***Lease Commencement Date***").

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(b) Lease. Subject to receipt of the Exercise Notice, Lessor hereby leases and grants to Lessee, for the Lease Term, the exclusive rights to the Land together with all right, title and interest of Lessor in and to all easements, rights, privileges and appurtenances to the same belonging or in any way appertaining thereto, to occupy, develop, design, engineer, construct, access, monitor, install, own, operate, maintain, repair, replace, improve and remove the System for the generation, storage and distribution of electrical power.

(c) Easement. Subject to receipt of the Exercise Notice, and if noted on Exhibit B, Lessor hereby grants to Lessee a non-exclusive, appurtenant easement on, under, over, across and through the Property in the locations more particularly described on the attached **Exhibit B**, for the Lease Term, to occupy, develop, design, engineer, construct, access, monitor, install, own, operate, maintain, repair, replace, improve and remove at all times on a 24-hours-a-day, 7-days-a-week basis (i) a road ("***Access Easement***") and (ii) utility and communication infrastructure, including without limitation poles, supporting towers, guys and anchors, fibers, cables and other conductors and conduits, and pads, transformers, switches, vaults and cabinets, and related equipment to connect the System to the local electric distribution system, together with the right of access to the utility infrastructure over the Property, for any purpose reasonably connected with the System (the "***Utility Easement***"). Lessor hereby also grants to Lessee and the applicable utility company, at all times on a 24-hours-a-day, 7-days-a-week basis, for the Lease Term, an easement for ingress, egress and related rights over the Property and/or any surrounding or nearby property owned or leased by Lessor, passage through which is necessary or convenient to install, operate or gain access to the System or the Premises (the "***easement***" and together with the Access Easement and the Utility Easement, the "***Easements***"). If Lessee determines in its reasonable discretion that any additional easements across the Property are necessary, useful or appropriate for the construction and/or operation of the System, Lessor shall fully cooperate in granting or agreeing to such easements by amendment to this Agreement or by separate agreement and recordation of same.

(d) Construction Laydown Area. Subject to receipt of the Exercise Notice, Lessor hereby further grants to Lessee, and Lessee hereby accepts from Lessor, a non-exclusive license to use an area of the Property in a location mutually agreed upon by the Parties (the "***Construction License***"), which area shall be referred to herein as the "***Construction License Area***", for use as a laydown and construction staging area, and for temporary storage. Such Construction License shall commence at such time as Lessee commences construction of the System and shall terminate on the Commercial Operation Date. Lessee shall have access to the Construction License Area 24 hours per day, 7 days per week. Lessee agrees to work in good faith with Lessor to minimize any interference with the operations of Lessor or any other lessees on the Property. Upon or prior to the Commercial Operation Date, Lessee, at Lessee's sole cost and expense, shall surrender the Construction License Area to Lessor in the same condition as the date Lessee first occupied the Construction License Area, ordinary wear and tear excepted.

(e) Landscape License. Lessor grants to Lessee a license to use and access Lessor's Property for purposes of tree trimming, clearing, planting, maintenance, and landscaping as may be required by this Agreement or the applicable municipality in which the Premises is located. This license shall run for the Term of this Agreement and shall permit Lessee to plant, maintain and trim trees and vegetation on an as-needed basis and to do other such things as required for the successful operation of the Systems on the Premises.

(f) Utilities. At Lessee's request and expense, Lessor shall provide or cooperate with the provision of electric current and water to the perimeter of the Premises; *provided, however*, separate meters for such utilities shall be installed at Lessee's expense and Lessee shall be responsible for all utility expenses. Lessor grants Lessee the right to install, use, modify, and remove water lines, sewer lines, storm water lines, overhead, and/or underground power lines, fuel lines, telephone and communication lines, pipelines, conveyors, and drainage ditches and/or canal systems within the Premises as are reasonably required for operation of the System, and use or modify the existing lines, ditches, and canal systems as

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may be reasonably required subject to Lessor's prior consent, which shall not be unreasonably delayed, conditioned, or withheld and given within ten (10) days of notification or otherwise deemed approved.

(g) The Parties recognize that the descriptions of the Premises are based on preliminary site discovery information, and that these descriptions shall be modified via amendment prior to construction. As such, Lessor hereby agrees to execute any amendment to this Agreement proposed by Lessee which modifies the Premises, including reducing the size of the Premises and/or splitting the Premises into two or more to accommodate two or more systems and entering into multiple leases but in no event shall the acreage of the Premises be less than 30 acres, provided that such amendment is reasonably necessary to accommodate (i) the System as designed, or (ii) the System as modified by Lessee to comply with the requirements of any Governmental Authority or the Local Electric Utility, including, but not limited to, entering into an amendment in the form attached hereto as **Exhibit G**. For the avoidance of doubt, under no circumstances shall Lessor be entitled to any increase in Rent or other additional compensation under this Agreement as a result of an amendment to the description of the Premises.

5. **Rents & Payments**.

[redacted]

6. **Term and Termination; Removal.**

(a) The Lease Term shall commence on the Lease Commencement Date and terminate on the Expiration Date, as it may be extended, unless otherwise terminated pursuant to this Agreement.

(b) Lessee shall have the right, in its sole discretion, to terminate this Agreement at any time prior to the Commercial Operation Date.

(c) Except in the event of a termination by Lessee for an uncured Event of Default by the Lessor, if this Agreement expires or is terminated, Lessee shall decommission and remove the System and any ancillary structures and repair any damage caused to the Premises by the installation or removal of the System or any ancillary structures ("***System Removal***"). Lessor agrees that Lessee's obligation of System Removal constitutes removal of all above-ground improvements and repair of any damage caused to the Premises by Lessee, but does not include removal of access roads below-ground improvements or an obligation to re-sod or re-vegetate the Premises, grade the Premises or alter the contour of the land. Lessee shall perform System Removal on or before the one hundred eighty (180) days after either the Expiration Date or the date of earlier termination of this Agreement (the "***Removal Date Term***") at Lessee's sole expense. In connection with the System Removal, Lessor shall continue to provide Lessee and its Affiliates and subcontractors with access to the Premises during the Removal Date Term until the System Removal

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has been completed. In the event Lessee fails to complete the System Removal by the expiration of the Removal Date Term (the Removal Date Term is not considered a hold over period and is not subject to Section 44 hereof), Lessor may provide notice to Lessee stating that Lessee has failed to complete System Removal (the "***Abandonment Notice***"). If Lessee fails to complete the System Removal within sixty (60) days after receipt of the Abandonment Notice, Lessor shall have the right, at its option, in its sole discretion, to complete System Removal by a qualified licensed contractor, in which case Lessee shall reimburse Lessor for all actual and reasonable costs of such System Removal.

7. **Extension Option.** Lessee shall have the option to extend the Lease Term ("***Extension Option***") for up to four (4) additional and successive periods of five (5) years each beginning on the day following the Expiration Date of the then-current Lease Term (each an "***Extension Term***"), by giving notice (the "***Extension Exercise Notice***") to Lessor not less than ninety (90) days prior to the then-current Expiration Date, and without the requirement of any further action on the part of either Lessor or Lessee.

8. **System Construction and Maintenance.** Throughout the Lease Term and through the Removal Date Term, Lessee shall have the right to perform (or cause to be performed) all tasks necessary or appropriate, as reasonably determined by Lessee, to carry out the activities set forth in this Agreement, including, without limiting the generality of the foregoing, the right (i) to design, construct, install, and operate the System, (ii) to maintain, clean, repair, replace, add to, remove or modify the System or any part thereof as determined to be necessary by Lessee in its sole discretion and in accordance with the Permits and Applicable Laws, (iii) to use any and all appropriate means of restricting access to the System and Premises, including without limitation, the construction of a fence, and (iv) to permanently grub and grade the Premises and to permanently remove and/or clear any trees, vegetation, structures, rocks, watercourses (to the extent permissible) or other encumbrances existing on the Premises determined to be necessary by Lessee in its sole discretion and in accordance with the Permits and Applicable Laws. Except as may otherwise be specifically agreed upon by the Parties or as expressly set forth herein, Lessee shall be responsible for all costs of design, permitting, construction, installation, operation, and maintenance of the System and System Removal.

9. **Permits; Lessor Cooperation.** Prior to commencement of construction of the System by Lessee, Lessee shall obtain the necessary Permits. In the event Lessee, in its sole discretion, shall determine that the Premises should be subdivided to accommodate the construction, operation and/or maintenance of the Systems or to comply with Permits and Applicable Laws, Lessor shall fully cooperate with Lessee to facilitate and cause any application for subdivision of the Premises to be approved, provided that Lessee shall pay all costs and expenses related thereto.

10. **Statutory and Regulatory Compliance**. Lessee, the Lessee Parties, Lessor and the Lessor Parties shall each comply with all applicable provisions of all Applicable Laws of the locality in which the Property is located.

11. **Lessee's Ownership of Systems and Output.** The Systems are personal property, whether or not the same is deemed real or personal property under Applicable Law, and shall not attach to or be deemed a part of, or a fixture to, the Premises or Property. Lessee or its designees shall be the legal and beneficial owners of the applicable Systems at all times and Lessor shall have no right, title or interest in any of the Systems or any component thereof, notwithstanding that any such Systems may be physically mounted or adhered to the Premises or Property. Lessor covenants that it will use commercially reasonable efforts to place all parties having an interest in or lien upon the Property or the Premises on notice of the ownership of the System and the legal status or classification of the System as personal property. If there is any mortgage or fixture filing against the Property or Premises which could reasonably be construed as attaching to the Systems as a fixture of the Property or Premises, Lessor shall provide a disclaimer or release from such lien holder in form and substance reasonably satisfactory to Lessee and any Financing Party. Lessor, as the fee owner of the Property, consents to the filing by Lessee, on behalf of Lessor or its designees, as applicable, of a disclaimer of the Systems as a fixture of the Property or Premises in the office

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where real estate records are customarily filed in the jurisdiction of the Property. Further, Lessor acknowledges and agrees that Lessee or its designees, as applicable, are the exclusive owners of all electricity and all utility credits, including renewable energy credits, environmental credits, and tax credits, generated by and/or stored within the System and owners of all Environmental Attributes and Incentives attributable to the System. In the absence of an additional agreement to the contrary, all electricity generated by and/or stored within the Systems will be connected to the distribution grid and sold by Lessee to third parties and will not be available to Lessor or any other occupant at the Property. Without the express consent of Lessee, Lessor shall not make or publish any public statement or notice regarding any Environmental Attributes and Incentives relating to the System or the electricity generated by and/or stored within the System.

12. **Representation and Warranties of the Parties as to Authorization and Enforceability**. Each Party represents and warrants that the execution and delivery by such Party of, and the performance of its obligations under, this Agreement have been duly authorized by all necessary action, do not and will not require any further consent or approval of any other Person, and do not contravene any provision of, or constitute a default under any indenture, mortgage, lease, easement, encumbrance, right, restriction, or other material agreement binding on such Party or any valid order of any court, or regulatory agency or other body having authority to which such Party is subject. Each Party represents and warrants the Agreement constitutes a legal and valid obligation of such Party, enforceable against it in accordance with its terms, except as may be limited by a Bankruptcy Event, reorganization, insolvency, bank moratorium or laws relating to or affecting creditors' rights generally and general principles of equity where such enforceability is considered in a proceeding in equity or at law.

13. **Representations, Warranties and Covenants of the Lessor**

(a) No Conflict. Lessor represents and warrants that the execution, delivery and performance by it of this Agreement does not (i) violate its organizational documents or any Applicable Law, or (ii) require any approval or consent of any other Person, except for such approvals or consents that have been obtained on or before the date hereof or the absence of which could not, individually or in the aggregate, reasonably be expected to have a material adverse effect on its ability to execute, deliver or perform this Agreement. Each Person signing this Agreement on behalf of Lessor is authorized to do so.

(b) Lessor's Title to Premises. Lessor represents, warrants and covenants that Lessor has (i) a lawful fee simple interest in title to the Property, including the Premises, subject to any mortgages, leases, easements, covenants, restrictions, and rights of record that may exist, and (ii) that Lessee shall have quiet and peaceful possession of the Premises free from any claim of any entity or Person of superior title thereto without hindrance to or interference with or molestation of Lessee's quiet enjoyment thereof, throughout the Lease Term. Lessor, at its sole cost and expense, shall comply with all restrictive covenants or other title exceptions affecting the Premises to the extent that the same are applicable to the Premises or to the extent that the same would, if not complied with or performed, impair or prevent the continued use, occupancy and operation of the Premises for the purposes set forth in this Agreement and Lessor agrees to take all action necessary to eliminate such interference. In the event Lessor fails to comply with this provision, Lessee may (x) terminate this Agreement, (y) take all necessary steps to bring Lessor into compliance with any restrictive covenants or title exceptions which, if not complied with, would impair or prevent Lessee from exercising its rights under this Agreement, and Lessor shall be responsible for all costs incurred by Lessee for such actions, and/or (z) pursue any other remedies available under this Agreement, at law, and/or at equity.

(c) Defects. Lessee has the right to obtain a title report or commitment for a leasehold title policy from a title insurance company of its choice. Lessor shall fully cooperate with Lessee at no cost to Lessor to enable Lessee to obtain a standard policy of title insurance insuring the property interests granted hereunder (including such endorsements as Lessee shall reasonably request). Lessor agrees that Lessor will execute and deliver to Lessee any documents reasonably required by the title insurance company

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within five (5) Business Days after presentation of said documents by Lessee; *provided, however*, in no event will such documents materially increase any obligation or materially decrease any right of Lessor hereunder.

(d) Transfers. Lessor shall not assign its interest in the Premises separate from its ownership interest and shall not lease the Premises to any other Person. Upon the sale of the Property, Lessor shall assign all of its rights and obligations hereunder to any purchaser of the Property, and so long as such purchaser assumes the obligation to perform all obligations under this Agreement in writing, Lessor shall be released from liability hereunder accruing from and after the effective date of such purchase and assignment. Lessor shall not mortgage, alienate or otherwise encumber the Premises without first obtaining a NDA pursuant to Section 13(f) below. Lessor shall provide notice to Lessee at lease thirty (30) days prior to any sale, mortgage or encumbrance of the Property. Lessor agrees that this Agreement and the lease and the Easements granted hereunder shall run with the Property and/or the Premises and survive any transfer of all or any portion of the Property and/or the Premises. In furtherance of the foregoing, Lessor shall cause any purchaser, lessee, assignee, mortgagee, pledge, secured party or party to whom a lien on the Premises or Property has been granted to execute and deliver to Lessee a commercially reasonable document pursuant to which such party acknowledges and consents to the Lessee's rights in the Premises as set forth herein including, without limitation, an acknowledgement by the transferee that it has no interest in the Systems, or any work related to such Systems, and shall not gain any interest in the Systems by virtue of the Lessor's transfer.

(e) No Interference With and Protection of System. Lessor will not conduct activities on, in or about the Property or Premises that have a reasonable likelihood of causing damage, impairment or otherwise adversely affecting the System or operation thereof. The System shall be operated, maintained and repaired by Lessee at its sole cost and expense; provided, that any repair or maintenance costs incurred by Lessee as a result of Lessor's negligence, misconduct or breach of its obligations hereunder shall be promptly reimbursed to Lessee by Lessor.

(f) Non-Disturbance Agreements. Lessor shall, at its sole effort and expense, obtain a non-disturbance agreement ("***NDA***") in favor of Lessee from any third party who now has or may in the future obtain an interest in the Property or Premises, including, without limitation, any lenders to Lessor, in a form acceptable to Lessee, which NDA shall: (i) acknowledge and consent to Lessee's rights to the Premises and the Systems under this Agreement; (ii) acknowledge that the third party has no interest in the Systems and shall not gain any interest in the Systems by virtue of the Parties' performance or breach of this Agreement; (iii) acknowledge that the third party's interest in the Premises (if any) is subject to Lessee's interest under this Agreement; (iv) waives any lien the third party may have in and to the Systems; and (v) agrees not to disturb Lessee's possession of the Premises.

(g) Insolation. Lessor acknowledges and agrees that access to sunlight ("***Insolation***") is essential to the value to Lessee of the leasehold interest granted hereunder and is a material inducement to Lessee in entering into this Agreement. Accordingly, Lessor shall not permit any interference on the Property (exclusive of the Premises) or any neighboring property under Lessor's or its Affiliate's control which interferes with Insolation on and at the Premises. Without limiting the foregoing, Lessor shall not construct or permit to be constructed on the Property or any adjoining property under Lessor's control any structure on or adjacent to the Premises or on any adjacent property owned by any Affiliate of Lessor that could adversely affect Insolation levels on the Premises, shall not permit the growth of foliage on the Property (exclusive of the Premises) or any neighboring property under Lessor's or its Affiliate's control that could adversely affect Insolation levels on the Premises, or directly emit or permit the emission of suspended particulate matter, smoke, fog or steam or other air-borne impediments to Insolation on the Premises. If Lessor becomes aware of any potential development or other activity on adjacent or nearby properties that could diminish the Insolation to the Premises, Lessor shall promptly advise Lessee of such information and reasonably cooperate with Lessee in taking measures to preserve average levels of Insolation at the Premises as they existed as of the Lease Commencement Date. Such measures may

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include, but not be limited to, obtaining a solar insolation easement. In the event any such obstruction occurs and is not promptly removed following notice of such obstruction, Lessee shall have the right to remove such obstruction on the Property or any neighboring property under Lessor's or its Affiliate's control, at Lessor's cost, or terminate this Agreement without penalty or further liability, upon notice to Lessor. Additionally, Lessee shall have the right upon no less than twenty-four (24) hours' notice to Lessor to remove, cut or trim any trees and/or any other vegetation on the Property or on any other property or land owned by Lessor or its Affiliate which is adjacent to the Property which materially impacts the Insolation on the Premises. Notwithstanding any other provision of this Agreement, the Parties agree that (i) Lessee would be irreparably harmed by a breach of the provisions of this Section 13(g), (ii) an award of damages might be inadequate to remedy such a breach, and (iii) Lessee shall be entitled to equitable relief, including specific performance, to compel compliance with the provisions of this Section 13(g). Lessor further represents and warrants that, to the best of its knowledge, there are no developments pending or in progress on adjacent or nearby properties that could diminish the Insolation to the Premises.

(h) Hazardous Substances. Lessor represents and warrants that there are no Hazardous Substances present on, in or under the Property or Premises in violation of any Applicable Law.

(i) Condition of Premises. Except as otherwise expressly set forth herein Lessee accepts the Premises "as is" without benefit of any improvements or modifications to be made by Lessor. Lessor represents and warrants to Lessee that, to the best of its knowledge, there are no site conditions at the Property or Premises which would: (i) materially increase the cost of installing the System at the planned locations on the Premises or would materially increase the cost of maintaining the System at the Premises over the cost that would be typical or customary for a substantially similar System; or (ii) adversely affect the ability of the System, as designed, to produce, store and/or inject electricity once installed, absent conditions beyond Lessor's reasonable control.

(j) Notice of Damage or Emergency. Lessor shall immediately notify Lessee if Lessor becomes aware, through discovery or receipt of notice: (i) of any damage to or loss of the use of the System; (ii) of any event or circumstance that poses an imminent risk to human health, the environment, the System or the Premises; or (iii) of any interruption or material alteration of the energy supply to or from the Premises or the System.

(k) Liens and Tenants. Except as may be disclosed in the real property records of the County, Lessor represents there are no encumbrances, leases, mortgages, deeds of trust, deeds to secure debt, or similar liens or security interests encumbering all or any portion of the Property and/or the Premises that could interfere with Lessee's operations on the Premises, including mechanic's liens. Lessor shall not directly or indirectly cause, create, incur, assume or suffer to exist any mortgage, pledge, lien (including mechanics', labor or materialman's lien), charge, security interest, encumbrance or claim on or with respect to the Systems, the Premises, or any interest therein. Lessor shall provide Lessee with notice if it receives notice of any such claims. Lessor further agrees to discharge or bond, at its sole expense, any such encumbrance or interest that attaches to the Systems and to indemnify, defend and hold harmless Lessee from any costs, losses, expenses or liabilities arising from the same, including, without limitation, Lessee's attorneys' fees and court costs. Lessor waives any and all lien rights it may have, statutory or otherwise, concerning the System or any portion thereof.

(l) Mineral Rights. Lessor represents and warrants there are no existing mineral, oil and gas, water, or natural resource rights that could interfere with Lessee's rights hereunder. During the Lease Term, Lessor may not use, or grant the use of the Premises for the purpose of exploring for, extracting, producing or mining such oil, gas, minerals, or other natural resources, including selling or leasing such interests to a third party, from the surface to a depth of 500 feet below the surface. Lessor may explore for, extract or produce oil, gas, minerals, and other natural resources from the Property in a manner which does not interfere with Lessee's use of the Premises or affect the System and utilizes a method, such

as "directional drilling" which does not require the use of the Premises to a depth of five hundred (500) feet below the surface.

(m) Litigation. No litigation is pending, and, to the best of Lessor's knowledge, no actions, claims or other legal or administrative proceedings are pending, threatened or anticipated with respect to, or which could affect, the Premises or Lessor's right or authority to enter into this Agreement. If Lessor learns that any such litigation, action, claim or proceeding is threatened or has been instituted, Lessor will promptly deliver notice thereof to Lessee.

(n) Representations Regarding Security Interest in System. Lessor has been advised that part of the collateral securing the financial arrangements for the System may be the granting of a first priority perfected personal property security interest under the Uniform Commercial Code (the "***Security Interest***") in this leasehold and the Easements or any portion thereof or in the Systems to one or more Financing Parties and Lessor hereby consents to the granting of such Security Interest. In connection therewith, Lessor represents and warrants as follows: (i) the granting of the Security Interest will not violate any term or condition of any covenant, restriction, lien, financing agreement, or security agreement affecting the Property or Premises; (ii) there is no existing lease, mortgage, security interest, easement, claim, use, or restriction or other interest in or lien upon the Property or Premises that could attach to the Systems as an interest adverse to or senior to Lessee's Financing Parties' Security Interest therein; (iii) there exists no event or condition which constitutes a default, or would, with the giving of notice or lapse of time, constitute a default under the Agreement, and (iv) there is no existing mineral, oil and gas, water, or natural resource right that could attach to the Systems as an interest adverse to or senior to Lessee's Financing Parties' Security Interest therein.

14. **Hazardous Substances.** Neither Party shall introduce or use any Hazardous Substances on, in or under the Premises or Property in violation of any Applicable Law. If a Party becomes aware of any Hazardous Substances on, in, or under the Premises or Property, it shall promptly notify the other Party of the type and location of such Hazardous Substances in writing. Each Party agrees to indemnify, defend and hold harmless the other Party and its Affiliates and their employees and agents from and against any and all administrative and judicial actions and rulings, claims, causes of action, demands and liability, including, but not limited to, damages, costs, expenses, assessments, penalties, fines, losses, judgments, and reasonable attorney fees that any Party may suffer or incur due to the existence of any Hazardous Substances on the Property or the migration of any Hazardous Substance to other properties or the release of any Hazardous Substance into the environment ("***Environmental Claims***"), that relate to or arise from such Party's activities on the Property or Premises, except to the extent directly attributable to the negligent acts or omissions or willful misconduct of the other Party. Lessor shall further indemnify, defend and hold harmless Lessee and its Affiliates and their employees and agents from and against any and all Environmental Claims due to the presence of any Hazardous Substances in, on or under the Premises as of the Effective Date. The indemnifications in this Section 14 specifically include, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work required by any Governmental Authority. Lessor shall be responsible for, and shall promptly conduct any investigation and remediation as required by any Applicable Law, all spills or other releases of any Hazardous Substances to the extent not caused by Lessee, that have occurred or which may occur on the Property. This Section 14 shall survive the termination or expiration of this Agreement.

15. **Insurance.**

[redacted]

[redacted]

16. **Taxes**.

[redacted]

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17. **Liability and Indemnity**.

(a) Each Party as indemnitor shall indemnify, defend, and hold harmless the other Party and its Affiliates and their employees and agents against and from any and all loss, liability, damage, claim, cost, charge, demand, or expense (including reasonable attorneys' fees) asserted by third parties for injury or death to Persons (including employees of either Party) and/or physical damage to property arising out of or in connection with the negligent acts or omissions or willful misconduct of the indemnitor or a material breach of any obligation, representation or warranty of the indemnitor under this Agreement, except to the extent caused by the negligent acts or omissions or willful misconduct of the indemnified party.

(b) Lessee shall not be responsible to Lessor or any third party, for any claims, costs or damages, including fines or penalties, attributable to any violations of Applicable Laws existing prior to the Effective Date, or by any party other than the Lessee Parties.

(c) This Section 17 shall survive the termination or expiration of this Agreement.

18. **Casualty/System Loss**.

(a) In the event the Premises or access thereto shall be so damaged or destroyed by fire or other casualty so as to make the use of the Premises impractical, as determined by Lessee in its sole and absolute discretion, then Lessee may elect to terminate this Agreement by providing notice to Lessor of such termination within ninety (90) days of Lessee's knowledge of the damage or destruction, which termination will be effective as of a date of such damage or destruction. If Lessee does not elect to terminate this Agreement within ninety (90) days of such a casualty, then the Rent shall be abated until such time as Lessee's use of the Premises is restored. If Lessee does not elect to terminate this Agreement pursuant to the previous sentences, Lessor shall exercise commercially reasonable efforts to repair the damage to the Premises and return the Premises to its condition prior to such damage or destruction; *provided*, *however*, that, except as otherwise provided in this Agreement, Lessor shall in no event be required to repair, replace or restore any property of Lessee comprising part of the Systems, which replacement or restoration shall be Lessee's responsibility.

(b) In the event of any harm to the System that, in the reasonable judgment of Lessee, results in total damage, destruction or loss of the System ("***System Loss***"), Lessee shall, within twenty (20) Business Days following the occurrence of such System Loss, notify Lessor whether Lessee is willing, notwithstanding such System Loss, to repair or replace the System and to continue this Agreement. In the event that Lessee notifies Lessor that Lessee is not willing to repair or replace the System, Lessee may terminate this Agreement effective upon the date of such System Loss, and Lessee shall be entitled to all proceeds of its insurance policies with respect to the System Loss and Lessor shall promptly return to Lessee the portion of the pre-paid Rent covering the days remaining between the date of such System Loss and the next anniversary of the Commercial Operation Date.

(c) In the event of termination under this Section 18, Lessee shall remove the Systems in accordance with Section 6(c).

19. **No Consequential Damages.** Notwithstanding any other provision in this Agreement, neither Lessee nor Lessor shall be liable to the other for any consequential, punitive, or indirect damages, including without limitation, loss of use of their property, loss of profits, cost of capital or increased operating costs, arising out of this Agreement whether by reason of contract, indemnity, strict liability, negligence or breach of warranty.

20. **Condemnation.** Promptly upon receipt of notice that the Premises or Property may be or will be transferred to a condemning authority pursuant to a taking of all or a portion of the Property, Lessor

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shall notify Lessee of same. In the event the Premises or Property are transferred to a condemning authority pursuant to a taking of all or a portion of the Property sufficient in Lessee's determination to render the Premises unsuitable for Lessee's use or to negatively impact the access to the Premises, Lessee shall have the right to terminate this Agreement immediately upon notice to Lessor. Sale to a purchaser with the power of eminent domain in the face of the exercise of the power shall be treated as a taking by condemnation under this Agreement. In the event of an award related to eminent domain or condemnation of all or part of the Premises, each Party shall be entitled to take from such award that portion as allowed by law for its respective property interest appropriated as well as any damages suffered thereby.

21. **Assignment by Lessee and Financing Party Protections**.

(a) Lessee shall not assign or sublease any of its rights, duties or obligations under this Agreement without the prior consent of Lessor, which consent shall not be unreasonably withheld, conditioned or delayed. Notwithstanding the foregoing, Lessee may, without consent from Lessor, assign any of its rights, duties or obligations under this Agreement: (i) to a Financing Party pursuant to Section 21(c), (ii) to one or more of its Affiliates, (iii) to one or more third parties in connection with a collateral assignment of rights, mortgage, pledge or otherwise, (iv) to any Person or entity succeeding to all or substantially all of the stock or assets of Lessee, or (v) to a successor entity in a merger or acquisition transaction. Lessor agrees to execute any consent, novation or other documentation that Lessee may request in connection with any assignment permitted by this Section 21, including without limitation entering into a consent and assignment agreement with Lessee's Financing Party.

(b) Notwithstanding anything herein to the contrary, Lessee may collaterally assign this Agreement and the System to a Financing Party without the need for consent from Lessor. Upon receipt of notice of the name and address of a Financing Party, Lessor agrees to deliver any notices of default to the Financing Party simultaneously with the delivery of such notices of default to Lessee. The Financing Party will have the right in its sole discretion, but not the obligation, (i) to enforce its lien and acquire title to all or any portion of the System and all right, title and interest of Lessee in and to this Agreement by any lawful means, (ii) to take possession of and operate all or any portion of the System and to perform all obligations to be performed by Lessee under this Agreement, or to cause a receiver to be appointed to do so, (iii) to cure any defaults or breaches by Lessee within the time periods provided hereunder for Lessee plus an additional sixty (60) days in the case of an Event of Default under Section 22, and in order to succeed to the rights and obligations of Lessee under this Agreement shall not be required to cure any defaults by Lessee under Section 22 that by their nature are not capable of being cured by the Financing Party. Any such notices shall be sent to the Financing Party at the address specified in writing to Lessor by Lessee or any Financing Party. Failure by Lessor to give the Financing Party such notice shall not diminish the Financing Party's rights against Lessee, but shall preserve all rights of the Financing Party to cure any default and to remove any property of Lessee located on the Premises.

(c) If Lessor has been notified of the existence of a Financing Party, Lessor will not agree to any amendment, modification or voluntary termination of this Agreement without the prior written consent of the Financing Party. Lessor agrees that, upon foreclosure (or assignment in lieu of foreclosure) of its mortgage or security interest in the System, the Financing Party may succeed to the rights and obligations of Lessee under this Agreement and thereafter, without Lessor's consent, to assign or transfer all or any portion of the System to a third party. The Financing Party will be responsible for performance of Lessee's obligations after it succeeds to Lessee's interests under this Agreement, but shall have no further liability hereunder after it assigns such interests to a third party.

(d) If this Agreement is rejected or disaffirmed by Lessee pursuant to bankruptcy law or other law affecting creditor's rights and within ninety (90) days after such event any Financing Party shall have arranged to the reasonable satisfaction of Lessor for performance of Lessee's obligations under this Agreement, then Lessor shall execute and deliver to such Financing Party or to a designee of such Financing Party a new agreement which (i) shall be for a term equal to the remainder of the Lease Term

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before giving effect to such rejection or termination; and (ii) shall contain the same covenants, agreements, terms, provisions and limitations as this Agreement.

(e) An assignment by either Party in accordance with this Section 21 shall, provided that assignee assumes the assignor's obligations under this Agreement, relieve the assignor of its obligations hereunder, except with respect to undisputed payments due by the assignor as of the effective date of the assignment, which obligations shall be performed by assignor or assignee as a condition precedent to such assignment.

(f) The provisions of this Section 21 shall survive the termination, rejection or disaffirmation of this Agreement and shall continue in full force and effect thereafter to the same extent as if this Section 21 were a separate and independent contract made by Lessor, Lessee and each Financing Party. Lessee's Financing Parties shall be express third party beneficiaries of this Section 21.

22. **Defaults and Remedies.**

(a) Events of Default. The occurrence of any of the following (each an "***Event of Default***") shall place the Party responsible for the Event of Default (the "***Defaulting Party***") in default of this Agreement, and the other Party (the "***Non-Defaulting Party***") shall be entitled to the remedies provided in Section 22(b): (i) a Party's failure to pay any amount required to be paid hereunder and such failure shall continue for thirty (30) days after written notice of such failure has been received by the Defaulting Party, (ii) a Party's failure to perform any covenant or obligations hereunder, other than payment of monetary sums, or commitment of a material breach of this Agreement and the failure to cure such default within sixty (60) days after written notice specifying such failure has been received by the Defaulting Party, or (iii) if the nature or extent of the obligation or obligations is such that more than sixty (60) days are required to complete the cure, a Party's failure to use diligence and good faith to commence and continue exercising commercially reasonable diligence to cure the Event of Default after such sixty (60) day period, and (iv) a Party becomes subject to a Bankruptcy Event. Further, if the Parties have a good faith dispute as to whether a payment is due hereunder, the alleged defaulting Party may deposit the amount in controversy in escrow with any reputable third party escrow, or may interplead the same, which amount shall remain undistributed and shall not accrue interest or penalties, and no Event of Default shall be deemed to have occurred, until final decision by a court of competent jurisdiction or upon agreement by the Parties. No such deposit shall constitute a waiver of the Defaulting Party's right to institute legal action for recovery of such amounts.

(b) Remedies**.** Except as qualified by Section 21(b), upon the occurrence of, and during the continuance of an Event of Default, the Non-Defaulting Party shall: (i) have the right to terminate this Agreement by giving written notice of termination to the Defaulting Party; and (ii) have all rights and remedies that may be available to the Non-Defaulting Party at law or in equity.

23. **Notices**. All notices under this Agreement shall be made in writing to the Addresses for Notices specified on the Cover Sheet. Notices shall be delivered by hand delivery, regular overnight delivery service, registered or certified mail return receipt requested, or email. Email notices shall require confirmation of receipt. Notices shall be deemed to have been received when delivered as shown on the records or manifest of such courier, delivery service or the U.S. Postal Service. Rejection or refusal to accept delivery of any notice shall be deemed to be the equivalent of receipt of any notice given hereunder. A Party may change its address by providing written notice of the same in accordance with the provisions of this Section 23. Failure to comply strictly with the terms of this provision shall not be held against the Party claiming to have given notice so long as such Party substantially complied with this provision and can demonstrate that the notice in question was received.

24. **Waiver**. The waiver by either Party of any breach of any term, condition, or provision herein contained shall not be deemed to be a waiver of any subsequent breach of such term, condition, or provision, or any other term, condition, or provision contained herein.

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25. **Remedies Cumulative**. No remedy herein conferred upon or reserved to Lessee or Lessor shall exclude any other remedy herein or by law or in equity or by statute provided, but each shall be cumulative and in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute.

26. **Headings**. The headings in this Agreement are solely for convenience and ease of reference and shall have no effect in interpreting the meaning of any provision of this Agreement.

27. **Invalid Term**. If any provision of this Agreement is declared or determined by any court of competent jurisdiction to be illegal, invalid or unenforceable, the legality, validity or enforceability of the remaining parts, terms and provisions shall not be affected thereby, and said illegal, unenforceable or invalid part, term or provision will be deemed not to be a part of this Agreement; *provided*, *however*, that the Parties shall work together in good faith to modify this Agreement as necessary to retain the intent of any such severed clause.

28. **Choice of Law**. This Agreement shall be construed in accordance with the laws of the State of Illinois, without regard to its conflict of law principles.

29. **Dispute Resolution**. In the event that there is any controversy, claim or dispute between the Parties hereto arising out of or related to this Agreement, or the breach hereof, the Parties agree to engage in good faith negotiations to resolve such dispute. If the Parties are unable to resolve such dispute through such negotiations, either Party may, within a reasonable time after the dispute has arisen, pursue all available legal and/or equitable remedies.

[redacted]

31. **Waiver of Jury Trial**. TO THE EXTENT PERMITTED BY LAW, EACH PARTY HEREBY IRREVOCABLY WAIVES ITS RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION IN ANY COURT IN ANY JURISDICTION BASED UPON OR ARISING OUT OF OR RELATING TO THIS AGREEMENT.

32. **Binding Effect**. This Agreement and its rights, privileges, duties and obligations shall bind and inure to the benefit of and be binding upon each of the Parties hereto, together with their respective heirs, personal representatives, successors and permitted assigns.

33. **Counterparts**. This Agreement may be executed in any number of counterparts, which shall together constitute one and the same agreement. Each Party agrees that signatures transmitted by facsimile or electronically shall be legal and binding and have the same full force and effect as if an original of this Agreement and had been delivered and hereby waive any defenses to the enforcement of the terms of this Agreement based on the foregoing forms of signature.

34. **Entire Agreement**. This Agreement, including the Cover Sheet and all exhibits, represents the full and complete agreement between the Parties hereto with respect to the subject matter contained herein and therein and supersedes all prior written or oral negotiations, representations, communications and agreements between said parties with respect to said subject matter. This Agreement may be amended only in writing signed by both Lessee and Lessor or their respective successors in interest. Lessor and Lessee each acknowledge that in executing this Agreement that Party has not relied on any verbal or written understanding, promise, or representation which does not appear in this document.

35. **Agricultural Impact Mitigation Agreement.** This Agreement does not incorporate any provision from any agricultural impact mitigation agreement that may be entered into with the Illinois

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Department of Agriculture with respect to the Premises (an "***AIMA***"). The Parties specifically agree that with respect to any provision contained in an AIMA, this Agreement shall control, whether such provision is addressed generally, specifically or not at all in this Agreement.

36. **Further Assurances**. Upon the receipt of a request from the other Party or a Financing Party, each Party shall execute such commercially reasonable additional documents, instruments and assurances and take such additional actions as are reasonably necessary to carry out the terms and intent hereof, including at the requesting Party's expense, entering into any consents, assignments, affidavits, estoppels and other documents as may be reasonably required by such Party's lender to create, perfect or preserve its collateral interest in such Party's property or such party's rights and obligations under this Agreement. Any estoppel shall be executed within ten (10) days of a request therefor. Neither Party shall unreasonably withhold, condition or delay its compliance with any reasonable request made pursuant to this Section 35.

37. **Force Majeure**. Except as otherwise specifically provided in this Agreement, neither Party shall be considered in breach of this Agreement or liable for any delay or failure to comply with this Agreement, if and to the extent that such delay or failure is attributable to the occurrence of a Force Majeure Event; provided that the Party claiming relief under this Section 36 shall immediately (i) notify the other Party in writing of the existence of the Force Majeure Event, (ii) exercise all reasonable efforts necessary to minimize delay caused by such Force Majeure Event, (iii) notify the other Party in writing of the cessation or termination of said Force Majeure Event and (iv) resume performance of its obligations hereunder as soon as practicable thereafter. If a Force Majeure Event shall have occurred that has prevented either Party from performing any of its material obligations hereunder and that has continued for a continuous period of one hundred twenty (120) days, then either Party shall have the right, but not the obligation, to terminate the Agreement upon ninety (90) days' prior notice to the other Party without penalty or further liability. If at the end of such ninety (90) day period such Force Majeure Event shall still continue and the material obligation has not been able to be resumed to the reasonable satisfaction of the affected Party, the Agreement shall terminate. Upon such termination due to a Force Majeure Event, neither Party shall have any liability to the other (other than any such liabilities that have accrued prior to such termination or those which expressly survive the termination or expiration of the Agreement pursuant to the terms hereof). If, at the end of such ninety (90) day period such Force Majeure Event is no longer continuing, the Agreement shall remain in full force and effect, and the Party's termination notice shall be deemed to have been withdrawn. Rent shall abate for any period during which Lessee is not able to operate the System in the manner contemplated herein.

38. **Confidentiality.** Lessor will maintain in strict confidence, for the sole benefit of Lessee, the existence and the terms of this Agreement and the transactions contemplated herein, including but not limited to any business plans, financial information, technical information regarding the design, operation, maintenance of the System; *provided*, *however*, Lessor may disclose this Agreement and the transactions contemplated herein to Lessor's affiliates, subsidiaries, attorneys, consultants or other agents or professional advisors, or as required by law.

39. **Memorandum of Lease**. Lessor agrees to cooperate with Lessee in executing any documents necessary to protect Lessee's rights in or use of the Premises. A Memorandum of Lease in substantially the form attached hereto as **Exhibit E** shall be recorded in the office where real estate records are customarily filed in the jurisdiction of the Premises**.**

40. **Brokers**. In the event any broker or other party claims a commission, the Party responsible for the contact with that claimant shall indemnify, defend and hold the other Party harmless from that claim, and including, without limitation, the payment of any attorneys' fees and costs incurred.

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41. **Interpretation**. This Agreement shall not be construed against the Person or entity preparing it, but shall be construed as if all of the Parties jointly prepared this Agreement without any uncertainty or ambiguity being interpreted against any one of them.

42. **No Partnership**. This Agreement is not intended and shall not be construed to create any partnership or joint venture or any other relationship other than one of 'lessor' and 'lessee' and 'grantor' and 'grantee', and neither Party shall be deemed the agent of the other Party nor have the authority to act as agent for the other Party, other than as provided in Section 3(d).

43. **Public Officials**. Lessor acknowledges that its receipt of monetary and other good and valuable consideration hereunder may represent a conflict of interest if Lessor or its Affiliate is a government employee or otherwise serves on a governmental entity with decision-making authority (a "***Public Official***") as to any rights Lessee may seek, or as to any obligations that may be imposed upon Lessee in order to develop and/or operate the Systems ("***Development Rights***"), and Lessor hereby agrees for itself and its Affiliates to (1) recuse him/herself from all such decisions related to Lessee's Development Rights unless such recusal is prohibited by law or is not reasonably practicable considering the obligations of such Public Official's position and (2) recuse him/herself from all such decisions related to Lessee's Development Rights if such recusal is required by law. If Lessor is not required pursuant to (1) or (2) above to recuse him/herself from a decision related to Lessee's Development Rights, Lessor will, in advance of any vote or other official action on the Development Rights, disclose the existence of this Agreement (but not the financial terms therein) at an open meeting of the relevant governmental entity Lessor serves on as a Public Official. Additionally, if Lessor is a Public Official and any of Lessor's spouse, child or other dependent has a financial interest in the Systems, Lessor shall disclose such relationship (but not the financial terms thereof) at an open meeting of the relevant governmental entity Lessor serves on as a Public Official, prior to participation in any decision related to Lessee's Development Rights.

44. **Time is of the Essence**. Time is of the essence with respect to all provisions within this Agreement.

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IN WITNESS WHEREOF, the Parties have executed this Agreement on the Effective Date.

LESSOR:

[redacted]
Janet Dhuse

LESSEE:

312 Solar Development, LLC
a Delaware limited liability company

DocuSigned by:
By: [redacted]
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Name: Ryan Bailey

Title: Director of Development, Midwest

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DEFINITIONS

"***Abandonment Notice***" has the meaning set forth in Section 6(c) of this Agreement.

"***Access Easement***" has the meaning set forth in Section 4(c).

"***Affiliate***" means, as to any Person, any other Person that, directly or indirectly, is in control of, is controlled by or is under common control with such Person or is a director, officer or member of such Person or of an Affiliate of such Person.

"***Agreement***" has the meaning set forth on page 1 herein.

"***Applicable Law***" means, with respect to any Person, any constitutional provision, law, statute, rule, regulation, ordinance, treaty, order, decree, judgment, decision, certificate, holding, injunction, registration, license, franchise, permit, authorization, guideline, Governmental Approval, Environmental Law, consent or requirement of any Governmental Authority having jurisdiction over such Person or its property, enforceable at law or in equity, including the interpretation and administration thereof by such Governmental Authority.

"***Authorization Letter***" has the meaning set forth in Section 3(d) of this Agreement.

"***Bankruptcy Event***" means with respect to a Party, that either: such Party has (A) applied for or consented to the appointment of, or the taking of possession by, a receiver, custodian, trustee or liquidator of itself or of all or substantially all of its property; (B) made a general assignment for the benefit of its creditors; (C) commenced a voluntary case under any bankruptcy law; (D) filed a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding up, or composition or readjustment of debts; or (E) taken any corporate or other action for the purpose of effecting any of the foregoing; or a proceeding or case has been commenced without the application or consent of such Party in any court of competent jurisdiction seeking (i) its liquidation, reorganization, dissolution or winding-up or the composition or readjustment of debts or, (ii) the appointment of a trustee, receiver, custodian, liquidator or the like of such Party under any bankruptcy law, and such proceeding or case has continued undefended, or any order, judgment or decree approving or ordering any of the foregoing shall be entered and continue unstayed and in effect for a period of more than one hundred eighty (180) days.

"***Business Day***" means any day other than Saturday, Sunday or any other day on which banking institutions in the state where the Property is located are required or authorized by Applicable Law to be closed for business.

"***Commercial Operation Date***" means the date on which the System(s) commences selling electricity to a third party purchaser on a commercial basis (excluding the sale of test energy).

"***Construction License***" has the meaning set forth in Section 4(d) of this Agreement.

"***Construction License Area***" has the meaning set forth in Section 4(d) of this Agreement.

"***Defaulting Party"*** has the meaning set forth in Section 22(a) of this Agreement.

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"***Development Rights***" has the meaning set forth in Section 42 of this Agreement.

"***Easements***" has the meaning set forth in Section 4(c) of this Agreement.

"***Environmental Attributes and Incentives***" means any emissions, air quality or other environmental attribute, aspect, characteristic, claim, credit, benefit, reduction, offset or allowance, howsoever entitled or designated, directly or indirectly resulting from, attributable to or associated with the consumption, storage, injection, sale and/or generation of energy by a solar renewable energy facility and/or through the storage and/or injection of electricity, whether existing as of the Effective Date or thereafter, and whether as a result of any present or future local, state or federal laws or regulations or local, state, national or international voluntary program.

"***Environmental Claims***" has the meaning set forth in Section 14 of this Agreement.

"***Environmental Law***" means and includes, without limitation, any present or future federal, state or local law, whether under common law, statute, rule, regulation or otherwise, requirements under Permits or other authorizations issued with respect thereto, and other orders, decrees, judgments, directive or other requirements of any Governmental Authority relating to or imposing liability or standards of conduct, disclosure or notification with regard to the protection of human health, the environment, ecological conditions, Hazardous Substances or any activity involving Hazardous Substances.

"***Event of Default"*** has the meaning set forth in Section 22(a) of this Agreement.

"***Exercise Notice"*** has the meaning set forth in Section 4(a) of this Agreement.

"***Expiration Date***" has the meaning set forth on the Cover Sheet, as such date may be extended in accordance with the Agreement.

"***Extension Exercise Notice"*** has the meaning set forth in Section 7 of this Agreement.

"***Extension Option"*** has the meaning set forth in Section 7 of this Agreement.

"***Extension Term"*** has the meaning set forth in Section 7 of this Agreement.

"***Financing Party***" means, as applicable (i) any Person (or its agent) from whom Lessee (or an Affiliate of Lessee) leases the System or (ii) any Person (or its agent) who has made or will make a loan to or otherwise provide capital to Lessee (or an Affiliate of Lessee) with respect to the System. Lessee shall provide written notice to Lessor of, and the contact information for, any Financing Party prior to a party being deemed a Financing Party hereunder.

"***Force Majeure Event***" means, when used in connection with the performance of a Party's obligations under this Agreement, any events or circumstances beyond the affected Party's reasonable control that arise after the Effective Date, to the extent not caused by the acts or omissions of (and are otherwise unavoidable, or beyond the reasonable control of, and could not have been prevented or overcome by the reasonable efforts and diligence of) such Party and which materially and adversely affects such Party's performance of its obligations under this Agreement. Force Majeure Event includes but is not limited to the following: (i) war, riot, acts of a public enemy or other civil disturbance; (ii) acts of God, including but not limited to, pandemics, epidemics, disease, earthquakes, tornados, typhoons, lightning, blizzards, hurricanes and landslides of the type which would, under normal circumstances and typical insurance policies, constitute an event of insurable loss; (iii) acts of, or unreasonably excessive failures to act by, any Governmental Authority including changes in Applicable Law after the Effective Date (other than acts of Governmental Authorities in response to a Party's failure to comply with existing Applicable Laws as required in connection with performance under this Agreement); and (iv) strikes, walkouts, lockouts or similar industrial or labor actions or disputes not caused by, specific to employees of, or the result of an unfair labor practice or other unlawful activity by the asserting Party.

"***Governmental Approvals***" has the meaning set forth in Section 3(d) of this Agreement.

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"***Governmental Authority***" means any federal, state, regional, county, town, city or municipal government, whether domestic or foreign, or any department, agency, bureau or other administrative, regulatory or judicial body of any such government.

"***Hazardous Substances***" means and includes, without limitation any substance, chemical, material or waste: (i) the presence of which causes a nuisance or trespass of any kind under any applicable Environmental Law; (ii) which is regulated by any Governmental Authority; (iii) is likely to create liability under any Environmental Law because of its toxic, flammable, corrosive, reactive, carcinogenic, mutagenic, infectious, radioactive, or other hazardous property or because of its effect on the environment, natural resources or human health and safety, including but not limited to, flammables and explosives, gasoline, petroleum and petroleum products, asbestos containing materials, polychlorinated biphenyls, lead and lead-based paint, radon, radioactive materials, microbial matter, biological toxins, mycotoxins, mold or mold spores or any hazardous or toxic material, substance or waste which is defined by those or similar terms or is regulated as such by any Governmental Authority; or (iv) which is designated, classified, or regulated as being a hazardous or toxic substance, material, pollutant, waste (or a similar such designation) under any federal, state or local law, regulation or ordinance, including under any Environmental Law.

"***Insolation***" has the meaning set forth in Section 13(g) of this Agreement.

"***Land***" has the meaning set forth in Recital B.

"***Lease Commencement Date***" has the meaning set forth in Section 4(a) of this Agreement.

"***Lease Term***" has the meaning set forth on the Cover Sheet of this Agreement.

"***Lessee Real Property Taxes***" has the meaning set forth in Section 16 of this Agreement.

"***Lessee Parties***" means, individually or collectively, Lessee, its Affiliates and any of their authorized representatives, agents, employees, managers, contractors, architects, and engineers, and each of their respective officers, directors, partners, members, managers, agents, employees, representatives, and invitees.

"***Lessee Taxes***" has the meaning set forth in Section 16 of this Agreement.

"***Lessor Parties***" means, individually or collectively, Lessor, its Affiliates, and any of their authorized representatives, agents, employees, managers, and each of their respective officers, directors, partners, members, managers, agents, employees, and representatives.

"***Local Electric Utility***" means the local electric distribution owner and operator providing electric distribution services to Lessee and also providing electric distribution and interconnection services to Lessee for Lessee's System.

"***Non-Defaulting Party"*** has the meaning set forth in Section 22(a) of this Agreement.

"***NDA***" has the meaning set forth in Section 13(f) of this Agreement.

"***Operation Term***" has the meaning set forth in Section 5(b) of this Agreement.

"***Option***" has the meaning set forth in Section 3(a) of this Agreement.

"***Option Term***" has the meaning set forth in Section 3(b) of this Agreement.

"***Party" or "Parties"*** has the meaning set forth on page 1 of this Agreement.

"***Permits***" means all applications, approvals, authorizations, consents, filings, licenses, orders, permits or similar requirements imposed by any Governmental Authority which are required in order to develop, construct, operate, maintain, improve, refurbish and retire the System or to schedule and deliver the electric energy produced by the System to the Local Electric Utility, including an authorization to construct or a conditional use permit.

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"***Person***" means any individual, corporation, partnership, limited liability company, joint venture, estate, trust, unincorporated association, any other person or entity, and any federal, state, county or municipal government or any bureau, department or agency thereof and any fiduciary acting in such capacity on behalf of any of the foregoing.

"***Personal Property Taxes***" has the meaning set forth in Section 16 of the Agreement.

"***Premises***" has the meaning set forth in Recital B of this Agreement.

"***Property***" has the meaning set forth in Recital A of this Agreement.

"***Public Official***" has the meaning set forth in Section 42 of this Agreement.

"***Removal Date Term***" has the meaning set forth in Section 6(c) of this Agreement.

"***Rent***" has the meaning set forth on the Cover Sheet of this Agreement.

"***Roll Back Taxes***" has the meaning set forth in Section 16(b) of this Agreement.

"***Sales Tax***" has the meaning set forth in Section 16(b) of this Agreement.

"***Security Interest***" has the meaning set forth in Section 13(n) of this Agreement.

"***System(s)***" means the solar photovoltaic and/or energy storage system or systems installed and operating at the Premises, together with all electrical production, transmission, storage, and distribution facilities and related equipment, hardware and materials, including without limitation, panels, overhead and underground transmission, distribution or collector lines, circuit breakers, meters, conduit, footings, cabling, wires, overhead and underground control, communications and radio relay systems, energy storage facilities (including batteries), interconnection facilities and/or switching facilities, transformers and current inverters, control boxes and computer monitoring equipment systems, structures, batteries, features and improvements necessary to produce, transmit and store electric energy at such facility (excluding power to the Property).

"***System Loss***" has the meaning set forth in Section 18(b) of this Agreement.

"***System Removal***" has the meaning set forth in Section 6(c) of this Agreement.

"***Taxes and Assessments***" has the meaning set forth in Section 16 of this Agreement.

"***Tests***" has the meaning set forth in Section 2 of this Agreement.

"***Utility Easement***" has the meaning set forth in Section 4(c) of this Agreement.

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[redacted]

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EXHIBIT E

MEMORANDUM OF OPTION AND LEASE

[See attached]

DocuSign Envelope ID: 654446D0-ABAC-4EE7-BF10-2D264C5115B7

Recording Requested by and
after recording return to:

_____, LLC
55 Technology Drive, Suite 102
Lowell, MA 01853
Attn: Legal Department

MEMORANDUM OF OPTION AND LEASE

THIS MEMORANDUM OF OPTION AND LEASE (the "***Memorandum***"), is made as of _____, 20_, by and between [_____], [a _____having its principal place of business located at] [an individual with an address of] _____ _____, Illinois ("***Lessor***") and _____**, LLC**, a Delaware limited liability company with its principal place of business located at 55 Technology Drive, Suite 102 Lowell, MA 01853 ("***Lessee***").

1. Lessor and Lessee are parties to that certain Option and Lease Agreement (the "***Lease***"), dated as of_____(the "***Effective Date***") covering a portion of that certain parcel of land and the improvements thereon commonly known as _____, Illinois and identified in the deed dated _____and recorded in the _____County Recorder's Office at Book _____, Page _____(the ***Property***").

2. Under the Lease, Lessee has an option to lease a portion] of the Property and acquire easements over a portion of the Property as described in **Exhibit A** annexed hereto (the "***Premises***"), which option commences on the Effective Date and lasts for five hundred forty (540) days thereafter. The option term may be extended for two (2) addition terms of three hundred sixty five (365) days each.

3. The commencement date of Lessor's lease of the Premises shall be the date of Lessor's exercise of the option.

4. If the option is exercised, the initial term of the lease and the easements will be for twenty (20) years, and Lessee shall have the option to extend the lease for up to four (4) additional five (5) year terms, subject to earlier termination or extension pursuant to the terms of the Lease or applicable law.

5. The System, as defined in the Lease, installed and operated by Lessee at the Premises shall not be deemed a fixture. The System is Lessee's personal property and Lessor has no right, title or interest in the System. Further, Lessor has waived all right of levy for rent, all claims and demands against the System and all rights it may have to place a lien on the System.

6. All of the terms, covenants and conditions of the Lease are incorporated herein and made a part hereof. The purpose of this Memorandum is to give notice of the existence of the tenancy and easements created by the Lease; and shall not be construed to vary or otherwise affect the rights or obligations of the parties under the Lease as it may be amended. All capitalized terms not defined herein have the meaning attributed to them in the Lease.

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IN WITNESS WHEREOF, the parties have duly executed this Memorandum as of the date first above written.

LESSOR:

_____
Janet Dhuse

LESSEE:

312 Solar Development, LLC
a Delaware limited liability company

By: _____

Name: _____

Title: _____

DocuSign Envelope ID: 654446D0-ABAC-4EE7-BF10-2D264C5115B7

LESSOR ACKNOWLEDGMENT

STATE OF)
: ss.
COUNTY OF)

This instrument was acknowledged before me on _____(date) by _____(name of person(s)).

_____
Notary Public

LESSEE ACKNOWLEDGEMENT

STATE OF)
: ss.
COUNTY OF)

This instrument was acknowledged before me on _____(date) by _____(name of person) as _____(type of authority, e.g., officer, trustee, etc.) of _____(name of company).

_____
Notary Public

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EXHIBIT A
to
Memorandum of Option and Lease

PREMISES LEGAL DESCRIPTION

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EXHIBIT F

Date: 9-12-22

To Whom It May Concern

New Leaf Energy and its employees and affiliates are hereby authorized to act as our agent for submission of applications and related plans and documents, and to appear before boards and other officials, with respect to obtaining approvals for solar installations and/or energy storage systems to be constructed on my property located at Ament Rd in Yorkville, Kendall County, IL 60560 {Parcel: 05-16-300-006}.

Sincerely,

[redacted]

Janet Dhuse

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EXHIBIT G

FORM OF AMENDMENT TO DESCRIBE THE PREMISES

FIRST AMENDMENT TO OPTION AND LEASE AGREEMENT

THIS FIRST AMENDMENT TO OPTION AND LEASE AGREEMENT ("***Amendment***") is made and entered into as of _____, 202_ (the "***Effective Date***"), between **_____,** ("***Lessor***") and _____**, LLC**, a Delaware limited liability company (the "***Lessee***").

WHEREAS, Lessor and Lessee entered into that certain Option and Lease Agreement, dated _____, 201_ with respect to the property commonly known as _____, (collectively, the "***Lease***").

WHEREAS, the legal descriptions for the Premises shown on Exhibit B were based on preliminary site discovery information and were contemplated to be replaced with actual metes and bounds upon completion of System design and site survey.

WHEREAS, Lessee has completed its System design and site survey and the parties now seek to replace the legal descriptions attached to Exhibit B with the legal descriptions for the current design.

WHEREAS, the parties desire to amend the Lease on the terms and conditions contained herein.

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereby agree, as follows:

1. **Recitals.** The foregoing recitals are incorporated herein as if set forth at length. Capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Lease. All references herein to the Lease shall include the Lease as modified by this Amendment.

2. **Premises Exhibit**. Exhibit B of the Lease is hereby deleted in its entirety and replaced with **Schedule 1** attached hereto.

3. **Ratification; Full Force and Effect**. Except as amended by this Amendment, the Lease is hereby ratified, confirmed and approved in all respects.

4. **Provisions Binding**. All rights and liabilities given to or imposed upon either of the parties to this Amendment shall extend to and are binding upon the parties hereto and their respective successors and assigns.

5. **Entire Agreement**. This Amendment (a) together with the Lease contains the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements and understandings, whether oral or written, between the parties, (b) may not be modified or amended except by written agreement signed by the parties, (c) will be governed by the laws of the State of Illinois, without regard to principles of conflicts of laws and (d) may be executed by facsimile signature and in one or more counterparts, each of which will be deemed an original, and all of which when taken together will constitute one and the same instrument.

[*Signatures on the Following Page*]

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IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first above written.

LESSOR:

By: _____
Name: _____
Title: _____

LESSEE:

_____, LLC,
a Delaware limited liability company

By: _____
Name: _____
Title: _____

DocuSign Envelope ID: 654446D0-ABAC-4EE7-BF10-2D264C5115B7

SCHEDULE 1

EXHIBIT B

DESCRIPTION OF PREMISES

ASSIGNMENT AGREEMENT

THIS ASSIGNMENT AGREEMENT ("**Agreement**") is made effective as of Jul 10, 2024, ("**Effective Date**"), by and between 312 Solar Development, LLC, a Delaware limited liability company having a principal place of business at [redacted], [redacted] ("**Assignor**"), and Ament Solar 1, LLC, a Delaware limited liability company with a business address of [redacted] ("**Assignee**").

Recitals

A. Assignor entered into the following agreements identified in this Recital A (the "**Assigned Documents**"):

Janet Dhuse (**"Lessor**") and Assignor entered into that certain Option and Lease Agreement, dated effective September 12, 2022 for the property address commonly known as Ament Road, Yorkville, Kendall County, IL (Parcel Number 05-16-300-006).

B. Assignor desires to assign to Assignee all of its rights, title and interest in and to the Assigned Documents.

NOW, THEREFORE, in consideration of the covenants set forth herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows.

1. TRANSFER AND ASSIGNMENT. Assignor does hereby irrevocably convey, grant, bargain, sell, transfer, assign and deliver to Assignee, its successors and assigns, and Assignee does hereby accept from Assignor, effective as of the Effective Date, all of Assignor's right, title and interest in and to the Assigned Documents. Effective as of the Effective Date, Assignor hereby delegates to Assignee, and Assignee hereby assumes from Assignor, all of Assignor's duties and obligations under the Assigned Documents.

2. REPRESENTATIONS AND WARRANTIES. Assignor represents and warrants to Assignee that Assignor has delivered to Assignee true, correct and complete copies of the Assigned Documents as amended to date.

3. FURTHER ASSURANCES. Each party hereto agrees from time to time, subsequent to the date hereof, to execute and deliver or cause to be executed and delivered such instruments or further assurances as may, in the reasonable opinion of the other party, be necessary or desirable to give effect to the provisions of this Agreement.

4. GOVERNING LAW. This Agreement is governed by the laws of the State of Illinois, without giving effect to any conflict of law principle that would result in the laws of any other jurisdiction governing this Agreement.

5. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the

same instrument. This Agreement may be executed by facsimile or other electronic signatures and such signatures shall be deemed to bind each signatory as if they were original signatures.

6. **SUCCESSORS AND ASSIGNS.** This Agreement shall be binding upon and inure to the benefit of the successors and permitted assigns of Assignor and Assignee.

7. **WAIVERS AND MODIFICATIONS.** Neither this Agreement nor any term hereof may be amended, changed, waived, discharged or terminated other than by an instrument in writing, signed by an authorized signatory of each of Assignor and Assignee.

IN WITNESS WHEREOF, Assignor and Assignee have executed this Agreement as of the date first set forth above.

ASSIGNOR:

[redacted]**ENT, LLC**

Name: Ryan Bailey
Title: VP of Development - Midwest

ASSIGNEE:
AMENT SOLAR 1, LLC
BY: **1115 SOLAR DEVELOPMENT, LLC,**
i[redacted] sole member and manager

By: [redacted]
Name: Ryan Bailey
Title: VP of Development - Midwest

Illinois Department of Natural Resources
JB Pritzker, Governor • Natalie Phelps Finnie, Director
One Natural Resources Way • Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Kendall County
Kendall Township
Ament Road between IL 47 & Immanuel Road
IEPA, Langan-541021422
*New construction, solar development

PLEASE REFER TO: SHPO LOG #008122322

February 1, 2023

McKenzie Cornell
Langan Engineering, Environmental, Surveying
200 West Madison St., Suite 1920
Chicago, IL 60606

Dear M. Cornell:

The Illinois State Historic Preservation Office is required by the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420, as amended, 17 IAC 4180) to review all state undertakings for their effect on cultural resources. Pursuant to this requirement, we have received information regarding the above referenced project for our comment.

According to the information provided concerning the proposed project, apparently there is no federal involvement in your project. However, please note that the state law is less restrictive than the federal cultural resource laws concerning archaeology. If your project will use federal loans or grants, need federal agency permits, use federal property, or involve assistance from a federal agency, then your project must be reviewed under the National Historic Preservation Act of 1966, as amended. Please notify us immediately if such is the case.

Our files do not identify any known historic properties within this proposed project area, nor is the project area within the high probability area for archaeological resources as defined in the state Act. Accordingly, this project is EXEMPT pursuant to the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420/6). An archaeological survey for your above referenced project is not required under STATE law.

If further assistance is needed please contact Jeff Kruchten, Chief Archaeologist at 217/785-1279 or Jeffery.kruchten@illinois.gov.

Sincerely,

[redacted]

Carey L. Mayer , AIA
Deputy State Historic
Preservation Officer

ENCAP INCORPORATED

2585 Wagner Ct.
DeKalb, IL 60115
Phone: 815.748.4500
Fax: 815.748.4255
www.encapinc.net

TRANSMITTAL LETTER

TO:	**New Leaf Energy**	**DATE:**	July 13, 2023
	[redacted]	**PROJECT:**	Ament Road
	[redacted]		
ATTN:	**Mr. Bobby Lee, Project Engineer** [redacted]	**ENCAP Project #**	23-0519B

We are sending you:	**Date of Enclosed Materials**	**# of Copies**
2023 Water Resources Delineation Report	July 13, 2023	PDF

CC:	**Date of Enclosed Materials**	**# of Copies**

Via: ☐ **UPS Ground** ☐ **UPS Overnight** ☐ **U.S. Mail** ☒ **Electronic**

THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ **For Approval** ☐ **As Requested** ☒ **For your review** ☒ **For your use**

REMARKS: _____

_____

_____

_____

Signed: Robert Van Herik, CWS
rvanherik@encapinc.net

WATER RESOURCES DELINEATION REPORT

AMENT ROAD

KENDALL TOWNSHIP, KENDALL COUNTY, ILLINOIS

Prepared for: New Leaf Energy
[redacted]
Attn: Mr. Bobby Lee, Project Engineer

Prepared by: ENCAP, Inc.
Mr. Robert Van Herik, CWS
Ms. Susan Rowley, PWS, CWS, LEED AP

Date Prepared: July 13, 2023

ENCAP, Inc. Project #: 23-0519B

ENCAP INCORPORATED

2585 Wagner Ct.
DeKalb, IL 60115
Phone: 815.748.4500
Fax: 815.748.4255
www.encapinc.net

WATER RESOURCES DELINEATION REPORT

Ament Road / New Leaf Energy

Table of Contents

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Map Review	5
Specific Description of Identified Water Resources	6
Investigation of Farmed Areas and Slide Analysis Summary	7
Additional Areas Investigated for Wetland Status	8
Regulatory Statement	10
Recommendations	12
References	13

Attachments

USFWS Section 7 Consult. Review Summary + Official Threatened & Endangered Species List
IDNR EcoCAT Natural Resource Review Results / Termination
Floristic Quality Data Sheets
USACE Wetland Determination Data Forms – Midwest Region
Site Photographs
USACE Antecedent Precipitation Tool Figure & Tables (2007, 2009, 2010-WET, 2011, 2015, 2018, 06/16/2023)
Historical Aerial Photographs: 2007, 2009, 2010-WET, 2011, 2015, 2018
Exhibits

- A – Location Map
- B – National Wetlands Inventory
- C – Soil Map
- D – 2021 USGS Topographic Map
- E – FEMA Flood Insurance Rate Map
- F – ISHPO HARGIS Map
- G – Aerial Photograph

WATER RESOURCES DELINEATION REPORT

Project Name and Client: Ament Road / New Leaf Energy

Project Number: 23-0519B

Location: Illinois, Kendall County, Kendall Township, Unincorporated,
T36N R7E, SW 1/4 of Section 16
Latitude 41.593804; Longitude -88.444237

Date of Site Visit: June 16, 2023

Field Investigators: R. Van Herik & S. DeDina

EXECUTIVE SUMMARY

The project area (approximately 58 acres in size) is located in unincorporated Kendall Township, Kendall County, Illinois (Exhibit A: Location Map). The project area, as presented in this report, represents the property limits investigated by ENCAP, Inc. for the presence of regulated surface water resources. These limits do not necessarily reflect the boundaries of any proposed development activities. The project area is generally bounded by Ament Road to the north, and agricultural land to the south, east, and west. A residential/agricultural parcel is located adjacent to the northeast portion of the project area. The project area is located within the Fox River watershed, Middle Aux Sable Creek sub-watershed.

The project area consists of agricultural land that has been tiled, tilled, and is currently in production of corn (*Zea mays*). Two upland grassed swales are found within the southern portion of the site. No buildings or structures were located on-site. Topographically, the elevation decreases from north to south, with a few slightly depressional areas found throughout the site.

One wetland, a farmed wetland, totaling 0.08 acres was identified on the project area. The limits of farmed wetlands were identified using protocol established by the U.S. Department of Agriculture and were not staked in the field.

Basic information regarding wetland regulations may be found in the Regulatory Statement portion of this report. Briefly, the U.S. Army Corps of Engineers (USACE) regulates all Waters of the United States that are currently or historically navigable and all wetlands that are connected to or associated with these waterways. The Kendall County Stormwater Management Ordinance provides for the protection of wetlands and other depressional storage areas from damaging modifications and adverse changes in runoff quality and quantity associated with land developments. It appears that the wetland identified on site is isolated and therefore regulated by Kendall County and not regulated by the USACE, however, the USACE must make a final determination regarding jurisdictional status. Kendall County's ordinance does not specifically enforce wetland buffers.

Based on a July 10, 2023 review of the U.S. Fish and Wildlife Service (USFWS) technical assistance website, sensitive (federally threatened or endangered) plant or animal species habitat are not located on or adjacent to the project area and the proposed project will have "no

effect" on those species (see attached USFWS Review Summary). Further consultation with this agency is not required for a Section 404 Permit from the USACE.

According to the Illinois Department of Natural Resources (IDNR), sensitive (threatened or endangered) plant or animal species are not known to exist within the vicinity of the project area and consultation with the IDNR has been terminated. The formal consultation from the IDNR is valid for 2 years from the submittal date of July 10, 2023 (see attached IDNR EcoCAT Results Report).

At the time of this wetland delineation report, current regulations state that this delineation is valid for 5 years from the date of site visit June 16, 2023.

PROJECT PURPOSE

The purpose of the site visit was to identify regulated surface water resources on, or within 100 feet of the project area. A floodplain determination was not included as part of our investigation. On-site wetland areas encountered were delineated using standard methods sanctioned by the United States Army Corps of Engineers in the Corps of Engineers Wetlands Delineation Manual (1987) and 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region and the United States Department of Agriculture National Food Security Act Manual (1994 and 1996). Plant observations were made in order to calculate the Coefficient of Conservatism (ĉ) and Floristic Quality Index (FQI) for each wetland plant community using the Chicago Region FQA Calculator (Herman, B., Sliwinski, R. and S. Whitaker. 2017). Observed wildlife and evaluation of resource quality are also reported as required by the USACE.

METHODS

1987 USACE Wetland Delineation Manual and 2010 Midwest Regional Supplement.

Prior to the site visit, a preliminary site evaluation is performed using aerial photography and natural resource mapping. Potential wetland areas identified by these resources are evaluated in the field to determine if they meet the requirements for a wetland based on the USACE parameters of vegetation, hydrology, and soils. In general, positive indication of each of the three parameters must be demonstrated to classify an area as wetland. Each of these parameters is discussed below.

- **Vegetation** – Three vegetative indicators are applied to plant communities in order to determine if the hydrophytic vegetation criterion is met.
  1. More than 50% of the dominant plant species across all strata must be hydrophytic (water tolerant). The U.S. Army Corps of Engineers has prepared a regional list of plants occurring in wetlands which assigns the plant species different indicators. Wetland plants fall into three indicator classes based on differing tolerances to water level and soil saturation. These indicators are rated obligate wetland (OBL), facultative wetland (FACW), or facultative (FAC). Dominant plant species are recorded at sample points within investigated areas.
  2. The prevalence index is 3.0 or less. The prevalence index is a weighted-average wetland indicator status of all plant species in a sampling plot. Each indicator status category is given a numeric value (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5) and weighting is by abundance. A prevalence index of 3.0 or less indicates that hydrophytic vegetation is present. The prevalence index is used to determine whether hydrophytic vegetation is present on sites where indicators of hydric soil and wetland hydrology are present but the vegetation initially fails the dominance test.
  3. The plant community passes either the dominance test (Indictor 1) or the prevalence index (Indicator 2) after reconsideration of the indicator status of certain plant species that exhibit morphological adaptations for life in wetlands. Common morphological adaptations include but are not limited to adventitious roots, multi-stemmed trunks, shallow root systems developed on or near the soil surface, and buttressing in tree species. To apply this indicator, these morphological features must be observed on more than 50% of the individuals of a FACU species living in an area where indicators of hydric soil and wetland hydrology are present.

- **Hydrology** – To be considered a wetland, an area must have 14 or more consecutive days of flooding or ponding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10. Wetland hydrology indicators are divided into four groups as described below:
  - **Group A** – indicators are based on the direct observation of surface water or groundwater during a site visit.
  - **Group B** – consists of evidence that the site is subject to flooding or ponding, although it may not be inundated currently. These indicators include water marks, drift deposits, sediment deposits, and similar features.
  - **Group C** – consists of other evidence that the soil is saturated currently or was saturated recently. Some of these indicators, such as oxidized rhizopheres surrounding living roots and the presence of reduced iron or sulfur in the soil profile, indicate that the soil has been saturated for an extended period.

- **Group D** – consists of landscape and vegetation characteristics that indicate contemporary rather than historical wet conditions. These indicators include stunted or stressed plants, geomorphic position, and the FAC-neutral test.

Wetland hydrology indicators are intended as one-time observations of site conditions that are sufficient evidence of wetland hydrology. Within each group, indicators are divided into two categories – *primary* and *secondary*. One primary indicator from any group is sufficient to conclude that wetland hydrology is present. In the absence of a primary indicator, two or more secondary indicators from any group are required to conclude that wetland hydrology is present.

- **Soils** - To be considered a wetland, an area must contain hydric soil. Hydric soils are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic (lacking oxygen) conditions in the upper part. Soils generally, but not always, will develop indicators that are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. The most current edition of the United States Department of Agriculture, Natural Resource Conservation Service *Field Indicators of Hydric Soils in the United States* is used for identification of hydric soils. Field indicators of hydric soils include but are not limited to the presence of any of the following: histic epipedon, sulfidic odor, at least 2 centimeters of muck, depleted matrix, and/or redoximorphic features. Field indicators are usually examined in the top 24 inches of the soil. Soil colors are determined using *Munsell Soil Color Charts*.

Areas meeting these three criteria are staked in the field for surveying purposes. Boundaries are demarcated in the field with pink flagged pin stakes labeled “WETLAND DELINEATION.” Staked boundaries are mapped on an aerial photograph included in this report. Approximate off-site wetland boundaries are identified on the aerial photograph and were determined using available aerial photographs, wetland maps, and field observation.

Farmed Wetland Determinations.

ENCAP, Inc. conducted a wetland determination on the farmed portion of the project area and off-site farmed portion immediately adjacent to the property using National Food Security Act Manual (NFSAM) methodology. Aerial photographs are reviewed in order to identify potential farmed wetland signatures. The identified suspect areas are then field investigated to confirm that the areas are in fact wetlands. Copies of the aerial photographs used in identifying farmed wetlands are included in this report.

MAP REVIEW

- The **National Wetlands Inventory** does not identify any water resources or wetlands within the project area (Exhibit B).

- The **Soil Map** identifies the following soils within the project area: Lisbon silt loam, 0 to 2 percent slopes (59A), Graymont silt loam, 2 to 5 percent slopes (541B), Graymont silt loam 5 to 10 percent slopes, eroded (541C2), Drummer silty clay loam, 0 to 2 percent slopes (152A), and Elpaso silty clay loam, 0 to 2 percent slopes (356A). Drummer silty clay loam, 0 to 2 percent slopes (152A), and Elpaso silty clay loam, 0 to 2 percent slopes (356A) are considered predominantly hydric in Kendall County (Exhibit C).

- The **2021 United States Geological Survey (USGS) Topographic Map** does not identify any surface drainage within or adjacent to the project area (Exhibit D).

- The **FEMA Flood Insurance Rate Map** identifies the project area outside the 500-year floodplain (Exhibit E).

- The **Illinois State Historic Preservation Office (ISHPO) Historic Architectural Resources Geographic Information System (HARGIS) Map** does not identify any properties or objects that have been listed in the National Register of Historic Places, determined eligible, or surveyed without determination within the project area (Exhibit F).

SPECIFIC DESCRIPTION OF IDENTIFIED WATER RESOURCES

Farmed Wetland 1. This wetland (0.08 acres in total size) is located within the southeast portion of the project area. The wetland is depressional, receiving its hydrology from overland flow, likely connecting to drain tiles located within the agricultural field. Farmed Wetland 1 exhibited wetland signatures in 3 out of 5 historic aerial photographs from years with normal precipitation. The location and acreage of Farmed Wetland 1 were determined through aerial photograph interpretation, and its boundaries were not field staked by ENCAP, Inc. Based on the definition of a high-quality aquatic resource, Farmed Wetland 1 would not be considered a high-quality aquatic resource. No waterfowl or amphibian species observed while at the project area.

The buffer surrounding Farmed Wetland 1 consists of an agricultural field currently in production and an upland grassed swale dominated by non-native grasses. The upland grassed swale provides little functional value to the wetland, while the planted field provides almost no functional value. The farmed wetland and surrounding buffer provide no wildlife habitat to the surrounding area.

Farmed Wetland 1 appears to be isolated and therefore, not under the jurisdiction of the U.S. Army Corps of Engineers; however, the wetland is regulated by Kendall County through implementation of the County Stormwater Ordinance.

One sample point was established within Farmed Wetland 1 to characterize the vegetation, soils, and hydrology (Exhibit G: Aerial Photograph). Farmed Wetland 1 was primarily vegetated by corn and redroot amaranth (*Amaranthus retroflexus*). The mapped soil series is Graymont silt loam, 5 to 10 percent slopes, eroded (541C2), a non-hydric soil. USDA field indicators A11: Depleted Below Dark Surface and F3: Depleted Matrix provided evidence of hydric soil. Saturation visible on aerial imagery, geomorphic position, and a review of historic aerial photographs provided evidence of persistent hydrology (See Wetland Determination Data Forms).

The native mean Coefficient of Conservatism (ĉ) for Farmed Wetland 1 was 0.00, and the native Floristic Quality Index (FQI) of Farmed Wetland 1 was 0.00 (see attached Floristic Quality Data). These values indicate a low-quality plant community.

INVESTIGATION OF FARMED AREAS

During the field investigation, the entire site consisted of agricultural land. ENCAP, Inc. evaluated aerial photographs (slides) obtained from Google Earth year-by-year using NRCS wetland signature criteria. Wetland signatures consist of wetland vegetation, surface water, drowned-out crops, patches of greener vegetation, and avoided areas. Areas exhibiting wetland signatures in >50% or more of reviewed aerial photographs and containing hydric soils are considered farmed wetlands. Additionally, if areas do not exhibit wetland signatures in >50% or more of reviewed aerial photographs but do exhibit positive primary or secondary wetland hydrology indicators in the field and contain hydric soils, they are also considered farmed wetlands.

See the attached aerial photographs for years reviewed and wetland signatures observed. Figures and tables from the U.S. Army Corps of Engineers Antecedent Precipitation Tool, which indicate the hydrologic conditions for each historic aerial image, are also attached.

Table 1. Slide Analysis Summary
New Leaf Energy/Ament Road

Year	Google Earth Source	Precipitation	Sample Points Type of Signature / Corresponding Number							
			A	**B**	**C**	**D**	**E**	**F**	**G**	**H**
2007	Google, Maxar Technologies	Normal	N	CT 4	CT 3	CT 2	N	CT 1	N	N
2009	USDA/FPAC/ GEO	Normal	N	CT 1	N	N	N	N	N	N
2010	*USDA/FPAC/ GEO*	*WET*	*CT 5*	*CT 6*	*CT 4*	*CT 3*	*N*	*CT 2*	*N*	*CT 7*
2011	USDA/FPAC/ GEO	Normal	CT 2	N	N	N	N	CT 1	N	N
2015	Google, Maxar Technologies	Normal	CT 3	CT 5	CT 4	CT 2	N	CT 1	N	N
2018	Google, Maxar Technologies	Normal	CT 2	N	N	N	N	CT 1	N	N
Percent wetland signatures present in years with normal precipitation			0%*	60%	40%	40%	0%	0%*	0%	0%
Hydric soil present based on field inspection			Yes	Yes	Yes	Yes	No	No	Yes	Yes
Identified as wetland on the NWI			No	No	No	No	No	No	No	No
Qualifies as Farmed Wetland			No	Yes	No	No	No	No	No	No

INU= Inundation
CT= Color Tone Difference
SAT= Saturation
N=No Wetland Signatures Observed
Y= Yes / Identified
*Although these areas displayed color tone differences in the historical aerials, they were determined to be upland grassed swales and therefore the color tone differences are not considered wetland signatures.

ADDITIONAL AREAS INVESTIGATED FOR WETLAND STATUS

Seven additional vegetated sites located within the project area were examined to determine if they satisfied wetland criteria. None of these sites qualified; therefore, they are referred to as Upland Grassed Swales / Investigated Areas in this report. Each area is briefly described herein and USACE data forms are provided to support our negative findings (See USACE data forms).

Upland Grassed Swale 1. This investigated area is located in the southeast portion of the project area (Exhibit G: Aerial Photograph – Sample Point A). This area was investigated because it consisted of an upland grassed swale that displayed color tone differences in the historical aerial imagery examined during the farmed wetland desk review.

Upland Grassed Swale 1 was primarily vegetated by smooth brome (*Bromus inermis*) and meadow fescue (*Schedonorus pratense*). The mapped soil series is Drummer silty clay loam, 0 to 2 percent slopes (152A), a hydric soil. USDA field indicators A11: Depleted Below Dark Surface and F3: Depleted Matrix provided evidence of hydric soil. Evidence of persistent hydrology was not observed (See Wetland Determination Data Forms).

Based on the dominance of upland plant species and non-persistent hydrology, Upland Grassed Swale 1 does not qualify as wetland.

Upland Grassed Swale 2. This investigated area is located in the southwest portion of the project area (Exhibit G: Aerial Photograph – Sample Point F). This area was investigated because it consisted of an upland grassed swale that displayed color tone differences in the historical aerial imagery examined during the farmed wetland desk review.

Upland Grassed Swale 2 was primarily vegetated by smooth brome and meadow fescue. The mapped soil series is Drummer silty clay loam, 0 to 2 percent slopes (152A), a hydric soil. The field investigated soil did not exhibit hydric characteristics. Evidence of persistent hydrology was not observed (See Wetland Determination Data Forms).

Based on the dominance of upland plant species, the presence of non-hydric soil, and non-persistent hydrology, Upland Grassed Swale 2 does not qualify as wetland.

Investigated Area 1. This investigated area is located in the southeast portion of the project area (Exhibit G: Aerial Photograph – Sample Point C). This area was investigated because it displayed wetland signatures during 2 of 5 years with normal precipitation.

Investigated Area 1 was primarily vegetated by corn. The mapped soil series is Drummer silty clay loam, 0 to 2 percent slopes (152A), a hydric soil. USDA field indicator A12: Thick Dark Surface provided evidence of hydric soil. Evidence of persistent hydrology was not observed (See Wetland Determination Data Forms).

Based on the non-persistent hydrology, Investigated Area 1 does not qualify as farmed wetland.

Investigated Area 2. This investigated area is located in the southeast portion of the project area (Exhibit G: Aerial Photograph – Sample Point D). This area was investigated because it displayed wetland signatures during 2 of 5 years with normal precipitation.

Investigated Area 2 was primarily vegetated by corn. The mapped soil series is Drummer silty clay loam, 0 to 2 percent slopes (152A), a hydric soil. USDA field indicator A12: Thick Dark

Surface provided evidence of hydric soil. Evidence of persistent hydrology was not observed (See Wetland Determination Data Forms).

Based on the non-persistent hydrology, Investigated Area 2 does not qualify as farmed wetland.

Investigated Area 3. This investigated area is located in the south portion of the project area (Exhibit G: Aerial Photograph – Sample Point E). This area was investigated because it contained a mixture of cultivated crops and hydrophytic vegetation.

Investigated Area 3 was primarily vegetated by corn and barnyard grass (*Echinochloa crus-galli*). The mapped soil series is Graymont silt loam, 2 to 5 percent slopes (541B), a non-hydric soil. The field investigated soil did not exhibit hydric characteristics. Evidence of persistent hydrology was not observed (See Wetland Determination Data Forms).

Based on the presence of non-hydric soil and non-persistent hydrology, Investigated Area 3 does not qualify as farmed wetland.

Investigated Area 4. This investigated area is located in the northwest portion of the project area (Exhibit G: Aerial Photograph – Sample Point G). This area was investigated because it consisted of a slight topographic depression.

Investigated Area 4 was primarily vegetated by corn. The mapped soil series Elpaso silty clay loam, 0 to 2 percent slopes (356A), a hydric soil. USDA field indicator A12: Thick Dark Surface provided evidence of hydric soil. Evidence of persistent hydrology was not observed (See Wetland Determination Data Forms).

Based on the non-persistent hydrology, Investigated Area 4 does not qualify as farmed wetland.

Investigated Area 5. This investigated area is located in the northeast portion of the project area (Exhibit G: Aerial Photograph – Sample Point H). This area was investigated because it consisted of a slight topographic depression that appeared as a wetland signature during the wet year of the examined historical aerials; however, it did not display wetland signatures in years examined with normal precipitation.

Investigated Area 5 was primarily vegetated by corn. The mapped soil series Elpaso silty clay loam, 0 to 2 percent slopes (356A), a hydric soil. USDA field indicator A12: Thick Dark Surface provided evidence of hydric soil. Evidence of persistent hydrology was not observed (See Wetland Determination Data Forms).

Based on the non-persistent hydrology, Investigated Area 5 does not qualify as farmed wetland.

REGULATORY STATEMENT

Federal Regulations: The deposition of dredged or fill materials into federally jurisdictional wetlands or Waters of the United States is regulated by the USACE under Section 404 of the Clean Water Act.

The Nationwide Permit Program authorizes 0.10 acre or less of low quality wetlands to be filled without mitigation. If over 0.1 acre is proposed for filling or is subject to secondary impacts, in-kind mitigation may be required at a ratio of 1.5:1, or greater. The aggregate total loss of waters of the U.S. authorized by NWP 39 cannot exceed 0.5 acre or 300 linear feet of streambed.

Under the existing regulations, secondary impacts (both on-site and off-site) from filling also must be evaluated. Mitigation may be required at a higher rate if a project will significantly alter wetland functions such as stormwater detention, water filtration, sediment trapping, and/or wildlife habitat.

Before mitigation will be approved, reasonable proof that avoidance or minimization of wetland impacts has been attempted must be provided to the Corps.

A USACE permit is not required if the wetlands are avoided and construction erosion near wetlands is controlled.

Kendall County Stormwater Management Ordinance: On December 15, 2011, Kendall County adopted a Stormwater Management Ordinance, with a most recent update of May 18, 2021. The ordinance provides for the protection of wetlands and other depressional storage areas from damaging modifications and adverse changes in runoff quality and quantity associated with land developments.

Natural vegetation shall be retained and protected. Areas immediately adjacent to natural watercourses, lakes, ponds, and wetlands shall be left undisturbed during development to the greatest extent possible. Temporary crossings of watercourses, when permitted, must include appropriate watercourse and bank stabilization measures.

Special precautions shall be taken to prevent damages resulting from any necessary development activity within or adjacent to any stream, lake, pond, or wetland. Preventative measures shall reflect the sensitivity of these areas to erosion and sedimentation.

Illinois Department of Natural Resources Agency Action Plans for Interagency Wetlands Policy Act of 1989: The Illinois Interagency Wetlands Policy Act of 1989 is intended to ensure that there is no overall net loss of the State's existing wetland acres or their functional values resulting from State-supported activities. The Act charges State agencies with a further duty to "preserve, enhance and create wetlands where necessary to increase the quality and quantity of the State's wetland resource base."

The Interagency Wetlands Policy Act of 1989 states that any construction, land management or other activity performed by, or for which financial assistance is administered or provided by, a State agency that will result in an adverse impact to a wetland shall be subject to compliance. This includes, but is not limited to the following:

- The alteration, removal, excavation, or dredging of soil, sand, gravel, minerals, organic matter, vegetation, or naturally occurring minerals of any kind from a wetland;

- The discharge or deposit of fill material or dredged material in a wetland;
- The alteration of existing drainage characteristics, sedimentation patterns, or flood retention characteristics of a wetland;
- The disturbance of water level or water table of a wetland;
- The destruction or removal of plant life that would alter the character of a wetland, except for activities undertaken in accordance with the Illinois Noxious Weed Act;
- The transfer of State owned wetlands to any entity other than another state agency; and
- Other actions that cause or may cause adverse wetland impacts.

The Act is to be implemented through a State Wetland Mitigation Policy. The State Wetland Mitigation Policy requires preservation of wetlands as the primary objective. Where adverse wetland impacts are unavoidable, progressive levels of compensation based upon the level of impact to the existing wetland and the location of compensation wetlands are required.

Archaeological Survey Requirements: An archaeological survey may be required before a Section 404 permit will be issued for wetland impacts. The U.S. Army Corps of Engineers will make this determination as part of the permit application review. The archaeological survey must cover all areas of the project area, not wetlands only. If you already have a letter from the Illinois State Historic Preservation Office (ISHPO) stating an archaeological survey is required, you should act on it because the USACE will support this notification.

RECOMMENDATIONS

One farmed wetland totaling 0.08 acres was identified on the project area. The boundary of Farmed Wetland 1 was not field staked by ENCAP, Inc. Farmed wetland boundaries must be scaled from the attached aerial photograph (Exhibit G) onto the property boundary survey.

The U.S. Army Corps of Engineers has the final authority in determining the jurisdictional status of the wetland identified on site. ENCAP, Inc. recommends that a request for jurisdictional determination be sent to the U.S. Army Corps of Engineers as soon as possible. An Approved Jurisdictional Determination may take between 3-6 months to receive from the USACE offices.

If wetlands can be completely avoided by project development, a Letter of No Objection (LONO) / No Permit Required may be obtained from the USACE in lieu of an Approved Jurisdictional Determination. A LONO/No Permit Required letter may take between 2-3 months to receive from the USACE offices.

Any impacts to Farmed Wetland 1 will require U.S. Army Corps of Engineers or County notification and approval. ENCAP, Inc. can assist you with the request for jurisdictional determination/LONO/No Permit Required, permit applications, agency negotiations, wetland design plans, and mitigation plans which may be applicable to your project. The wetland consultant should be involved during the planning and design stages of the project to avoid complications with the agencies after the plan has been drafted. Proper planning regarding wetlands can reduce delays caused by the permitting process and costly changes in site plans.

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USFWS Section 7 Consultation Review Summary
+ Official Threatened & Endangered Species List

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July 10, 2023

U.S. Fish and Wildlife Service
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022

Re: USFWS Review Summary - Section 7 Endangered Species Act Consultation
Project: Ament Road, located in Illinois, Kendall County, Kendall Township, Unincorporated, T36N R7E Section 16;
Latitude 51.593804 N; Longitude -88.444237 W
ENCAP, Inc. project # 23-0519B
Client: New Leaf Energy

The project area consists of agricultural land that has been tiled, tilled, and is currently in production of corn (*Zea mays*). Two upland grassed swales are found within the southern portion of the site to aid in drainage of stormwater from the field off-site. No buildings or structures were located on-site. Topographically, the elevation decreases from north to south, with a few slightly depressional areas found throughout the site. The proposed project includes conversion of the agricultural field to a solar array and attendant features.

ENCAP, Inc. carefully reviewed the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPAC) technical assistance website on July 10, 2023 for federally listed threatened and endangered species. According to the website, 3 threatened or endangered species are listed and may be present in Kendall County: Indiana Bat (*Myotis sodalis*), Northern Long-eared Bat (*Myotis septentrionalis*), and Eastern Prairie Fringed Orchid (*Platanthera leucophaea*). Additionally, the Tricolored Bat (*Perimyotis subflavus*) is proposed to be listed as an endangered species, the Monarch Butterfly (*Danaus plexippus*) is included as a candidate species, and the Whooping Crane (*Grus americana*) is included as an experimental population, non-essential species.

Two major types of habitat exist on the project area. The majority of the project area is an active agricultural field currently in production of corn. The remainder of the project area consists of non-native grasses planted in upland grassed swales and at the border of the field. Scattered non-planted forbs were found throughout the property border and the west upland grassed swale. These areas provide virtually no wildlife habitat on-site. Along the southern border of the parcel, a few mature trees and several saplings were found consisting of hackberry (*Celtis occidentalis*) and white mulberry (*Morus alba*). This area provides minimal wildlife habitat but is unlikely to support listed species. Very few flowering forbs were identified on-site.

One wetland, a farmed wetland, totaling 0.08 acres was identified on the project area. The native mean Coefficient of Conservatism (ĉ) for Farmed Wetland 1 was 0.00, and the native Floristic Quality Index (FQI) of Farmed Wetland 1 was 0.00.

The project area does not contain medium to high quality wetland with species associated with Eastern prairie fringed orchid. The limited number of mature trees provides very little foraging habitat for listed bat species. If tree clearing is avoided, or is conducted during the winter months, it is likely this project will have “no effect” on the Northern long-eared or Indiana bat species.

The minimal flowering forbs found on-site may support limited habitat for the Monarch Butterfly. Further guidance for this species is not required since it is a candidate species and not yet fully listed as threatened or endangered. The Monarch Butterfly was found to warrant listing and protection under the Endangered Species Act (ESA), but resources must go to higher priority species at this time. Candidate species have no legal protection under the ESA, but agencies can still provide recommendations for them. The USFWS broadly urges the public to provide habitat for this imperiled species by planting native milkweed and nectar plants. The Monarch Butterfly should be considered in any landscaping plans.

The endangered Whooping Crane population plummeted to only about 20 birds in the 1940’s due to habitat loss and hunting, but through intense conservation efforts, the overall wild and captive population is now around 800 birds. The Whooping Crane Eastern Migratory population, which travels through Illinois, is a reintroduced flock started in 2001 with captive raised chicks. The flock breeds in central Wisconsin and winters between the central Gulf Coast of Florida and southeastern United States. This reintroduction effort is ongoing; 72 adults were present as of May 2023. Whooping Cranes require wetlands, particularly wetland mosaic landscapes, in Illinois while migrating, so the greatest threat to them in Illinois is wetland loss. The Eastern Migratory population is designated “non-essential” by the Endangered Species Act to reduce regulatory restrictions on reintroductions. Non-essential, experimental populations are treated as threatened under the U.S. Fish & Wildlife Service’s 10(j) policy. The Eastern Migratory population is important to the recovering Whooping Crane population overall, but formal consultation with the USFWS is likely not required for this population.

None of the two areas on-site contain suitable habitats for the Indiana Bat, Northern Long Eared Bat, Tricolored Bat, Eastern Prairie Fringed Orchid, Monarch Butterfly or Whooping Crane. Therefore, ENCAP, Inc. concludes that the Ament Road solar project does not contain the aforementioned listed species, their habitats, or designated critical habitat and will have “no effect” on the aforementioned species.



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Senior Ecological Consultant
ENCAP, Inc.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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In Reply Refer To:
Project Code: 2023-0102286
Project Name: Ament Road

July 10, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the ECOSPHERE Information for Planning and Consultation (IPaC) website https://ipac.ecosphere.fws.gov at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service (Service) if they determine their project “may affect” listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make "no effect" determinations. If you determine that your proposed action will have

no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or more Determination Keys to conclude consultation on your action.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.

2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have “no effect” on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.

3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude “no species habitat or species present” and document your finding in your project records. For example, if the project area is located entirely within a “developed area” (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project’s immediate footprint.

4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat,

‘may affect’ is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.

2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species’ resources may have consequences even if the species is not present when the project is implemented.

3. If no listed or proposed species will be exposed to stressors caused by the action, a ‘no effect’ determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."

4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.

5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.

6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms

used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance.
You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation

Northern Long-eared Bat Update

Please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.
Other Trust Resources and Activities

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website https://www.fws.gov/library/collections/bald-and-golden-eagle-management.
We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries

- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
(309) 757-5800

PROJECT SUMMARY

Project Code: 2023-0102286
Project Name: Ament Road
Project Type: Power Gen - Solar
Project Description: Conversion of a agricultural field to a solar development and attendant features
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.59330225,-88.44436848325043,14z



Counties: Kendall County, Illinois

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid *Platanthera leucophaea*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/601

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Oct 15 to Aug 31

NAME	BREEDING SEASON
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Cerulean Warbler *Dendroica cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 21 to Jul 20
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Henslow's Sparrow *Ammodramus henslowii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Upland Sandpiper *Bartramia longicauda* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9294	Breeds May 1 to Aug 31
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

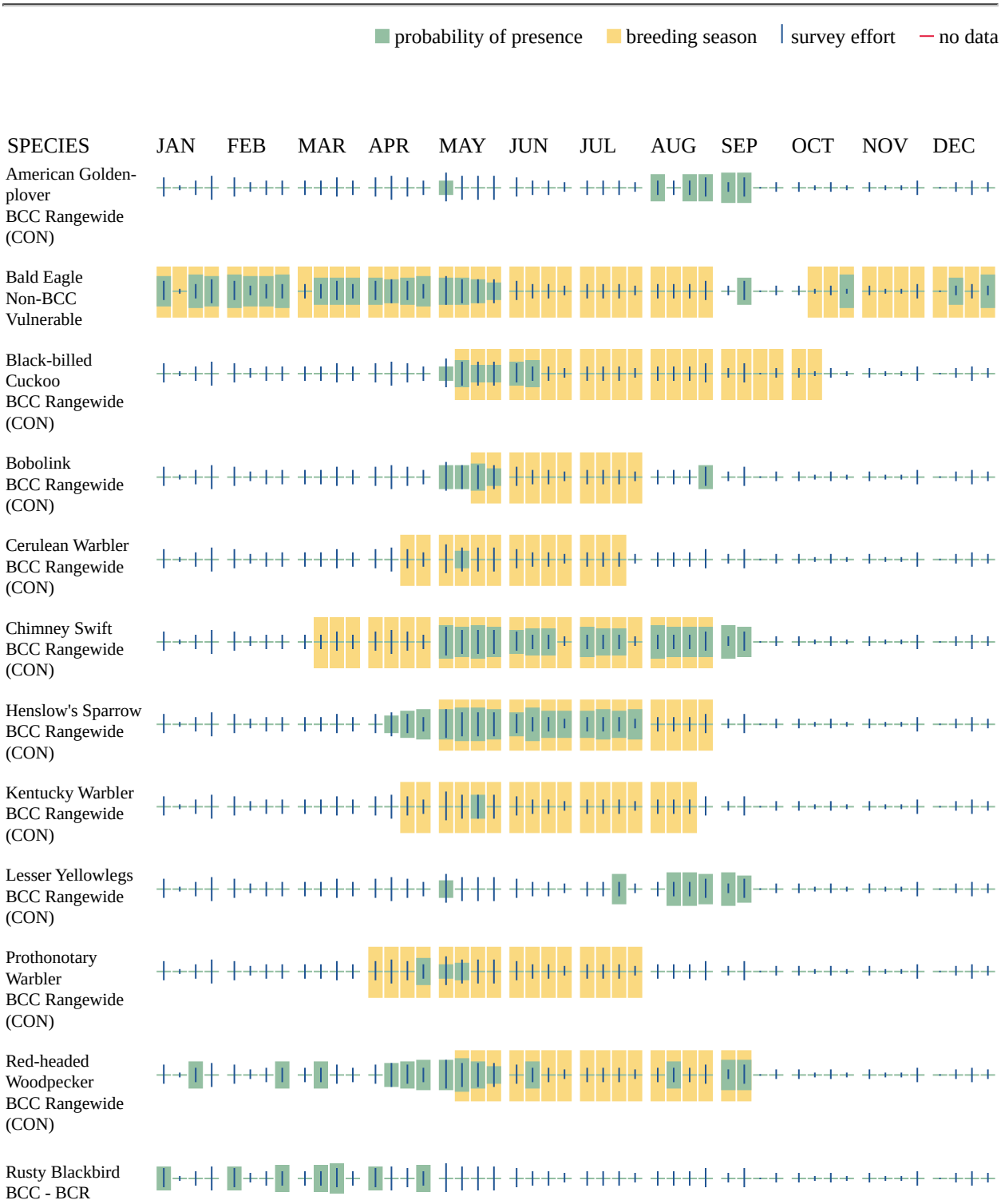
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

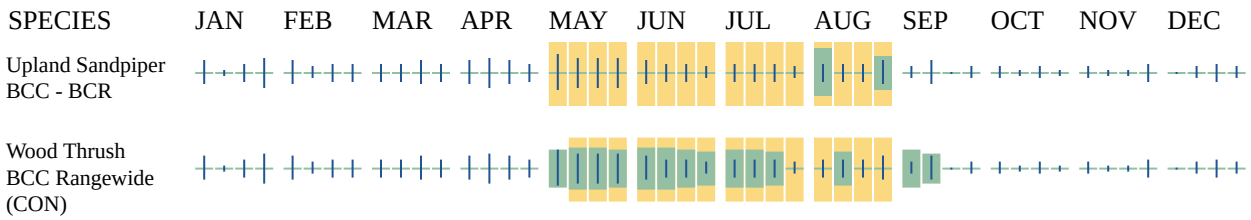
No Data (–)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

MIGRATORY BIRDS FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

Agency: ENCAP, Inc.
Name: Robert Van Herik
Address: [redacted]
City: [redacted]
State: [redacted]
Zip: [redacted]
Email [redacted]
Phone: [redacted]

IDNR EcoCAT Natural Resources Review Results / Termination

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: ENCAP, Inc.
Contact: Robert Van Herik, Jr.
Address: [redacted]

IDNR Project Number: 2400448
Date: 07/10/2023
Alternate Number: 23-0519B

Project: Ament Road
Address: Ament Road, Yorkville

Description: conversion of agricultural field into a solar development and attendant features.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

Consultation is terminated. This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Kendall

Township, Range, Section:
36N, 7E, 16
36N, 7E, 17



IL Department of Natural Resources Contact
Kyle Burkwald
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
Kendall County Planning, Building, & Zoning
Matt Asselmeier,
masselmeier@kendallcountyil.gov
111 West Fox Street
Yorkville, Illinois 60560

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

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EcoCAT operates on a state of Illinois computer system. We may use software to monitor traffic and to identify unauthorized attempts to upload, download, or change information, to cause harm or otherwise to damage this site. Unauthorized attempts to upload, download, or change information on this server is strictly prohibited by law.

Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

IDNR Project Number: 2400448

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

EcoCAT Receipt

Project Code 2400448

APPLICANT	DATE
ENCAP, Inc. Robert Van Herik, Jr. [redacted]	7/10/2023

DESCRIPTION	FEE	CONVENIENCE FEE	TOTAL PAID
EcoCAT Consultation	$ 125.00	$ 2.81	$ 127.81

TOTAL PAID $ 127.81

Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
217-785-5500
dnr.ecocat@illinois.gov

Floristic Quality Data Sheets

SITE: Ament Road
LOCALE: Farmed Wetland 1
BY: R. Van Herik & S. DeDina
NOTES: 6/16/2023

CONSERVATISM-BASED METRICS		ADDITIONAL METRICS	
MEAN C (NATIVE SPECIES)	0.00	SPECIES RICHNESS (ALL)	3
MEAN C (ALL SPECIES)	0.00	SPECIES RICHNESS (NATIVE)	1
MEAN C (NATIVE TREES)	n/a	% NON-NATIVE	0.67
MEAN C (NATIVE SHRUBS)	n/a	WET INDICATOR (ALL)	0.67
MEAN C (NATIVE HERBACEOUS)	0.00	WET INDICATOR (NATIVE)	-1.00
FQAI (NATIVE SPECIES)	0.00	% HYDROPHYTE (MIDWEST)	0.33
FQAI (ALL SPECIES)	0.00	% NATIVE PERENNIAL	0.33
ADJUSTED FQAI	0.00	% NATIVE ANNUAL	0.00
% C VALUE 0	1.00	% ANNUAL	0.67
% C VALUE 1-3	0.00	% PERENNIAL	0.33
% C VALUE 4-6	0.00		
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	NC-NE WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
AMARET	Amaranthus retroflexus	AMARANTHUS RETROFLEXUS	Red-Root	0	FACU	FACU	1	Forb	Annual	Adventive
CYPESC	Cyperus esculentus	Cyperus esculentus	Chufa	0	FACW	FACW	-1	Sedge	Perennial	Native
ZEAMAY	Zea mays	ZEA MAYS	Corn	0	UPL	UPL	2	Grass	Annual	Adventive

USACE Wetland Determination Data Forms – Midwest Region

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road City/County: Unincorporated/Kendall Sampling Date: 06/16/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: A

Investigator(s) R. Van Herik & S. DeDina Section, Township, Range: Sec. 16, T36N, R7E

Landform (hillslope, terrace, etc.): Swale, toe slope Local Relief (concave, convex, none): concave

Slope (%): 3% *Lat: 41.59041116 *Long: -88.4415898 Datum: Upland Grassed Swale 1

Soil Map Unit Name: Drummer silty clay loam, 0 to 2 percent slopes (152A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no explain in remarks)

Are vegetation ☐ Soil ☐ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒
Hydric Soils Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☐ No ☒

Is the Sampled Area Within a Wetland? **Yes ☐** **No ☒**

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been drier than normal. Sample Point is located in an upland grassed swale located within an agricultural field that has been tiled, tilled, and planted with corn (*Zea mays*).

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Schedonorus pratense*	40	Y	FACU
2. *Bromus inermis*	35	Y	FACU
3. *Dactylis glomerata*	25	Y	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS (A)		(B)	

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 3

SOIL

Sampling Point A

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/1	100					SiCL	
6-24	10YR 5/1	70	10YR 5/8	20	C	M	C	
			10YR 6/2	5	D	M		
			10YR 3/1	5	n/a	PL		

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☒ Depleted below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed color tone differences during 5 of 5 reviewed historic aerial photographs with normal precipitation; however, the signature was determined to be attributed to the difference in vegetation between the planted field and upland grassed swale and not due to wet conditions.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road City/County: Unincorporated/Kendall Sampling Date: 06/16/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: B

Investigator(s) R. Van Herik & S. DeDina Section, Township, Range: Sec. 16, T36N, R7E

Landform (hillslope, terrace, etc.): Closed Depression Local Relief (concave, convex, none): concave

Slope (%): 2% *Lat: 41.59017131 *Long: -88.44094792 Datum: Farmed Wetland 1

Soil Map Unit Name: Graymont silt loam, 5 to 10 percent slopes, eroded (541C2) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒
Hydric Soils Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐

Is the Sampled Area Within a Wetland? **Yes ☒** **No ☐**

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been drier than normal. Sample Point is located within an agricultural field that has been tiled, tilled, and planted with corn (*Zea mays*).

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays**	30	N	UPL
2. *Amaranthus retroflexus*	10	Y	FACU
3. *Cyperus esculentus*	5	N	FACW
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	45	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS (A)		(B)	

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 1
*The agricultural field and sample point was dominated by planted corn (*Zea mays*); however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point B

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	100					SiCL	
8-14	10YR 5/1	70	10YR 5/8	20	C	M	C	
			10YR 7/6	5	C	M		
			10YR 6/2	5	D	M		

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☒ Depleted below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☒ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☒ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 3 of 5 (60%) reviewed historic aerial photographs with normal precipitation.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road City/County: Unincorporated/Kendall Sampling Date: 06/16/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: C

Investigator(s) R. Van Herik & S. DeDina Section, Township, Range: Sec. 16, T36N, R7E

Landform (hillslope, terrace, etc.): Closed depression Local Relief (concave, convex, none): concave

Slope (%): 3% *Lat: 41.59165442 *Long: -88.44048658 Datum: Investigated Area 1

Soil Map Unit Name: Drummer silty clay loam, 0 to 2 percent slopes (152A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒
Hydric Soils Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☐ No ☒

Is the Sampled Area Within a Wetland? **Yes ☐** **No ☒**

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been drier than normal. Sample Point is located within an agricultural field that has been tiled, tilled, and planted with corn (*Zea mays*).

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays**	30	N	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS	(A)		(B)

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 7
*The agricultural field and sample point was dominated by planted corn (*Zea mays*); however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point C

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-24	10YR 2/1	100					SiCL	
24-36	10YR 4/1	91	10YR 5/6	5	C	M	SiC	
			10YR 6/1	2	D	M		
			10YR 2/1	2	n/a	PL		

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 1 of 5 (20%) reviewed historic aerial photographs with normal precipitation

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road City/County: Unincorporated/Kendall Sampling Date: 06/16/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: D

Investigator(s) R. Van Herik & S. DeDina Section, Township, Range: Sec. 16, T36N, R7E

Landform (hillslope, terrace, etc.): Closed depression Local Relief (concave, convex, none): concave

Slope (%): 2% *Lat: 41.59175063 *Long: -88.44280742 Datum: Investigated Area 2

Soil Map Unit Name: Drummer silty clay loam, 0 to 2 percent slopes (152A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒
Hydric Soils Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☐ No ☒

Is the Sampled Area Within a Wetland? Yes ☐ No ☒

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been drier than normal. Sample Point is located within an agricultural field that has been tiled, tilled, and planted with corn (*Zea mays*).

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays**	40	N	UPL
2. *Amaranthus retroflexus*	2	N	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	42	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS (A)		(B)	

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 8
*The agricultural field and sample point was dominated by planted corn (*Zea mays*); however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point D

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-28	10YR 2/1	100					SiCL	
28-36	10YR 4/1	65	10YR 5/6	10	C	M	SiC	
			10YR 7/6	15	C	M		
			10YR 6/2	5	D	M		
			10YR 2/1	5	n/a	PL		

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 1 of 5 (20%) reviewed historic aerial photographs with normal precipitation

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road City/County: Unincorporated/Kendall Sampling Date: 06/16/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: E

Investigator(s) R. Van Herik & S. DeDina Section, Township, Range: Sec. 16, T36N, R7E

Landform (hillslope, terrace, etc.): Closed depression Local Relief (concave, convex, none): concave

Slope (%): 3% *Lat: 41.58997421 *Long: -88.44267921 Datum: Investigated Area 3

Soil Map Unit Name: Graymont silt loam, 2 to 5 percent slopes (541B) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐
Hydric Soils Present? Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒

Is the Sampled Area Within a Wetland? **Yes ☐** **No ☒**

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been drier than normal. Sample Point is located within an agricultural field that has been tiled, tilled, and planted with corn (*Zea mays*).

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays**	45	N	UPL
2. *Echinochloa crus-galli*	20	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	65	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS	(A)		(B)

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☒ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 9
*The agricultural field and sample point was dominated by planted corn (*Zea mays*); however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point E

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/1	100					SiCL	
10-24	10YR 5/3	98	10YR 5/6	2	C	M	SiCL	

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 0 of 5 reviewed historic aerial photographs with normal precipitation

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road City/County: Unincorporated/Kendall Sampling Date: 06/16/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: F

Investigator(s) R. Van Herik & S. DeDina Section, Township, Range: Sec. 16, T36N, R7E

Landform (hillslope, terrace, etc.): Swale toe slope Local Relief (concave, convex, none): concave

Slope (%): 3% *Lat: 41.59021822 *Long: -88.4445272 Datum: Upland Grassed Swale 2

Soil Map Unit Name: Drummer silty clay loam, 0 to 2 percent slopes (152A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no explain in remarks)

Are vegetation ☐ Soil ☐ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒
Hydric Soils Present? Yes ☐ No ☒
Wetland Hydrology Present? Yes ☐ No ☒

Is the Sampled Area Within a Wetland? Yes ☐ No ☒

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been drier than normal. Sample Point is located in an upland grassed swale located within an agricultural field that has been tiled, tilled, and planted with corn (*Zea mays*).

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Morus alba*	5	Y	FAC
2.			
3.			
4.			
5.			
	5	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	45	Y	FACU
2. *Schedonorus pratensis*	30	Y	FACU
3. *Poa pratensis*	15	N	FACU
4. *Lolium perenne*	6	N	FACU
5. *Apocynum cannabinum*	4	N	FAC
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS (A)		(B)	

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 5
*The agricultural field and sample point was dominated by planted corn (*Zea mays*); however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point F

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/1	100					SiCL	
14-24	10YR 3/1	90	10YR 5/4	10	C	M	C	

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 4 of 5 reviewed historic aerial photographs with normal precipitation; however, the signature was determined to be attributed to the difference in vegetation between the planted field and upland grassed swale and not due to wet conditions.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road City/County: Unincorporated/Kendall Sampling Date: 06/16/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: G

Investigator(s) R. Van Herik & S. DeDina Section, Township, Range: Sec. 16, T36N, R7E

Landform (hillslope, terrace, etc.): Slight depression Local Relief (concave, convex, none): Concave

Slope (%): 2% *Lat: 41.59635204 *Long: -88.44514887 Datum: Investigated Area 4

Soil Map Unit Name: Elpaso silty clay loam, 0 to 2 percent slopes (356A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒
Hydric Soils Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☐ No ☒

Is the Sampled Area Within a Wetland? **Yes ☐** **No ☒**

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been drier than normal. Sample Point is located within an agricultural field that has been tiled, tilled, and planted with corn (*Zea mays*).

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays**	45	N	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	45	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS	(A)		(B)

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 10
*The agricultural field and sample point was dominated by planted corn (*Zea mays*); however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point G

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-26	10YR 2/1	100					SiCL	
26-32	10YR 4/1	83	10YR 5/8	5	C	M	C	
			10YR 5/2	10	D	M		
			10YR 2/1	2	n/a	PL		

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 0 of 5 reviewed historic aerial photographs with normal precipitation.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road City/County: Unincorporated/Kendall Sampling Date: 06/16/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: H

Investigator(s) R. Van Herik & S. DeDina Section, Township, Range: Sec. 16, T36N, R7E

Landform (hillslope, terrace, etc.): Slight Depression Local Relief (concave, convex, none): concave

Slope (%): 2% *Lat: 41.5967233 *Long: -88.44348945 Datum: Investigated Area 5

Soil Map Unit Name: Elpaso silty clay loam, 0 to 2 percent slopes (356A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	
Hydric Soils Present?	Yes ☒ No ☐	**Is the Sampled Area Within a Wetland?** **Yes ☐ No ☒**
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been drier than normal. Sample Point is located within an agricultural field that has been tiled, tilled, and planted with corn (*Zea mays*).

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays**	45	N	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	45	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That are OBL, FACW, or FAC 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS	(A)		(B)

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 11
*The agricultural field and sample point was dominated by planted corn (*Zea mays*); however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point H

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/1	100					SiCL	
14-24	10YR 5/1	78	10YR 5/8	10	C	M	C	
			10YR 6/2	10	D	M		
			10YR 7/6	2	C	M		

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☒ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 0 of 5 reviewed historic aerial photographs with normal precipitation.

Site Photographs

Ament Road / New Leaf Energy

PHOTOGRAPH 1	
DESCRIPTION: Farmed Wetland 1 / Sample Point B	

PHOTOGRAPH 2	
DESCRIPTION: Farmed Wetland 1 / Overview	

ENCAP INCORPORATED

Ament Road / New Leaf Energy

PHOTOGRAPH 3	
DESCRIPTION: Upland Grassed Swale 1 (East Swale) / Sample Point A	

PHOTOGRAPH 4	
DESCRIPTION: Upland Grassed Swale 1 (East Swale) / Overview	

ENCAP INCORPORATED

PHOTOGRAPH 5

DESCRIPTION:

Upland Grassed Swale 2 (West Swale) / Sample Point F



PHOTOGRAPH 6

DESCRIPTION:

Upland Grassed Swale 2 (West Swale) / Overview



PHOTOGRAPH 7	
DESCRIPTION: Investigated Area 1 / Sample Point C	

PHOTOGRAPH 8	
DESCRIPTION: Investigated Area 2 / Sample Point D	

PHOTOGRAPH 9

DESCRIPTION:

Investigated Area 3 / Sample Point E



PHOTOGRAPH 10

DESCRIPTION:

Investigated Area 4 / Sample Point G



PHOTOGRAPH 11

DESCRIPTION:

Investigated Area 5 / Sample Point H



PHOTOGRAPH 12

DESCRIPTION:

Site Overview / Northeast Corner of Site



ENCAP INCORPORATED

Ament Road / New Leaf Energy

PHOTOGRAPH 13	
DESCRIPTION: Site Overview / Central Portion of Site	

PHOTOGRAPH 14	
DESCRIPTION: Site Overview / South Portion of Site	

PHOTOGRAPH 15

DESCRIPTION:

Site Overview / Southwest Portion of Site



PHOTOGRAPH 16

DESCRIPTION:

Site Overview / Central Portion of Site



PHOTOGRAPH 17

DESCRIPTION:

Site Overview / North Portion of Site



PHOTOGRAPH 18

DESCRIPTION:

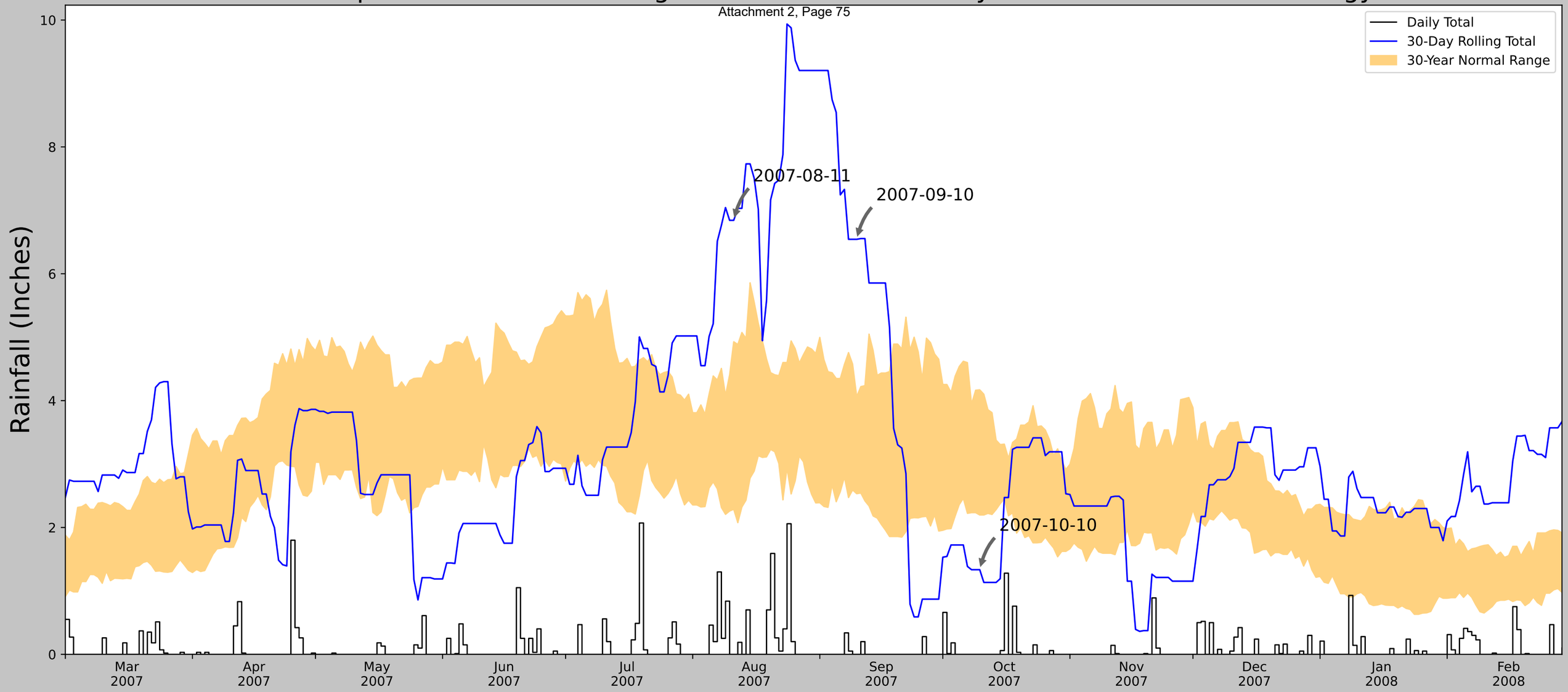
Site Overview / North Portion of Site



ENCAP INCORPORATED

USACE Antecedent Precipitation Tool Figure & Tables (2007, 2009, 2010-WET, 2011, 2015, 2018, 06/16/2023)

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2007-10-10
Elevation (ft)	709.834
Drought Index (PDSI)	Moderate wetness
WebWIMP H_2O Balance	Wet Season

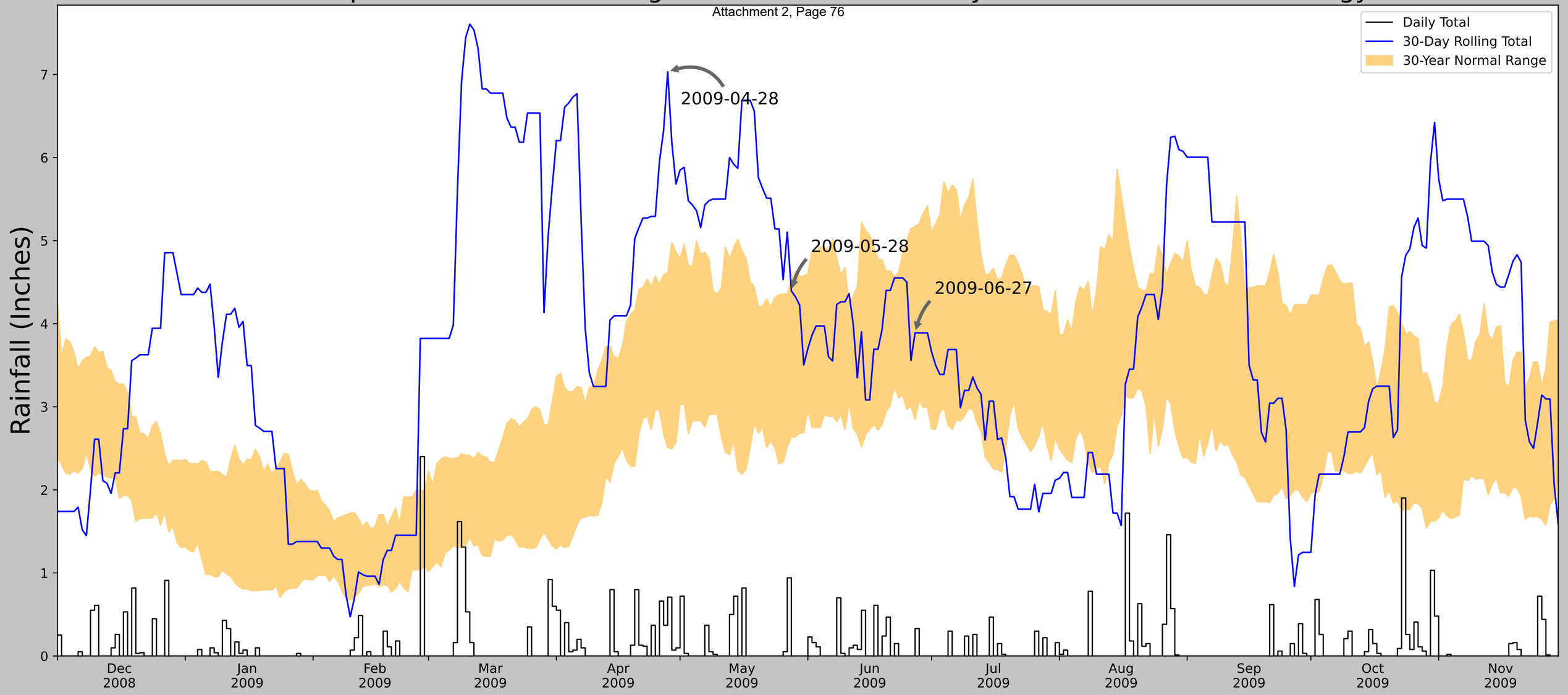
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2007-10-10	2.19685	4.170473	1.334646	Dry	1	3	3
2007-09-10	2.53189	4.063386	6.543307	Wet	3	2	6
2007-08-11	2.286614	4.928347	6.84252	Wet	3	1	3
Result							Normal Conditions - 12

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11024	90
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	292	0
JOLIET BRANDON RD DAM	41.5033, -88.1033	542.979	21.893	117.126	12.416	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2009-06-27
Elevation (ft)	709.834
Drought Index (PDSI)	Extreme wetness
WebWIMP H_2O Balance	Dry Season

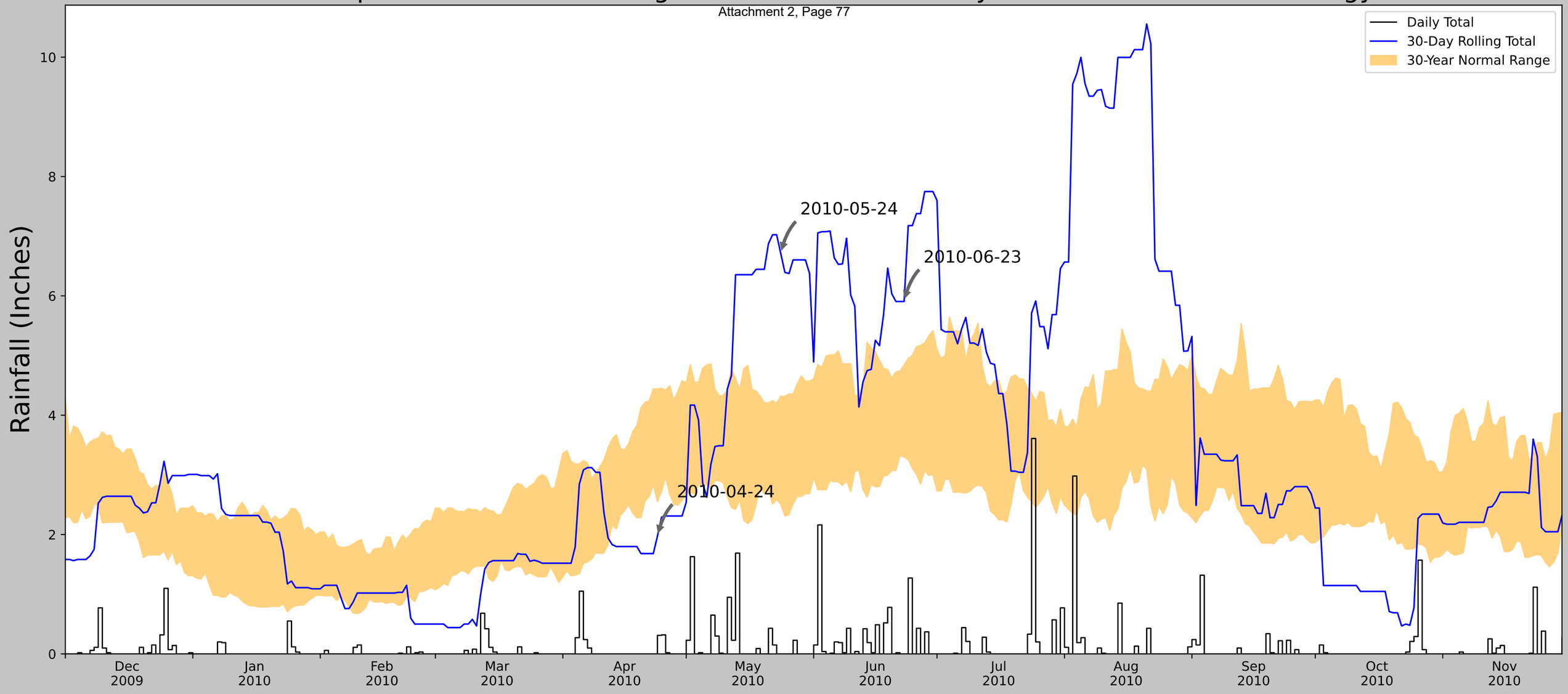
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2009-06-27	2.845276	5.170473	3.889764	Normal	2	3	6
2009-05-28	2.637795	4.520866	4.393701	Normal	2	2	4
2009-04-28	2.509843	4.611024	7.031496	Wet	3	1	3
Result							Normal Conditions - 13

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11025	90
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	292	0
JOLIET BRANDON RD DAM	41.5033, -88.1033	542.979	21.893	117.126	12.416	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2010-06-23
Elevation (ft)	709.834
Drought Index (PDSI)	Severe wetness
WebWIMP H_2O Balance	Dry Season

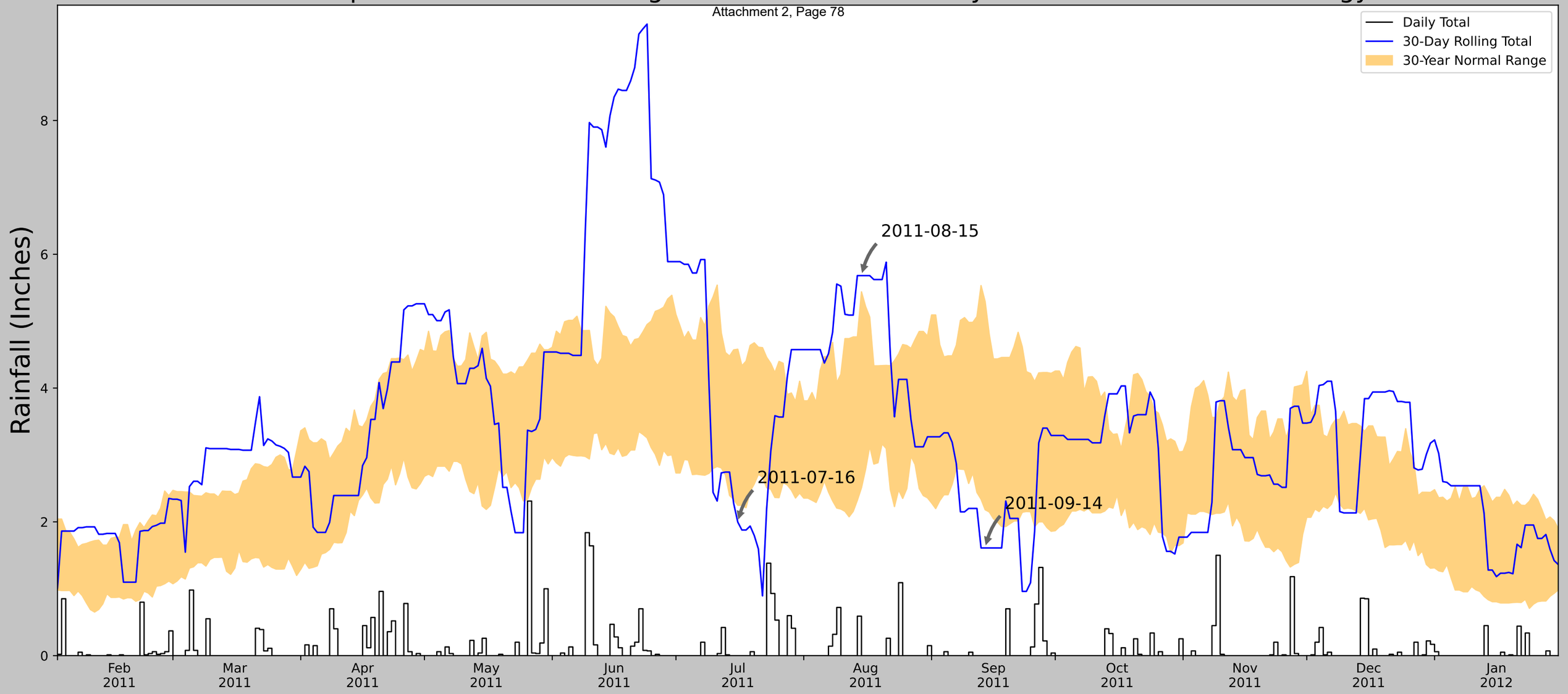
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2010-06-23	3.299606	4.840158	5.905512	Wet	3	3	9
2010-05-24	2.508661	4.315354	6.712599	Wet	3	2	6
2010-04-24	2.553543	4.43937	1.972441	Dry	1	1	1
Result							Wetter than Normal - 16

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11025	90
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	292	0
JOLIET BRANDON RD DAM	41.5033, -88.1033	542.979	21.893	117.126	12.416	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2011-09-14
Elevation (ft)	709.834
Drought Index (PDSI)	Severe wetness
WebWIMP H_2O Balance	Wet Season

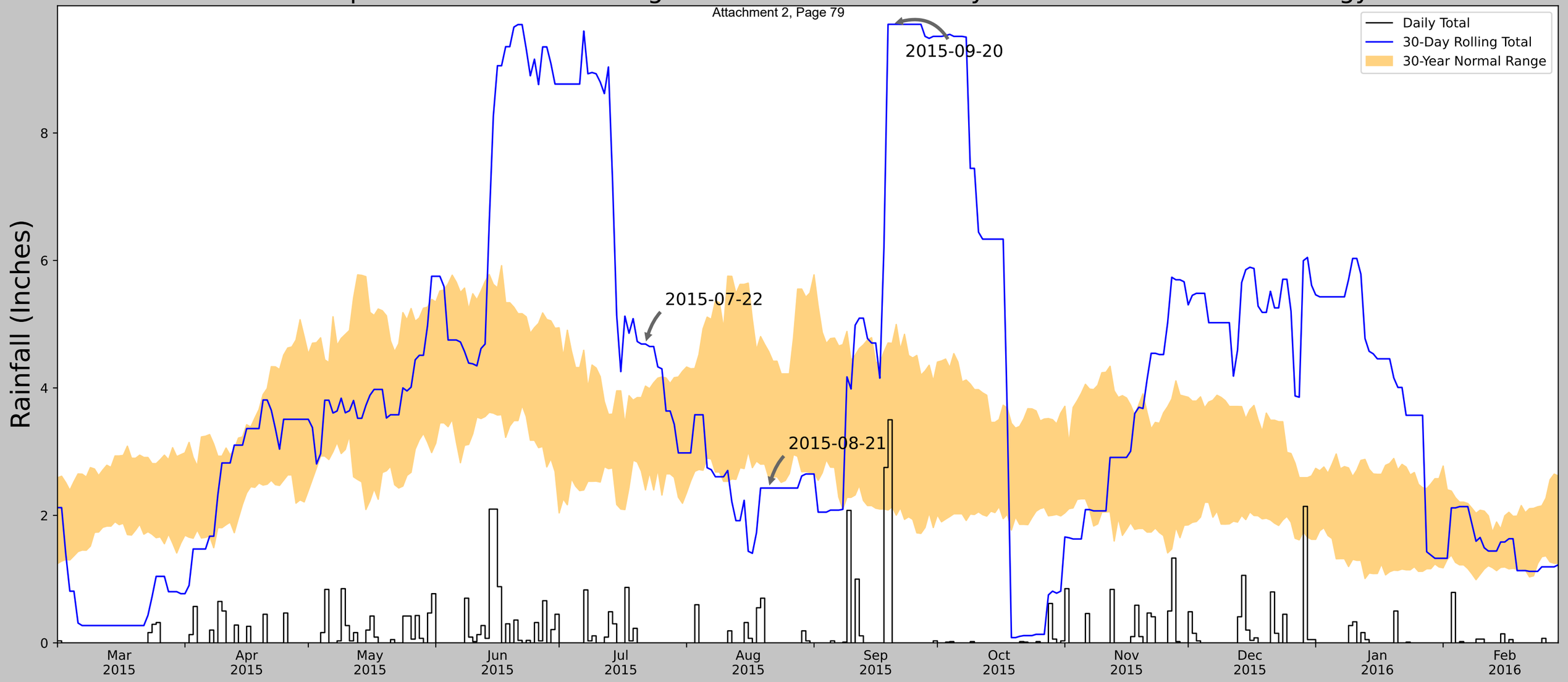
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2011-09-14	2.181102	5.291732	1.610236	Dry	1	3	3
2011-08-15	2.509843	5.438977	5.681103	Wet	3	2	6
2011-07-16	2.247638	4.580709	1.996063	Dry	1	1	1
Result							Normal Conditions - 10

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11025	90
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	292	0
JOLIET BRANDON RD DAM	41.5033, -88.1033	542.979	21.893	117.126	12.416	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2015-09-20
Elevation (ft)	709.834
Drought Index (PDSI)	Moderate wetness
WebWIMP H_2O Balance	Wet Season

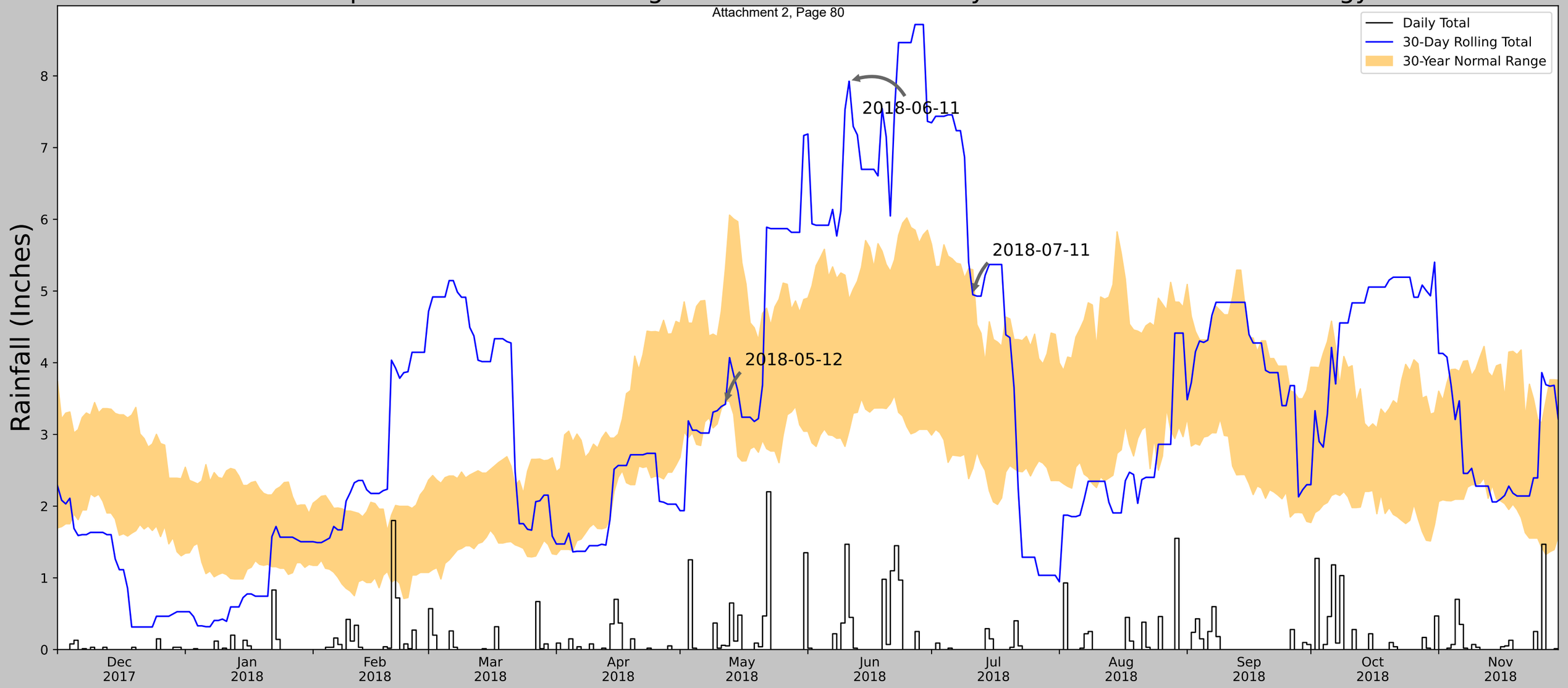
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2015-09-20	2.133858	4.699213	9.704725	Wet	3	3	9
2015-08-21	2.587795	4.569291	2.429134	Dry	1	2	2
2015-07-22	2.399213	4.029134	4.688977	Wet	3	1	3
Result							Normal Conditions - 14

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
LITTLE RED SCHOOL HSE	41.7092, -87.8761	714.895	30.395	5.061	13.832	7875	69
PALOS PARK 3.6 WNW	41.6768, -87.9114	713.911	2.886	0.984	1.302	27	11
BURR RIDGE 1.2 ESE	41.7473, -87.8974	660.105	2.852	54.79	1.44	0	4
PALOS PARK 1.7 WSW	41.6585, -87.8759	717.848	3.503	2.953	1.587	3	0
PALOS PARK 1.3 SW	41.6528, -87.8631	702.1	3.954	12.795	1.83	0	3
BURR RIDGE 1.9 SW	41.7319, -87.9486	724.081	4.055	9.186	1.862	2	3
CHICAGO MIDWAY AP 3SW	41.7372, -87.7775	620.079	5.44	94.816	2.964	3446	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2018-07-11
Elevation (ft)	709.834
Drought Index (PDSI)	Moderate wetness
WebWIMP H_2O Balance	Dry Season

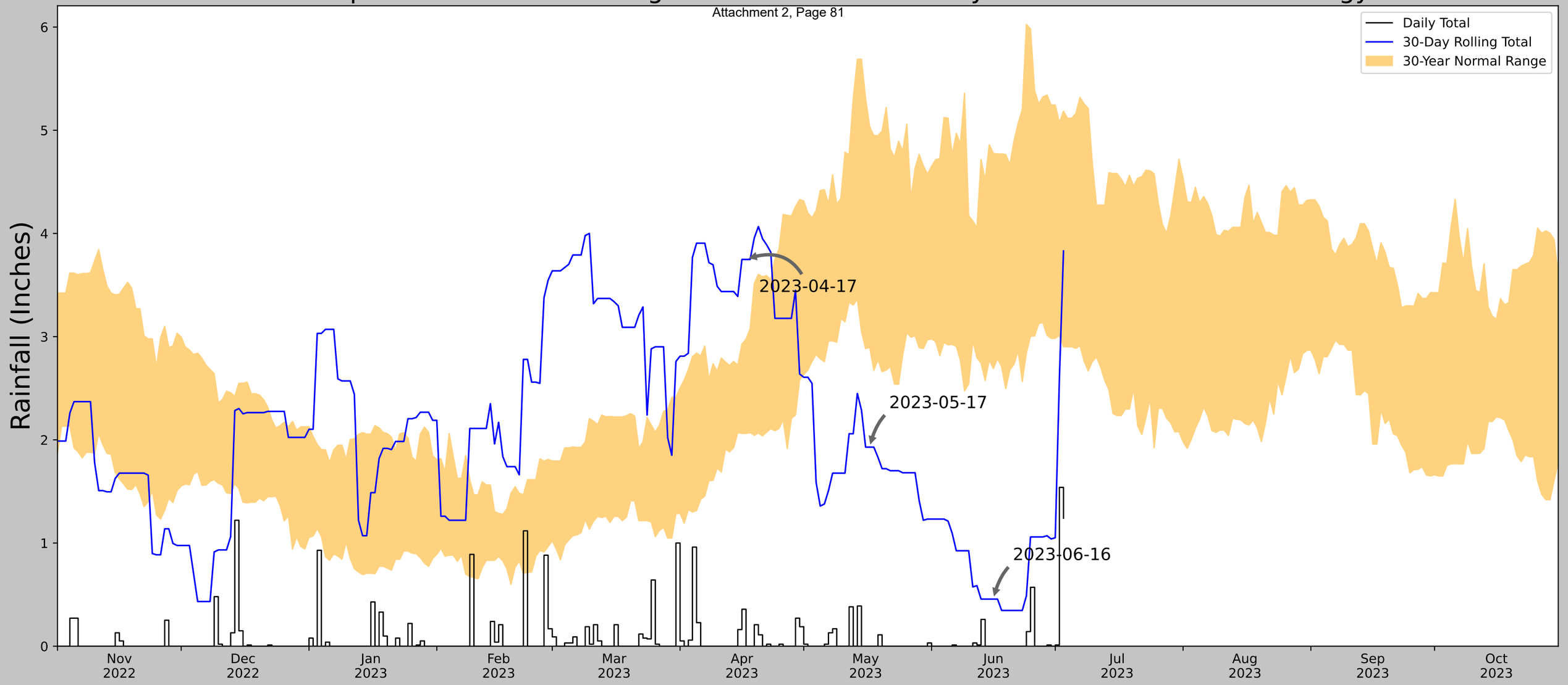
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2018-07-11	2.525984	5.298032	4.948819	Normal	2	3	6
2018-06-11	3.050787	4.883071	7.925197	Wet	3	2	6
2018-05-12	3.46378	5.31811	3.42126	Dry	1	1	1
Result							Normal Conditions - 13

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11110	90
AURORA 3.4 W	41.7723, -88.3577	689.961	2.559	29.856	1.228	6	0
NORTH AURORA 1.5 NE	41.8163, -88.3068	719.16	2.49	59.055	1.268	2	0
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	230	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2023-06-16
Elevation (ft)	709.834
Drought Index (PDSI)	Mild drought (2023-05)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-06-16	2.68937	4.774803	0.456693	Dry	1	3	3
2023-05-17	2.895276	5.033858	1.929134	Dry	1	2	2
2023-04-17	2.061811	2.97441	3.748032	Wet	3	1	3
Result							Drier than Normal - 8

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	12.42	8.718	5.697	8701	90
SUGAR GROVE 0.7 NE	41.7762, -88.4478	714.895	1.763	13.779	0.818	29	0
SUGAR GROVE 1.4 ENE	41.7787, -88.4343	688.976	2.479	12.14	1.146	2	0
AURORA 3.1 WSW	41.7565, -88.3518	704.068	6.758	2.952	3.061	1	0
AURORA	41.7803, -88.3092	660.105	8.894	41.011	4.367	2573	0
WHEATON 3 SE	41.8128, -88.0728	680.118	21.242	20.998	10.005	47	0

Historical Aerial Photographs: 2007, 2009, 2010-WET, 2011, 2015, 2018

Map data: Google, Maxar Technologies

Year: 2007



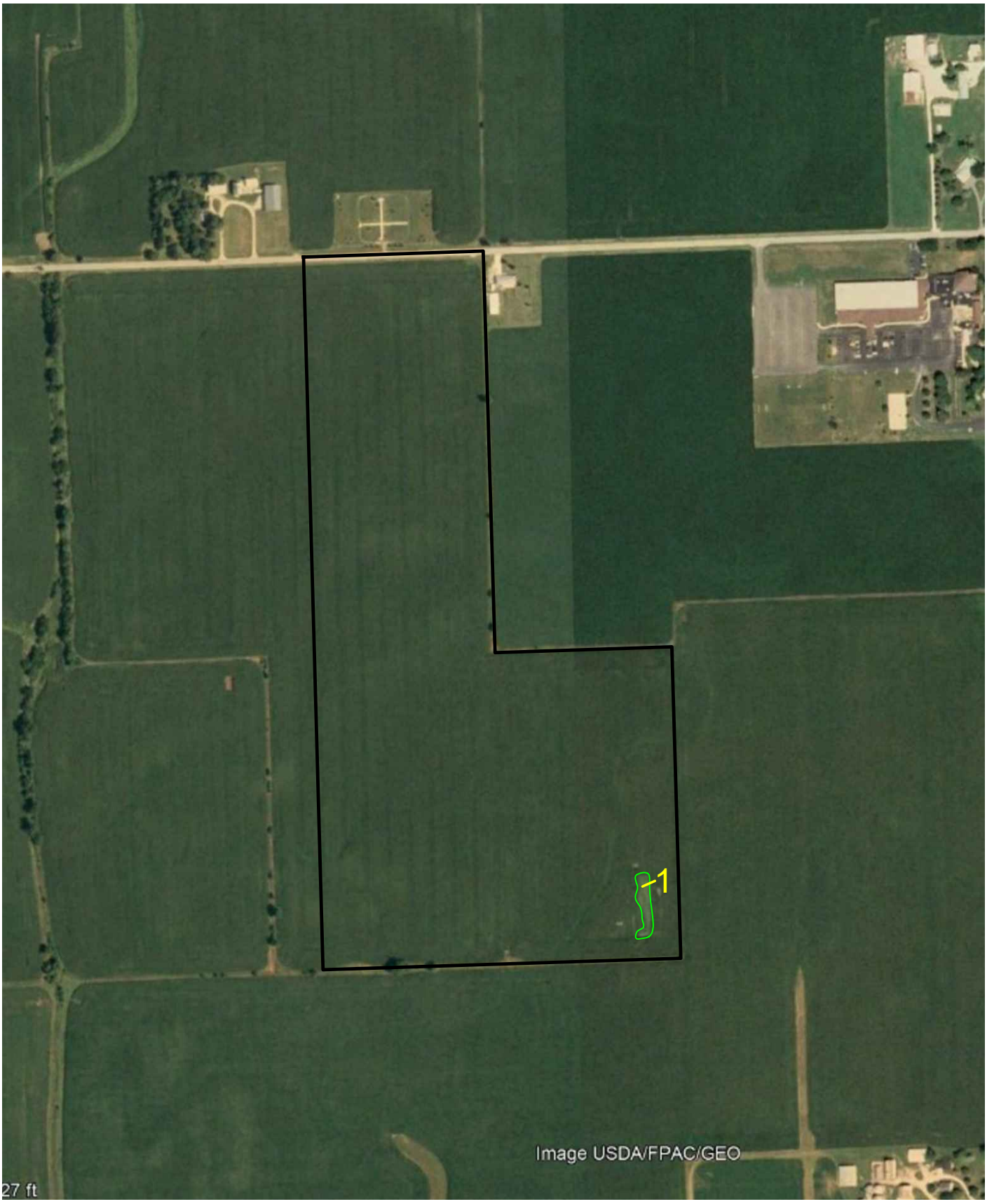
0 250 500 1000

SCALE: 1"=500'

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Map data: Google, Maxar Technologies

Year: 2009



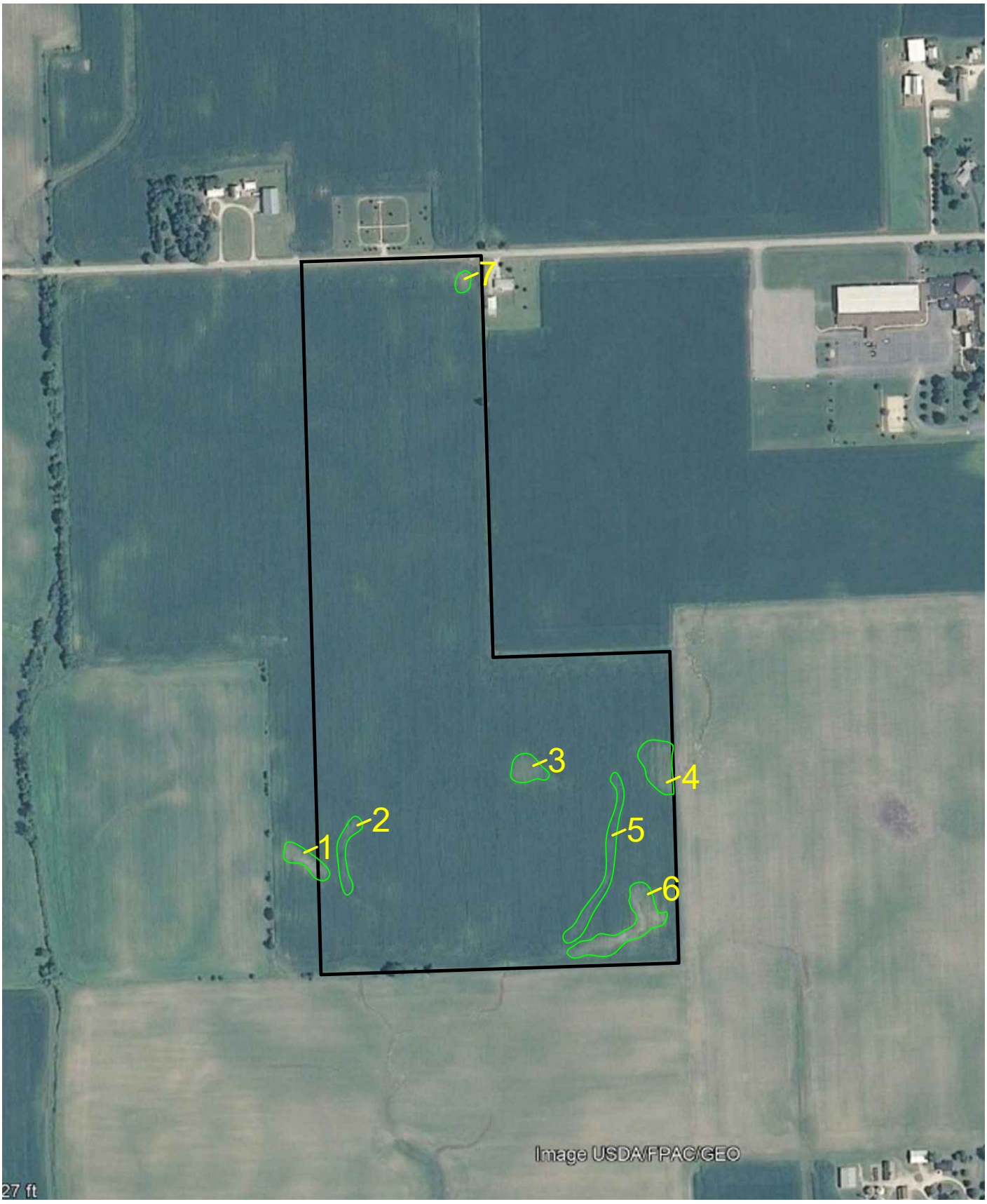
0 250 500 1000

SCALE: 1"=500'

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Map data: Google, Maxar Technologies

Year: 2010 WET



0 250 500 1000

SCALE: 1"=500'

N

Map data: Google, Maxar Technologies

Year: 2011



0 250 500 1000

SCALE: 1"=500'

N

Map data: Google, Maxar Technologies

Year: 2015



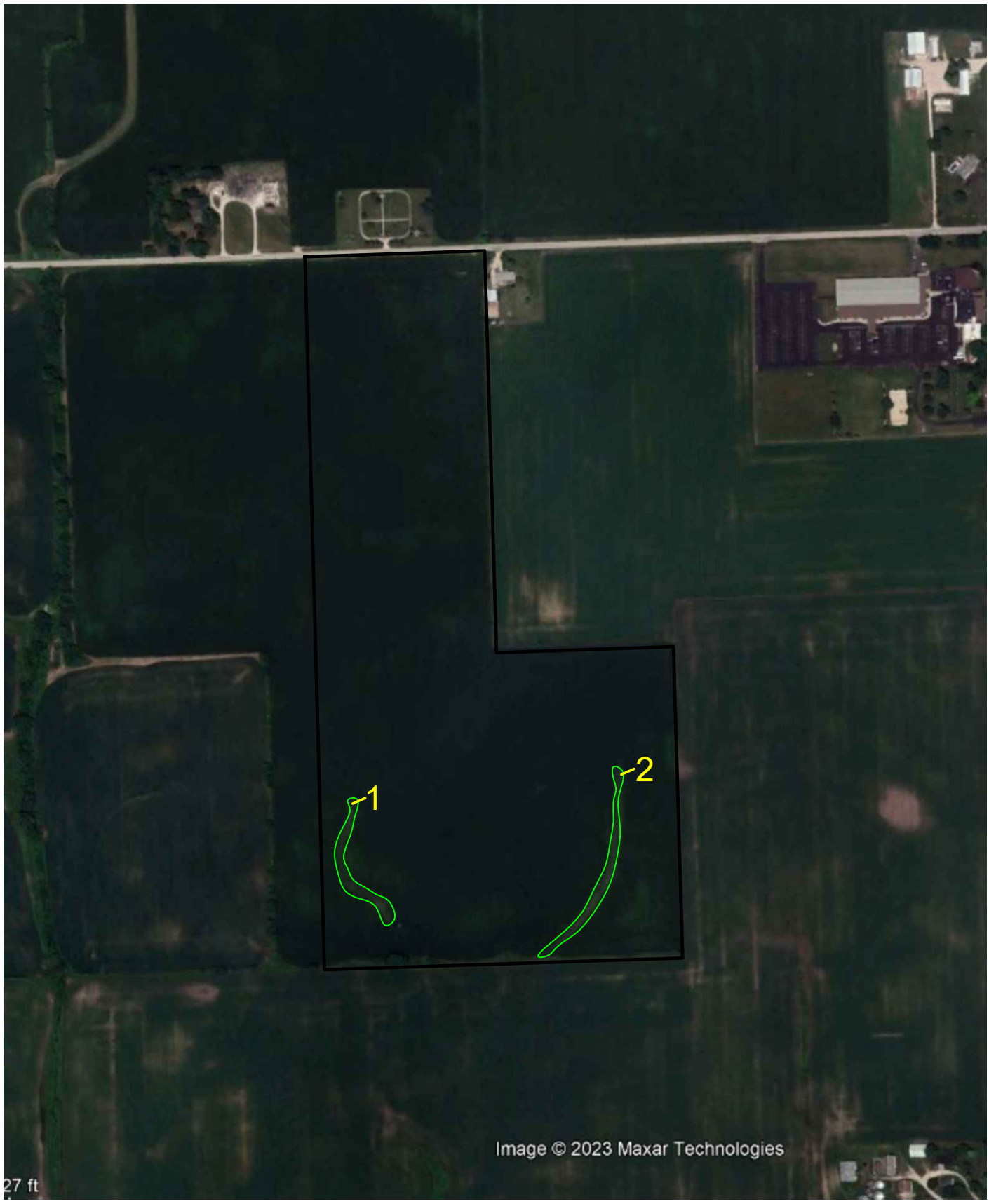
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Map data: Google, Maxar Technologies

Year: 2018

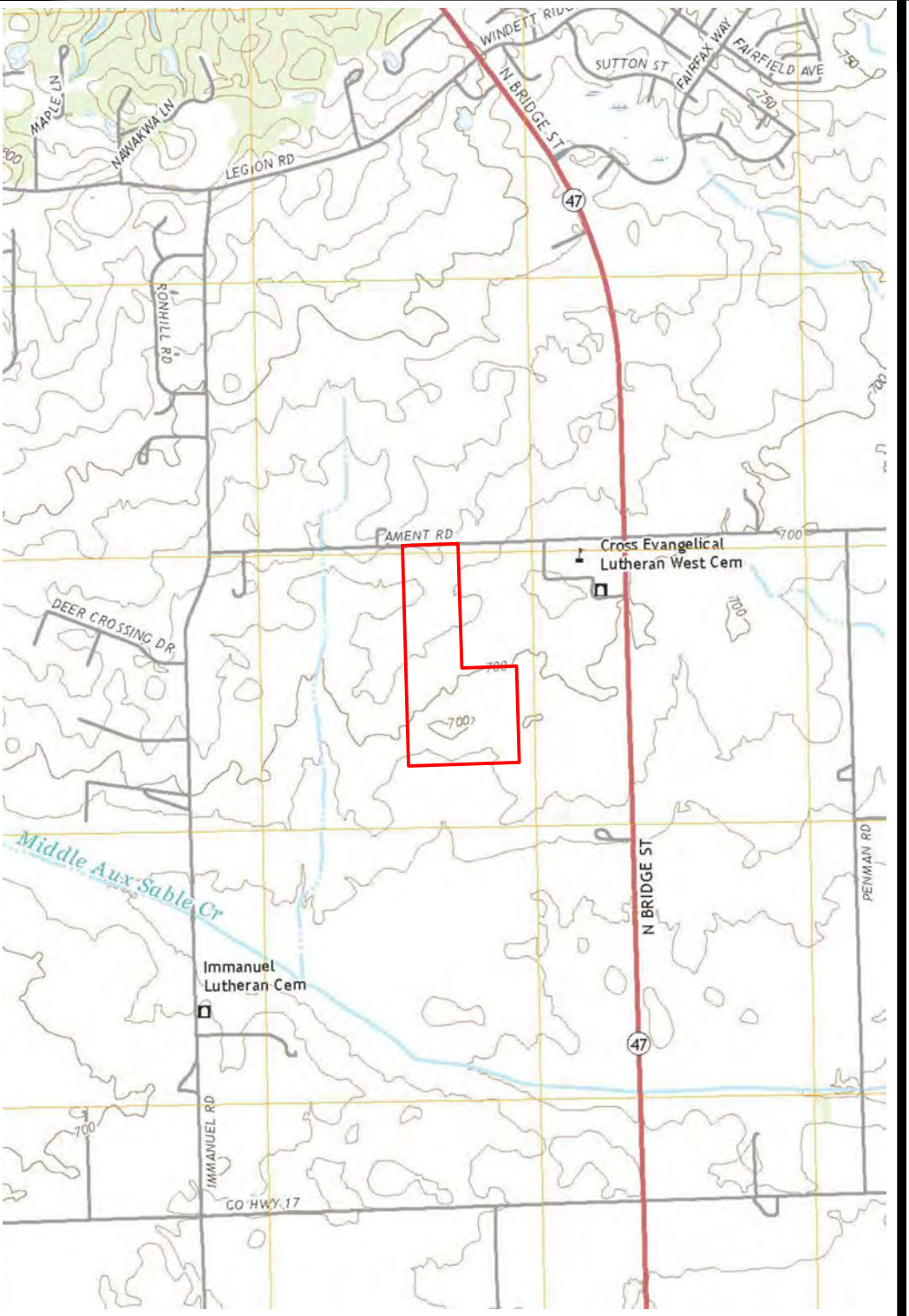


0 250 500 1000

SCALE: 1"=500'

N

Exhibits A - G



ENCAP INCORPORATED

LEGEND:

Project Area

Location Map

Source: U.S. Geological Survey
Section 16 T36N R7E
Latitude: 41.593804 Longitude: -88.444237

Ament Road

Project Number: 23-0519B

New Leaf Energy

0 1000 2000 4000

SCALE: 1"= 2000'

NORTH

Exhibit A



ENCAP INCORPORATED

LEGEND:

Project Area

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

National Wetlands Inventory

Source: U.S. Fish & Wildlife Service

0 250 500 1000

SCALE: 1"=500'

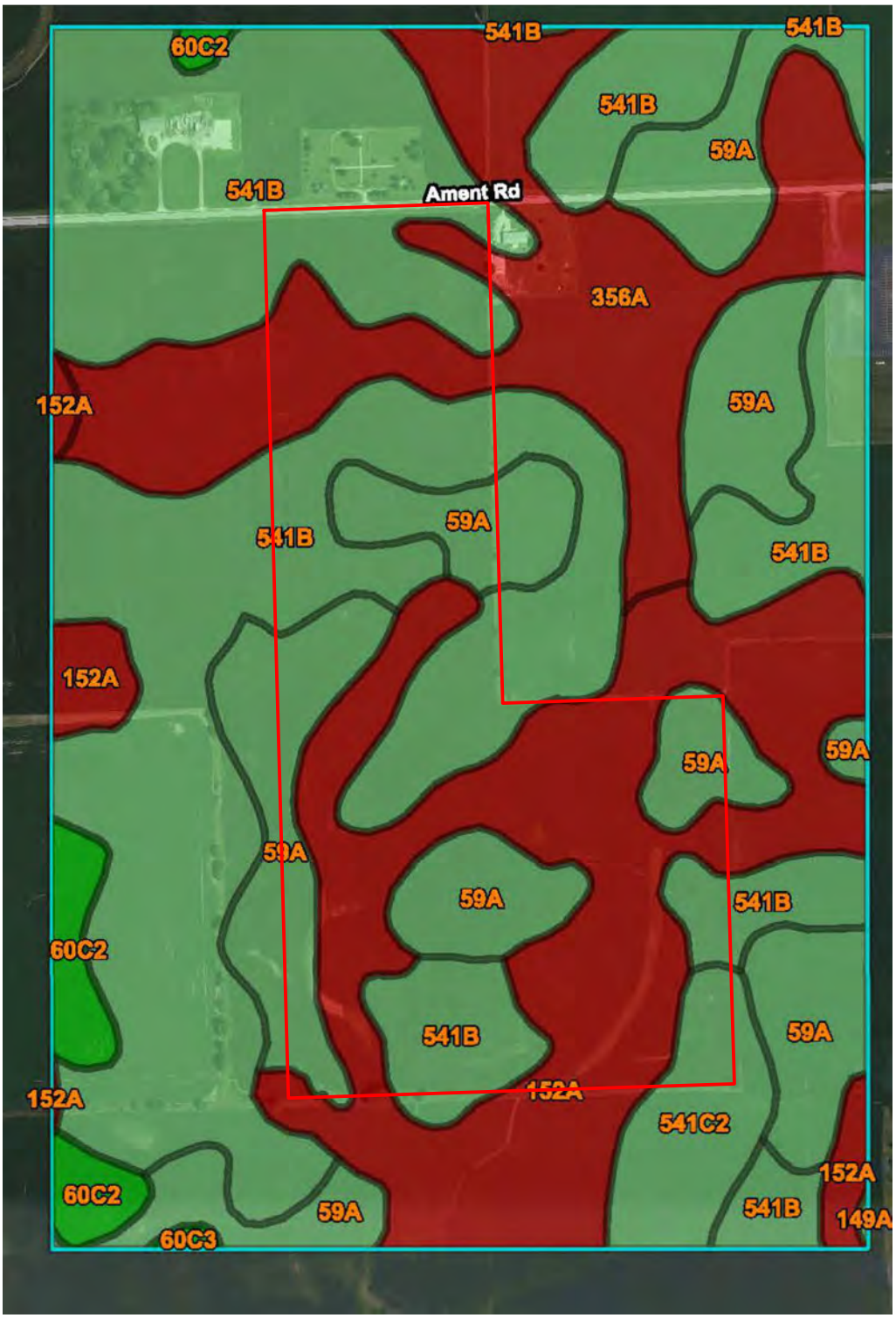
NORTH

Ament Road

Project Number: 23-0519B

New Leaf Energy

Exhibit B



ENCAP INCORPORATED

LEGEND:

Project Area

- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Map

Source: U.S. Department of Agriculture
Natural Resources Conservation Service
Web Soil Survey 3.1

0 250 500 1000

SCALE: 1"=500'

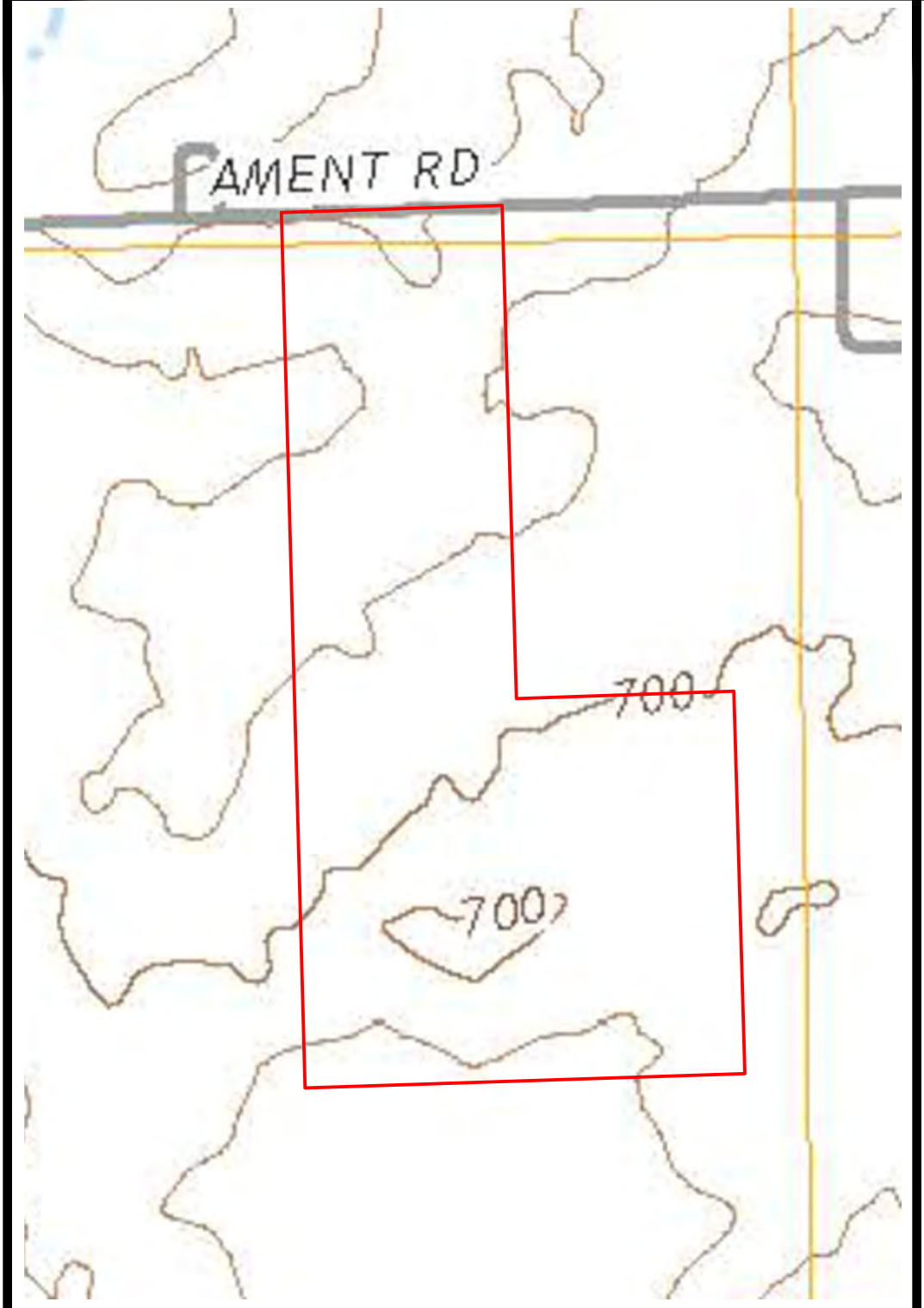
NORTH

Ament Road

Project Number: 23-0519B

New Leaf Energy

Exhibit C



ENCAP INCORPORATED

LEGEND:

Project Area

RIVERS, LAKES, AND CANALS
- Perennial stream
- Perennial river
- Intermittent stream
- Intermittent river
- Disappearing stream

SUBMERGED AREAS AND BOGS
- Marsh or swamp
- Submerged marsh or swamp
- Wooded marsh or swamp
- Submerged wooded marsh or swamp
- Land subject to inundation

VEGETATION
- Woodland
- Shrubland
- Orchard
- Vineyard
- Mangrove
- Land subject to inundation

2021 USGS Topographic Map

Source: U.S. Geological Survey
Platville, IL Quadrangle

0 250 500 1000
SCALE: 1"=500'

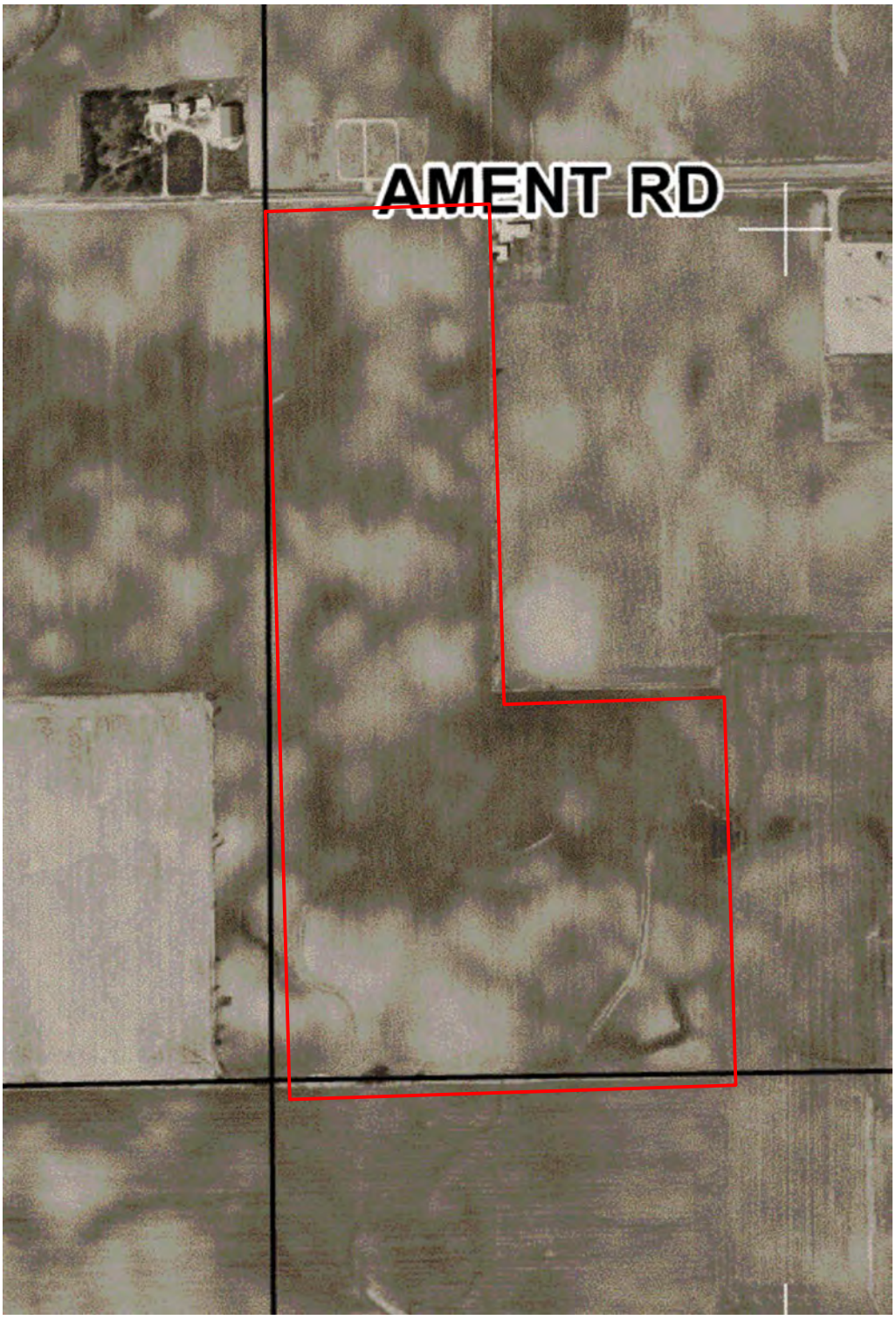
NORTH

Ament Road

Project Number: 23-0519B

New Leaf Energy

Exhibit D



ENCAP INCORPORATED

LEGEND:

Project Area



Flood Insurance Rate Map

Source: Federal Emergency Management Agency (FEMA)
Panel Number: 1709C0125G
Effective Date: February 4, 2009

Ament Road

Project Number: 23-0519B

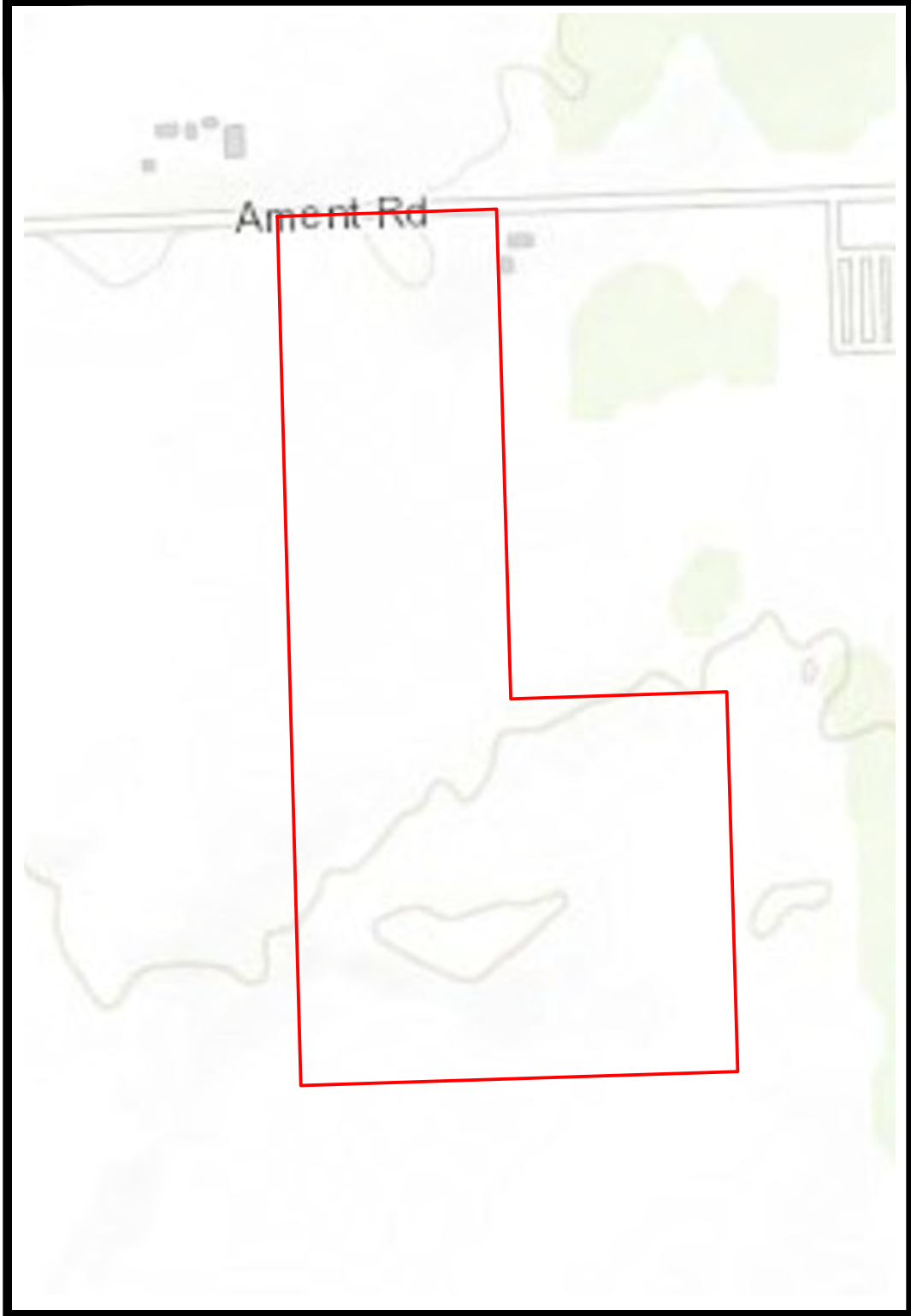
New Leaf Energy

0 250 500 1000

SCALE: 1"=500'

NORTH

Exhibit E



ENCAP INCORPORATED

LEGEND:

Project Area

National Register Properties

- Part of a NR Historic District
- Determined eligible for the NR
- Part of a NR Historic District - contributing
- Entered in the NR
- Undetermined
- Other

Historic Architectural Resources Geographic Information System

Source: Illinois State Historic Preservation Office

0 250 500 1000

SCALE: 1"=500'

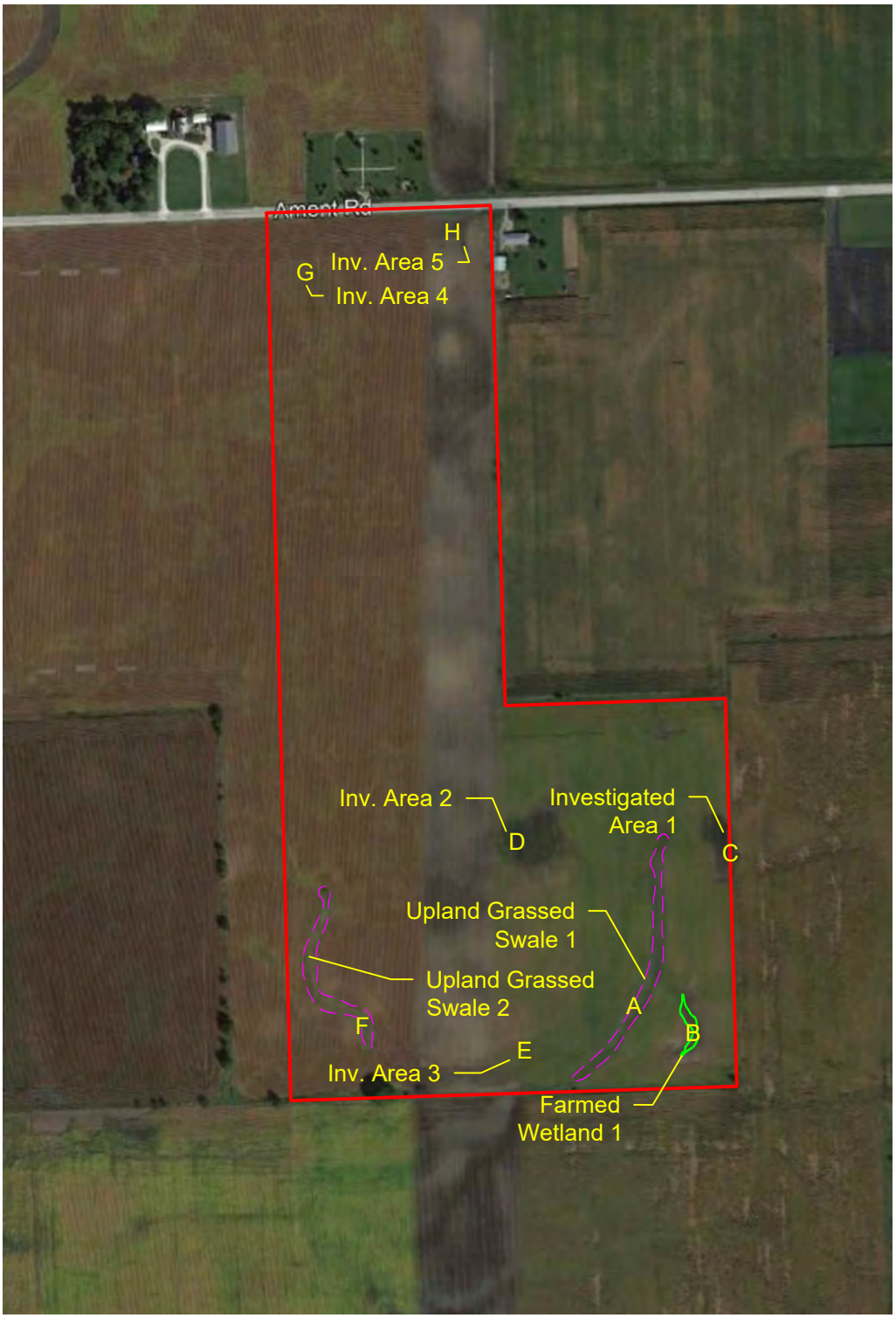
NORTH

Ament Road

Project Number: 23-0519B

New Leaf Energy

Exhibit F



ENCAP INCORPORATED

LEGEND:

Project Area

Approximate Location of Upland Grass Swale

On-site Farmed Wetland Boundary

Sample Points A-H

WL Delineation Field Work Completed 06.16.2023

Aerial Photograph

Map data: ©2023Google
Image Date: 2021

0 250 500 1000
SCALE: 1"=500'

NORTH

Ament Road

Project Number: 23-0519B

New Leaf Energy

Exhibit G

ENCAP INCORPORATED

2585 Wagner Ct.
DeKalb, IL 60115
Phone: 815.748.4500
Fax: 815.748.4255
www.encapinc.net

TRANSMITTAL LETTER

TO:	**New Leaf Energy**	**DATE:**	June 18, 2024
	[redacted]	**PROJECT:**	Ament Road Build Area Extension
	[redacted]		
ATTN:	**Mr. Nicholas Bellone** [redacted]	**ENCAP Project #**	23-0815A

We are sending you:	**Date of Enclosed Materials**	**# of Copies**
2023-2024 Water Resources Delineation Report	June 18, 2024	PDF

CC:	**Date of Enclosed Materials**	**# of Copies**

Via: ☐ **UPS Ground** ☐ **UPS Overnight** ☐ **U.S. Mail** ☒ **Electronic**

THESE ARE TRANSMITTED AS CHECKED BELOW:

☐ **For Approval** ☐ **As Requested** ☒ **For your review** ☒ **For your use**

REMARKS: _____

_____

_____

_____

Signed: Robert Van Herik, PWS, CWS
rvanherik@encapinc.net

WATER RESOURCES DELINEATION REPORT

AMENT ROAD BUILD AREA EXTENSION

KENDALL TOWNSHIP, KENDALL COUNTY, ILLINOIS

Prepared for: New Leaf Energy
[redacted]
Attn: Mr. Nicholas Bellone

Prepared by: ENCAP, Inc.
Mr. Robert Van Herik, PWS, CWS
Ms. Susan Rowley, PWS, CWS, LEED AP

Date Prepared: June 18, 2024

ENCAP, Inc. Project #: 23-0815A

ENCAP INCORPORATED

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DeKalb, IL 60115
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WATER RESOURCES DELINEATION REPORT

Ament Road Build Area Extension / New Leaf Energy

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Additional Areas Investigated for Wetland Status	9
Regulatory Statement	10
Recommendations	12
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Attachments

USFWS Section 7 Consult. Review Summary + Official Threatened & Endangered Species List
IDNR EcoCAT Natural Resource Review Results & Termination Letter
Floristic Quality Data Sheets
USACE Wetland Determination Data Forms – Midwest Region
Site Photographs
USACE Antecedent Precipitation Tool Figure & Tables (2007, 2009, 2010, 2011, 2015, 2018, 11.08.2023)
Historical Aerial Photographs: 2007, 2009, 2010-WET, 2011, 2015, 2018
Exhibits
- A – Location Map
- B – National Wetlands Inventory
- C – Soil Map
- D – 2021 USGS Topographic Map
- E – FEMA Flood Insurance Rate Map
- F – ISHPO HARGIS Map
- G – Aerial Photograph

WATER RESOURCES DELINEATION REPORT

Project Name and Client: Ament Road Build Area Extension / New Leaf Energy

Project Number: 23-0815A

Location: Illinois, Kendall County, Kendall Township, Unincorporated, T36N R7E, SE 1/4 of Section 17; Latitude 41.593804; Longitude -88.444237

Date of Site Visit: November 8, 2023

Field Investigators: S. DeDina, CWS & R. Van Herik PWS, CWS

EXECUTIVE SUMMARY

The project area (approximately 36.5 acres in size) is located in Unincorporated Kendall Township, Kendall County, Illinois (Exhibit A: Location Map). The project area, as presented in this report, represents the property limits investigated by ENCAP, Inc. for the presence of regulated surface water resources. These limits do not necessarily reflect the boundaries of any proposed development activities. The project area is generally bounded by Ament Road to the north, and agricultural land to the south, east, and west. The project area is located within the Illinois River watershed and the Middle Aux Sable Creek sub-watershed.

The project area consists predominately of agricultural land most recently planted with corn (*Zea mays*) and harvested. An intermittent tributary to Middle Aux Sable Creek and its wooded buffer are located along the western boundary of the project area. Topographically, the project area decreases in elevation from north to south, with a few slight depressional areas found throughout the site.

Two wetlands totaling approximately 0.55 acres on-site were identified on the project area. A wetland associated with an intermittent tributary to Middle Aux Sable Creek was identified along the western project boundary of the site and totals approximately 0.45 acres on-site. A small depressional farmed wetland was identified within the southern portion of the project area and totals 0.10 acres. The limits of farmed wetlands were identified using protocol established by the U.S. Department of Agriculture and were not staked. Non-farmed wetland boundaries were identified and staked using methods sanctioned by the United States Army Corps of Engineers. Non-farmed wetland acreages provided in this report are estimations; a survey of the staked wetland boundaries must be performed in order to obtain exact size and location information. The locations of the two wetlands are identified on the attached aerial photograph (Exhibit G).

Basic information regarding wetland regulations may be found in the Regulatory Statement portion of this report. Briefly, the U.S. Army Corps of Engineers (USACE) regulates all Waters of the United States that are currently or historically navigable and all wetlands that are connected to or associated with these waterways. The Kendall County Stormwater Management Ordinance provides for the protection of wetlands and other depressional storage areas from damaging modifications and adverse changes in runoff quality and quantity associated with land developments. Due to its status as a mapped intermittent tributary of the Middle Aux Sable Creek, a tributary of the Illinois River, Wetland 1 / Intermittent Creek is

assumed to be under the jurisdiction of the USACE. A direct surface connection from Farmed Wetland 1 to jurisdictional waters was not observed; therefore, the feature may be considered isolated. The USACE has the final authority to determine the jurisdiction of the identified resources. If considered isolated, Farmed Wetland 1 will be regulated by Kendall County. Buffers are not explicitly enforced by USACE or Kendall County, however, the USACE or Kendall County may enforce buffers during development to protect the identified resources.

Based on a November 16, 2023 review of the U.S. Fish and Wildlife Service (USFWS) technical assistance website, sensitive (federally threatened or endangered) plant or animal species habitat may be located within or adjacent to the project area but the proposed project is unlikely to negatively affect sensitive species (see attached USFWS Review Summary). Further consultation with this agency is likely not required for a Section 404 Permit from the USACE.

According to the Illinois Department of Natural Resources (IDNR), sensitive (threatened or endangered) plant or animal species are not known to exist within the vicinity of the project area and consultation with the IDNR has been terminated. The formal consultation from the IDNR is valid for 2 years from the submittal date of November 16, 2023 (see attached IDNR EcoCAT Results Report).

At the time of this wetland delineation report, current regulations state that this delineation is valid for 5 years from the date of site visit.

PROJECT PURPOSE

The purpose of the site visit was to identify regulated surface water resources on, or within 100 feet of the project area. A floodplain determination was not included as part of our investigation. On-site wetland areas encountered were delineated using standard methods sanctioned by the United States Army Corps of Engineers in the Corps of Engineers Wetlands Delineation Manual (1987) and 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region and the United States Department of Agriculture National Food Security Act Manual (1994 and 1996). Plant observations were made in order to calculate the Coefficient of Conservatism (ĉ) and Floristic Quality Index (FQI) for each wetland plant community using the Chicago Region FQA Calculator (Herman, B., Sliwinski, R. and S. Whitaker. 2017). Observed wildlife and evaluation of resource quality are also reported as required by the Chicago District USACE.

METHODS

1987 USACE Wetland Delineation Manual and 2010 Midwest Regional Supplement.

Prior to the site visit, a preliminary site evaluation is performed using aerial photography and natural resource mapping. Potential wetland areas identified by these resources are evaluated in the field to determine if they meet the requirements for a wetland based on the USACE parameters of vegetation, hydrology, and soils. In general, positive indication of each of the three parameters must be demonstrated to classify an area as wetland. Each of these parameters is discussed below.

- **Vegetation** – Three vegetative indicators are applied to plant communities in order to determine if the hydrophytic vegetation criterion is met.
  1. More than 50% of the dominant plant species across all strata must be hydrophytic (water tolerant). The U.S. Army Corps of Engineers has prepared a regional list of plants occurring in wetlands which assigns the plant species different indicators. Wetland plants fall into three indicator classes based on differing tolerances to water level and soil saturation. These indicators are rated obligate wetland (OBL), facultative wetland (FACW), or facultative (FAC). Dominant plant species are recorded at sample points within investigated areas.
  2. The prevalence index is 3.0 or less. The prevalence index is a weighted-average wetland indicator status of all plant species in a sampling plot. Each indicator status category is given a numeric value (OBL = 1, FACW = 2, FAC = 3, FACU = 4, and UPL = 5) and weighting is by abundance. A prevalence index of 3.0 or less indicates that hydrophytic vegetation is present. The prevalence index is used to determine whether hydrophytic vegetation is present on sites where indicators of hydric soil and wetland hydrology are present but the vegetation initially fails the dominance test.
  3. The plant community passes either the dominance test (Indictor 1) or the prevalence index (Indicator 2) after reconsideration of the indicator status of certain plant species that exhibit morphological adaptations for life in wetlands. Common morphological adaptations include but are not limited to adventitious roots, multi-stemmed trunks, shallow root systems developed on or near the soil surface, and buttressing in tree species. To apply this indicator, these morphological features must be observed on more than 50% of the individuals of a FACU species living in an area where indicators of hydric soil and wetland hydrology are present.

- **Hydrology** – To be considered a wetland, an area must have 14 or more consecutive days of flooding or ponding, or a water table 12 inches or less below the soil surface, during the growing season at a minimum frequency of 5 years in 10. Wetland hydrology indicators are divided into four groups as described below:
  - **Group A** – indicators are based on the direct observation of surface water or groundwater during a site visit.
  - **Group B** – consists of evidence that the site is subject to flooding or ponding, although it may not be inundated currently. These indicators include water marks, drift deposits, sediment deposits, and similar features.
  - **Group C** – consists of other evidence that the soil is saturated currently or was saturated recently. Some of these indicators, such as oxidized rhizopheres surrounding living roots and the presence of reduced iron or sulfur in the soil profile, indicate that the soil has been saturated for an extended period.

- **Group D** – consists of landscape and vegetation characteristics that indicate contemporary rather than historical wet conditions. These indicators include stunted or stressed plants, geomorphic position, and the FAC-neutral test.

Wetland hydrology indicators are intended as one-time observations of site conditions that are sufficient evidence of wetland hydrology. Within each group, indicators are divided into two categories – *primary* and *secondary*. One primary indicator from any group is sufficient to conclude that wetland hydrology is present. In the absence of a primary indicator, two or more secondary indicators from any group are required to conclude that wetland hydrology is present.

- **Soils** - To be considered a wetland, an area must contain hydric soil. Hydric soils are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic (lacking oxygen) conditions in the upper part. Soils generally, but not always, will develop indicators that are formed predominantly by the accumulation or loss of iron, manganese, sulfur, or carbon compounds in a saturated and anaerobic environment. The most current edition of the United States Department of Agriculture, Natural Resource Conservation Service *Field Indicators of Hydric Soils in the United States* is used for identification of hydric soils. Field indicators of hydric soils include but are not limited to the presence of any of the following: histic epipedon, sulfidic odor, at least 2 centimeters of muck, depleted matrix, and/or redoximorphic features. Field indicators are usually examined in the top 24 inches of the soil. Soil colors are determined using *Munsell Soil Color Charts*.

In most circumstances, areas meeting these three criteria are staked in the field for surveying purposes. Boundaries are demarcated in the field with pink flagged pin stakes labeled "WETLAND DELINEATION." Staked boundaries are mapped on an aerial photograph included in this report. Approximate off-site wetland boundaries are identified on the aerial photograph and were determined using available aerial photographs, wetland maps, and field observation.

Farmed Wetland Determinations.

ENCAP, Inc. conducted a wetland determination on the farmed portion of the project area using National Food Security Act Manual (NFSAM) methodology. Aerial photographs are reviewed in order to identify potential farmed wetland signatures. The identified suspect areas are then field investigated to confirm that the areas are in fact wetlands. Copies of the aerial photographs used in identifying farmed wetlands are included in this report.

MAP REVIEW

- The **National Wetlands Inventory** identifies a *Riverine, Intermittent, Streambed, Seasonally Flooded* (R4SBC) water feature within the western boundary of the project area (Exhibit B).

- The **Soil Map** identifies the following soils within the project area: Lisbon silt loam, 0 to 2 percent slopes (59A), La Rose silt loam, 5 to 10 percent slopes, eroded (60C2), Drummer silty clay loam, 0 to 2 percent slopes (152A), Elpaso silty clay loam (356A), and Graymont silt loam, 0 to 2 percent slopes (541B). Drummer silty clay loam (152A) and Elpaso silty clay loam (356A) are considered predominantly hydric in Kendall County (Exhibit C).

- The **2021 United States Geological Survey (USGS) Topographic Map** identifies an unnamed intermittent tributary to Middle Aux Sable Creek in the western boundary of the project area. (Exhibit D).

- The **FEMA Flood Insurance Rate Map** identifies the project area outside the 500-year floodplain (Exhibit E).

- The **Illinois State Historic Preservation Office (ISHPO) Historic Architectural Resources Geographic Information System (HARGIS) Map** does not identify any properties or objects that have been listed in the National Register of Historic Places, determined eligible, or surveyed without determination within the project area (Exhibit F).

SPECIFIC DESCRIPTION OF IDENTIFIED WATER RESOURCES

Wetland 1 / Intermittent Creek. This wetland (approximately 0.45 acres in on-site size) is located within the western portion of the project area. The intermittent creek originates north of the site and enters the site from a large culvert located under Ament Road. The creek flows south through the western boundary of the project area before turning slightly to the southwest, continuing in a generally southern direction until its connection with Middle Aux Sable Creek approximately 0.75 miles south of site. The channel of the waters unit averages 5 feet in width and its banks average 3 feet in height. At the time of the field investigation, water depth within the channel varied between approximately 4 inches to 2 feet.

The boundaries of the creek and associated fringe wetland were marked with 70 pink flagged pin stakes. The limits were generally staked at the Ordinary High Water Mark (OHWM). The OHWM was identified by a clear, natural line on the bank, shelving, scour, and abrupt change in plant community. The buffer surrounding the wetland consisted of a wooded corridor dominated by mature hackberry (*Celtis occidentalis*) and Osage orange (*Maclura pomifera*), Tartarian honeysuckle (*Lonicera tatarica*), and smooth brome (*Bromus inermis*), which provides moderate buffer functions to the intermittent creek.

Wetland 1 / Intermittent Creek appears to be under the jurisdiction of the U.S. Army Corps of Engineers due to its connection to Middle Aux Sable Creek, a tributary of the Illinois River. Based on the definition of a high-quality aquatic resource, Wetland 1 would not be considered a high quality aquatic resource. No waterfowl or amphibian species were observed while at the project area.

Two sample points were established within and adjacent to the on-site portion of Wetland 1 to characterize the vegetation, soils, and hydrology (Exhibit G: Aerial Photograph).

The on-site portion of Wetland 1 was primarily vegetated by reed canary grass (*Phalaris arundinacea*). The mapped soil series is Drummer silty clay loam, 0 to 2 percent slopes (152A), a hydric soil. USDA field indicators F6: Redox Dark Surface provided evidence of hydric soil. high water table, saturation, water-stained leaves, drainage patterns, and geomorphic position provided evidence of persistent hydrology (See Wetland Determination Data Forms).

The native mean Coefficient of Conservatism (ĉ) for the on-site portion of Wetland 1 was 2.41, and the native Floristic Quality Index (FQI) of Wetland 1 was 13.61 (see attached Floristic Quality Data). These values indicate a low to moderate quality plant community.

Farmed Wetland 1. This wetland (0.10 acres in total size) is located within the southern portion of the project area. This wetland is a small, closed depression that appears to be isolated from the nearby jurisdictional resource and receives its hydrology from overland flow. Farmed Wetland 1 exhibited wetland signatures in 3 out of 5 historic aerial photographs from years with normal precipitation. The location and acreage of Farmed Wetland 1 were determined through aerial photograph interpretation, and its boundaries were not field staked by ENCAP, Inc. Based on the definition of a high-quality aquatic resource, Farmed Wetland 1 would not be considered a high-quality aquatic resource. No waterfowl or amphibian species were observed while at the project area.

The buffer surrounding Farmed Wetland 1 consisted of an active agricultural field that provides very little buffer function.

Farmed Wetland 1 appears to be isolated and therefore, not under the jurisdiction of the U.S. Army Corps of Engineers; however, the wetland is regulated by Kendall County through implementation of the County Stormwater Ordinance.

One sample point was established within Farmed Wetland 1 to characterize the vegetation, soils, and hydrology (Exhibit G: Aerial Photograph).

Farmed Wetland 1 was primarily unvegetated but had previously been vegetated by planted corn. The mapped soil series is Libson silt loam, 0 to 2 percent slopes (59A), a non-hydric soil. USDA field indicators A11: Depleted Below Dark Surface provided evidence of hydric soil. Geomorphic position and a review of historic aerial photographs provided evidence of persistent hydrology (See Wetland Determination Data Forms).

The native mean Coefficient of Conservatism (ĉ) for Farmed Wetland 1 was 0.00, and the native Floristic Quality Index (FQI) of Farmed Wetland 1 was 0.00 (see attached Floristic Quality Data). These values indicate a low-quality plant community.

INVESTIGATION OF FARMED AREAS

During the field investigation, the majority of the site consisted of agricultural land. ENCAP, Inc. evaluated aerial photographs obtained from Google Earth year-by-year using NRCS wetland signature criteria. Wetland signatures consist of wetland vegetation, surface water, drowned-out crops, patches of greener vegetation, and avoided areas. Areas exhibiting wetland signatures in >50% or more of reviewed aerial photographs and containing hydric soils are considered farmed wetlands. Additionally, if areas do not exhibit wetland signatures in >50% or more of reviewed aerial photographs but do exhibit positive primary or secondary wetland hydrology indicators in the field and contain hydric soils, they are also considered farmed wetlands.

See the attached aerial photographs for years reviewed and wetland signatures observed. Figures and tables from the U.S. Army Corps of Engineers Antecedent Precipitation Tool, which indicate the hydrologic conditions for each historic aerial image, are also attached.

Table 1. Slide Analysis Summary
Ament Road Build Area Extension / New Leaf Energy

Year	Google Earth Source	Precipitation	Sample Points Type of Signature / Corresponding Number		
			A	**B**	**E**
2007	Google, USDA/FPAC/ GEO	Normal	N	N	CT 1
2009	Google, USDA/FPAC/ GEO	Normal	N	N	N
2010	Google, USDA/FPAC/ GEO	*WET*	N	N	CT 1
2011	Google, USDA/FPAC/ GEO	Normal	CT 2	CT 1	N
2015	Google, Maxar Technologies	Normal	N	N	CT 1
2018	Google, Maxar Technologies	Normal	N	N	CT 1
Percent wetland signatures present in years with normal precipitation			20%	20%	60%
Hydric soil present based on field inspection			Yes	Yes	Yes
Identified as wetland on the NWI			No	No	No
Qualifies as Farmed Wetland			No	No	Yes

INU = Inundation
CT = Color Tone Difference
SAT = Saturation
N = No Wetland Signatures Observed
Y = Yes / Identified

ADDITIONAL AREAS INVESTIGATED FOR WETLAND STATUS

Two additional vegetated sites located within the project area were examined to determine if they satisfied wetland criteria. Neither of these sites so qualified; therefore, they are referred to as Investigated Areas in this report. Each area is briefly described herein and USACE data forms are provided to support our negative findings (See USACE data forms).

Investigated Area 1. This investigated area is located in the northwestern portion of the project area (Exhibit G: Aerial Photograph – Sample Point A). This area was investigated because it consisted of an area that displayed color tone differences in 1 of 5 (20%) of examined historical aerials from years with normal precipitation.

Investigated Area 1 was primarily unvegetated but was previously vegetated by corn before harvest. The mapped soil series is Drummer silty clay loam, 0 to 2 percent slopes (152A), a hydric soil. USDA field indicators A12: Thick Dark and F6: Redox Dark Surface provided evidence of hydric soil. Evidence of persistent hydrology was not observed (See Wetland Determination Data Forms).

Based on the non-persistent hydrology, Investigated Area 1 does not qualify as farmed wetland.

Investigated Area 2. This investigated area is located in the northwestern portion of the project area (Exhibit G: Aerial Photograph – Sample Point B). This area was investigated because it consisted of an area that displayed color tone differences in 1 of 5 (20%) of examined historical aerials from years with normal precipitation.

Investigated Area 2 was primarily unvegetated but was previously vegetated by corn before harvest. The mapped soil series is Drummer silty clay loam, 0 to 2 percent slopes (152A), a hydric soil. USDA field indicators F6: Redox Dark Surface and F7: Depleted Dark Surface provided evidence of hydric soil. Evidence of persistent hydrology was not observed (See Wetland Determination Data Forms).

Based on the non-persistent hydrology, Investigated Area 2 does not qualify as farmed wetland.

REGULATORY STATEMENT

Federal Regulations: The deposition of dredged or fill materials into federally jurisdictional wetlands or Waters of the United States is regulated by the USACE under Section 404 of the Clean Water Act.

The Nationwide Permit Program authorizes 0.10 acre or less of low quality wetlands to be filled without mitigation. If over 0.1 acre is proposed for filling or is subject to secondary impacts, in-kind mitigation may be required at a ratio of 1.5:1, or greater. The aggregate total loss of waters of the U.S. authorized by NWP 39 cannot exceed 0.5 acre or 300 linear feet of streambed.

Under the existing regulations, secondary impacts (both on-site and off-site) from filling also must be evaluated. Mitigation may be required at a higher rate if a project will significantly alter wetland functions such as stormwater detention, water filtration, sediment trapping, and/or wildlife habitat.

Before mitigation will be approved, reasonable proof that avoidance or minimization of wetland impacts has been attempted must be provided to the Corps.

A USACE permit is not required if the wetlands are avoided and construction erosion near wetlands is controlled.

Kendall County Stormwater Management Ordinance: On December 15, 2011, Kendall County adopted a Stormwater Management Ordinance, with a most recent update of May 18, 2021. The ordinance provides for the protection of wetlands and other depressional storage areas from damaging modifications and adverse changes in runoff quality and quantity associated with land developments.

Natural vegetation shall be retained and protected. Areas immediately adjacent to natural watercourses, lakes, ponds, and wetlands shall be left undisturbed during development to the greatest extent possible. Temporary crossings of watercourses, when permitted, must include appropriate watercourse and bank stabilization measures.

Special precautions shall be taken to prevent damages resulting from any necessary development activity within or adjacent to any stream, lake, pond, or wetland. Preventative measures shall reflect the sensitivity of these areas to erosion and sedimentation.

Illinois Department of Natural Resources Agency Action Plans for Interagency Wetlands Policy Act of 1989: The Illinois Interagency Wetlands Policy Act of 1989 is intended to ensure that there is no overall net loss of the State's existing wetland acres or their functional values resulting from State-supported activities. The Act charges State agencies with a further duty to "preserve, enhance and create wetlands where necessary to increase the quality and quantity of the State's wetland resource base."

The Interagency Wetlands Policy Act of 1989 states that any construction, land management or other activity performed by, or for which financial assistance is administered or provided by, a State agency that will result in an adverse impact to a wetland shall be subject to compliance. This includes, but is not limited to the following:

- The alteration, removal, excavation, or dredging of soil, sand, gravel, minerals, organic matter, vegetation, or naturally occurring minerals of any kind from a wetland;
- The discharge or deposit of fill material or dredged material in a wetland;
- The alteration of existing drainage characteristics, sedimentation patterns, or flood retention characteristics of a wetland;
- The disturbance of water level or water table of a wetland;
- The destruction or removal of plant life that would alter the character of a wetland, except for activities undertaken in accordance with the Illinois Noxious Weed Act;
- The transfer of State owned wetlands to any entity other than another state agency; and
- Other actions that cause or may cause adverse wetland impacts.

The Act is to be implemented through a State Wetland Mitigation Policy. The State Wetland Mitigation Policy requires preservation of wetlands as the primary objective. Where adverse wetland impacts are unavoidable, progressive levels of compensation based upon the level of impact to the existing wetland and the location of compensation wetlands are required.

Archaeological Survey Requirements: An archaeological survey may be required before a Section 404 permit will be issued for wetland impacts. The U.S. Army Corps of Engineers will make this determination as part of the permit application review. The archaeological survey must cover all areas of the project area, not wetlands only. If you already have a letter from the Illinois State Historic Preservation Office (ISHPO) stating an archaeological survey is required, you should act on it because the USACE will support this notification.

RECOMMENDATIONS

Two wetlands totaling approximately 0.55 acres were identified on the project area. The boundaries of Farmed Wetland 1 were not field staked by ENCAP, Inc. Farmed wetland boundaries must be scaled from the attached aerial photograph (Exhibit G) onto the property boundary survey.

The U.S. Army Corps of Engineers has the final authority in determining the jurisdictional status of the wetlands and water resources identified on site. In the past, projects have been able to apply to the USACE for a jurisdictional determination (JD) to find out which governing body regulates the wetlands on site. JD's, however, have been deprioritized and are being discouraged by the USACE Chicago District. In lieu of a JD, which can take over a year to be processed, if wetlands can be completely avoided by project development, a No Permit Required (NPR) may be obtained from the USACE. A No Permit Required letter may take between 2-5 months to receive from the USACE offices.

If impacts cannot be avoided, the fastest way to attain a permit for proposed work is to assume that all wetlands are under USACE jurisdiction. If wetlands cannot be avoided and assuming USACE jurisdiction of the wetlands will not work for the project, a lengthier permit review process may be initialed with the Corps.

Any impacts to Wetland 1, Farmed Wetland 1, Waters of the U.S., or enforced buffers will require U.S. Army Corps of Engineers and County notification and approval. ENCAP, Inc. can assist you with the request for No Permit Required, permit applications, agency negotiations, wetland design plans, and mitigation plans which may be applicable to your project. The wetland consultant should be involved during the planning and design stages of the project to avoid complications with the agencies after the plan has been drafted. Proper planning regarding wetlands can reduce delays caused by the permitting process and costly changes in site plans.

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USFWS Section 7 Consultation Review Summary
+ Official Threatened & Endangered Species List

ENCAP INCORPORATED

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November 16, 2023

U.S. Fish and Wildlife Service
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022

Re: USFWS Review Summary - Section 7 Endangered Species Act Consultation
Project: Ament Road Build Area Extension, located in Illinois, Kendall County, Kendall Township, Unincorporated, T36N R7E Section 17; Latitude 41.593804 N; Longitude -88.444237 W
ENCAP, Inc. project # 23-0815A
Client: New Leaf Energy

The project area consists predominately of agricultural land most recently planted with corn (*Zea mays*) and harvested. An intermittent tributary to Middle Aux Sable Creek and its wooded buffer is located along the western boundary of the project area. Topographically the project area decreases in elevation from north to south, with a few slight depressional areas found throughout the site. The proposed project includes conversion of the agricultural field to a solar array and attendant features.

ENCAP, Inc. carefully reviewed the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPAC) technical assistance website on November 16, 2023 for federally listed threatened and endangered species. According to the website, 4 threatened or endangered species are listed and may be present in Kendall County: Indiana Bat (*Myotis sodalis*), Northern Long-eared Bat (*Myotis septentrionalis*), Eastern Prairie Fringed Orchid (*Platanthera leucophaea*), and the Whooping Crane (*Grus americana*). Additionally, the Tricolored Bat (*Perimyotis subflavus*) is proposed to be listed as an endangered species, and the Monarch Butterfly (*Danaus plexippus*) is included as a candidate species.

Two major types of habitat exist on the project area. The majority of the project area is an active agricultural field, most recently in production of corn. This area provides very little habitat for listed species. The remainder of the project area consists of an intermittent creek corridor with herbaceous, scrub-shrub, and mature wooded plant communities. Scattered flowering forbs and shrubs were found throughout the corridor. These areas provide some wildlife habitat on-site. Along the southern border of the parcel, a few mature trees and several saplings were found consisting of hackberry (*Celtis occidentalis*) and white mulberry (*Morus alba*). Two wetlands were identified on-site. Further information regarding the wetlands can be found in Table 1 below.

Table 1. Sizes in acres, floristic quality, dominant plant species, and the required Lake County buffer width in feet for each wetland.

Feature	Size (ac)	Native FQI	Native Mean C	Dominant Species	Quality
Wetland 1 / Intermittent Creek	0.45	13.61	2.41	Reed canary grass (*Phalaris arundinacea*)	Low-Moderate
Farmed Wetland 1	0.10	0.00	0.00	Unvegetated	Low

The project area does not contain medium to high quality wetland with species associated with Eastern prairie fringed orchid. The limited number of mature trees provides minimal foraging habitat for listed bat species. If tree clearing is avoided, or is conducted during the winter months, it is likely this project will have “no effect” on the Northern long-eared or Indiana bat species.

The minimal flowering forbs found on-site may support limited habitat for the Monarch Butterfly. Further guidance for this species is not required since it is a candidate species and not yet fully listed as threatened or endangered. The Monarch Butterfly was found to warrant listing and protection under the Endangered Species Act (ESA), but resources must go to higher priority species at this time. Candidate species have no legal protection under the ESA, but agencies can still provide recommendations for them. The USFWS broadly urges the public to provide habitat for this imperiled species by planting native milkweed and nectar plants. The Monarch Butterfly should be considered in any landscaping plans.

The Whooping Crane Eastern Migratory population, which travels through Illinois, is a reintroduced flock started in 2001 with captive raised chicks. Whooping Cranes require wetlands, particularly wetland mosaic landscapes, in Illinois while migrating, so the greatest threat to them in Illinois is wetland loss. The Eastern Migratory population is designated “non-essential” by the Endangered Species Act to reduce regulatory restrictions on reintroductions. Non-essential, experimental populations are treated as threatened under the U.S. Fish & Wildlife Service’s 10(j) policy. The Eastern Migratory population is important to the recovering Whooping Crane population overall, but formal consultation with the USFWS for the Whooping Crane Eastern Migratory population is likely not required.

None of the two areas on-site contain suitable habitats for the Indiana Bat, Northern Long Eared Bat, Tricolored Bat, Eastern Prairie Fringed Orchid, Monarch Butterfly or Whooping Crane. Therefore, ENCAP, Inc. concludes that the Ament Road solar project does not contain the aforementioned listed species, their habitats, or designated critical habitat and will have “no effect” on the aforementioned species.



Robert Van Herik, PWS, CWS
Senior Ecological Consultant
ENCAP, Inc.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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In Reply Refer To:
Project Code: 2024-0016976
Project Name: Ament Road Build Area Extension

November 16, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat, if present, within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) **the accuracy of this species list should be verified after 90 days**. This verification can be completed formally or informally. You may verify the list by visiting the ECOSPHERE Information for Planning and Consultation (IPaC) website https://ipac.ecosphere.fws.gov at regular intervals during project planning and implementation and completing the same process you used to receive the attached list.

Section 7 Consultation

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the U.S. Fish and Wildlife Service (Service) if they determine their project “may affect” listed species or designated critical habitat. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action may affect endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service to make "no effect" determinations. If you determine that your proposed action will have no effect on threatened or endangered species or their respective designated critical habitat, you do not need to seek concurrence with the Service.

Note: For some species or projects, IPaC will present you with *Determination Keys*. You may be able to use one or

more Determination Keys to conclude consultation on your action.

Technical Assistance for Listed Species

1. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain information on the species life history, species status, current range, and other documents by selecting the species from the thumbnails or list view and visiting the species profile page.

No Effect Determinations for Listed Species

1. If there are *no* species or designated critical habitats on the Endangered Species portion of the species list: conclude "no species and no critical habitat present" and document your finding in your project records. No consultation under ESA section 7(a)(2) is required if the action would result in no effects to listed species or critical habitat. Maintain a copy of this letter and IPaC official species list for your records.
2. If any species or designated critical habitat are listed as potentially present in the **action area** of the proposed project the project proponents are responsible for determining if the proposed action will have “no effect” on any federally listed species or critical habitat. No effect, with respect to species, means that no individuals of a species will be exposed to any consequence of a federal action or that they will not respond to such exposure.
3. If the species habitat is not present within the action area or current data (surveys) for the species in the action area are negative: conclude “no species habitat or species present” and document your finding in your project records. For example, if the project area is located entirely within a “developed area” (an area that is already graveled/paved or supports structures and the only vegetation is limited to frequently mowed grass or conventional landscaping, is located within an existing maintained facility yard, or is in cultivated cropland conclude no species habitat present. Be careful when assessing actions that affect: 1) rights-of-ways that contains natural or semi-natural vegetation despite periodic mowing or other management; structures that have been known to support listed species (example: bridges), and 2) surface water or groundwater. Several species inhabit rights-of-ways, and you should carefully consider effects to surface water or groundwater, which often extend outside of a project’s immediate footprint.
4. Adequacy of Information & Surveys - Agencies may base their determinations on the best evidence that is available or can be developed during consultation. Agencies must give the benefit of any doubt to the species when there are any inadequacies in the information. Inadequacies may include uncertainty in any step of the analysis. To provide adequate information on which to base a determination, it may be appropriate to conduct surveys to determine whether listed species or their habitats are present in the action area. Please contact our office for more information or see the survey guidelines that the Service has made available in IPaC.

May Effect Determinations for Listed Species

1. If the species habitat is present within the action area and survey data is unavailable or inconclusive: assume the species is present or plan and implement surveys and interpret results in coordination with our office. If assuming species present or surveys for the species are positive continue with the may affect determination process. May affect, with respect to a species, is the appropriate conclusion when a species might be exposed to a consequence of a federal action and could respond to that exposure. For critical habitat, ‘may affect’ is the appropriate conclusion if the action area overlaps with mapped areas of critical habitat and an essential physical or biological feature may be exposed to a consequence of a federal action and could change in response to that exposure.
2. Identify stressors or effects to the species and to the essential physical and biological features of critical habitat that overlaps with the action area. Consider all consequences of the action and assess the potential for each life stage of the species that occurs in the action area to be exposed to the stressors. Deconstruct the action into its component parts to be sure that you do not miss any part of the action that could cause effects to the species or physical and biological features of critical habitat. Stressors that affect species’ resources may have consequences even if the species is not present when the project is implemented.
3. If no listed or proposed species will be exposed to stressors caused by the action, a ‘no effect’ determination may be appropriate – be sure to separately assess effects to critical habitat, if any overlaps with the action

area. If you determined that the proposed action or other activities that are caused by the proposed action may affect a species or critical habitat, the next step is to describe the manner in which they will respond or be altered. Specifically, to assess whether the species/critical habitat is "not likely to be adversely affected" or "likely to be adversely affected."

4. Determine how the habitat or the resource will respond to the proposed action (for example, changes in habitat quality, quantity, availability, or distribution), and assess how the species is expected to respond to the effects to its habitat or other resources. Critical habitat analyses focus on how the proposed action will affect the physical and biological features of the critical habitat in the action area. If there will be only beneficial effects or the effects of the action are expected to be insignificant or discountable, conclude "may affect, not likely to adversely affect" and submit your finding and supporting rationale to our office and request concurrence.
5. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, check IPaC for species-specific Section 7 guidance and conservation measures to determine whether there are any measures that may be implemented to avoid or minimize the negative effects. If you modify your proposed action to include conservation measures, assess how inclusion of those measures will likely change the effects of the action. If you cannot conclude that the effects of the action will be wholly beneficial, insignificant, or discountable, contact our office for assistance.
6. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

For additional information on completing Section 7 Consultation including a Glossary of Terms used in the Section 7 Process, information requirements for completing Section 7, and example letters visit the Midwest Region Section 7 Consultations website at: https://www.fws.gov/office/midwest-region-headquarters/midwest-section-7-technical-assistance.

You may find more specific information on completing Section 7 on communication towers and transmission lines on the following websites:

- Incidental Take Beneficial Practices: Power Lines - https://www.fws.gov/story/incidental-take-beneficial-practices-power-lines
- Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. - https://www.fws.gov/media/recommended-best-practices-communication-tower-design-siting-construction-operation

Tricolored Bat Update

On September 14, 2022, the Service published a proposal in the Federal Register to list the tricolored bat (Perimyotis subflavus) as endangered under the Endangered Species Act (ESA). The Service has up to 12-months from the date the proposal published to make a final determination, either to list the tricolored bat under the Act or to withdraw the proposal. The Service determined the bat faces extinction primarily due to the rangewide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across North America. Because tricolored bat populations have been greatly reduced due to WNS, surviving bat populations are now more vulnerable to other stressors such as human disturbance and habitat loss. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective (typically 30 days after publication of the final rule in the Federal Register), the prohibitions against jeopardizing its continued existence and “take” will apply. Therefore, if your future or existing project has the potential to adversely affect tricolored bats after the potential new listing goes into effect, we recommend that the effects of the project on tricolored bat and their habitat be analyzed to determine whether authorization under ESA section 7 or 10 is necessary. Projects with an existing section 7 biological opinion may require

reinitiation of consultation, and projects with an existing section 10 incidental take permit may require an amendment to provide uninterrupted authorization for covered activities. Contact our office for assistance.

Other Trust Resources and Activities

Bald and Golden Eagles

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, please contact our office for further coordination. For more information on permits and other eagle information visit our website https://www.fws.gov/library/collections/bald-and-golden-eagle-management.
We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Illinois-Iowa Ecological Services Field Office
Illinois & Iowa Ecological Services Field Office
1511 47th Ave
Moline, IL 61265-7022
(309) 757-5800

PROJECT SUMMARY

Project Code: 2024-0016976
Project Name: Ament Road Build Area Extension
Project Type: Power Gen - Solar
Project Description: Proposed project is a commercial solar project and attendant features. Creek Corridor will be avoided. Low quality farmed wetlands will be avoided
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.593254099999996,-88.44709934482674,14z



Counties: Kendall County, Illinois

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid *Platanthera leucophaea* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

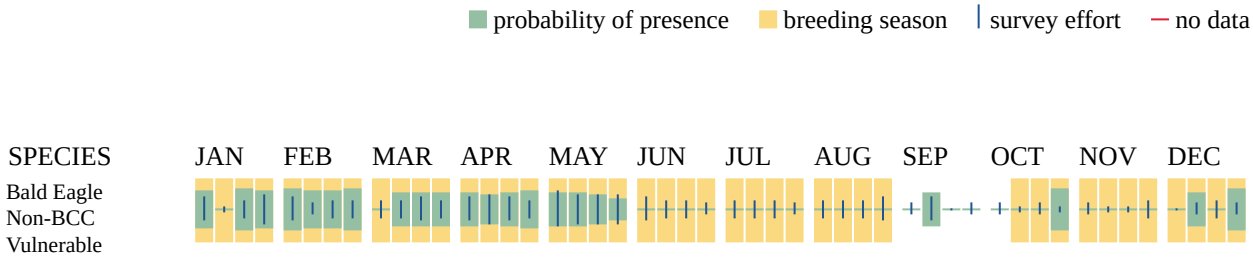
Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Managment https://www.fws.gov/program/eagle-management

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NAME	BREEDING SEASON
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Cerulean Warbler *Dendroica cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 21 to Jul 20
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Henslow's Sparrow *Ammodramus henslowii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941	Breeds May 1 to Aug 31
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere

NAME	BREEDING SEASON
Upland Sandpiper *Bartramia longicauda* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9294	Breeds May 1 to Aug 31
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read the supplemental information and specifically the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

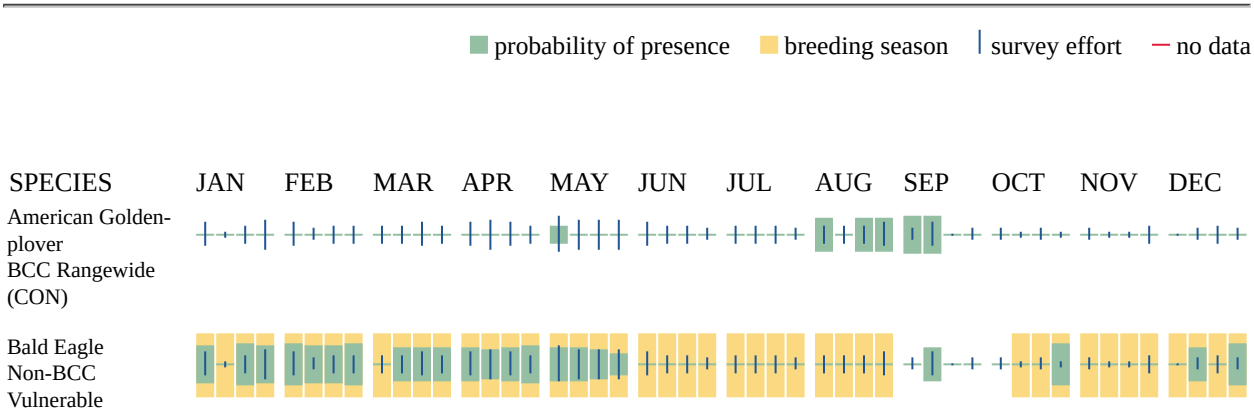
Probability of Presence (■)

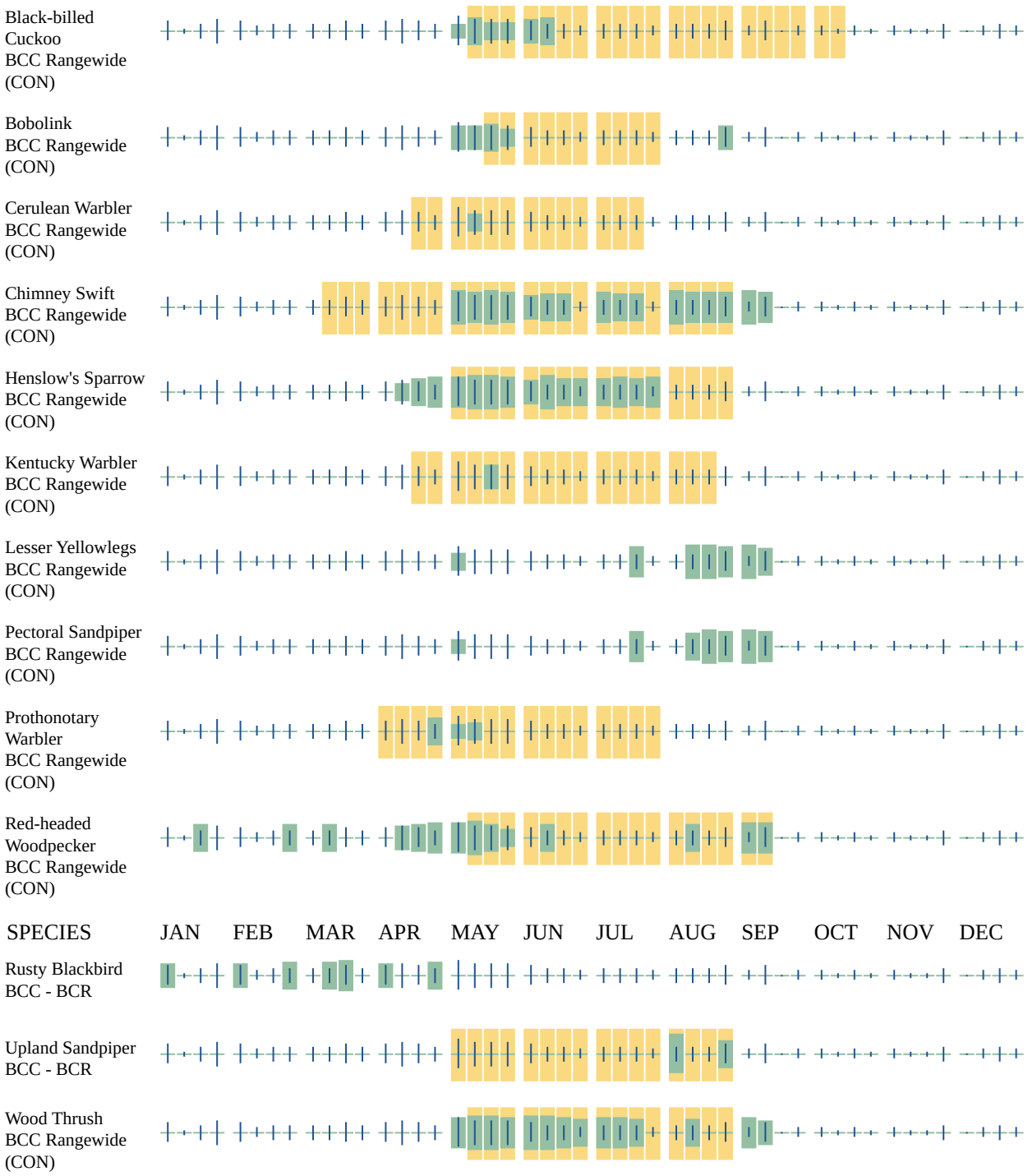
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R4SBC

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Robert Van Herik
Address: [redacted]
City: [redacted]
State: [redacted]
Zip: [redacted]
[redacted]
Phone: [redacted]

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Army Corps of Engineers

IDNR EcoCAT Natural Resources Review Results & Termination Letter

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

Applicant: ENCAP, Inc.
Contact: Robert Van Herik, Jr.
Address: [redacted]

IDNR Project Number: 2406936
Date: 11/16/2023
Alternate Number: 23-0519B

Project: Ament Road Build Area Extension
Address: Ament Road, Yorkville

Description: Commercial Solar Development with attendant features. Creek corridor will be avoided.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

Consultation is terminated. This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary. Termination does not imply IDNR's authorization or endorsement.

Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: Kendall

Township, Range, Section:
36N, 7E, 16
36N, 7E, 17
36N, 7E, 20
36N, 7E, 21



IL Department of Natural Resources Contact
Bradley Hayes
217-785-5500
Division of Ecosystems & Environment

Government Jurisdiction
Kendall County Planning, Building, & Zoning
Matt Asselmeier,
masselmeier@kendallcountyil.gov
111 West Fox Street
Yorkville, Illinois 60560

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

By using this website, you acknowledge that you have read and agree to these terms. These terms may be revised by IDNR as necessary. If you continue to use the EcoCAT application after we post changes to these terms, it will mean that you accept such changes. If at any time you do not accept the Terms of Use, you may not continue to use the website.

1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

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Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.

IDNR Project Number: 2406936

EcoCAT
Ecological Compliance Assessment Tool

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

EcoCAT Receipt

Project Code 2406936

APPLICANT	DATE
ENCAP, Inc. Robert Van Herik, Jr. [redacted]	11/16/2023

DESCRIPTION	FEE	CONVENIENCE FEE	TOTAL PAID
EcoCAT Consultation	$ 125.00	$ 2.81	$ 127.81

TOTAL PAID $ 127.81

Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
217-785-5500
dnr.ecocat@illinois.gov

Floristic Quality Data Sheets

SITE: Ament Road Build Area Extension
LOCALE: Wetland 1 / Intermittent Creek
BY: S. DeDina & R. Van Herik
NOTES: 11.08.2023

CONSERVATISM-BASED METRICS		ADDITIONAL METRICS	
MEAN C (NATIVE SPECIES)	2.41	SPECIES RICHNESS (ALL)	48
MEAN C (ALL SPECIES)	1.60	SPECIES RICHNESS (NATIVE)	32
MEAN C (NATIVE TREES)	2.00	% NON-NATIVE	0.33
MEAN C (NATIVE SHRUBS)	2.67	WET INDICATOR (ALL)	-0.10
MEAN C (NATIVE HERBACEOUS)	2.47	WET INDICATOR (NATIVE)	-0.22
FQAI (NATIVE SPECIES)	13.61	% HYDROPHYTE (MIDWEST)	0.75
FQAI (ALL SPECIES)	11.11	% NATIVE PERENNIAL	0.60
ADJUSTED FQAI	19.65	% NATIVE ANNUAL	0.06
% C VALUE 0	0.44	% ANNUAL	0.06
% C VALUE 1-3	0.33	% PERENNIAL	0.88
% C VALUE 4-6	0.23		
% C VALUE 7-10	0.00		

SPECIES ACRONYM	SPECIES NAME (NWPL/ MOHLENBROCK)	SPECIES (SYNONYM)	COMMON NAME	C VALUE	MIDWEST WET INDICATOR	NC-NE WET INDICATOR	WET INDICATOR (NUMERIC)	HABIT	DURATION	NATIVITY
ACENEG	Acer negundo	Acer negundo var. violaceum	Ash-Leaf Maple	0	FAC	FAC	0	Tree	Perennial	Native
ACESAI	Acer saccharinum	Acer saccharinum	Silver Maple	1	FACW	FACW	-1	Tree	Perennial	Native
AEGPOD	Aegopodium podagraria	AEGOPODIUM PODAGRARIA	Bishop's Goutweed	0	FAC	FAC	0	Forb	Perennial	Adventive
AGEALT	Ageratina altissima	Eupatorium rugosum	White Snakeroot	3	FACU	FACU	1	Forb	Perennial	Native
AMBTRI	Ambrosia trifida	Ambrosia trifida	Great Ragweed	0	FAC	FAC	0	Forb	Annual	Native
APOCAN	Apocynum cannabinum	Apocynum sibiricum	Indian-Hemp	2	FAC	FAC	0	Forb	Perennial	Native
ARCMIN	Arctium minus	ARCTIUM MINUS	Lesser Burrdock	0	FACU	FACU	1	Forb	Biennial	Adventive
BIDFRO	Bidens frondosa	Bidens frondosa	Devil's-Pitchfork	1	FACW	FACW	-1	Forb	Annual	Native
BROINE	Bromus inermis	BROMUS INERMIS	Smooth Brome	0	FACU	UPL	1	Grass	Perennial	Adventive
CXBLAN	Carex blanda	Carex blanda	Eastern Woodland Sedge	1	FAC	FAC	0	Sedge	Perennial	Native
CELOCC	Celtis occidentalis	Celtis occidentalis	Common Hackberry	2	FAC	FAC	0	Tree	Perennial	Native
CONMAC	Conium maculatum	CONIUM MACULATUM	Poison-Hemlock	0	FACW	FACW	-1	Forb	Biennial	Adventive
CORALB	Cornus alba	Cornus stolonifera; Cornus baileyi; Cornus sericea	Red Osier	5	FACW	FACW	-1	Shrub	Perennial	Native
CORRAC	Cornus racemosa	Cornus racemosa	Gray Dogwood	1	FAC	FAC	0	Shrub	Perennial	Native
ELYRIP	Elymus riparius	Elymus riparius	River-Bank Wild Rye	5	FACW	FACW	-1	Grass	Perennial	Native
SOLGRA	Euthamia graminifolia	Solidago graminifolia; Solidago graminifolia nuttallii; Euthamia nuttallii	Flat-Top Goldentop	4	FACW	FAC	-1	Forb	Perennial	Native

FRAPEN	Fraxinus pennsylvanica	Fraxinus pennsylvanica subintegerrima; Fraxinus lanceolata	Green Ash	4	FACW	FACW	-1 Tree	Perennial	Native
GEUCAN	Geum canadense	Geum canadense	White Avens	1	FAC	FAC	0 Forb	Perennial	Native
GEULAC	Geum laciniatum	Geum laciniatum	Rough Avens	3	FACW	FACW	-1 Forb	Perennial	Native
GLYSTR	Glyceria striata	Glyceria striata var. stricta	Fowl Manna Grass	4	OBL	OBL	-2 Grass	Perennial	Native
HELGRO	Helianthus grosseserratus	Helianthus grosseserratus	Saw-Tooth Sunflower	4	FACW	FACW	-1 Forb	Perennial	Native
LAPCAN	Laportea canadensis	Laportea canadensis	Canadian Wood-Nettle	5	FACW	FACW	-1 Forb	Perennial	Native
LONTAT	Lonicera tatarica	LONICERA TATARICA	Twinsisters	0	FACU	FACU	1 Shrub	Perennial	Adventive
MORALB	Morus alba	MORUS ALBA VAR. TATARICA	White Mulberry	0	FAC	FACU	0 Tree	Perennial	Adventive
NASOFF	Nasturtium officinale	NASTURTIUM OFFICINALE	Watercress	0	OBL	OBL	-2 Forb	Perennial	Adventive
PASSAT	Pastinaca sativa	PASTINACA SATIVA	Parsnip	0	UPL	UPL	2 Forb	Biennial	Adventive
PHAARU	Phalaris arundinacea	PHALARIS ARUNDINACEA	Reed Canary Grass	0	FACW	FACW	-1 Grass	Perennial	Adventive
PHRAUSU	Phragmites australis ssp. australis	PHRAGMITES AUSTRALIS	Common Reed	0	FACW	FACW	-1 Grass	Perennial	Adventive
POPDEL	Populus deltoides	Populus deltoides	Eastern Cottonwood	0	FAC	FAC	0 Tree	Perennial	Native
RHACAT	Rhamnus cathartica	RHAMNUS CATHARTICA	European Buckthorn	0	FAC	FAC	0 Shrub	Perennial	Adventive
RIBMIS	Ribes missouriense	Ribes missouriense	Missouri Gooseberry	2	UPL	UPL	2 Shrub	Perennial	Native
ROSBLA	Rosa blanda	Rosa blanda	Smooth Rose	4	FACU	FACU	1 Shrub	Perennial	Native
RUBOCC	Rubus occidentalis	Rubus occidentalis	Black Raspberry	0	UPL	UPL	2 Shrub	Perennial	Native
RUDLAC	Rudbeckia laciniata	Rudbeckia laciniata	Green-Head Coneflower	4	FACW	FACW	-1 Forb	Perennial	Native
RUMALT	Rumex altissimus	Rumex altissimus	Pale Dock	1	FACW	FACW	-1 Forb	Perennial	Native
RUMCRI	Rumex crispus	RUMEX CRISPUS	Curly Dock	0	FAC	FAC	0 Forb	Perennial	Adventive
SALNIG	Salix nigra	Salix nigra	Black Willow	5	OBL	OBL	-2 Tree	Perennial	Native
SAMCAN	Sambucus nigra ssp. canadensis	Sambucus canadensis	Black Elder	4	FAC	FACW	-1 Shrub	Perennial	Native
SANODO	Sanicula odorata	Sanicula gregaria	Clustered Black-Snakeroot	3	FAC	FAC	0 Forb	Perennial	Native
SOLDUL	Solanum dulcamara	SOLANUM DULCAMARA	Climbing Nightshade	0	FAC	FAC	0 Vine	Perennial	Adventive
SOLALT	Solidago altissima	Solidago altissima	Tall Goldenrod	1	FACU	FACU	1 Forb	Perennial	Native
SYMDRU	Symphyotrichum drummondii	Aster sagittifolius drummondii	Drummond's Aster	3	UPL	UPL	2 Forb	Perennial	Native
TAROFF	Taraxacum officinale	TARAXACUM OFFICINALE	Common Dandelion	0	FACU	FACU	1 Forb	Perennial	Adventive
TOXRAD	Toxicodendron radicans	Rhus radicans	Eastern Poison-Ivy	2	FAC	FAC	0 Vine	Perennial	Native
TRIHYB	Trifolium hybridum	TRIFOLIUM HYBRIDUM	Alsike Clover	0	FACU	FACU	1 Forb	Perennial	Adventive
VERURT	Verbena urticifolia	Verbena urticifolia var. leiocarpa	White Vervain	2	FAC	FAC	0 Forb	Perennial	Native
VIBOPU	Viburnum opulus var. opulus	VIBURNUM OPULUS	Highbush-Cranberry	0	FAC	FACW	0 Shrub	Perennial	Adventive
XANSTR	Xanthium strumarium	Xanthium strumarium var. canadense; Xanthium strumarium var. glabratum	Rough Cockleburr	0	FAC	FAC	0 Forb	Annual	Native

USACE Wetland Determination Data Forms – Midwest Region

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road Build Area Extension City/County: Unincorporated/Kendall Sampling Date: 11/08/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: A

Investigator(s) S. DeDina & R. Van Herik Section, Township, Range: Sec. 17, T36N, R7E

Landform (hillslope, terrace, etc.): Agricultural field Local Relief (concave, convex, none): Concave

Slope (%): 3% *Lat: 41.595242 *Long: -88.448686 Datum: Investigated Area 1

Soil Map Unit Name: Drummer silty clay loam, 0 to 2 percent slopes (152A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒
Hydric Soils Present? Yes ☒ No ☐ **Is the Sampled Area Within a Wetland?** **Yes ☐ No ☒**
Wetland Hydrology Present? Yes ☐ No ☒

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been normal. The sample point is located in an agricultural field that has been tiled, tilled, planted with corn (*Zea mays*), and harvested.

*Coordinates obtained from Google Earth.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
		=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays** stubble	60	N	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	60	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS	(A)		(B)

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 10
*The agricultural field and sample point was dominated by planted corn (*Zea mays*) that had recently been harvested; however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point A

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 2/1	100					SiCL	
8-15	10YR 2/1	94	10YR 5/3	5	C	M	SiCL	
			10YR 5/8	1	C	M		
15-24	10YR 2/1	88	10YR 5/3	10	C	M	SiC	
			10YR 5/8	2	C	M		
24-28	10YR 5/1	50	10YR 5/3	15	C	M	SiC	
			10YR 5/8	15	C	M		
			10YR 2/1	20	n/a	M		

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 1 of 5 (20%) reviewed historic aerial photographs with normal precipitation.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road Build Area Extension City/County: Unincorporated/Kendall Sampling Date: 11/08/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: B

Investigator(s) S. DeDina & R. Van Herik Section, Township, Range: Sec. 17, T36N, R7E

Landform (hillslope, terrace, etc.): Agricultural field Local Relief (concave, convex, none): Concave

Slope (%): 2% *Lat: 41.594917 *Long: -88.448194 Datum: Investigated Area 2

Soil Map Unit Name: Drummer silty clay loam, 0 to 2 percent slopes (152A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒
Hydric Soils Present? Yes ☒ No ☐ **Is the Sampled Area Within a Wetland?** **Yes ☐ No ☒**
Wetland Hydrology Present? Yes ☐ No ☒

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been normal. The Sample Point is located in an agricultural field that has been tiled, tilled, planted with corn (*Zea mays*), and harvested.

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays** stubble	65	N	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	65	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS	(A)		(B)

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 11
*The agricultural field and sample point was dominated by planted corn (*Zea mays*) that had recently been harvested; however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point B

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/1	92	10YR 5/4	5	C	M	SiCL	
			10YR 5/1	3	D	M		
15-24	10YR 2/1	73	10YR 5/1	15	D	M	SiC	
			10YR 5/4	10	C	M		
			10YR 5/8	2	C	M		

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 1 of 5 (20%) reviewed historic aerial photographs with normal precipitation.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road Build Area Extension City/County: Unincorporated/Kendall Sampling Date: 11/08/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: C

Investigator(s) S. DeDina & R. Van Herik Section, Township, Range: Sec. 17, T36N, R7E

Landform (hillslope, terrace, etc.): Toe Slope, Creekbed Local Relief (concave, convex, none): Concave

Slope (%): 10% *Lat: 41.594073 *Long: -88.448824 Datum: Wetland 1 / Intermittent Creek

Soil Map Unit Name: Drummer silty clay loam, 0 to 2 percent slopes (152A) NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no explain in remarks)

Are vegetation ☐ Soil ☐ Hydrology ☐ significantly disturbed? Are normal circumstances present? Yes ☒ No ☐

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☒ No ☐
Hydric Soils Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐

Is the Sampled Area Within a Wetland? **Yes ☒** **No ☐**

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been normal. The Sample Point is located in an incised creek channel with a wooded buffer.

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Celtis occidentalis*	25	Y	FAC
2. *Tilia americana*	25	Y	FACU
3.			
4.			
5.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Rubus occidentalis*	20	Y	UPL
2. *Sambucus canadensis*	15	Y	FAC
3. *Lonicera tatarica*	10	Y	FACU
4.			
5.			
	45	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Phalaris arundinacea*	40	Y	FACW
2. *Rudbeckia laciniata*	20	Y	FACW
3. *Bromus inermis*	15	N	FACU
4. *Aegopodium podagraria*	10	N	FAC
5. *Solanum dulcamara*	8	N	FAC
6. *Rumex altissimus*	3	N	FACW
7.			
8.			
9.			
10.			
	96	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)
Total Number of Dominant Species Across All Strata: 7 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 57% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS (A)		(B)	

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☒ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 1

SOIL

Sampling Point C

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/1	80	10YR 5/8	10	C	M	SiL	with sand
			10YR 5/4	10	C	M		
8-10	10YR 4/1	85	10YR 5/4	15	C	M	SiL	With gravel

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type: **Gravel / Rock**

Depth: **10"**

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☒ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☒ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☒ No ☐ Depth (inches) 6"

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches) 3"

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road Build Area Extension City/County: Unincorporated/Kendall Sampling Date: 11/08/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: D

Investigator(s) S. DeDina & R. Van Herik Section, Township, Range: Sec. 17, T36N, R7E

Landform (hillslope, terrace, etc.): Creek Terrace Local Relief (concave, convex, none): None

Slope (%): 0% *Lat: 41.594190 *Long: -88.448709 Datum: Wetland 1 / Intermittent Creek - Upland

Soil Map Unit Name: Drummer silty clay loam, 0 to 2 percent slopes (152A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐ No ☒	
Hydric Soils Present?	Yes ☐ No ☒	**Is the Sampled Area Within a Wetland?** **Yes ☐ No ☒**
Wetland Hydrology Present?	Yes ☐ No ☒	

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been normal.

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Tilia americana*	60	Y	FACU
2. *Celtis occidentalis*	15	N	FAC
3.			
4.			
5.			
	75	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lonicera tatarica*	25	Y	FACU
2. *Rubus occidentalis*	15	Y	UPL
3. *Cornus alba*	5	N	FACW
4.			
5.			
	45	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Bromus inermis*	99	Y	FACU
2. *Cirsium arvense*	1	N	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS (A)		(B)	

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)
[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 2

SOIL

Sampling Point _____

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/1	100					SiCL	
18-20	10YR 3/1	85	10YR 4/3	15	C	M	SiCL	
20-24	10YR 4/3	80	10YR 5/4	15	C	M	SiCL	
			10YR 3/1	5	n/a	M		

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type: _____

Depth: _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Ament Road Build Area Extension City/County: Unincorporated/Kendall Sampling Date: 11/08/2023

Applicant/Owner: New Leaf Energy State: IL Sampling Point: E

Investigator(s) S. DeDina & R. Van Herik Section, Township, Range: Sec. 17, T36N, R7E

Landform (hillslope, terrace, etc.): Agricultural field Local Relief (concave, convex, none): Concave

Slope (%): 3% *Lat: 41.590806 *Long: -88.445576 Datum: Farmed Wetland 1

Soil Map Unit Name: Libson silt loam, 0 to 2 percent slopes (59A) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no explain in remarks)

Are vegetation ☒ Soil ☒ Hydrology ☒ significantly disturbed? Are normal circumstances present? Yes ☐ No ☒

Are vegetation ☐ Soil ☐ Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ☐ No ☒
Hydric Soils Present? Yes ☒ No ☐
Wetland Hydrology Present? Yes ☒ No ☐

Is the Sampled Area Within a Wetland? **Yes** ☐ **No** ☐

Remarks: Precipitation data from the previous 3 months indicates the climatic/hydrologic conditions have been normal. The Sample Point is located in an agricultural field that has been tiled, tilled, planted with corn (*Zea mays*), and harvested.

*Coordinates obtained from Site Photograph.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.			
2.			
3.			
4.			
5.			
	0	=Total Cover	
Herb Stratum (Plot size: 5')			
1. *Zea mays** stubble	60	N	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	0	=Total Cover	
Woody Vine Stratum (Plot size: 30')			
1.			
2.			
	0	=Total Cover	

Dominance Test worksheet:
Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
Total Number of Dominant Species Across All Strata: 0 (B)
Percent of Dominant Species That are OBL, FACW, or FAC 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1	
FACW species		x 2	
FAC species		x 3	
FACU species		x 4	
UPL species		x 5	
TOTALS	(A)		(B)

Prevalence Index (B/A) =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is >50%
☐ Prevalence Index is ≤ 3.0[1]
☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? Yes ☐ **No** ☒

Remarks: (Include photo numbers here or on a separate sheet)
Photograph 9
*The agricultural field and sample point were dominated by planted corn (*Zea mays*) that had recently been harvested; however, the corn is not included in the overall dominance calculation since it is an unnatural planted crop.

SOIL

Sampling Point E

Profile Description: (Describe the depth needed to document the indicator or confirm the absence of indicators

Depth (Inches)	Matrix Color (Moist)	Matrix %	Redox Features Color (Moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 2/1	100					SiCL	
10-18	10YR 4/1	75	10YR 5/6	20	C	M	SiCL	
			10YR 2/1	5	n/a	M		
18-24	10YR 4/1	53	10YR 4/6	40	C	M	SiCL	
			10YR 5/6	5	C	M		
			10YR 2/1	2				

[1]Type: C = Concentration, D= Depletion, RM = Reduced Matrix, CS = Covered or Coated Sand Grains [2]Locaton: PL =Pore Lining, M = Matrix

Hydric Soil Indicators

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☒ Depleted below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron- Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present unless disturbed or problematic.

Restrictive Layer (if observed)

Type:

Depth:

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (Minimum of one is required: check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water Stained Leaves (B9)
- ☐ Aquatic Fauna (B 3)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☒ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches) N/A

Water Table Present? Yes ☐ No ☒ Depth (inches) N/A

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches) N/A

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This area displayed wetland signatures during 3 of 5 (60%) reviewed historic aerial photographs with normal precipitation.

Site Photographs

PHOTOGRAPH 1	
DESCRIPTION: Wetland 1 / Intermittent Creek Sample Point C Facing Northwest	

PHOTOGRAPH 2	
DESCRIPTION: Wetland 1 / Intermittent Creek Upland Sample Point D Facing North	

PHOTOGRAPH 3

DESCRIPTION:

Wetland 1 / Intermittent Creek

Pipe Under Ament Road



PHOTOGRAPH 4

DESCRIPTION:

Wetland 1 / Intermittent Creek

Overview



PHOTOGRAPH 5

DESCRIPTION:

Wetland 1 /
Intermittent Creek

Overview



PHOTOGRAPH 6

DESCRIPTION:

Wetland 1 /
Intermittent Creek

Off-site Overview



PHOTOGRAPH 7

DESCRIPTION:

Wetland 1 /
Intermittent Creek

Buffer Overview



PHOTOGRAPH 8

DESCRIPTION:

Wetland 1 /
Intermittent Creek

Piped Crossing at
Property Border



PHOTOGRAPH 9	
DESCRIPTION: Farmed Wetland 1 Sample Point E	

PHOTOGRAPH 10	
DESCRIPTION: Investigated Area 1 Sample Point A Facing South	

PHOTOGRAPH 11	
DESCRIPTION: Investigated Area 2 Sample Point B Facing South	

PHOTOGRAPH 12	
DESCRIPTION: Site Overview Facing Southwest	

PHOTOGRAPH 13

DESCRIPTION:

Site Overview



PHOTOGRAPH 14

DESCRIPTION:

Southern Site Boundary Overview



PHOTOGRAPH 15

DESCRIPTION:

Site Overview



PHOTOGRAPH 16

DESCRIPTION:

North Site
Boundary Overview



PHOTOGRAPH 17

DESCRIPTION:

North Site Boundary Overview



PHOTOGRAPH 18

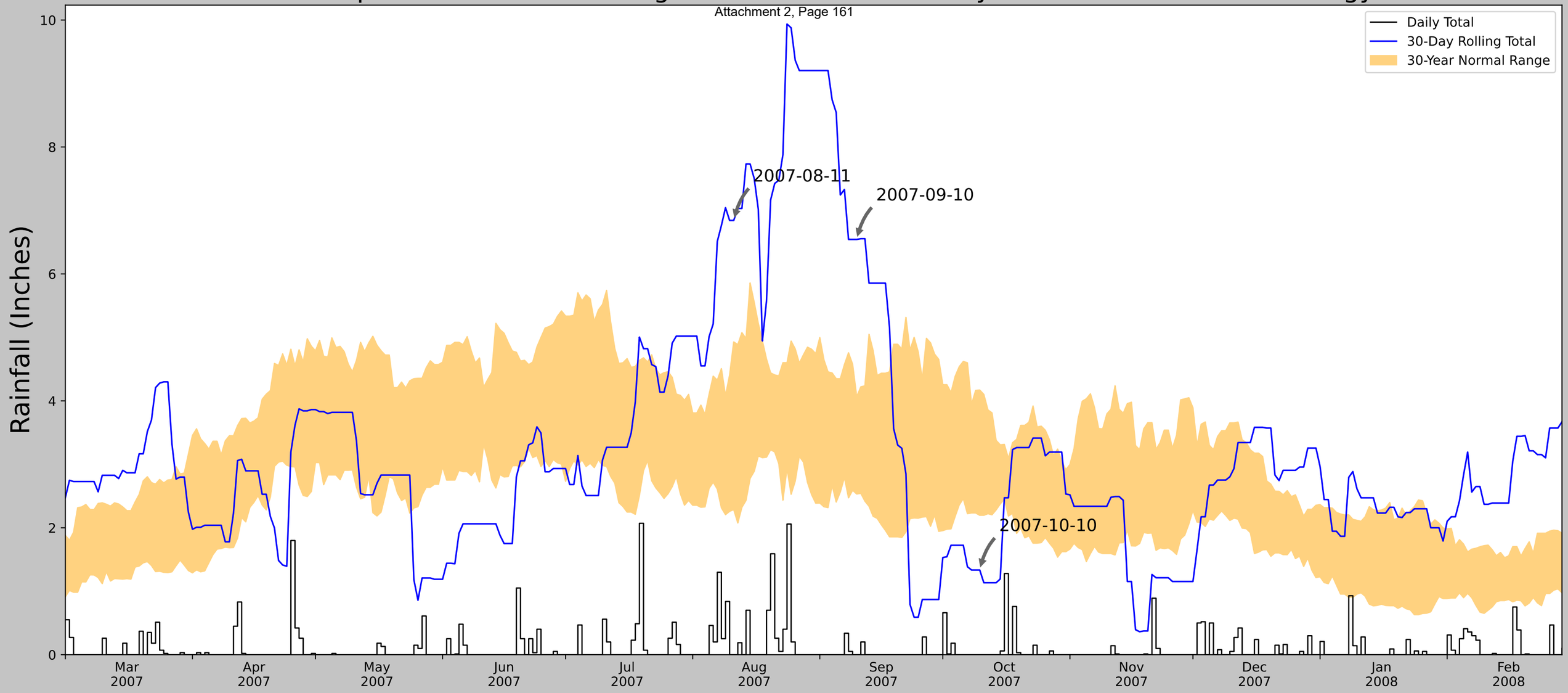
DESCRIPTION:

Pipe From Roadside Ditch Located Across Ament Road



USACE Antecedent Precipitation Tool Figure & Tables (2007, 2009, 2010, 2011, 2015, 2018, 11.08.2023)

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2007-10-10
Elevation (ft)	709.834
Drought Index (PDSI)	Moderate wetness
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2007-10-10	2.19685	4.170473	1.334646	Dry	1	3	3
2007-09-10	2.53189	4.063386	6.543307	Wet	3	2	6
2007-08-11	2.286614	4.928347	6.84252	Wet	3	1	3
Result							Normal Conditions - 12

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11024	90
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	292	0
JOLIET BRANDON RD DAM	41.5033, -88.1033	542.979	21.893	117.126	12.416	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2009-06-27
Elevation (ft)	709.834
Drought Index (PDSI)	Extreme wetness
WebWIMP H_2O Balance	Dry Season

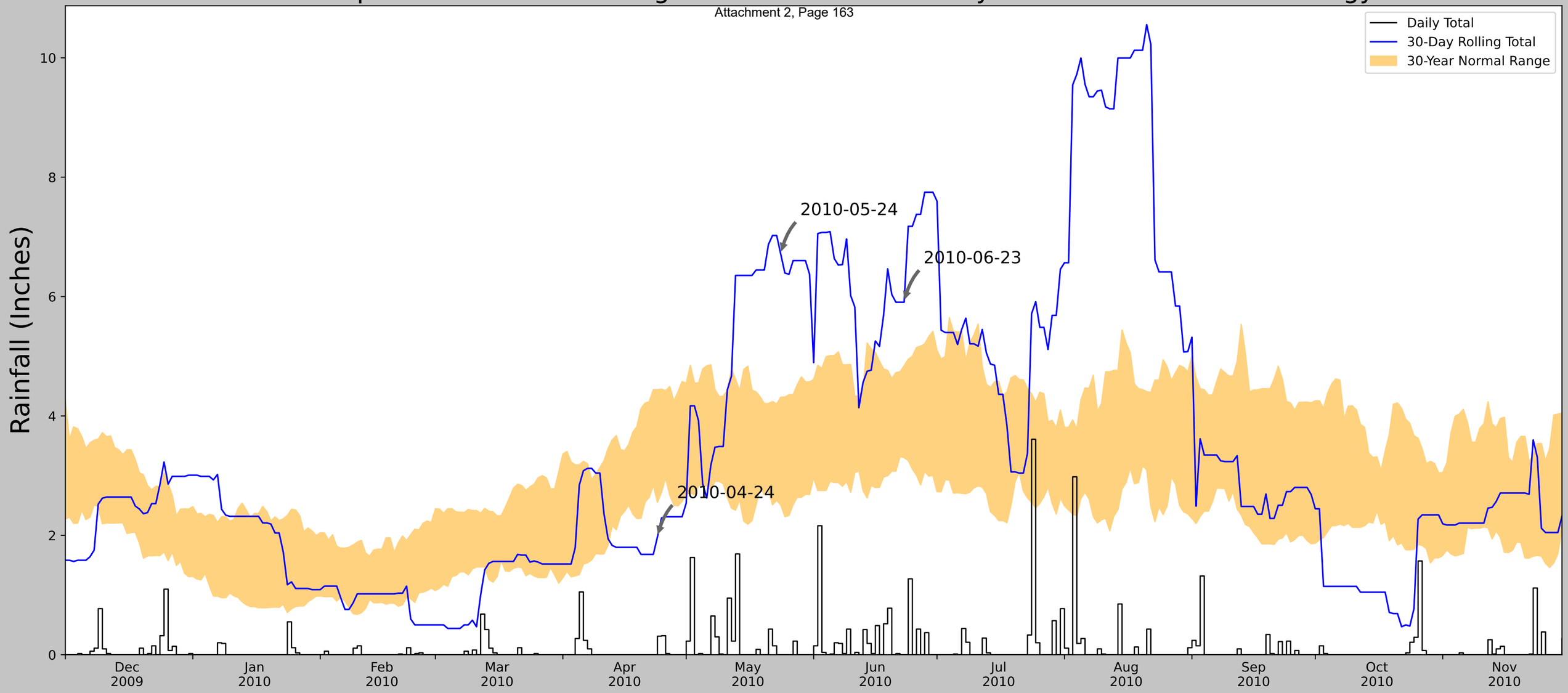
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2009-06-27	2.845276	5.170473	3.889764	Normal	2	3	6
2009-05-28	2.637795	4.520866	4.393701	Normal	2	2	4
2009-04-28	2.509843	4.611024	7.031496	Wet	3	1	3
Result							Normal Conditions - 13

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11025	90
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	292	0
JOLIET BRANDON RD DAM	41.5033, -88.1033	542.979	21.893	117.126	12.416	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2010-06-23
Elevation (ft)	709.834
Drought Index (PDSI)	Severe wetness
WebWIMP H_2O Balance	Dry Season

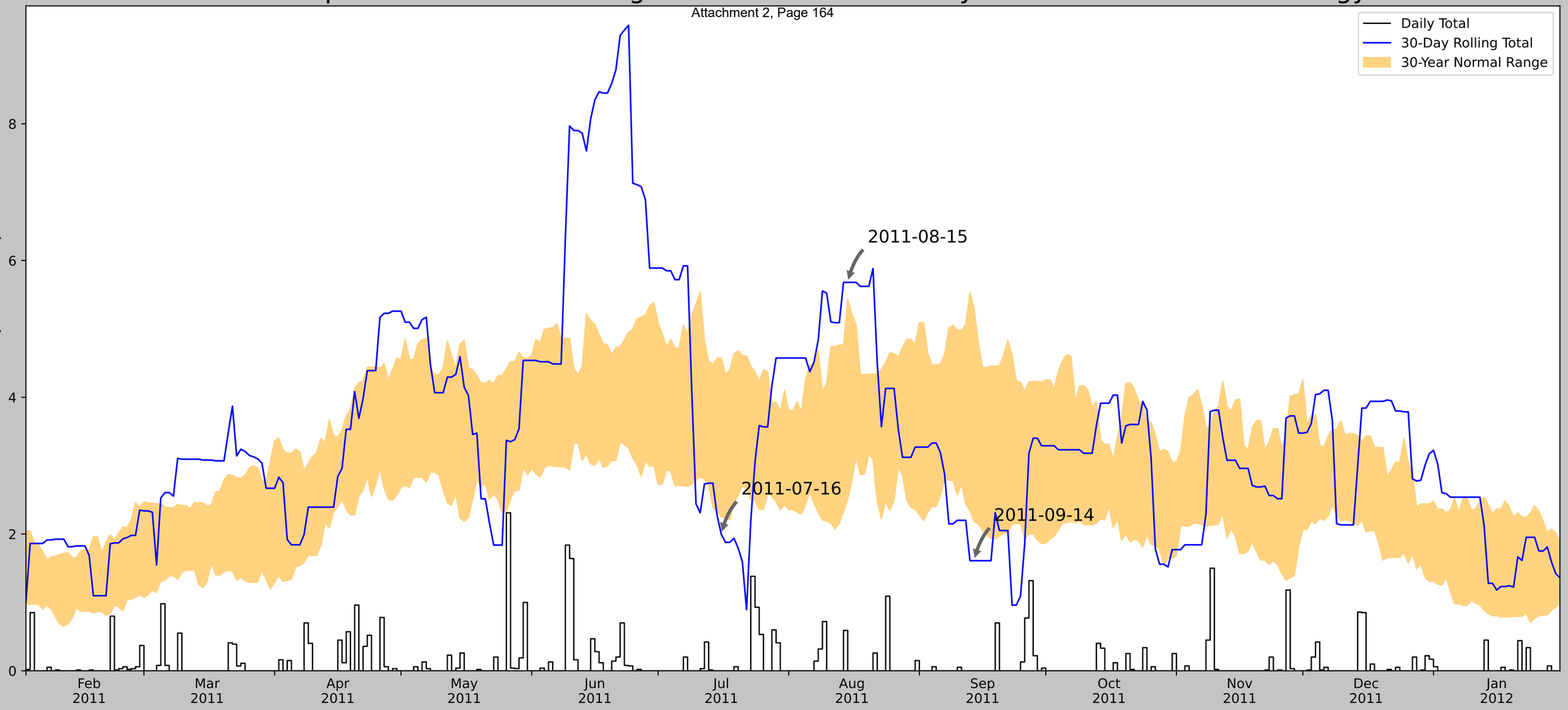
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2010-06-23	3.299606	4.840158	5.905512	Wet	3	3	9
2010-05-24	2.508661	4.315354	6.712599	Wet	3	2	6
2010-04-24	2.553543	4.43937	1.972441	Dry	1	1	1
Result							Wetter than Normal - 16

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11025	90
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	292	0
JOLIET BRANDON RD DAM	41.5033, -88.1033	542.979	21.893	117.126	12.416	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2011-09-14
Elevation (ft)	709.834
Drought Index (PDSI)	Severe wetness
WebWIMP H_2O Balance	Wet Season

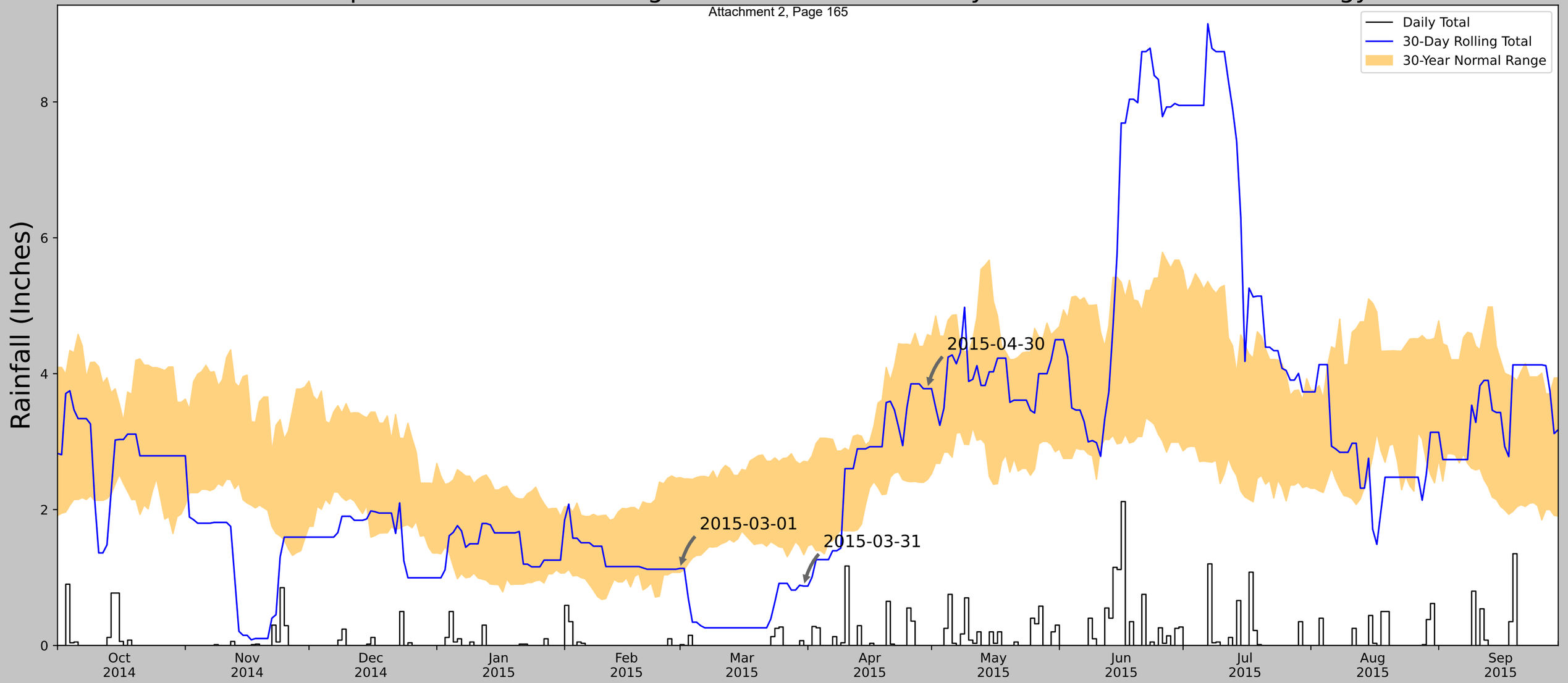
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2011-09-14	2.181102	5.291732	1.610236	Dry	1	3	3
2011-08-15	2.509843	5.438977	5.681103	Wet	3	2	6
2011-07-16	2.247638	4.580709	1.996063	Dry	1	1	1
Result							Normal Conditions - 10

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11025	90
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	292	0
JOLIET BRANDON RD DAM	41.5033, -88.1033	542.979	21.893	117.126	12.416	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2015-04-30
Elevation (ft)	709.834
Drought Index (PDSI)	Incipient wetness
WebWIMP H_2O Balance	Wet Season

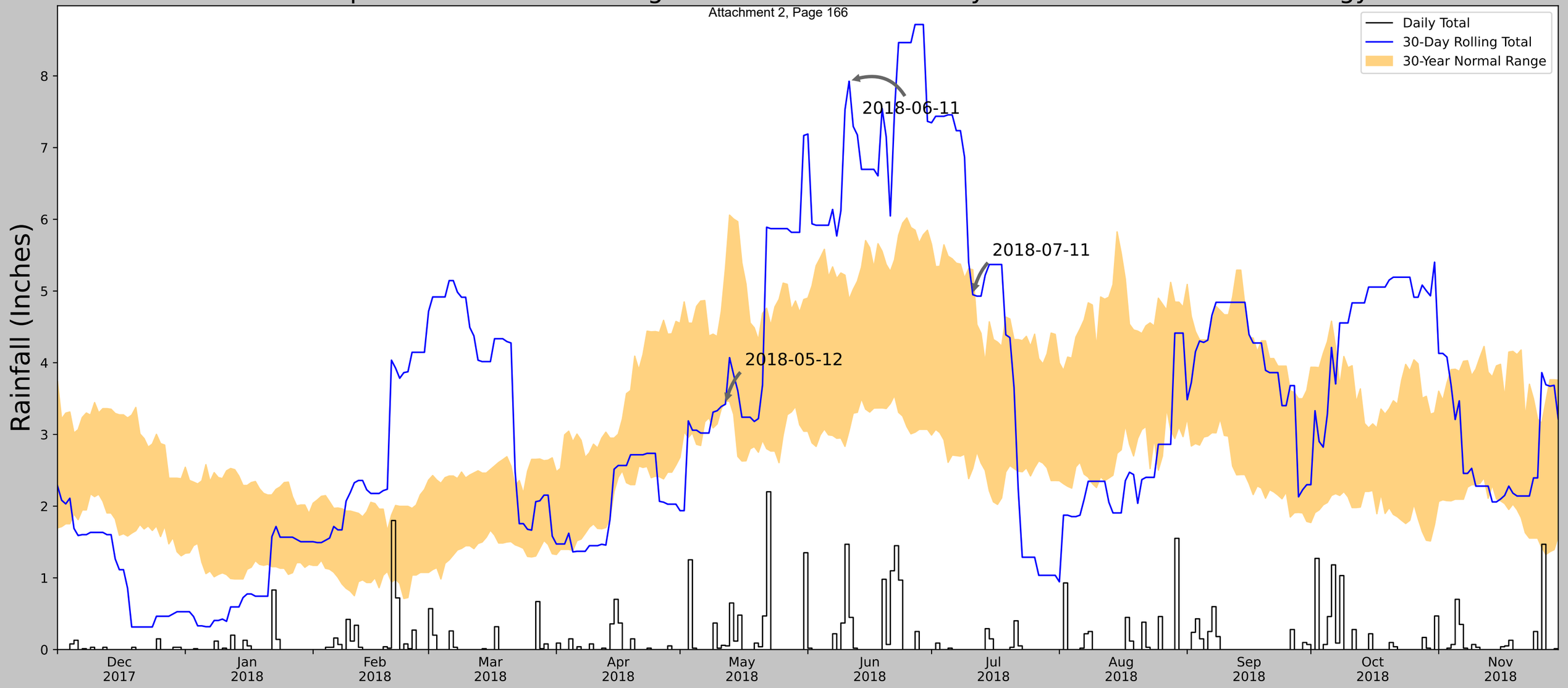
30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2015-04-30	2.440551	4.576378	3.779528	Normal	2	3	6
2015-03-31	1.335433	2.711024	0.874016	Dry	1	2	2
2015-03-01	1.075197	2.470866	1.133858	Normal	2	1	2
Result							Normal Conditions - 10

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11080	90
AURORA 3.4 W	41.7723, -88.3577	689.961	2.559	29.856	1.228	6	0
NORTH AURORA 1.5 NE	41.8163, -88.3068	719.16	2.49	59.055	1.268	1	0
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	230	0
JOLIET BRANDON RD DAM	41.5033, -88.1033	542.979	21.893	117.126	12.416	31	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.593804, -88.444237
Observation Date	2018-07-11
Elevation (ft)	709.834
Drought Index (PDSI)	Moderate wetness
WebWIMP H_2O Balance	Dry Season

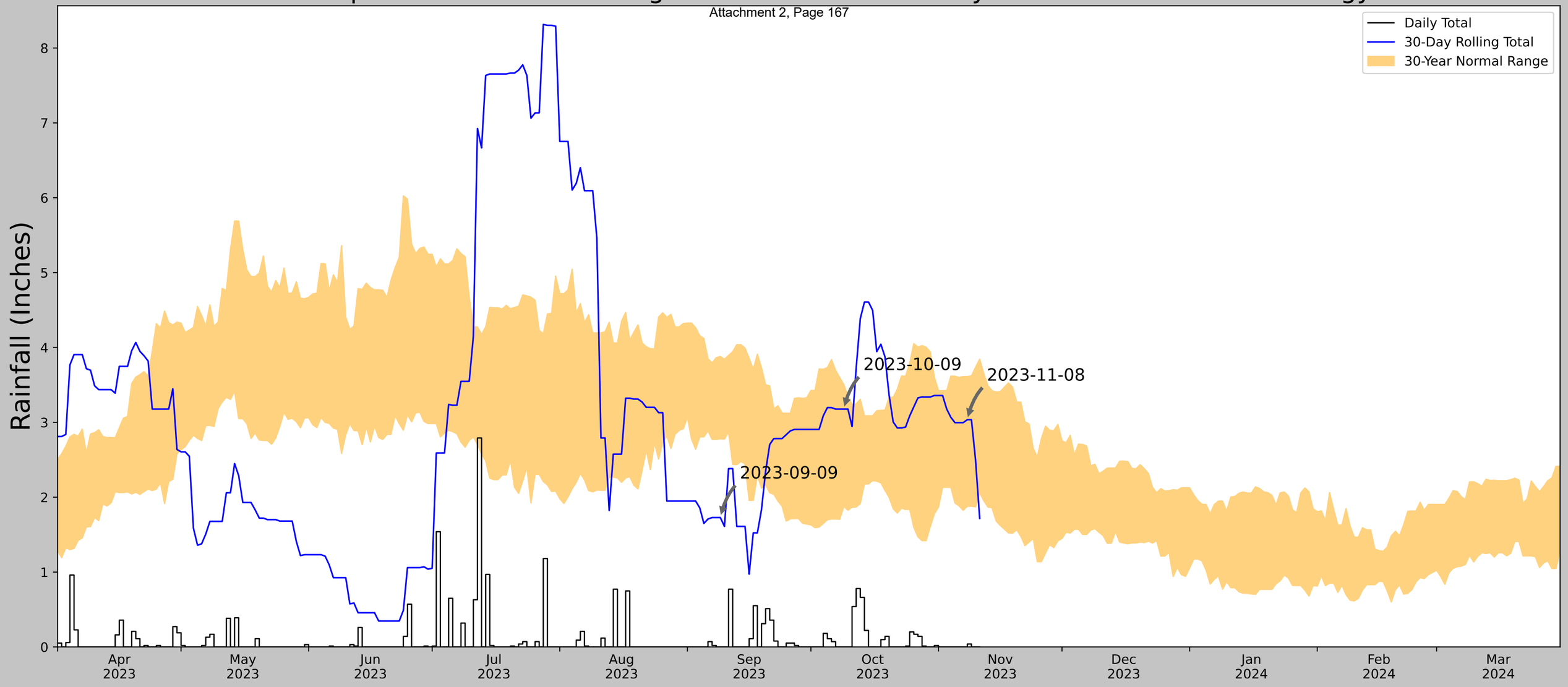
30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2018-07-11	2.525984	5.298032	4.948819	Normal	2	3	6
2018-06-11	3.050787	4.883071	7.925197	Wet	3	2	6
2018-05-12	3.46378	5.31811	3.42126	Dry	1	1	1
Result							Normal Conditions - 13

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
AURORA	41.7803, -88.3092	660.105	14.649	49.729	7.321	11110	90
AURORA 3.4 W	41.7723, -88.3577	689.961	2.559	29.856	1.228	6	0
NORTH AURORA 1.5 NE	41.8163, -88.3068	719.16	2.49	59.055	1.268	2	0
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	8.894	41.011	4.367	5	0
WHEATON 3 SE	41.8128, -88.0728	680.118	12.382	20.013	5.82	230	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	41.594760, -88.447141
Observation Date	2023-11-08
Elevation (ft)	709.415
Drought Index (PDSI)	Incipient wetness (2023-10)
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-11-08	1.87874	3.611811	3.035433	Normal	2	3	6
2023-10-09	1.875591	3.503937	3.177165	Normal	2	2	4
2023-09-09	2.779528	3.879134	1.728347	Dry	1	1	1
Result							Normal Conditions - 11

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

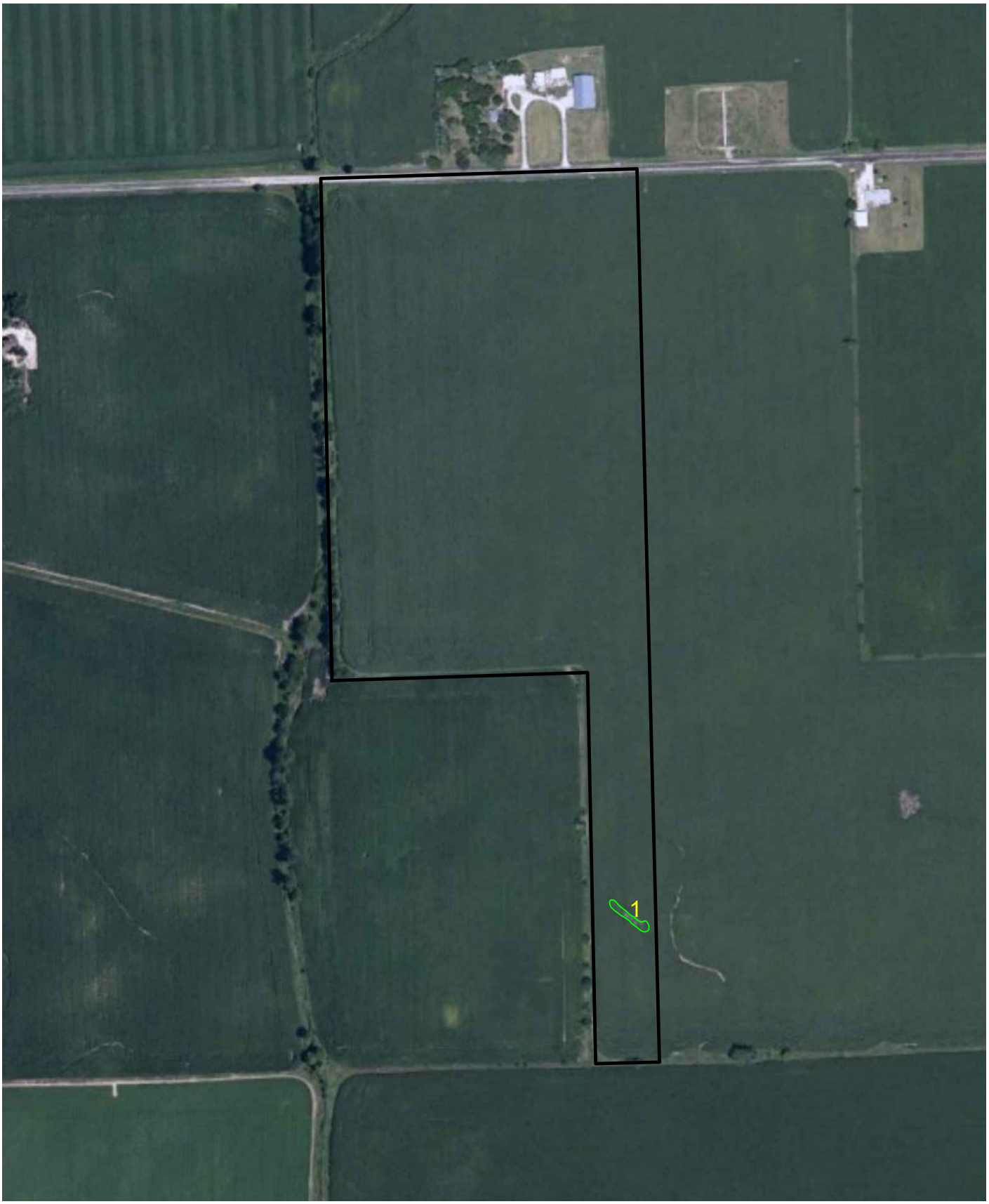
Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
CHICAGO AURORA MUNI AP	41.7714, -88.4814	701.116	12.332	8.299	5.652	9066	90
SUGAR GROVE 0.7 NE	41.7762, -88.4478	714.895	1.763	13.779	0.818	29	0
SUGAR GROVE 1.4 ENE	41.7787, -88.4343	688.976	2.479	12.14	1.146	2	0
AURORA 3.1 WSW	41.7565, -88.3518	704.068	6.758	2.952	3.061	1	0
AURORA	41.7803, -88.3092	660.105	8.894	41.011	4.367	2212	0
WHEATON 3 SE	41.8128, -88.0728	680.118	21.242	20.998	10.005	42	0

Historical Aerial Photographs: 2007, 2009, 2010-WET, 2011, 2015, 2018

Map data: Google, USDA/FPAC/GEO

Year: 2007



0 200 400 800

SCALE: 1"=400'

N

Map data: Google, USDA/FPAC/GEO

Year: 2009



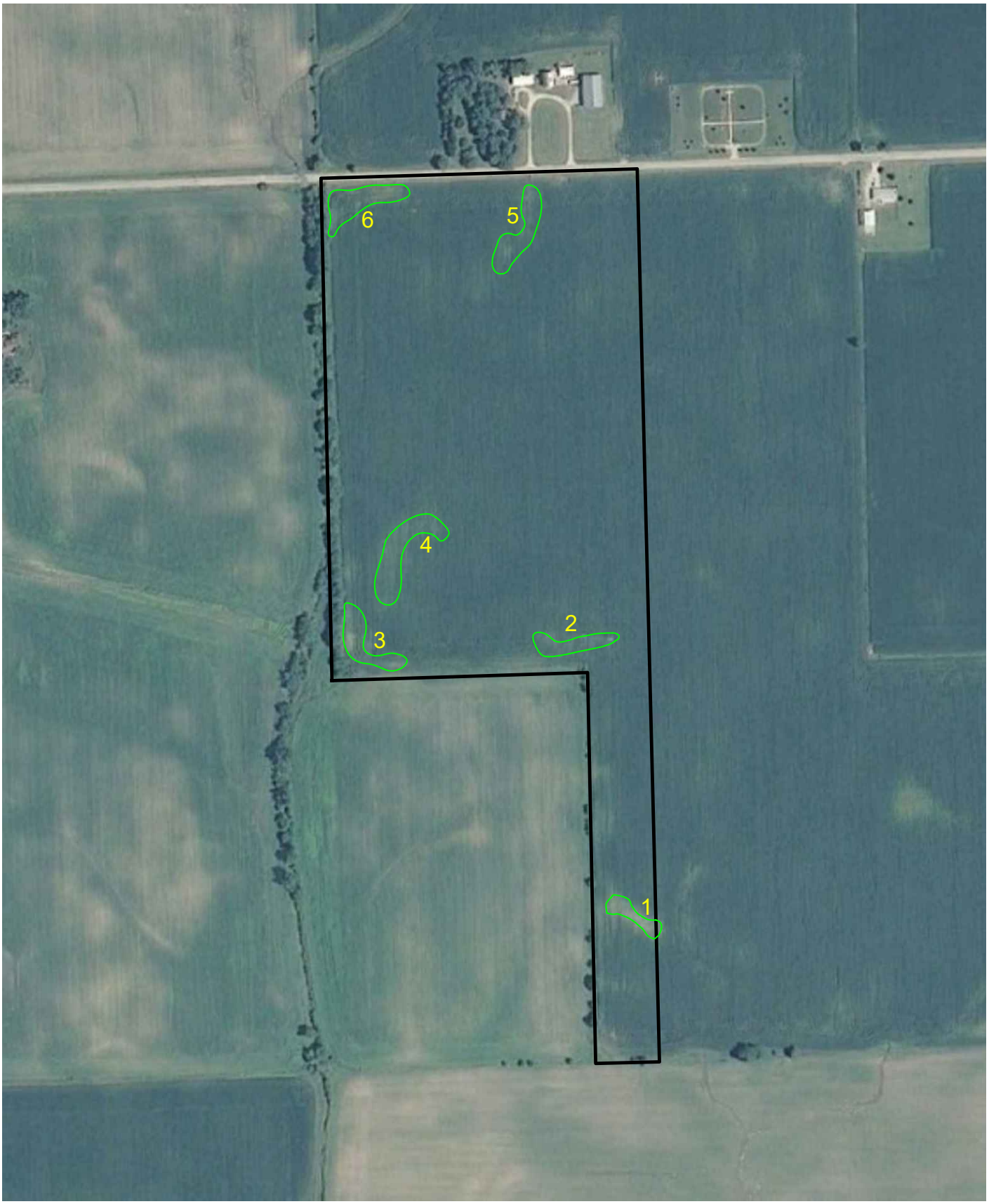
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SCALE: 1"=400'

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Map data: Google, USDA/FPAC/GEO

Year: 2010 WET



0 200 400 800

SCALE: 1"=400'

N

Map data: Google, USDA/FPAC/GEO

Year: 2011



0 200 400 800

SCALE: 1"=400'

N

Map data: Google, Maxar Technologies

Year: 2015



0 200 400 800

SCALE: 1"=400'

N

Map data: Google, Maxar Technologies

Year: 2018

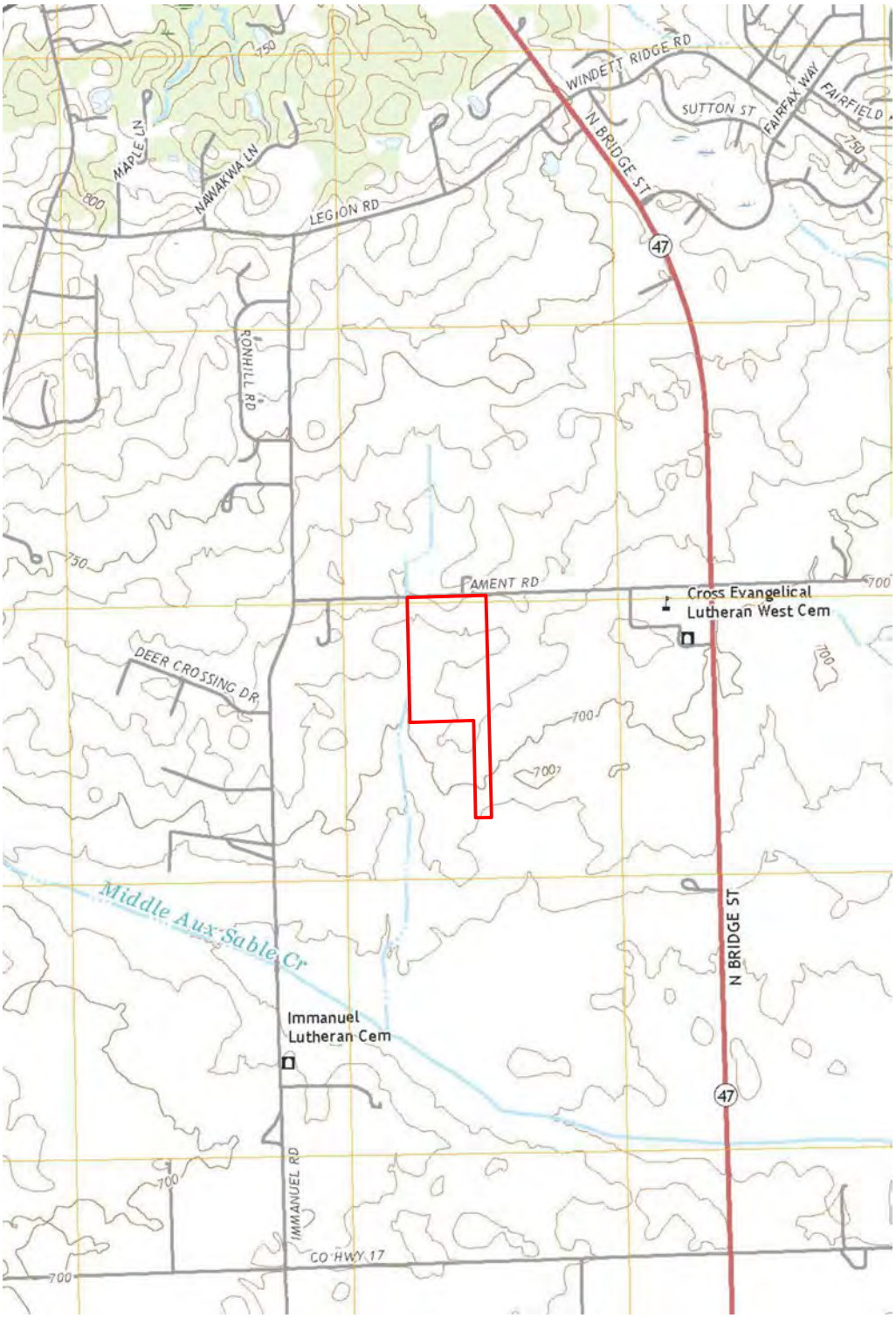


0 200 400 800

SCALE: 1"=400'

N

Exhibits A - G



ENCAP INCORPORATED

LEGEND:

Project Area

Location Map

Source: U.S. Geological Survey
Section 17 T36N R7E
Latitude: 41.594760 Longitude: -88.447141

Ament Road Build Area Extension

Project Number: 23-0815A

New Leaf Energy

0 1000 2000 4000

SCALE: 1"= 2000'

NORTH

Exhibit A



ENCAP INCORPORATED

LEGEND:

Project Area

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

National Wetlands Inventory

Source: U.S. Fish & Wildlife Service

0 200 400 800

SCALE: 1"=400'

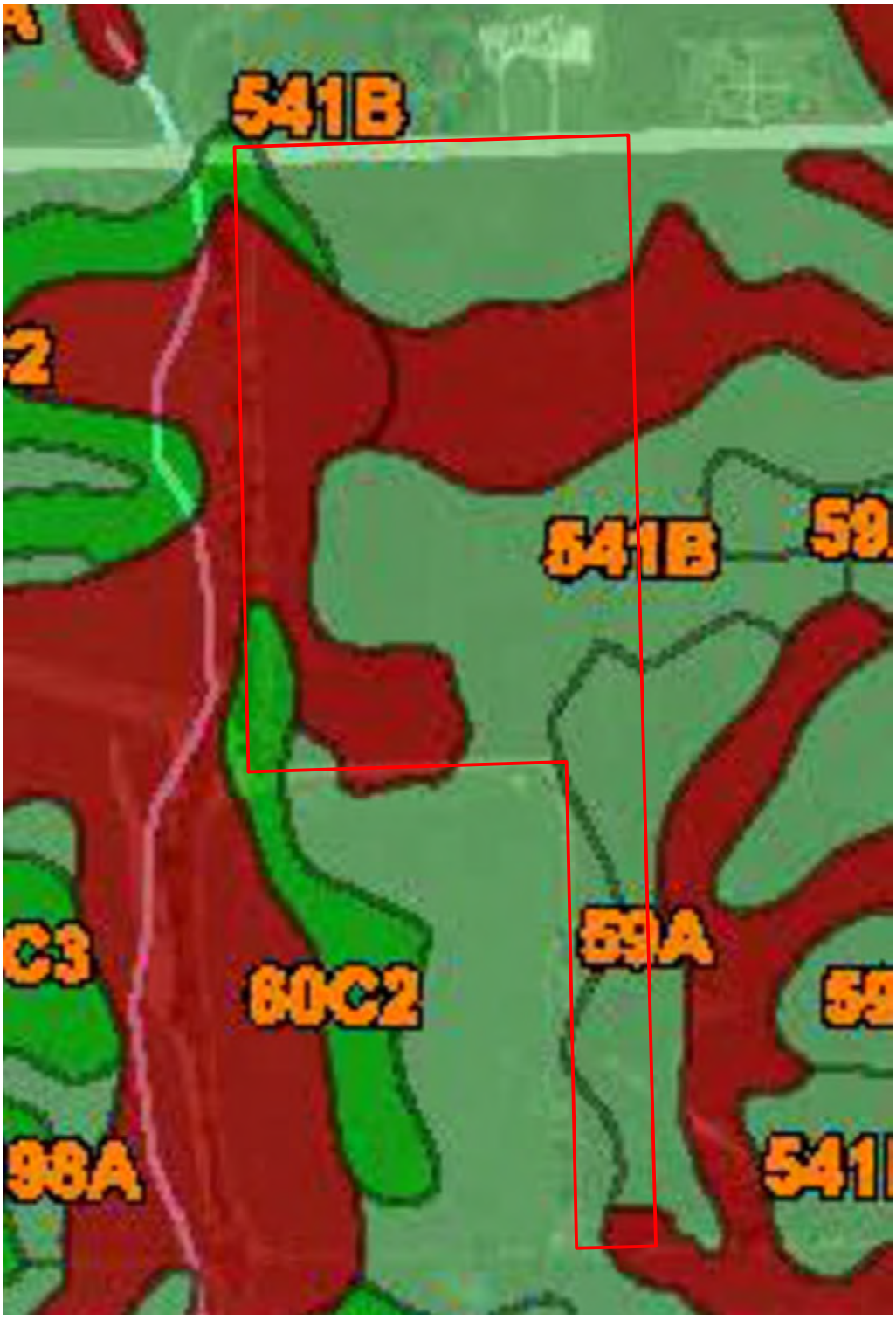
NORTH

Ament Road Build Area Extension

Project Number: 23-0815A

New Leaf Energy

Exhibit B



ENCAP INCORPORATED

LEGEND:

Project Area

- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Map

Source: U.S. Department of Agriculture
Natural Resources Conservation Service
Web Soil Survey 3.1

0 200 400 800

SCALE: 1"=400'

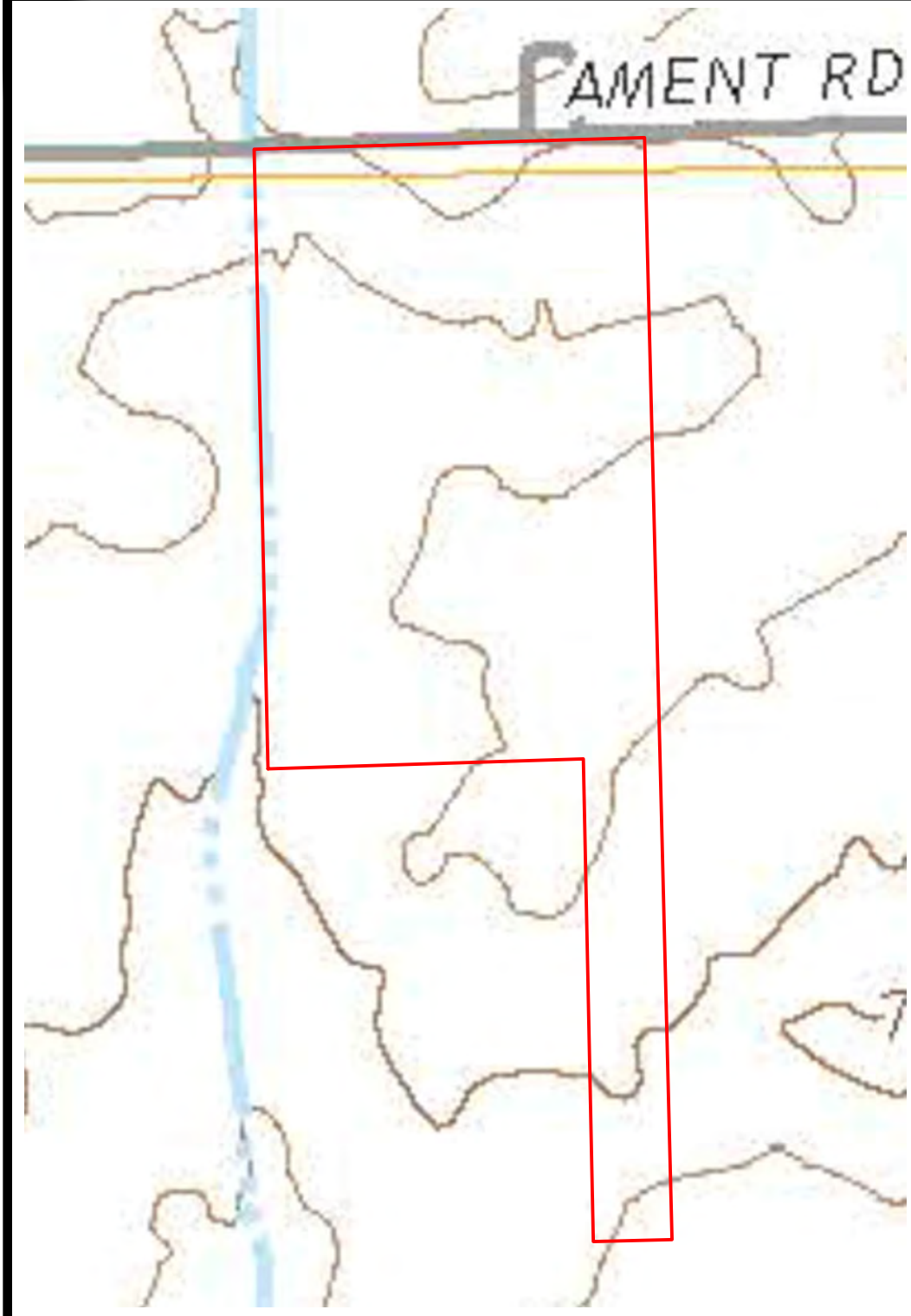
NORTH

Ament Road Build Area Extension

Project Number: 23-0815A

New Leaf Energy

Exhibit C



ENCAP INCORPORATED

LEGEND:

Project Area

RIVERS, LAKES, AND CANALS
- Perennial stream
- Perennial river
- Intermittent stream
- Intermittent river
- Disappearing stream

SUBMERGED AREAS AND BOGS
- Marsh or swamp
- Submerged marsh or swamp
- Wooded marsh or swamp
- Submerged wooded marsh or swamp
- Land subject to inundation

VEGETATION
- Woodland
- Shrubland
- Orchard
- Vineyard
- Mangrove
- Land subject to inundation

2021 USGS Topographic Map

Source: U.S. Geological Survey
Quadrangle: Platville, IL

0 200 400 800
SCALE: 1"=400'

NORTH

Ament Road Build Area Extension

Project Number: 23-0815A

New Leaf Energy

Exhibit D



ENCAP INCORPORATED

LEGEND:

Project Area



Flood Insurance Rate Map

Source: Federal Emergency Management Agency (FEMA)
Panel Number: 1709C0125G
Effective Date: Febraury 4, 2009

Ament Road Build Area Extension

Project Number: 23-0815A

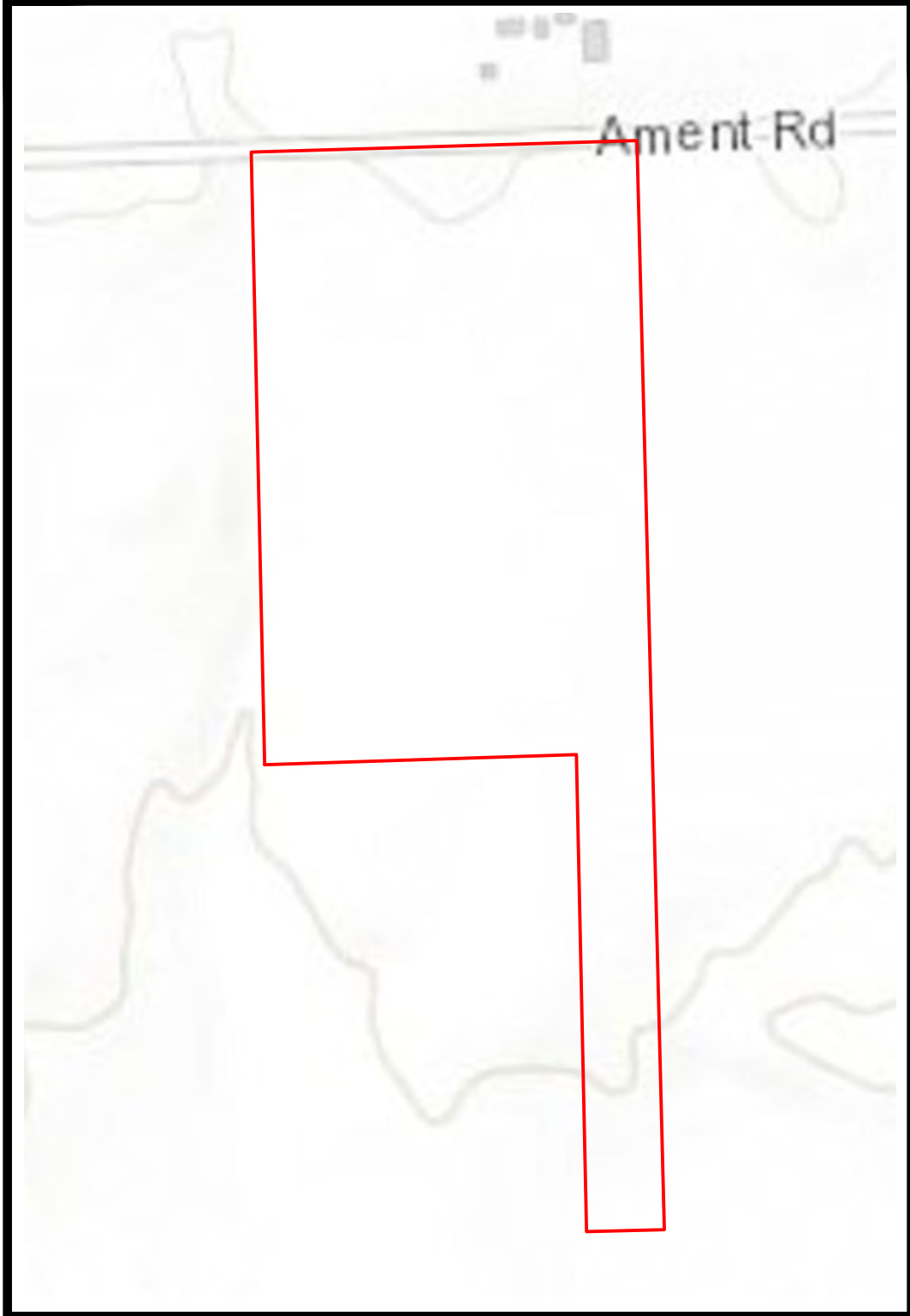
New Leaf Energy

0 200 400 800

SCALE: 1"=400'

NORTH

Exhibit E



ENCAP INCORPORATED

LEGEND:

Project Area

National Register Properties

- Part of a NR Historic District
- Determined eligible for the NR
- Part of a NR Historic District - contributing
- Entered in the NR
- Undetermined
- Other

Historic Architectural Resources Geographic Information System

Source: Illinois State Historic Preservation Office

0 200 400 800

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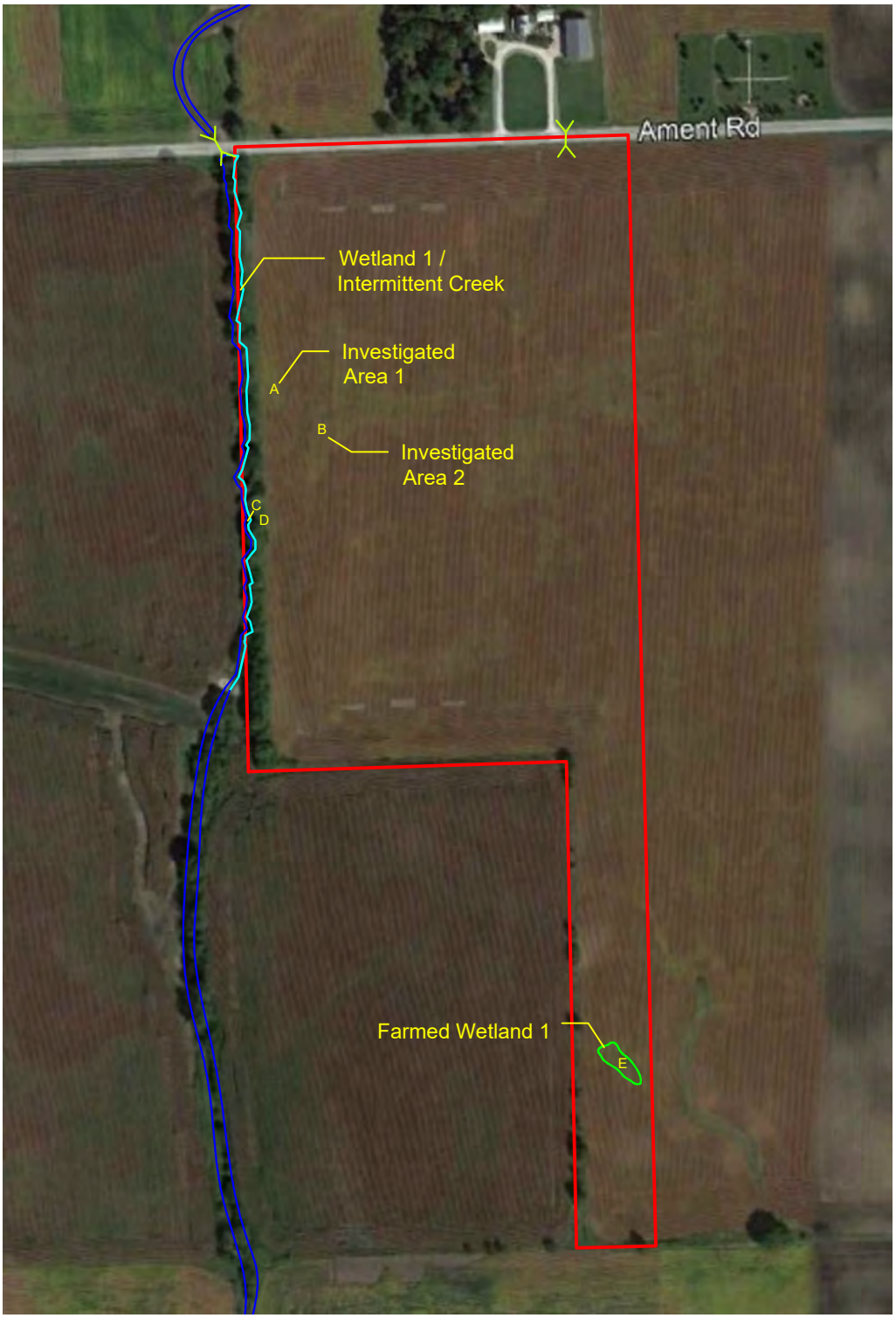
NORTH

Ament Road Build Area Extension

Project Number: 23-0815A

New Leaf Energy

Exhibit F



ENCAP INCORPORATED

LEGEND:

- Project Area
- Approximate Staked Wetland Boundary
- Approximate Off-site Wetland Boundary
- Farmed Wetland Boundary
- Culvert
- Sample Points A-E

WL Delineation Field Work Completed 11.08.2023

Aerial Photograph

Map data: ©2023Google
Image Date: 2017

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SCALE: 1"=400'

NORTH

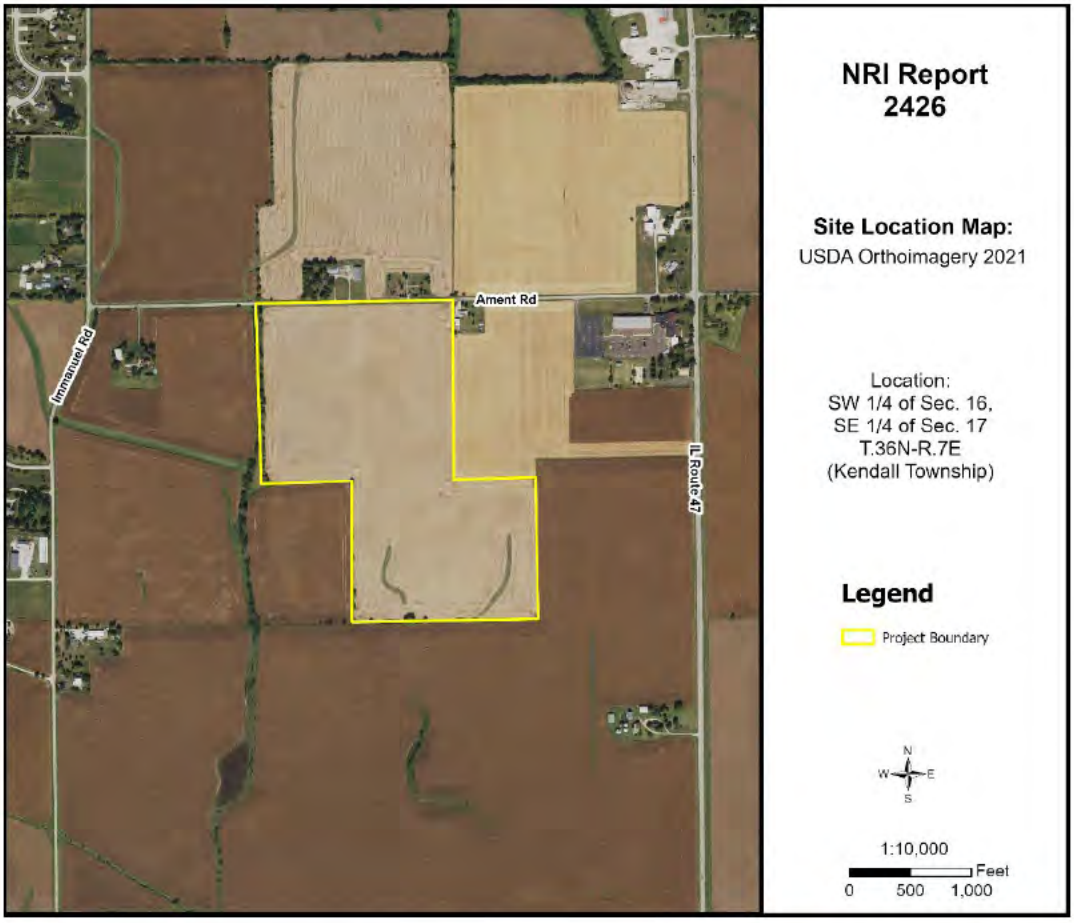
Ament Road Build Area Extension

Project Number: 23-0815A

New Leaf Energy

Exhibit G

NATURAL RESOURCES INFORMATION (NRI) REPORT: #2426



Aug 2024

Petitioner: Ament Solar 1, LLC
Contact: Nicholas Bellone (New Leaf Energy)

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 RESOURCES INFORMATION (NRI) REPORT

Natural Resources Information Report Number	2426
Date District Board Reviews Application	August 2024
Applicant's Name	Ament Solar 1, LLC
Size of Parcel	(+/-) 95.07 acres
Current Zoning & Use	A-1 Agricultural District (Kendall County), R-1 Single-Family Residence (City of Yorkville); Agricultural land
Proposed Zoning & Use	A-1 Agricultural Special Use; Solar Facility
Parcel Index Number(s)	05-16-300-006 and 05-17-400-005
Contact Person	Nicholas Bellone (New Leaf Energy)

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

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EXECUTIVE SUMMARY

Natural Resources Information Report Number	2426
Petitioner	Ament Solar 1, LLC
Contact Person	Nicholas Bellone (New Leaf Energy)
County or Municipality the Petition is Filed With	United City of Yorkville
Location of Parcel	Southwest ¼ of Section 16, Southeast ¼ of Section 17, Township 36 North, Range 7 East (Kendall Township) of the 3rd Principal Meridian
Project or Subdivision Name	Ament Solar 1, LLC
Existing Zoning & Land Use	A-1 Agricultural District (Kendall County), R-1 Single-Family Residence (City of Yorkville); Agricultural land
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	(+/-) 95.07 acres
Land Evaluation Site Assessment (LESA) Score	Land Evaluation: 96; 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.

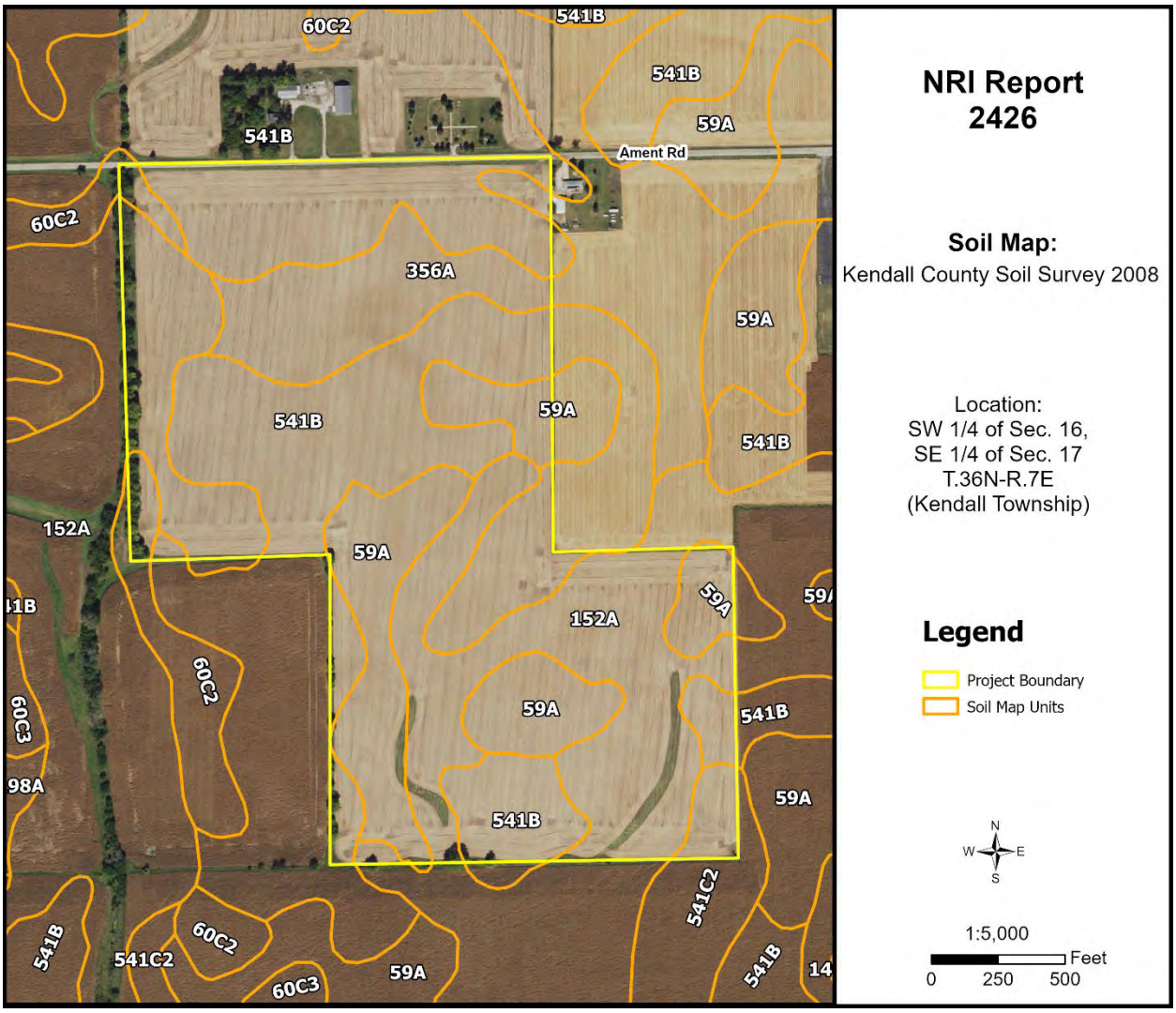


Figure 1: Soil Map

Table 1: Soils Information

Soil Type	Soil Name	Drainage Class	Hydrologic Group	Hydric Designation	Farmland Designation	Acres	% Area
59A	Lisbon silt loam, 0-2% slopes	Somewhat Poorly Drained	C/D	Non-Hydric with Hydric Inclusions	Prime Farmland	16.3	17.1%
60C2	La Rose silt loam, 5-10% slopes	Moderately Well Drained	C	Non-Hydric	Farmland of Statewide Importance	1.7	1.8%
152A	Drummer silty clay loam, 0-2% slopes	Poorly Drained	B/D	Hydric	Prime Farmland if Drained	27.4	28.8%
356A	Elpaso silty clay loam, 0-2% slopes	Poorly Drained	B/D	Hydric	Prime Farmland if Drained	9.8	10.3%
541B	Graymont silt loam, 2-5% slopes	Moderately Well Drained	C	Non-Hydric with Hydric Inclusions	Prime Farmland	38.6	40.5%
541C2	Graymont silt loam, 5-10% slopes, eroded	Moderately Well Drained	C	Non-Hydric with Hydric Inclusions	Farmland of Statewide Importance	1.4	1.5%

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, two are classified as hydric soil (152A Drummer silty clay loam and 356A Elpaso silty clay loam), one is classified as non-hydric soil (60C2 La Rose silt loam), and three are classified as non-hydric soil with hydric inclusions likely (59A Lisbon silt loam, 541B Graymont silt loam, and 541C2 Graymont 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 (59A Lisbon silt loam and 541B Graymont silt loam), two are designated as prime farmland if drained (152A Drummer silty clay loam and 356A Elpaso silty clay loam), and two are designated as farmland of statewide importance (60C2 La Rose silt loam and 541C2 Graymont silt 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	Shallow Excavations	Lawns/ Landscaping	Local Roads & Streets
59A	Very Limited	Very Limited	Somewhat Limited	Very Limited
60C2	Somewhat Limited	Very Limited	Somewhat Limited	Somewhat Limited
152A	Very Limited	Very Limited	Very Limited	Very Limited
356A	Very Limited	Very Limited	Very Limited	Very Limited
541B	Very Limited	Somewhat Limited	Somewhat Limited	Very Limited
541C2	Very Limited	Very Limited	Somewhat Limited	Very Limited

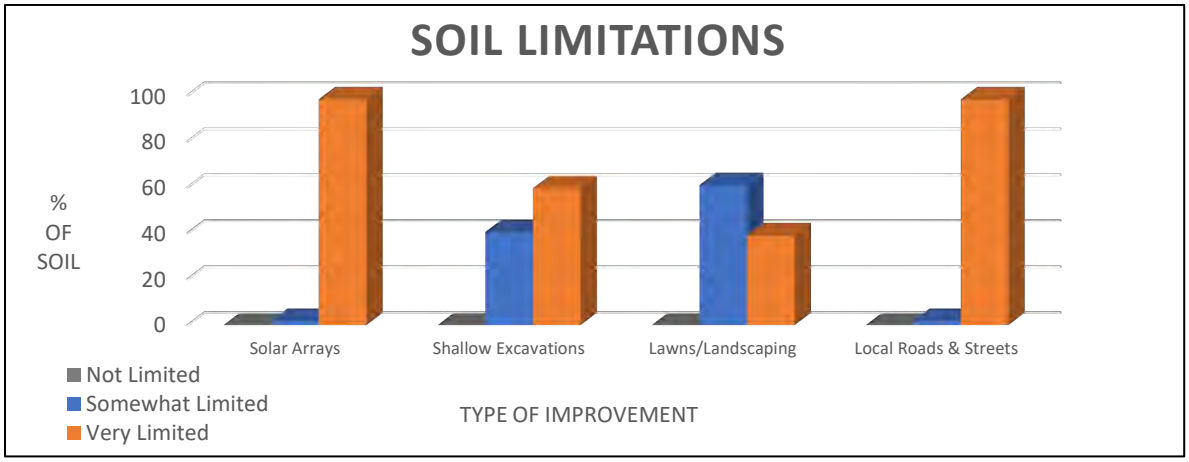


Figure 2: Soil Limitations

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 **96 out of 100**, 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 or near 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. Water Resources Delineation Reports dated July 13, 2023 and June 18, 2024, were prepared by ENCAP, Inc. The results of their review indicated the presence of two farmed wetlands and one intermittent creek on the site.

FLOODPLAIN

The Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) for Kendall County, Community Panel No. 17093C0125G (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 appear to 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 petitioner Ament Solar 1, LLC. The petitioner is requesting a change in zoning from R-1 Single Family Residence to A-1 Agricultural Special Use from the United City of Yorkville on two parcels (Parcel Index Numbers 05-16-300-006 and 05-17-400-005), totaling approximately 95.07 acres. The petitioner plans to construct a solar facility within Sections 16 and 17 of Kendall Township (T.36N – R.7E) in Kendall County, IL. 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 crops in our community. Of the soils found onsite, 96.7% 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 96 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, the site assessment scoring factors, utilizing the Kendall County LESA system, 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, 98.2% are considered very limited for supporting solar arrays and local roads & streets, 59.5% are considered very limited for supporting shallow excavations, and 39.1% are considered very limited for supporting 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 Upper Illinois River watershed and the Middle Aux Sable Creek sub watershed (HUC 12 – 071200050103). The sub watershed comprises approximately 16,397 acres covering parts of Yorkville and Minooka.

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).

[redacted]

SWCD Board Representative

8-12-24

Date

PARCEL LOCATION

Southwestern ¼ of Section 16, Southeastern ¼ of Section 17, Township 36 North, Range 7 East (Kendall Township). This site is approximately 95 acres and is located on the south side of Ament Road, north of the Middle Aux Sable Creek, west of Illinois Route 47, and east of Immanuel Road in Yorkville, IL.

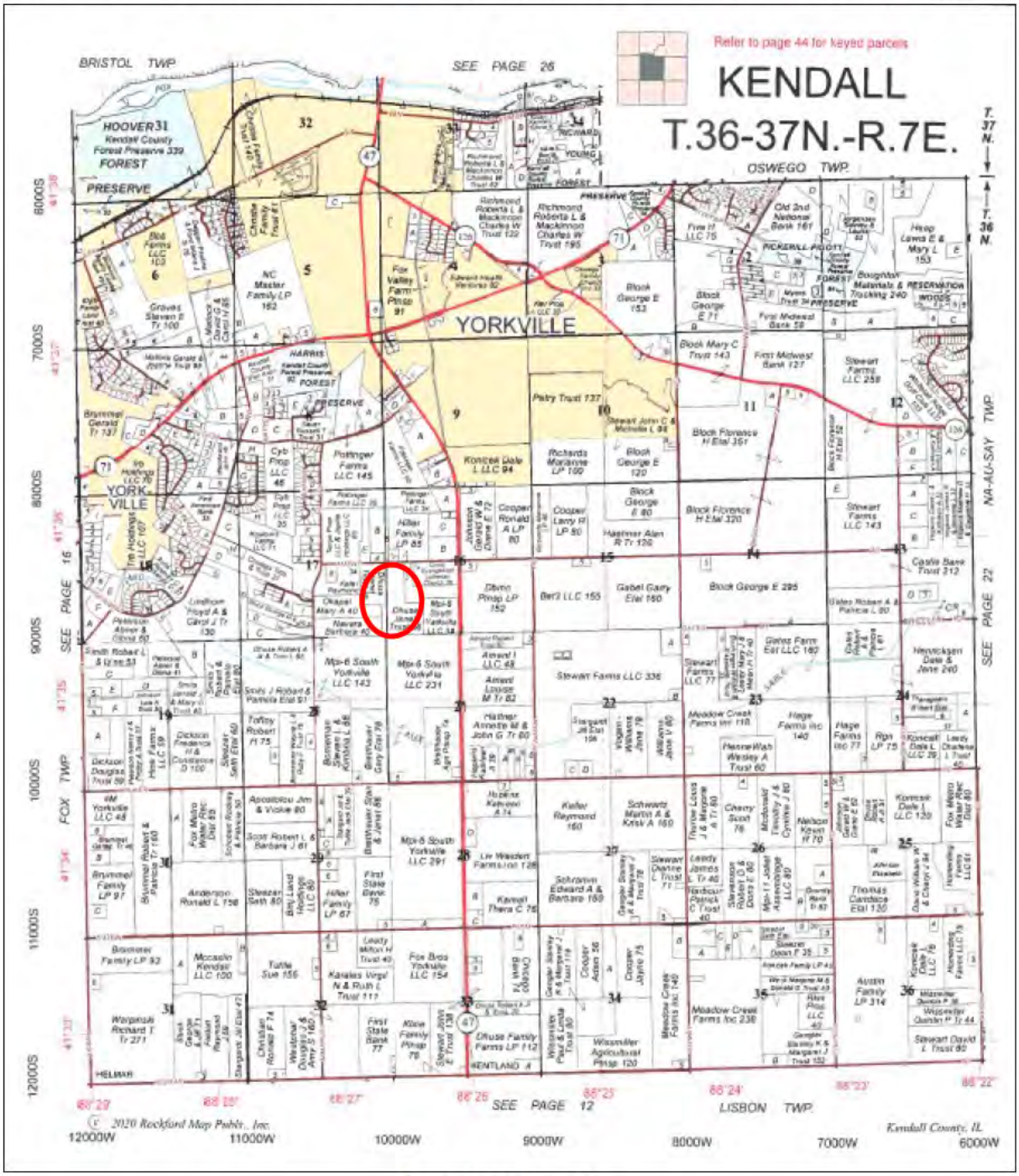


Figure 3: 2021 Plat Map

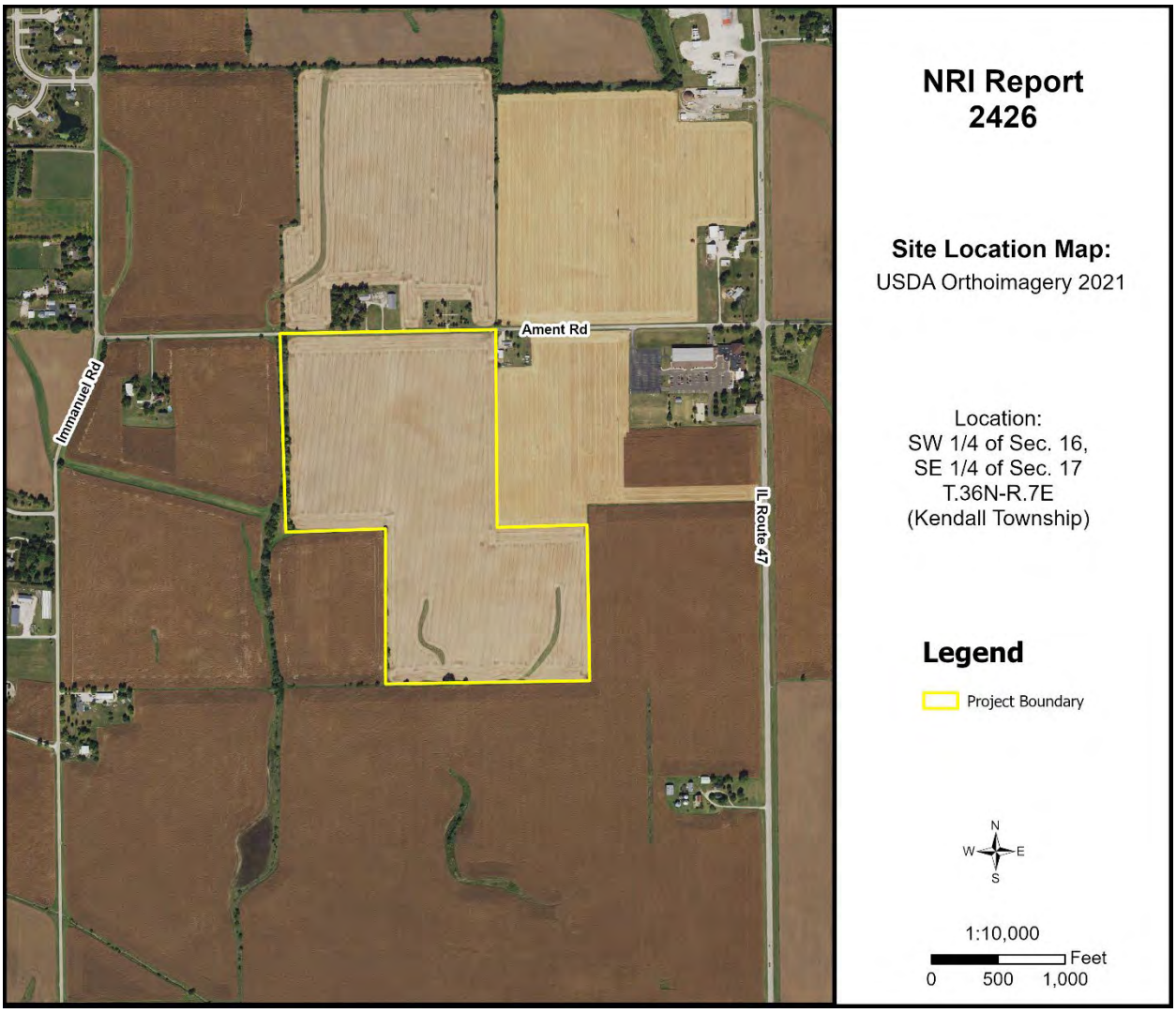


Figure 4: Aerial Map with NRI Project Boundary

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. There may be historic features in the area. 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 there are no nature preserves in the vicinity of the parcel in question (PIQ). The parcel does contain ecologically sensitive areas, however. An unnamed tributary to Middle Aux Sable Creek flows along the western project boundary.

[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.

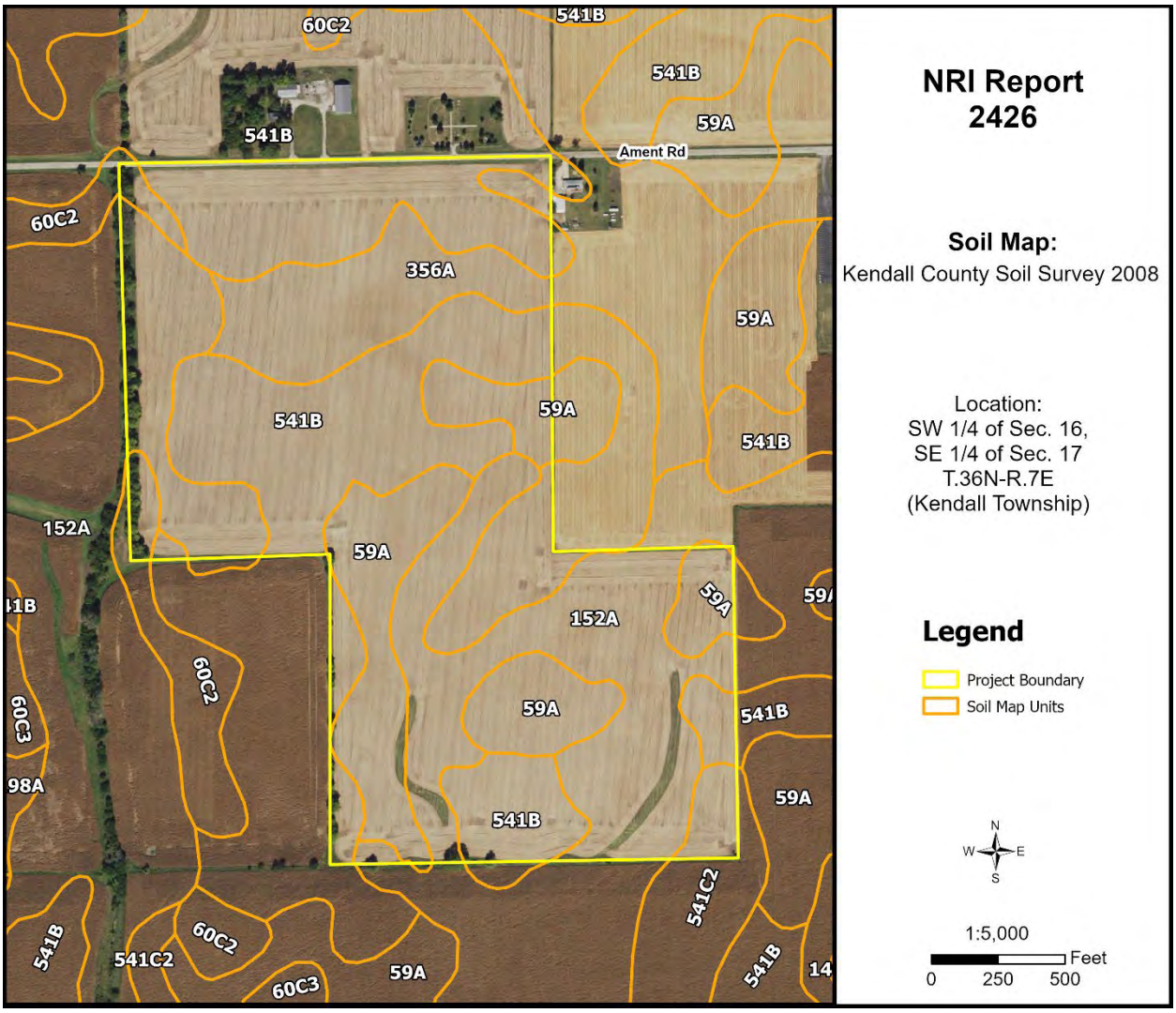


Figure 5: Soil Map

Table 3: Soil Map Unit Descriptions

Soil Type	Soil Name	Acres	Percent
59A	Lisbon silt loam, 0-2% slopes	16.3	17.1%
60C2	La Rose silt loam, 5-10% slopes	1.7	1.8%
152A	Drummer silty clay loam, 0-2% slopes	27.4	28.8%
356A	Elpaso silty clay loam, 0-2% slopes	9.8	10.3%
541B	Graymont silt loam, 2-5% slopes	38.6	40.5%
541C2	Graymont silt loam, 5-10% slopes, eroded	1.4	1.5%

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.

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.

Local Roads and Streets – They have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material, a base of gravel, crushed rock or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete) or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity.

Table 4: Building Limitations

Soil Type	Solar Arrays	Shallow Excavations	Lawns & Landscaping	Local Roads & Streets	Acres	%
59A	**Very Limited**: Frost action Low strength Steel corrosion Depth to saturated zone Shrink-swell Ponding	**Very Limited**: Depth to saturated zone Dense layer Dusty Unstable excavation walls Ponding	**Somewhat Limited**: Depth to saturated zone Dusty	**Very Limited:** Frost action Low strength Depth to saturated zone Shrink-swell Ponding	16.3	17.1%
60C2	**Somewhat Limited**: Steel corrosion Frost action Low strength Hillslope position Depth to saturated zone	**Very Limited**: Depth to saturated zone Dusty Unstable excavation walls	**Somewhat Limited**: Depth to saturated zone Dusty	**Somewhat Limited:** Frost action Low strength Depth to saturated zone	1.7	1.8%
152A	**Very Limited**: Ponding Depth to saturated zone Frost action Low strength Steel corrosion Shrink-swell	**Very Limited**: Ponding Depth to saturated zone Dusty Unstable excavation walls Too clayey	**Very Limited**: Ponding Depth to saturated zone Dusty	**Very Limited:** Ponding Depth to saturated zone Frost action Low strength Shrink-swell	27.4	28.8%
356A	**Very Limited:** Ponding Depth to saturated zone Frost action Low strength Steel corrosion Shrink-swell	**Very Limited:** Ponding Depth to saturated zone Dusty Unstable excavation walls Too clayey	**Very Limited:** Ponding Depth to saturated zone Dusty	**Very Limited:** Ponding Depth to saturated zone Frost action Low strength Shrink-swell	9.8	10.3%

Soil Type	Solar Arrays	Shallow Excavations	Lawns & Landscaping	Local Roads & Streets	Acres	%
541B	**Very Limited**: Frost action Low strength Steel corrosion Shrink-swell Hillslope position Ponding Depth to saturated zone	**Somewhat Limited**: Depth to saturated zone Dusty Unstable excavation walls	**Somewhat Limited**: Dusty	**Very Limited:** Frost action Low strength Shrink-swell Ponding Depth to saturated zone	38.6	40.5%
541C2	**Very Limited:** Frost action Low strength Steel corrosion Shrink-swell Hillslope position Ponding Depth to saturated zone	**Very Limited:** Depth to saturated zone Dusty Unstable excavation walls Ponding	**Somewhat Limited:** Dusty	**Very Limited:** Frost action Low strength Shrink-swell Ponding Depth to saturated zone	1.4	1.5%
% Very Limited	**98.2%**	**59.5%**	**39.1%**	**98.2%**		

Figure 6A: Map of Building Limitations - Solar Arrays & Roads/Streets



Figure 6B: Map of Building Limitations - Shallow Excavations

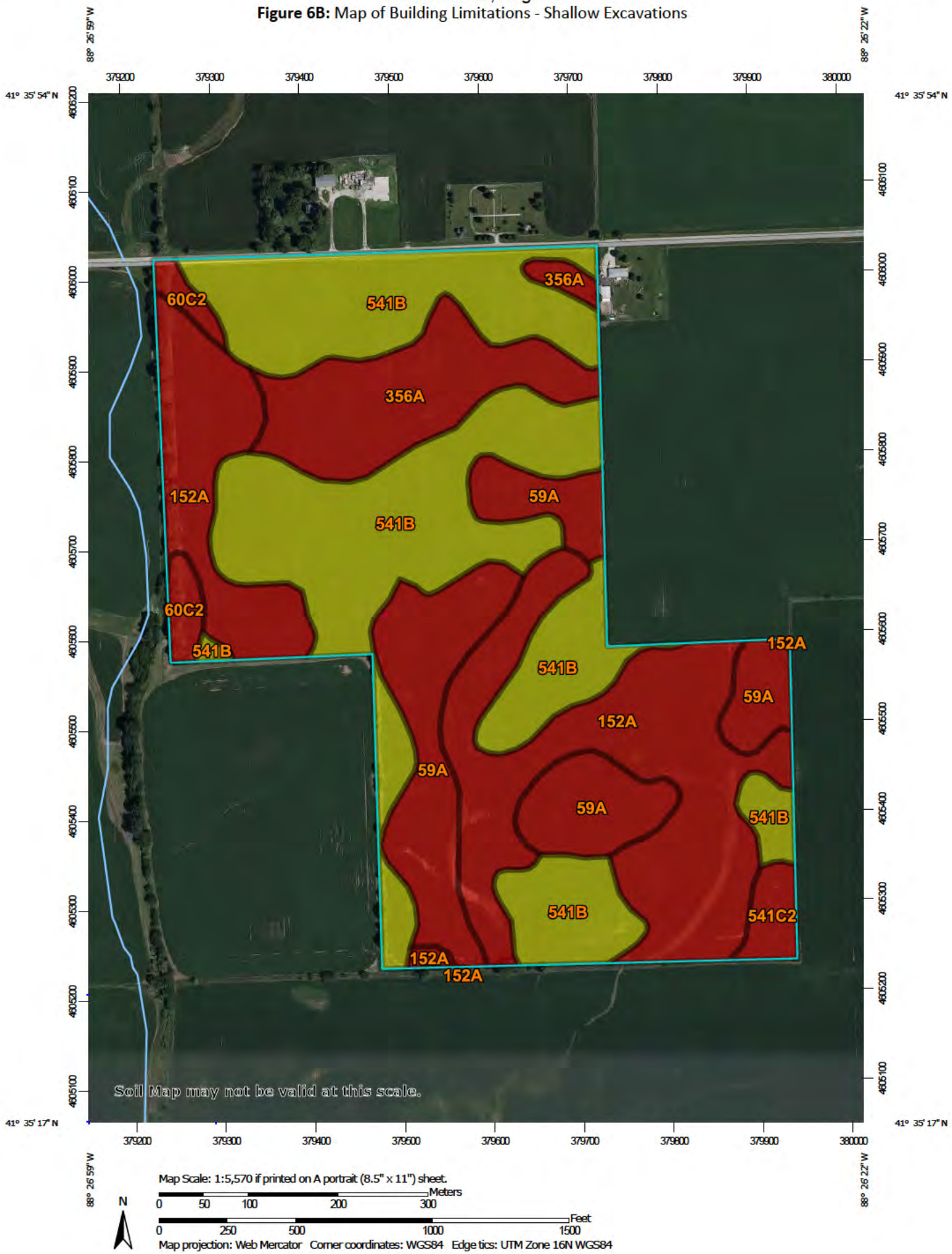
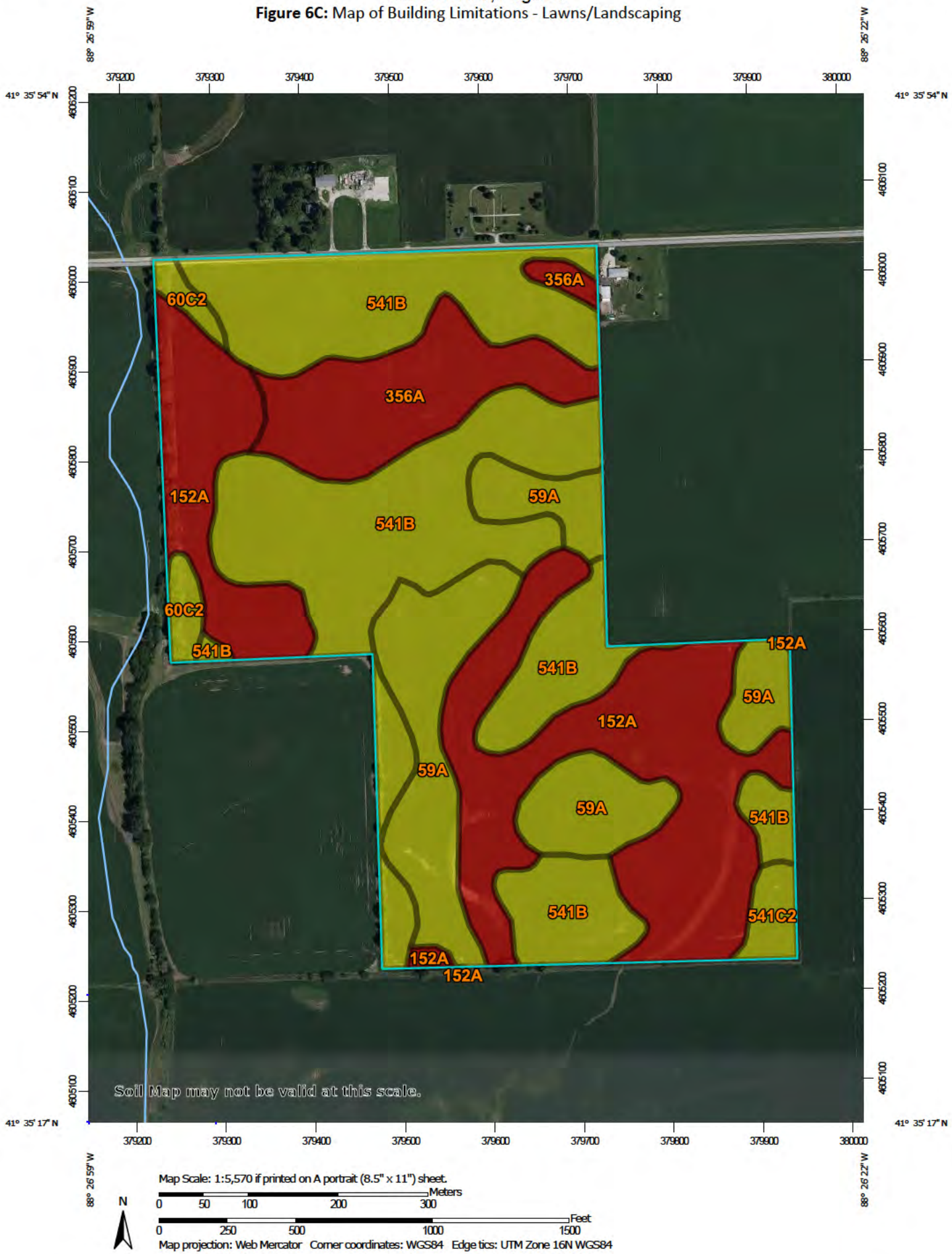


Figure 6C: Map of Building Limitations - Lawns/Landscaping



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
59A	C/D	Low	January – May **Upper Limit:** 1.0’-2.0’ **Lower Limit:** 2.0’-4.0’	January – December **Frequency**: None	January – December **Frequency**: None
60C2	C	High	February – April **Upper Limit:** 2.0’-3.5’ **Lower Limit:** 2.2’-4.0’	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
356A	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
541B	C	Low	February – April **Upper Limit:** 2.0’-3.5’ **Lower Limit:** 2.2’-4.3’	January – December **Frequency**: None	January – December **Frequency**: None
541C2	C	Medium	February – April **Upper Limit:** 2.0’-3.5’ **Lower Limit:** 2.2’-4.3’	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
59A	0-2%	Slight	16.3	17.1%
60C2	5-10%	Moderate	1.7	1.8%
152A	0-2%	Slight	27.4	28.8%
356A	0-2%	Slight	9.8	10.3%
541B	2-5%	Slight	38.6	40.5%
541C2	5-10%	Moderate	1.4	1.5%

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
59A	Prime Farmland	16.3	17.1%
60C2	Farmland of Statewide Importance	1.7	1.8%
152A	Prime Farmland if Drained	27.4	28.8%
356A	Prime Farmland if Drained	9.8	10.3%
541B	Prime Farmland	38.6	40.5%
541C2	Farmland of Statewide Importance	1.4	1.5%
% Prime Farmland	**96.7%**		

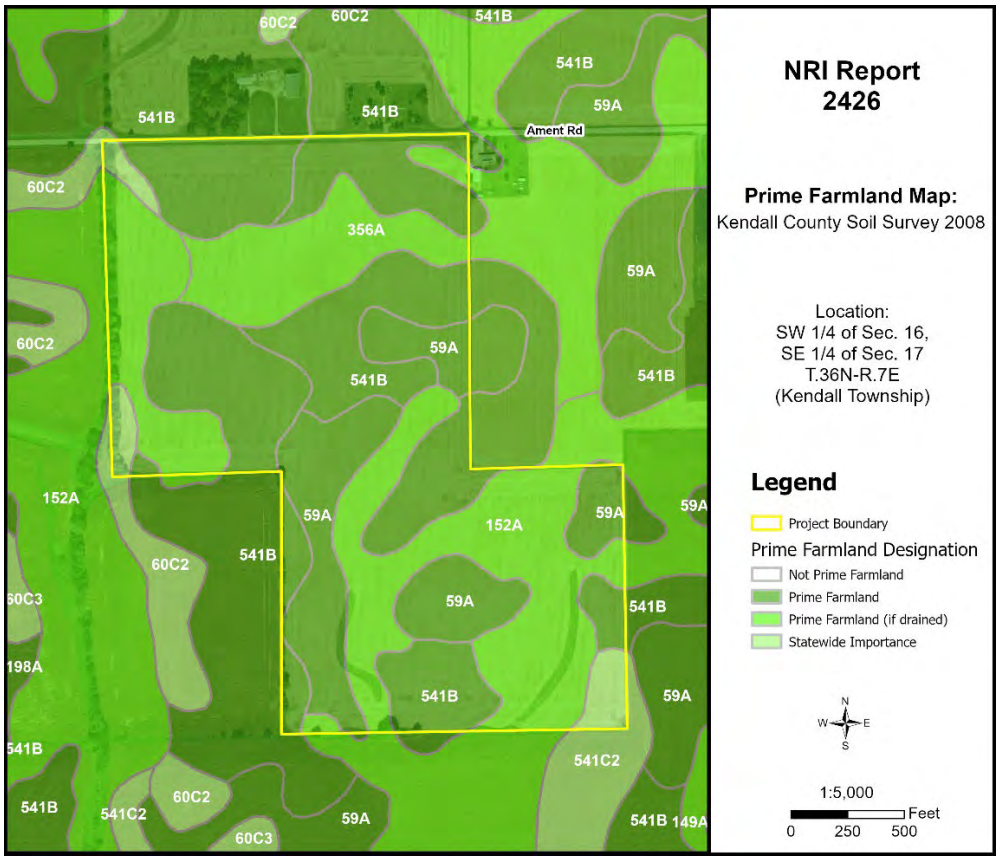


Figure 7: Prime Farmland Soils

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)
59A	2	94	16.3	1,532.2
60C2	5	82	1.7	139.4
152A	1	100	27.4	2,740.0
356A	1	100	9.8	980.0
541B	2	94	38.6	3,628.4
541C2	5	82	1.4	114.8
			95.2	**9,134.8**
LE Calculation			(Product of relative value / Total Acres) 9,134.8 / 95.2 = 95.9	
LE Score			**LE = 96**	

*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 96 out of 100, indicating that the soils are well suited for agricultural uses since the score is at or above 80. A Site Assessment (SA) score was not calculated for this site. Since the site is located within municipal planning boundaries, the scoring factors, utilizing the Kendall County LESA scoring system, are not applicable.

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 United City of Yorkville 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.

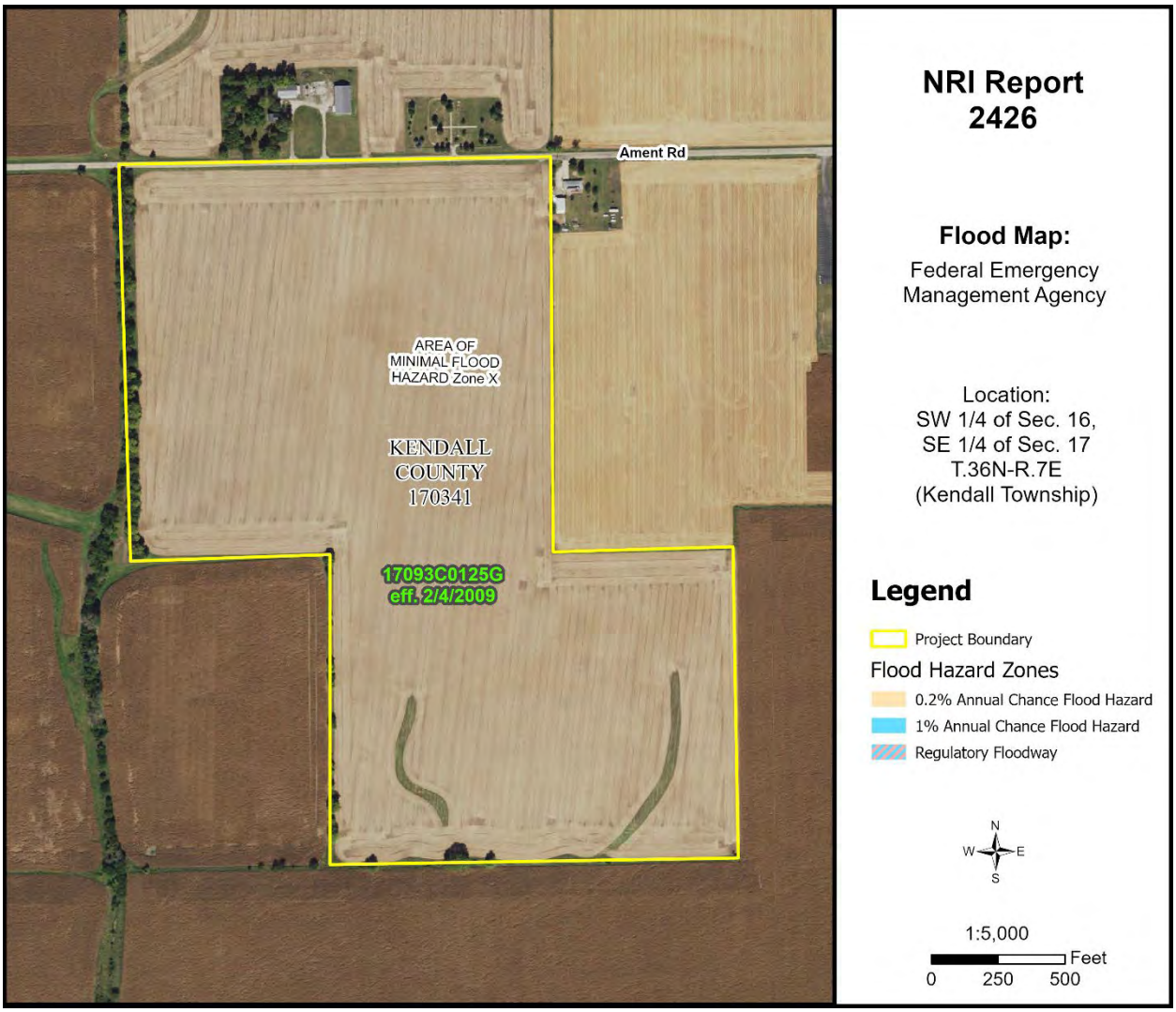


Figure 8: Flood Map

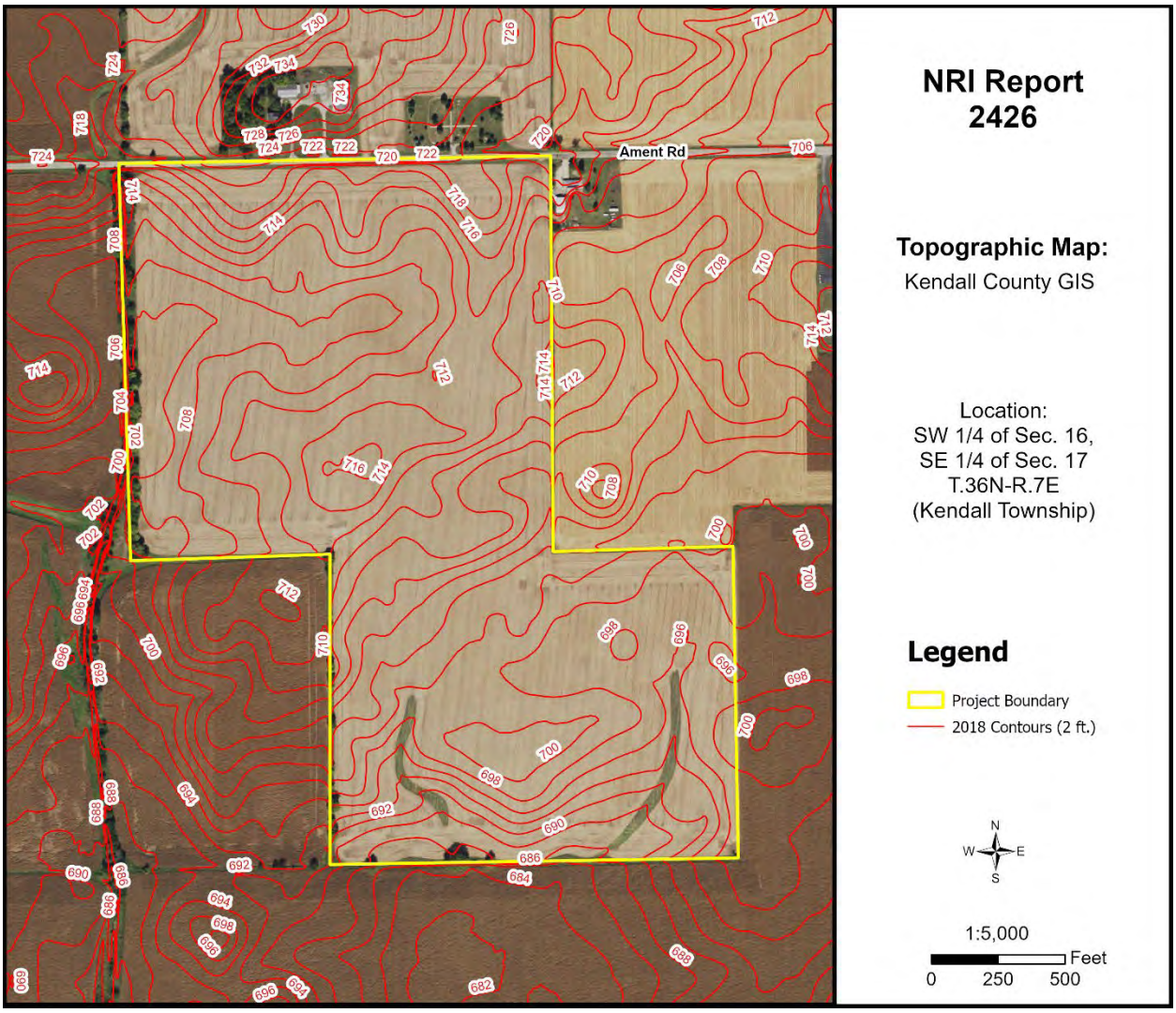


Figure 9: Topographic Map

This parcel contains slopes of 0% to 10% with an elevation range of approximately 684'-720' above sea level. The highest point is in the northern portion of the site, and the lowest point is in the southern portion. According to the FEMA Flood Map (Figure 8), the parcel does not appear to contain areas of regulated floodplain or floodway. The parcel is mapped as Zone X (unshaded), an area of minimal flood hazard determined to be outside of the 0.2% annual chance floodplain.

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; and establish and link trails.

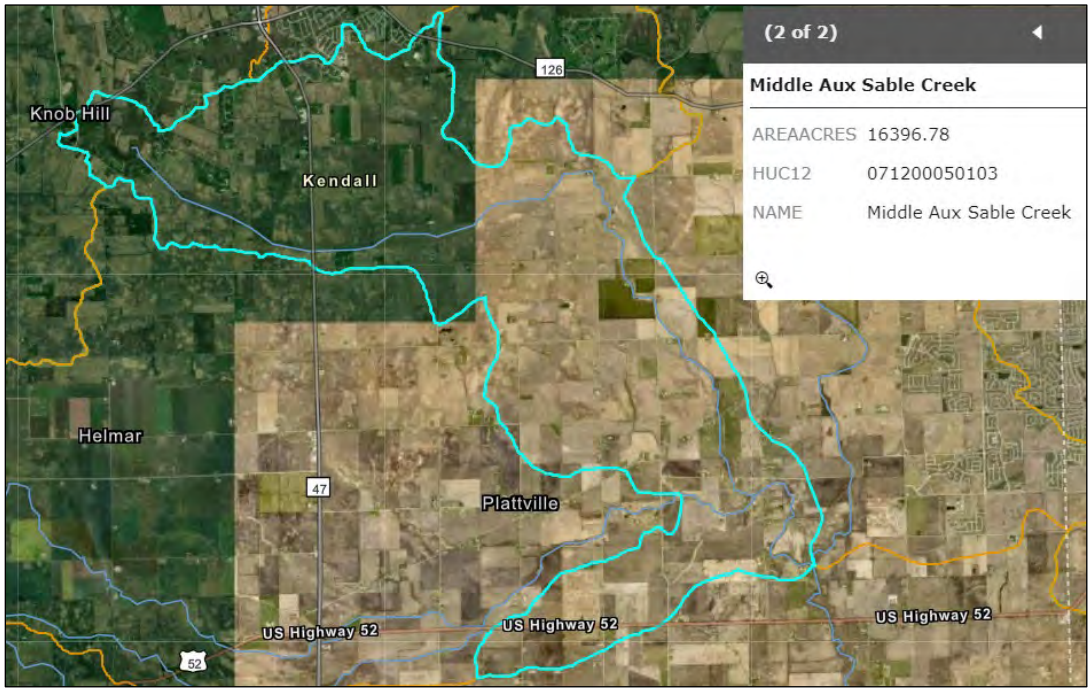


Figure 10: Sub Watershed Map

This parcel is located within the Upper Illinois River watershed and the Middle Aux Sable Creek sub watershed (HUC 12 – 071200050103). The sub watershed comprises approximately 16,397 acres covering parts of Yorkville and Minooka.

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.”*

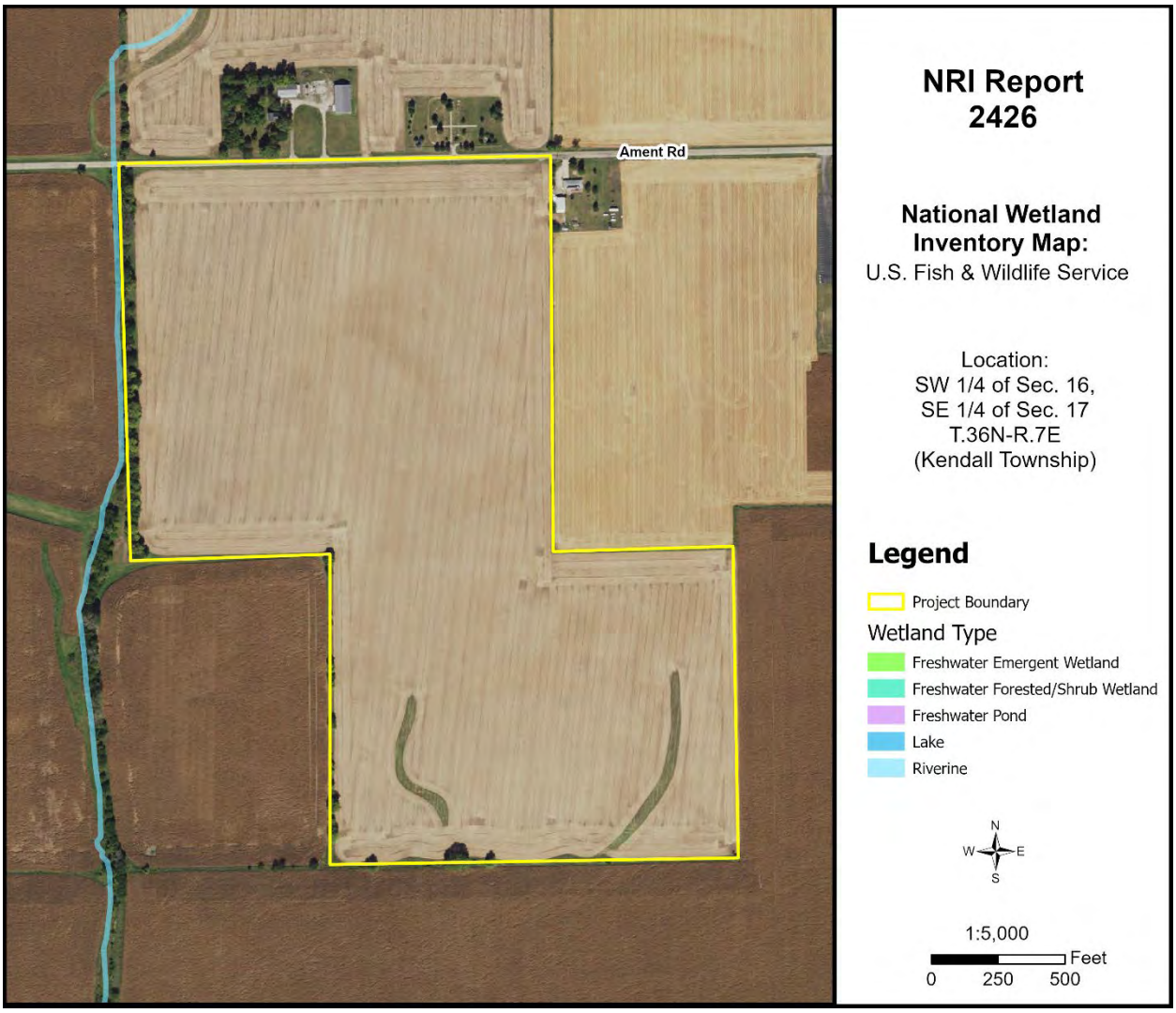


Figure 11: Wetland Map

Office maps indicate that mapped wetlands/waters are present on or near 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. Water Resources Delineation Reports dated July 13, 2023 and June 18, 2024, were prepared by ENCAP, Inc. The results of their review indicated the presence of two farmed wetlands and one intermittent creek on the site. Please see their report for more details.

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 %	Acreage	Percent
59A	Somewhat Poorly Drained	Non-Hydric	Yes	8%	16.3	17.1%
60C2	Moderately Well Drained	Non-Hydric	No	0%	1.7	1.8%
152A	Poorly Drained	Hydric	N/A	100%	27.4	28.8%
356A	Poorly Drained	Hydric	N/A	100%	9.8	10.3%
541B	Moderately Well Drained	Non-Hydric	Yes	5%	38.6	40.5%
541C2	Moderately Well Drained	Non-Hydric	Yes	3%	1.4	1.5%

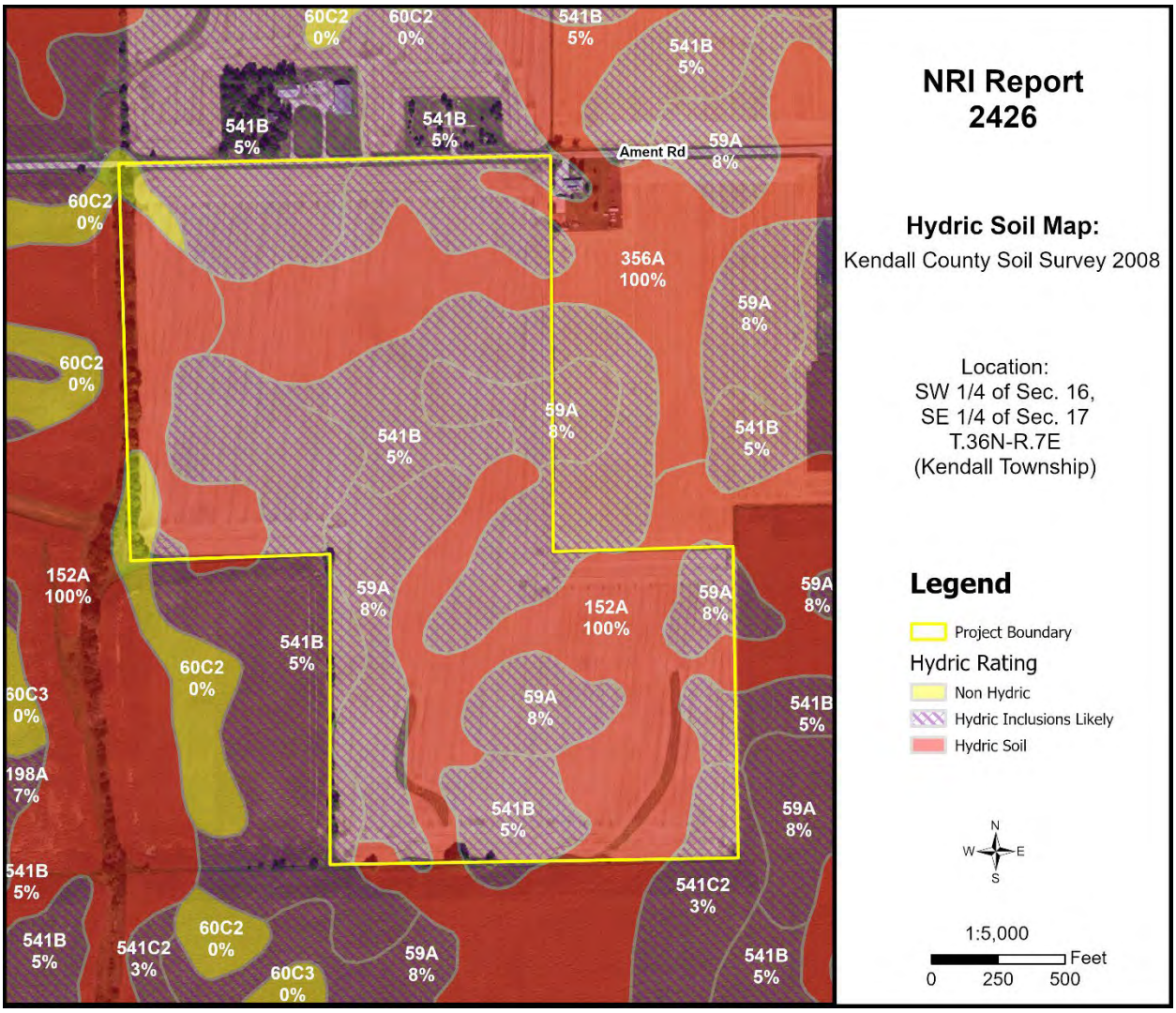


Figure 12: Hydric Soil Map

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.

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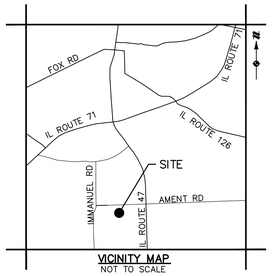
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ALTA/NSPS LAND TITLE SURVEY

OF

PART OF SECTIONS 16 & 17 TOWNSHIP 36 NORTH, RANGE 7, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN KENDALL COUNTY, ILLINOIS



VICINITY MAP
NOT TO SCALE

811 UTILITIES – TICKET NO.: X242501362–00X				
OWNER	RESPONDED	PLOTTED	MARKED	NOTES
BP PIPELINES	NO	NO	NO	NO RESPONSE
ANR PIPELINE COMPANY (TC ENERGY)	9/6/2024	NO	NO	UTILITY MAP PROVIDED (NO LINES IN AREA)
ATT/DISTRIBUTION	NO	NO	NO	NO RESPONSE
UTILITY NAME	NO	NO	NO	NO RESPONSE
COMED	9/9/2024	YES	NO	UTILITY MAP PROVIDED
COMCAST	NO	NO	NO	NO RESPONSE
GUARDIAN PIPELINE	9/9/2024	NO	NO	UTILITY MAP PROVIDED (NO LINES IN AREA)
ENBRIDGE ENERGY PARTNERS LP	NO	NO	NO	NO RESPONSE
NICOR GAS	9/10/2024	NO	NO	UTILITY MAP PROVIDED (NO LINES IN AREA)

SURVEYOR'S TITLE RESPONSE TO SURVEY RELATED SCHEDULE B PART II EXCEPTIONS WITHIN STEWART TITLE GUARANTY COMPANY COMMITMENT NUMBER: 23000373393–02, COMMITMENT DATE: AUGUST 5, 2024

SCHEDULE B PART II EXCEPTIONS NUMBERS 1–9 ARE NOT SURVEY RELATED MATTERS AND INTENTIONALLY NOT LISTED BELOW.

10. UNRECORDED EASEMENT OR RIGHT–OF–WAY FOR TRANSMISSION LINES RUNNING THROUGH THE SUBJECT PROPERTY AS EVIDENCED BY KENDALL COUNTY ASSESSOR'S MAP. NOTE: THERE IS NO DOCUMENTATION OF RECORD FOR THIS EASEMENT OR RIGHT–OF–WAY OTHER THAN THE ASSESSOR'S MAP. (PARCEL 1)

RESPONSE: NOT PLOTTED. THE PROVIDED TAX MAP DOES NOT DEPICT AN UNRECORDED EASEMENT OR RIGHT–OF–WAY FOR TRANSMISSION LINES. NO EVIDENCE OF A TRANSMISSION LINE RUNNING THROUGH THE SITE OBSERVED AT TIME OF FIELD WORK.

11. UNRECORDED EASEMENT OR RIGHT–OF–WAY FOR TRANSMISSION LINES RUNNING THROUGH THE SUBJECT PROPERTY AS EVIDENCED BY KENDALL COUNTY ASSESSOR'S MAP. NOTE: THERE IS NO DOCUMENTATION OF RECORD FOR THIS EASEMENT OR RIGHT–OF–WAY OTHER THAN THE ASSESSOR'S MAP. (PARCEL 2)

RESPONSE: NOT PLOTTED. THE PROVIDED TAX MAP DOES NOT DEPICT AN UNRECORDED EASEMENT OR RIGHT–OF–WAY FOR TRANSMISSION LINES. NO EVIDENCE OF A TRANSMISSION LINE RUNNING THROUGH THE SITE OBSERVED AT TIME OF FIELD WORK.

12. PLAT OF RIGHT–OF–WAY DATED MARCH 27, 1990, AND RECORDED MARCH 27, 1990 AS DOCUMENT NO. 901890, PUBLIC RECORDS OF KENDALL COUNTY, STATE OF ILLINOIS. (PARCEL 1)

RESPONSE: NOT PLOTTED. THE LOCATION CANNOT BE DETERMINED FROM RECORD DOCUMENT. (FLAT FILE FF2–4 REFERENCED WITHIN RECORDED DOCUMENT NOT PROVIDED.)

13. SUBORDINATION OF SURFACE RIGHTS FOR PUBLIC ROAD PURPOSES BY AND BETWEEN ILLINOIS BELL TELEPHONE COMPANY AS GRANTOR AND THE PEOPLE OF THE STATE OF ILLINOIS AS GRANTEE DATED JANUARY 7, 1991, AND RECORDED FEBRUARY 14, 1991 AS DOCUMENT NO. 910891, PUBLIC RECORDS OF KENDALL COUNTY, STATE OF ILLINOIS. (PARCEL 1)

RESPONSE: NOT PLOTTED. NOT ON AND DOES NOT TOUCH SURVEYED PROPERTY. (SUBORDINATION FOR IL 47)

14. SUBORDINATION OF SURFACE RIGHTS FOR PUBLIC ROAD PURPOSES BY AND BETWEEN NORTHERN ILLINOIS GAS COMPANY AS GRANTOR AND THE PEOPLE OF THE STATE OF ILLINOIS AS GRANTEE DATED FEBRUARY 1, 1991, AND RECORDED FEBRUARY 14, 1991 AS DOCUMENT NO. 910893, PUBLIC RECORDS OF KENDALL COUNTY, STATE OF ILLINOIS. (PARCEL 1)

RESPONSE: NOT PLOTTED. NOT ON AND DOES NOT TOUCH SURVEYED PROPERTY. (SUBORDINATION FOR IL 47)

15. SUBORDINATION OF SURFACE RIGHTS FOR PUBLIC ROAD PURPOSES BY AND BETWEEN NORTHERN ILLINOIS GAS COMPANY AS GRANTOR AND THE PEOPLE OF THE STATE OF ILLINOIS AS GRANTEE DATED FEBRUARY 1, 1991, AND RECORDED FEBRUARY 14, 1991 AS DOCUMENT NO. 910894, PUBLIC RECORDS OF KENDALL COUNTY, STATE OF ILLINOIS. (PARCEL 1)

RESPONSE: NOT PLOTTED. NOT ON AND DOES NOT TOUCH SURVEYED PROPERTY. (SUBORDINATION FOR IL 47)

16. SUBORDINATION OF SURFACE RIGHTS FOR PUBLIC ROAD PURPOSES BY AND BETWEEN NORTHERN ILLINOIS GAS COMPANY AS GRANTOR AND THE PEOPLE OF THE STATE OF ILLINOIS AS GRANTEE DATED MARCH 12, 1993, AND RECORDED MARCH 16, 1993 AS DOCUMENT NO. 9302247, PUBLIC RECORDS OF KENDALL COUNTY, STATE OF ILLINOIS. (PARCEL 1)

RESPONSE: NOT PLOTTED. NOT ON AND DOES NOT TOUCH SURVEYED PROPERTY. (SUBORDINATION FOR IL 47)

17. AN ORDINANCE AUTHORIZING THE EXECUTION OF AN ANNEXATION AND PLANNED UNIT DEVELOPMENT AGREEMENT, ORDINANCE NO. 2007–24, DATED FEBRUARY 27, 2007, AND RECORDED MAY 15, 2007 AS DOCUMENT NO. 200700015755, PUBLIC RECORDS OF KENDALL COUNTY, STATE OF ILLINOIS. (PARCEL 1)

RESPONSE: NOT PLOTTED. NOT ON SURVEYED PROPERTY.

ALTA TABLE A NOTES:
(CORRESPONDING NUMBERS COINCIDE WITH TABLE A ITEMS)

1. MONUMENTS TO BE SET AT ALL CORNERS OF THE SURVEYED PROPERTY, UNLESS ALREADY MARKED OR REFERENCED BY EXISTING MONUMENTS OR WITNESSES.
2. SITE ADDRESS: AMENT ROAD, YORKVILLE, IL 60560.
3. SURVEYED PARCELS ARE IN "ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN)" PER FLOOD INSURANCE RATE MAP NUMBER 17093C0125G WITH EFFECTIVE DATE FEBRUARY 4, 2009.
4. THE MEASURED ACREAGE OF EACH PARCEL IS AS SHOWN HEREON.
6. A ZONING REPORT OR LETTER NOT PROVIDED TO THE SURVEYOR.
7. THE EXTERIOR PORTION OF THE SHED SHOWN ON SURVEYED PROPERTY DIMENSIONED ON SHEET 2.
8. SUBSTANTIAL FEATURES OBSERVED IN THE PROCESS OF CONDUCTING THE SURVEY ARE SHOWN HEREON.

11a. NO PLANS AND/OR REPORTS OF UNDERGROUND UTILITIES EXISTING ON OR SERVING THE SURVEYED PROPERTY PROVIDED BY CLIENT. UNDERGROUND UTILITIES ARE SHOWN PER MAPS PROVIDED THROUGH AN 811 DESIGN STAGE TICKET (NUMBER X242501362–00X). SEE 811 UTILITIES TABLE FOR DETAILED INFORMATION REGARDING STATUS OF RESPONSES TO ONE CALL TICKET.

ADDITIONALLY, SURFACE EVIDENCE OF UTILITIES LYING WITHIN THE SURVEYED PROPERTY WERE LOCATED WHILE CONDUCTING THIS SURVEY AND ARE DEPICTED.

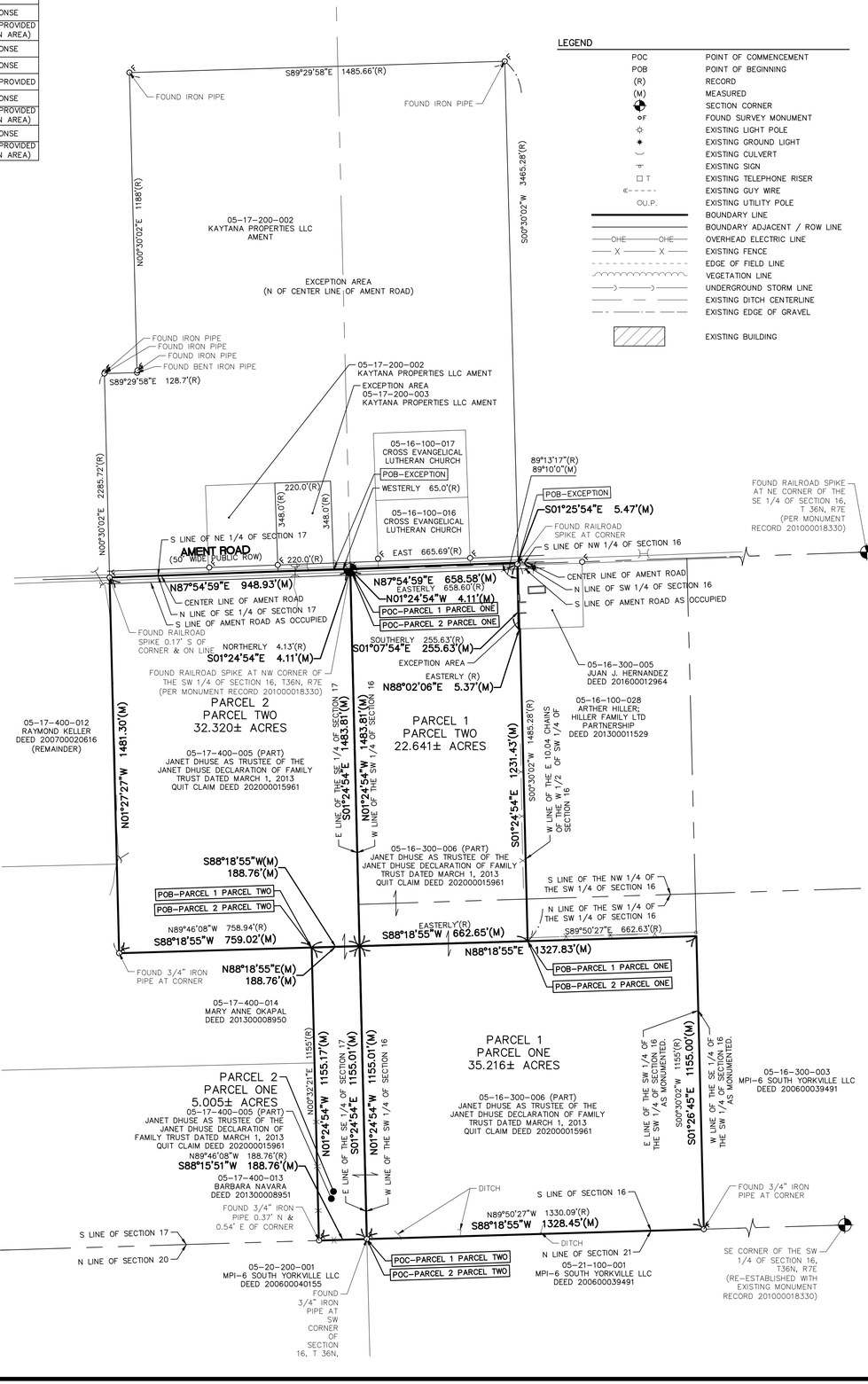
SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL UNMARKED AND/OR BURIED UTILITIES IN THE AREA, EITHER IN–SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE THE EXACT LOCATION INDICATED.

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.

13. NAMES OF ADJOINING OWNERS OR ADJOINING LANDS ARE SHOWN HEREON.
14. THE NORTHWEST CORNER OF THE SURVEYED PROPERTY IS LOCATED 1380' EAST OF THE INTERSECTION OF AMENT ROAD WITH IMMANUEL ROAD.
16. NO EVIDENCE OF RECENT EARTH MOVING WORK, BUILDING CONSTRUCTION, OR BUILDING ADDITIONS OBSERVED IN THE PROCESS OF CONDUCTING THE FIELD WORK.
17. THERE WAS NO INFORMATION OF PROPOSED CHANGES IN STREET RIGHT OF WAYS PROVIDED AND THERE WAS NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.
19. PROFESSIONAL LIABILITY INSURANCE IN THE REQUESTED AMOUNT OF HAS BEEN OBTAINED THROUGH THE DURATION OF THIS PROJECT.

GENERAL NOTES

1. COMPARE ALL DISTANCES AND POINTS IN FIELD AND REPORT ANY DISCREPANCIES IN SAME TO SURVEYOR AT ONCE.
2. 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.
3. CALL 811 ("COMMON GROUND ALLIANCE" NATIONAL UNDERGROUND UTILITY LOCATOR SERVICE) FOR FIELD LOCATION OF UNDERGROUND UTILITY LINES PRIOR TO ANY DIGGING OR CONSTRUCTION.
4. NO DIMENSIONS SHOULD BE ASSUMED BY SCALING.



LEGEND

POC	POINT OF COMMENCEMENT
POB	POINT OF BEGINNING
(R)	RECORD
(M)	MEASURED
	SECTION CORNER
	FOUND SURVEY MONUMENT
	EXISTING LIGHT POLE
	EXISTING GROUND LIGHT
	EXISTING CULVERT
	EXISTING SIGN
T	EXISTING TELEPHONE RISER
	EXISTING GUY WIRE
	EXISTING UTILITY POLE
	BOUNDARY LINE
	BOUNDARY ADJACENT / ROW LINE
OHE	OVERHEAD ELECTRIC LINE
X	EXISTING FENCE
	EDGE OF FIELD LINE
	VEGETATION LINE
	UNDERGROUND STORM LINE
	EXISTING DITCH CENTERLINE
	EXISTING EDGE OF GRAVEL
	EXISTING BUILDING

250 0 250 500 750

GRAPHIC SCALE
SCALE: 1"=250'

BASIS OF BEARING:
ILLINOIS STATE PLANE
EAST ZONE (NAD83)
2011 ADJUSTMENT

LEGAL DESCRIPTION PER STEWART TITLE GUARANTY COMPANY COMMITMENT NUMBER: 23000373393–02, COMMITMENT DATE: AUGUST 5, 2024

VESTED IN: JANET DHUSE AS TRUSTEE OF THE JANET DHUSE DECLARATION OF FAMILY TRUST DATED MARCH 1, 2013

PARCEL 1:

PARCEL ID NO.: 05–16–300–006

58.0 ACRES, MORE OR LESS, BEING OUT OF SECTION 16, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS, AND BEING A PART OF THAT CERTAIN 93.4 ACRES, MORE OR LESS, OF LAND, AND SAID 58.0 ACRES BEING ALL OF THE 93.4 ACRES, MORE OR LESS, THAT LIES WITHIN THE LATERAL BOUNDARIES OF SAID SECTION 16, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE SOUTHERLY 93.4 ACRES, MORE OR LESS, OF THE FOLLOWING DESCRIBED PARCELS 1 AND 2, SAID ACREAGE LYING SOUTH OF A LINE BEING THE CENTER OF AMENT ROAD:
*"SURVEYOR'S NOTE: THIS PORTION OF THE LEGAL DESCRIPTION IS NOT FOUND WITHIN A VESTING DEED.

PARCEL ONE

THAT PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 16 AND PART OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 16; THENCE DUE EAST ALONG THE NORTH LINE OF SAID SOUTHWEST QUARTER, 665.69 FEET TO THE WEST LINE OF THE EAST 10.04 CHAINS OF THE WEST HALF OF THE WEST HALF OF SAID SECTION 16; THENCE SOUTH 0° 30' 2" WEST ALONG SAID WEST LINE 1485.28 FEET TO A LINE DRAWN PARALLEL WITH AND 1155 FEET NORTH OF, AS MEASURED ALONG THE EAST LINE OF THE SOUTHWEST QUARTER OF SAID SOUTHWEST QUARTER, THE SOUTH LINE OF SAID SOUTHWEST QUARTER FOR THE POINT OF BEGINNING; THENCE SOUTH 89° 50' 27" EAST ALONG SAID PARALLEL LINE 662.63 FEET TO THE EAST LINE OF SAID QUARTER QUARTER; THENCE SOUTH 0° 30' 2" WEST ALONG SAID EAST LINE 1155 FEET TO THE SOUTHEAST CORNER OF SAID QUARTER QUARTER; THENCE NORTH 89° 50' 27" WEST ALONG THE SOUTH LINE OF SAID QUARTER QUARTER 1330.09 FEET TO THE SOUTHWEST CORNER THEREOF; THENCE NORTH 89° 46' 8" WEST ALONG THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 17, 188.76 FEET; THENCE NORTH 0° 32' 21" EAST PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER, 1155 FEET; THENCE EASTERLY TO THE POINT OF BEGINNING IN THE TOWNSHIP OF KENDALL, KENDALL COUNTY, ILLINOIS.

PARCEL TWO

THAT PART OF THE WEST HALF OF SECTION 16 AND PART OF THE EAST HALF OF SECTION 17, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 17; THENCE NORTH 89° 46' 8" WEST ALONG THE SOUTH LINE OF SAID SECTION 17, 188.76 FEET; THENCE NORTH 0° 32' 21" EAST PARALLEL WITH THE EAST LINE OF SAID SECTION 17, 1155 FEET FOR THE POINT OF BEGINNING; THENCE NORTH 89° 46' 8" WEST PARALLEL WITH THE SOUTH LINE OF SAID SECTION 17, 758.94 FEET; THENCE NORTH 0° 30' 2" EAST PARALLEL WITH THE WEST LINE OF THE EAST 10.04 CHAINS OF THE WEST HALF OF THE WEST HALF OF SAID SECTION 16, 2285.72 FEET; THENCE SOUTH 89° 29' 58" EAST 128.7 FEET; THENCE NORTH 0° 30' 2" EAST PARALLEL WITH THE WEST LINE OF THE EAST 10.04 CHAINS OF THE WEST HALF OF THE WEST HALF OF SAID SECTION 16, 1188 FEET; THENCE SOUTH 89° 29' 58" EAST 1485.66 FEET TO THE WEST LINE OF THE EAST 10.04 CHAINS OF THE WEST HALF OF THE WEST HALF OF SAID SECTION 16; THENCE SOUTH 0° 30' 2" WEST ALONG SAID WEST LINE 3465.28 FEET TO A LINE DRAWN PARALLEL WITH AND 1155 FEET NORTH OF THE SOUTH LINE OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 16, AS MEASURED ALONG THE EAST LINE OF SAID QUARTER QUARTER; THENCE WESTERLY TO THE POINT OF BEGINNING; EXCEPTING THEREFROM THE FOLLOWING: THAT PART OF THE NORTHEAST QUARTER OF SECTION 17, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTHERLY ALONG THE EAST LINE OF SAID NORTHEAST QUARTER, 4.13 FEET TO THE CENTER LINE OF AMENT ROAD; THENCE WESTERLY ALONG SAID CENTER LINE, 65.0 FEET FOR THE POINT OF BEGINNING; THENCE WESTERLY ALONG SAID CENTER LINE, 220.0 FEET; THENCE NORTHERLY AT RIGHT ANGLES TO SAID CENTER LINE, 348.0 FEET; THENCE EASTERLY PARALLEL WITH SAID CENTER LINE, 220.0 FEET; THENCE SOUTHERLY AT RIGHT ANGLES TO THE LAST DESCRIBED COURSE, 348.0 FEET TO THE POINT OF BEGINNING, IN KENDALL TOWNSHIP, KENDALL COUNTY, ILLINOIS; AND THAT PART OF THE SOUTHWEST QUARTER OF SECTION 16, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID SOUTHWEST QUARTER; THENCE EASTERLY ALONG THE NORTH LINE OF SAID SOUTHWEST QUARTER, 658.60 FEET FOR THE POINT OF BEGINNING; THENCE SOUTHERLY ALONG THE LINE OF A FENCE WHICH FORMS AN ANGLE OF 89° 13' 17" WITH THE LAST DESCRIBED COURSE (MEASURED COUNTER–CLOCKWISE THEREFROM) 255.63 FEET; THENCE EASTERLY PARALLEL WITH SAID NORTH LINE TO THE WEST LINE OF THE EASTERLY 10.04 CHAINS OF THE WEST HALF OF SAID SOUTHWEST QUARTER; THENCE NORTHERLY ALONG SAID WEST LINE TO SAID NORTH LINE; THENCE WESTERLY ALONG SAID NORTH LINE TO THE POINT OF BEGINNING, ALL IN THE TOWNSHIP OF KENDALL, KENDALL COUNTY, ILLINOIS.

PARCEL 2:

PARCEL ID NO.: 05–17–400–005

35.4 ACRES, MORE OR LESS, BEING OUT OF SECTION 17, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS, AND BEING A PART OF THAT CERTAIN 93.4 ACRES, MORE OR LESS, OF LAND, AND SAID 35.4 ACRES BEING ALL OF THE 93.4 ACRES, MORE OR LESS, THAT LIES WITHIN THE LATERAL BOUNDARIES OF SAID SECTION 17, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN, KENDALL COUNTY, ILLINOIS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

THE SOUTHERLY 93.4 ACRES, MORE OR LESS, OF THE FOLLOWING DESCRIBED PARCELS1 AND 2, SAID ACREAGE LYING SOUTH OF A LINE BEING THE CENTER OF AMENT ROAD:
*"SURVEYOR'S NOTE: THIS PORTION OF THE LEGAL DESCRIPTION IS NOT FOUND WITHIN A VESTING DEED.

PARCEL ONE

THAT PART OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 16 AND PART OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 36 NORTH, RANGE 7 EAST OF THE THIRD PRINCIPAL MERIDIAN DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF SAID SECTION 16; THENCE DUE EAST ALONG THE NORTH LINE OF SAID SOUTHWEST QUARTER, 665.69 FEET TO THE WEST LINE OF THE EAST 10.04 CHAINS OF THE WEST HALF OF THE WEST HALF OF SAID SECTION 16; THENCE SOUTH 0° 30' 2" WEST ALONG SAID WEST LINE 1485.28 FEET TO A LINE DRAWN PARALLEL WITH AND 1155 FEET NORTH OF, AS MEASURED ALONG THE EAST LINE OF THE SOUTHWEST QUARTER OF SAID SOUTHWEST QUARTER, THE SOUTH LINE OF SAID SOUTHWEST QUARTER FOR THE POINT OF BEGINNING; THENCE SOUTH 89° 50' 27" EAST ALONG SAID PARALLEL LINE 662.63 FEET TO THE EAST LINE OF SAID QUARTER QUARTER; THENCE SOUTH 0° 30' 2" WEST ALONG SAID EAST LINE 1155 FEET TO THE SOUTHEAST CORNER OF SAID QUARTER QUARTER; THENCE NORTH 89° 50' 27" WEST ALONG THE SOUTH LINE OF SAID QUARTER QUARTER 1330.09 FEET TO THE SOUTHWEST CORNER THEREOF; THENCE NORTH 89° 46' 8" WEST ALONG THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 17, 188.76 FEET; THENCE NORTH 0° 32' 21" EAST PARALLEL WITH THE EAST LINE OF SAID SOUTHEAST QUARTER, 1155 FEET; THENCE EASTERLY TO THE POINT OF BEGINNING IN THE TOWNSHIP OF KENDALL, KENDALL COUNTY, ILLINOIS.

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STATE OF ILLINOIS)
) SS
COUNTY OF DUPAGE)

CERTIFIED TO: STEWART TITLE GUARANTY COMPANY;
AMENT ROAD SOLAR 1, 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 SUR

ALTA/NSPS LAND TITLE SURVEY

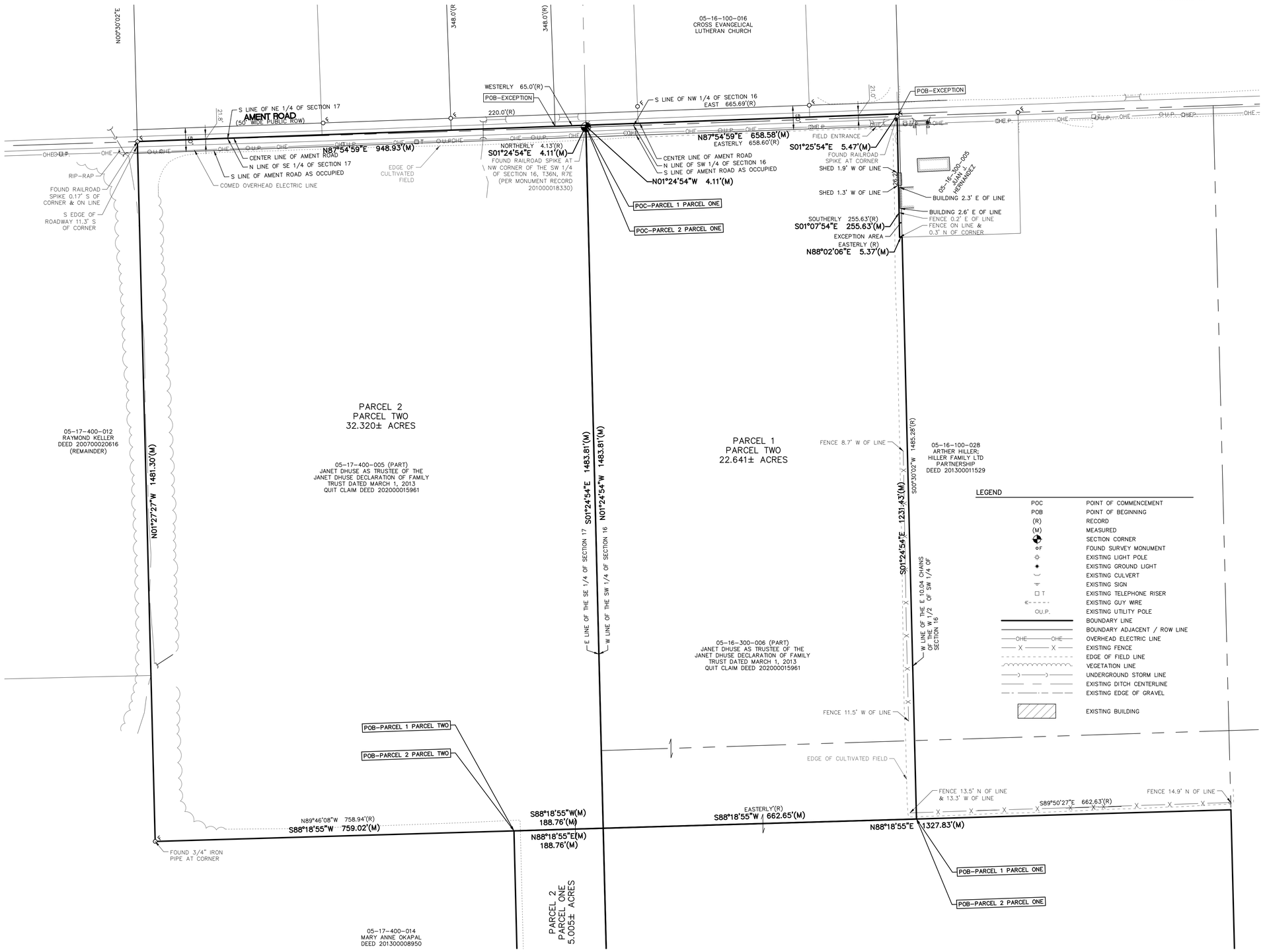
OF

PART OF SECTIONS 16 & 17 TOWNSHIP 36 NORTH, RANGE 7, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN KENDALL COUNTY, ILLINOIS

100 0 100 200 300

GRAPHIC SCALE
SCALE: 1"=100'

BASIS OF BEARING:
ILLINOIS STATE PLANE
EAST ZONE (NAD83)
2011 ADJUSTMENT



SEE SHEET 3

LEGEND

POC	POINT OF COMMENCEMENT
POB	POINT OF BEGINNING
(R)	RECORD
(M)	MEASURED
	SECTION CORNER
OF	FOUND SURVEY MONUMENT
	EXISTING LIGHT POLE
	EXISTING GROUND LIGHT
	EXISTING CULVERT
	EXISTING SIGN
T	EXISTING TELEPHONE RISER
	EXISTING GUY WIRE
O.U.P.	EXISTING UTILITY POLE
	BOUNDARY LINE
	BOUNDARY ADJACENT / ROW LINE
OHE OHE	OVERHEAD ELECTRIC LINE
X X	EXISTING FENCE
	EDGE OF FIELD LINE
	VEGETATION LINE
	UNDERGROUND STORM LINE
	EXISTING DITCH CENTERLINE
	EXISTING EDGE OF GRAVEL
	EXISTING BUILDING

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 THE ENGINEER SHALL BE EXPECTED 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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DESIGN FIRM #184-005876

SECTION 16 & 17
TOWN 36 NORTH, RANGE 7 EAST
KENDALL TOWNSHIP
KENDALL COUNTY, ILLINOIS

CLIENT
AMENT ROAD SOLAR 1, LLC

ALTA/NSPS LAND TITLE SURVEY
AMENT ROAD

DATE
10/7/2024

REVISIONS
10/17/2024 CLIENT COMMENTS
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SCALE 0 50 100
1" = 100 FEET
DR. MJF | CH. BDE
P.M. S. ADAMS
BOOK 319
JOB 23002398AS-01
SHEET NO.
2 OF 3

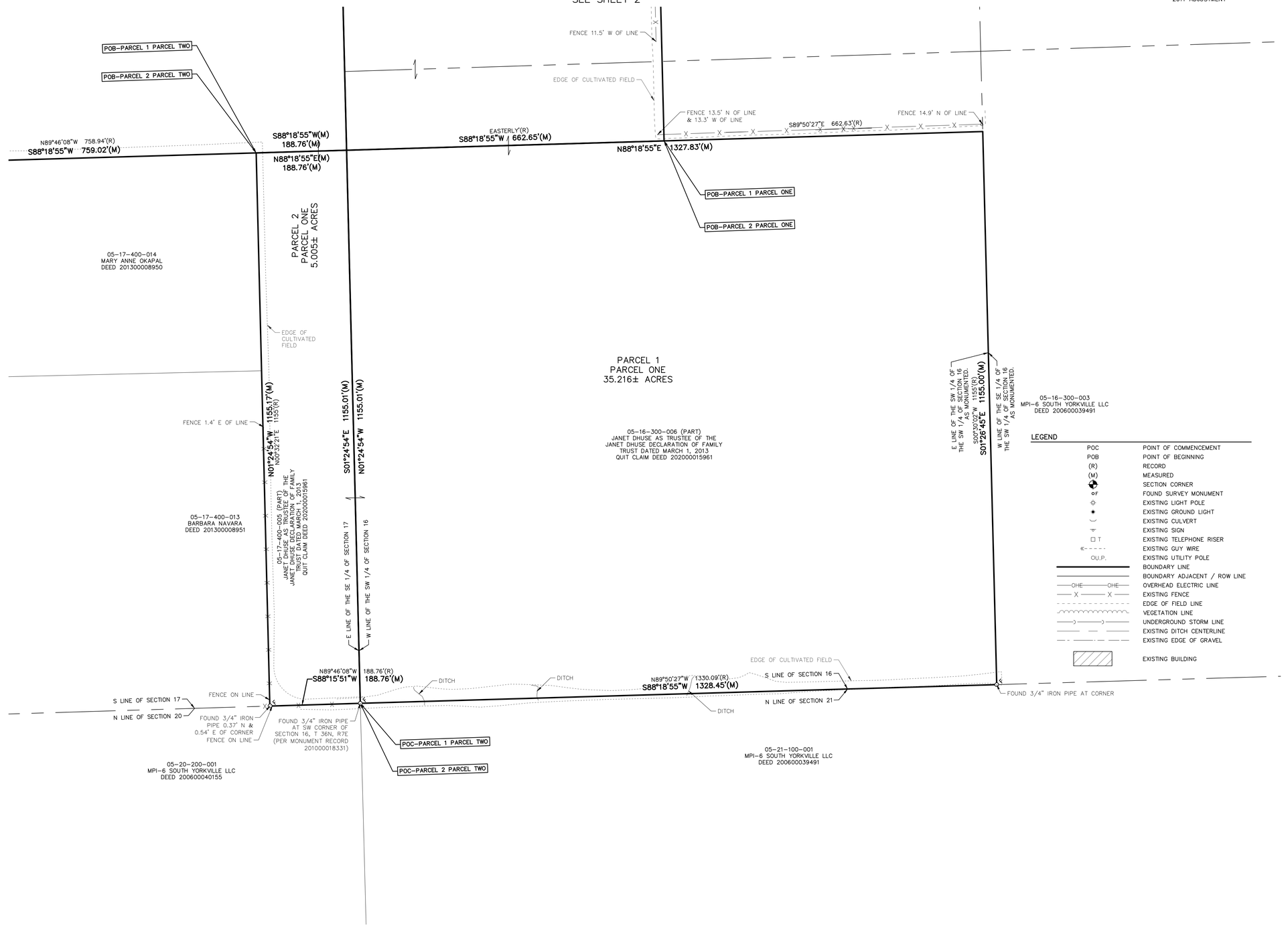
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ALTA/NSPS LAND TITLE SURVEY

OF

PART OF SECTIONS 16 & 17 TOWNSHIP 36 NORTH, RANGE 7, EAST OF THE THIRD PRINCIPAL MERIDIAN, IN KENDALL COUNTY, ILLINOIS



LEGEND

POC	POINT OF COMMENCEMENT
POB	POINT OF BEGINNING
(R)	RECORD
(M)	MEASURED
	SECTION CORNER
O F	FOUND SURVEY MONUMENT
	EXISTING LIGHT POLE
	EXISTING GROUND LIGHT
	EXISTING CULVERT
	EXISTING SIGN
T	EXISTING TELEPHONE RISER
	EXISTING GUY WIRE
O.U.P.	EXISTING UTILITY POLE
	BOUNDARY LINE
	BOUNDARY ADJACENT / ROW LINE
OHE	OVERHEAD ELECTRIC LINE
X	EXISTING FENCE
	EDGE OF FIELD LINE
	VEGETATION LINE
	UNDERGROUND STORM LINE
	EXISTING DITCH CENTERLINE
	EXISTING EDGE OF GRAVEL
	EXISTING BUILDING

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

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DESIGN FIRM #184-005876

SECTION 16 & 17
TOWN 36 NORTH, RANGE 7 EAST
KENDALL TOWNSHIP
KENDALL COUNTY, ILLINOIS

CLIENT
AMENT ROAD SOLAR 1, LLC

ALTA/NSPS LAND TITLE SURVEY
AMENT ROAD

DATE
10/7/2024

REVISIONS
10/17/2024 CLIENT COMMENTS
--
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SCALE 0 50 100
1" = 100 FEET
DR. MJF | CH. BDE
P.M. S. ADAMS
BOOK 319
JOB 23002398AS-01
SHEET NO.
3 OF 3

CAD FILE: 23002398AS-01.DWG

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SPECIAL USE PERMIT SET

AMENT ROAD - KENDALL IL
KENDALL COUNTY, IL
4.990 MWAC STC RATED SOLAR ELECTRIC SYSTEM

GENERAL NOTES

1. AS CONTAINED HEREIN, "CONTRACTOR" IS ASSUMED TO BE THE EPC PROVIDER HIRED BY THE SYSTEM/PROJECT OWNER.
2. WHEN THERE IS A CONFLICT BETWEEN THESE GENERAL NOTES AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.
3. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING: LOCAL BUILDING CODE, LOCAL ELECTRICAL CODE, ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK AND THOSE CODES AND STANDARDS LISTED IN THESE DRAWINGS.
4. THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEVELOPING A CONSTRUCTION LEVEL DESIGN AND ASSOCIATED DRAWINGS AND DETAILS.
5. COORDINATE THESE DRAWINGS WITH SPECIFICATIONS AND MANUFACTURER INSTALLATION AND OPERATION MANUALS.
6. UNLESS OTHERWISE NOTED, THE DESIGN REPRESENTED ON THESE PLANS IS BASED ON THE INFORMATION AND CRITERIA LISTED IN THE "BASIS OF DESIGN" SECTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY SUCH INFORMATION IN PREPARATION OF THE CONSTRUCTION DESIGN.
7. THE EXISTING CONDITIONS REPRESENTED ON THESE PLANS ARE BASED ON PUBLICLY AVAILABLE INFORMATION AND THE SITE DISCOVERY SUMMARIZED IN THESE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF SUCH INFORMATION AND SUPPLEMENT WITH ANY ADDITIONAL REQUIRED INFORMATION.
8. UNLESS INDICATED AS EXISTING (E), ALL PROPOSED MATERIALS AND EQUIPMENT SHALL BE CONSIDERED TO BE NEW.
9. ALL EQUIPMENT AND COMPONENTS SHALL BE MOUNTED IN COMPLIANCE WITH THE MANUFACTURER'S REQUIREMENTS, CONSTRUCTION DETAILS, AND/OR PRUDENT INDUSTRY STANDARDS.
10. TO THE EXTENT THAT TREES AND OTHER FEATURES AFFECT THE SYSTEM'S PRODUCTION, SUCH PRODUCTION MODELING IS BASED ON THE EXISTING APPROXIMATE HEIGHTS AND LOCATIONS RELATIVE TO THE SYSTEM AND MAY BE IMPACTED AS TREES GROW AND OTHER FEATURES CHANGE.

PROJECT SCOPE

THIS PROJECT CONSISTS OF THE INSTALLATION OF SOLAR MODULES PER THE SYSTEM DESCRIPTION, BELOW. THE MODULES WILL BE INSTALLED ON A GROUND MOUNTED RACKING SYSTEM. THE MODULES WILL BE WIRED IN SERIES STRINGS AND CONNECTED IN PARALLEL TO THE INVERTER(S), WHICH CONVERT THE PHOTOVOLTAIC OUTPUT POWER FROM DC TO AC. THE SOLAR ELECTRIC SYSTEM WILL BE INTERCONNECTED WITH THE EXISTING SITE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE APPLICABLE ELECTRICAL CODE AND COM ED REQUIREMENTS.

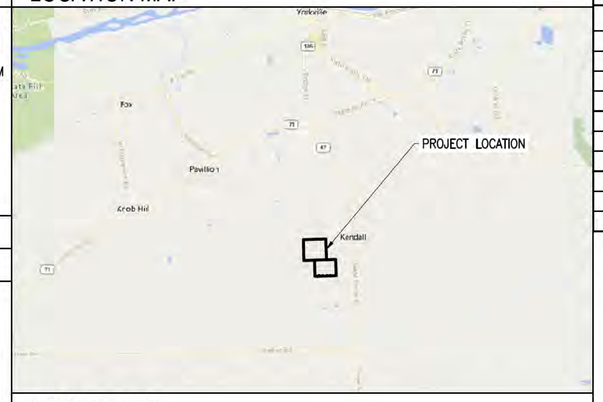
SYSTEM DESCRIPTION

MODULES	ASTRONERGY	SYSTEM SIZE (KWAC)	4990 KWAC
STC RATING (W)	7,734 WDC	INVERTER(S)	(20) SOLECTRIA 250 XGI
RACKING	ATI DURATRACK	CEC EFFICIENCY	93.5 %
AZIMUTH	180	TILT ANGLE	52

SPECIAL INSPECTIONS

GENERAL CONSTRUCTION SPECIAL INSPECTIONS	CODE/SECTION
1. FIRE RESISTANT PENETRATIONS AND JOINTS	BC 1704.27
2. ENERGY CODE COMPLIANCE INSPECTIONS	BC 110.3.5
FINAL	

LOCATION MAP



AERIAL VIEW



DRAWING LIST

Sheet Number	Sheet Title
T-1.0	TITLE PAGE
	CIVIL
C-0.0	CIVIL NOTES
C-1.0	EXISTING CONDITIONS PLAN
C-2.0	LAYOUT AND MATERIALS PLAN
C-3.0	GRADING AND EROSION CONTROL PLAN
C-4.0	CIVIL DETAILS IL
C-5.0	LANDSCAPE PLAN
C-5.1	LANDSCAPE NOTES & DETAILS
C-5.2	DRAIN TILE NOTES & DETAILS

APPLICABLE CODES AND STANDARDS

2008 NATIONAL ELECTRICAL CODE
INTERNATIONAL BUILDING CODE
UL-1703 - SOLAR MODULES
UL-1741 - INVERTERS, COMBINER BOXES
UL-2703 - RACKING MOUNTING SYSTEMS AND CLAMPING DEVICES FOR PV MODULES

PROJECT DIRECTORY

SYSTEM / PROJECT OWNER
AMENT ROAD SOLAR 1, LLC
[redacted]

LAND OWNER / HOST
JANET DHUSE
[redacted]

AUTHORITY HAVING JURISDICTION
KENDALL COUNTY PLANNING, BUILDING, & ZONING DEPARTMENT
111 W FOX STREET
YORKVILLE, IL 60560

UTILITY
COM ED

CIVIL ENGINEER
FIRM: ATWELL, LLC
CONTACT: MICHAEL KEITH, P.E.
PHONE: [redacted]

GENERAL ABBREVIATIONS

(E)	EXISTING
AHJ	AUTHORITY HAVING JURISDICTION
AL	ALUMINUM
APPROX	APPROXIMATE
ARY	ARRAY
BLDG	BUILDING
NLE	NEW LEAF ENERGY
CL	CENTERLINE
DAS	DATA ACQUISITION SYSTEM
DIA	DIAMETER
DO	DITTO
EW	EAST-WEST
ESS	ENERGY STORAGE SYSTEM
ESU	ENERGY STORAGE UNIT
FBO	FURNISHED BY OTHERS
FF	FORWARD FACING
GALV	GALVANIZED
HDG	HOT DIP GALVANIZED
HVAC	HEATING VENTILATION AND AIR CONDITIONING
ID	INSIDE DIAMETER
MFR	MANUFACTURER
MOD	SOLAR MODULE
NS	NORTH-SOUTH
NTS	NOT TO SCALE
OAE	OR APPROVED EQUAL
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
PCS	POWER CONVERSION SYSTEM
PV	PHOTOVOLTAIC
PVC	POLY VINYL CHLORIDE
SCH	SCHEDULE
SS	STAINLESS STEEL
SSS	SOLAR SUPPORT STRUCTURE
STC	STANDARD TEST CONDITIONS
TBD	TO BE DETERMINED
TP	TAMPER PROOF
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD
WP	WEATHER PROOF

REV 1.0

BASIS OF DESIGN

BOUNDARY & TOPOGRAPHIC SURVEY:
WILLIAMS AND WORKS
JUNE 2024

WETLAND STREAM AND DELINEATION REPORT:
ENCAP INCORPORATED
JULY 2023 & JUNE 2024

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SPECIAL USE PERMIT SET
AMENT ROAD- KENDALL IL

PROJECT NUMBER:
22-4525

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	08/29/24	CMP	MBK	SPECIAL USE PERMIT SET
	09/13/24	CMP	MBK	SPECIAL USE PERMIT SET
	10/17/24	CMP	MBK	SPECIAL USE PERMIT SET REV 1
	12/19/24	CMP	MBK	SUP SET - COUNTY COMMENTS
	01/14/25	CMP	MBK	SUP SET - COUNTY COMMENTS

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T-1.0
TITLE PAGE

GENERAL CIVIL NOTES

APPROVALS

1. SPECIAL USE PERMIT DATED: IN PROGRESS.

GENERAL NOTES

1. AS CONTAINED HEREIN, "CONTRACTOR" IS ASSUMED TO BE THE EPC PROVIDER HIRED BY THE SYSTEM OWNER. "SUBCONTRACTOR" IS THE EPC PROVIDER'S INSTALLATION SUBCONTRACTORS (INCLUDING SITE WORK SUBCONTRACTOR) AND CIVIL ENGINEER OF RECORD (CEOR) IS THE EPC PROVIDER'S DESIGNATED CIVIL ENGINEER.
2. EXISTING CONDITIONS SURVEY INFORMATION WAS PREPARED BY WILLIAMS & WORKS PERFORMED ON APRIL 18, 2023 UPDATED JUNE 18, 2024. BEARINGS ARE BASED ON NAD83 ILLINOIS STATE PLANE, EAST ZONE, US FOOT. DISTANCES ARE SHOWN SCALED TO GROUND. CSF = 0.99994688 1/CSF = 1.000053123
3. THERE IS NO GUARANTEE THAT ALL THE EXISTING UTILITIES, WHETHER FUNCTIONAL OR ABANDONED WITHIN THE PROJECT LIMITS ARE ON THIS DRAWING. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE STARTING WORK AND SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM THIS WORK. PRIOR TO THE START OF ANY SITE DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.
4. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE ELECTRIC UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE UTILITY CONNECTIONS WITH THE RESPECTIVE COMPANIES PRIOR TO ANY UTILITY CONSTRUCTION.
5. THE SUBCONTRACTORS SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD AND REPORT TO THE CONTRACTOR.
6. CITY, COUNTY, AND STATE APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES.
7. PRIOR TO CONSTRUCTING THE SITE ENTRANCES ONTO AMENT ROAD, THE CONTRACTOR SHALL OBTAIN A HIGHWAY/DRIVEWAY PERMIT FROM THE APPLICABLE AHJ.
8. SUBCONTRACTOR(S) SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND SITE CONDITIONS PRIOR TO BIDDING AND PRIOR TO CONSTRUCTION.
9. ANY DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, AND SITE CONDITIONS SHALL BE REPORTED IMMEDIATELY TO THE CONTRACTOR/CEOR FOR CLARIFICATION AND RESOLUTION PRIOR TO BIDDING OR CONSTRUCTION.
10. AREAS USED AS FOR PARKING DURING CONSTRUCTION SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITIONS INCLUDING, BUT NOT LIMITED TO, REGRADING, LOAMING AND SEEDING. IN NO CASE SHALL PARKING AREAS, LAYDOWN AREAS, CONSTRUCTION TRAILERS, AND PORTABLE TOILETS BE LOCATED WITHIN A WETLAND RESOURCE AREA AND/OR ANY BUFFER ZONES.

SITE PREPARATION NOTES

1. AREAS DESIGNATED FOR TREE CUTTING SHALL BE CUT ONLY. NO GRUBBING OR STRIPPING OF TOPSOIL IS NECESSARY UNLESS SPECIFICALLY SHOWN OTHERWISE AND APPROVAL HAS BEEN GIVEN BY THE CONTRACTOR.
2. TREE CLEARING AND STUMP REMOVAL SHALL BE IN ACCORDANCE WITH APPROVED LOCAL, STATE, AND FEDERAL PERMITS. TREES TO BE REMOVED SHALL BE MARKED BY THE CONTRACTOR'S PROJECT MANAGER OR SITE SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORK ON-SITE.
3. SEASONAL TREE CLEARING RESTRICTIONS MAY BE REQUIRED FOR ENDANGERED SPECIES PROTECTION. THE CONTRACTOR SHALL REFER TO THE TREE CLEARING PLAN FOR ANY RESTRICTIONS.
4. THE SUBCONTRACTOR(S) IS/ARE RESPONSIBLE FOR ANY DAMAGE TO EXISTING SITE CONDITIONS TO REMAIN THAT ARE DUE TO SUBCONTRACTOR(S) OPERATIONS.
5. ITEMS TO BE REMOVED THAT ARE NOT STOCKPILED FOR LATER REUSE ON THE PROJECT OR DELIVERED TO THE OWNER SHALL BE LEGALLY DISPOSED OF OFF SITE BY THE SUBCONTRACTOR(S).
6. THE SUBCONTRACTOR(S) SHALL BE RESPONSIBLE FOR COORDINATING THEIR EFFORTS WITH ALL TRADES.
7. THE SUBCONTRACTOR(S) SHALL COORDINATE ALL ADJUSTMENT OR ABANDONMENT OF UTILITIES WITH THE RESPECTIVE UTILITY COMPANY.
8. TEMPORARY CONSTRUCTION HAUL ROADS SHALL BE USED DURING CONSTRUCTION IF DEEMED NECESSARY BY THE CONTRACTOR. THE USE OF SEPARATION FABRICS SHALL BE USED TO FACILITATE FUTURE REMOVAL AND RECOVERY OF GRANULAR MATERIALS. HAUL ROADS SHALL BE MAINTAINED DURING CONSTRUCTION WITH APPROPRIATE EROSION CONTROL AND STORMWATER REDUCTION MEASURES. ONCE REMOVED, THE SUB-BASE AREA SHOULD BE DECOMPACTED WITH A YORK RAKE, LOAM REPLACED, AND RESEEDED.
9. THE SITE ACCESS ROADS ARE DESIGNED TO MEET STATE FIRE CODE FOR FIRE TRUCK ACCESS. MEANS AND METHODS FOR ACCOMMODATING LARGER CONSTRUCTION DELIVERY VEHICLES MUST BE DETERMINED BY THE CONTRACTOR.
10. THE PROPOSED ROAD DESIGN SHOWN IN THESE PLANS SHALL BE CONSIDERED THE FINAL DESIGN CONDITION. ADDITIONAL MEANS AND METHODS OF CONSTRUCTION DEEMED NECESSARY BY THE OWNER OR CONTRACTOR SHALL BE DESIGNED BY OTHERS AND INCLUDED IN THE INITIAL EPC BID PRICE (INCLUDING, BUT NOT LIMITED TO: TEMPORARY HAUL ROADS, WIDENED OR LENGTHENED ROADS AND TURN OUT AREAS FOR LARGER CONSTRUCTION AND DELIVERY VEHICLES, TEMPORARY PARKING AND LAYDOWN AREAS, MODIFIED GRADING TO SUPPORT CONSTRUCTION AND DELIVERY VEHICLES, ETC.).

EROSION AND SEDIMENT CONTROL MEASURES

1. A SPDES PERMIT SHALL BE IN PLACE PRIOR TO COMMENCING ANY EARTH DISTURBANCE.
2. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR DISTURBANCE AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS. THE SMALLEST PRACTICAL AREA OF LAND SHALL BE EXPOSED AT ANY ONE TIME.
3. SEDIMENT BARRIERS SHALL BE INSPECTED AND APPROVED BY KENDALL COUNTY OR THEIR REPRESENTATIVE AND THE CONTRACTOR/CEOR BEFORE CONSTRUCTION BEGINS.
4. STRAW BALES AND MULCH SHALL BE MOWINGS OF ACCEPTABLE HERBACEOUS GROWTH, FREE OF NOXIOUS WEEDS OR WOODY STEMS, AND SHALL BE DRY WHEN INSTALLED.
5. DISTURBED AREAS SHALL BE BLANKETED OR SEEDED AND MULCHED AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAVE CONCLUDED. ALL ERODABLE/BARE AREAS SHALL BE BLANKETED OR SEEDED AND MULCHED WITHIN 7 DAYS WITH TEMPORARY EROSION CONTROL SEEDING.
6. PRIOR TO SEEDING, ACCESS AISLES, TEMPORARY STAGING, STORAGE, AND PARKING AREAS ARE TO BE DE-COMPACTED AND RESTORED PER THE SWPPP.
7. SEDIMENT BARRIERS SHALL BE CONSTRUCTED AROUND ALL SOIL STOCKPILE AREAS.
8. CLEAN OUT PROJECT DRAINAGE FEATURES AND STRUCTURES (I.E. CULVERTS, BASINS, SWALES, ETC.) AFTER COMPLETION OF CONSTRUCTION.
9. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM EROSION CONTROL SYSTEMS WHEN THE HEIGHT OF THE SEDIMENT EXCEEDS ONE-HALF OF THE HEIGHT OF THE SEDIMENT CONTROL MEASURE.
10. AFTER ALL DISTURBED AREAS HAVE BEEN FULLY STABILIZED, THE SUBCONTRACTOR(S) SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AT THE CONTRACTOR/CEOR DIRECTION.
11. AFTER THE REMOVAL OF TEMPORARY EROSION CONTROL MEASURES, THE SUBCONTRACTOR(S) SHALL GRADE AND SEED AREA OF TEMPORARY EROSION CONTROL MEASURE.
12. DAMAGED OR DETERIORATED EROSION AND SEDIMENT CONTROL ITEMS WILL BE REPAIRED IMMEDIATELY AFTER IDENTIFICATION OR AS DIRECTED BY THE CONTRACTOR/CEOR.
13. THE TRAINED CONTRACTOR SHALL INSPECT EROSION AND SEDIMENT CONTROL PRACTICES AND POLLUTION PREVENTION MEASURES BEING IMPLEMENTED WITHIN THE ACTIVE WORK AREA DAILY TO ENSURE THAT THEY ARE BEING MAINTAINED IN EFFECTIVE OPERATING CONDITION AT ALL TIMES. IF DEFICIENCIES ARE IDENTIFIED, THE CONTRACTOR SHALL BEGIN IMPLEMENTING CORRECTIVE ACTIONS WITHIN ONE BUSINESS DAY AND SHALL COMPLETE THE CORRECTIVE ACTIONS IN A REASONABLE TIME FRAME.
14. THE OWNER/OPERATOR SHALL HAVE THE QUALIFIED INSPECTOR CONDUCT INSPECTIONS ONCE EVERY SEVEN CALENDAR DAYS FOR SITE DISTURBANCES LESS THAN FIVE ACRES.
15. PIPE OUTLETS (IF ANY) SHALL BE STABILIZED WITH STONE. REFER TO DETAILS.
16. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING SHALL BE DISCHARGED TO AN APPROPRIATE SEDIMENT TRAPPING DEVICE.
17. WHEN TEMPORARY DRAINAGE IS ESTABLISHED, EROSION/SEDIMENTATION CONTROL MEASURES MAY BE REQUIRED BY CONTRACTOR/CEOR.
18. GRAVEL ROADS, ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASH DOWN FACILITIES, SHALL BE PROVIDED TO PREVENT SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED BEFORE THE END OF EACH WORKDAY.
19. NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUNOFF. NO RE-FUELING SHALL OCCUR WITHIN 100 FEET OF ANY WETLAND RESOURCE AREA AND 200 FEET FROM RIVERFRONT. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
20. THE COST OF REPAIRING EROSION CONTROL MEASURES OR REMOVING SEDIMENT FROM EROSION CONTROL SYSTEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE APPLICABLE EROSION CONTROL ITEM.
21. EROSION CONTROL MEASURES SHALL BE KEPT OPERATIONAL AND MAINTAINED CONTINUOUSLY THROUGHOUT THE PERIOD OF LAND DISTURBANCE UNTIL PERMANENT SEDIMENT AND EROSION CONTROL MEASURES ARE OPERATIONAL.
22. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT DUST FROM FORMING.
23. EROSION CONTROL MEASURES AS SHOWN ON THESE DRAWINGS IS INTENDED TO CONVEY MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL MEASURES AS NECESSARY TO PREVENT SOIL EROSION AND TO COMPLY WITH THE PROJECT'S SPDES PERMIT STORMWATER POLLUTION PREVENTION PLAN.
24. THE NATURE OF THE CONSTRUCTION ACTIVITY WILL BE THE CONSTRUCTION OF A SOLAR FARM. THE NAME OF THE RECEIVING WATER IS MIDDLE AUX SABLE CREEK. THE TOTAL AREA OF THE SITE IS 35.65 ACRES. THE TOTAL AREA OF THE SITE THAT IS EXPECTED TO BE DISTURBED BY EXCAVATION, GRADING, OR OTHER ACTIVITIES IS 39.32 ACRES.
25. THE EXISTING SITE CONSISTS OF ROW CROP FARMLAND THAT IS ALREADY CLEARED. THERE WILL BE NO SIGNIFICANT GRADING ACTIVITIES AS PART OF THIS PROJECT. ANY OFF-SITE TRIBUTARY AREAS THAT WILL CAUSE RUNOFF TO THE PROJECT SITE WILL NOT ADVERSELY AFFECT THE AREA.
26. DUST CONTROL MEASURES WILL BE PROVIDED PER ILLINOIS URBAN MANUAL PRACTICE STANDARD CODE 825.

LAYOUT AND MATERIAL NOTES

1. THE CONTRACTOR SHALL HAVE PERIMETER FENCE, ELECTRICAL TRENCHES, AND RACKING STAKED OUT BY A LICENSED LAND SURVEYOR PRIOR TO ANY INSTALLATION OF RACKING OR TRENCHES.
2. EXCESS TRENCH MATERIAL SHALL BE PLACED ON THE SIDES OF THE TRENCH AND PLACED AT OR NEAR THE SAME LOCATION AS WHERE EXCAVATED. AFTER TRENCH HAS BEEN BACKFILLED TOPSOIL REMOVED SHALL BE PLACED ON TOP AND LIGHTLY COMPACTED.
3. SUBCONTRACTOR SHALL INSTALL CONDUITS FOR ALL ELECTRIC CONDUIT CROSSINGS PRIOR TO INSTALLATION OF THE GEOGRID MATERIAL. THE GEOGRID SHALL NOT BE HORIZONTALLY CUT ONCE INSTALLED.

GRADING NOTES

1. WHERE PROPOSED GRADES MEET EXISTING GRADES, SUBCONTRACTOR(S) SHALL BLEND GRADES TO PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING AND NEW WORK. PONDING AT TRANSITION AREAS WILL NOT BE ALLOWED.
2. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING FOUNDATIONS, STRUCTURES, PUBLIC ROADWAYS, AND ELECTRICAL EQUIPMENT AREAS.

PLANTING NOTES

1. THE LANDSCAPE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE ALL PLANTINGS SHOWN ON THE DRAWINGS.
2. MATERIALS SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
3. PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISH GRADE AS TO ORIGINAL GRADES BEFORE DIGGING.
4. PLANTS TO BE BALLED IN BURLAP OR CONTAINERIZED.
5. PLANT SIZE AND QUANTITY SHALL NOT CHANGE WITHOUT APPROVAL OF CONTRACTOR/CEOR.

ABBREVIATIONS

BIT	BITUMINOUS
BMP	BEST MANAGEMENT PRACTICE
BVW	BORDERING VEGETATED WETLANDS
CB	CONCRETE BOUND
CONC	CONCRETE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
DH	DRILL HOLE
DIP	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
ECB	EROSION CONTROL BARRIER
FES	FLARED END SECTION
FH	FIRE HYDRANT
FND	FOUND
GG	GAS GATE
HDPE	HIGH-DENSITY POLYETHYLENE
HW	HEADWALL
ILSF	ISOLATED LANDS SUBJECT TO FLOODING
IP	IRON PIPE
ISW	ISOLATED WETLANDS (FEDERAL JURISDICTION)
LA	LANDSCAPED AREA
LOW	LIMIT OF WORK
N/F	NOW OR FORMERLY
NTS	NOT TO SCALE
OCS	OUTLET CONTROL STRUCTURE
OHW	OVERHEAD WIRE
RCP	REINFORCED CONCRETE PIPE
RET	RETAINING
ROW	RIGHT-OF-WAY
SB	STONE BOUND
TEL	TELEPHONE CABLE
TYP	TYPICAL
UP	UTILITY POLE
WG	WATER GATE

REV 1.1

LEGEND

- ROAD (GRAVEL)
- FENCE LINE
- PROPERTY LINE
- FLOW DIRECTION
- BANK LINE/FLAG (WF #)
- WETLAND LINE/FLAG (WF #)
- (E) MAJOR CONTOUR (100)
- (E) MINOR CONTOUR (99)
- PROPOSED MAJOR CONTOUR (100)
- PROPOSED MINOR CONTOUR (99)
- WETLAND BUFFER ZONE (WTB)
- RIVERFRONT AREA (RFA)
- 100-YEAR FLOOD HAZARD AREA (FHA)
- TREELINE
- SILT FENCE (SF)
- SILT SOCK
- STORM PIPE (STM)
- DITCH/SWALE
- ELECTRICAL TRENCH (E)
- OVERHEAD ELECTRIC (E)
- SEWER LINE (SAN)
- WATER LINE (W)
- GAS MAIN (G)
- APPROX. LOCATION OF EXISTING DRAIN TILE
- 23-23A ASSESSORS MAP-LOT
- SIGN
- UTILITY POLE (WITH GUY ANCHOR)
- HYDRANT
- WATER VALVE
- INDIVIDUAL TREE
- FOUND REBAR PROPERTY MARKERS

NOTE: ITALIC FONTS INDICATE EXISTING CONDITIONS.
STANDARD FONTS INDICATE PROPOSED CONDITIONS.

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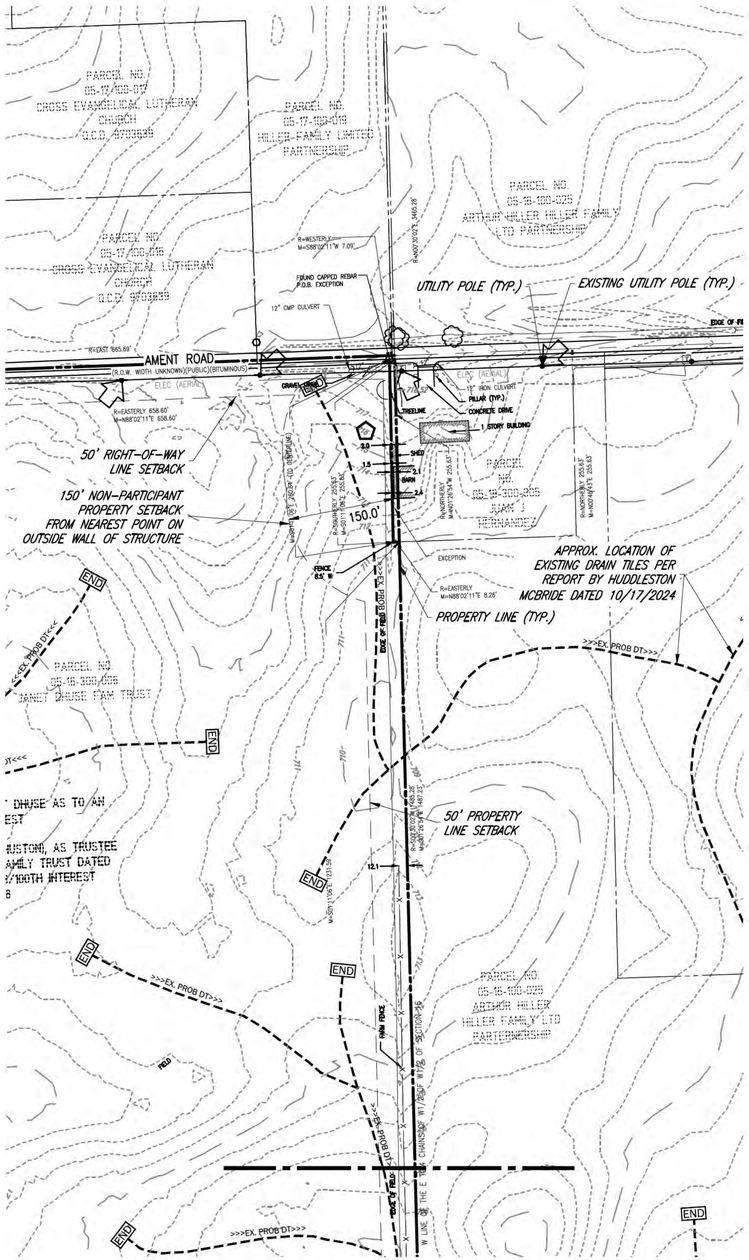
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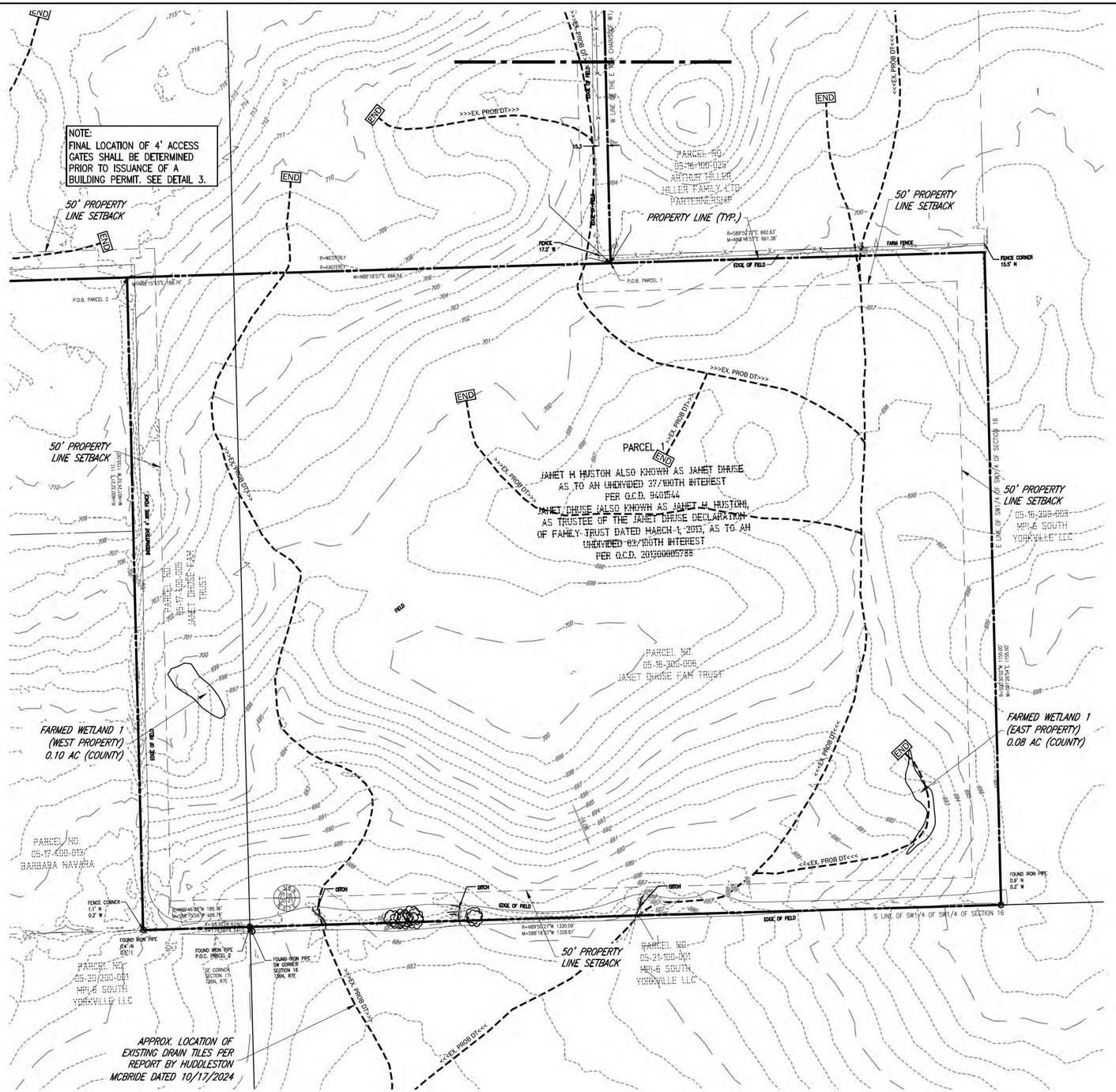
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CIVIL NOTES





EXISTING CONDITIONS PLAN

SCALE: 1" = 100'

0 100' 200'

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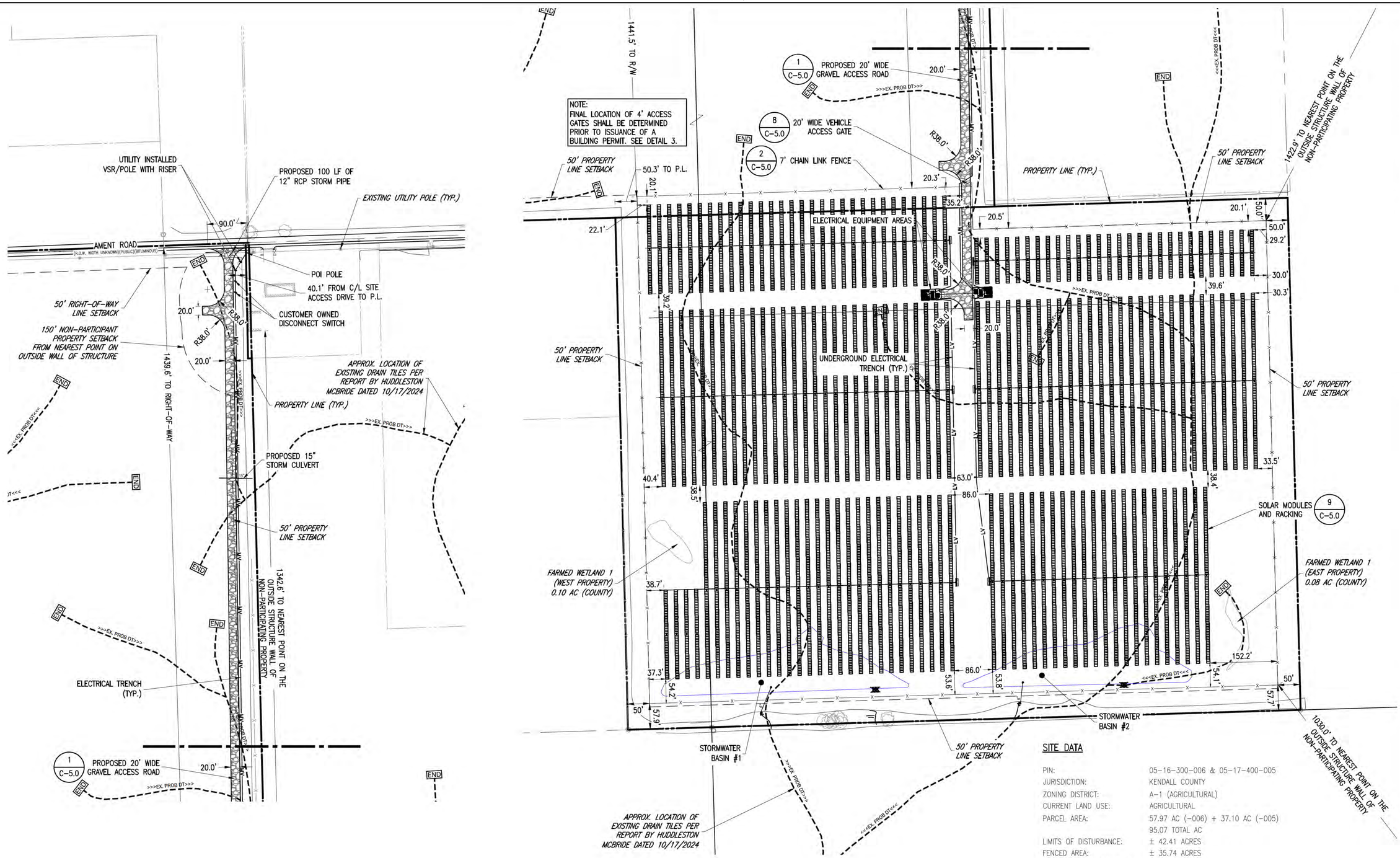
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EXISTING CONDITIONS PLAN



LAYOUT AND MATERIALS PLAN

SCALE: 1" = 100'

0 100' 200'

SITE DATA

PIN:	05-16-300-006 & 05-17-400-005
JURISDICTION:	KENDALL COUNTY
ZONING DISTRICT:	A-1 (AGRICULTURAL)
CURRENT LAND USE:	AGRICULTURAL
PARCEL AREA:	57.97 AC (-006) + 37.10 AC (-005) 95.07 TOTAL AC
LIMITS OF DISTURBANCE:	± 42.41 ACRES
FENCED AREA:	± 35.74 ACRES
EXISTING IMPERVIOUS AREA:	± 0.04 ACRES
NEW IMPERVIOUS AREA:	± 0.97 ACRES
FEMA FLOOD HAZARD:	ZONE X PER FIRM MAP #17093C0125G DATED 02/04/2009

SETBACK REQUIREMENT*	REQUIRED	PROVIDED
OCCUPIED BLDG (NON-PARTICIPANT)	150'	1,030'
BOUNDARY LINES (PARTICIPANT)	N/A	N/A
BOUNDARY LINES (NON-PARTICIPANT)	50'	50'
PUBLIC ROAD RIGHTS-OF-WAY	50'	1,440'
MAXIMUM HEIGHT	20'	9'

* SETBACK REQUIREMENTS ARE FOR ALL COMPONENTS OF A SOLAR ARRAY FACILITY, INCLUDING FENCES.

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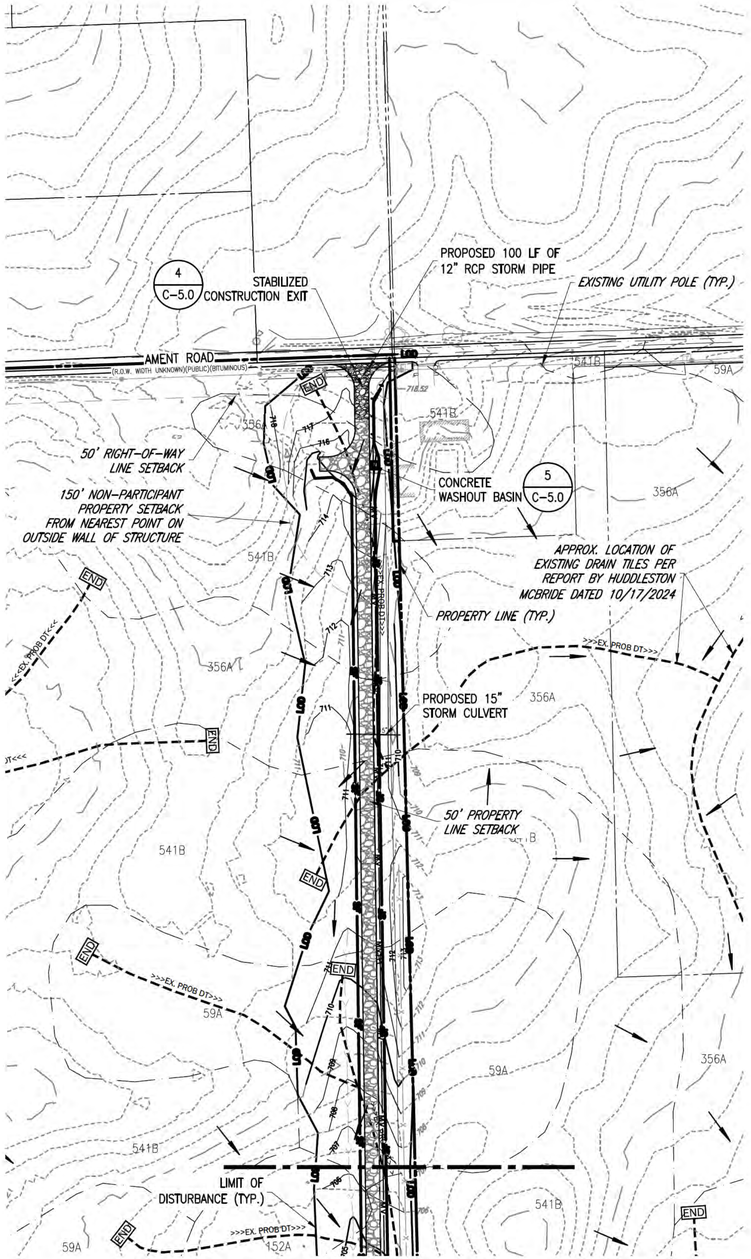
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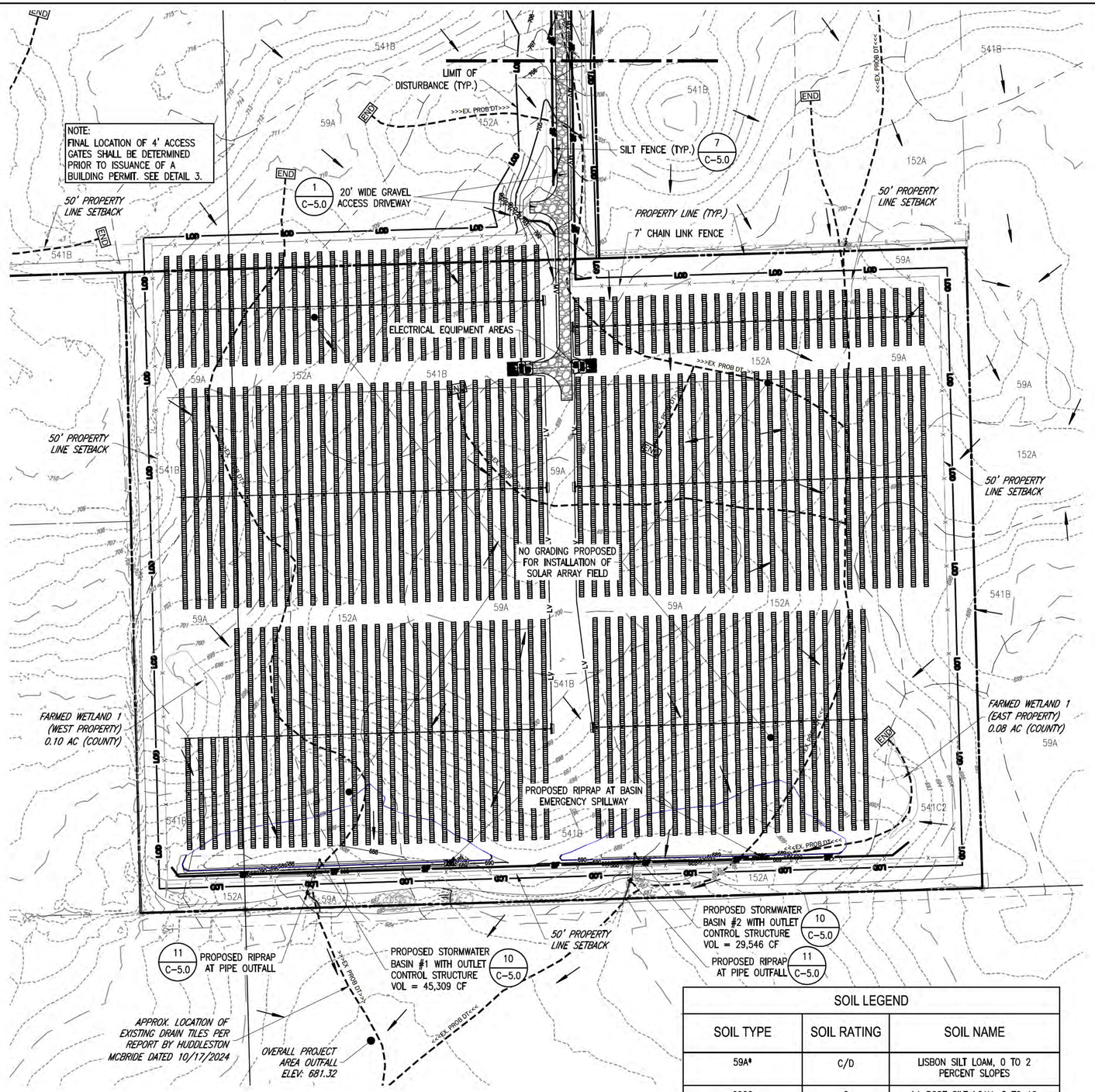
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LAYOUT AND MATERIALS PLAN





LAND USE OR COVERTYPE	AVERAGE CURVE NUMBER	IMPERVIOUS SQUARE FOOTAGE
PRE-DEVELOPMENT	88	0.41 AC
POST DEVELOPMENT	84	1.38 AC
	CHANGE	+/- 0.97 AC

SOIL LEGEND		
SOIL TYPE	SOIL RATING	SOIL NAME
59A*	C/D	LISBON SILT LOAM, 0 TO 2 PERCENT SLOPES
60C2	C	LA ROSE SILT LOAM, 5 TO 10 PERCENT SLOPES, ERODED
152A*	B/D	DRUMMER SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
356A*	B/D	ELPASO SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
541B*	C	GRAYMONT SILT LOAM, 2 TO 5 PERCENT SLOPES
541C2*	C	GRAYMONT SILT LOAM, 5 TO 10 PERCENT SLOPES, ERODED

* DENOTES SOIL TYPES WITHIN PROJECT LIMITS OF DISTURBANCE (LOD).

GRADING AND EROSION CONTROL PLAN

SCALE: 1" = 100'

0 100' 200'

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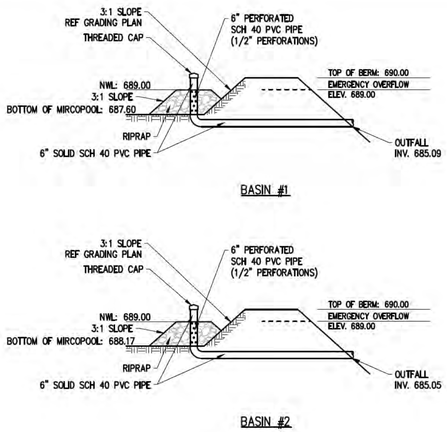
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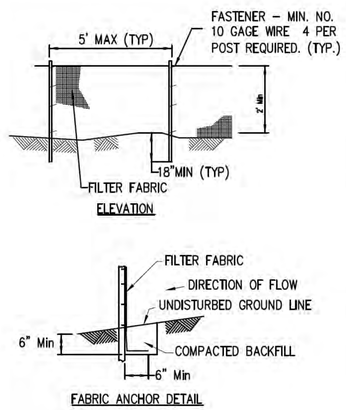
SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-3.0
GRADING AND EROSION CONTROL PLAN



10 STORMWATER OUTLET CONTROL STRUCTURE

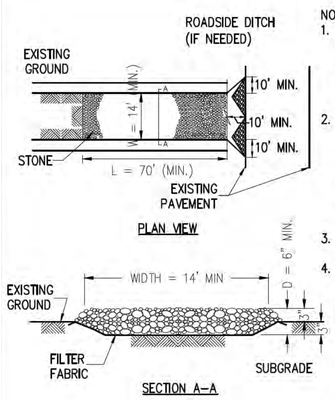
SCALE: N.T.S.



NOTES:
1. TEMPORARY SEDIMENT FENCE SHALL BE INSTALLED PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED. THEY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION I 592 GEOTEXTILE TABLE 1 OR 2, CLASS WITH EQUIVALENT OPENING SIZE OF AT LEAST 30 FOR NONWOVEN AND 40 FOR WOVEN.
3. FENCE POSTS SHALL BE EITHER STANDARD STEEL POST OR WOOD POST WITH A MINIMUM CROSS–SECTIONAL AREA OF 3.0 SQ. IN.

7 SILT FENCE

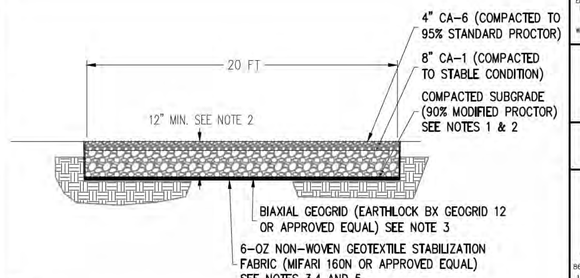
SCALE: NTS



NOTES:
1. 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.
2. ROCK OR RECLAIMED CONCRETE SHALL MEET ONE OF THE FOLLOWING IDOT COARSE AGGREGATE GRADATIONS, CA–1, CA–2, CA–3, OR CA–4 AND BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 25 ROCKFILL USING PLACEMENT METHOD 1 AND CLASS III COMPACTION.
3. SEE PLANS FOR CONSTRUCTION ROAD LOCATION, D AND W DIMENSIONS.
4. MINIMUM WIDTH IS 14 FEET FOR ONE–WAY TRAFFIC AND 20 FEET FOR TWO–WAY TRAFFIC. TWO–WAY TRAFFIC WIDTHS SHALL BE INCREASED A MINIMUM OF 4 FEET FOR TRAILER TRAFFIC. DEPENDING ON THE TYPE OF VEHICLE OR EQUIPMENT, SPEED, LOADS, CLIMATIC AND OTHER CONDITIONS UNDER WHICH VEHICLES AND EQUIPMENT OPERATE AN INCREASE IN THE MINIMUM WIDTHS MAY BE REQUIRED.
5. ROADWAY SHALL FOLLOW THE CONTOUR OF THE NATURAL TERRAIN TO THE EXTENT POSSIBLE.

4 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NTS

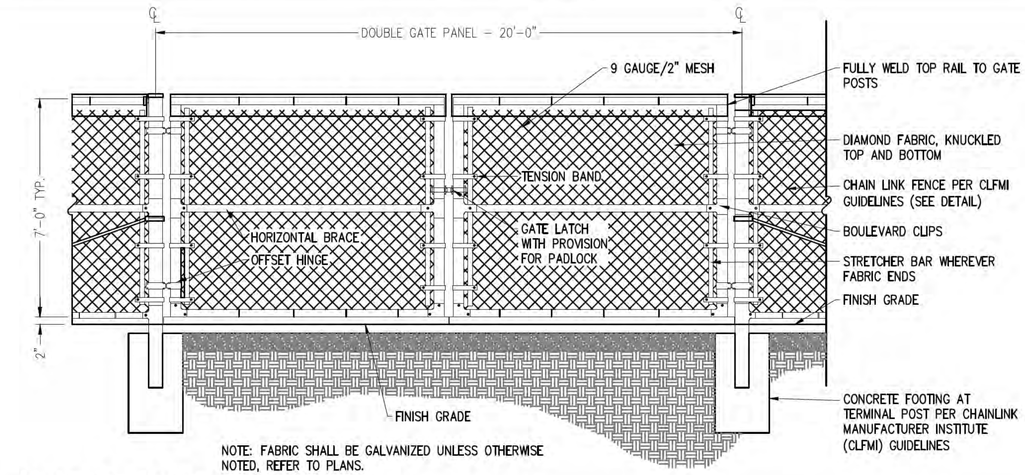


NOTES:
1. SUBCONTRACTOR SHALL EXCAVATE TO SUITABLE MATERIAL FOR SUBGRADE.
2. SUBCONTRACTOR SHALL COMPACT SUBGRADE TO PROVIDE SUITABLE SURFACE TO PLACE ROAD. REFER TO GEOTECHNICAL REPORT FOR SUBGRADE PREPERATION CRITERIA.
3. SUBCONTRACTOR SHALL FOLLOW MANUFACTURER INSTALLATION PROCEDURES.
4. WHERE OVERLAPPING OF GEOTEXTILE FABRIC IS REQUIRED, SUBCONTRACTOR SHALL OVERLAP A MINIMUM OF 24".
5. SUBCONTRACTOR SHALL REMOVE TEMPORARY CONSTRUCTION ACCESS ROADS, AND RESTORE TO PRE–CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CEOR AND THE GOVERNING AGENCIES.

1 GRAVEL ACCESS ROAD

SCALE: NTS

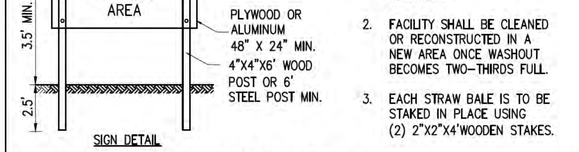
XD_CIVIL_GRAVEL_ROAD.ILE 04-30-2018



8 VEHICLE GATE

SCALE: NTS

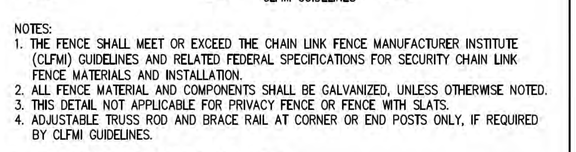
XD_CIVIL_FENCE_VEHICLE GATE_7' OR 8' 07-25-2017



NOTES:
1. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDEN CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO–THIRDS FULL.
3. EACH STRAW BALE IS TO BE STAKED IN PLACE USING (2) 2"X2"X4'WOODEN STAKES.

5 CONCRETE WASHOUT

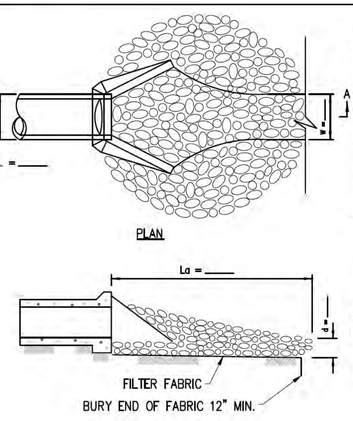
SCALE: NTS



NOTES:
1. THE FENCE SHALL MEET OR EXCEED THE CHAIN LINK FENCE MANUFACTURER INSTITUTE (CLFMI) GUIDELINES AND RELATED FEDERAL SPECIFICATIONS FOR SECURITY CHAIN LINK FENCE MATERIALS AND INSTALLATION.
2. ALL FENCE MATERIAL AND COMPONENTS SHALL BE GALVANIZED, UNLESS OTHERWISE NOTED.
3. THIS DETAIL NOT APPLICABLE FOR PRIVACY FENCE OR FENCE WITH SLATS.
4. ADJUSTABLE TRUSS ROD AND BRACE RAIL AT CORNER OR END POSTS ONLY, IF REQUIRED BY CLFMI GUIDELINES.

2 CHAIN LINK FENCE

SCALE: NTS



NOTES:
1. THE FILTER FABRIC SHALL MEET THE REQUIREMENTS OF MATERIAL SPECIFICATION 592 GEOTEXTILE TABLE 1 OR 2, CLASS I, II, OR III.
2. THE ROCK RIPRAP SHALL MEET THE IDOT REQUIREMENTS FOR THE FOLLOWING GRADATION
3. THE RIPRAP SHALL BE PLACED ACCORDING TO CONSTRUCTION SPECIFICATION 61 LOOSE ROCK RIPRAP. THE ROCK MAY BE EQUIPMENT PLACED.

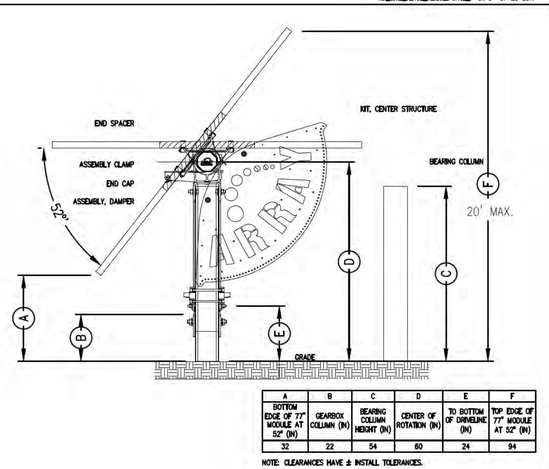
MAINTENANCE:
1. INSPECT RIPRAP OUTLET STRUCTURES AFTER HEAVY RAINS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE OR IF STONES HAVE BEEN DISLODGED.
2. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.

11 PIPE OUTLET TO CHANNEL

NRCS

SCALE: N.T.S.

STANDARD DWG NO IL–811 1994–08–18



A	B	C	D	E	F
BOTTOM EDGE OF 77" MODULE AT 52° (IN)	GEARBOX COLUMN (IN)	BEARING COLUMN HEIGHT (IN)	CENTER OF ROTATION (IN)	TO BOTTOM OF DRIVELINE (IN)	TOP EDGE OF 77" MODULE AT 52° (IN)
32	22	54	60	24	94

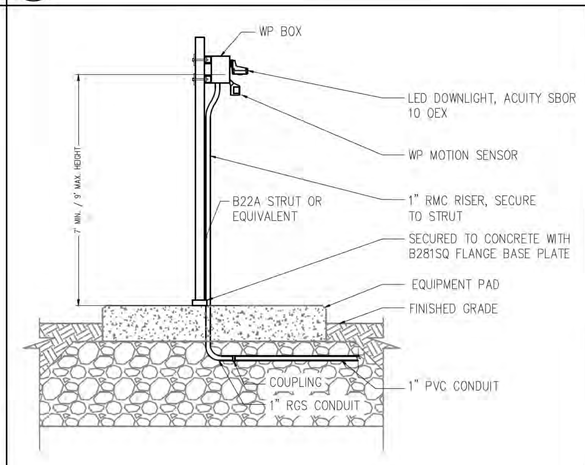
NOTE: CLEARANCES HAVE ± INSTALL TOLERANCES.

9 VERTICAL MOUNT MOTOR CLEARANCES

ATI

SCALE: N.T.S.

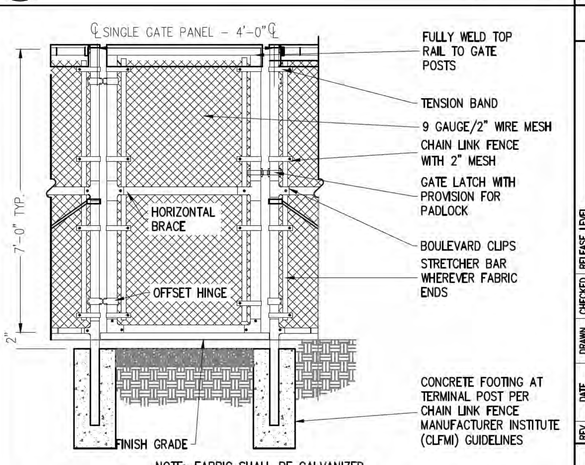
XD_STRUC_ATI_ARRAY_ELEVATION 2018-02-15



6 LIGHTING MOUNTING - DOWNLIGHT

SCALE: NTS

XD_ELEC_ LIGHT MOUNTING–DOWNLIGHT 2018–06–22 JPL



NOTE: FABRIC SHALL BE GALVANIZED

3 4' MAN GATE

SCALE: NTS

XD_CIVIL_SITE CONSTRUCTION_4' WALK THROUGH GATE 07-25-2017

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SPECIAL USE PERMIT SET
AMENT ROAD- KENDALL IL

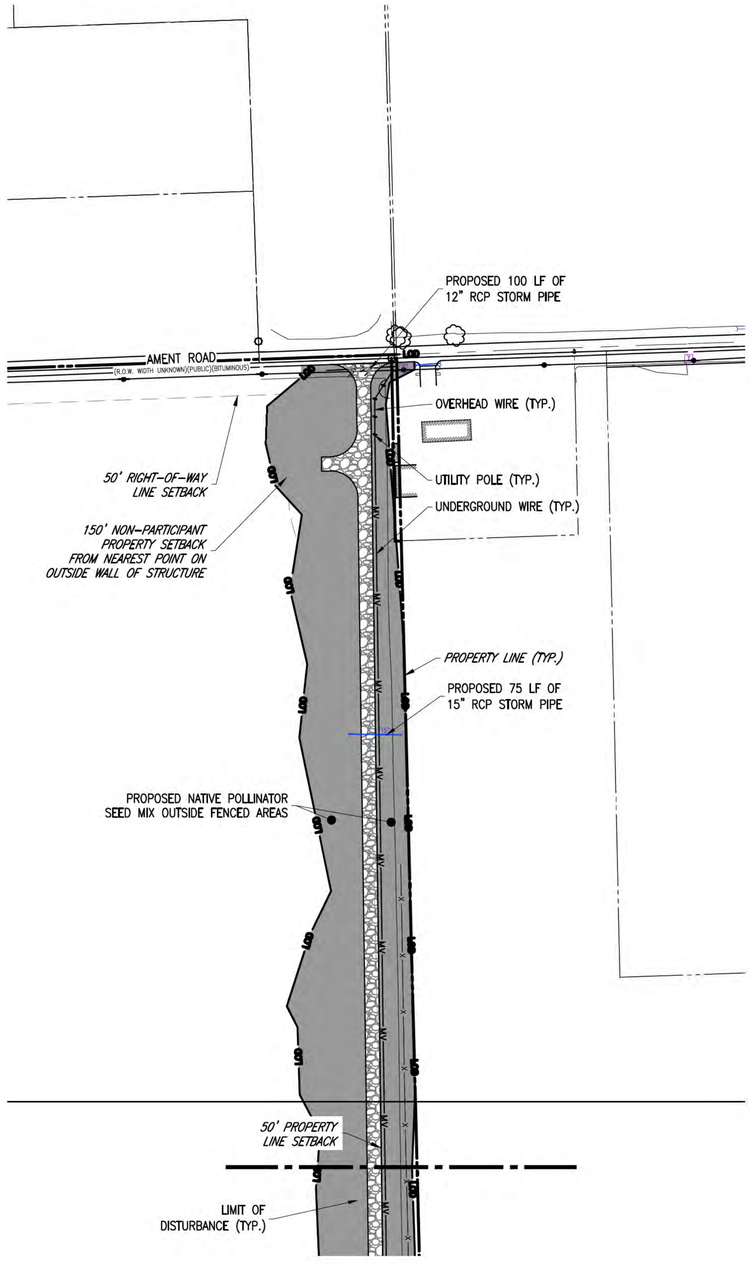
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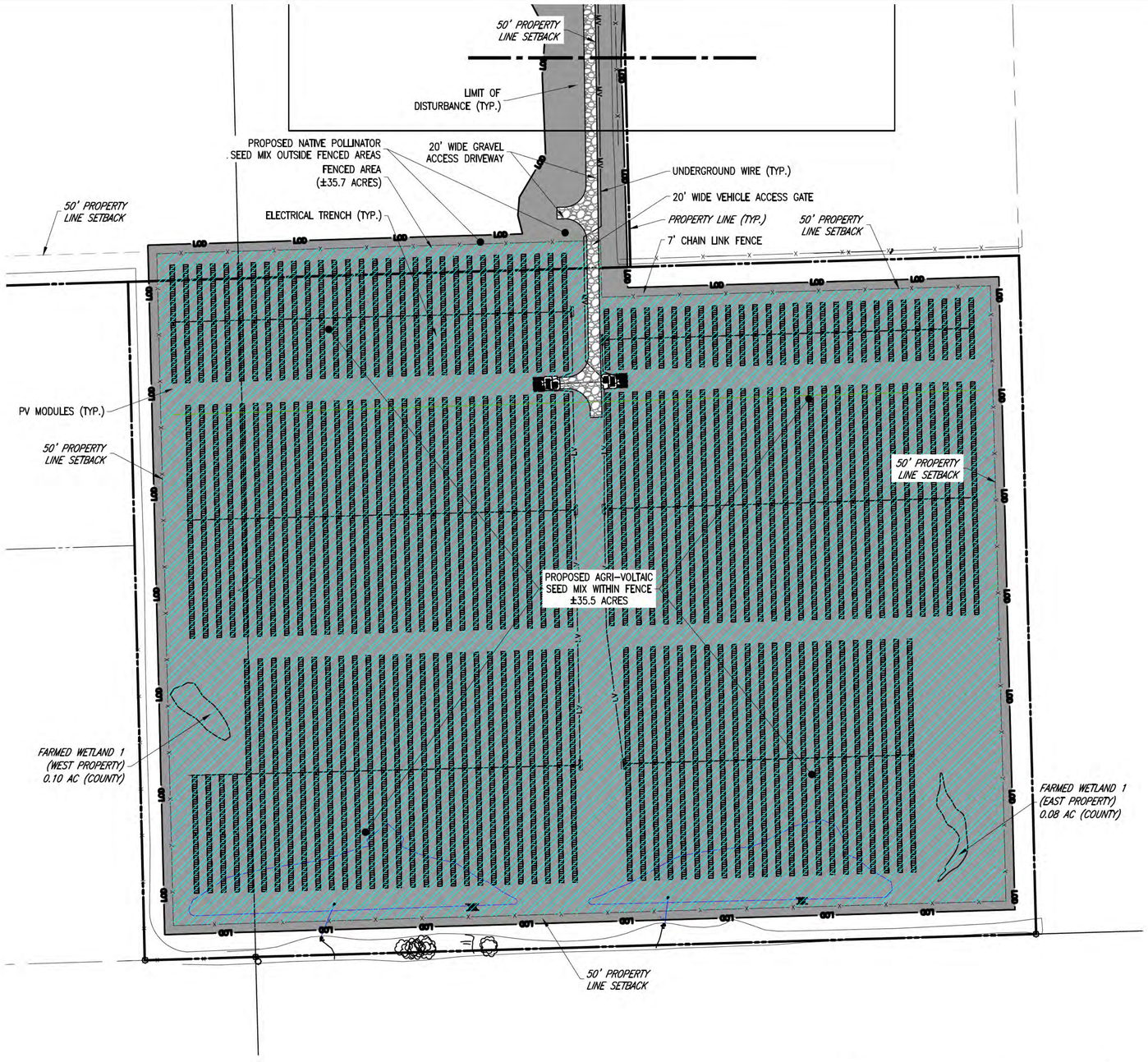
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	09/13/24	CMP	MBK	SPECIAL USE PERMIT SET
	10/17/24	CMP	MBK	SPECIAL USE PERMIT SET REV 1
	12/19/24	CMP	MBK	SUP SET – COUNTY COMMENTS
	01/14/25	CMP	MBK	SUP SET – COUNTY COMMENTS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-4.0

CIVIL DETAILS IL





LEGEND

- NATIVE POLLINATOR SEED MIX OUTSIDE OF FENCED AREA
- NATIVE GRAZING AGRI-VOLTAIC SEED MIX WITHIN FENCED AREA
- PROPOSED FENCE
- LIMITS OF DISTURBANCE

LANDSCAPE PLAN

SCALE: 1" = 100'

0 100' 200'

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AMENT ROAD- KENDALL IL

PROJECT NUMBER:
22-4525

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	08/29/24	CMP	MBK	SPECIAL USE PERMIT SET
	09/13/24	CMP	MBK	SPECIAL USE PERMIT SET
	10/17/24	CMP	MBK	SPECIAL USE PERMIT SET REV 1
	12/19/24	CMP	MBK	SUP SET - COUNTY COMMENTS
	01/14/25	CMP	MBK	SUP SET - COUNTY COMMENTS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-5.0

LANDSCAPE PLAN

MONITORING & MAINTENANCE NOTES

1. MONITORING METHODOLOGY – SHORT TERM (YEARS 1–3)

1.1. THE PLANTED AREAS WILL BE MONITORED ANNUALLY FOR A THREE–YEAR PERIOD TO ENSURE SUCCESSFUL ESTABLISHMENT OF THE PLANTINGS. THE PRIMARY OBJECTIVE OF THE SHORT–TERM MONITORING PROGRAM IS TO TRACK THE SUCCESS OF THE PLANTED SPECIES OVER THE 3–YEAR PERIOD OF REGULARLY SCHEDULED MONITORING SESSIONS. THE MONITORING DOCUMENTS CHANGES IN PLANT COMMUNITY COMPOSITION AND REVEALS THE NEED FOR MANAGEMENT CHANGES TO IMPROVE FLORISTIC QUALITY AND COVERAGE. SPECIFIC GOALS OF THE MONITORING ARE TO DETERMINE THE VEGETATIVE SPECIES PRESENT, THE PERCENT COVER BY VEGETATION, AND IDENTIFY HYDROLOGY AND EROSION PROBLEMS.

1.2. MONITORING WITHIN THE PLANTED AREAS SHALL BE CONDUCTED ANNUALLY UTILIZING A MEANDER SURVEY METHODOLOGY. THE MONITORING SHALL IDENTIFY:
- 1.2.1. THE FIVE DOMINANT VEGETATIVE SPECIES WITHIN EACH PLANTING ZONE,
- 1.2.2. THE APPROXIMATE PERCENT COVERAGE BY OVERALL VEGETATION IN EACH PLANTING ZONE,
- 1.2.3. THE APPROXIMATE PERCENT VEGETATIVE COVERAGE BY NATIVE AND NON–NATIVE/INVASIVE SPECIES WITHIN EACH PLANTING ZONE,
- 1.2.4. EROSION OR SEDIMENTATION ISSUES,
- 1.2.5. BARE AREAS OR AREAS NOT FULLY VEGETATED,
- 1.2.6. MANAGEMENT RECOMMENDATIONS FOR IMPROVED QUALITY AND INVASIVE SPECIES REMOVALS, AND
- 1.2.7. WILDLIFE AND POLLINATOR USAGE (VIUSAL OBSERVATIONS).

1.3. OBSERVATIONS SHALL BE MADE DURING THE MONITORING TO IDENTIFY SPECIFIC MANAGEMENT STRATEGIES NECESSARY TO REACH DESIGN GOALS. SITE CONDITIONS SHALL BE PHOTO DOCUMENTED DURING MONITORING SESSIONS.

1.4. POST–CONSTRUCTION MAINTENANCE WILL BE CONDUCTED BY AMENT ROAD SOLAR 1, LLC.

2. PERFORMANCE CRITERIA (YEARS 1–3)

2.1. BY THE END OF THE FIRST FULL GROWING SEASON, THE PLANTED AREAS SHALL EXHIBIT AT LEAST 75% VEGETATIVE COVERAGE, PRIMARILY BY SPECIES CONTAINED IN THE COVER CROP SEED MIX. THERE SHALL BE NO AREAS GREATER THAN 1.0 SQUARE METER DEVOID OF VEGETATION, AND AT LEAST 25% OF THE SPECIES PRESENT AS MEASURED BY AERIAL COVERAGE SHALL BE NATIVE AND NON–INVASIVE, OR PLANTED SPECIES.

2.2. BY THE END OF THE SECOND GROWING SEASON, AT LEAST 90% OF THE GROUND AS MEASURED BY AERIAL COVERAGE SHALL BE VEGETATED, AND AT LEAST 50% OF THE SPECIES PRESENT AS MEASURED BY AERIAL COVERAGE SHALL BE NATIVE AND NON–INVASIVE, OR PLANTED SPECIES. THERE SHALL BE NO AREAS GREATER THAN 1.0 SQUARE METER DEVOID OF VEGETATION.

2.3. BY THE END OF THE THIRD GROWING SEASON, AT LEAST 90% OF THE GROUND AS MEASURED BY AERIAL COVERAGE SHALL BE VEGETATED, AND AT LEAST 75% OF THE SPECIES PRESENT SHALL BE NATIVE AND NON–INVASIVE, OR PLANTED SPECIES. THERE SHALL BE NO AREAS GREATER THAN 0.5 SQUARE METER DEVOID OF VEGETATION.

2.4. AT THE END OF EACH GROWING SEASON, NONE OF THE THREE MOST DOMINANT SPECIES WITHIN THE PLANTED AREAS SHALL BE NON–NATIVE OR INVASIVE SPECIES INCLUDING BUT NOT LIMITED TO: RAGWEED (AMBROSIA SPP.), WILD CARROT (DAUCUS CAROTA), PURPLE LOOSESTRIFE (LYTHRUM SALICARIA), TEASEL (DIPSACUS SPP.), REED CANARY GRASS (PHALARIS ARUNDINACEA), SWEET CLOVER (MELILOTUS SPP.), COMMON BUCKTHORN (RHAMNUS CATHARTICA), KENTUCKY BLUE GRASS (POA PRATENSIS), THISTLE (CIRSIUM SPP.), HONEYSUCKLE (LONICERA SP.), COMMON REED (PHRAGMITES AUSTRALIS), OR SANDBAR WILLOW (SALIX EXIGUA).

3. REPORTING (YEARS 1–3)

3.1. AN ANNUAL VEGETATION MONITORING REPORT WILL BE SUBMITTED TO THE OWNER AND KENDALL COUNTY BY JANUARY 31ST/ FOLLOWING THE MONITORING SEASON EACH YEAR. THIS REPORT WILL BE USED TO DETERMINE IF THE NATURAL AREAS ARE MEETING PERFORMANCE STANDARDS. THE REPORT SHALL INCLUDE INFORMATION ON SITE LOCATION; PERMIT NUMBERS; METHODOLOGY USED (INCLUDING MONITORING DATES); DATA RESULTS; SUMMARY RELATIVE TO PERFORMANCE CRITERIA; A SUMMARY OF THE ANNUAL MONITORING OBSERVATIONS; A DESCRIPTION OF THE MANAGEMENT PERFORMED DURING THE YEAR; A LIST OF RECOMMENDATIONS FOR MANAGEMENT DURING THE UPCOMING YEAR; AND REPRESENTATIVE PHOTOGRAPHS OF THE NATURAL AREAS. THE NATURAL AREAS SHALL MEET CERTIFICATION REQUIREMENTS, ASSOCIATED PERFORMANCE STANDARDS, AND WILL BE MONITORED AND MAINTAINED FOR A PERIOD OF THREE YEARS OR UNTIL PERFORMANCE STANDARDS HAVE BEEN MET TO ENSURE SUCCESSFUL ESTABLISHMENT.

4. SHORT–TERM MANAGEMENT PLAN (YEARS 1–3)

4.1. FIRST YEAR. MOW THE PLANTED AREAS TO A HEIGHT OF 8–12 INCHES, 2–4 TIMES DURING THE EARLY GROWING SEASON OR AS NEEDED TO CONTROL NON–NATIVE AND INVASIVE SPECIES. MOWING (INCLUDING WEED WHIPPING) SHALL TAKE PLACE PRIOR TO OR WHEN NON–NATIVE AND INVASIVE SPECIES ARE FLOWERING TO PREVENT SEED SET. CONTROL UNDESIRABLE PLANT SPECIES, WHEN PRESENT IN SMALL QUANTITIES, BY HAND PULLING PRIOR TO THE DEVELOPMENT AND MATURITY OF THE PLANT. HAND REMOVAL SHALL INCLUDE THE REMOVAL OF ALL ABOVEGROUND AND BELOWGROUND STEMS, ROOTS AND FLOWER MASSES PRIOR TO DEVELOPMENT OF SEEDS. APPLY HERBICIDE (AS NECESSARY) TO NON–NATIVE AND INVASIVE PERENNIAL SPECIES WITHIN THE NATURAL AREAS WITH APPROPRIATE HERBICIDE. MANAGEMENT SITE VISITS SHOULD BE CONDUCTED AT A MINIMUM OF 3 TIMES ANNUALLY. SOIL EROSION AND SEDIMENT CONTROLS SHALL BE REGULARLY MAINTAINED.

4.2. SECOND YEAR. CONTROL OF UNDESIRABLE PLANT SPECIES DURING THE SECOND GROWING SEASON SHALL CONSIST PRIMARILY OF HERBICIDE APPLICATION. MOWING (INCLUDING WEED WHIPPING) SHALL BE CONDUCTED TWO TO FOUR TIMES DURING THE EARLY GROWING SEASON AND AS NEEDED TO A HEIGHT OF 8–12 INCHES TO PREVENT ANNUAL WEEDS FROM PRODUCING SEED. MANAGEMENT SITE VISITS SHOULD BE CONDUCTED AT A MINIMUM OF 3 TIMES ANNUALLY. SOIL EROSION AND SEDIMENT CONTROLS SHALL BE REGULARLY MAINTAINED.

4.3. THIRD YEAR. UNDESIRABLE PLANT SPECIES WILL BE CONTROLLED (AS NECESSARY) BY MOWING (INCLUDING WEED WHIPPING), HAND PULLING, AND/OR SPOT HERBICIDE APPLICATION. CONTINUE TO PERFORM MANAGEMENT SITE VISIT AT LEAST 3 TIMES ANNUALLY DURING THE GROWING SEASON. SOIL EROSION AND SEDIMENT CONTROLS SHALL BE REGULARLY MAINTAINED.

4.4. SINCE THE SITE IS NOT SUITABLE FOR PRESCRIBED BURNING, IT IS RECOMMENDED TO CONDUCT A LATE FALL MOWING WITH MULCHING/THATCH REMOVAL AT THE COMPLETION OF THE THIRD GROWING SEASON. THIS REGIMEN WILL MIMIC THE CONDITIONS AND BENEFITS OF A CONTROLLED BURN.

5. LONG–TERM MANAGEMENT PLAN (YEARS 4+)

5.1. LONG TERM. AS THE PLANTED AREAS MATURE, REQUIRED SUPPLEMENTAL MANAGEMENT WILL BE SIGNIFICANTLY REDUCED. THE PLANT COMMUNITIES WILL STABILIZE AND BE EFFECTIVELY MANAGED THROUGH A REDUCED SCHEDULE OF SPOT MOWING, HERBICIDE APPLICATION, AND HAND PULLING AS NECESSARY. EVERY 3–5 YEARS A LATE FALL MOWING WITH THATCH MULCHING/REMOVAL SHOULD BE CONDUCTED DURING THE DORMANT SEASON (NOVEMBER–APRIL). MANAGEMENT SITE VISITS SHOULD BE CONDUCTED 2–3 TIMES ANNUALLY. SOIL EROSION AND SEDIMENT CONTROLS SHALL BE REGULARLY MAINTAINED.

5.2. THE NATURAL AREAS REQUIRE LONG–TERM MANAGEMENT TO MAINTAIN THEIR FUNCTION AS DESIGNED. IT IS EXPECTED THAT THE NATURAL AREAS WILL BE MAINTAINED IN THEIR PERMITTED CONDITION. THE LONG–TERM MANAGER FOR THE NATURAL AREAS WILL BE THE LESSEE, AMENT ROAD SOLAR 1 LLC, OR THE OWNER. AN ANNUAL LETTER REPORT DOCUMENTING THE COMPLETION OF INSPECTION AND MANAGEMENT TASKS BASED ON THE INFORMATION HEREIN SHOULD BE SUBMITTED TO THE OWNER EACH YEAR.

5.3. MANAGEMENT TASKS SHOULD BE PRECEDED BY A SITE INSPECTION TO DETERMINE IF REMEDIAL MEASURES ARE REQUIRED AND TO RECOMMEND PROCEDURES TO CORRECT ANY DEFICIENCIES. THE SITE INSPECTION SHOULD BE CONDUCTED BY A QUALIFIED INDIVIDUAL KNOWLEDGEABLE IN NATIVE PLANTS AND MANAGEMENT OF NATIVE PLANTINGS. AREAS OF OBSERVATION DURING THE SITE INSPECTION SHOULD INCLUDE BUT ARE NOT LIMITED TO: DOMINANT SPECIES WITHIN DISTINCT PLANTING COMMUNITIES; EROSION OR HERBIVORY CONCERNS THAT DEVELOP OVER TIME; CHANGES IN HYDROLOGY THAT MAY REQUIRE ADDITIONAL PLANTING TO ADJUST FOR HIGHER OR LOWER WATER LEVELS; OR THE APPEARANCE OF INVASIVE SPECIES IN THE MANAGED AREA THAT REQUIRE ALTERNATIVE MANAGEMENT METHODS.

5.4. THE FOLLOWING MANAGEMENT TASKS SHOULD BE COMPLETED ANNUALLY, UNLESS OTHERWISE SPECIFIED BELOW:
- 5.4.1. DEBRIS REMOVAL: ALL DEBRIS SHALL BE REMOVED, VIA NON–INVASIVE METHODS, FROM WITHIN THE NATURAL AREAS.
- 5.4.2. HERBICIDE APPLICATION: SELECTIVE HERBICIDE TO CONTROL INVASIVE SPECIES SHOULD BE COMPLETED 2–3 TIMES ANNUALLY. A CERTIFIED AND LICENSED PESTICIDE APPLICATOR SHALL SELECT HERBICIDE, APPROPRIATE FOR THE AREA OF USE (SUCH AS WETLANDS OR OTHER SPECIAL MANAGEMENT AREA), AND SHALL APPLY THE HERBICIDE BY THE APPROPRIATE METHOD, TO PREVENT KILLING OF DESIRABLE NATIVE SPECIES. INVASIVE AND NON–NATIVE SPECIES, AND WOODY PLANT SPECIES NOT SPECIFIED AS PART OF THE PLANTING PLAN, SHALL BE CONTROLLED BY APPROPRIATE MANAGEMENT PRACTICES OF THE APPROVED PLAN.
- 5.4.3. MOWING: SELECTIVE MOWING IS A PREFERRED METHOD FOR CONTROL OF ANNUAL NON–NATIVE AND INVASIVE SPECIES TO PREVENT SEED PROLIFERATION. MOWING WITH A SPECIALTY FLAIL–TYPE MOWER TO MULCH THATCH OR WEED WHIP WITH THATCH REMOVAL (OR COMBINATION) MAY BE SUBSTITUTED FOR PRESCRIBED BURNS IN INSTANCES WHERE A BURN IS NOT PERMISSIBLE OR WEATHER DOES NOT ALLOW FOR A SAFE/EFFECTIVE BURN.
- 5.4.4. EROSION CONTROL & STABILIZATION: WHEN CONDUCTING THE ANNUAL INSPECTION, IT IS IMPORTANT TO OBSERVE AND NOTE AREAS OF BARE SOIL AND OTHER EARLY WARNING SIGNS OF EROSION. IF CAUGHT EARLY ENOUGH, THEY MAY BE EASILY STABILIZED WITH SEED AND EROSION CONTROL BLANKET.
- 5.4.5. BRUSH CLEARING: MANAGEMENT OF WOODY SPECIES IS NOT LIKELY NECESSARY IF HERBICIDE APPLICATIONS ARE SUCCESSFUL AND CONTINUED EACH YEAR. IF INVASIVE SHRUBS BECOME A PROBLEM THEY SHOULD BE CUT AND ALL REMAINING STUMPS SHOULD BE TREATED WITH AN APPROPRIATE HERBICIDE TO PREVENT RESPROUT; EITHER THROUGH A BASAL OIL TREATMENT, HAND WICK APPLICATOR, OR OTHER APPROVED METHOD. BRUSH CLEARING SHOULD BE CONDUCTED IN THE WINTER MONTHS WITH FROZEN GROUND CONDITIONS.

5.5. TYPICAL MANAGEMENT SCHEDULE FOR NATURAL AREAS

TABLE 4: TYPICAL MANAGEMENT SCHEDULE FOR NATURAL AREAS

MANAGEMENT TASK	SPRING	SUMMER	FALL	WINTER
ANNUAL SITE INSPECTION		X		
ANNUAL LETTER REPORT				X
DEBRIS REMOVAL (AS NECESSARY)	X	X	X	X
HERBICIDE APPLICATION	X	X	X	
MOWING	X	X	X	
EROSION CONTROL & STABILIZATION	X	X	X	
BRUSH CLEARING			X	X

6. HERBICIDE APPLICATION

6.1. THIS SECTION APPLIES TO ALL SITE PREPARATION AND MANAGEMENT HERBICIDE APPLICATION THAT IS PROPOSED TO OCCUR ONSITE:
- 6.1.1. ANY PERSON APPLYING HERBICIDE SHALL HOLD APPROPRIATE LICENSURE FOR PESTICIDE APPLICATION IN THE STATE OF ILLINOIS: A LICENSED ILLINOIS PESTICIDE APPLICATOR SHALL BE ON–SITE AT ALL TIMES WHEN HERBICIDE IS BEING APPLIED
- 6.1.2. HERBICIDE USAGE WILL VARY BASED ON SITE CONDITIONS AND TARGET SPECIES. THE FOLLOWING HERBICIDES ARE ALLOWED FOR USE IN NATURAL AREAS; AQUATIC APPROVED GLYPHOSATE FORMULATIONS (AQUANEAT®, RODEO®, ETC.), CLETHODIM (INTENSITY®, ETC.), AQUATIC APPROVED IMAZAPYR (HABITAT®, ETC.), TRICLOPYR 3A (TAHOE 3A®, GARLON 3A®, ETC.), GARLON 4 ULTRA® (NO SUBSTITUTIONS), AND AMINOPYRALID (MILESTONE®) TO CONTROL TARGET SPECIES. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO EVALUATE THE SITE AND SELECT THE APPROPRIATE HERBICIDE FOR BOTH SITE CONDITIONS AND TARGET SPECIES IN ACCORDANCE WITH HERBICIDE LABELING.

LANDSCAPE PLAN GENERAL NOTES

CONTRACTOR QUALIFICATIONS

1. THE NATIVE LANDSCAPE CONTRACTOR CHOSEN FOR THE ESTABLISHMENT AND ENHANCEMENT OF THE NATURAL AREAS MUST BE EXPERIENCED IN THE RESTORATION, INSTALLATION, AND MANAGEMENT OF SAID AREAS. THEY MUST HAVE A MINIMUM FIVE YEARS OF EXPERIENCE CONDUCTING ECOLOGICAL RESTORATION AND MANAGEMENT PROJECTS.
2. THERE SHALL BE A SUPERVISOR AVAILABLE AT ALL TIMES THAT CAN IDENTIFY NON–NATIVE AND NATIVE PLANTS BY GENUS AND SPECIES. THE GOAL OF INSTALLING SUCCESSFUL NATIVE PLANT COMMUNITIES IS A LONG–TERM PROCESS. THEREFORE, IT IS IMPERATIVE THAT A QUALIFIED NATIVE LANDSCAPE CONTRACTOR PERFORM THE INITIAL INSTALLATION AND MAINTENANCE.

QUALITY AND CONDITION

1. ALL NATIVE SEED PROPOSED FOR THE PROJECT SHALL BE PROVIDED AS PURE LIVE SEED (PLS) AND SOURCED FROM WITHIN A 200–MILE RADIUS OF THE PROJECT LOCATION. PLANT ORIGINS OUTSIDE OF THIS RANGE MUST BE APPROVED BY THE WETLAND CONSULTANT.
2. NATIVE SEEDS SHALL BE BLENDED BY THE VENDOR, AND THE MIXTURE AND RATIO SHALL BE GUARANTEED IN WRITING TO BE AS SPECIFIED. THE AMOUNT OF SEED INDICATED ON THE SPECIFICATIONS SHALL MEAN THE TOTAL AMOUNT OF PURE LIVE SEED (PLS) PER ACRE FOR ALL SPECIES LISTED. IT IS THE SOLE RESPONSIBILITY OF THE NATIVE LANDSCAPE CONTRACTOR TO PROVIDE APPROVED SEED THAT MEETS INDUSTRY–STANDARD PLS REQUIREMENTS.
3. NATIVE LANDSCAPE CONTRACTOR SHALL PROVIDE THE WETLAND CONSULTANT WITH THE NAME AND LOCATION OF THE SEED SUPPLIER, ORIGIN OF THE VARIOUS KINDS OF PLANTS, AND A STATEMENT OF THE PURITY OF THE SEED.
4. SEED SHALL CONFORM TO APPLICABLE STATE AND FEDERAL REGULATIONS AS IN EFFECT ON THE DATE OF LETTING. UNLESS OTHERWISE SPECIFIED, SEED SHALL NOT CONTAIN IN EXCESS OF 1 PERCENT WEED SEEDS; 0 PERCENT IS DESIRABLE.
5. ALL STORAGE REQUIREMENTS, STRATIFICATION, AND SCARIFICATION CONSIDERATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE NATIVE LANDSCAPE CONTRACTOR.
6. IF SPECIFIED FOR THE SEED MIXTURE, MYCORRHIZAL INOCULANTS SHALL BE PELLETIZED AND MIXED AT 1 LB. PER ACRE WITH THE FINE SEEDS BEFORE INSTALLATION. THE INOCULANTS SHALL CONTAIN A DIVERSE MIXTURE OF GLOMALES FUNGAL SPECIES (GLOMUS SPP.) IN PELLETIZED FORM.
7. UNDER NO CIRCUMSTANCES SHALL WHEAT (TRITICUM AESTIVUM), CEREAL RYE (SECALE CEREALE), PERENNIAL RYE (LOLIUM PERENNE), OR BARLEY (HORDEUM VULGARE) BE USED AS A TEMPORARY COVER CROP.

HANDLING

1. NATIVE LANDSCAPE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE PROPER HANDLING AND STORAGE OF THE SEED ACCORDING TO THE BEST SEED HANDLING AND STORAGE PRACTICES, INCLUDING FUNGICIDE TREATMENTS AND STRATIFICATION CONSIDERATIONS. OWNER SHALL MAKE NO COMPENSATION FOR DAMAGE TO THE SEED BECAUSE OF IMPROPER STORAGE, CLEANING, THRESHING, OR SCREENING OPERATIONS.
2. ALL NATIVE SEEDS SHALL BE PACKED AND COVERED IN SUCH A MANNER AS TO ENSURE ADEQUATE PROTECTION AGAINST DAMAGE AND MAINTAIN DORMANCY WHILE IN TRANSIT, STORAGE, OR DURING PLANTING OPERATIONS.
3. SEED SHALL BE KEPT DRY AND UNOPENED UNTIL NEEDED FOR USE. SEED SHALL NOT BE STORED OR TEMPORARILY STORED IN LOCATIONS OR VEHICLES WHERE THE TEMPERATURE WILL BE IN EXCESS OF 90 DEGREES F.

SITE PREPARATION

1. SITE SHOULD BE CLEARED OF UNDESIRABLE VEGETATION PRIOR TO SEEDING. IF NECESSARY, NON–SELECTIVE HERBICIDE (AQUATIC–APPROVED GLYPHOSATE FORMULATION) SHOULD BE APPLIED WITHIN THE PROPOSED PLANTING ZONES AT LEAST 2 WEEKS PRIOR TO SEEDBED PREPARATION.
2. THE GENERAL CONTRACTOR AND NATIVE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL WORK NECESSARY TO ACHIEVE AND MAINTAIN AN ACCEPTABLE SEEDBED PRIOR TO SEEDING. ALL AREAS MUST BE PROPERLY PREPARED BEFORE SEEDING BEGINS. UNDERGROUND UTILITY LOCATION MAPS AND PLANS SHOULD BE REVIEWED PRIOR TO WORK. EQUIPMENT HAVING LOW UNIT PRESSURE GROUND CONTACT SHALL BE UTILIZED WITHIN THE PLANTING AREAS.
3. UNLESS THE WETLAND CONSULTANT AGREES TO ANOTHER APPROACH, THE SEEDBED SHALL BE PREPARED BY WORKING THE TOPSOIL TO A DEPTH OF 3 INCHES. SITE PREPARATION EQUIPMENT SHALL BE OF A DESIGN THAT CAN BE UTILIZED EFFICIENTLY BY THE NATIVE LANDSCAPE CONTRACTOR TO MEET THE REQUIREMENTS FOR THE WORK SPECIFIED. THE EQUIPMENT PROPOSED FOR USE BY THE NATIVE LANDSCAPE CONTRACTOR FOR DISKING AND HERBICIDE APPLICATIONS SHALL BE SUBJECT TO APPROVAL BY THE WETLAND CONSULTANT.
4. PRIOR TO SEEDING, AT LEAST 6 INCHES OF TOPSOIL SHALL BE PRESENT AND FREE OF ALL CLODS, STONES, ROOTS, STICKS, RIVULETS, GULLIES, CRUSTING, AND CRACKING. THE SOIL AGGREGATE SIZE WILL BE NO GREATER THAN 2 INCHES IN THE LARGEST DIAMETER.
5. IF PRESENT, COMPACTED SOILS SHALL BE DISKED OR RAKED PRIOR TO SEEDING. REMEDIAL MEASURES FOR THE ACCESS AREA MAY, AT THE DIRECTION OF THE WETLAND CONSULTANT, INVOLVE RIPPING FROM 12 TO 18 INCHES OF THE SOIL HORIZON PRIOR TO DISKING. IF COMPACTION IS NOT A CONCERN AND THE SEEDBED NEEDS TO BE LOOSENED PRIOR TO SEEDING TO ENSURE GOOD SEED–SOIL CONTACT, DISKING OR RAKING SHALL BE PERFORMED USING EQUIPMENT AND THE APPROACH RECOMMENDED BY THE NATIVE LANDSCAPE CONTRACTOR, SUBJECT TO APPROVAL BY THE WETLAND CONSULTANT.
6. IF NEEDED, CULTIVATION SHALL OCCUR WITHIN 24 HOURS PRIOR TO SEEDING. SEEDING SHOULD OCCUR IMMEDIATELY AFTER THE LAST CULTIVATION, PREFERABLY BEFORE A RAIN.

SEED INSTALLATION

1. SEEDING SHALL TAKE PLACE AFTER SOLAR PANEL INSTALLATION IS COMPLETED.
2. EXCEPT WHERE SITE CONDITIONS PRECLUDE THEIR USE, SEEDING SHALL BE PERFORMED USING A TRUAX DRILL, TRUAX TRILLION SEEDER, OR COMPARABLE EQUIPMENT DESIGNED SPECIFICALLY FOR INSTALLATION OF NATIVE SEED. FOR AREAS WHERE SITE CONDITIONS PRECLUDE THE USE OF SPECIALIZED EQUIPMENT, SEED MAY BE INSTALLED THROUGH HAND BROADCASTING AND LIGHTLY RAKING IN THE SEED. HAND BROADCAST SEED SHALL BE SPREAD AT TWICE THE SPECIFIED RATE. OTHER METHODS OF SEED INSTALLATION MAY BE USED WITH PRIOR APPROVAL FROM THE WETLAND CONSULTANT.
3. PRIOR TO STARTING WORK, ALL SEEDING EQUIPMENT SHALL BE CALIBRATED AND ADJUSTED TO SOW SEEDS AT THE PROPER SEEDING RATE. IN GENERAL, THE OPTIMUM SEEDING DEPTH IS 0.25 INCH BELOW THE SOIL SURFACE. AREAS WHERE THE SEED HAS NOT BEEN INCORPORATED INTO THE SOIL TO THE PROPER DEPTHS WILL NOT BE ACCEPTED, AND NO COMPENSATION FOR MATERIALS OR LABOR FOR THE REJECTED WORK WILL BE MADE BY THE OWNER.
4. EQUIPMENT SHALL BE OPERATED IN A MANNER TO ENSURE COMPLETE, UNIFORM COVERAGE OF THE ENTIRE AREA TO BE SEEDED AND TO AVOID DAMAGE TO EXISTING WOODY PLANTS. ANY AREA INADEQUATELY COVERED, AS SOLELY DETERMINED BY THE WETLAND CONSULTANT, SHALL BE RETREATED AT NO ADDITIONAL COST TO THE OWNER.
5. SEEDING AND SOIL TRACKING/FIRMING SHALL NOT BE DONE DURING PERIODS OF RAIN, SEVERE DROUGHT, HIGH WINDS, EXCESSIVE MOISTURE, FROZEN GROUND, OR OTHER CONDITIONS THAT PRECLUDE SATISFACTORY RESULTS.
6. TO ACHIEVE BEST RESULTS, SEED BOXES SHOULD BE KEPT MORE THAN ONE–QUARTER FULL AT ALL TIMES AND GROUND SPEED SHOULD BE NO MORE THAN 2 TO 3 MPH.
7. SEEDING OPERATIONS MUST OCCUR WHEN SOIL MOISTURE IS APPROPRIATE FOR SEEDING OPERATION.
8. NATIVE PLANT SEED SHALL NOT RECEIVE FERTILIZER.
9. WET SEED THAT IS MOLDY OR OTHERWISE DAMAGED IN TRANSIT OR STORAGE SHALL NOT BE USED.

EROSION CONTROL

1. THE NATIVE LANDSCAPE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR IMPLEMENTING EROSION CONTROL MEASURES WITHIN PRESCRIBED PLANTING AREAS.

CLEAN–UP AND PROTECTION

1. DURING LANDSCAPE WORK, STORE MATERIALS AND EQUIPMENT WHERE DIRECTED. KEEP PAVEMENTS CLEAN AND WORK AREAS AND ADJOINING AREAS IN AN ORDERLY CONDITION.
2. PROTECT LANDSCAPE WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS OR OPERATIONS BY OTHER TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR, OR REPLACE DAMAGED LANDSCAPE WORK AS DIRECTED BY THE WETLAND CONSULTANT.

INSPECTIONS AND ACCEPTANCE

1. OWNER RESERVES THE RIGHT TO INSPECT ALL SEEDS AND PLANTS EITHER AT PLACE OF GROWTH OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR NAME, VARIETY, SIZE, QUANTITY, QUALITY OR MIX PROPORTION.
2. NATIVE LANDSCAPE CONTRACTOR IS TO KEEP RECORDS OF THE CERTIFICATES OF COMPOSITION OR INVOICES OF SEED MIXTURES AND INTEGRITY OF PLANT MATERIALS WITH RESPECT TO SPECIES, VARIETY, AND SOURCE AFTER PURCHASE.
3. NATIVE LANDSCAPE CONTRACTOR IS TO NOTIFY OWNER WITHIN FIVE DAYS AFTER COMPLETING INITIAL AND/OR SUPPLEMENTAL PLANTINGS IN EACH AREA.

SEED LIST

FENCED ARRAY AREA (±35.41 ac) TOTAL SEEDED AREA (±42.4 ac)

COVER CROP SEED MIX (±35.5 ac)

Botanical Name (Common Name)	% by wt.
Avena Sativa (Seed Oats)	40.00
TOTAL	40.00

NATIVE GRAZING SEED MIX (±35.5 ac)

AGRI–VOLTAIC 100.0% OF FENCED AREA

SHEEP PASTURE MIX
7.19 lbs per acre

Botanical Name (Common Name)	% by wt.
GRASSES	
Bouteloua curtipendula (Side–oats Grama)	41.74
Bouteloua gracilis (Blue Grama Grass)	13.91
Koeleria cristata (June Grass)	2.61
Poa palustris (Fowl Bluegrass)	6.96
TOTAL	65.22
FORBS	
Cassia fasciculata (Partridge Pea)	13.91
Dalea candida (White Prairie Clover)	10.43
Dalea purpurea (Purple Prairie Clover)	10.43
TOTAL	34.78
Total:	100.0 %

NATIVE POLLINATOR SEED MIX (±42.4 ac)

POLLINATOR SEED MIX
8.33 lbs per acre

Botanical Name (Common Name)	% by wt.
GRASSES	
Bouteloua curtipendula (Side–oats Grama)	30.02
Bromus kalmii (Prairie Brome)	6.00
Carex brevior (Plains Oval Sedge)	1.50
Carex lupulina (Hop Sedge)	0.75
Carex molesta (Field Oval Sedge)	1.50
Carex vulpinoidea (Fox Sedge)	1.50
Chasmanthium latifolium (See Uniola l.)	3.75
Elymus villosus (Silky Wild Rye)	6.00
Glyceria canadensis (Canada Manna Grass)	1.50
Koeleria cristata (June Grass)	2.25
Sporobolus heterolepis (Prairie Dropseed)	2.25
TOTAL	57.04
FORBS	
Achillea millefolium (Yarrow)	0.38
Allium cernuum (Nodding Wild Onion)	0.38
Aquilegia canadensis (Wild Columbine)	0.38
Asclepias tuberosa (Butterfly Milkweed)	1.13
Chamaecrista fasciculata (Partridge Pea)	7.50
Coreopsis lanceolata (Lance–leaf Coreopsis)	6.00
Coreopsis palmata (Prairie Coreopsis)	0.38
Dalea candida (White Prairie Clover)	6.00
Dalea purpurea (Purple Prairie Clover)	6.00
Echinacea pallida (Pale Purple Coneflower)	3.00
Heuchera richardsonii (Prairie Alum Root)	0.19
Lespedeza virginica (Slender Bush Clover)	0.38
Liatris aspera (Rough Blazingstar)	0.75
Lupinus perennis (Lupine)	0.75
Penstemon hirsutus (Hairy Beardtongue)	0.19
Pycnanthemum virginianum (Mountain mint)	0.19
Rudbeckia fulgida (Orange Coneflower)	0.75
Rudbeckia hirta (Black–eyed Susan)	6.00
Solidago nemoralis (Old–field Goldenrod)	0.19
Solidago riddellii (Riddell's Goldenrod)	0.19
Symphyotrichum cordifolium (Heart–leaved Aster)	0.19
Symphyotrichum oolentangiense (Sky Blue Aster)	0.19
Verbena stricta (Hoary Vervain)	0.38
Zizia aptera (Prairie Golden Alexander)	0.38
Zizia aurea (Golden Alexander)	1.13
TOTAL	42.96
Total:	100.0 %

N

LANDSCAPE NOTES & DETAILS

SCALE: N.T.S.

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SPECIAL USE PERMIT SET
AMENT ROAD- KENDALL IL

PROJECT NUMBER: 22–4525

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	08/29/24	CMP	MBK	SPECIAL USE PERMIT SET
	09/13/24	CMP	MBK	SPECIAL USE PERMIT SET
	10/17/24	CMP	MBK	SPECIAL USE PERMIT SET REV 1
	12/19/24	CMP	MBK	SUP SET – COUNTY COMMENTS
	01/14/25	CMP	MBK	SUP SET – COUNTY COMMENTS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

C-5.1
LANDSCAPE NOTES & DETAILS

AGRICULTURAL IMPACT MITIGATION AGREEMENT (AIMA) AND ILLINOIS DEPARTMENT OF AGRICULTURE (IDOA) CONSTRUCTION NOTES

1. GUY WIRES AND ANCHORS
   - A. 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.

2. UNDERGROUND CABLING DEPT
   - A. UNDERGROUND ELECTRICAL CABLES LOCATED OUTSIDE THE PERIMETER OF THE FENCE OF THE SOLAR PANELS SHALL BE BURIED WITH:
     - A.1. A MINIMUM OF 5 FEET OF TOP COVER WHERE THEY CROSS CROPLAND.
     - A.2. A MINIMUM OF 5 FEET OF TOP COVER WHERE THEY CROSS PASTURE LAND OR OTHER NON– CROPLAND CLASSIFIED AS PRIME FARMLAND.
     - A.3. A MINIMUM OF 3 FEET OF TOP COVER WHERE THEY CROSS PASTURE LAND AND OTHER AGRICULTURAL LAND NOT CLASSIFIED AS PRIME FARMLAND.
     - A.4. A MINIMUM OF 3 FEET OF TOP COVER WHERE THEY CROSS WOODED/BRUSHY LAND.

3. 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 SHALL 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 NOTE 5 FOR PROCEDURES PERTAINING TO ROCK REMOVAL FROM THE SUBSOIL AND TOPSOIL.
   - E. REFER TO NOTE 6 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).

4. 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:
   - A. PRIOR TO CONSTRUCTION, THE CONTRACTOR AND 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 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 CONTRACTOR SHALL PROVIDE THE OWNER, 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 CONTRACTOR 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, TEMPORARY 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.

5. 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.
   - 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.
   - 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 ACCEPTABLE TO THE LANDOWNER AND THE OWNER.

6. REPAIR OF COMPACTION AND RUTTING
   - A. AFTER THE TOPSOIL HAS BEEN REPLACED, ALL AREAS THAT ARE NOT DIRECTLY UNDER PHOTOVOLTAIC PANELS THAT WERE TRAVERSED BY VEHICLES AND CONSTRUCTION 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. 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 LAND ADJACENT TO THE FACILITY.
   - C. THE CONTRACTOR SHALL RESTORE ALL RUTTED LAND TO A CONDITION AS CLOSE AS POSSIBLE TO ITS ORIGINAL CONDITION.

7. CONSTRUCTION DURING WET WEATHER
   EXCEPT AS PROVIDED BELOW, CONSTRUCTION ACTIVITIES ARE NOT ALLOWED ON AGRICULTURAL LAND WHERE NORMAL FARMING OPERATIONS, SUCH AS PLOWING, DISKING, PLANTING OR HARVESTING, CANNOT TAKE PLACE DUE TO EXCESSIVELY WET SOILS. WET WEATHER CONDITIONS ARE TO BE DETERMINED ON A FIELD BY FIELD BASIS AND NOT FOR THE PROJECT AS A WHOLE.
   - 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 CONTRACTOR IN WET WEATHER CONDITIONS.
   - B. CONSTRUCTION ACTIVITIES ON UNPREPARED SURFACES SHALL BE DONE ONLY WHEN WORK SHALL NOT RESULT IN RUTTING CREATING A MIXING OF SUBSOIL AND TOPSOIL. DETERMINATION AS TO THE POTENTIAL OF SUBSOIL AND TOPSOIL MIXING SHALL BE IN CONSULTATION WITH THE UNDERLYING LANDOWNER, OR, IF APPROVED BY THE LANDOWNER, HIS/HER DESIGNATED TENANT.

8. WEED/VEGETATION CONTROL
   - A. THE CONTRACTOR SHALL PROVIDE FOR WEED CONTROL IN A MANNER THAT PREVENTS THE SPREAD OF WEEDS. SPRAYING SHALL BE DONE BY A PESTICIDE APPLICATOR THAT IS APPROPRIATELY LICENSED FOR DOING SUCH WORK IN THE STATE OF ILLINOIS.

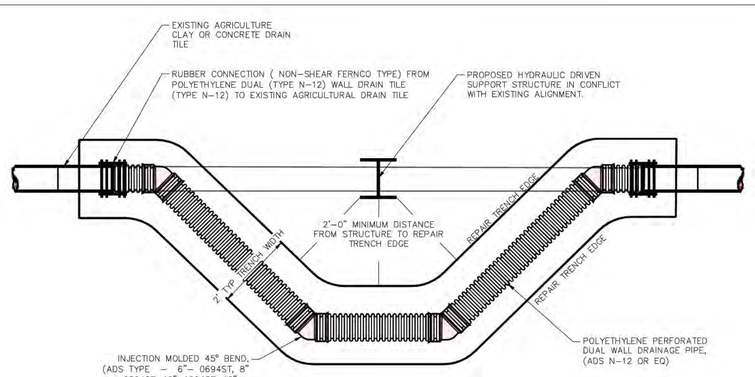
DECOMPACTION NOTES

1. DECOMPACTION IS REQUIRED WHEN ALL THREE CONDITIONS APPLY.
   - A. THE AREA HAS BEEN TRAFFICKED OR TRAVERSED BY VEHICLES OR CONSTRUCTION EQUIPMENT, AND
   - B. THE SOIL PENETROMETER READINGS ARE 300 PSI OR GREATER, AND
   - C. THE SOIL STRENGTH (PSI) IN THE RIGHT–OF–WAY AREA IS GREATER THAN THAT OF THE NON–TRAFFICKED AREA.
2. AN ENVIRONMENTAL AND/OR AGRICULTURAL INSPECTOR (AI), WITH EXPERIENCE AND TRAINING IN THE PROPER IDENTIFICATION OF COMPACTED SOIL AND OPERATION METHODS OF DEEP DECOMPACTION TOOLS IS REQUIRED TO OBSERVE THE DAILY OPERATION OF THE RIPPER/SUBSOILER TO ENSURE THE CONDITIONS ARE APPROPRIATE FOR DECOMPACTION EFFORTS AND THAT THE PROPER EQUIPMENT IS UTILIZED AND THAT EQUIPMENT IS SET–UP AND OPERATED CORRECTLY.
3. TO ACHIEVE THE MOST EFFECTIVE SHATTER OF THE COMPACTED SOIL THE FOLLOWING GUIDELINES HAVE BEEN ESTABLISHED:
   - A. CONDUCT RIPPING WHEN THE SOIL IS DRY. FOLLOW THE "SOIL PLASTICITY TEST PROCEDURES" TO DETERMINE IF SOIL CONDITIONS ARE ADEQUATELY DRY TO CONDUCT DECOMPACTION EFFORTS.
   - B. DEEP RIPPING SHALL BE CONDUCTED USING A RIPPER OR SUBSOILING TOOL WITH A SHANK LENGTH OF NO LESS THAN 18 INCHES AND A SHANK SPACING OF APPROXIMATELY THE SAME MEASUREMENT AS THE SHANK LENGTH.
   - C. USE A RIPPER WITH A KNIFE LENGTH OF NO LESS THAN 2 INCHES MORE THAN THE DESIRED DEPTH OF DECOMPACTION.
   - D. TO BEST PROMOTE REVEGETATION AND RESTORE CROP PRODUCTION, A TOTAL DEPTH OF 30 OR MORE INCHES OF SOIL (TOPSOIL PLUS SUBSOIL) IS REQUIRED.
   - E. THE MINIMUM DEPTHS OF DECOMPACTION STATED ABOVE IN 3.D. ARE REQUIRED WHERE POSSIBLE. A SAFE DISTANCE FROM SUB–SURFACE STRUCTURES (TILE DRAINS, PIPELINES, BURIED UTILITIES, BEDROCK, ETC.) MUST BE MAINTAINED AT ALL TIMES. WHERE SUCH STRUCTURES EXIST, A LESSER DEPTH OF DECOMPACTION WILL BE REQUIRED TO PREVENT DAMAGE TO EQUIPMENT AND THE STRUCTURES AS WELL AS TO MAINTAIN A SAFE WORK ENVIRONMENT. THE ALLOWABLE DECOMPACTION DEPTH IN THESE INSTANCES WILL BE DETERMINED ON A SITE BY SITE BASIS.
   - F. WHEN THE KNIVES ARE IN THE SOIL TO THE DESIRED DEPTH, THE TONGUE OF THE RIPPER SHOULD BE PARALLEL TO THE SURFACE OF THE GROUND.
   - G. SELECT A TRACTOR THAT HAS ENOUGH HORSEPOWER TO PULL THE RIPPER AT A SPEED OF 1.5 TO 2 MPH AND WHOSE FOOTPRINT IS OF EQUAL OR LESSER WIDTH THAN THE RIPPER. TRACKED EQUIPMENT IS PREFERRED AND TYPICALLY REQUIRED TO ACHIEVE THIS CRITERIA.
   - H. THE RIPPER SHANKS SHOULD NOT CREATE RUTS, CHANNELS, OR MIXING OF THE SUB–SOIL WITH TOPSOIL. A SPEED OF 1.5 TO 2 MPH IS RECOMMENDED TO MINIMIZE THE RISK OF RUTTING AND SOIL MIXING. THE IDEAL OPERATING SPEED CAN VARY WITH SOIL CHARACTERISTICS, TRACTOR AND RIPPING TOOL USED. AN EXCESSIVE TRAVEL SPEED WILL OFTEN INCREASE MIXING OF SOIL HORIZONS.
   - I. WHEN THE EQUIPMENT IS SET UP AND OPERATED CORRECTLY, THE RIPPER SHOULD CREATE A WAVE ACROSS THE SURFACE OF THE GROUND AS IT LIFTS AND DROPS THE SOIL.
   - J. MAKE ONE RIPPING PASS THROUGH THE COMPACTED AREA. USING A PENETROMETER, THE AI WILL MEASURE THE PSI BETWEEN THE RIPPED KNIFE TRACKS TO DETERMINE IF THE SINGLE RIPPING PASS WAS SUCCESSFUL. ADDITIONAL PASSES SHOULD ONLY BE USED WHERE NEEDED AS THEY MAY REDUCE THE EFFECTIVENESS OF THE RIPPING BY RECOMPACTING THE SOIL SHATTERED IN THE PREVIOUS PASS.
   - K. IF THE FIRST PASS DOES NOT SUCCESSFULLY DECOMPACT THE SOIL, ADDITIONAL PASSES WILL BE NEEDED. SHOULD MULTIPLE PASSES OF THE RIPPER BE NEEDED TO ACHIEVE DECOMPACTION BETWEEN THE KNIVES TRACKS OF THE RIPPING TOOL, THE SUBSEQUENT PASSES SHOULD BE POSITIONED SO THE KNIFE TRACKS FROM THE PREVIOUS PASS ARE SPLIT BY THE SECOND PASS. IF THREE OR MORE PASSES HAVE BEEN MADE AND SUFFICIENT DECOMPACTION HAS NOT YET BEEN ACHIEVED THE AI MAY CHOOSE TO HALT FURTHER DECOMPACTION EFFORTS IN THAT AREA UNTIL CONDITIONS IMPROVE OR BETTER METHODS ARE DETERMINED.
   - L. FOLLOWING RIPPING, ALL STONE AND ROCK THREE OR MORE INCHES IN SIZE WHICH HAS BEEN LIFTED TO THE SURFACE SHALL BE COLLECTED AND REMOVED FROM AGRICULTURAL AREAS.
   - M. AFTER RIPPING HAS BEEN CONDUCTED, DO NOT ALLOW UNNECESSARY TRAFFIC ON THE RIPPED AREA.
   - N. IN AGRICULTURAL LANDS AND CROPLANDS THAT WILL NOT BE REPLANTED TO VEGETATION AS SHOWN ON THE PLANS, RECOMMEND TO LANDOWNERS TO PLANT A COVER CROP (CEREAL RYE, CLOVER, ALFALFA, TILLAGE RADISH, TURNIPS, ETC.) FOLLOWING DECOMPACTION. REDUCED COMPACTION CREATED BY THE RIPPER PASS WILL NOT REMAIN OVER TIME WITHOUT SUBSEQUENT ROOT PENETRATION. ROOT PENETRATION INTO THE SHATTERED SOIL IS NECESSARY TO ESTABLISH PERMANENT STABILIZED CHANNELS TO CONDUCT AIR AND WATER INTO THE SOIL PROFILE. TWO GOOD SOURCES FOR LANDOWNER COVER CROP EDUCATION ARE: HTTP://WWW.MCCC.MSU.EDU/CCINFO/CROPBYCROP.HTML AND HTTP://MCCCDEV.ANR.MSU.EDU/, FOR LOCAL EXPERTISE, CONSULT WITH YOUR COUNTY'S SOIL AND WATER CONSERVATION DISTRICT /USDA NATURAL RESOURCE CONSERVATION SERVICE (NRCS) OFFICE FOR COVER CROP SELECTION AND COMPLIANCE WITH NRCS PLANTING DEADLINES.

SOIL PLASTICITY TEST PROCEDURES

THE AGRICULTURAL INSPECTOR WILL TEST THE CONSISTENCY OF THE SURFACE SOIL TO A DEPTH OF APPROXIMATELY 4 TO 8 INCHES USING THE FIELD PLASTICITY TEST PROCEDURE DEVELOPED FROM THE ANNUAL BOOK OF ASTM STANDARDS, PLASTIC LIMIT OF SOILS (ASTM D–4318).

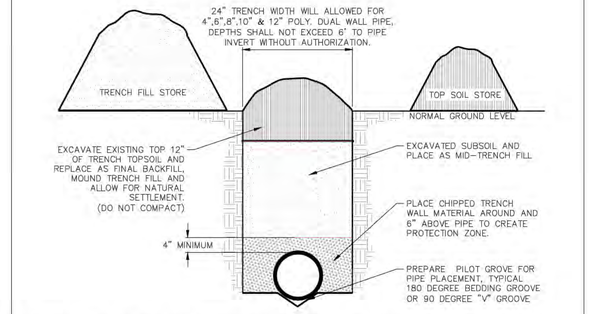
1. PULL A SOIL PLUG FROM THE AREA TO BE TILLED, MOVED, OR TRAFFICKED TO A DEPTH OF 4–8 INCHES.
2. ROLL A PORTION OF THE SAMPLE BETWEEN THE PALMS OF THE HANDS TO FORM A WIRE WITH A DIAMETER OF ONE–EIGHTH INCH.
3. THE SOIL CONSISTENCY IS:
   - A. TILLABLE (ABLE TO BE WORKED) IF THE SOIL WIRE BREAKS INTO SEGMENTS NOT EXCEEDING 3/8 OF AN INCH IN LENGTH.
   - B. PLASTIC (NOT TILLABLE) IF THE SEGMENTS ARE LONGER THAN 3/8 OF AN INCH BEFORE BREAKING.
4. THIS PROCEDURE IS TO BE USED TO AID IN DETERMINING WHEN SOIL CONDITIONS ARE DRY ENOUGH FOR CONSTRUCTION ACTIVITIES TO PROCEED.
5. ONCE THE SOIL CONSISTENCY HAS BEEN DETERMINED TO BE OF ADEQUATE DRYNESS, THE PLASTICITY TEST IS NOT REQUIRED AGAIN UNTIL THE NEXT PRECIPITATION EVENT.



PLAN VIEW

SAFETY NOTE:
OPEN CUT TRENCHES SHALL BE SHEETED AND BRACED AS REQUIRED BY THE GOVERNING STATE AND FEDERAL LAWS AND MUNICIPAL ORDINANCES, AND AS MAY BE NECESSARY TO PROTECT LIFE. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND FEDERAL SAFETY REGULATIONS AS OUTLINED IN THE LATEST REVISIONS OF THE FEDERAL CONSTRUCTION SAFETY STANDARDS AND WITH APPLICABLE PROVISIONS AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

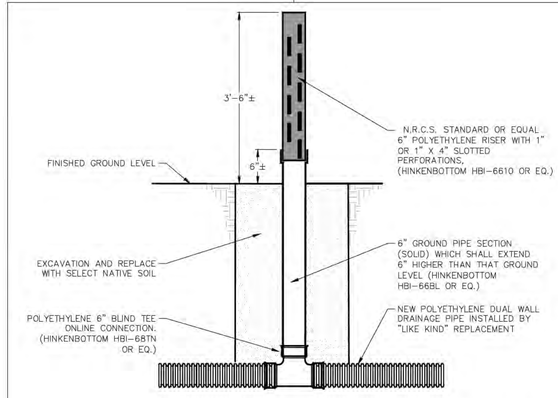
EXISTING DRAIN TILE BYPASS REROUTE
FOR COMMERCIAL SOLAR ENERGY PROJECTS
EXISTING DRAIN TILE REROUTE WHICH IS IN CONFLICT WITH FIXED IMPROVEMENT INSTALLED AS MODIFICATION TO ORIGINAL ROUTE
HUDDLESTON – MCBRIDE TYPICAL SECTION NO. 360D
NOT TO SCALE



NEW POLYETHYLENE DUAL WALL PERFORATED DRAIN TILE INSTALLATION FOR AGRICULTURAL LAND USE
1. EXCAVATE 12" (+–) TOPSOIL, STORE SEPARATE AND SAVE FOR FINAL BACKFILL.
2. EXCAVATE SUBSOIL TO PROPOSED GRADE LINE, STORE SEPARATE AND SAVE FOR MID–TRENCH FILL.
3. HAND EXCAVATE DRAIN TILE PILOT GROOVE TO PROPOSED LASER GRADE, AND INSTALL NEW POLYETHYLENE PERFORATED DUAL WALL DRAIN TILE (ADS N–12 OR EQUAL) (FILTER PIPE WRAP OPTIONAL FOR SANDY SOILS)
4. PLACE "HAND SPADED CHIPPED" CLEAN TOP SOIL MATERIAL AROUND NEW PIPE TO CREATE BEDDING SUPPORT AND PIPE PROTECTION.
5. BACKFILL EXCAVATION TRENCH WITH MID TRENCH MATERIAL AND REPLACE SAVED TOP SOIL AS FINAL BACKFILL.

NOTE:
TYPICAL SINGLE WALL POLYETHYLENE PERFORATED DRAIN TILE INSTALLATION BY AGRICULTURAL DRAINAGE TRENCHERS IN ACCORDANCE WITH A.S.T.M. F–405, F–449 OR F–667, A.A.S.H.T.O. M–252, OR M–294. INSTALLATION PROCEDURE MAY BE ALLOWED ONLY BY DIRECTION OF THE RESIDENT PROJECT ENGINEER.

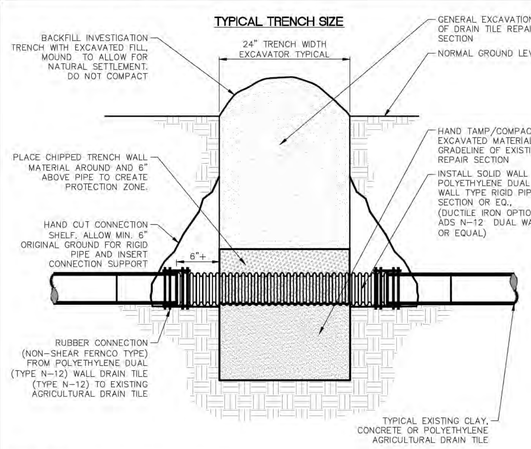
EXISTING CLAY DRAIN TILE REPLACEMENT SECTION
FOR COMMERCIAL SOLAR ENERGY PROJECTS
EXISTING AGRICULTURAL DRAIN TILE REPLACEMENT SECTION
TYPICAL FIELD INSTALLATION FOR POLYETHYLENE DUAL WALL DRAIN TILE
HUDDLESTON – MCBRIDE TYPICAL SECTION NO. 20A
NOT TO SCALE



NOTE:
THESE TYPICAL STANDARD SPECIFICATION MAY BE FIELD ADJUSTED WITH THE PROPER AUTHORIZATION FROM THE PROJECT MANAGER, ALL CHANGES SHALL BE RECORDED ON FINAL AS–BUILT DRAWINGS.

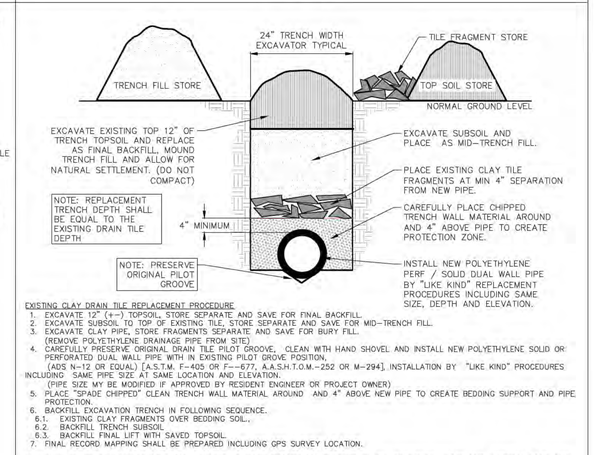
SAFETY NOTE:
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6" OBSERVATION RISER STRUCTURE
FOR COMMERCIAL SOLAR ENERGY PROJECTS
INSTALLED AT PARCEL INGRESS AND EGRESS LOCATIONS
HUDDLESTON – MCBRIDE TYPICAL SECTION NO. 27D
NOT TO SCALE



SAFETY NOTE:
OPEN CUT TRENCHES SHALL BE SHEETED AND BRACED AS REQUIRED BY THE GOVERNING STATE AND FEDERAL LAWS AND MUNICIPAL ORDINANCES, AND AS MAY BE NECESSARY TO PROTECT LIFE. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND FEDERAL SAFETY REGULATIONS AS OUTLINED IN THE LATEST REVISIONS OF THE FEDERAL CONSTRUCTION SAFETY STANDARDS AND WITH APPLICABLE PROVISIONS AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

EXISTING DRAIN TILE REPAIR SECTION
FOR COMMERCIAL SOLAR ENERGY PROJECTS
EXISTING AGRICULTURAL DRAIN TILE REPLACEMENT SECTION
TYPICAL REPAIR SECTION FOR DRAIN TILE "BLOW OUT" OR FAILURE
HUDDLESTON DRAINAGE TYPICAL SECTION NO. 62A
NOT TO SCALE

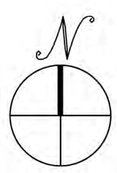


EXISTING CLAY DRAIN TILE REPLACEMENT PROCEDURE
1. EXCAVATE 12" (+–) TOPSOIL, STORE SEPARATE AND SAVE FOR FINAL BACKFILL.
2. EXCAVATE SUBSOIL TO TOP OF EXISTING TILE, STORE SEPARATE AND SAVE FOR MID–TRENCH FILL.
3. EXCAVATE CLAY PIPE, STORE FRAGMENTS SEPARATE AND SAVE FOR BURY FILL. (REMOVE POLYETHYLENE DRAINAGE PIPE FROM SITE)
4. CAREFULLY PRESERVE ORIGINAL DRAIN TILE PILOT GROOVE, CLEAN WITH HAND SHOVEL AND INSTALL NEW POLYETHYLENE SOLID OR PERFORATED DUAL WALL PIPE WITH IN EXISTING PILOT GROVE POSITION. (ADS N–12 OR EQUAL) [A.S.T.M. F–405 OR F–667, A.A.S.H.T.O.M.–252 OR M–294], INSTALLATION BY "LIKE KIND" PROCEDURES INCLUDING SAME PIPE SIZE AT SAME LOCATION AND ELEVATION. (PIPE SIZE MY BE MODIFIED IF APPROVED BY RESIDENT ENGINEER OR PROJECT OWNER)
5. PLACE "SPADE CHIPPED" CLEAN TRENCH WALL MATERIAL AROUND AND 4" ABOVE NEW PIPE TO CREATE BEDDING SUPPORT AND PIPE PROTECTION.
6. BACKFILL EXCAVATION TRENCH IN FOLLOWING SEQUENCE.
   - 6.1. EXISTING CLAY FRAGMENTS OVER BEDDING SOIL.,
   - 6.2. BACKFILL TRENCH SUBSOIL
   - 6.3. BACKFILL FINAL LIFT WITH SAVED TOPSOIL.
7. FINAL RECORD MAPPING SHALL BE PREPARED INCLUDING GPS SURVEY LOCATION.

SAFETY NOTE: OPEN CUT TRENCHES SHALL BE SHEETED AND BRACED AS REQUIRED BY THE GOVERNING STATE AND FEDERAL LAWS AND MUNICIPAL ORDINANCES, AND AS MAY BE NECESSARY TO PROTECT LIFE. THE CONTRACTOR SHALL COMPLY WITH ALL STATE AND FEDERAL SAFETY REGULATIONS AS OUTLINED IN THE LATEST REVISIONS OF THE FEDERAL CONSTRUCTION SAFETY STANDARDS AND WITH APPLICABLE PROVISIONS AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

NOTE:
ALL EXISTING UNKNOWN LATERAL DRAIN TILES ENCOUNTERED DURING "LIKE KIND" REPLACEMENT PROCESS SHALL BE REPLACED BY SAME PROCEDURE

EXISTING DRAIN TILE REPLACEMENT SECTION
FOR COMMERCIAL SOLAR ENERGY PROJECTS
EXISTING AGRICULTURAL DRAIN TILE "LIKE KIND" Replacement
TRENCH REPLACEMENT INCLUDING EXISTING LATERALS BY MID SIZE EXCAVATOR
HUDDLESTON – MCBRIDE TYPICAL SECTION NO. 20Ar1
NOT TO SCALE



DRAIN TILE NOTES & DETAILS

SCALE: N.T.S.

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DESIGN FIRM #184–005876

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SPECIAL USE PERMIT SET
AMENT ROAD- KENDALL IL

PROJECT NUMBER: 22–4525

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	08/29/24	CMP	MBK	SPECIAL USE PERMIT SET
	09/13/24	CMP	MBK	SPECIAL USE PERMIT SET
	10/17/24	CMP	MBK	SPECIAL USE PERMIT SET REV 1
	12/19/24	CMP	MBK	SUP SET – COUNTY COMMENTS

Management and Monitoring (M&M) Specifications & Guidelines

Project Name: Ament Road Solar Farm

Applicant: Ament Road Solar 1, LLC

ENCAP, Inc. Project Number: 24-0923D

Document Preparer: S. Rowley, PWS, ENCAP, Inc.

Date Prepared: October 17, 2024

ENCAP INCORPORATED

2585 Wagner Ct.
DeKalb, IL 60115
Phone: 815.748.4500
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www.encapinc.net

NATIVE AREA SPECIFICATIONS

AMENT ROAD SOLAR FARM – KENDALL COUNTY

1.0 PURPOSE

The purpose of this plan is to provide native area specifications for the Ament Road Solar Farm project. The areas underneath and around the solar array panels will be planted with a native grazing seed mix and a native pollinator seed mix. These native plantings will provide water quality benefits, pollinator friendly habitat, soil stabilization, and watershed benefits for the local streams.

2.0 CONTRACTOR QUALIFICATIONS

1. The Native Landscape Contractor chosen for the establishment and enhancement of the natural areas must be experienced in the restoration, installation, and management of said areas. They must have a minimum five years of experience conducting ecological restoration and management projects.

2. There shall be a supervisor available at all times that can identify non-native and native plants by genus and species. The goal of installing successful native plant communities is a long-term process. Therefore, it is imperative that a qualified Native Landscape Contractor perform the initial installation and maintenance.

3.0 QUALITY AND CONDITION

1. All native seed proposed for the project shall be provided as Pure Live Seed (PLS) and sourced from within a 200-mile radius of the project location. Plant origins outside of this range must be approved by the Wetland Consultant.

2. Native seeds shall be blended by the vendor, and the mixture and ratio shall be guaranteed in writing to be as specified. The amount of seed indicated on the specifications shall mean the total amount of pure live seed (PLS) per acre for all species listed. It is the sole responsibility of the Native Landscape Contractor to provide approved seed that meets industry-standard PLS requirements.

3. Native Landscape Contractor shall provide the Wetland Consultant with the name and location of the seed supplier, origin of the various kinds of plants, and a statement of the purity of the seed.

4. Seed shall conform to applicable State and Federal regulations as in effect on the date of letting. Unless otherwise specified, seed shall not contain in excess of 1 percent weed seeds; 0 percent is desirable.

5. All storage requirements, stratification, and scarification considerations shall be the sole responsibility of the Native Landscape Contractor.

6. If specified for the seed mixture, mycorrhizal inoculants shall be pelletized and mixed at 1 lb. per acre with the fine seeds before installation. The inoculants shall contain a diverse mixture of Glomales fungal species (*Glomus* spp.) in pelletized form.

7. Under no circumstances shall Wheat (*Triticum aestivum*), Cereal Rye (*Secale cereale*), Perennial Rye (*Lolium perenne*), or Barley (*Hordeum vulgare*) be used as a temporary cover crop.

4.0 HANDLING

1. Native Landscape Contractor shall be solely responsible for the proper handling and storage of the seed according to the best seed handling and storage practices, including fungicide treatments and stratification considerations. Owner shall make no compensation for damage to the seed because of improper storage, cleaning, threshing, or screening operations.

2. All native seeds shall be packed and covered in such a manner as to ensure adequate protection against damage and maintain dormancy while in transit, storage, or during planting operations.

3. Seed shall be kept dry and unopened until needed for use. Seed shall not be stored or temporarily stored in locations or vehicles where the temperature will be in excess of 90 degrees F.

5.0 SITE PREPARATION

1. Site should be cleared of undesirable vegetation prior to seeding. If necessary, non-selective herbicide (Aquatic-approved Glyphosate formulation) should be applied within the proposed planting zones at least 2 weeks prior to seedbed preparation.

2. The General Contractor and Native Landscape Contractor shall be responsible for performing all work necessary to achieve and maintain an acceptable seedbed prior to seeding. All areas must be properly prepared before seeding begins. Underground utility location maps and plans should be reviewed prior to work. Equipment having low unit pressure ground contact shall be utilized within the planting areas.

3. Unless the Wetland Consultant agrees to another approach, the seedbed shall be prepared by working the topsoil to a depth of 3 inches. Site preparation equipment shall be of a design that can be utilized efficiently by the Native Landscape Contractor to meet the requirements for the work specified. The equipment proposed for use by the Native Landscape Contractor for disking and herbicide applications shall be subject to approval by the Wetland Consultant.

4. Prior to seeding, at least 6 inches of topsoil shall be present and free of all clods, stones, roots, sticks, rivulets, gullies, crusting, and cracking. The soil aggregate size will be no greater than 2 inches in the largest diameter.

5. If present, compacted soils shall be disked or raked prior to seeding. Remedial measures for the access area may, at the direction of the Wetland Consultant, involve ripping from 12 to 18 inches of the soil horizon prior to disking. If compaction is not a concern and the seedbed needs to be loosened prior to seeding to ensure good seed-soil contact, disking or raking shall be performed using equipment and the approach recommended by the Native Landscape Contractor, subject to approval by the Wetland Consultant.

6. If needed, cultivation shall occur within 24 hours prior to seeding. Seeding should occur immediately after the last cultivation, preferably before a rain.

6.0 PLANT MATERIALS

See Sheet C-5.1 for Seed Mixes; however, the following cover crop should be added to both seed mixes during installation.

Scientific Name	Common Name	Lbs/Acre
Avena sativa	Seed Oats	40.000

7.0 SEED INSTALLATION

1. Seeding shall take place AFTER solar panel installation is completed.

2. Except where site conditions preclude their use, seeding shall be performed using a Truax drill, Truax Trillion seeder, or comparable equipment designed specifically for installation of native seed. For areas where site conditions preclude the use of specialized equipment, seed may be installed through hand broadcasting and lightly raking in the seed. **Hand broadcast seed shall be spread at twice the specified rate.** Other methods of seed installation may be used with prior approval from the Wetland Consultant.

3. Seasonal Considerations:

   November 1 through February 28: Seed must be protected from displacement due to water and wind erosion. Seeding on bare, graded surfaces must be protected with double netted erosion control blankets on slopes. Less cover crop will be observed during the following spring due to frost damage.

   March 1 through June 29: Seeding during this period is appropriate but germination of a portion of the seed may not occur until the following season due to lack of cold stratification to break seed dormancy. Cover crop generally germinates within 2-3 weeks of seeding operation. Seeding on bare, graded surfaces must be protected with erosion control blankets on slopes.

   June 30 through September 15: Installation of native seed should be suspended unless irrigation can be provided or unseasonably cool conditions persist. Also, any annual forbs planted with the mix during this time period may germinate but not have sufficient time to flower before fall senescence. Seeding on bare, graded surfaces must be protected with erosion control blankets on slopes.

   September 15 through October 31: Seeding on bare, graded surfaces must be protected with double netted erosion control blankets on slopes. Less cover crop will be observed during the following spring due to frost damage.

4. Prior to starting work, all seeding equipment shall be calibrated and adjusted to sow seeds at the proper seeding rate. In general, the optimum seeding depth is 0.25 inch below the soil surface. Areas where the seed has not been incorporated into the soil to the proper depths will not be accepted, and no compensation for materials or labor for the rejected work will be made by the Owner.

5. Equipment shall be operated in a manner to ensure complete, uniform coverage of the entire area to be seeded and to avoid damage to existing woody plants. Any area inadequately covered, as solely determined by the Wetland Consultant, shall be retreated at no additional cost to the Owner.

6. Seeding and soil tracking/firming shall not be done during periods of rain, severe drought, high winds, excessive moisture, frozen ground, or other conditions that preclude satisfactory results.

7. To achieve best results, seed boxes should be kept more than one-quarter full at all times and ground speed should be no more than 2 to 3 mph.

8. Seeding operations must occur when soil moisture is appropriate for seeding operation.

9. Native plant seed shall not receive fertilizer.

10. Wet seed that is moldy or otherwise damaged in transit or storage shall not be used.

11. After seeding operation is completed, install erosion control blanket per manufacturer's specifications as necessary.

8.0 EROSION CONTROL

1. The Native Landscape Contractor shall be fully responsible for implementing erosion control measures within prescribed planting areas.

2. All disturbed areas or areas of bare soil are recommended to be covered with erosion control blanket; North American Green S-75 or equivalent will be used at a minimum. Fall-winter plantings and/or 3:1 slopes require North American Green S-150 or equivalent. Erosion control blanket shall be installed within 24 hours after an area is seeded. See manufacturer's specifications for erosion control blanket composition.

9.0 CLEAN-UP AND PROTECTION

1. During landscape work, store materials and equipment where directed. Keep pavements clean and work areas and adjoining areas in an orderly condition.

2. Protect landscape work and materials from damage due to landscape operations or operations by other trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed by the Wetland Consultant.

10.0 INSPECTIONS AND ACCEPTANCE

1. Owner reserves the right to inspect all seeds and plants either at place of growth or at site before planting for compliance with requirements for name, variety, size, quantity, quality or mix proportion.

2. Native Landscape Contractor is to keep records of the certificates of composition or invoices of seed mixtures and integrity of plant materials with respect to species, variety, and source after purchase.

3. Native Landscape Contractor is to notify Owner within five days after completing initial and/or supplemental plantings in each area.

MONITORING AND MANAGEMENT PLAN

AMENT ROAD SOLAR FARM – KENDALL COUNTY

1.0 MONITORING METHODOLOGY – SHORT TERM (YEARS 1-3)

The planted areas will be monitored annually for a three-year period to ensure successful establishment of the plantings. The primary objective of the short-term monitoring program is to track the success of the planted species over the 3-year period of regularly scheduled monitoring sessions. The monitoring documents changes in plant community composition and reveals the need for management changes to improve floristic quality and coverage. Specific goals of the monitoring are to determine the vegetative species present, the percent cover by vegetation, and identify hydrology and erosion problems.

Monitoring within the planted areas shall be conducted annually utilizing a meander survey methodology. The monitoring shall identify:

1. the five dominant vegetative species within each planting zone,
2. the approximate percent coverage by overall vegetation in each planting zone,
3. the approximate percent vegetative coverage by native and non-native/invasive species within each planting zone,
4. erosion or sedimentation issues,
5. bare areas or areas not fully vegetated,
6. management recommendations for improved quality and invasive species removals, and
7. wildlife and pollinator usage (visual observations).

Observations shall be made during the monitoring to identify specific management strategies necessary to reach design goals. Site conditions shall be photo documented during monitoring sessions.

2.0 PERFORMANCE CRITERIA (YEARS 1-3)

1. By the end of the first full growing season, the planted areas shall exhibit at least 75% vegetative coverage, primarily by Seed Oats (*Avena sativa*). There shall be no areas greater than 1.0 square meter devoid of vegetation, and at least 25% of the species present as measured by aerial coverage shall be native and non-invasive, or planted species.

2. By the end of the second growing season, at least 90% of the ground as measured by aerial coverage shall be vegetated, and at least 50% of the species present as measured by aerial coverage shall be native and non-invasive, or planted species. There shall be no areas greater than 1.0 square meter devoid of vegetation.

3. By the end of the third growing season, at least 90% of the ground as measured by aerial coverage shall be vegetated, and at least 75% of the species present shall be native and non-invasive, or planted species. There shall be no areas greater than 0.5 square meter devoid of vegetation.

4. At the end of each growing season, none of the three most dominant species within the planted areas shall be non-native or invasive species, including but not limited to: Ragweed (*Ambrosia* spp.), Wild Carrot (*Daucus carota*), Purple Loosestrife *(Lythrum salicaria)*, Teasel (*Dipsacus* spp.), Reed Canary Grass (*Phalaris arundinacea*), Sweet Clover (*Melilotus* spp.), Common

Buckthorn (*Rhamnus cathartica*), Kentucky Blue Grass *(Poa pratensis)*, Thistle *(Cirsium* spp.*)*, Honeysuckle (*Lonicera sp.*), Common Reed *(Phragmites australis)*, or Sandbar Willow (*Salix exigua*).

3.0 REPORTING (YEARS 1-3)

An annual vegetation monitoring report will be submitted to the Owner and Kendall County by January 31st following the monitoring season each year. This report will be used to determine if the natural areas are meeting performance standards. The report shall include information on site location; permit numbers; methodology used (including monitoring dates); data results; summary relative to performance criteria; a summary of the annual monitoring observations; a description of the management performed during the year; a list of recommendations for management during the upcoming year; and representative photographs of the natural areas. The natural areas shall meet certification requirements, associated performance standards, and will be monitored and maintained for a period of three years or until performance standards have been met to ensure successful establishment.

4.0 SHORT-TERM MANAGEMENT PLAN (YEARS 1-3)

1. First Year. Mow the planted areas to a height of 8-12 inches, 3 times during the early growing season or as needed to control non-native and invasive annual species. Mowing (including weed whipping) shall take place prior to or when non-native and invasive species are flowering to prevent seed set. Control undesirable plant species, when present in small quantities, by hand pulling prior to the development and maturity of the plant. Hand removal shall include the removal of all aboveground and belowground stems, roots and flower masses prior to development of seeds. Apply herbicide (as necessary) to non-native and invasive perennial species within the natural areas with appropriate herbicide. Management site visits should be conducted at a minimum of 3 times annually. Soil erosion and sediment controls shall be regularly maintained.

2. Second Year. Control of undesirable plant species during the second growing season shall consist primarily of selective herbicide application, spot mowing, and hand pulling. Mowing (including weed whipping) shall be conducted 3 times during the early growing season and as needed to a height of 8-12 inches to prevent annual weeds from producing seed. Management site visits should be conducted at a minimum of 3 times annually. Soil erosion and sediment controls shall be regularly maintained.

3. Third Year. Undesirable plant species will be controlled (as necessary) by mowing (including weed whipping), hand pulling, and/or selective herbicide application. Continue to perform management site visit at least 3 times annually during the growing season. Soil erosion and sediment controls shall be regularly maintained.

   Since the site is not suitable for prescribed burning, it is recommended to conduct a late fall mowing with mulching/thatch removal at the completion of the third growing season, during the dormant season (November-April). This regimen will mimic the conditions and benefits of a controlled burn.

5.0 LONG-TERM MANAGEMENT PLAN (YEARS 4+)

1. Long Term. As the planted areas mature, required supplemental management will be significantly reduced. The plant communities will stabilize and be effectively managed through a

reduced schedule of spot mowing, selective herbicide application, and hand pulling as necessary. Every 3-5 years, a late fall mowing with thatch mulching/removal should be conducted during the dormant season (November-April). Management site visits should be conducted 2-3 times annually. Soil erosion and sediment controls shall be regularly maintained.

The natural areas require long-term management to maintain their function as designed. It is expected that the natural areas will be maintained in their permitted condition. The long-term manager for the natural areas will be the Lessee or Owner. An annual letter report documenting the completion of inspection and management tasks based on the information herein should be submitted to the Owner each year.

Management tasks should be preceded by a site inspection to determine if remedial measures are required and to recommend procedures to correct any deficiencies. The site inspection should be conducted by a qualified individual knowledgeable in native plants and management of native plantings. Areas of observation during the site inspection should include but are not limited to: dominant species within distinct planting communities; erosion or herbivory concerns that develop over time; changes in hydrology that may require additional planting to adjust for higher or lower water levels; or the appearance of invasive species in the managed area that require alternative management methods.

The following management tasks should be completed annually, unless otherwise specified below:

a. Debris Removal: All debris shall be removed, via non-invasive methods, from within the natural areas.
b. Herbicide Application: Selective herbicide to control invasive species should be completed 2-3 times annually. A certified and licensed pesticide applicator shall select herbicide, appropriate for the area of use (such as wetlands or other special management area), and shall apply the herbicide by the appropriate method, to prevent killing of desirable native species. Invasive and non-native species, and woody plant species not specified as part of the planting plan, shall be controlled by appropriate management practices of the approved plan.
c. Mowing: Selective mowing is a preferred method for control of annual non-native and invasive species to prevent seed proliferation. Mowing with a specialty flail-type mower to mulch thatch or weed whip with thatch removal (or combination) may be substituted for prescribed burns in instances where a burn is not permissible or weather does not allow for a safe/effective burn.
d. Erosion Control & Stabilization: When conducting the annual inspection, it is important to observe and note areas of bare soil and other early warning signs of erosion. If caught early enough, they may be easily stabilized with seed and erosion control blanket.
e. Brush Clearing: Management of woody species is not likely necessary if herbicide applications are successful and continued each year. If invasive shrubs become a problem they should be cut and all remaining stumps should be treated with an appropriate herbicide to prevent resprout, either through a basal oil treatment, hand wick applicator, or other approved method. Brush clearing should be conducted in the winter months with frozen ground conditions.

Table 1: Typical Management Schedule for Natural Areas

Management Task	Spring	Summer	Fall	Winter
Annual Site Inspection		X		

Annual Letter Report				X
Debris Removal (As Necessary)	X	X	X	X
Herbicide Application	X	X	X	
Mowing	X	X	X	
Erosion Control & Stabilization	X	X	X	
Brush Clearing			X	X

6.0 HERBICIDE APPLICATION

This section applies to all site preparation and management herbicide application that is proposed to occur onsite.

1. Any person applying herbicide shall hold appropriate licensure for pesticide application in the state of Illinois. A licensed Illinois Pesticide Applicator shall be on-site at all times when herbicide is being applied.

2. Herbicide usage will vary based on site conditions and target species. The following herbicides are allowed for use in natural areas; aquatic approved Glyphosate formulations (Aquaneat®, Rodeo®, etc.), Clethodim (Intensity®, etc.), aquatic approved Imazapyr (Habitat®, etc.), Triclopyr 3A (Tahoe 3A®, Garlon 3A®, etc.), Garlon 4 Ultra® (no substitutions), and Aminopyralid (Milestone®) to control target species. It is the sole responsibility of the Contractor to evaluate the site and select the appropriate herbicide for both site conditions and target species in accordance with herbicide labeling.

Decommissioning Estimate/Plan

Date: 9/17/2024
Calculated By: CG

Ament Road
Kendall County, IL

This Decommissioning Estimate has been prepared by New Leaf Energy in an attempt to predict the cost associated with the removal of the proposed solar facility. The primary cost of decommissioning is the labor to dismantle and load as well as the cost of trucking and equipment. All material will be removed from the site, including the concrete equipment pads, which will be broken up at the site and hauled to the nearest transfer station.

No salvage values have been assumed in this calculation.

The following values were used in this Decommissioning Estimate:

System Specifications	
Number of Modules	13,390
Linear Feet of Racking (ft)	50,213
Number of Inverters	20
Number of Transformers	2
Number of Tracker Motors	6
Electrical Wiring Length (ft)	3,276
Number of Foundation Piles	3,044
Length of Perimeter Fence (ft)	5,096
Number of Power Poles	5
Access Rd Material Volume (YD)	1,791
Total Disturbed Area (SF)	49,851
Total Fence Weight (lbs)	3,618
Total Racking Weight (lbs)	314,665
Total Foundation Pile Weight (lbs)	410,940
Total Solar Module Weight (lbs)	803,400

Labor and Equipment Costs		
Labor Rate ($/hr)	$	35.00
Operator Rate ($/hr)	$	47.00
Bobcat Cost ($/hr)	$	101.90
Front End Loader Cost ($/Day)	$	845.77
Excavator Cost ($/Day)	$	1,365.46
Trucking Cost ($/hr)	$	127.38
Backhoe Cost ($/hr)	$	101.90
Power Pole Removal Cost ($/pole)	$	1,500.00
Grader Cost ($/day)	$	1,324.70
Gravel Export Cost ($/YD)	$	8.00
Loam Import Cost ($/YD)	$	20.00
Seeding Cost ($/SF)	$	0.10
Fuel Cost ($/mile)	$	0.50

Equipment & Material Removal Rates	
Module Removal Rate (min/module)	1
Rack Wiring Rem. Rate (min/mod)	0.25
Racking Dismantling Rate (min/LF)	0.2
Inverter Removal Rate (hr/unit)	0.5
Transformer Removal Rate (hr/unit)	1
Motor Removal Rate (hr/unit)	1
Rack Loading Rate (min/LF)	0.1
Elect. Wiring Removal Rate (min/LF)	0.5
Pile Rem. Rate (piles/day)	300
Fence Removal Rate (min/LF)	1
Days req. to break up concrete pads	1
Days req. with Rough Grader	1
Days req. with Fine Grader	2
Total Truckloads Required	29
Round-Trip Dist. to Trans. Sta.(miles)	17
Round-Trip Time to Trans. Sta. (hr)	0.5

Labor, Material, and Equipment Costs

1. Remove Modules

The solar modules are fastened to racking with clamps. They slide in a track. A laborer needs only unclamp the module and reach over and slide the module out of the track.

Module Removal Rate • Total Number of Solar Modules • Labor Rate = Module Removal Cost

Total = $ 7,810.83

2. Remove Rack Wiring

The modules are plugged together in the same manner as an electrical cord from a light is plugged into a wall socket. The string wires are in a tray. A laborer needs only unplug the module, reach into the tray and remove the strands of wire.

Wire Removal Rate • Total Number of Solar Modules • Labor Rate = Rack Wiring Removal Cost

Total = $ 1,952.71

3. Dismantle Racks

Tracker module racking primarily consists of torque tubes and a driveline. These are supported on driven piles. The torque tubes and driveline unbolt from the foundation piles.

Linear feet of Racking • Rack Dismantling Rate • Labor Rate = Rack Dismantling Cost

Total = $ 5,858.18

4. Remove and Load Electrical Equipment

Electrical equipment includes transformers, inverters, and tracker motors.

(Number of Inverters • Inverter Removal Rate + Number of Transformers • Transformer Removal Rate + Number of Motors • Motor Removal Rate) • (Operator Rate + Bobcat Cost) = Electrical Equipment Removal Cost

Total = $ 2,680.20

5. Break Up Concrete Pads

Concrete pads are broken up using an excavator and jackhammer.

Number of Demolition Days • (Excavator Cost + Operator Cost) = Total Concrete Pad Removal

Total = $ 1,221.77

6. Load Racks

Once the racking has been dismantled, it will be loaded onto trucks for removal from the site. The trucking cost associated with this line item represents the additional time a truck will be needed during loading. Please see item # 13 for the cost of trucking off-site.

Linear feet of Racking • Rack Loading Rate • (Operator Cost + Front End Loader Cost + Trucking Cost) = Total Rack Removal Cost

Total = $ 23,120.99

7. Remove Electrical Wiring

Electrical wiring will be removed from all underground conduits.

Cable Length • Cable Removal Rate • (Operator Cost + Backhoe Cost) = Total Cable Removal Cost

Total = $ 4,064.97

8. Remove Foundation Piles

Foundation piles will be pulled out of the ground and loaded onto a truck to be removed from site.

(Total Number of Piles / Daily Pile Removal Rate) • (Operator Rate + Excavator Cost) = Total Pile Removal Cost

Total = $ 26,505.02

9. Remove Fencing

Fencing posts, mesh, and foundations will be loaded onto a truck and removed from site. Trucking costs included in this line item are for the removal process. Trucking to a recycling facility are included in item #13.

(Total Length of Fence • Fence Removal Rate) • (Operator Rate + Bobcat Cost + Trucking Cost) =

Total = $ 23,464.96

10. Remove Power Poles

Power poles will be removed and shipped off site.

Number of Power Poles • Pole Removal cost = Total Power Pole Removal Cost

Total = $ 7,500.00

11. Gravel Road Reclamation

Reclamation of the gravel access road will entail removing the gravel material and exporting it off site. The area will then be backfilled with loam and graded.

(Days with Rough Grader + Days with Fine Grader) • (Grader Cost per Day+Operator Cost per Day) + [Roadway Material Volume • (Gravel Export Cost + Loam Import Cost)] = Gravel Road Reclamation Cost

Total = $ 55,253.21

12. Seed Disturbed Areas

Seeding cost includes labor and materials for reseeding all disturbed areas including the reclaimed gravel road area, former electrical areas, and areas disturbed by racking foundation removal.

Seeding Cost • Disturbed Area = Total Seeding Cost

Total = $ 4,985.06

13. Truck to Transfer Station

All material will be trucked to the nearest Transfer station that accepts construction material. The nearest transfer station is Groot Recycling & Waste - Aurora

(Total Truckloads • Roundtrip Distance • Fuel Cost) + (Total Truckloads • Round Trip Time • Trucking Cost) = Total Trucking Cost to Transfer Station

Total = $ 2,093.44

Salvage Values

Salvage Value Not Included

Racking Disposal Cost

1S. Racking Disposal Cost

The racking can be disposed of at the Transfer Station. They will be trucked to Groot Recycling & Waste - Aurora.

(Total Racking Weight)/2000 • Cost per Ton of disposal =

Total = $ 32,831.25

Panel Disposal

2S. Solar Panel Disposal Cost

The panels can be disposed of at facilities which except electronics. They will be trucked to Groot Recycling & Waste - Aurora.

(Total Panel Weight)/2000 • Cost per Ton of disposal =

Total = $ 60,255.00

new leaf energy

Ament Road
Kendall County, IL

Summary of Decommissioning Costs and Salvage Values

Line Item	Task	Cost
1	Module Removal	$ 7,810.83
2	Rack Wiring Removal	$ 1,952.71
3	Rack Dismantling	$ 5,858.18
4	Electrical Equipment Loading and Removal	$ 2,680.20
5	Break Up Concrete Pads	$ 1,221.77
6	Load Racks	$ 23,120.99
7	Electrical Wiring Removal	$ 4,064.97
8	Foundation Pile Removal	$ 26,505.02
9	Fence Removal	$ 23,464.96
10	Power Pole Removal	$ 7,500.00
11	Gravel Road Reclamation	$ 55,253.21
12	Seed Disturbed Areas	$ 4,985.06
13	Trucking to Transfer Station	$ 2,093.44
	Subtotal =	$ 166,511.35

Additional Item	Task	Value
Salvage Values Not Included		
1S	Racking Disposal Cost	$ 32,831.25
2S	Solar Panel Disposal Cost	$ 60,255.00
	Additional Item Subtotal	$ 93,086.25

Present Value Total = $ 255,048.39

Task	Future Value

Inflation

# of Years= 25

Inflation Rate= 2.0%

Total • (1+ Inflation Rate)^Number of Years =Grand Total

Grand Total = $ 425,897.37

STORMWATER/DRAINAGE MEMORANDUM

KENDALL COUNTY, IL

AMENT ROAD – COMMUNITY SOLAR

AMENT ROAD
KENDALL COUNTY, ILLINOIS

A 5 MW (AC) GROUND-MOUNTED SOLAR POWER GENERATING FACILITY

Prepared for

NEW LEAF ENERGY

[redacted]

Submitted by: Atwell, LLC

Atwell Project No.
23002398

Date: September 27, 2024
REVISED: January 14, 2025

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1 PROJECT NARRATIVE

New Leaf Energy (NLE) is proposing a 5 MW (AC) ground-mounted solar generating facility to be constructed along Ament Road located in Kendall County, Illinois outside of the limits of the United City of Yorkville. The solar development proposes approximately 0.97 acres of new impervious area and will stabilize the ground within the fenced area and other limits of disturbance that will not be farmed with a native pollinator friendly prairie seed mix. The existing topography and flow patterns will remain the same throughout the project area. Per the Kendall County Stormwater Ordinance, the allowable release rate for proposed hydraulically disturbed areas (impervious areas) is 0.04 cfs/acre for a 24-hr 2-year storm and 0.15 cfs/acre for a 24-hr 100-year storm. Based on the nature of this project and the construction, it is assumed that the proposed impervious area is the only hydraulically disturbed area. The site runoff reduction was analyzed to demonstrate that the total projected post-development peak flow rate is below the allowable release rate, and this is expected to provide a net positive impact on the existing watershed.

2 EXISTING CONDITIONS

The existing 95.28-acre property consists of straight row crops with no existing structures. The only impervious area within the project limits of disturbance is a small portion of the eastbound lane of Ament Road and the existing site gravel entrance. The drainage areas contain additional impervious areas (the eastbound lane of Ament Road and some off-site structures). The project site consists of two parcels, of which “Parcel 1” will contain the proposed solar array field, and “Parcel 2” will contain only the proposed site access road and connection to Ament Road.

Existing Drainage Area #1 flows from a high point near the site entrance to the east property line of Parcel 2. Runoff then flows into Existing Drainage Area #2, which flows toward Parcel 1 through mostly off-site areas before transitioning onsite and out falling at an existing ditch along the Parcel 1 southern property line. Existing Drainage Area #3 flows from a high point at the middle of the east property line of Parcel 2 southward to the center of Parcel 1, which creates depressional storage before flowing into Existing Drainage Area #2. Existing Drainage Area #4 flows from a high point at the southern side of Parcel 2 across the Parcel 1 north property line and southward to an existing ditch along the Parcel 1 southern property line before flowing offsite.

Drainage Area #3 includes an existing depression that holds approximately 28,145 cubic feet of storage. There is no planned grading in this area and the storage within this depression will remain in the proposed condition.

Per the USDA NRCS Web Soil Survey included in **Appendix A**, the soil types and hydrologic soil groups consist of Lisbon silt loam (C/D), Drummer silty clay loam (B/D), Elpaso silty clay loam (B/D), and Graymont silt loam (C). The average existing hydrologic soil group rating for the project area is D. A pre-development drainage area map is included in **Appendix B**. On the next page, **Table 2.1** details the pre-development drainage area characteristics and **Table 2.2** details the pre-development curve number.

Table 2.1 – Pre-Development Drainage Area Characteristics

Drainage Area	Undisturbed		Disturbed		Total (ac)
	Impervious (ac)	Pervious (ac)	Impervious (ac)	Pervious (ac)	
Existing Drainage Area #1	0.09	5.49	0.01	-	**5.59**
Existing Drainage Area #2	0.31	62.20	-	-	**62.51**
Existing Drainage Area #3	-	20.76	-	-	**20.76**
Existing Drainage Area #4	-	11.54	-	-	**11.54**
				Total	**100.40**

Table 2.2 – Pre-Development Curve Numbers

Soil Rating	Cover Description	CN
C	Row Crops; Straight Row (SR) Good	85
D	Row Crops; Straight Row (SR) Good	89
-	Impervious Area	98
	Combined CN	**88**

3 PROPOSED CONDITIONS

The proposed development will consist of a solar generating facility and equipment pads enclosed within a minimum 7-foot-high perimeter fence, as well as a gravel access road connecting Ament Road to the project site. Proposed Drainage Areas #1 and #3 will be modified from existing conditions to reduce the amount of runoff onto the adjacent property to the east. Drainage Area #1 will contain a portion of the proposed site access road and connection to Ament Road within Parcel 2. Proposed Drainage Areas #2 and #4 will be modified from existing conditions to accommodate the proposed stormwater management basins which will reduce runoff flowing offsite to the south.

Appendix B includes the Post-Development Drainage Area Map and **Table 3.1** on the following page details the post-development drainage area characteristics. The post-development drainage area includes the undisturbed areas outside of the project limits of disturbance, the disturbed row crop ground cover which will be converted to pasture, and the hydrologic disturbed area (equipment pads and access road). The total project limits of disturbance is 42.4 acres, with 0.97 acres of proposed hydrologically disturbed area.

Table 3.1 – Post-Development Drainage Area Characteristics (disturbed and undisturbed)

Drainage Area	Undisturbed		Disturbed		Total (ac)
	Impervious (ac)	Pervious (ac)	Impervious (ac)	Pervious (ac)	
Proposed Drainage Area #1	0.09	3.72	0.32	-	**4.13**
Proposed Drainage Area #2	0.31	61.84	-	-	**62.15**
Proposed Drainage Area #3	-	21.57	0.65	-	**22.22**
Proposed Drainage Area #4	-	11.70	-	-	**11.70**
				Total	**100.20**

Runoff from the proposed drainage areas will flow offsite to their respective drainage area low points shown on the drainage area maps. The entire area within the project limits of disturbance is being converted from straight row crops to pasture by planting native pollinator friendly prairie seed. This is expected to result in a reduction in the total peak flow rate.

Table 3.2 - Post-Development Curve Numbers

Soil Rating	Cover Description	CN
C	Pasture; Good	74
D	Pasture; Good	80
-	Impervious Area	98
	Combined CN	**84**

For this report, the total runoff reduction was analyzed to demonstrate that the change in cover type decreases the total peak flow rate and is below the allowable release rate for the project (per Kendall County requirements). By decreasing the total runoff, there will be a net positive impact to the existing watershed. Rainfall depth frequency from the Illinois State Water Survey Bulletin 75 is provided in **Appendix C**. For the design of this report, the Huff Distribution Method in HydroCAD was used. Design was completed using the 2-year, 24-hour and 100-year, 24-hour storm events. Pre- and post-development stormwater calculations, as well as a graphical depiction of the models, are included with the HydroCAD reports in **Appendix D**.

4 CONCLUSION

A comparison of the peak flow rate (PFR) for each drainage area and the total hydrologic study area is provided in **Table 4.1** on the following page. **Appendix D-1** contains the HydroCAD report for the pre-development condition, and **Appendix D-2** includes the HydroCAD report for the post-development condition without the use of stormwater basins.

Table 4.1 – Pre- vs. Post-Development Storm Event Comparison without SWM Basins

	2-Year Storm Event			100-Year Storm Event		
	Pre-Developed Flow (cfs)	Post-Developed Flow (cfs)	% Change	Pre-Developed Flow (cfs)	Post-Developed Flow (cfs)	% Change
D.A. #1*	1.60	1.11	-30.6%	4.99	3.60	-27.9%
D.A. #2	17.97	16.64	-7.4%	54.18	52.41	-3.3%
D.A. #3	6.23	5.44	-12.7%	18.65	18.83	+1.0%
D.A. #4	3.44	2.58	-25.0%	10.32	9.54	-7.6%
Total	**28.55**	**24.99**	**-12.5%**	**86.46**	**82.12**	**-5.0%**

* Includes gravel road and pollinator seed mixes to stabilize the areas outside of the gravel road but within the limits of disturbance. Flow off site to adjacent property is negligent and not anticipated to create any off-site issues.

As shown, total flow rates for both storm events are decreased in the post-development condition without the use of the stormwater basins.

A comparison of the total allowable PFR and total post-development PFR for the 2-year and 100-year, 24-hour storm events is summarized in **Table 4.2**. The disturbed area flow rate was calculated by taking the disturbed area allowable release rate for each storm event and multiplying it by the total hydraulically disturbed area (impervious area). This value was then added to the pre-development PFR for the undisturbed areas (from HydroCAD) to calculate the total allowable post-development PFR for the project. This was compared to the total post-development PFR (from HydroCAD) to confirm that the proposed project decreases the total peak flow rate on site without the use of the stormwater basins.

Table 4.2 – Storm Frequency Flows (Total Allowable vs. Total Post-Development)

	Area (ac)	Peak Flow Rate (cfs)	
		2-Yr	100-Yr
Allowable Pre-Development PFR for Disturbed Area (per Kendall County requirements: **2-Yr:** 0.04 cfs/acre disturbed area **100-Yr:** 0.15 cfs/disturbed area)	0.97	0.04	0.15
Pre-Development PFR for Undisturbed Area (from HydroCAD)	99.23	29.24	88.13
Total Allowable Post-Development PFR (Allowable Pre-Development PFR for Disturbed Area + Pre-Development PFR for Undisturbed Area)	**100.20**	**29.28**	**88.28**
Total Post-Development PFR (from HydroCAD)	**100.20**	**24.99**	**82.12**

As shown in **Table 4.2**, the total post-development PFR for the project area is reduced for both storm events due to an increase in infiltration from the proposed native pollinator friendly prairie seed mix, which results in the use of a lower curve number. The proposed project utilizes a low-impact design by stabilizing the disturbed areas with a native pollinator friendly prairie seed mix. Therefore, the project will have a net positive impact on the watershed. The total post-development peak flow rates for both the 2-year and 100-year, 24-hour storm events are below the total allowable peak flow rate; thus, detention is not required.

A published study by the American Society of Civil Engineers (ASCE) is included in **Appendix E**. This report shows that the net increase in flow from a Solar Facility does not change so long as the ground cover does not change. In the case of this project, we do change the ground cover but to a cover that reduces the flow from the pre-development flows. So, in conjunction with this study and the revised ground cover, we feel that no detention or further stormwater management measures are required.

Per discussions with the local jurisdictions, it was requested to add stormwater management basins to the project to further reduce runoff to offsite areas south of the project area from Drainage Areas #2 and #4. Basin #1 receives stormwater runoff from Drainage Area #4, and Basin #2 receives stormwater runoff from Drainage Area #2. **Table 4.3** shows the storm event comparison with the stormwater basins included. The HydroCAD report for this analysis is provided in **Appendix D-3**.

Table 4.3 – Pre- vs. Post-Development Storm Event Comparison with SWM Basins

	2-Year Storm Event			100-Year Storm Event		
	Pre-Developed Flow (cfs)	Post-Developed Flow (cfs)	% Change	Pre-Developed Flow (cfs)	Post-Developed Flow (cfs)	% Change
D.A. #1*	1.60	1.11	-30.6%	4.99	3.60	-27.9%
D.A. #2	**17.97**	**16.59**	**-7.7%**	**54.18**	**52.26**	**-3.5%**
D.A. #3	6.23	5.44	-12.7%	18.65	18.83	+1.0%
D.A. #4	**3.44**	**2.10**	**-38.9%**	**10.32**	**9.40**	**-8.9%**
Total	**28.55**	**23.95**	**-16.1%**	**86.46**	**81.19**	**-6.1%**

* Includes gravel road and pollinator seed mixes to stabilize the areas outside of the gravel road but within the limits of disturbance. Flow off site to adjacent property is negligent and not anticipated to create any off-site issues.

As shown, the total post-development PFR for the project area is reduced further for Drainage Areas #2 and #4 (shown in bold) due to the use of the stormwater basins.

APPENDIX A

USDA NRCS SOILS REPORT

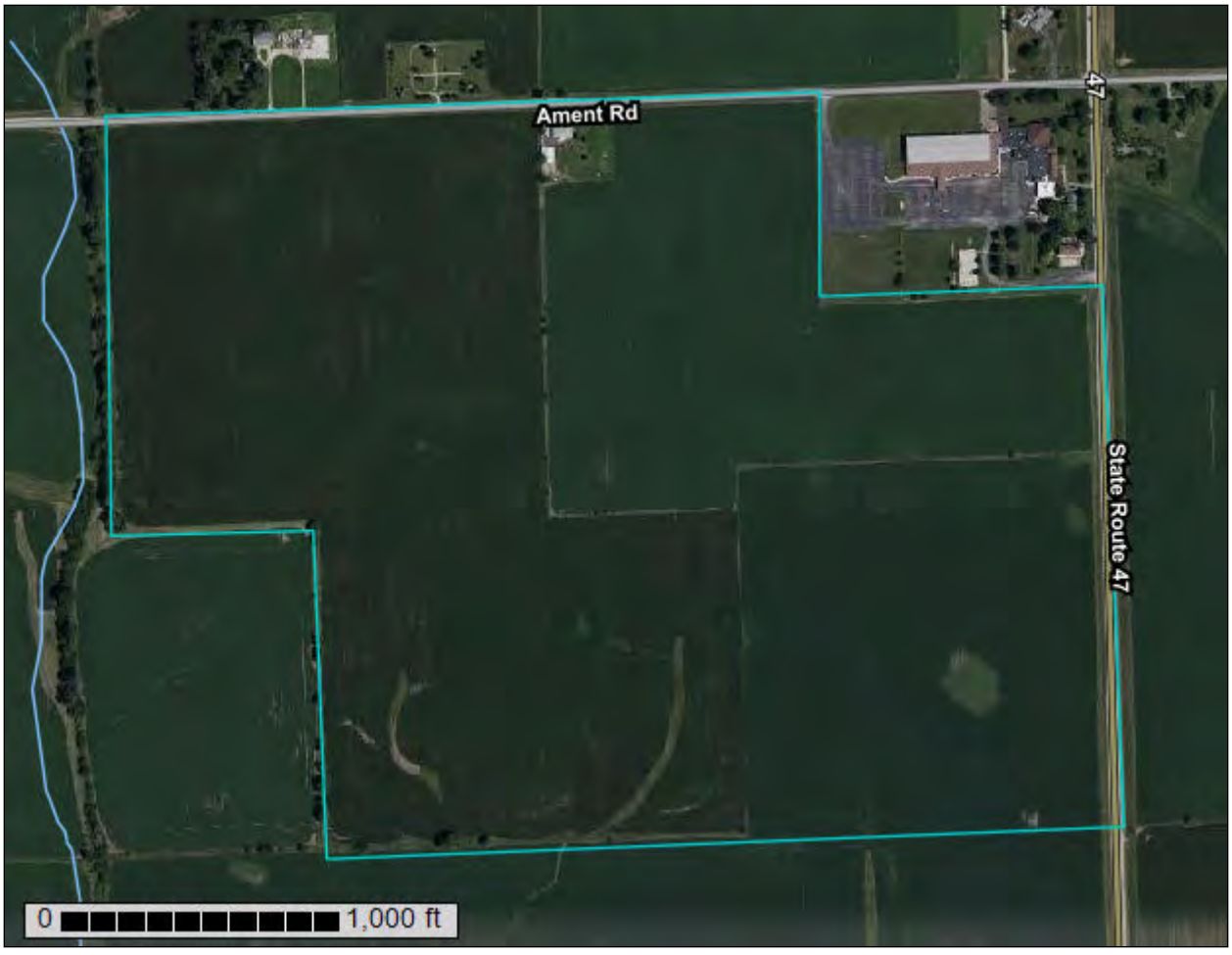
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Kendall County, Illinois



August 29, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kendall County, Illinois
Survey Area Data: Version 20, Aug 28, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 3, 2019—Oct 13, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
59A	Lisbon silt loam, 0 to 2 percent slopes	40.6	22.1%
60C2	La Rose silt loam, 5 to 10 percent slopes, eroded	2.9	1.6%
149A	Brenton silt loam, 0 to 2 percent slopes	2.7	1.4%
152A	Drummer silty clay loam, 0 to 2 percent slopes	49.1	26.7%
356A	Elpaso silty clay loam, 0 to 2 percent slopes	21.0	11.4%
541B	Graymont silt loam, 2 to 5 percent slopes	65.1	35.5%
541C2	Graymont silt loam, 5 to 10 percent slopes, eroded	2.2	1.2%
Totals for Area of Interest		**183.5**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit

descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Kendall County, Illinois

59A—Lisbon silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ytd7
Elevation: 690 to 850 feet
Mean annual precipitation: 35 to 42 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 165 to 180 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Lisbon and similar soils: 92 percent
Minor components: 8 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Lisbon

Setting

Landform: End moraines, ground moraines
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over till

Typical profile

Ap - 0 to 11 inches: silt loam
Bt - 11 to 36 inches: silty clay loam
2Bt - 36 to 39 inches: clay loam
2C - 39 to 60 inches: loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: C/D
Ecological site: F095XB005WI - Moist Loamy or Clayey Lowland
Hydric soil rating: No

Minor Components

Elpaso, drained

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Drummer, drained

Percent of map unit: 3 percent
Landform: Ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Sable, drained

Percent of map unit: 2 percent
Landform: Swales, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: F095XB004WI - Wet Loamy or Clayey Lowland
Hydric soil rating: Yes

60C2—La Rose silt loam, 5 to 10 percent slopes, eroded

Map Unit Setting

National map unit symbol: pfmv
Elevation: 540 to 930 feet
Mean annual precipitation: 28 to 40 inches
Mean annual air temperature: 45 to 54 degrees F
Frost-free period: 140 to 180 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

La rose and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of La Rose

Setting

Landform: Ground moraines, end moraines

Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Till

Typical profile

Ap - 0 to 7 inches: silt loam
Bt - 7 to 19 inches: clay loam
C - 19 to 60 inches: loam

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.60 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Available water supply, 0 to 60 inches: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R108XA006IL - Loess Upland Prairie
Hydric soil rating: No

Minor Components

Elpaso

Percent of map unit:
Landform: Ground moraines, end moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R108XA008IL - Ponded Loess Sedge Meadow, R108XA007IL - Wet Loess Upland Prairie
Hydric soil rating: Yes

149A—Brenton silt loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2sssp
Elevation: 490 to 1,010 feet
Mean annual precipitation: 35 to 43 inches
Mean annual air temperature: 46 to 54 degrees F

Frost-free period: 155 to 200 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Brenton and similar soils: 97 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brenton

Setting

Landform: Stream terraces, outwash plains
Landform position (two-dimensional): Summit, footslope
Landform position (three-dimensional): Interfluve, tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess over stratified loamy outwash

Typical profile

Ap - 0 to 14 inches: silt loam
Bt1 - 14 to 33 inches: silty clay loam
2Bt2 - 33 to 54 inches: loam
2Cg - 54 to 79 inches: stratified silt loam to loamy sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 1
Hydrologic Soil Group: B/D
Ecological site: R108XA012IL - Outwash Prairie, R111XD020IN - Wet Outwash Mollisol
Hydric soil rating: No

Minor Components

Drummer, drained

Percent of map unit: 3 percent
Landform: Swales on till plains, swales on outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow, R108XA013IL - Wet Outwash Prairie

Hydric soil rating: Yes

152A—Drummer silty clay loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 2ssrz
Elevation: 490 to 1,020 feet
Mean annual precipitation: 33 to 43 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 160 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition

Drummer, drained, and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Drummer, Drained

Setting

Landform: Swales on till plains, swales on outwash plains, stream terraces on till plains, stream terraces on outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope, talf
Down-slope shape: Linear
Across-slope shape: Linear, concave
Parent material: Loess over stratified loamy outwash

Typical profile

Ap - 0 to 14 inches: silty clay loam
Btg - 14 to 41 inches: silty clay loam
2Btg - 41 to 47 inches: loam
2Cg - 47 to 60 inches: stratified sandy loam to clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: B/D
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow, R111XD020IN - Wet Outwash Mollisol, R108XA013IL - Wet Outwash Prairie
Hydric soil rating: Yes

Minor Components

Harpster, drained
Percent of map unit: 3 percent
Landform: Depressions on outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY025IL - Ponded Calcareous Sedge Meadow
Hydric soil rating: Yes

Peotone, drained
Percent of map unit: 3 percent
Landform: Depressions on outwash plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

356A—Elpaso silty clay loam, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 2t6zs
Elevation: 580 to 1,020 feet
Mean annual precipitation: 34 to 42 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: Prime farmland if drained

Map Unit Composition
Elpaso, drained, and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elpaso, Drained

Setting
Landform: Till plains, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave

Parent material: Loess over till

Typical profile

Ap - 0 to 21 inches: silty clay loam
Btg1 - 21 to 44 inches: silty clay loam
2Btg2 - 44 to 69 inches: silty clay loam
2C - 69 to 79 inches: silty clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: B/D
Ecological site: R108XA008IL - Ponded Loess Sedge Meadow, R110XY024IL - Ponded Depressional Sedge Meadow, R108XA007IL - Wet Loess Upland Prairie
Hydric soil rating: Yes

Minor Components

Harpster, drained

Percent of map unit: 4 percent
Landform: Depressions on till plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY025IL - Ponded Calcareous Sedge Meadow
Hydric soil rating: Yes

Peotone, drained

Percent of map unit: 2 percent
Landform: Depressions on till plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

541B—Graymont silt loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: 2ww9q
Elevation: 550 to 850 feet
Mean annual precipitation: 36 to 40 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 140 to 195 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Graymont and similar soils: 94 percent
Minor components: 6 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Graymont

Setting

Landform: Ground moraines, till plains
Landform position (two-dimensional): Summit, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loess over till

Typical profile

Ap - 0 to 12 inches: silt loam
Bt1 - 12 to 33 inches: silty clay loam
2Bt2 - 33 to 38 inches: silty clay loam
2C - 38 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C

Ecological site: R108XA006IL - Loess Upland Prairie, R110XY010IL - Moist Glacial Drift Upland Savanna
Hydric soil rating: No

Minor Components

Ashkum, drained
Percent of map unit: 5 percent
Landform: Ground moraines, end moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R110XY024IL - Ponded Depressional Sedge Meadow
Hydric soil rating: Yes

Urban land
Percent of map unit: 1 percent
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

541C2—Graymont silt loam, 5 to 10 percent slopes, eroded

Map Unit Setting
National map unit symbol: 2t6zv
Elevation: 540 to 880 feet
Mean annual precipitation: 34 to 42 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 155 to 190 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Graymont, eroded, and similar soils: 97 percent
Minor components: 3 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Graymont, Eroded

Setting
Landform: Till plains, ground moraines
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loess over till

Typical profile
Ap - 0 to 8 inches: silt loam
Bt1 - 8 to 30 inches: silty clay loam
2Bt2 - 30 to 38 inches: silty clay loam

2C - 38 to 60 inches: silty clay loam

Properties and qualities

Slope: 5 to 10 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 24 to 42 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 9.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R108XA006IL - Loess Upland Prairie, R110XY010IL - Moist Glacial Drift Upland Savanna
Hydric soil rating: No

Minor Components

Elpaso, drained

Percent of map unit: 3 percent
Landform: Till plains, ground moraines
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R108XA008IL - Ponded Loess Sedge Meadow, R110XY024IL - Ponded Depressional Sedge Meadow, R108XA007IL - Wet Loess Upland Prairie
Hydric soil rating: Yes

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group (Ament Road)

Hydrologic soil 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.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

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.

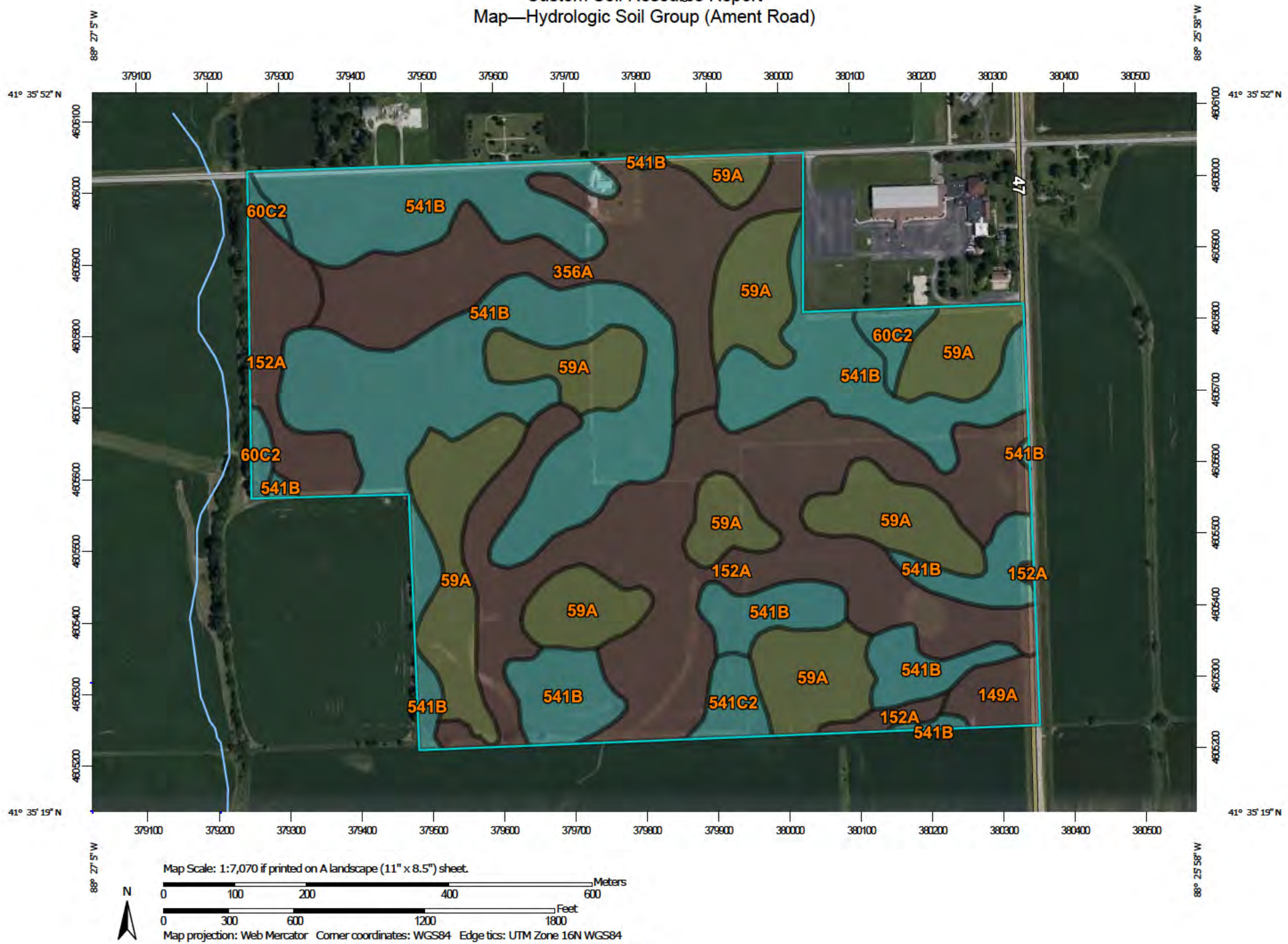
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

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.

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. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report
Map—Hydrologic Soil Group (Ament Road)



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kendall County, Illinois
Survey Area Data: Version 20, Aug 28, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 3, 2019—Oct 13, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group (Ament Road)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
59A	Lisbon silt loam, 0 to 2 percent slopes	C/D	40.6	22.1%
60C2	La Rose silt loam, 5 to 10 percent slopes, eroded	C	2.9	1.6%
149A	Brenton silt loam, 0 to 2 percent slopes	B/D	2.7	1.4%
152A	Drummer silty clay loam, 0 to 2 percent slopes	B/D	49.1	26.7%
356A	Elpaso silty clay loam, 0 to 2 percent slopes	B/D	21.0	11.4%
541B	Graymont silt loam, 2 to 5 percent slopes	C	65.1	35.5%
541C2	Graymont silt loam, 5 to 10 percent slopes, eroded	C	2.2	1.2%
Totals for Area of Interest			**183.5**	**100.0%**

Rating Options—Hydrologic Soil Group (Ament Road)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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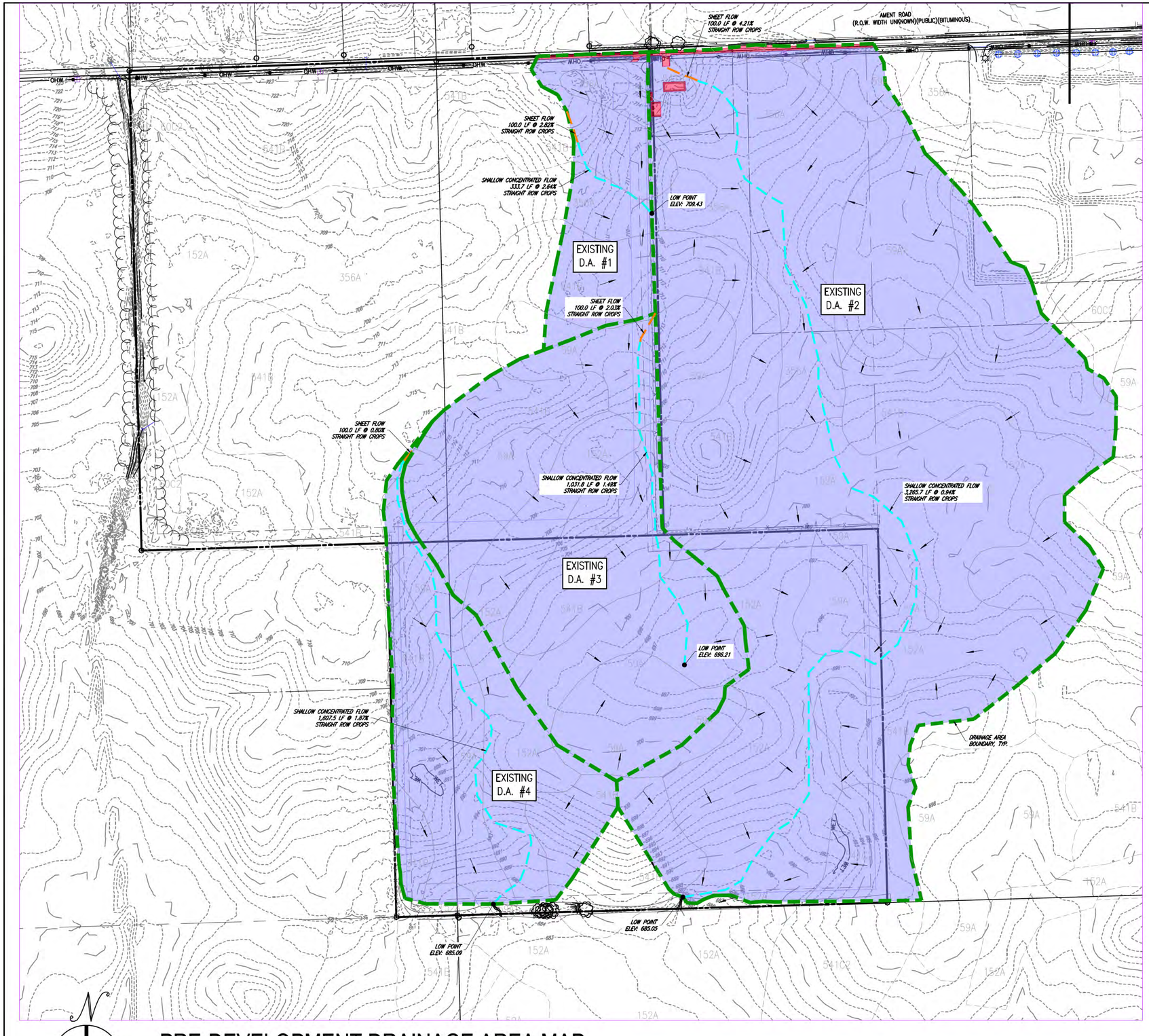
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APPENDIX B

PRE- AND POST-DEVELOPMENT DRAINAGE AREA MAPS



PRE-DEVELOPMENT DRAINAGE AREA MAP

SCALE: 1" = 150'

0 150' 300'

LEGEND

- ROAD (GRAVEL)
- FENCE LINE
- PROPERTY LINE
- WETLAND LINE/FLAG
- (E) MAJOR CONTOUR
- (E) MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- WETLAND BUFFER ZONE
- RIVERFRONT AREA
- 100-YEAR FLOOD HAZARD AREA
- TREELINE
- SILT FENCE
- SILT SOCK
- STORM PIPE
- ELECTRICAL TRENCH
- OVERHEAD ELECTRIC
- SEWER LINE
- WATER LINE
- GAS MAIN
- SIGN
- UTILITY POLE (WITH GUY ANCHOR)
- INDIVIDUAL TREE
- PROJECT LIMITS OF DISTURBANCE
- DRAINAGE AREA BOUNDARY
- SHEET FLOW
- SHALLOW CONCENTRATED FLOW
- ROW CROPS – GOOD CONDITION
- IMPERVIOUS AREA
- DRAINAGE FLOW ARROW

SOIL LEGEND

SOIL TYPE	SOIL RATING	SOIL NAME
59A	C/D	LISBON SILT LOAM, 0 TO 2 PERCENT SLOPES
60C2	C/D	LA ROSE SILT LOAM, 5 TO 10 PERCENT SLOPES, ERODED
152A	B/D	DRUMMER SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
356A	B/D	ELPASO SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
541B	C	GRAYMONT SILT LOAM, 2 TO 5 PERCENT SLOPES
541C2	C	GRAYMONT SILT LOAM, 5 TO 10 PERCENT SLOPES, ERODED

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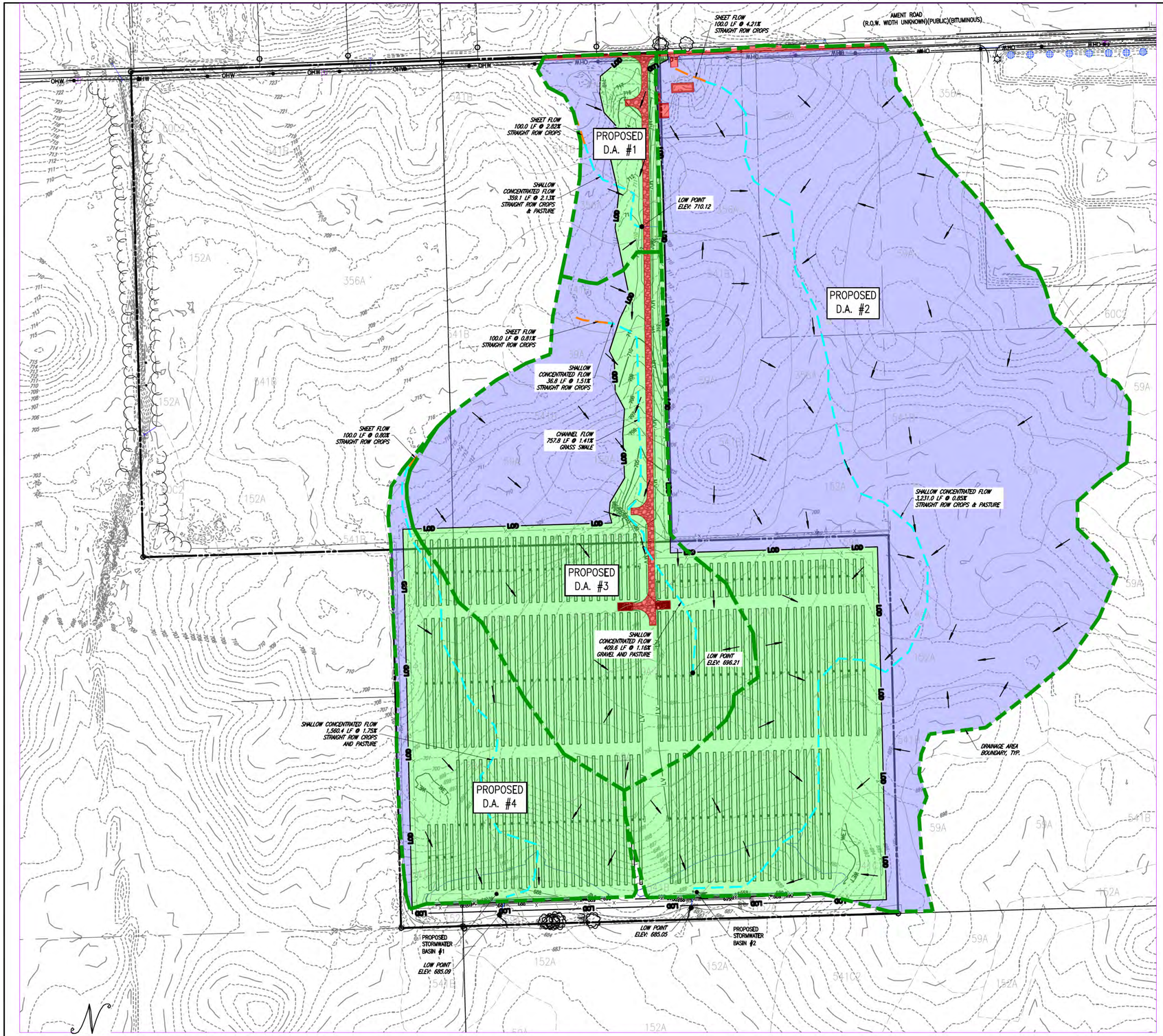
SPECIAL USE PERMIT SET
AMENT ROAD- KENDALL IL

PROJECT NUMBER:
22-4525

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL
	08/29/24	CMP	MBK	SPECIAL USE PERMIT SET
	09/13/24	CMP	MBK	SPECIAL USE PERMIT SET
	10/17/24	CMP	MBK	SPECIAL USE PERMIT SET REV 1
	12/19/24	CMP	MBK	SUP SET - COUNTY COMMENTS
	01/14/25	CMP	MBK	SUP SET - COUNTY COMMENTS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

SWM-1
PRE-DEVELOPMENT DRAINAGE AREA MAP



POST-DEVELOPMENT DRAINAGE AREA MAP

SCALE: 1" = 150'

0 150' 300'

LEGEND

- ROAD (GRAVEL)
- FENCE LINE
- PROPERTY LINE
- WETLAND LINE/FLAG
- (E) MAJOR CONTOUR
- (E) MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
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- RIVERFRONT AREA
- 100-YEAR FLOOD HAZARD AREA
- TREELINE
- SILT FENCE
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60C2	C/D	LA ROSE SILT LOAM, 5 TO 10 PERCENT SLOPES, ERODED
152A	B/D	DRUMMER SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
356A	B/D	ELPASO SILTY CLAY LOAM, 0 TO 2 PERCENT SLOPES
541B	C	GRAYMONT SILT LOAM, 2 TO 5 PERCENT SLOPES
541C2	C	GRAYMONT SILT LOAM, 5 TO 10 PERCENT SLOPES, ERODED

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	12/19/24	CMP	MBK	SUP SET - COUNTY COMMENTS
	01/14/25	CMP	MBK	SUP SET - COUNTY COMMENTS

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTTED ARCH D 24" X 36"

SWM-2

POST-DEVELOPMENT DRAINAGE AREA MAP

APPENDIX C

ISWS BULLETIN 75 PRECIPITATION DATA

Table 7. Rainfall (inches) for Given Recurrence Interval for Section 2 (Northeast)

Storm Duration	2-month	3-month	4-month	6-month	9-month	1-year	2-year	5-year	10-year	25-year	50-year	100-year	500-year
5 minutes	0.19	0.22	0.24	0.27	0.31	0.33	0.40	0.52	0.62	0.77	0.90	1.03	1.35
10 minutes	0.33	0.38	0.41	0.47	0.53	0.58	0.70	0.90	1.08	1.35	1.58	1.80	2.36
15 minutes	0.42	0.49	0.53	0.61	0.69	0.75	0.90	1.16	1.39	1.74	2.03	2.32	3.04
30 minutes	0.58	0.66	0.73	0.83	0.94	1.03	1.24	1.59	1.91	2.39	2.78	3.17	4.16
1 hour	0.74	0.84	0.93	1.05	1.20	1.30	1.57	2.02	2.42	3.03	3.53	4.03	5.28
2 hours	0.91	1.04	1.14	1.30	1.48	1.61	1.94	2.49	2.99	3.74	4.35	4.97	6.52
3 hours	1.00	1.15	1.26	1.44	1.63	1.77	2.14	2.75	3.30	4.13	4.80	5.49	7.20
6 hours	1.18	1.35	1.48	1.68	1.91	2.08	2.51	3.23	3.86	4.84	5.63	6.43	8.43
12 hours	1.37	1.56	1.71	1.95	2.21	2.41	2.91	3.74	4.48	5.61	6.53	7.46	9.78
18 hours	1.48	1.69	1.85	2.11	2.39	2.61	3.14	4.04	4.84	6.06	7.05	8.06	10.57
24 hours	1.57	1.80	1.97	2.24	2.55	2.77	3.34	4.30	5.15	6.45	7.50	8.57	11.24
48 hours	1.72	1.97	2.16	2.46	2.79	3.04	3.66	4.71	5.62	6.99	8.13	9.28	12.10
72 hours	1.87	2.14	2.34	2.67	3.03	3.30	3.97	5.08	6.05	7.49	8.64	9.85	12.81
120 hours	2.08	2.38	2.61	2.97	3.37	3.67	4.42	5.63	6.68	8.16	9.39	10.66	13.81
240 hours	2.63	3.01	3.30	3.76	4.27	4.65	5.60	7.09	8.25	9.90	11.26	12.65	16.00

APPENDIX D

HYDROCAD REPORT FOR 2-YEAR & 100-YEARSTORM EVENT

D-1 PRE-DEVELOPMENT CONDITION

D-2 POST-DEVELOPMENT CONDITION WITHOUT STORMWATER BASINS

D-3 POST-DEVELOPMENT CONDITION WITH STORMWATER BASINS

APPENDIX D-1

HYDROCAD REPORT FOR 2-YEAR & 100-YEARSTORM EVENT

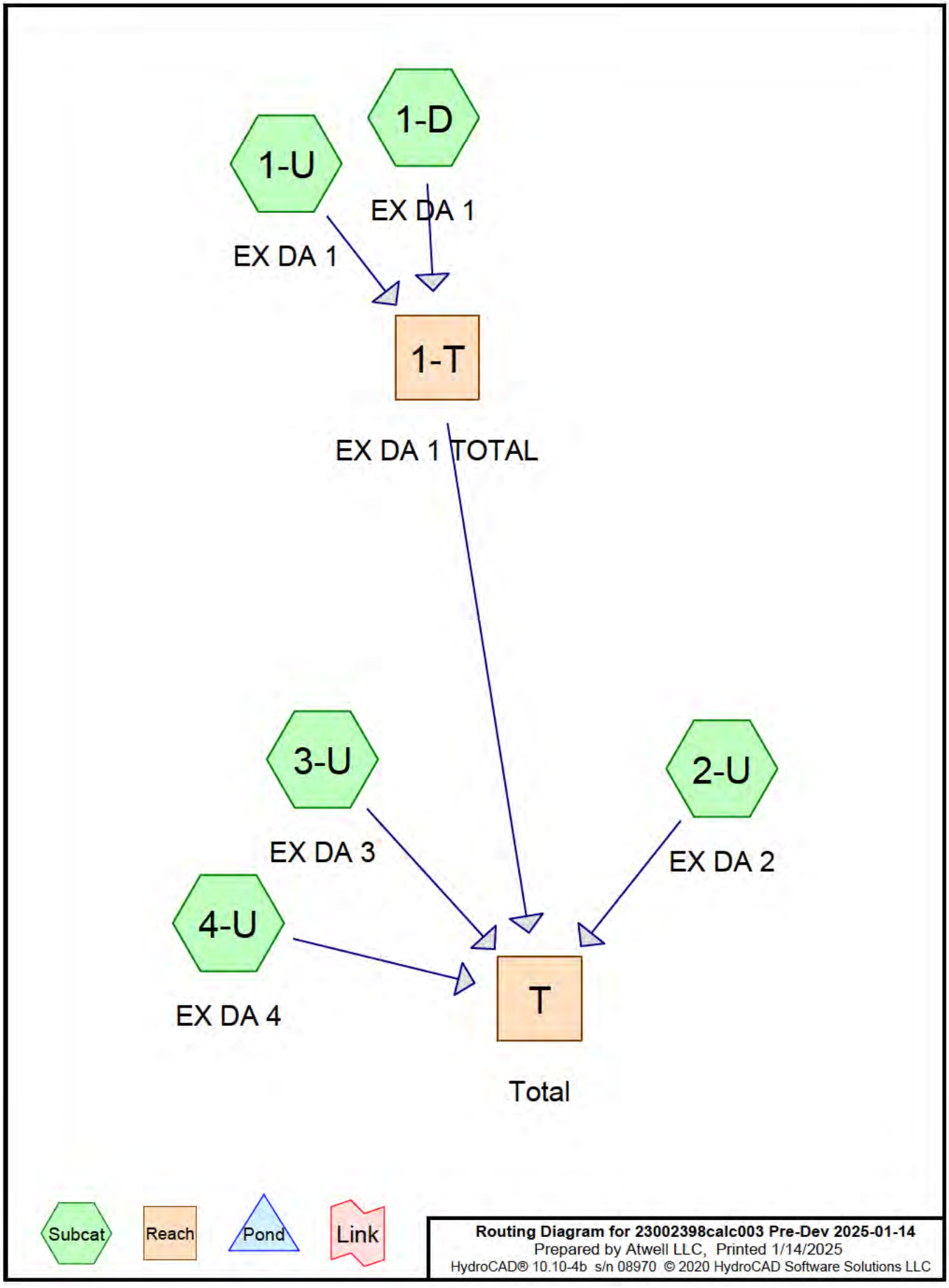
PRE-DEVELOPMENT CONDITION

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3 Area Listing (all nodes)

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4 Node Listing
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7 Subcat 1-U: EX DA 1
9 Subcat 2-U: EX DA 2
12 Subcat 3-U: EX DA 3
14 Subcat 4-U: EX DA 4
16 Reach 1-T: EX DA 1 TOTAL
18 Reach T: Total

100-year Event
20 Node Listing
21 Subcat 1-D: EX DA 1
23 Subcat 1-U: EX DA 1
25 Subcat 2-U: EX DA 2
28 Subcat 3-U: EX DA 3
30 Subcat 4-U: EX DA 4
32 Reach 1-T: EX DA 1 TOTAL
34 Reach T: Total


1-D
1-U
EX DA 1
EX DA 1
1-T
EX DA 1 TOTAL
3-U
2-U
EX DA 3
EX DA 2
4-U
T
EX DA 4
Total
Subcat
Reach
Pond
Link
Routing Diagram for 23002398calc003 Pre-Dev 2025-01-14
Prepared by Atwell LLC, Printed 1/14/2025
HydroCAD® 10.10-4b s/n 08970 © 2020 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-year	Huff 0-10sm	3Q	Scale	24.00	1	3.34	2
2	100-year	Huff 0-10sm	3Q	Scale	24.00	1	8.57	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.409	98	Impervious Area (1-D, 1-U, 2-U)
32.293	85	Row crops, straight row, Good, HSG C (1-U, 2-U, 3-U, 4-U)
67.691	89	Row crops, straight row, Good, HSG D (1-U, 2-U, 3-U, 4-U)
100.393	**88**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1-D: EX DA 1 Runoff Area=0.010 ac 100.00% Impervious Runoff Depth>3.10"
Flow Length=434' Tc=7.8 min CN=98 Runoff=0.00 cfs 0.003 af

Subcatchment1-U: EX DA 1 Runoff Area=5.582 ac 1.54% Impervious Runoff Depth>1.95"
Flow Length=434' Tc=7.8 min CN=86 Runoff=1.60 cfs 0.907 af

Subcatchment2-U: EX DA 2 Runoff Area=62.508 ac 0.50% Impervious Runoff Depth>2.06"
Flow Length=3,366' Tc=67.7 min CN=88 Runoff=17.97 cfs 10.713 af

Subcatchment3-U: EX DA 3 Runoff Area=20.755 ac 0.00% Impervious Runoff Depth>2.10"
Flow Length=1,132' Tc=20.3 min CN=88 Runoff=6.23 cfs 3.636 af

Subcatchment4-U: EX DA 4 Runoff Area=11.538 ac 0.00% Impervious Runoff Depth>2.09"
Flow Length=1,707' Tc=28.4 min CN=88 Runoff=3.44 cfs 2.013 af

Reach 1-T: EX DA 1 TOTAL Inflow=1.60 cfs 0.910 af
Outflow=1.60 cfs 0.910 af

Reach T: Total Inflow=28.55 cfs 17.272 af
Outflow=28.55 cfs 17.272 af

Total Runoff Area = 100.393 ac Runoff Volume = 17.272 af Average Runoff Depth = 2.06"
99.59% Pervious = 99.984 ac 0.41% Impervious = 0.409 ac

Summary for Subcatchment 1-D: EX DA 1

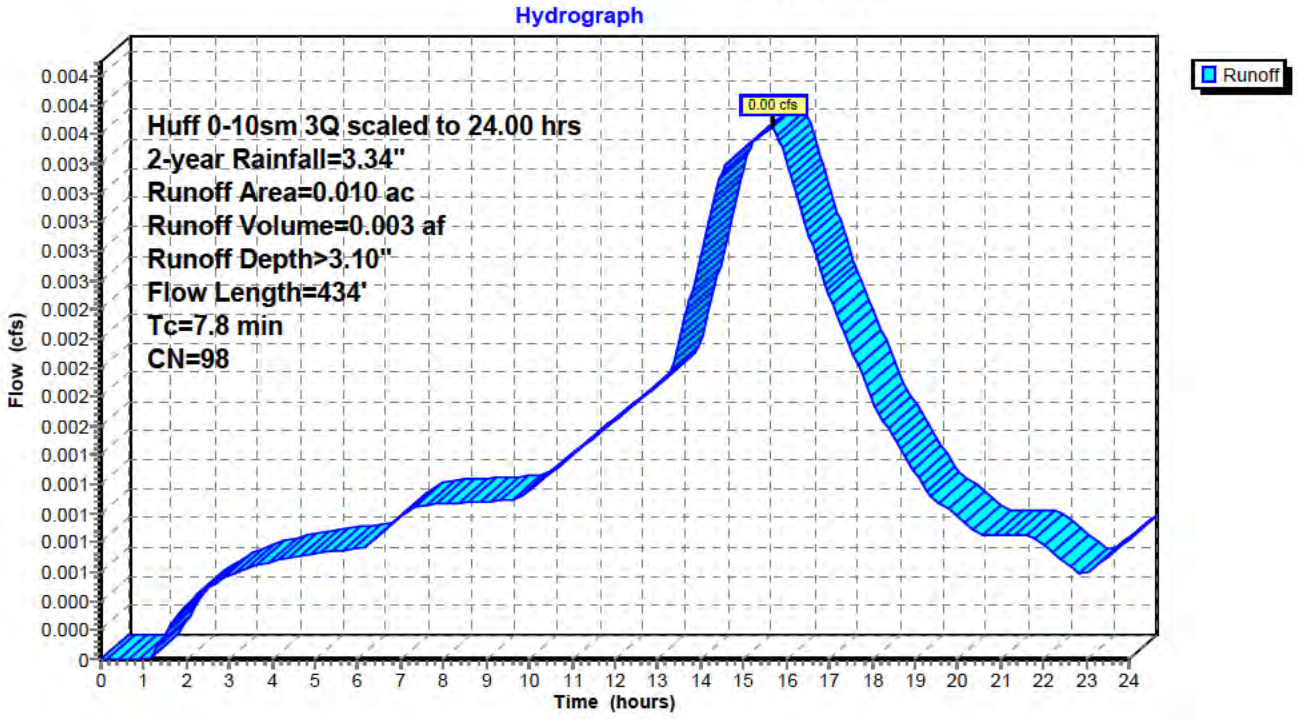
Runoff = 0.00 cfs @ 15.67 hrs, Volume= 0.003 af, Depth> 3.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
*	0.010	98	Impervious Area
	0.010		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
3.8	334	0.0264	1.46		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.8	434	Total			

Subcatchment 1-D: EX DA 1



Hydrograph for Subcatchment 1-D: EX DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	1.15	0.00
0.25	0.00	0.00	0.00	13.25	1.42	1.20	0.00
0.50	0.01	0.00	0.00	13.50	1.47	1.25	0.00
0.75	0.02	0.00	0.00	13.75	1.53	1.31	0.00
1.00	0.04	0.00	0.00	14.00	1.60	1.38	0.00
1.25	0.06	0.00	0.00	14.25	1.68	1.46	0.00
1.50	0.08	0.01	0.00	14.50	1.76	1.54	0.00
1.75	0.10	0.01	0.00	14.75	1.85	1.63	0.00
2.00	0.12	0.02	0.00	15.00	1.94	1.71	0.00
2.25	0.14	0.03	0.00	15.25	2.03	1.80	0.00
2.50	0.16	0.04	0.00	15.50	2.12	1.89	**0.00**
2.75	0.18	0.06	0.00	15.75	2.21	1.98	**0.00**
3.00	0.20	0.07	0.00	16.00	2.29	2.06	0.00
3.25	0.22	0.09	0.00	16.25	2.37	2.14	0.00
3.50	0.25	0.10	0.00	16.50	2.45	2.22	0.00
3.75	0.27	0.12	0.00	16.75	2.51	2.28	0.00
4.00	0.29	0.14	0.00	17.00	2.58	2.35	0.00
4.25	0.31	0.15	0.00	17.25	2.63	2.40	0.00
4.50	0.33	0.17	0.00	17.50	2.69	2.46	0.00
4.75	0.35	0.19	0.00	17.75	2.74	2.51	0.00
5.00	0.37	0.21	0.00	18.00	2.78	2.55	0.00
5.25	0.39	0.22	0.00	18.25	2.82	2.59	0.00
5.50	0.42	0.24	0.00	18.50	2.86	2.63	0.00
5.75	0.44	0.26	0.00	18.75	2.89	2.66	0.00
6.00	0.46	0.28	0.00	19.00	2.93	2.70	0.00
6.25	0.48	0.30	0.00	19.25	2.96	2.72	0.00
6.50	0.50	0.32	0.00	19.50	2.98	2.75	0.00
6.75	0.53	0.34	0.00	19.75	3.01	2.78	0.00
7.00	0.55	0.37	0.00	20.00	3.03	2.80	0.00
7.25	0.58	0.39	0.00	20.25	3.06	2.82	0.00
7.50	0.61	0.42	0.00	20.50	3.08	2.85	0.00
7.75	0.64	0.45	0.00	20.75	3.10	2.87	0.00
8.00	0.67	0.47	0.00	21.00	3.12	2.89	0.00
8.25	0.70	0.50	0.00	21.25	3.14	2.91	0.00
8.50	0.72	0.53	0.00	21.50	3.16	2.93	0.00
8.75	0.75	0.55	0.00	21.75	3.18	2.95	0.00
9.00	0.78	0.58	0.00	22.00	3.20	2.97	0.00
9.25	0.81	0.61	0.00	22.25	3.22	2.99	0.00
9.50	0.84	0.63	0.00	22.50	3.24	3.00	0.00
9.75	0.86	0.66	0.00	22.75	3.25	3.02	0.00
10.00	0.89	0.69	0.00	23.00	3.27	3.03	0.00
10.25	0.93	0.72	0.00	23.25	3.28	3.05	0.00
10.50	0.96	0.75	0.00	23.50	3.30	3.07	0.00
10.75	0.99	0.78	0.00	23.75	3.32	3.09	0.00
11.00	1.03	0.82	0.00	24.00	**3.34**	**3.11**	0.00
11.25	1.07	0.86	0.00				
11.50	1.10	0.89	0.00				
11.75	1.15	0.93	0.00				
12.00	1.19	0.97	0.00				
12.25	1.23	1.01	0.00				
12.50	1.27	1.06	0.00				
12.75	1.32	1.10	0.00				

Summary for Subcatchment 1-U: EX DA 1

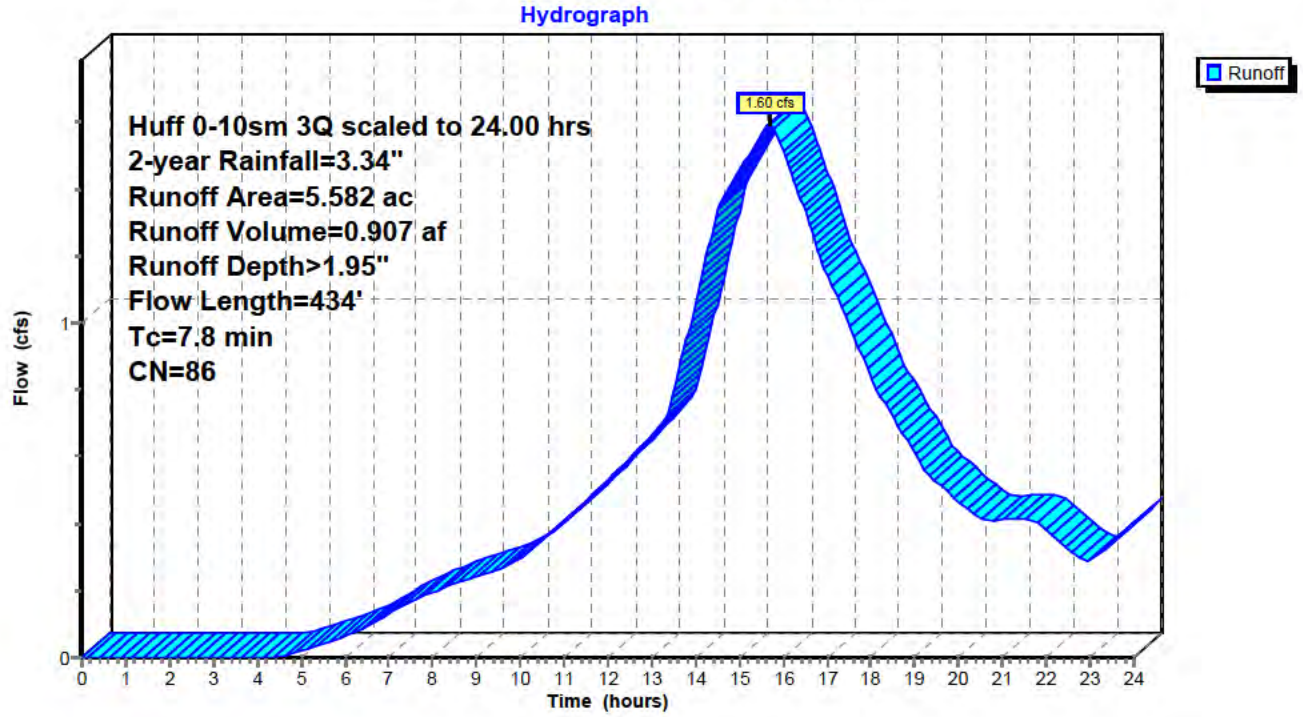
Runoff = 1.60 cfs @ 15.70 hrs, Volume= 0.907 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
	0.200	89	Row crops, straight row, Good, HSG D
	1.277	89	Row crops, straight row, Good, HSG D
	0.327	89	Row crops, straight row, Good, HSG D
	2.982	85	Row crops, straight row, Good, HSG C
	0.710	85	Row crops, straight row, Good, HSG C
*	0.086	98	Impervious Area
	5.582	86	Weighted Average
	5.496		98.46% Pervious Area
	0.086		1.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
3.8	334	0.0264	1.46		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.8	434	Total			

Subcatchment 1-U: EX DA 1



Hydrograph for Subcatchment 1-U: EX DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.41	0.67
0.25	0.00	0.00	0.00	13.25	1.42	0.44	0.70
0.50	0.01	0.00	0.00	13.50	1.47	0.47	0.80
0.75	0.02	0.00	0.00	13.75	1.53	0.51	0.93
1.00	0.04	0.00	0.00	14.00	1.60	0.56	1.06
1.25	0.06	0.00	0.00	14.25	1.68	0.61	1.20
1.50	0.08	0.00	0.00	14.50	1.76	0.67	1.34
1.75	0.10	0.00	0.00	14.75	1.85	0.74	1.41
2.00	0.12	0.00	0.00	15.00	1.94	0.80	1.46
2.25	0.14	0.00	0.00	15.25	2.03	0.87	1.51
2.50	0.16	0.00	0.00	15.50	2.12	0.94	**1.56**
2.75	0.18	0.00	0.00	15.75	2.21	1.01	**1.59**
3.00	0.20	0.00	0.00	16.00	2.29	1.08	1.52
3.25	0.22	0.00	0.00	16.25	2.37	1.14	1.43
3.50	0.25	0.00	0.00	16.50	2.45	1.20	1.34
3.75	0.27	0.00	0.00	16.75	2.51	1.25	1.24
4.00	0.29	0.00	0.00	17.00	2.58	1.31	1.15
4.25	0.31	0.00	0.00	17.25	2.63	1.35	1.07
4.50	0.33	0.00	0.00	17.50	2.69	1.40	1.00
4.75	0.35	0.00	0.01	17.75	2.74	1.44	0.92
5.00	0.37	0.00	0.02	18.00	2.78	1.48	0.84
5.25	0.39	0.00	0.03	18.25	2.82	1.51	0.78
5.50	0.42	0.00	0.04	18.50	2.86	1.54	0.72
5.75	0.44	0.01	0.05	18.75	2.89	1.57	0.67
6.00	0.46	0.01	0.06	19.00	2.93	1.60	0.61
6.25	0.48	0.01	0.08	19.25	2.96	1.62	0.56
6.50	0.50	0.02	0.09	19.50	2.98	1.65	0.52
6.75	0.53	0.02	0.11	19.75	3.01	1.67	0.50
7.00	0.55	0.03	0.13	20.00	3.03	1.69	0.47
7.25	0.58	0.03	0.15	20.25	3.06	1.71	0.44
7.50	0.61	0.04	0.17	20.50	3.08	1.73	0.41
7.75	0.64	0.05	0.18	20.75	3.10	1.75	0.41
8.00	0.67	0.06	0.20	21.00	3.12	1.77	0.41
8.25	0.70	0.07	0.21	21.25	3.14	1.78	0.41
8.50	0.72	0.08	0.22	21.50	3.16	1.80	0.41
8.75	0.75	0.09	0.23	21.75	3.18	1.82	0.41
9.00	0.78	0.10	0.24	22.00	3.20	1.84	0.38
9.25	0.81	0.11	0.25	22.25	3.22	1.85	0.35
9.50	0.84	0.12	0.26	22.50	3.24	1.87	0.33
9.75	0.86	0.13	0.28	22.75	3.25	1.88	0.30
10.00	0.89	0.15	0.30	23.00	3.27	1.89	0.29
10.25	0.93	0.16	0.32	23.25	3.28	1.91	0.32
10.50	0.96	0.18	0.35	23.50	3.30	1.92	0.35
10.75	0.99	0.19	0.38	23.75	3.32	1.94	0.37
11.00	1.03	0.21	0.41	24.00	**3.34**	**1.96**	0.40
11.25	1.07	0.23	0.44				
11.50	1.10	0.25	0.47				
11.75	1.15	0.27	0.50				
12.00	1.19	0.30	0.53				
12.25	1.23	0.32	0.56				
12.50	1.27	0.35	0.60				
12.75	1.32	0.38	0.63				

Summary for Subcatchment 2-U: EX DA 2

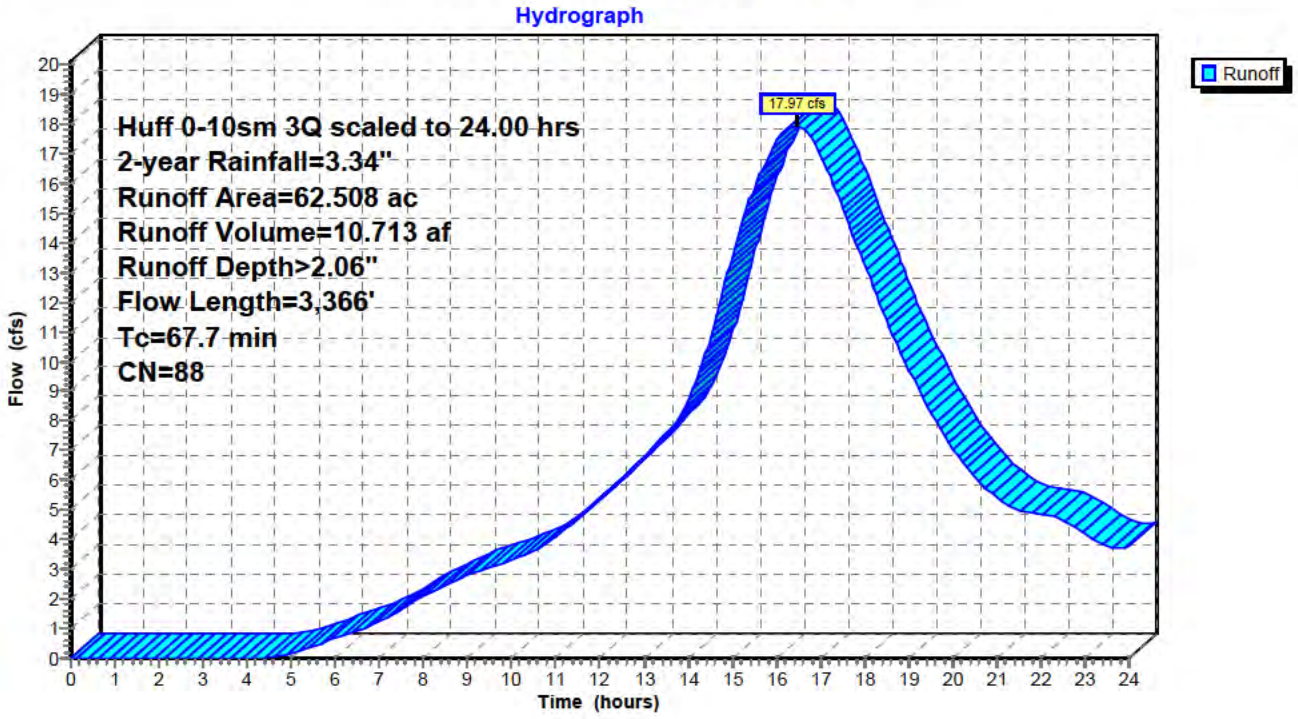
Runoff = 17.97 cfs @ 16.45 hrs, Volume= 10.713 af, Depth> 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
	11.150	89	Row crops, straight row, Good, HSG D
	2.052	89	Row crops, straight row, Good, HSG D
	0.061	89	Row crops, straight row, Good, HSG D
	11.220	89	Row crops, straight row, Good, HSG D
	8.588	89	Row crops, straight row, Good, HSG D
	10.020	89	Row crops, straight row, Good, HSG D
	14.950	85	Row crops, straight row, Good, HSG C
	2.184	85	Row crops, straight row, Good, HSG C
	0.951	85	Row crops, straight row, Good, HSG C
	1.019	85	Row crops, straight row, Good, HSG C
*	0.313	98	Impervious Area
	62.508	88	Weighted Average
	62.195		99.50% Pervious Area
	0.313		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	100	0.0421	0.49		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.5	141	0.0306	1.57		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
62.8	3,125	0.0085	0.83		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
67.7	3,366	Total			

Subcatchment 2-U: EX DA 2



Hydrograph for Subcatchment 2-U: EX DA 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.49	6.80
0.25	0.00	0.00	0.00	13.25	1.42	0.52	7.18
0.50	0.01	0.00	0.00	13.50	1.47	0.56	7.58
0.75	0.02	0.00	0.00	13.75	1.53	0.61	8.04
1.00	0.04	0.00	0.00	14.00	1.60	0.66	8.68
1.25	0.06	0.00	0.00	14.25	1.68	0.71	9.60
1.50	0.08	0.00	0.00	14.50	1.76	0.78	10.78
1.75	0.10	0.00	0.00	14.75	1.85	0.85	12.12
2.00	0.12	0.00	0.00	15.00	1.94	0.91	13.53
2.25	0.14	0.00	0.00	15.25	2.03	0.99	14.79
2.50	0.16	0.00	0.00	15.50	2.12	1.06	15.82
2.75	0.18	0.00	0.00	15.75	2.21	1.13	16.69
3.00	0.20	0.00	0.00	16.00	2.29	1.21	17.39
3.25	0.22	0.00	0.00	16.25	2.37	1.27	**17.84**
3.50	0.25	0.00	0.00	16.50	2.45	1.34	**17.95**
3.75	0.27	0.00	0.00	16.75	2.51	1.39	17.63
4.00	0.29	0.00	0.00	17.00	2.58	1.45	16.97
4.25	0.31	0.00	0.00	17.25	2.63	1.50	16.14
4.50	0.33	0.00	0.03	17.50	2.69	1.54	15.19
4.75	0.35	0.00	0.08	17.75	2.74	1.59	14.22
5.00	0.37	0.01	0.17	18.00	2.78	1.62	13.28
5.25	0.39	0.01	0.29	18.25	2.82	1.66	12.35
5.50	0.42	0.01	0.42	18.50	2.86	1.69	11.42
5.75	0.44	0.02	0.55	18.75	2.89	1.72	10.55
6.00	0.46	0.02	0.68	19.00	2.93	1.75	9.74
6.25	0.48	0.03	0.81	19.25	2.96	1.78	8.99
6.50	0.50	0.03	0.94	19.50	2.98	1.80	8.31
6.75	0.53	0.04	1.08	19.75	3.01	1.83	7.65
7.00	0.55	0.05	1.24	20.00	3.03	1.85	7.06
7.25	0.58	0.06	1.43	20.25	3.06	1.87	6.57
7.50	0.61	0.07	1.64	20.50	3.08	1.89	6.13
7.75	0.64	0.08	1.86	20.75	3.10	1.91	5.75
8.00	0.67	0.09	2.09	21.00	3.12	1.92	5.43
8.25	0.70	0.10	2.29	21.25	3.14	1.94	5.17
8.50	0.72	0.11	2.47	21.50	3.16	1.96	5.00
8.75	0.75	0.12	2.63	21.75	3.18	1.98	4.91
9.00	0.78	0.14	2.79	22.00	3.20	2.00	4.85
9.25	0.81	0.15	2.93	22.25	3.22	2.02	4.78
9.50	0.84	0.16	3.06	22.50	3.24	2.03	4.67
9.75	0.86	0.18	3.19	22.75	3.25	2.04	4.47
10.00	0.89	0.19	3.31	23.00	3.27	2.06	4.22
10.25	0.93	0.21	3.44	23.25	3.28	2.07	3.96
10.50	0.96	0.23	3.62	23.50	3.30	2.09	3.75
10.75	0.99	0.25	3.84	23.75	3.32	2.10	3.68
11.00	1.03	0.27	4.10	24.00	**3.34**	**2.12**	3.77
11.25	1.07	0.29	4.39				
11.50	1.10	0.32	4.70				
11.75	1.15	0.34	5.02				
12.00	1.19	0.37	5.35				
12.25	1.23	0.39	5.71				
12.50	1.27	0.42	6.06				
12.75	1.32	0.46	6.43				

Summary for Subcatchment 3-U: EX DA 3

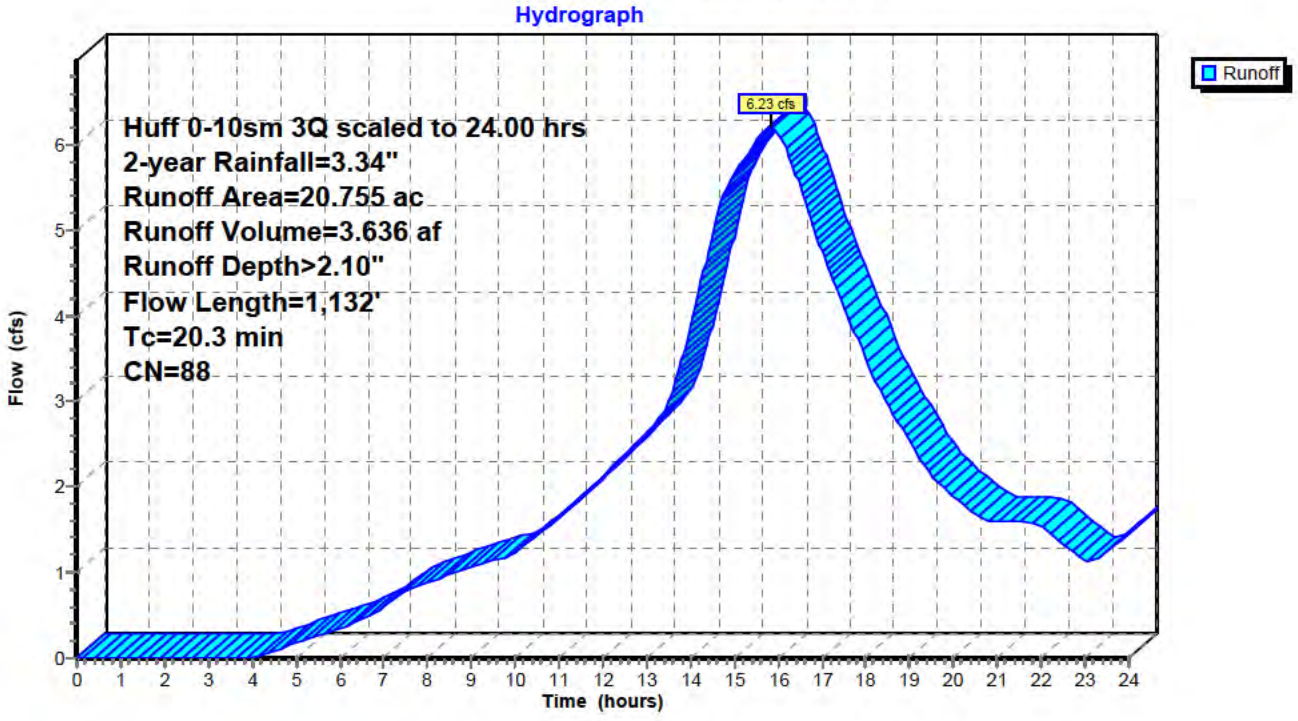
Runoff = 6.23 cfs @ 15.84 hrs, Volume= 3.636 af, Depth> 2.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

Area (ac)	CN	Description
3.643	89	Row crops, straight row, Good, HSG D
4.215	89	Row crops, straight row, Good, HSG D
1.296	89	Row crops, straight row, Good, HSG D
5.307	89	Row crops, straight row, Good, HSG D
3.064	85	Row crops, straight row, Good, HSG C
3.230	85	Row crops, straight row, Good, HSG C
20.755	88	Weighted Average
20.755		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	100	0.0203	0.36		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
15.7	1,032	0.0149	1.10		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
20.3	1,132	Total			

Subcatchment 3-U: EX DA 3



Hydrograph for Subcatchment 3-U: EX DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.49	2.63
0.25	0.00	0.00	0.00	13.25	1.42	0.52	2.76
0.50	0.01	0.00	0.00	13.50	1.47	0.56	2.97
0.75	0.02	0.00	0.00	13.75	1.53	0.61	3.39
1.00	0.04	0.00	0.00	14.00	1.60	0.66	3.88
1.25	0.06	0.00	0.00	14.25	1.68	0.71	4.41
1.50	0.08	0.00	0.00	14.50	1.76	0.78	4.96
1.75	0.10	0.00	0.00	14.75	1.85	0.85	5.40
2.00	0.12	0.00	0.00	15.00	1.94	0.91	5.65
2.25	0.14	0.00	0.00	15.25	2.03	0.99	5.84
2.50	0.16	0.00	0.00	15.50	2.12	1.06	6.03
2.75	0.18	0.00	0.00	15.75	2.21	1.13	**6.20**
3.00	0.20	0.00	0.00	16.00	2.29	1.21	**6.15**
3.25	0.22	0.00	0.00	16.25	2.37	1.27	5.86
3.50	0.25	0.00	0.00	16.50	2.45	1.34	5.50
3.75	0.27	0.00	0.00	16.75	2.51	1.39	5.13
4.00	0.29	0.00	0.00	17.00	2.58	1.45	4.75
4.25	0.31	0.00	0.03	17.25	2.63	1.50	4.41
4.50	0.33	0.00	0.08	17.50	2.69	1.54	4.11
4.75	0.35	0.00	0.13	17.75	2.74	1.59	3.81
5.00	0.37	0.01	0.18	18.00	2.78	1.62	3.50
5.25	0.39	0.01	0.22	18.25	2.82	1.66	3.20
5.50	0.42	0.01	0.27	18.50	2.86	1.69	2.96
5.75	0.44	0.02	0.31	18.75	2.89	1.72	2.75
6.00	0.46	0.02	0.35	19.00	2.93	1.75	2.53
6.25	0.48	0.03	0.39	19.25	2.96	1.78	2.32
6.50	0.50	0.03	0.45	19.50	2.98	1.80	2.13
6.75	0.53	0.04	0.52	19.75	3.01	1.83	2.00
7.00	0.55	0.05	0.60	20.00	3.03	1.85	1.89
7.25	0.58	0.06	0.69	20.25	3.06	1.87	1.78
7.50	0.61	0.07	0.77	20.50	3.08	1.89	1.68
7.75	0.64	0.08	0.83	20.75	3.10	1.91	1.60
8.00	0.67	0.09	0.88	21.00	3.12	1.92	1.59
8.25	0.70	0.10	0.93	21.25	3.14	1.94	1.59
8.50	0.72	0.11	0.97	21.50	3.16	1.96	1.59
8.75	0.75	0.12	1.02	21.75	3.18	1.98	1.59
9.00	0.78	0.14	1.06	22.00	3.20	2.00	1.54
9.25	0.81	0.15	1.10	22.25	3.22	2.02	1.44
9.50	0.84	0.16	1.14	22.50	3.24	2.03	1.34
9.75	0.86	0.18	1.17	22.75	3.25	2.04	1.23
10.00	0.89	0.19	1.24	23.00	3.27	2.06	1.13
10.25	0.93	0.21	1.33	23.25	3.28	2.07	1.15
10.50	0.96	0.23	1.43	23.50	3.30	2.09	1.24
10.75	0.99	0.25	1.54	23.75	3.32	2.10	1.35
11.00	1.03	0.27	1.65	24.00	**3.34**	**2.12**	1.46
11.25	1.07	0.29	1.76				
11.50	1.10	0.32	1.88				
11.75	1.15	0.34	2.00				
12.00	1.19	0.37	2.12				
12.25	1.23	0.39	2.24				
12.50	1.27	0.42	2.37				
12.75	1.32	0.46	2.50				

Summary for Subcatchment 4-U: EX DA 4

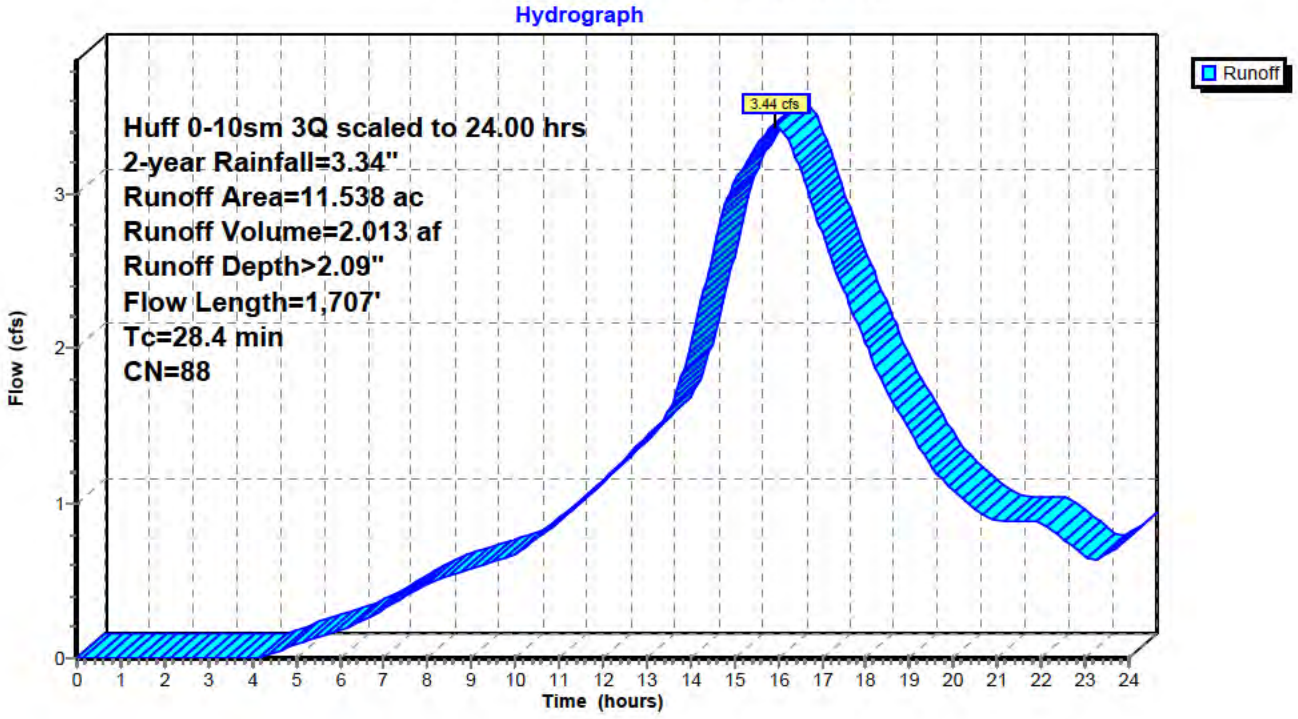
Runoff = 3.44 cfs @ 15.94 hrs, Volume= 2.013 af, Depth> 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

Area (ac)	CN	Description
0.430	89	Row crops, straight row, Good, HSG D
4.644	89	Row crops, straight row, Good, HSG D
0.045	89	Row crops, straight row, Good, HSG D
3.216	89	Row crops, straight row, Good, HSG D
0.697	85	Row crops, straight row, Good, HSG C
2.506	85	Row crops, straight row, Good, HSG C
11.538	88	Weighted Average
11.538		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0080	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
21.8	1,607	0.0187	1.23		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
28.4	1,707	Total			

Subcatchment 4-U: EX DA 4



Hydrograph for Subcatchment 4-U: EX DA 4

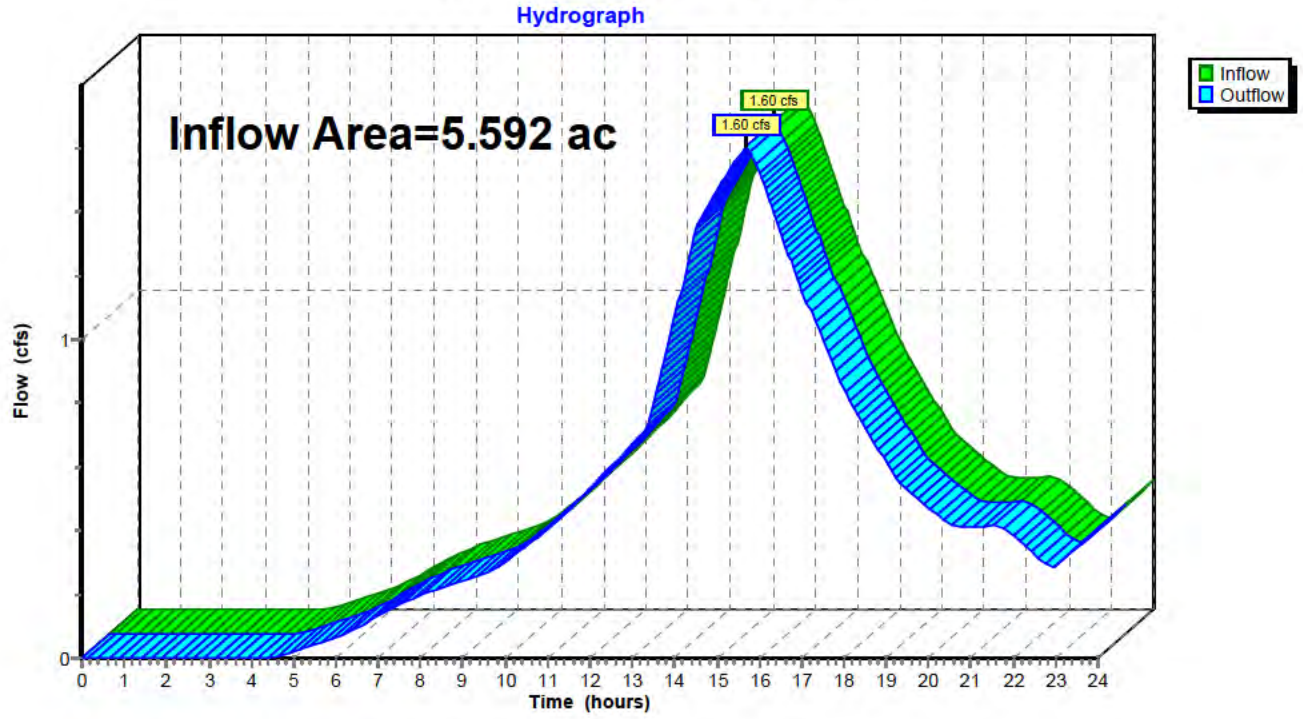
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.49	1.43
0.25	0.00	0.00	0.00	13.25	1.42	0.52	1.50
0.50	0.01	0.00	0.00	13.50	1.47	0.56	1.59
0.75	0.02	0.00	0.00	13.75	1.53	0.61	1.77
1.00	0.04	0.00	0.00	14.00	1.60	0.66	2.03
1.25	0.06	0.00	0.00	14.25	1.68	0.71	2.31
1.50	0.08	0.00	0.00	14.50	1.76	0.78	2.60
1.75	0.10	0.00	0.00	14.75	1.85	0.85	2.88
2.00	0.12	0.00	0.00	15.00	1.94	0.91	3.06
2.25	0.14	0.00	0.00	15.25	2.03	0.99	3.19
2.50	0.16	0.00	0.00	15.50	2.12	1.06	3.30
2.75	0.18	0.00	0.00	15.75	2.21	1.13	**3.40**
3.00	0.20	0.00	0.00	16.00	2.29	1.21	**3.44**
3.25	0.22	0.00	0.00	16.25	2.37	1.27	3.33
3.50	0.25	0.00	0.00	16.50	2.45	1.34	3.15
3.75	0.27	0.00	0.00	16.75	2.51	1.39	2.95
4.00	0.29	0.00	0.00	17.00	2.58	1.45	2.75
4.25	0.31	0.00	0.01	17.25	2.63	1.50	2.55
4.50	0.33	0.00	0.03	17.50	2.69	1.54	2.37
4.75	0.35	0.00	0.06	17.75	2.74	1.59	2.20
5.00	0.37	0.01	0.08	18.00	2.78	1.62	2.03
5.25	0.39	0.01	0.11	18.25	2.82	1.66	1.86
5.50	0.42	0.01	0.14	18.50	2.86	1.69	1.71
5.75	0.44	0.02	0.16	18.75	2.89	1.72	1.59
6.00	0.46	0.02	0.18	19.00	2.93	1.75	1.47
6.25	0.48	0.03	0.21	19.25	2.96	1.78	1.35
6.50	0.50	0.03	0.23	19.50	2.98	1.80	1.24
6.75	0.53	0.04	0.27	19.75	3.01	1.83	1.15
7.00	0.55	0.05	0.31	20.00	3.03	1.85	1.08
7.25	0.58	0.06	0.36	20.25	3.06	1.87	1.02
7.50	0.61	0.07	0.41	20.50	3.08	1.89	0.96
7.75	0.64	0.08	0.44	20.75	3.10	1.91	0.91
8.00	0.67	0.09	0.48	21.00	3.12	1.92	0.89
8.25	0.70	0.10	0.50	21.25	3.14	1.94	0.88
8.50	0.72	0.11	0.53	21.50	3.16	1.96	0.88
8.75	0.75	0.12	0.55	21.75	3.18	1.98	0.88
9.00	0.78	0.14	0.58	22.00	3.20	2.00	0.87
9.25	0.81	0.15	0.60	22.25	3.22	2.02	0.83
9.50	0.84	0.16	0.62	22.50	3.24	2.03	0.77
9.75	0.86	0.18	0.64	22.75	3.25	2.04	0.71
10.00	0.89	0.19	0.67	23.00	3.27	2.06	0.65
10.25	0.93	0.21	0.71	23.25	3.28	2.07	0.63
10.50	0.96	0.23	0.77	23.50	3.30	2.09	0.67
10.75	0.99	0.25	0.83	23.75	3.32	2.10	0.72
11.00	1.03	0.27	0.89	24.00	**3.34**	**2.12**	0.78
11.25	1.07	0.29	0.95				
11.50	1.10	0.32	1.01				
11.75	1.15	0.34	1.08				
12.00	1.19	0.37	1.14				
12.25	1.23	0.39	1.21				
12.50	1.27	0.42	1.28				
12.75	1.32	0.46	1.35				

Summary for Reach 1-T: EX DA 1 TOTAL

Inflow Area = 5.592 ac, 1.72% Impervious, Inflow Depth > 1.95" for 2-year event
Inflow = 1.60 cfs @ 15.70 hrs, Volume= 0.910 af
Outflow = 1.60 cfs @ 15.70 hrs, Volume= 0.910 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 1-T: EX DA 1 TOTAL



Hydrograph for Reach 1-T: EX DA 1 TOTAL

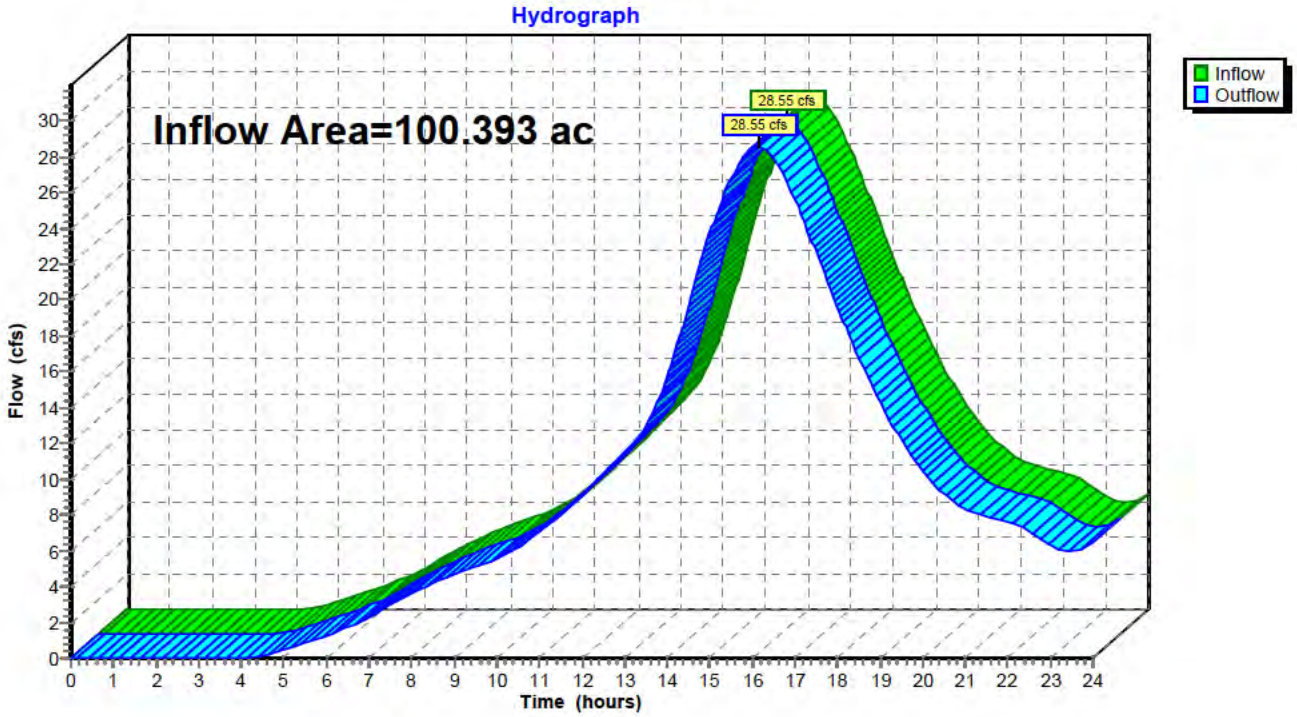
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.67		0.67
0.25	0.00		0.00	13.25	0.70		0.70
0.50	0.00		0.00	13.50	0.80		0.80
0.75	0.00		0.00	13.75	0.93		0.93
1.00	0.00		0.00	14.00	1.06		1.06
1.25	0.00		0.00	14.25	1.20		1.20
1.50	0.00		0.00	14.50	1.34		1.34
1.75	0.00		0.00	14.75	1.41		1.41
2.00	0.00		0.00	15.00	1.46		1.46
2.25	0.00		0.00	15.25	1.52		1.52
2.50	0.00		0.00	15.50	**1.57**		**1.57**
2.75	0.00		0.00	15.75	**1.60**		**1.60**
3.00	0.00		0.00	16.00	1.52		1.52
3.25	0.00		0.00	16.25	1.43		1.43
3.50	0.00		0.00	16.50	1.34		1.34
3.75	0.00		0.00	16.75	1.24		1.24
4.00	0.00		0.00	17.00	1.15		1.15
4.25	0.00		0.00	17.25	1.08		1.08
4.50	0.00		0.00	17.50	1.00		1.00
4.75	0.01		0.01	17.75	0.92		0.92
5.00	0.02		0.02	18.00	0.84		0.84
5.25	0.03		0.03	18.25	0.78		0.78
5.50	0.04		0.04	18.50	0.72		0.72
5.75	0.05		0.05	18.75	0.67		0.67
6.00	0.06		0.06	19.00	0.61		0.61
6.25	0.08		0.08	19.25	0.56		0.56
6.50	0.09		0.09	19.50	0.52		0.52
6.75	0.11		0.11	19.75	0.50		0.50
7.00	0.13		0.13	20.00	0.47		0.47
7.25	0.15		0.15	20.25	0.44		0.44
7.50	0.17		0.17	20.50	0.42		0.42
7.75	0.18		0.18	20.75	0.41		0.41
8.00	0.20		0.20	21.00	0.41		0.41
8.25	0.21		0.21	21.25	0.41		0.41
8.50	0.22		0.22	21.50	0.41		0.41
8.75	0.23		0.23	21.75	0.41		0.41
9.00	0.24		0.24	22.00	0.38		0.38
9.25	0.25		0.25	22.25	0.35		0.35
9.50	0.26		0.26	22.50	0.33		0.33
9.75	0.28		0.28	22.75	0.30		0.30
10.00	0.30		0.30	23.00	0.29		0.29
10.25	0.33		0.33	23.25	0.32		0.32
10.50	0.35		0.35	23.50	0.35		0.35
10.75	0.38		0.38	23.75	0.38		0.38
11.00	0.41		0.41	24.00	0.40		0.40
11.25	0.44		0.44				
11.50	0.47		0.47				
11.75	0.50		0.50				
12.00	0.53		0.53				
12.25	0.56		0.56				
12.50	0.60		0.60				
12.75	0.63		0.63				

Summary for Reach T: Total

Inflow Area = 100.393 ac, 0.41% Impervious, Inflow Depth > 2.06" for 2-year event
Inflow = 28.55 cfs @ 16.14 hrs, Volume= 17.272 af
Outflow = 28.55 cfs @ 16.14 hrs, Volume= 17.272 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach T: Total



Hydrograph for Reach T: Total

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	11.53		11.53
0.25	0.00		0.00	13.25	12.15		12.15
0.50	0.00		0.00	13.50	12.94		12.94
0.75	0.00		0.00	13.75	14.13		14.13
1.00	0.00		0.00	14.00	15.65		15.65
1.25	0.00		0.00	14.25	17.53		17.53
1.50	0.00		0.00	14.50	19.69		19.69
1.75	0.00		0.00	14.75	21.82		21.82
2.00	0.00		0.00	15.00	23.70		23.70
2.25	0.00		0.00	15.25	25.34		25.34
2.50	0.00		0.00	15.50	26.72		26.72
2.75	0.00		0.00	15.75	27.89		27.89
3.00	0.00		0.00	16.00	**28.49**		**28.49**
3.25	0.00		0.00	16.25	**28.46**		**28.46**
3.50	0.00		0.00	16.50	27.95		27.95
3.75	0.00		0.00	16.75	26.96		26.96
4.00	0.00		0.00	17.00	25.62		25.62
4.25	0.04		0.04	17.25	24.18		24.18
4.50	0.14		0.14	17.50	22.67		22.67
4.75	0.28		0.28	17.75	21.15		21.15
5.00	0.46		0.46	18.00	19.66		19.66
5.25	0.66		0.66	18.25	18.18		18.18
5.50	0.87		0.87	18.50	16.81		16.81
5.75	1.07		1.07	18.75	15.55		15.55
6.00	1.28		1.28	19.00	14.36		14.36
6.25	1.48		1.48	19.25	13.22		13.22
6.50	1.72		1.72	19.50	12.20		12.20
6.75	1.98		1.98	19.75	11.30		11.30
7.00	2.29		2.29	20.00	10.50		10.50
7.25	2.63		2.63	20.25	9.81		9.81
7.50	2.98		2.98	20.50	9.19		9.19
7.75	3.32		3.32	20.75	8.68		8.68
8.00	3.64		3.64	21.00	8.32		8.32
8.25	3.93		3.93	21.25	8.06		8.06
8.50	4.20		4.20	21.50	7.89		7.89
8.75	4.44		4.44	21.75	7.80		7.80
9.00	4.67		4.67	22.00	7.65		7.65
9.25	4.88		4.88	22.25	7.41		7.41
9.50	5.08		5.08	22.50	7.10		7.10
9.75	5.28		5.28	22.75	6.71		6.71
10.00	5.52		5.52	23.00	6.29		6.29
10.25	5.81		5.81	23.25	6.05		6.05
10.50	6.17		6.17	23.50	6.01		6.01
10.75	6.59		6.59	23.75	6.13		6.13
11.00	7.04		7.04	24.00	6.42		6.42
11.25	7.53		7.53				
11.50	8.06		8.06				
11.75	8.59		8.59				
12.00	9.15		9.15				
12.25	9.73		9.73				
12.50	10.31		10.31				
12.75	10.91		10.91				

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1-D: EX DA 1 Runoff Area=0.010 ac 100.00% Impervious Runoff Depth>8.31"
Flow Length=434' Tc=7.8 min CN=98 Runoff=0.01 cfs 0.007 af

Subcatchment1-U: EX DA 1 Runoff Area=5.582 ac 1.54% Impervious Runoff Depth>6.87"
Flow Length=434' Tc=7.8 min CN=86 Runoff=4.98 cfs 3.193 af

Subcatchment2-U: EX DA 2 Runoff Area=62.508 ac 0.50% Impervious Runoff Depth>6.94"
Flow Length=3,366' Tc=67.7 min CN=88 Runoff=54.18 cfs 36.153 af

Subcatchment3-U: EX DA 3 Runoff Area=20.755 ac 0.00% Impervious Runoff Depth>7.07"
Flow Length=1,132' Tc=20.3 min CN=88 Runoff=18.65 cfs 12.224 af

Subcatchment4-U: EX DA 4 Runoff Area=11.538 ac 0.00% Impervious Runoff Depth>7.04"
Flow Length=1,707' Tc=28.4 min CN=88 Runoff=10.32 cfs 6.773 af

Reach 1-T: EX DA 1 TOTAL Inflow=4.99 cfs 3.200 af
Outflow=4.99 cfs 3.200 af

Reach T: Total Inflow=86.46 cfs 58.350 af
Outflow=86.46 cfs 58.350 af

Total Runoff Area = 100.393 ac Runoff Volume = 58.350 af Average Runoff Depth = 6.97"
99.59% Pervious = 99.984 ac 0.41% Impervious = 0.409 ac

Summary for Subcatchment 1-D: EX DA 1

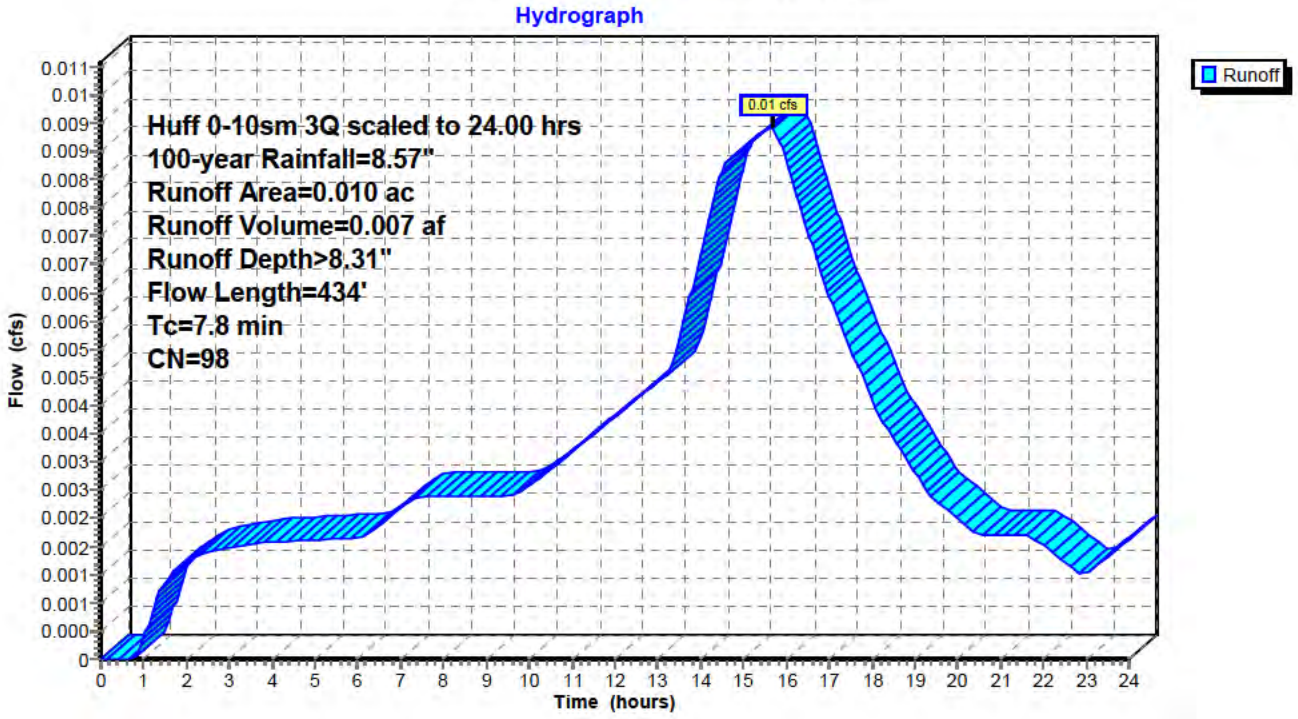
Runoff = 0.01 cfs @ 15.67 hrs, Volume= 0.007 af, Depth> 8.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
*	0.010	98	Impervious Area
	0.010		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
3.8	334	0.0264	1.46		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.8	434	Total			

Subcatchment 1-D: EX DA 1



Hydrograph for Subcatchment 1-D: EX DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.51	3.28	0.00
0.25	0.01	0.00	0.00	13.25	3.64	3.40	0.01
0.50	0.02	0.00	0.00	13.50	3.78	3.54	0.01
0.75	0.05	0.00	0.00	13.75	3.94	3.70	0.01
1.00	0.09	0.01	0.00	14.00	4.11	3.88	0.01
1.25	0.14	0.03	0.00	14.25	4.31	4.07	0.01
1.50	0.20	0.07	0.00	14.50	4.52	4.29	0.01
1.75	0.25	0.11	0.00	14.75	4.75	4.51	0.01
2.00	0.30	0.15	0.00	15.00	4.97	4.73	0.01
2.25	0.36	0.19	0.00	15.25	5.20	4.96	0.01
2.50	0.41	0.24	0.00	15.50	5.43	5.19	**0.01**
2.75	0.47	0.29	0.00	15.75	5.66	5.43	**0.01**
3.00	0.52	0.34	0.00	16.00	5.88	5.64	0.01
3.25	0.58	0.39	0.00	16.25	6.09	5.85	0.01
3.50	0.63	0.44	0.00	16.50	6.28	6.04	0.01
3.75	0.69	0.49	0.00	16.75	6.45	6.21	0.01
4.00	0.74	0.54	0.00	17.00	6.61	6.37	0.01
4.25	0.79	0.59	0.00	17.25	6.76	6.52	0.01
4.50	0.85	0.64	0.00	17.50	6.89	6.66	0.01
4.75	0.90	0.70	0.00	17.75	7.02	6.78	0.01
5.00	0.96	0.75	0.00	18.00	7.13	6.90	0.00
5.25	1.01	0.80	0.00	18.25	7.24	7.00	0.00
5.50	1.07	0.85	0.00	18.50	7.34	7.10	0.00
5.75	1.12	0.91	0.00	18.75	7.43	7.19	0.00
6.00	1.17	0.96	0.00	19.00	7.51	7.27	0.00
6.25	1.23	1.02	0.00	19.25	7.58	7.34	0.00
6.50	1.29	1.07	0.00	19.50	7.65	7.41	0.00
6.75	1.35	1.14	0.00	19.75	7.72	7.48	0.00
7.00	1.42	1.20	0.00	20.00	7.78	7.54	0.00
7.25	1.49	1.27	0.00	20.25	7.84	7.60	0.00
7.50	1.57	1.35	0.00	20.50	7.90	7.66	0.00
7.75	1.64	1.42	0.00	20.75	7.95	7.71	0.00
8.00	1.71	1.49	0.00	21.00	8.00	7.76	0.00
8.25	1.78	1.56	0.00	21.25	8.06	7.82	0.00
8.50	1.86	1.63	0.00	21.50	8.11	7.87	0.00
8.75	1.93	1.70	0.00	21.75	8.17	7.93	0.00
9.00	2.00	1.78	0.00	22.00	8.22	7.98	0.00
9.25	2.07	1.85	0.00	22.25	8.26	8.02	0.00
9.50	2.15	1.92	0.00	22.50	8.31	8.07	0.00
9.75	2.22	1.99	0.00	22.75	8.35	8.11	0.00
10.00	2.30	2.07	0.00	23.00	8.38	8.14	0.00
10.25	2.38	2.15	0.00	23.25	8.42	8.18	0.00
10.50	2.46	2.23	0.00	23.50	8.47	8.23	0.00
10.75	2.55	2.32	0.00	23.75	8.52	8.28	0.00
11.00	2.64	2.41	0.00	24.00	**8.57**	**8.33**	0.00
11.25	2.74	2.51	0.00				
11.50	2.84	2.60	0.00				
11.75	2.94	2.71	0.00				
12.00	3.05	2.81	0.00				
12.25	3.16	2.92	0.00				
12.50	3.27	3.04	0.00				
12.75	3.39	3.16	0.00				

Summary for Subcatchment 1-U: EX DA 1

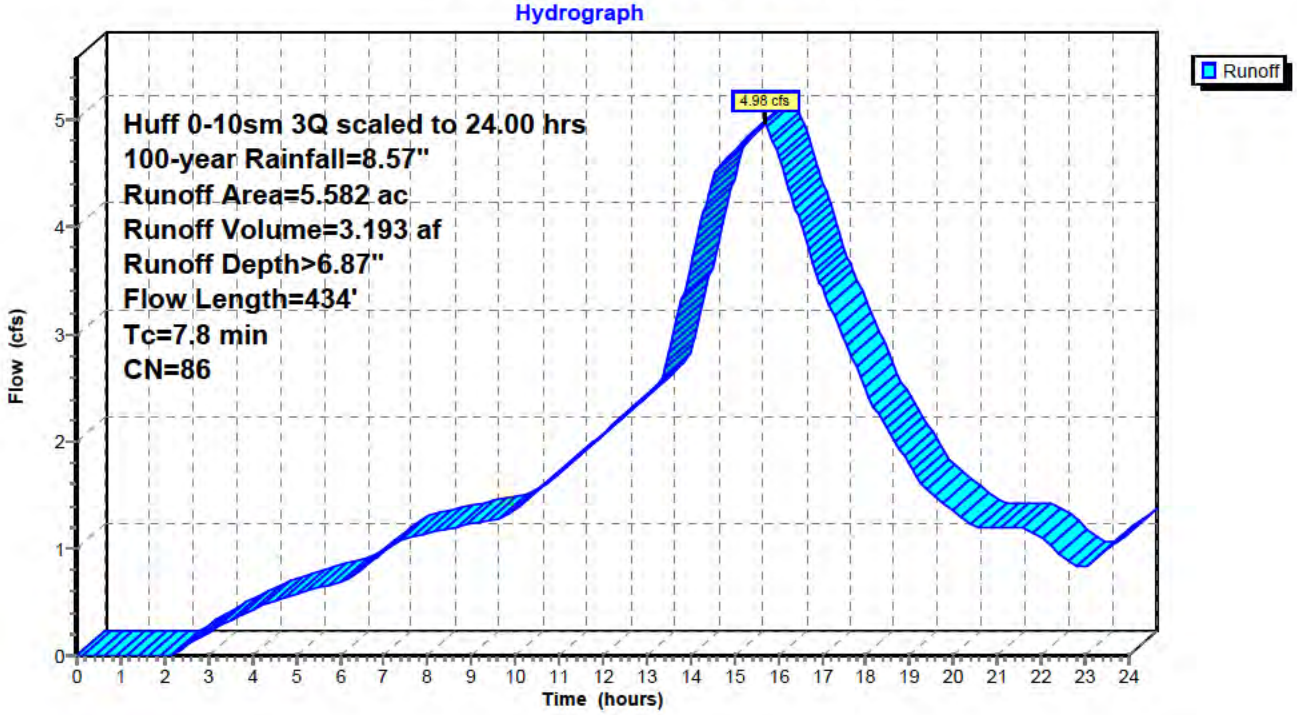
Runoff = 4.98 cfs @ 15.68 hrs, Volume= 3.193 af, Depth> 6.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
	0.200	89	Row crops, straight row, Good, HSG D
	1.277	89	Row crops, straight row, Good, HSG D
	0.327	89	Row crops, straight row, Good, HSG D
	2.982	85	Row crops, straight row, Good, HSG C
	0.710	85	Row crops, straight row, Good, HSG C
*	0.086	98	Impervious Area
	5.582	86	Weighted Average
	5.496		98.46% Pervious Area
	0.086		1.54% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
3.8	334	0.0264	1.46		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
7.8	434	Total			

Subcatchment 1-U: EX DA 1



Hydrograph for Subcatchment 1-U: EX DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.25	0.01	0.00	0.00
0.50	0.02	0.00	0.00
0.75	0.05	0.00	0.00
1.00	0.09	0.00	0.00
1.25	0.14	0.00	0.00
1.50	0.20	0.00	0.00
1.75	0.25	0.00	0.00
2.00	0.30	0.00	0.00
2.25	0.36	0.00	0.01
2.50	0.41	0.00	0.09
2.75	0.47	0.01	0.16
3.00	0.52	0.02	0.22
3.25	0.58	0.03	0.28
3.50	0.63	0.05	0.33
3.75	0.69	0.07	0.38
4.00	0.74	0.08	0.43
4.25	0.79	0.10	0.47
4.50	0.85	0.13	0.51
4.75	0.90	0.15	0.54
5.00	0.96	0.18	0.57
5.25	1.01	0.20	0.60
5.50	1.07	0.23	0.63
5.75	1.12	0.26	0.66
6.00	1.17	0.29	0.68
6.25	1.23	0.32	0.73
6.50	1.29	0.36	0.81
6.75	1.35	0.40	0.89
7.00	1.42	0.44	0.97
7.25	1.49	0.49	1.05
7.50	1.57	0.54	1.09
7.75	1.64	0.59	1.12
8.00	1.71	0.64	1.14
8.25	1.78	0.69	1.17
8.50	1.86	0.74	1.19
8.75	1.93	0.80	1.21
9.00	2.00	0.85	1.23
9.25	2.07	0.91	1.24
9.50	2.15	0.96	1.26
9.75	2.22	1.02	1.29
10.00	2.30	1.08	1.37
10.25	2.38	1.14	1.45
10.50	2.46	1.21	1.53
10.75	2.55	1.28	1.62
11.00	2.64	1.36	1.71
11.25	2.74	1.44	1.79
11.50	2.84	1.52	1.88
11.75	2.94	1.61	1.97
12.00	3.05	1.70	2.06
12.25	3.16	1.80	2.15
12.50	3.27	1.90	2.24
12.75	3.39	2.00	2.33
13.00	3.51	2.11	2.43
13.25	3.64	2.22	2.52
13.50	3.78	2.34	2.83
13.75	3.94	2.49	3.23
14.00	4.11	2.65	3.64
14.25	4.31	2.83	4.05
14.50	4.52	3.03	4.45
14.75	4.75	3.23	4.60
15.00	4.97	3.44	4.71
15.25	5.20	3.65	4.81
15.50	5.43	3.87	**4.91**
15.75	5.66	4.09	**4.95**
16.00	5.88	4.30	4.66
16.25	6.09	4.49	4.36
16.50	6.28	4.67	4.04
16.75	6.45	4.84	3.73
17.00	6.61	4.99	3.44
17.25	6.76	5.13	3.20
17.50	6.89	5.26	2.96
17.75	7.02	5.38	2.72
18.00	7.13	5.50	2.47
18.25	7.24	5.60	2.27
18.50	7.34	5.69	2.11
18.75	7.43	5.78	1.95
19.00	7.51	5.86	1.79
19.25	7.58	5.93	1.62
19.50	7.65	6.00	1.52
19.75	7.72	6.06	1.44
20.00	7.78	6.12	1.36
20.25	7.84	6.18	1.27
20.50	7.90	6.23	1.20
20.75	7.95	6.28	1.19
21.00	8.00	6.34	1.19
21.25	8.06	6.39	1.19
21.50	8.11	6.44	1.19
21.75	8.17	6.49	1.17
22.00	8.22	6.54	1.10
22.25	8.26	6.59	1.01
22.50	8.31	6.63	0.93
22.75	8.35	6.67	0.85
23.00	8.38	6.70	0.82
23.25	8.42	6.74	0.90
23.50	8.47	6.79	0.98
23.75	8.52	6.83	1.07
24.00	**8.57**	**6.88**	1.15

Summary for Subcatchment 2-U: EX DA 2

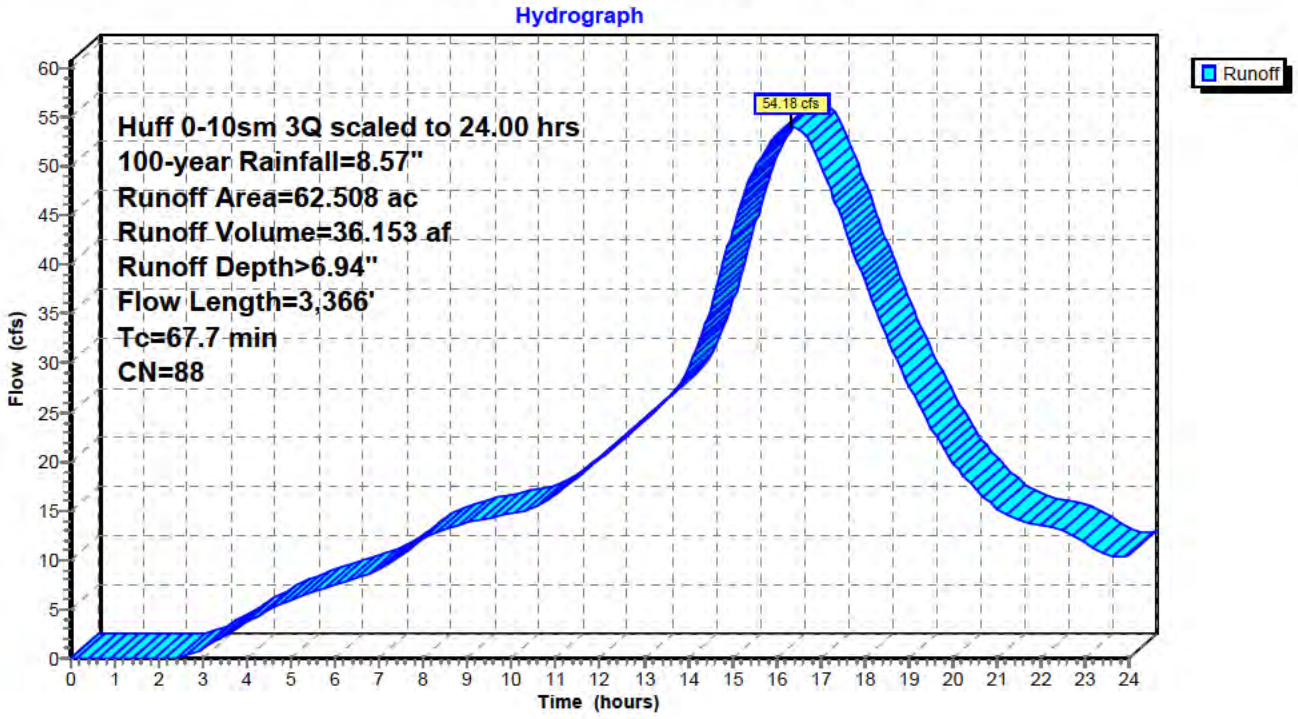
Runoff = 54.18 cfs @ 16.33 hrs, Volume= 36.153 af, Depth> 6.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
	11.150	89	Row crops, straight row, Good, HSG D
	2.052	89	Row crops, straight row, Good, HSG D
	0.061	89	Row crops, straight row, Good, HSG D
	11.220	89	Row crops, straight row, Good, HSG D
	8.588	89	Row crops, straight row, Good, HSG D
	10.020	89	Row crops, straight row, Good, HSG D
	14.950	85	Row crops, straight row, Good, HSG C
	2.184	85	Row crops, straight row, Good, HSG C
	0.951	85	Row crops, straight row, Good, HSG C
	1.019	85	Row crops, straight row, Good, HSG C
*	0.313	98	Impervious Area
	62.508	88	Weighted Average
	62.195		99.50% Pervious Area
	0.313		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	100	0.0421	0.49		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.5	141	0.0306	1.57		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
62.8	3,125	0.0085	0.83		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
67.7	3,366	Total			

Subcatchment 2-U: EX DA 2



Hydrograph for Subcatchment 2-U: EX DA 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.25	0.01	0.00	0.00
0.50	0.02	0.00	0.00
0.75	0.05	0.00	0.00
1.00	0.09	0.00	0.00
1.25	0.14	0.00	0.00
1.50	0.20	0.00	0.00
1.75	0.25	0.00	0.00
2.00	0.30	0.00	0.00
2.25	0.36	0.01	0.02
2.50	0.41	0.01	0.13
2.75	0.47	0.02	0.45
3.00	0.52	0.04	0.98
3.25	0.58	0.06	1.64
3.50	0.63	0.07	2.34
3.75	0.69	0.10	3.04
4.00	0.74	0.12	3.71
4.25	0.79	0.14	4.33
4.50	0.85	0.17	4.90
4.75	0.90	0.20	5.44
5.00	0.96	0.23	5.92
5.25	1.01	0.26	6.37
5.50	1.07	0.29	6.79
5.75	1.12	0.32	7.16
6.00	1.17	0.36	7.51
6.25	1.23	0.40	7.84
6.50	1.29	0.44	8.16
6.75	1.35	0.48	8.55
7.00	1.42	0.53	9.09
7.25	1.49	0.58	9.75
7.50	1.57	0.63	10.52
7.75	1.64	0.68	11.34
8.00	1.71	0.74	12.07
8.25	1.78	0.79	12.66
8.50	1.86	0.85	13.13
8.75	1.93	0.91	13.48
9.00	2.00	0.97	13.78
9.25	2.07	1.02	14.05
9.50	2.15	1.08	14.27
9.75	2.22	1.14	14.47
10.00	2.30	1.21	14.68
10.25	2.38	1.28	14.93
10.50	2.46	1.35	15.35
10.75	2.55	1.42	15.96
11.00	2.64	1.50	16.69
11.25	2.74	1.59	17.53
11.50	2.84	1.67	18.44
11.75	2.94	1.76	19.35
12.00	3.05	1.86	20.32
12.25	3.16	1.96	21.30
12.50	3.27	2.06	22.26
12.75	3.39	2.17	23.26
13.00	3.51	2.28	24.27
13.25	3.64	2.39	25.26
13.50	3.78	2.52	26.29
13.75	3.94	2.67	27.53
14.00	4.11	2.83	29.33
14.25	4.31	3.02	32.03
14.50	4.52	3.22	35.48
14.75	4.75	3.43	39.37
15.00	4.97	3.64	43.35
15.25	5.20	3.86	46.83
15.50	5.43	4.08	49.50
15.75	5.66	4.30	51.61
16.00	5.88	4.51	53.21
16.25	6.09	4.71	**54.07**
16.50	6.28	4.89	**53.91**
16.75	6.45	5.06	52.53
17.00	6.61	5.21	50.21
17.25	6.76	5.36	47.44
17.50	6.89	5.49	44.40
17.75	7.02	5.61	41.35
18.00	7.13	5.72	38.45
18.25	7.24	5.83	35.59
18.50	7.34	5.92	32.80
18.75	7.43	6.01	30.21
19.00	7.51	6.09	27.81
19.25	7.58	6.16	25.61
19.50	7.65	6.23	23.61
19.75	7.72	6.29	21.70
20.00	7.78	6.36	19.99
20.25	7.84	6.41	18.56
20.50	7.90	6.47	17.31
20.75	7.95	6.52	16.20
21.00	8.00	6.57	15.27
21.25	8.06	6.63	14.54
21.50	8.11	6.68	14.05
21.75	8.17	6.73	13.78
22.00	8.22	6.78	13.60
22.25	8.26	6.83	13.39
22.50	8.31	6.87	13.06
22.75	8.35	6.91	12.50
23.00	8.38	6.94	11.79
23.25	8.42	6.98	11.05
23.50	8.47	7.03	10.47
23.75	8.52	7.07	10.27
24.00	**8.57**	**7.13**	10.50

Summary for Subcatchment 3-U: EX DA 3

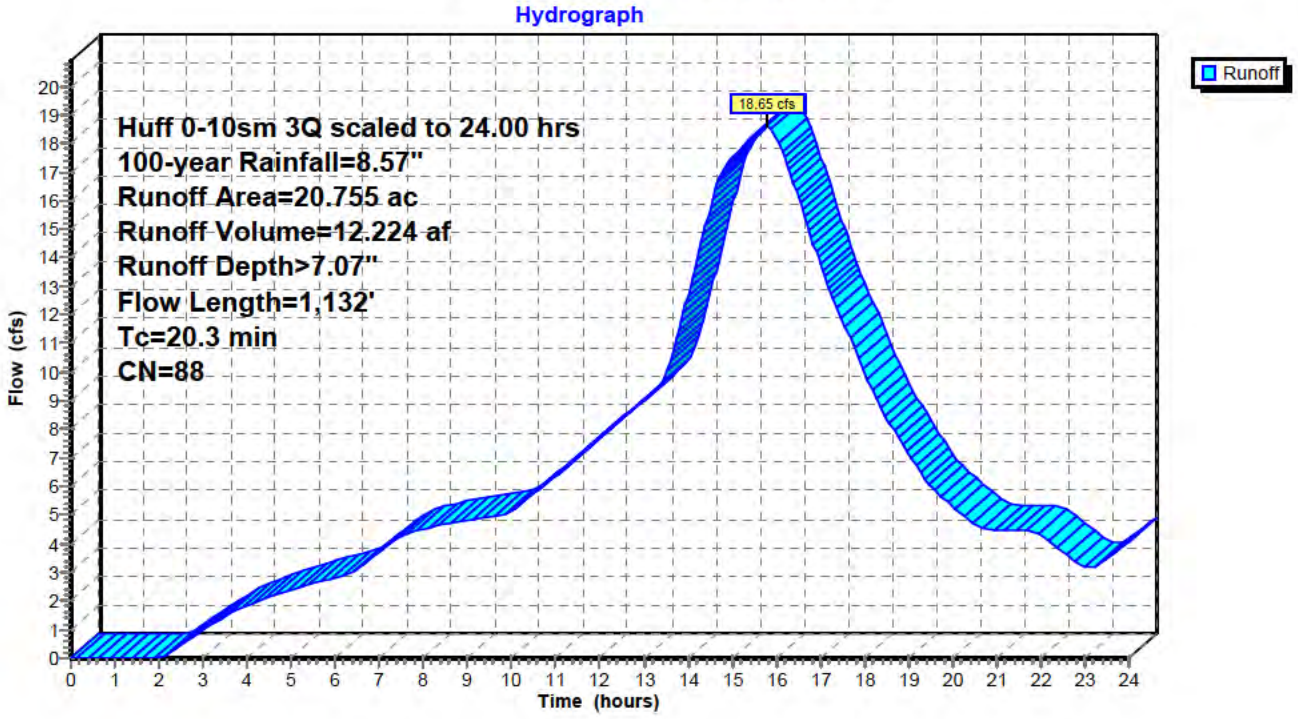
Runoff = 18.65 cfs @ 15.80 hrs, Volume= 12.224 af, Depth> 7.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

Area (ac)	CN	Description
3.643	89	Row crops, straight row, Good, HSG D
4.215	89	Row crops, straight row, Good, HSG D
1.296	89	Row crops, straight row, Good, HSG D
5.307	89	Row crops, straight row, Good, HSG D
3.064	85	Row crops, straight row, Good, HSG C
3.230	85	Row crops, straight row, Good, HSG C
20.755	88	Weighted Average
20.755		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	100	0.0203	0.36		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
15.7	1,032	0.0149	1.10		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
20.3	1,132	Total			

Subcatchment 3-U: EX DA 3



Hydrograph for Subcatchment 3-U: EX DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.25	0.01	0.00	0.00
0.50	0.02	0.00	0.00
0.75	0.05	0.00	0.00
1.00	0.09	0.00	0.00
1.25	0.14	0.00	0.00
1.50	0.20	0.00	0.00
1.75	0.25	0.00	0.00
2.00	0.30	0.00	0.00
2.25	0.36	0.01	0.16
2.50	0.41	0.01	0.45
2.75	0.47	0.02	0.74
3.00	0.52	0.04	1.00
3.25	0.58	0.06	1.24
3.50	0.63	0.07	1.45
3.75	0.69	0.10	1.65
4.00	0.74	0.12	1.82
4.25	0.79	0.14	1.98
4.50	0.85	0.17	2.13
4.75	0.90	0.20	2.27
5.00	0.96	0.23	2.39
5.25	1.01	0.26	2.50
5.50	1.07	0.29	2.61
5.75	1.12	0.32	2.71
6.00	1.17	0.36	2.80
6.25	1.23	0.40	2.90
6.50	1.29	0.44	3.13
6.75	1.35	0.48	3.41
7.00	1.42	0.53	3.71
7.25	1.49	0.58	4.02
7.50	1.57	0.63	4.30
7.75	1.64	0.68	4.44
8.00	1.71	0.74	4.53
8.25	1.78	0.79	4.61
8.50	1.86	0.85	4.68
8.75	1.93	0.91	4.75
9.00	2.00	0.97	4.82
9.25	2.07	1.02	4.87
9.50	2.15	1.08	4.93
9.75	2.22	1.14	4.98
10.00	2.30	1.21	5.15
10.25	2.38	1.28	5.43
10.50	2.46	1.35	5.75
10.75	2.55	1.42	6.06
11.00	2.64	1.50	6.39
11.25	2.74	1.59	6.71
11.50	2.84	1.67	7.04
11.75	2.94	1.76	7.37
12.00	3.05	1.86	7.70
12.25	3.16	1.96	8.03
12.50	3.27	2.06	8.36
12.75	3.39	2.17	8.70
13.00	3.51	2.28	9.04
13.25	3.64	2.39	9.37
13.50	3.78	2.52	9.94
13.75	3.94	2.67	11.20
14.00	4.11	2.83	12.68
14.25	4.31	3.02	14.21
14.50	4.52	3.22	15.76
14.75	4.75	3.43	16.95
15.00	4.97	3.64	17.50
15.25	5.20	3.86	17.91
15.50	5.43	4.08	18.28
15.75	5.66	4.30	**18.63**
16.00	5.88	4.51	**18.30**
16.25	6.09	4.71	17.30
16.50	6.28	4.89	16.14
16.75	6.45	5.06	14.96
17.00	6.61	5.21	13.77
17.25	6.76	5.36	12.75
17.50	6.89	5.49	11.82
17.75	7.02	5.61	10.91
18.00	7.13	5.72	10.00
18.25	7.24	5.83	9.12
18.50	7.34	5.92	8.42
18.75	7.43	6.01	7.79
19.00	7.51	6.09	7.18
19.25	7.58	6.16	6.57
19.50	7.65	6.23	6.01
19.75	7.72	6.29	5.64
20.00	7.78	6.36	5.32
20.25	7.84	6.41	5.02
20.50	7.90	6.47	4.71
20.75	7.95	6.52	4.50
21.00	8.00	6.57	4.46
21.25	8.06	6.63	4.45
21.50	8.11	6.68	4.45
21.75	8.17	6.73	4.45
22.00	8.22	6.78	4.31
22.25	8.26	6.83	4.03
22.50	8.31	6.87	3.73
22.75	8.35	6.91	3.42
23.00	8.38	6.94	3.14
23.25	8.42	6.98	3.19
23.50	8.47	7.03	3.46
23.75	8.52	7.07	3.76
24.00	**8.57**	**7.13**	4.07

Summary for Subcatchment 4-U: EX DA 4

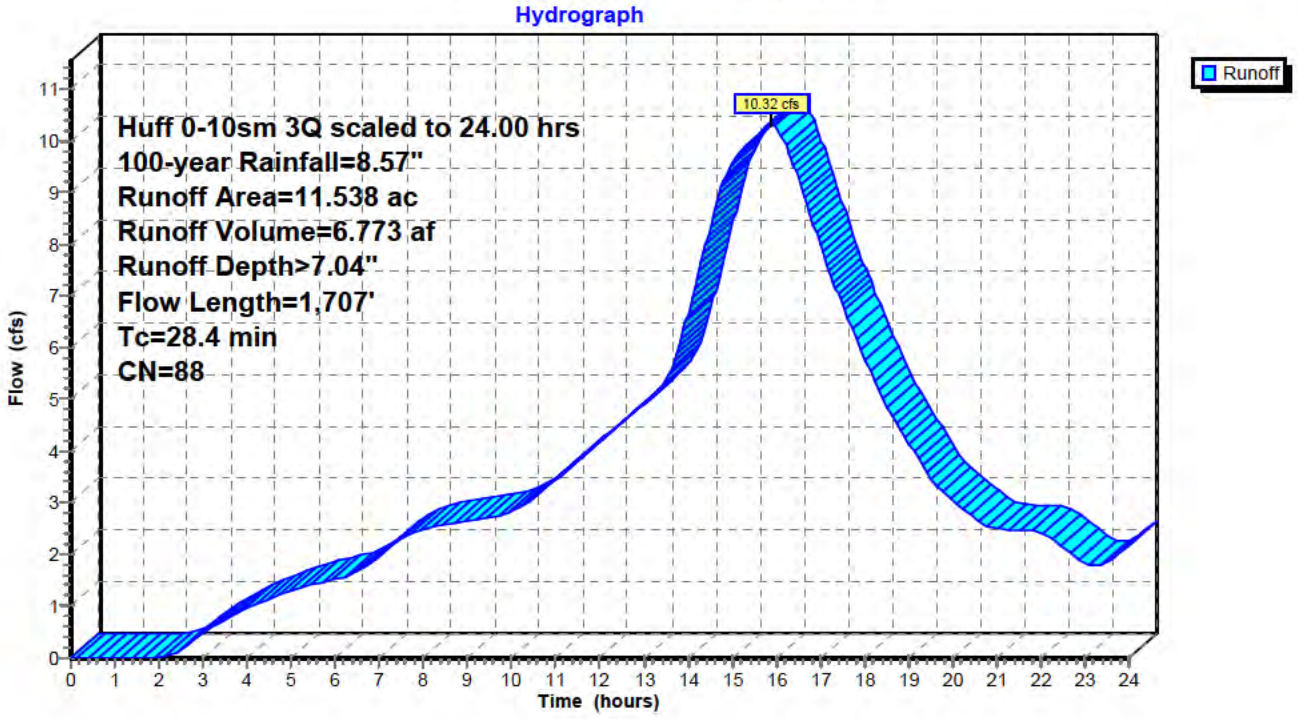
Runoff = 10.32 cfs @ 15.89 hrs, Volume= 6.773 af, Depth> 7.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

Area (ac)	CN	Description
0.430	89	Row crops, straight row, Good, HSG D
4.644	89	Row crops, straight row, Good, HSG D
0.045	89	Row crops, straight row, Good, HSG D
3.216	89	Row crops, straight row, Good, HSG D
0.697	85	Row crops, straight row, Good, HSG C
2.506	85	Row crops, straight row, Good, HSG C
11.538	88	Weighted Average
11.538		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0080	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
21.8	1,607	0.0187	1.23		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
28.4	1,707	Total			

Subcatchment 4-U: EX DA 4



Hydrograph for Subcatchment 4-U: EX DA 4

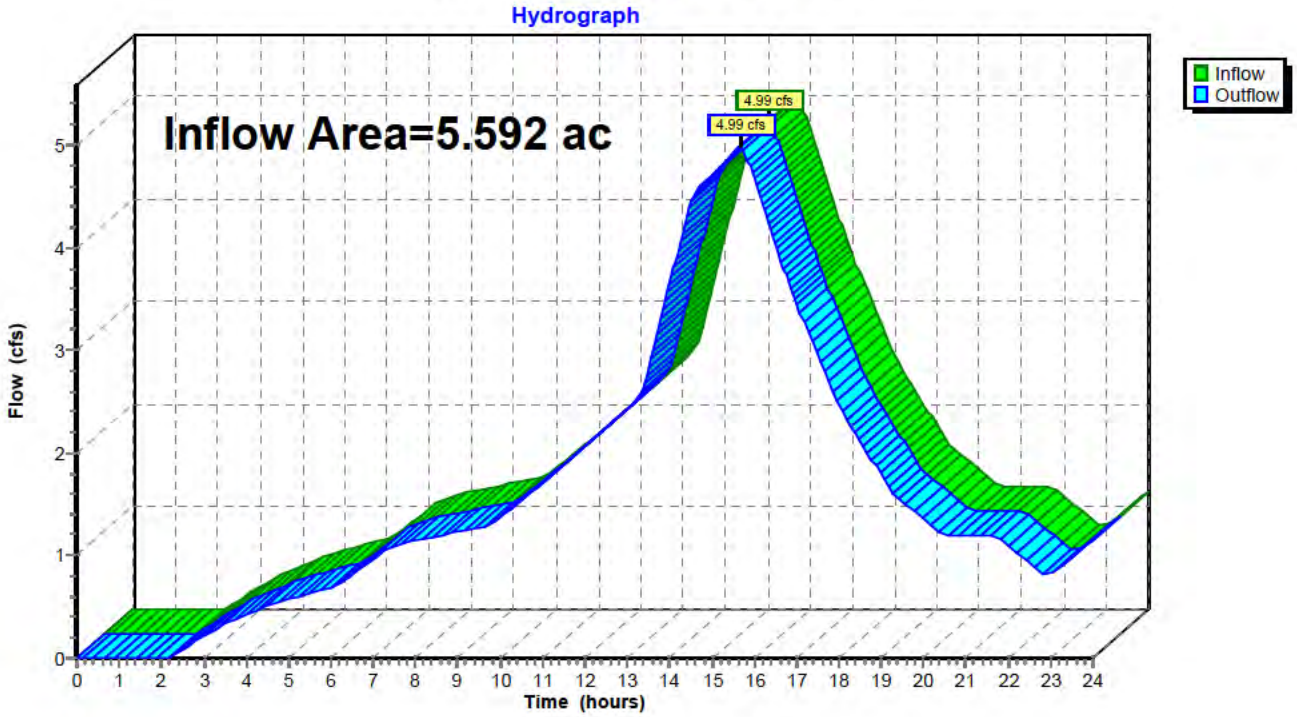
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.25	0.01	0.00	0.00
0.50	0.02	0.00	0.00
0.75	0.05	0.00	0.00
1.00	0.09	0.00	0.00
1.25	0.14	0.00	0.00
1.50	0.20	0.00	0.00
1.75	0.25	0.00	0.00
2.00	0.30	0.00	0.00
2.25	0.36	0.01	0.04
2.50	0.41	0.01	0.17
2.75	0.47	0.02	0.33
3.00	0.52	0.04	0.48
3.25	0.58	0.06	0.62
3.50	0.63	0.07	0.75
3.75	0.69	0.10	0.86
4.00	0.74	0.12	0.96
4.25	0.79	0.14	1.06
4.50	0.85	0.17	1.14
4.75	0.90	0.20	1.22
5.00	0.96	0.23	1.29
5.25	1.01	0.26	1.36
5.50	1.07	0.29	1.42
5.75	1.12	0.32	1.48
6.00	1.17	0.36	1.53
6.25	1.23	0.40	1.58
6.50	1.29	0.44	1.68
6.75	1.35	0.48	1.82
7.00	1.42	0.53	1.98
7.25	1.49	0.58	2.15
7.50	1.57	0.63	2.32
7.75	1.64	0.68	2.42
8.00	1.71	0.74	2.49
8.25	1.78	0.79	2.54
8.50	1.86	0.85	2.58
8.75	1.93	0.91	2.62
9.00	2.00	0.97	2.66
9.25	2.07	1.02	2.69
9.50	2.15	1.08	2.72
9.75	2.22	1.14	2.75
10.00	2.30	1.21	2.82
10.25	2.38	1.28	2.95
10.50	2.46	1.35	3.11
10.75	2.55	1.42	3.28
11.00	2.64	1.50	3.46
11.25	2.74	1.59	3.64
11.50	2.84	1.67	3.82
11.75	2.94	1.76	4.00
12.00	3.05	1.86	4.19
12.25	3.16	1.96	4.37
12.50	3.27	2.06	4.56
12.75	3.39	2.17	4.74
13.00	3.51	2.28	4.93
13.25	3.64	2.39	5.12
13.50	3.78	2.52	5.36
13.75	3.94	2.67	5.89
14.00	4.11	2.83	6.65
14.25	4.31	3.02	7.48
14.50	4.52	3.22	8.33
14.75	4.75	3.43	9.10
15.00	4.97	3.64	9.55
15.25	5.20	3.86	9.83
15.50	5.43	4.08	10.06
15.75	5.66	4.30	**10.26**
16.00	5.88	4.51	**10.27**
16.25	6.09	4.71	9.87
16.50	6.28	4.89	9.28
16.75	6.45	5.06	8.64
17.00	6.61	5.21	7.99
17.25	6.76	5.36	7.37
17.50	6.89	5.49	6.84
17.75	7.02	5.61	6.32
18.00	7.13	5.72	5.81
18.25	7.24	5.83	5.31
18.50	7.34	5.92	4.88
18.75	7.43	6.01	4.51
19.00	7.51	6.09	4.16
19.25	7.58	6.16	3.82
19.50	7.65	6.23	3.49
19.75	7.72	6.29	3.24
20.00	7.78	6.36	3.05
20.25	7.84	6.41	2.88
20.50	7.90	6.47	2.70
20.75	7.95	6.52	2.56
21.00	8.00	6.57	2.50
21.25	8.06	6.63	2.48
21.50	8.11	6.68	2.48
21.75	8.17	6.73	2.47
22.00	8.22	6.78	2.44
22.25	8.26	6.83	2.31
22.50	8.31	6.87	2.16
22.75	8.35	6.91	1.99
23.00	8.38	6.94	1.82
23.25	8.42	6.98	1.76
23.50	8.47	7.03	1.86
23.75	8.52	7.07	2.01
24.00	**8.57**	**7.13**	2.18

Summary for Reach 1-T: EX DA 1 TOTAL

Inflow Area = 5.592 ac, 1.72% Impervious, Inflow Depth > 6.87" for 100-year event
Inflow = 4.99 cfs @ 15.68 hrs, Volume= 3.200 af
Outflow = 4.99 cfs @ 15.68 hrs, Volume= 3.200 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 1-T: EX DA 1 TOTAL



Hydrograph for Reach 1-T: EX DA 1 TOTAL

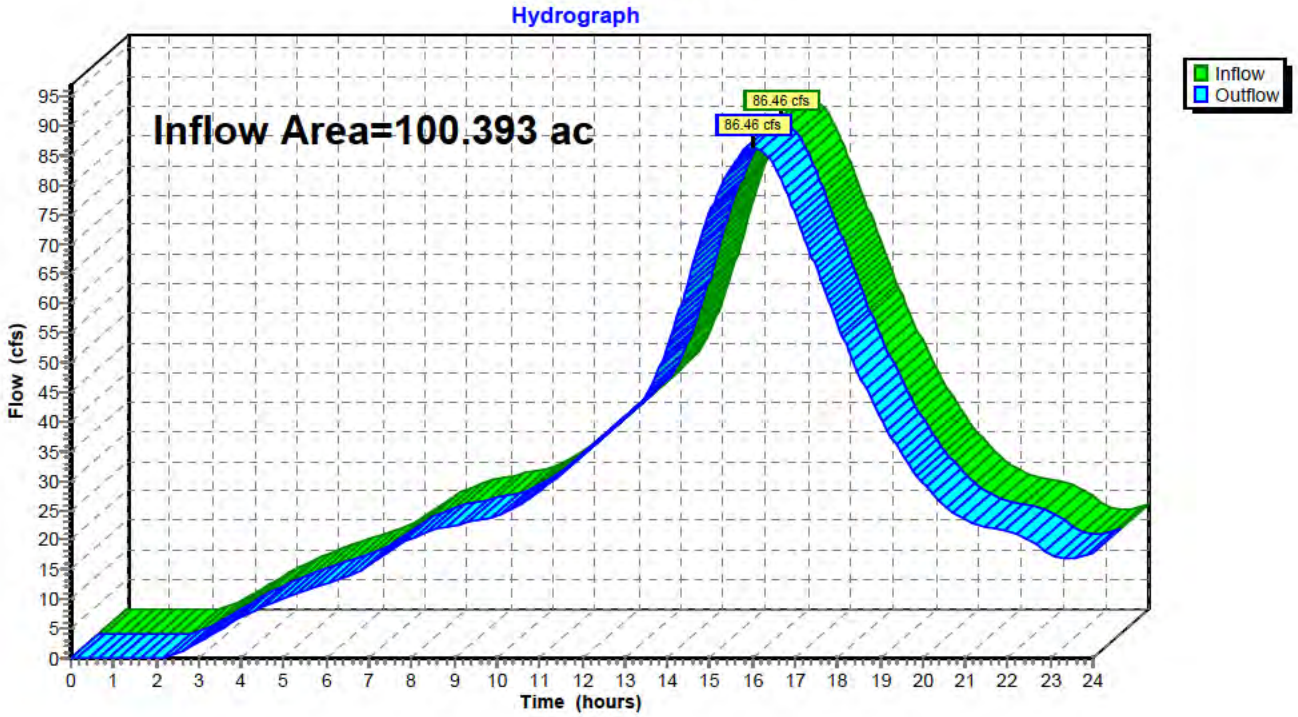
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	2.43		2.43
0.25	0.00		0.00	13.25	2.52		2.52
0.50	0.00		0.00	13.50	2.83		2.83
0.75	0.00		0.00	13.75	3.24		3.24
1.00	0.00		0.00	14.00	3.64		3.64
1.25	0.00		0.00	14.25	4.06		4.06
1.50	0.00		0.00	14.50	4.46		4.46
1.75	0.00		0.00	14.75	4.61		4.61
2.00	0.00		0.00	15.00	4.72		4.72
2.25	0.02		0.02	15.25	4.82		4.82
2.50	0.09		0.09	15.50	**4.92**		**4.92**
2.75	0.16		0.16	15.75	**4.96**		**4.96**
3.00	0.22		0.22	16.00	4.67		4.67
3.25	0.28		0.28	16.25	4.36		4.36
3.50	0.33		0.33	16.50	4.05		4.05
3.75	0.38		0.38	16.75	3.74		3.74
4.00	0.43		0.43	17.00	3.44		3.44
4.25	0.47		0.47	17.25	3.20		3.20
4.50	0.51		0.51	17.50	2.96		2.96
4.75	0.54		0.54	17.75	2.72		2.72
5.00	0.58		0.58	18.00	2.48		2.48
5.25	0.61		0.61	18.25	2.28		2.28
5.50	0.63		0.63	18.50	2.12		2.12
5.75	0.66		0.66	18.75	1.95		1.95
6.00	0.69		0.69	19.00	1.79		1.79
6.25	0.74		0.74	19.25	1.63		1.63
6.50	0.81		0.81	19.50	1.52		1.52
6.75	0.89		0.89	19.75	1.44		1.44
7.00	0.97		0.97	20.00	1.36		1.36
7.25	1.05		1.05	20.25	1.28		1.28
7.50	1.10		1.10	20.50	1.20		1.20
7.75	1.12		1.12	20.75	1.19		1.19
8.00	1.15		1.15	21.00	1.19		1.19
8.25	1.17		1.17	21.25	1.19		1.19
8.50	1.19		1.19	21.50	1.19		1.19
8.75	1.21		1.21	21.75	1.18		1.18
9.00	1.23		1.23	22.00	1.10		1.10
9.25	1.25		1.25	22.25	1.02		1.02
9.50	1.26		1.26	22.50	0.93		0.93
9.75	1.29		1.29	22.75	0.85		0.85
10.00	1.37		1.37	23.00	0.82		0.82
10.25	1.45		1.45	23.25	0.90		0.90
10.50	1.54		1.54	23.50	0.99		0.99
10.75	1.62		1.62	23.75	1.07		1.07
11.00	1.71		1.71	24.00	1.15		1.15
11.25	1.80		1.80				
11.50	1.89		1.89				
11.75	1.98		1.98				
12.00	2.07		2.07				
12.25	2.16		2.16				
12.50	2.25		2.25				
12.75	2.34		2.34				

Summary for Reach T: Total

Inflow Area = 100.393 ac, 0.41% Impervious, Inflow Depth > 6.97" for 100-year event
Inflow = 86.46 cfs @ 16.01 hrs, Volume= 58.350 af
Outflow = 86.46 cfs @ 16.01 hrs, Volume= 58.350 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach T: Total



Hydrograph for Reach T: Total

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	40.67		40.67
0.25	0.00		0.00	13.25	42.27		42.27
0.50	0.00		0.00	13.50	44.42		44.42
0.75	0.00		0.00	13.75	47.86		47.86
1.00	0.00		0.00	14.00	52.30		52.30
1.25	0.00		0.00	14.25	57.78		57.78
1.50	0.00		0.00	14.50	64.03		64.03
1.75	0.00		0.00	14.75	70.03		70.03
2.00	0.01		0.01	15.00	75.12		75.12
2.25	0.23		0.23	15.25	79.39		79.39
2.50	0.84		0.84	15.50	82.76		82.76
2.75	1.68		1.68	15.75	85.46		85.46
3.00	2.68		2.68	16.00	**86.46**		**86.46**
3.25	3.78		3.78	16.25	85.60		85.60
3.50	4.88		4.88	16.50	83.39		83.39
3.75	5.93		5.93	16.75	79.87		79.87
4.00	6.92		6.92	17.00	75.41		75.41
4.25	7.84		7.84	17.25	70.76		70.76
4.50	8.69		8.69	17.50	66.02		66.02
4.75	9.47		9.47	17.75	61.30		61.30
5.00	10.19		10.19	18.00	56.75		56.75
5.25	10.84		10.84	18.25	52.30		52.30
5.50	11.45		11.45	18.50	48.21		48.21
5.75	12.01		12.01	18.75	44.47		44.47
6.00	12.52		12.52	19.00	40.95		40.95
6.25	13.06		13.06	19.25	37.63		37.63
6.50	13.77		13.77	19.50	34.64		34.64
6.75	14.67		14.67	19.75	32.02		32.02
7.00	15.75		15.75	20.00	29.72		29.72
7.25	16.98		16.98	20.25	27.73		27.73
7.50	18.23		18.23	20.50	25.92		25.92
7.75	19.33		19.33	20.75	24.45		24.45
8.00	20.24		20.24	21.00	23.41		23.41
8.25	20.98		20.98	21.25	22.65		22.65
8.50	21.59		21.59	21.50	22.16		22.16
8.75	22.07		22.07	21.75	21.88		21.88
9.00	22.49		22.49	22.00	21.44		21.44
9.25	22.87		22.87	22.25	20.76		20.76
9.50	23.18		23.18	22.50	19.87		19.87
9.75	23.50		23.50	22.75	18.76		18.76
10.00	24.02		24.02	23.00	17.57		17.57
10.25	24.76		24.76	23.25	16.91		16.91
10.50	25.74		25.74	23.50	16.77		16.77
10.75	26.93		26.93	23.75	17.11		17.11
11.00	28.25		28.25	24.00	17.90		17.90
11.25	29.68		29.68				
11.50	31.18		31.18				
11.75	32.70		32.70				
12.00	34.27		34.27				
12.25	35.85		35.85				
12.50	37.43		37.43				
12.75	39.04		39.04				

APPENDIX D-2

HYDROCAD REPORT FOR 2-YEAR & 100-YEARSTORM EVENT

POST-DEVELOPMENT CONDITION WITHOUT STORMWATER BASINS

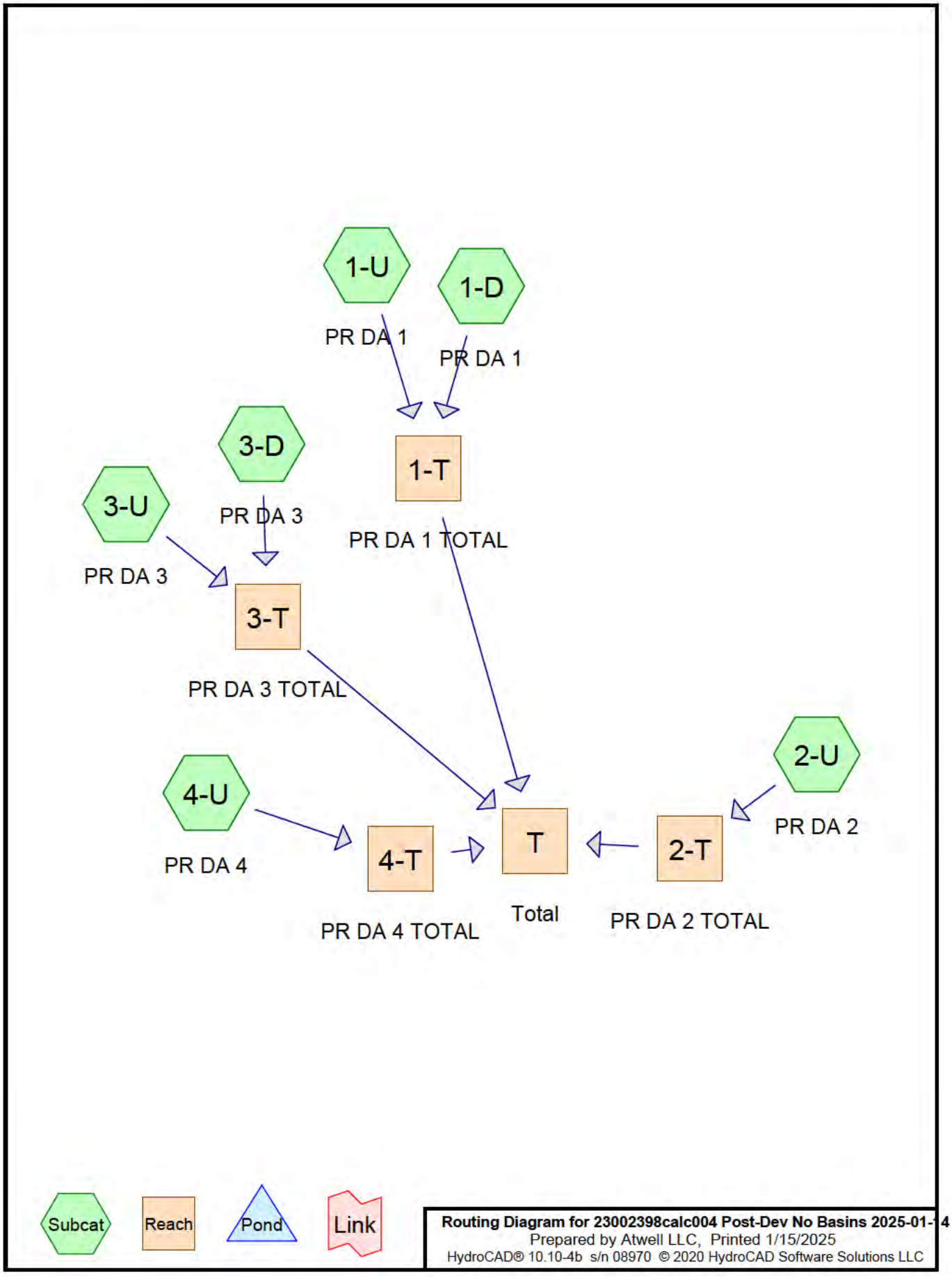
23002398calc004 Post-Dev No Basins 2025-01-14 *Table of Contents*
Prepared by Atwell LLC Printed 1/15/2025
HydroCAD® 10.10-4b s/n 08970 © 2020 HydroCAD Software Solutions LLC

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1-U
1-D
PR DA 1
PR DA 1
3-D
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PR DA 3
PR DA 1 TOTAL
PR DA 3
3-T
PR DA 3 TOTAL
2-U
4-U
PR DA 2
PR DA 4
4-T
T
2-T
Total
PR DA 4 TOTAL
PR DA 2 TOTAL
Subcat
Reach
Pond
Link
Routing Diagram for 23002398calc004 Post-Dev No Basins 2025-01-14
Prepared by Atwell LLC, Printed 1/15/2025
HydroCAD® 10.10-4b s/n 08970 © 2020 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-year	Huff 0-10sm	3Q	Scale	24.00	1	3.34	2
2	100-year	Huff 0-10sm	3Q	Scale	24.00	1	8.57	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.373	98	Impervious Area (1-D, 1-U, 2-U, 3-D)
11.437	74	Pasture/grassland/range, Good, HSG C (1-U, 2-U, 3-U, 4-U)
29.040	80	Pasture/grassland/range, Good, HSG D (1-U, 2-U, 3-U, 4-U)
20.897	85	Row crops, straight row, Good, HSG C (1-U, 2-U, 3-U, 4-U)
37.458	89	Row crops, straight row, Good, HSG D (1-U, 2-U, 3-U, 4-U)
100.205	**84**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1-D: PR DA 1 Runoff Area=0.323 ac 100.00% Impervious Runoff Depth>3.10"
Flow Length=459' Tc=9.8 min CN=98 Runoff=0.12 cfs 0.083 af

Subcatchment1-U: PR DA 1 Runoff Area=3.806 ac 2.26% Impervious Runoff Depth>1.72"
Flow Length=459' Tc=9.8 min CN=83 Runoff=0.99 cfs 0.544 af

Subcatchment2-U: PR DA 2 Runoff Area=62.154 ac 0.50% Impervious Runoff Depth>1.88"
Flow Length=3,331' Tc=78.0 min CN=86 Runoff=16.64 cfs 9.755 af

Subcatchment3-D: PR DA 3 Runoff Area=0.651 ac 100.00% Impervious Runoff Depth>3.09"
Flow Length=1,305' Tc=17.6 min CN=98 Runoff=0.24 cfs 0.167 af

Subcatchment3-U: PR DA 3 Runoff Area=21.569 ac 0.00% Impervious Runoff Depth>1.56"
Flow Length=1,305' Tc=17.6 min CN=81 Runoff=5.20 cfs 2.811 af

Subcatchment4-U: PR DA 4 Runoff Area=11.702 ac 0.00% Impervious Runoff Depth>1.41"
Flow Length=1,661' Tc=33.8 min CN=79 Runoff=2.58 cfs 1.378 af

Reach 1-T: PR DA 1 TOTAL Inflow=1.11 cfs 0.628 af
Outflow=1.11 cfs 0.628 af

Reach 2-T: PR DA 2 TOTAL Inflow=16.64 cfs 9.755 af
Outflow=16.64 cfs 9.755 af

Reach 3-T: PR DA 3 TOTAL Inflow=5.44 cfs 2.979 af
Outflow=5.44 cfs 2.979 af

Reach 4-T: PR DA 4 TOTAL Inflow=2.58 cfs 1.378 af
Outflow=2.58 cfs 1.378 af

Reach T: Total Inflow=24.99 cfs 14.740 af
Outflow=24.99 cfs 14.740 af

Total Runoff Area = 100.205 ac Runoff Volume = 14.740 af Average Runoff Depth = 1.77"
98.63% Pervious = 98.832 ac 1.37% Impervious = 1.373 ac

Summary for Subcatchment 1-D: PR DA 1

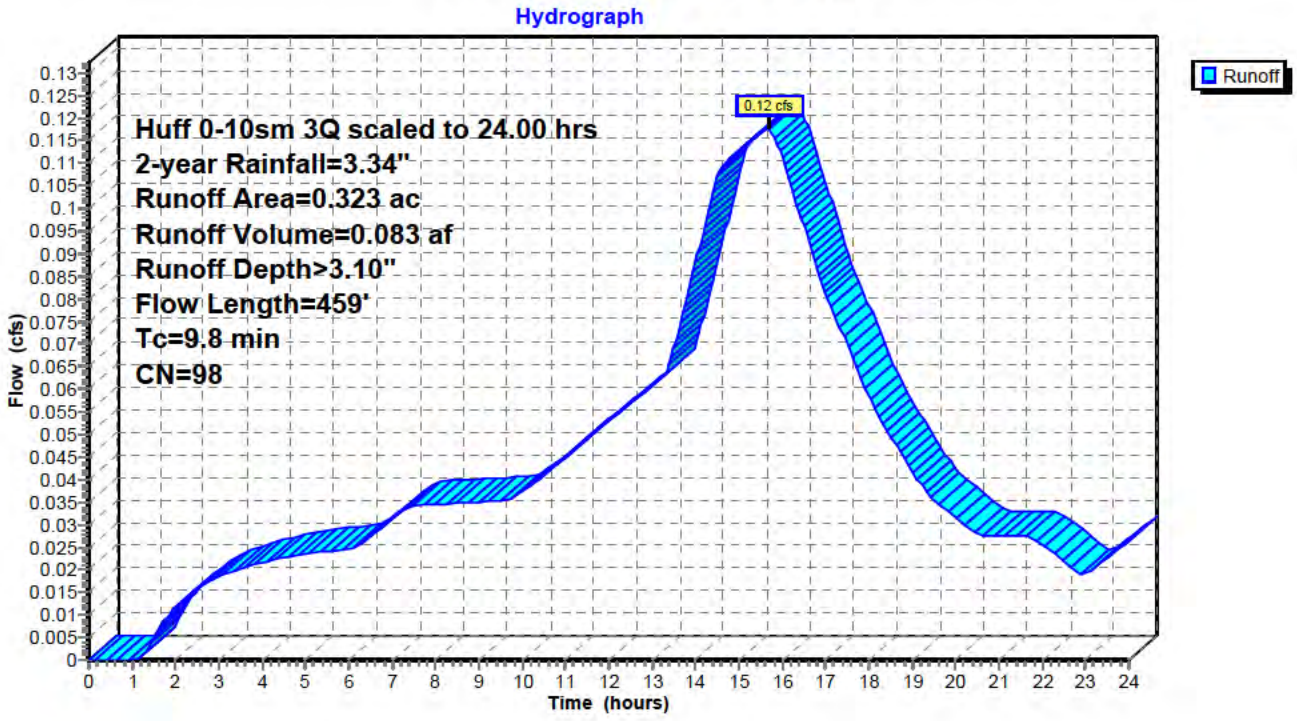
Runoff = 0.12 cfs @ 15.69 hrs, Volume= 0.083 af, Depth> 3.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
*	0.323	98	Impervious Area
	0.323		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.9	171	0.0290	1.53		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
0.2	16	0.0380	1.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	172	0.0122	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	459	Total			

Subcatchment 1-D: PR DA 1



Hydrograph for Subcatchment 1-D: PR DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	1.15	0.06
0.25	0.00	0.00	0.00	13.25	1.42	1.20	0.06
0.50	0.01	0.00	0.00	13.50	1.47	1.25	0.07
0.75	0.02	0.00	0.00	13.75	1.53	1.31	0.08
1.00	0.04	0.00	0.00	14.00	1.60	1.38	0.09
1.25	0.06	0.00	0.00	14.25	1.68	1.46	0.10
1.50	0.08	0.01	0.01	14.50	1.76	1.54	0.11
1.75	0.10	0.01	0.01	14.75	1.85	1.63	0.11
2.00	0.12	0.02	0.01	15.00	1.94	1.71	0.11
2.25	0.14	0.03	0.01	15.25	2.03	1.80	0.11
2.50	0.16	0.04	0.02	15.50	2.12	1.89	**0.12**
2.75	0.18	0.06	0.02	15.75	2.21	1.98	**0.12**
3.00	0.20	0.07	0.02	16.00	2.29	2.06	0.11
3.25	0.22	0.09	0.02	16.25	2.37	2.14	0.10
3.50	0.25	0.10	0.02	16.50	2.45	2.22	0.10
3.75	0.27	0.12	0.02	16.75	2.51	2.28	0.09
4.00	0.29	0.14	0.02	17.00	2.58	2.35	0.08
4.25	0.31	0.15	0.02	17.25	2.63	2.40	0.08
4.50	0.33	0.17	0.02	17.50	2.69	2.46	0.07
4.75	0.35	0.19	0.02	17.75	2.74	2.51	0.06
5.00	0.37	0.21	0.02	18.00	2.78	2.55	0.06
5.25	0.39	0.22	0.02	18.25	2.82	2.59	0.05
5.50	0.42	0.24	0.02	18.50	2.86	2.63	0.05
5.75	0.44	0.26	0.02	18.75	2.89	2.66	0.05
6.00	0.46	0.28	0.02	19.00	2.93	2.70	0.04
6.25	0.48	0.30	0.03	19.25	2.96	2.72	0.04
6.50	0.50	0.32	0.03	19.50	2.98	2.75	0.04
6.75	0.53	0.34	0.03	19.75	3.01	2.78	0.03
7.00	0.55	0.37	0.03	20.00	3.03	2.80	0.03
7.25	0.58	0.39	0.03	20.25	3.06	2.82	0.03
7.50	0.61	0.42	0.03	20.50	3.08	2.85	0.03
7.75	0.64	0.45	0.03	20.75	3.10	2.87	0.03
8.00	0.67	0.47	0.03	21.00	3.12	2.89	0.03
8.25	0.70	0.50	0.03	21.25	3.14	2.91	0.03
8.50	0.72	0.53	0.03	21.50	3.16	2.93	0.03
8.75	0.75	0.55	0.03	21.75	3.18	2.95	0.03
9.00	0.78	0.58	0.04	22.00	3.20	2.97	0.03
9.25	0.81	0.61	0.04	22.25	3.22	2.99	0.02
9.50	0.84	0.63	0.04	22.50	3.24	3.00	0.02
9.75	0.86	0.66	0.04	22.75	3.25	3.02	0.02
10.00	0.89	0.69	0.04	23.00	3.27	3.03	0.02
10.25	0.93	0.72	0.04	23.25	3.28	3.05	0.02
10.50	0.96	0.75	0.04	23.50	3.30	3.07	0.02
10.75	0.99	0.78	0.04	23.75	3.32	3.09	0.02
11.00	1.03	0.82	0.04	24.00	**3.34**	**3.11**	0.03
11.25	1.07	0.86	0.05				
11.50	1.10	0.89	0.05				
11.75	1.15	0.93	0.05				
12.00	1.19	0.97	0.05				
12.25	1.23	1.01	0.05				
12.50	1.27	1.06	0.06				
12.75	1.32	1.10	0.06				

Summary for Subcatchment 1-U: PR DA 1

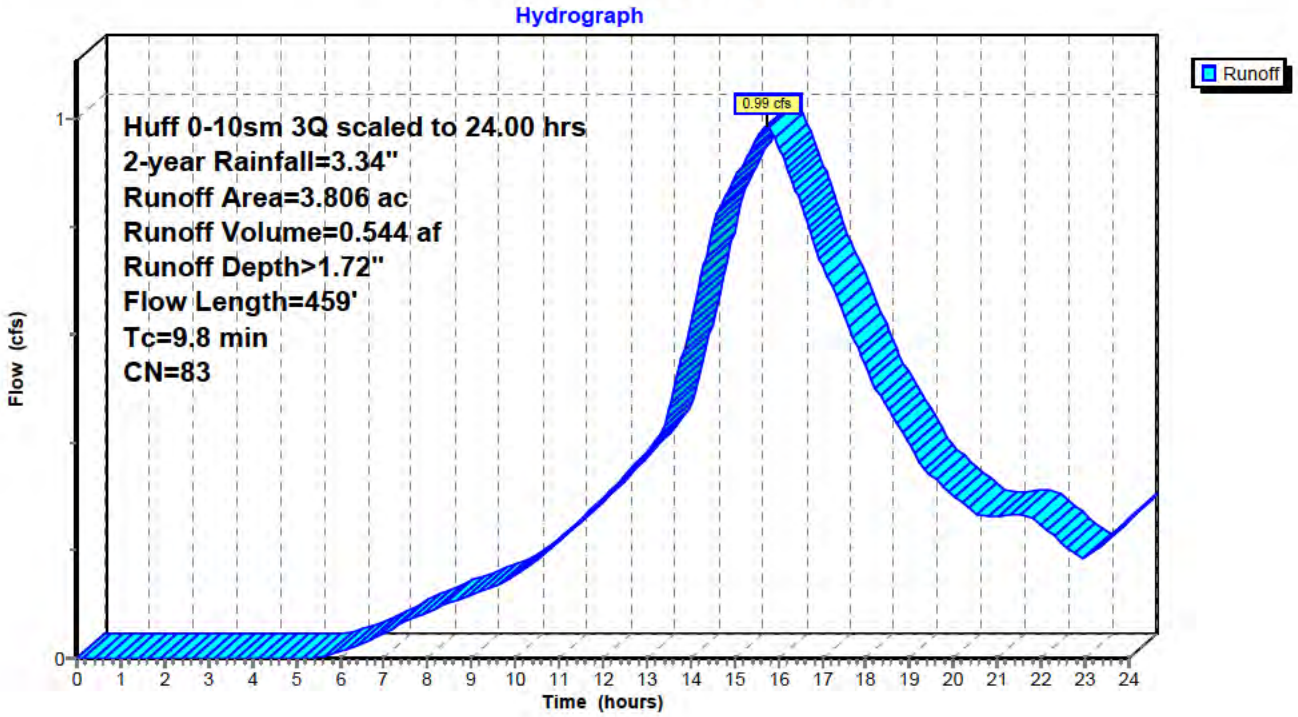
Runoff = 0.99 cfs @ 15.73 hrs, Volume= 0.544 af, Depth> 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
	0.000	89	Row crops, straight row, Good, HSG D
	0.753	89	Row crops, straight row, Good, HSG D
	0.711	80	Pasture/grassland/range, Good, HSG D
	1.342	85	Row crops, straight row, Good, HSG C
	0.914	74	Pasture/grassland/range, Good, HSG C
*	0.086	98	Impervious Area
	3.806	83	Weighted Average
	3.720		97.74% Pervious Area
	0.086		2.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.9	171	0.0290	1.53		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
0.2	16	0.0380	1.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	172	0.0122	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	459	Total			

Subcatchment 1-U: PR DA 1



Hydrograph for Subcatchment 1-U: PR DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.31	0.38
0.25	0.00	0.00	0.00	13.25	1.42	0.33	0.41
0.50	0.01	0.00	0.00	13.50	1.47	0.36	0.46
0.75	0.02	0.00	0.00	13.75	1.53	0.40	0.54
1.00	0.04	0.00	0.00	14.00	1.60	0.44	0.62
1.25	0.06	0.00	0.00	14.25	1.68	0.49	0.71
1.50	0.08	0.00	0.00	14.50	1.76	0.54	0.80
1.75	0.10	0.00	0.00	14.75	1.85	0.59	0.85
2.00	0.12	0.00	0.00	15.00	1.94	0.65	0.89
2.25	0.14	0.00	0.00	15.25	2.03	0.71	0.93
2.50	0.16	0.00	0.00	15.50	2.12	0.78	0.96
2.75	0.18	0.00	0.00	15.75	2.21	0.84	**0.99**
3.00	0.20	0.00	0.00	16.00	2.29	0.90	0.95
3.25	0.22	0.00	0.00	16.25	2.37	0.96	0.90
3.50	0.25	0.00	0.00	16.50	2.45	1.01	0.85
3.75	0.27	0.00	0.00	16.75	2.51	1.07	0.79
4.00	0.29	0.00	0.00	17.00	2.58	1.11	0.73
4.25	0.31	0.00	0.00	17.25	2.63	1.16	0.69
4.50	0.33	0.00	0.00	17.50	2.69	1.20	0.64
4.75	0.35	0.00	0.00	17.75	2.74	1.24	0.59
5.00	0.37	0.00	0.00	18.00	2.78	1.27	0.54
5.25	0.39	0.00	0.00	18.25	2.82	1.30	0.50
5.50	0.42	0.00	0.00	18.50	2.86	1.33	0.46
5.75	0.44	0.00	0.00	18.75	2.89	1.36	0.43
6.00	0.46	0.00	0.01	19.00	2.93	1.39	0.40
6.25	0.48	0.00	0.02	19.25	2.96	1.41	0.36
6.50	0.50	0.00	0.03	19.50	2.98	1.43	0.34
6.75	0.53	0.01	0.04	19.75	3.01	1.45	0.32
7.00	0.55	0.01	0.05	20.00	3.03	1.47	0.30
7.25	0.58	0.01	0.06	20.25	3.06	1.49	0.29
7.50	0.61	0.02	0.07	20.50	3.08	1.51	0.27
7.75	0.64	0.02	0.08	20.75	3.10	1.53	0.26
8.00	0.67	0.03	0.09	21.00	3.12	1.54	0.26
8.25	0.70	0.03	0.09	21.25	3.14	1.56	0.27
8.50	0.72	0.04	0.10	21.50	3.16	1.58	0.27
8.75	0.75	0.05	0.11	21.75	3.18	1.60	0.26
9.00	0.78	0.06	0.12	22.00	3.20	1.61	0.25
9.25	0.81	0.06	0.13	22.25	3.22	1.63	0.23
9.50	0.84	0.07	0.13	22.50	3.24	1.64	0.21
9.75	0.86	0.08	0.14	22.75	3.25	1.65	0.19
10.00	0.89	0.09	0.15	23.00	3.27	1.66	0.18
10.25	0.93	0.10	0.17	23.25	3.28	1.68	0.20
10.50	0.96	0.12	0.18	23.50	3.30	1.69	0.22
10.75	0.99	0.13	0.20	23.75	3.32	1.71	0.24
11.00	1.03	0.14	0.22	24.00	**3.34**	**1.72**	0.26
11.25	1.07	0.16	0.24				
11.50	1.10	0.18	0.26				
11.75	1.15	0.19	0.28				
12.00	1.19	0.21	0.30				
12.25	1.23	0.23	0.32				
12.50	1.27	0.26	0.34				
12.75	1.32	0.28	0.36				

Summary for Subcatchment 2-U: PR DA 2

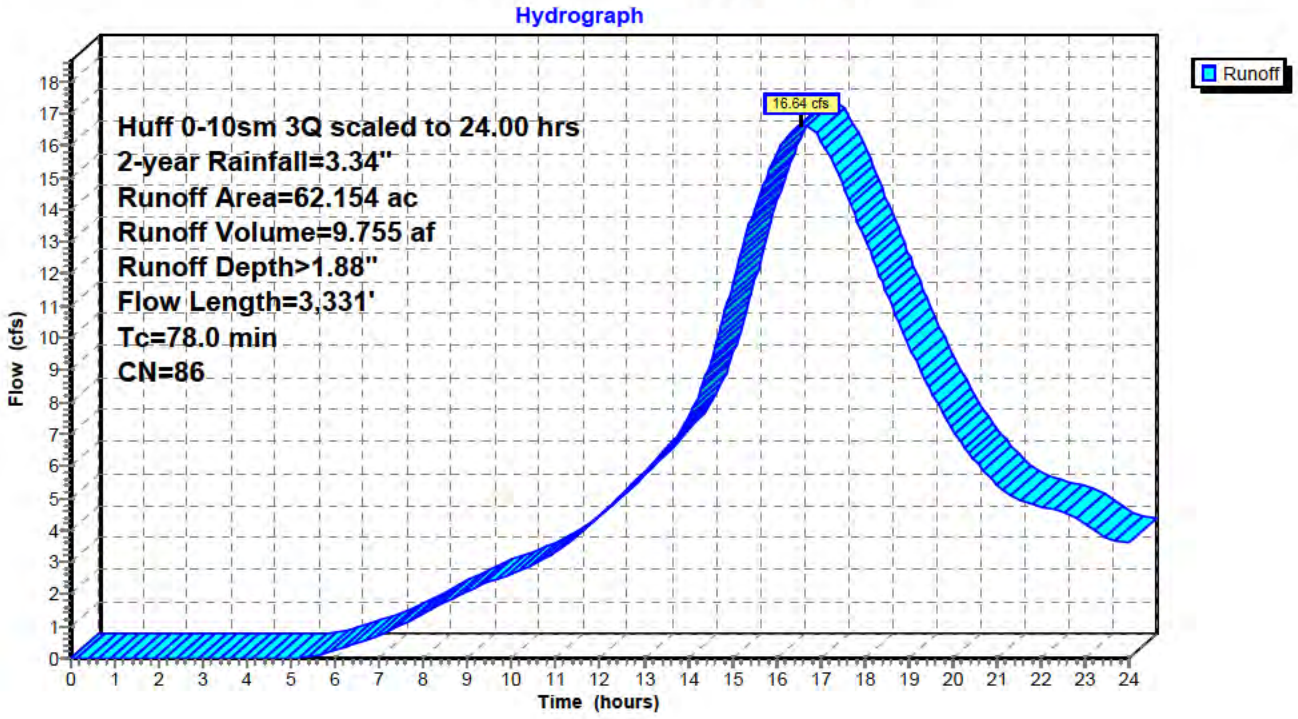
Runoff = 16.64 cfs @ 16.57 hrs, Volume= 9.755 af, Depth> 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
	11.052	89	Row crops, straight row, Good, HSG D
	2.151	80	Pasture/grassland/range, Good, HSG D
	0.061	89	Row crops, straight row, Good, HSG D
	10.906	89	Row crops, straight row, Good, HSG D
	8.457	80	Pasture/grassland/range, Good, HSG D
	9.982	89	Row crops, straight row, Good, HSG D
	0.038	80	Pasture/grassland/range, Good, HSG D
	14.843	85	Row crops, straight row, Good, HSG C
	2.519	74	Pasture/grassland/range, Good, HSG C
	0.830	85	Row crops, straight row, Good, HSG C
	1.002	74	Pasture/grassland/range, Good, HSG C
*	0.313	98	Impervious Area
	62.154	86	Weighted Average
	61.841		99.50% Pervious Area
	0.313		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	100	0.0421	0.49		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.5	141	0.0306	1.57		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
42.0	1,988	0.0077	0.79		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
31.1	1,102	0.0071	0.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
78.0	3,331	Total			

Subcatchment 2-U: PR DA 2



Hydrograph for Subcatchment 2-U: PR DA 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.41	5.80
0.25	0.00	0.00	0.00	13.25	1.42	0.44	6.17
0.50	0.01	0.00	0.00	13.50	1.47	0.47	6.54
0.75	0.02	0.00	0.00	13.75	1.53	0.51	6.96
1.00	0.04	0.00	0.00	14.00	1.60	0.56	7.49
1.25	0.06	0.00	0.00	14.25	1.68	0.61	8.24
1.50	0.08	0.00	0.00	14.50	1.76	0.67	9.21
1.75	0.10	0.00	0.00	14.75	1.85	0.74	10.37
2.00	0.12	0.00	0.00	15.00	1.94	0.80	11.64
2.25	0.14	0.00	0.00	15.25	2.03	0.87	12.86
2.50	0.16	0.00	0.00	15.50	2.12	0.94	13.97
2.75	0.18	0.00	0.00	15.75	2.21	1.01	14.89
3.00	0.20	0.00	0.00	16.00	2.29	1.08	15.69
3.25	0.22	0.00	0.00	16.25	2.37	1.14	16.29
3.50	0.25	0.00	0.00	16.50	2.45	1.20	**16.60**
3.75	0.27	0.00	0.00	16.75	2.51	1.25	**16.58**
4.00	0.29	0.00	0.00	17.00	2.58	1.31	16.19
4.25	0.31	0.00	0.00	17.25	2.63	1.35	15.59
4.50	0.33	0.00	0.00	17.50	2.69	1.40	14.81
4.75	0.35	0.00	0.00	17.75	2.74	1.44	13.99
5.00	0.37	0.00	0.01	18.00	2.78	1.48	13.13
5.25	0.39	0.00	0.03	18.25	2.82	1.51	12.27
5.50	0.42	0.00	0.08	18.50	2.86	1.54	11.42
5.75	0.44	0.01	0.15	18.75	2.89	1.57	10.58
6.00	0.46	0.01	0.24	19.00	2.93	1.60	9.80
6.25	0.48	0.01	0.35	19.25	2.96	1.62	9.06
6.50	0.50	0.02	0.46	19.50	2.98	1.65	8.38
6.75	0.53	0.02	0.57	19.75	3.01	1.67	7.73
7.00	0.55	0.03	0.71	20.00	3.03	1.69	7.15
7.25	0.58	0.03	0.86	20.25	3.06	1.71	6.62
7.50	0.61	0.04	1.03	20.50	3.08	1.73	6.17
7.75	0.64	0.05	1.22	20.75	3.10	1.75	5.78
8.00	0.67	0.06	1.41	21.00	3.12	1.77	5.43
8.25	0.70	0.07	1.60	21.25	3.14	1.78	5.15
8.50	0.72	0.08	1.78	21.50	3.16	1.80	4.94
8.75	0.75	0.09	1.94	21.75	3.18	1.82	4.81
9.00	0.78	0.10	2.10	22.00	3.20	1.84	4.72
9.25	0.81	0.11	2.24	22.25	3.22	1.85	4.65
9.50	0.84	0.12	2.38	22.50	3.24	1.87	4.55
9.75	0.86	0.13	2.51	22.75	3.25	1.88	4.40
10.00	0.89	0.15	2.64	23.00	3.27	1.89	4.19
10.25	0.93	0.16	2.77	23.25	3.28	1.91	3.95
10.50	0.96	0.18	2.93	23.50	3.30	1.92	3.74
10.75	0.99	0.19	3.11	23.75	3.32	1.94	3.62
11.00	1.03	0.21	3.34	24.00	**3.34**	**1.96**	3.63
11.25	1.07	0.23	3.59				
11.50	1.10	0.25	3.86				
11.75	1.15	0.27	4.15				
12.00	1.19	0.30	4.46				
12.25	1.23	0.32	4.78				
12.50	1.27	0.35	5.11				
12.75	1.32	0.38	5.46				

Summary for Subcatchment 3-D: PR DA 3

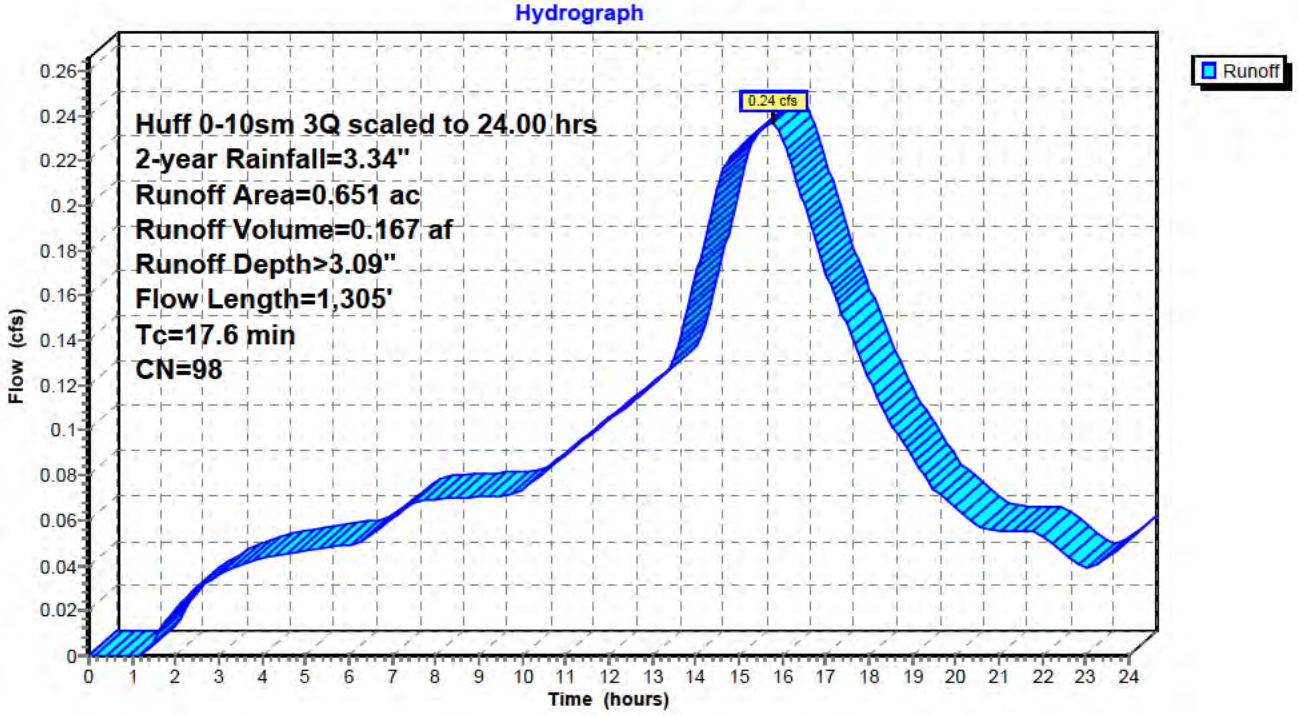
Runoff = 0.24 cfs @ 15.77 hrs, Volume= 0.167 af, Depth> 3.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
*	0.651	98	Impervious Area
	0.651		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0081	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
0.6	37	0.0151	1.11		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.8	758	0.0141	7.10	71.03	**Channel Flow,** Area= 10.0 sf Perim= 12.0' r= 0.83' n= 0.022 Earth, clean & straight
0.3	38	0.0146	2.45		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	372	0.0113	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.6	1,305	Total			

Subcatchment 3-D: PR DA 3



Hydrograph for Subcatchment 3-D: PR DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	1.15	0.12
0.25	0.00	0.00	0.00	13.25	1.42	1.20	0.12
0.50	0.01	0.00	0.00	13.50	1.47	1.25	0.13
0.75	0.02	0.00	0.00	13.75	1.53	1.31	0.15
1.00	0.04	0.00	0.00	14.00	1.60	1.38	0.17
1.25	0.06	0.00	0.00	14.25	1.68	1.46	0.19
1.50	0.08	0.01	0.01	14.50	1.76	1.54	0.21
1.75	0.10	0.01	0.01	14.75	1.85	1.63	0.22
2.00	0.12	0.02	0.02	15.00	1.94	1.71	0.23
2.25	0.14	0.03	0.03	15.25	2.03	1.80	0.23
2.50	0.16	0.04	0.03	15.50	2.12	1.89	0.23
2.75	0.18	0.06	0.03	15.75	2.21	1.98	**0.24**
3.00	0.20	0.07	0.04	16.00	2.29	2.06	0.23
3.25	0.22	0.09	0.04	16.25	2.37	2.14	0.22
3.50	0.25	0.10	0.04	16.50	2.45	2.22	0.20
3.75	0.27	0.12	0.04	16.75	2.51	2.28	0.19
4.00	0.29	0.14	0.04	17.00	2.58	2.35	0.17
4.25	0.31	0.15	0.04	17.25	2.63	2.40	0.16
4.50	0.33	0.17	0.05	17.50	2.69	2.46	0.15
4.75	0.35	0.19	0.05	17.75	2.74	2.51	0.13
5.00	0.37	0.21	0.05	18.00	2.78	2.55	0.12
5.25	0.39	0.22	0.05	18.25	2.82	2.59	0.11
5.50	0.42	0.24	0.05	18.50	2.86	2.63	0.10
5.75	0.44	0.26	0.05	18.75	2.89	2.66	0.10
6.00	0.46	0.28	0.05	19.00	2.93	2.70	0.09
6.25	0.48	0.30	0.05	19.25	2.96	2.72	0.08
6.50	0.50	0.32	0.05	19.50	2.98	2.75	0.07
6.75	0.53	0.34	0.06	19.75	3.01	2.78	0.07
7.00	0.55	0.37	0.06	20.00	3.03	2.80	0.07
7.25	0.58	0.39	0.06	20.25	3.06	2.82	0.06
7.50	0.61	0.42	0.07	20.50	3.08	2.85	0.06
7.75	0.64	0.45	0.07	20.75	3.10	2.87	0.06
8.00	0.67	0.47	0.07	21.00	3.12	2.89	0.06
8.25	0.70	0.50	0.07	21.25	3.14	2.91	0.06
8.50	0.72	0.53	0.07	21.50	3.16	2.93	0.06
8.75	0.75	0.55	0.07	21.75	3.18	2.95	0.06
9.00	0.78	0.58	0.07	22.00	3.20	2.97	0.05
9.25	0.81	0.61	0.07	22.25	3.22	2.99	0.05
9.50	0.84	0.63	0.07	22.50	3.24	3.00	0.05
9.75	0.86	0.66	0.07	22.75	3.25	3.02	0.04
10.00	0.89	0.69	0.07	23.00	3.27	3.03	0.04
10.25	0.93	0.72	0.08	23.25	3.28	3.05	0.04
10.50	0.96	0.75	0.08	23.50	3.30	3.07	0.04
10.75	0.99	0.78	0.08	23.75	3.32	3.09	0.05
11.00	1.03	0.82	0.09	24.00	**3.34**	**3.11**	0.05
11.25	1.07	0.86	0.09				
11.50	1.10	0.89	0.10				
11.75	1.15	0.93	0.10				
12.00	1.19	0.97	0.10				
12.25	1.23	1.01	0.11				
12.50	1.27	1.06	0.11				
12.75	1.32	1.10	0.12				

Summary for Subcatchment 3-U: PR DA 3

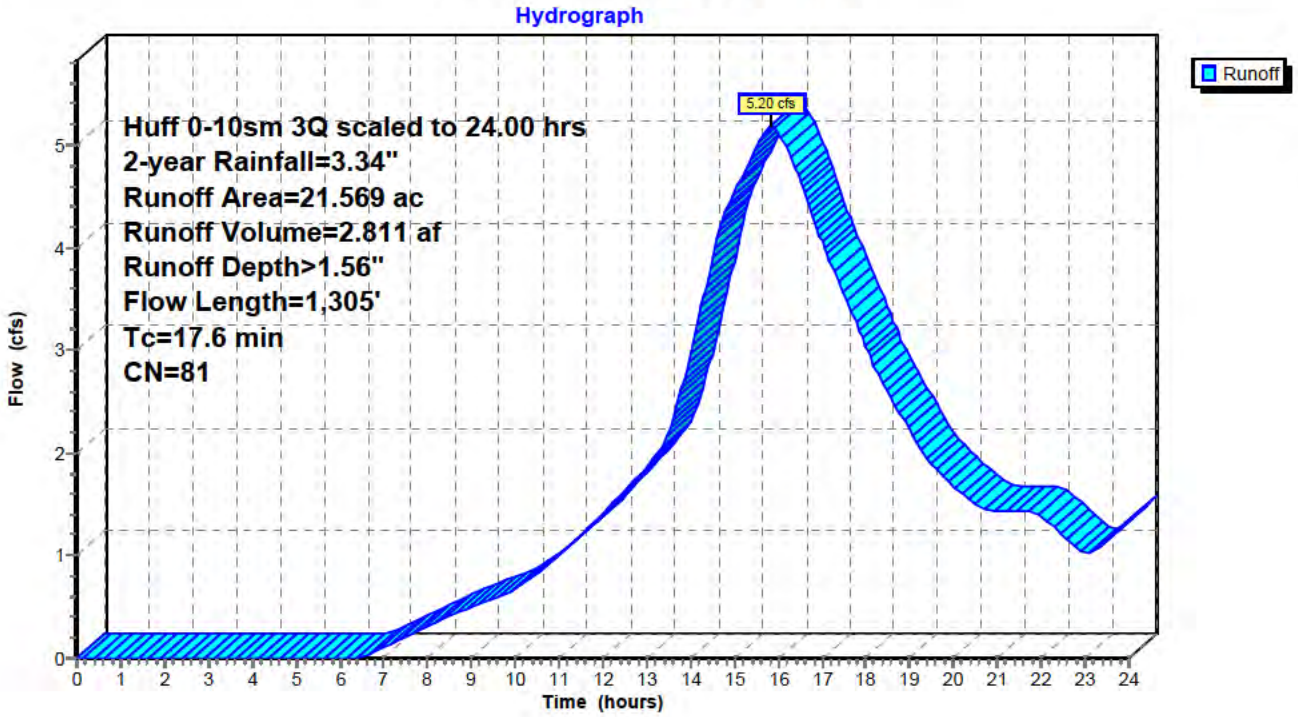
Runoff = 5.20 cfs @ 15.84 hrs, Volume= 2.811 af, Depth> 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

Area (ac)	CN	Description
3.171	89	Row crops, straight row, Good, HSG D
4.736	80	Pasture/grassland/range, Good, HSG D
1.134	89	Row crops, straight row, Good, HSG D
5.352	80	Pasture/grassland/range, Good, HSG D
3.187	85	Row crops, straight row, Good, HSG C
3.989	74	Pasture/grassland/range, Good, HSG C
21.569	81	Weighted Average
21.569		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0081	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
0.6	37	0.0151	1.11		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.8	758	0.0141	7.10	71.03	**Channel Flow,** Area= 10.0 sf Perim= 12.0' r= 0.83' n= 0.022 Earth, clean & straight
0.3	38	0.0146	2.45		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	372	0.0113	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.6	1,305	Total			

Subcatchment 3-U: PR DA 3



Hydrograph for Subcatchment 3-U: PR DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.25	1.87
0.25	0.00	0.00	0.00	13.25	1.42	0.27	1.99
0.50	0.01	0.00	0.00	13.50	1.47	0.30	2.19
0.75	0.02	0.00	0.00	13.75	1.53	0.33	2.55
1.00	0.04	0.00	0.00	14.00	1.60	0.37	2.97
1.25	0.06	0.00	0.00	14.25	1.68	0.41	3.43
1.50	0.08	0.00	0.00	14.50	1.76	0.46	3.91
1.75	0.10	0.00	0.00	14.75	1.85	0.51	4.29
2.00	0.12	0.00	0.00	15.00	1.94	0.57	4.54
2.25	0.14	0.00	0.00	15.25	2.03	0.62	4.76
2.50	0.16	0.00	0.00	15.50	2.12	0.68	4.97
2.75	0.18	0.00	0.00	15.75	2.21	0.74	**5.17**
3.00	0.20	0.00	0.00	16.00	2.29	0.80	**5.14**
3.25	0.22	0.00	0.00	16.25	2.37	0.85	4.92
3.50	0.25	0.00	0.00	16.50	2.45	0.90	4.65
3.75	0.27	0.00	0.00	16.75	2.51	0.95	4.36
4.00	0.29	0.00	0.00	17.00	2.58	1.00	4.06
4.25	0.31	0.00	0.00	17.25	2.63	1.04	3.80
4.50	0.33	0.00	0.00	17.50	2.69	1.08	3.55
4.75	0.35	0.00	0.00	17.75	2.74	1.11	3.30
5.00	0.37	0.00	0.00	18.00	2.78	1.15	3.04
5.25	0.39	0.00	0.00	18.25	2.82	1.18	2.79
5.50	0.42	0.00	0.00	18.50	2.86	1.21	2.59
5.75	0.44	0.00	0.00	18.75	2.89	1.23	2.41
6.00	0.46	0.00	0.00	19.00	2.93	1.26	2.23
6.25	0.48	0.00	0.00	19.25	2.96	1.28	2.04
6.50	0.50	0.00	0.02	19.50	2.98	1.30	1.88
6.75	0.53	0.00	0.06	19.75	3.01	1.32	1.78
7.00	0.55	0.00	0.10	20.00	3.03	1.34	1.68
7.25	0.58	0.01	0.16	20.25	3.06	1.36	1.59
7.50	0.61	0.01	0.21	20.50	3.08	1.37	1.49
7.75	0.64	0.01	0.27	20.75	3.10	1.39	1.44
8.00	0.67	0.02	0.32	21.00	3.12	1.41	1.43
8.25	0.70	0.02	0.36	21.25	3.14	1.42	1.44
8.50	0.72	0.02	0.41	21.50	3.16	1.44	1.44
8.75	0.75	0.03	0.45	21.75	3.18	1.46	1.44
9.00	0.78	0.04	0.50	22.00	3.20	1.47	1.39
9.25	0.81	0.04	0.54	22.25	3.22	1.49	1.30
9.50	0.84	0.05	0.58	22.50	3.24	1.50	1.20
9.75	0.86	0.06	0.62	22.75	3.25	1.51	1.10
10.00	0.89	0.07	0.68	23.00	3.27	1.52	1.01
10.25	0.93	0.07	0.75	23.25	3.28	1.53	1.05
10.50	0.96	0.08	0.83	23.50	3.30	1.55	1.15
10.75	0.99	0.10	0.91	23.75	3.32	1.56	1.25
11.00	1.03	0.11	1.00	24.00	**3.34**	**1.58**	1.36
11.25	1.07	0.12	1.10				
11.50	1.10	0.14	1.20				
11.75	1.15	0.15	1.30				
12.00	1.19	0.17	1.41				
12.25	1.23	0.19	1.52				
12.50	1.27	0.21	1.63				
12.75	1.32	0.23	1.75				

Summary for Subcatchment 4-U: PR DA 4

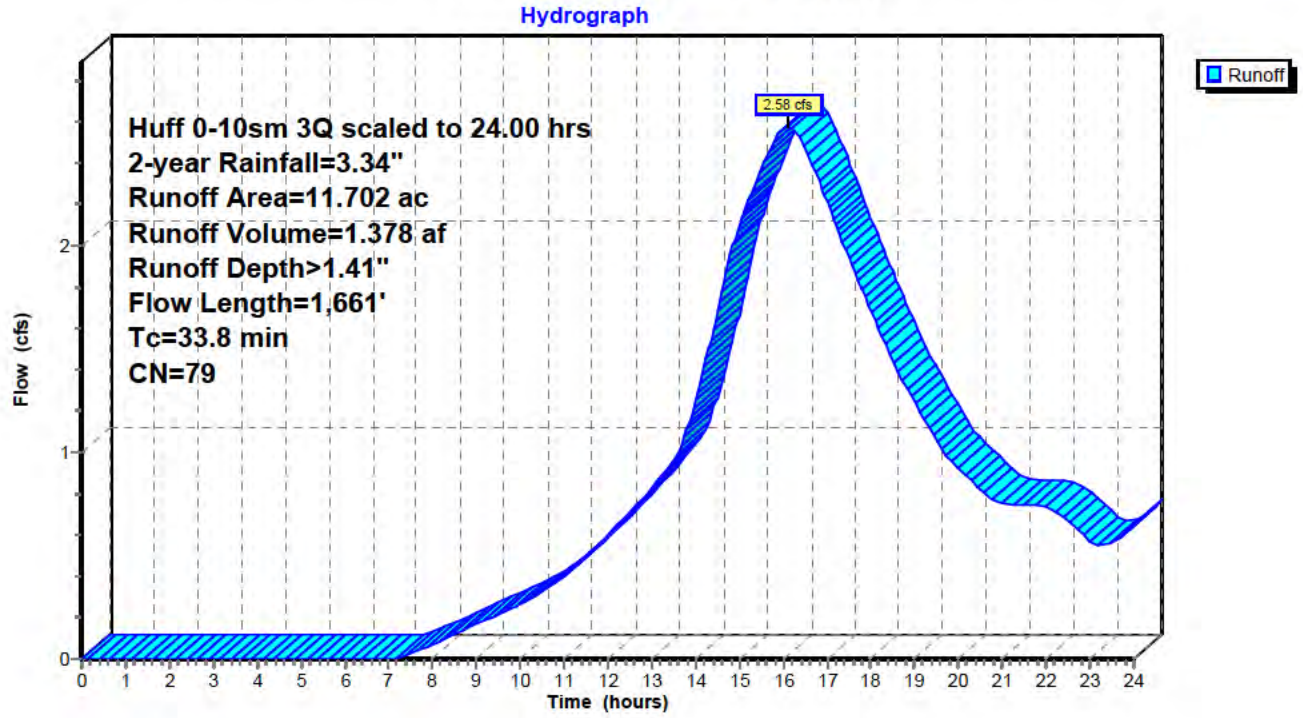
Runoff = 2.58 cfs @ 16.08 hrs, Volume= 1.378 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

Area (ac)	CN	Description
0.399	89	Row crops, straight row, Good, HSG D
4.560	80	Pasture/grassland/range, Good, HSG D
0.000	89	Row crops, straight row, Good, HSG D
3.035	80	Pasture/grassland/range, Good, HSG D
0.695	85	Row crops, straight row, Good, HSG C
3.013	74	Pasture/grassland/range, Good, HSG C
11.702	79	Weighted Average
11.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0080	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
2.7	198	0.0180	1.21		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
24.5	1,363	0.0175	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
33.8	1,661	Total			

Subcatchment 4-U: PR DA 4



Hydrograph for Subcatchment 4-U: PR DA 4

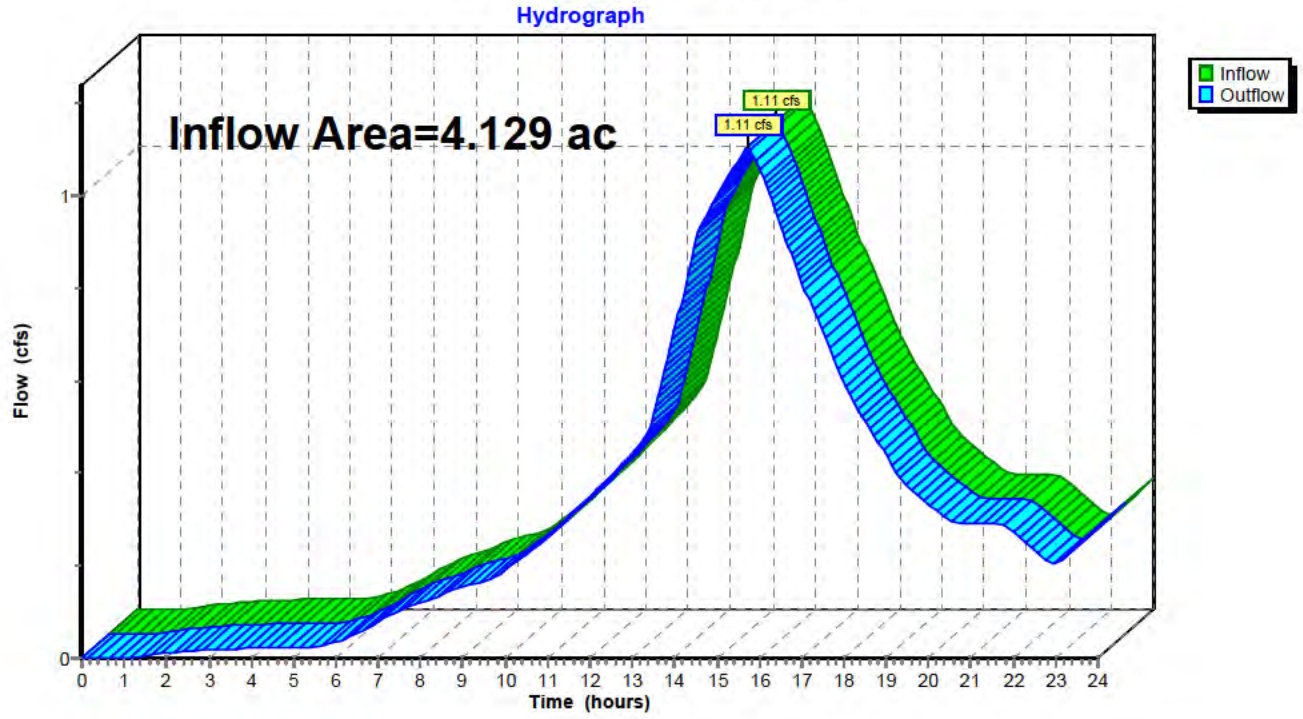
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.20	0.83
0.25	0.00	0.00	0.00	13.25	1.42	0.22	0.89
0.50	0.01	0.00	0.00	13.50	1.47	0.25	0.96
0.75	0.02	0.00	0.00	13.75	1.53	0.27	1.08
1.00	0.04	0.00	0.00	14.00	1.60	0.31	1.25
1.25	0.06	0.00	0.00	14.25	1.68	0.35	1.46
1.50	0.08	0.00	0.00	14.50	1.76	0.39	1.68
1.75	0.10	0.00	0.00	14.75	1.85	0.44	1.92
2.00	0.12	0.00	0.00	15.00	1.94	0.49	2.10
2.25	0.14	0.00	0.00	15.25	2.03	0.54	2.24
2.50	0.16	0.00	0.00	15.50	2.12	0.59	2.37
2.75	0.18	0.00	0.00	15.75	2.21	0.65	2.49
3.00	0.20	0.00	0.00	16.00	2.29	0.70	**2.57**
3.25	0.22	0.00	0.00	16.25	2.37	0.75	**2.56**
3.50	0.25	0.00	0.00	16.50	2.45	0.80	2.47
3.75	0.27	0.00	0.00	16.75	2.51	0.85	2.35
4.00	0.29	0.00	0.00	17.00	2.58	0.89	2.21
4.25	0.31	0.00	0.00	17.25	2.63	0.93	2.07
4.50	0.33	0.00	0.00	17.50	2.69	0.97	1.94
4.75	0.35	0.00	0.00	17.75	2.74	1.00	1.82
5.00	0.37	0.00	0.00	18.00	2.78	1.03	1.69
5.25	0.39	0.00	0.00	18.25	2.82	1.06	1.56
5.50	0.42	0.00	0.00	18.50	2.86	1.09	1.44
5.75	0.44	0.00	0.00	18.75	2.89	1.11	1.34
6.00	0.46	0.00	0.00	19.00	2.93	1.14	1.24
6.25	0.48	0.00	0.00	19.25	2.96	1.16	1.15
6.50	0.50	0.00	0.00	19.50	2.98	1.18	1.06
6.75	0.53	0.00	0.00	19.75	3.01	1.19	0.98
7.00	0.55	0.00	0.00	20.00	3.03	1.21	0.92
7.25	0.58	0.00	0.01	20.25	3.06	1.23	0.87
7.50	0.61	0.00	0.02	20.50	3.08	1.25	0.82
7.75	0.64	0.00	0.05	20.75	3.10	1.26	0.78
8.00	0.67	0.01	0.07	21.00	3.12	1.28	0.75
8.25	0.70	0.01	0.10	21.25	3.14	1.29	0.75
8.50	0.72	0.01	0.12	21.50	3.16	1.31	0.74
8.75	0.75	0.02	0.15	21.75	3.18	1.32	0.75
9.00	0.78	0.02	0.17	22.00	3.20	1.34	0.74
9.25	0.81	0.03	0.19	22.25	3.22	1.35	0.71
9.50	0.84	0.03	0.22	22.50	3.24	1.36	0.67
9.75	0.86	0.04	0.24	22.75	3.25	1.38	0.62
10.00	0.89	0.04	0.26	23.00	3.27	1.39	0.57
10.25	0.93	0.05	0.29	23.25	3.28	1.40	0.54
10.50	0.96	0.06	0.33	23.50	3.30	1.41	0.56
10.75	0.99	0.07	0.36	23.75	3.32	1.43	0.60
11.00	1.03	0.08	0.41	24.00	**3.34**	**1.44**	0.65
11.25	1.07	0.09	0.45				
11.50	1.10	0.10	0.50				
11.75	1.15	0.12	0.55				
12.00	1.19	0.13	0.60				
12.25	1.23	0.15	0.65				
12.50	1.27	0.16	0.71				
12.75	1.32	0.18	0.77				

Summary for Reach 1-T: PR DA 1 TOTAL

Inflow Area = 4.129 ac, 9.91% Impervious, Inflow Depth > 1.82" for 2-year event
Inflow = 1.11 cfs @ 15.73 hrs, Volume= 0.628 af
Outflow = 1.11 cfs @ 15.73 hrs, Volume= 0.628 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 1-T: PR DA 1 TOTAL



Hydrograph for Reach 1-T: PR DA 1 TOTAL

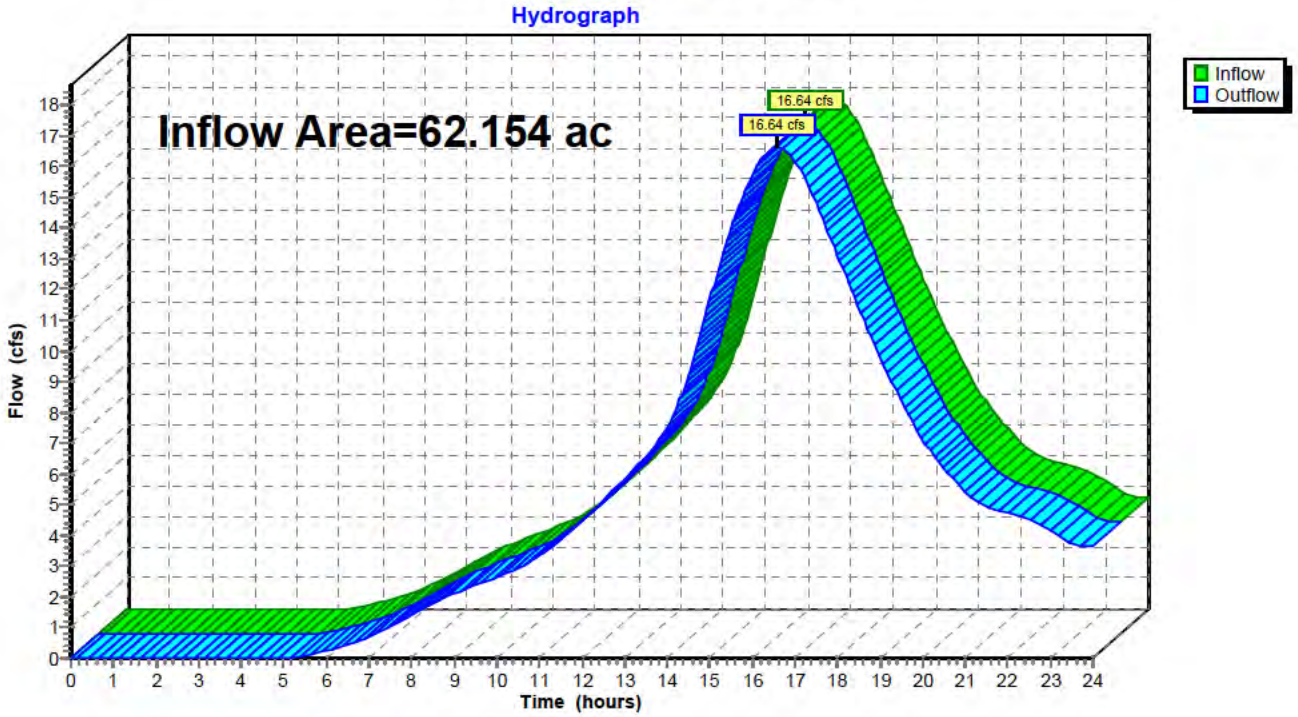
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.44		0.44
0.25	0.00		0.00	13.25	0.47		0.47
0.50	0.00		0.00	13.50	0.53		0.53
0.75	0.00		0.00	13.75	0.62		0.62
1.00	0.00		0.00	14.00	0.71		0.71
1.25	0.00		0.00	14.25	0.81		0.81
1.50	0.01		0.01	14.50	0.91		0.91
1.75	0.01		0.01	14.75	0.96		0.96
2.00	0.01		0.01	15.00	1.00		1.00
2.25	0.01		0.01	15.25	1.04		1.04
2.50	0.02		0.02	15.50	1.08		1.08
2.75	0.02		0.02	15.75	**1.11**		**1.11**
3.00	0.02		0.02	16.00	1.06		1.06
3.25	0.02		0.02	16.25	1.00		1.00
3.50	0.02		0.02	16.50	0.94		0.94
3.75	0.02		0.02	16.75	0.88		0.88
4.00	0.02		0.02	17.00	0.81		0.81
4.25	0.02		0.02	17.25	0.76		0.76
4.50	0.02		0.02	17.50	0.71		0.71
4.75	0.02		0.02	17.75	0.65		0.65
5.00	0.02		0.02	18.00	0.60		0.60
5.25	0.02		0.02	18.25	0.55		0.55
5.50	0.02		0.02	18.50	0.51		0.51
5.75	0.03		0.03	18.75	0.48		0.48
6.00	0.04		0.04	19.00	0.44		0.44
6.25	0.04		0.04	19.25	0.40		0.40
6.50	0.05		0.05	19.50	0.37		0.37
6.75	0.06		0.06	19.75	0.35		0.35
7.00	0.08		0.08	20.00	0.33		0.33
7.25	0.09		0.09	20.25	0.31		0.31
7.50	0.10		0.10	20.50	0.30		0.30
7.75	0.11		0.11	20.75	0.29		0.29
8.00	0.12		0.12	21.00	0.29		0.29
8.25	0.13		0.13	21.25	0.29		0.29
8.50	0.14		0.14	21.50	0.29		0.29
8.75	0.15		0.15	21.75	0.29		0.29
9.00	0.15		0.15	22.00	0.27		0.27
9.25	0.16		0.16	22.25	0.25		0.25
9.50	0.17		0.17	22.50	0.23		0.23
9.75	0.18		0.18	22.75	0.21		0.21
10.00	0.19		0.19	23.00	0.20		0.20
10.25	0.21		0.21	23.25	0.22		0.22
10.50	0.23		0.23	23.50	0.24		0.24
10.75	0.24		0.24	23.75	0.26		0.26
11.00	0.26		0.26	24.00	0.28		0.28
11.25	0.28		0.28				
11.50	0.31		0.31				
11.75	0.33		0.33				
12.00	0.35		0.35				
12.25	0.37		0.37				
12.50	0.40		0.40				
12.75	0.42		0.42				

Summary for Reach 2-T: PR DA 2 TOTAL

Inflow Area = 62.154 ac, 0.50% Impervious, Inflow Depth > 1.88" for 2-year event
Inflow = 16.64 cfs @ 16.57 hrs, Volume= 9.755 af
Outflow = 16.64 cfs @ 16.57 hrs, Volume= 9.755 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 2-T: PR DA 2 TOTAL



Hydrograph for Reach 2-T: PR DA 2 TOTAL

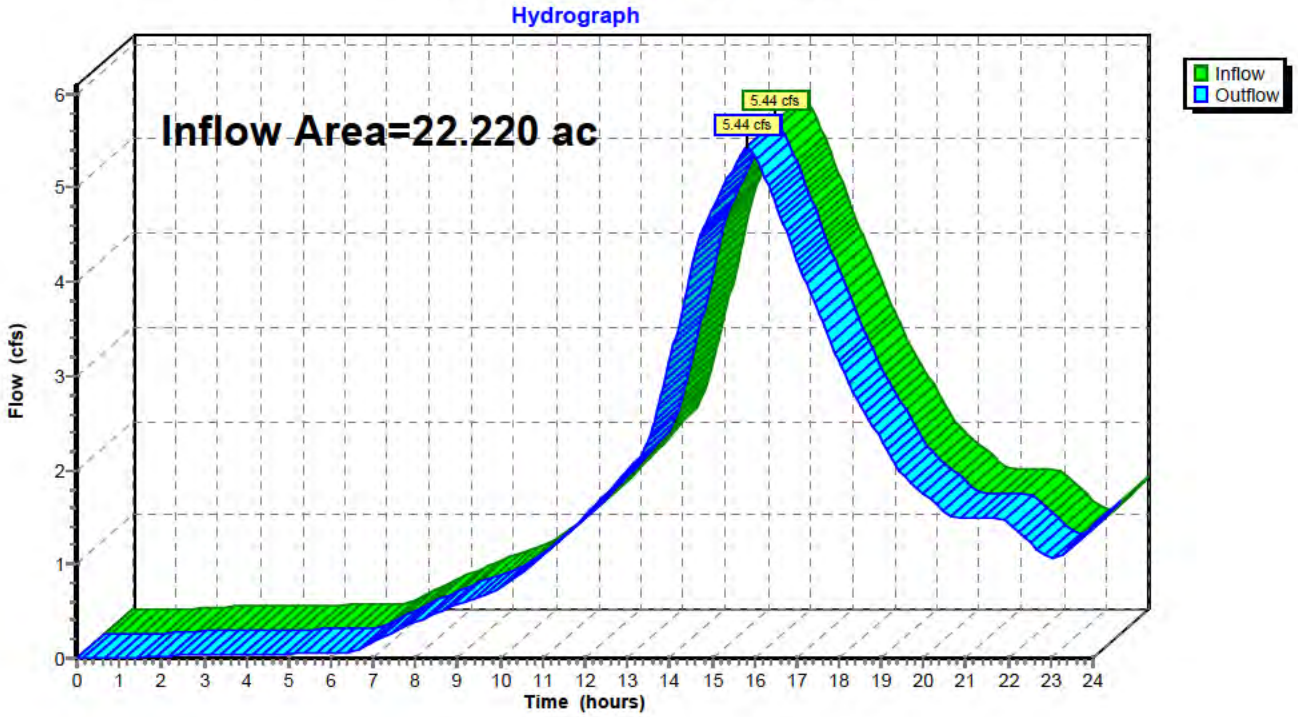
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	5.80		5.80
0.25	0.00		0.00	13.25	6.17		6.17
0.50	0.00		0.00	13.50	6.54		6.54
0.75	0.00		0.00	13.75	6.96		6.96
1.00	0.00		0.00	14.00	7.49		7.49
1.25	0.00		0.00	14.25	8.24		8.24
1.50	0.00		0.00	14.50	9.21		9.21
1.75	0.00		0.00	14.75	10.37		10.37
2.00	0.00		0.00	15.00	11.64		11.64
2.25	0.00		0.00	15.25	12.86		12.86
2.50	0.00		0.00	15.50	13.97		13.97
2.75	0.00		0.00	15.75	14.89		14.89
3.00	0.00		0.00	16.00	15.69		15.69
3.25	0.00		0.00	16.25	16.29		16.29
3.50	0.00		0.00	16.50	**16.60**		**16.60**
3.75	0.00		0.00	16.75	**16.58**		**16.58**
4.00	0.00		0.00	17.00	16.19		16.19
4.25	0.00		0.00	17.25	15.59		15.59
4.50	0.00		0.00	17.50	14.81		14.81
4.75	0.00		0.00	17.75	13.99		13.99
5.00	0.01		0.01	18.00	13.13		13.13
5.25	0.03		0.03	18.25	12.27		12.27
5.50	0.08		0.08	18.50	11.42		11.42
5.75	0.15		0.15	18.75	10.58		10.58
6.00	0.24		0.24	19.00	9.80		9.80
6.25	0.35		0.35	19.25	9.06		9.06
6.50	0.46		0.46	19.50	8.38		8.38
6.75	0.57		0.57	19.75	7.73		7.73
7.00	0.71		0.71	20.00	7.15		7.15
7.25	0.86		0.86	20.25	6.62		6.62
7.50	1.03		1.03	20.50	6.17		6.17
7.75	1.22		1.22	20.75	5.78		5.78
8.00	1.41		1.41	21.00	5.43		5.43
8.25	1.60		1.60	21.25	5.15		5.15
8.50	1.78		1.78	21.50	4.94		4.94
8.75	1.94		1.94	21.75	4.81		4.81
9.00	2.10		2.10	22.00	4.72		4.72
9.25	2.24		2.24	22.25	4.65		4.65
9.50	2.38		2.38	22.50	4.55		4.55
9.75	2.51		2.51	22.75	4.40		4.40
10.00	2.64		2.64	23.00	4.19		4.19
10.25	2.77		2.77	23.25	3.95		3.95
10.50	2.93		2.93	23.50	3.74		3.74
10.75	3.11		3.11	23.75	3.62		3.62
11.00	3.34		3.34	24.00	3.63		3.63
11.25	3.59		3.59				
11.50	3.86		3.86				
11.75	4.15		4.15				
12.00	4.46		4.46				
12.25	4.78		4.78				
12.50	5.11		5.11				
12.75	5.46		5.46				

Summary for Reach 3-T: PR DA 3 TOTAL

Inflow Area = 22.220 ac, 2.93% Impervious, Inflow Depth > 1.61" for 2-year event
Inflow = 5.44 cfs @ 15.84 hrs, Volume= 2.979 af
Outflow = 5.44 cfs @ 15.84 hrs, Volume= 2.979 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 3-T: PR DA 3 TOTAL



Hydrograph for Reach 3-T: PR DA 3 TOTAL

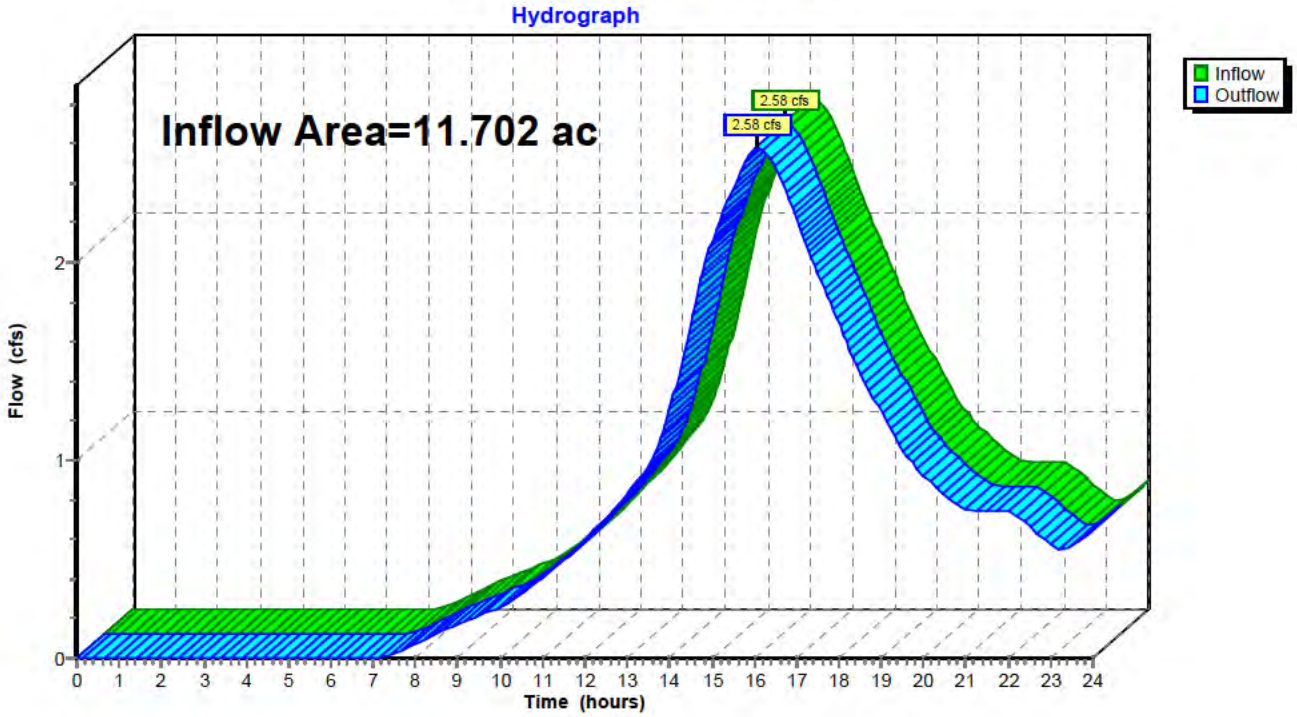
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	1.99		1.99
0.25	0.00		0.00	13.25	2.12		2.12
0.50	0.00		0.00	13.50	2.32		2.32
0.75	0.00		0.00	13.75	2.70		2.70
1.00	0.00		0.00	14.00	3.14		3.14
1.25	0.00		0.00	14.25	3.61		3.61
1.50	0.01		0.01	14.50	4.11		4.11
1.75	0.01		0.01	14.75	4.51		4.51
2.00	0.02		0.02	15.00	4.76		4.76
2.25	0.03		0.03	15.25	4.99		4.99
2.50	0.03		0.03	15.50	5.20		5.20
2.75	0.03		0.03	15.75	**5.41**		**5.41**
3.00	0.04		0.04	16.00	**5.37**		**5.37**
3.25	0.04		0.04	16.25	5.13		5.13
3.50	0.04		0.04	16.50	4.85		4.85
3.75	0.04		0.04	16.75	4.55		4.55
4.00	0.04		0.04	17.00	4.23		4.23
4.25	0.04		0.04	17.25	3.96		3.96
4.50	0.05		0.05	17.50	3.70		3.70
4.75	0.05		0.05	17.75	3.43		3.43
5.00	0.05		0.05	18.00	3.16		3.16
5.25	0.05		0.05	18.25	2.90		2.90
5.50	0.05		0.05	18.50	2.70		2.70
5.75	0.05		0.05	18.75	2.51		2.51
6.00	0.05		0.05	19.00	2.32		2.32
6.25	0.05		0.05	19.25	2.12		2.12
6.50	0.07		0.07	19.50	1.96		1.96
6.75	0.11		0.11	19.75	1.85		1.85
7.00	0.17		0.17	20.00	1.75		1.75
7.25	0.22		0.22	20.25	1.65		1.65
7.50	0.28		0.28	20.50	1.55		1.55
7.75	0.34		0.34	20.75	1.50		1.50
8.00	0.38		0.38	21.00	1.49		1.49
8.25	0.43		0.43	21.25	1.49		1.49
8.50	0.48		0.48	21.50	1.50		1.50
8.75	0.52		0.52	21.75	1.50		1.50
9.00	0.57		0.57	22.00	1.44		1.44
9.25	0.61		0.61	22.25	1.35		1.35
9.50	0.65		0.65	22.50	1.25		1.25
9.75	0.69		0.69	22.75	1.14		1.14
10.00	0.75		0.75	23.00	1.05		1.05
10.25	0.83		0.83	23.25	1.09		1.09
10.50	0.91		0.91	23.50	1.19		1.19
10.75	1.00		1.00	23.75	1.30		1.30
11.00	1.09		1.09	24.00	1.41		1.41
11.25	1.19		1.19				
11.50	1.29		1.29				
11.75	1.40		1.40				
12.00	1.51		1.51				
12.25	1.62		1.62				
12.50	1.74		1.74				
12.75	1.86		1.86				

Summary for Reach 4-T: PR DA 4 TOTAL

Inflow Area = 11.702 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-year event
Inflow = 2.58 cfs @ 16.08 hrs, Volume= 1.378 af
Outflow = 2.58 cfs @ 16.08 hrs, Volume= 1.378 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 4-T: PR DA 4 TOTAL



Hydrograph for Reach 4-T: PR DA 4 TOTAL

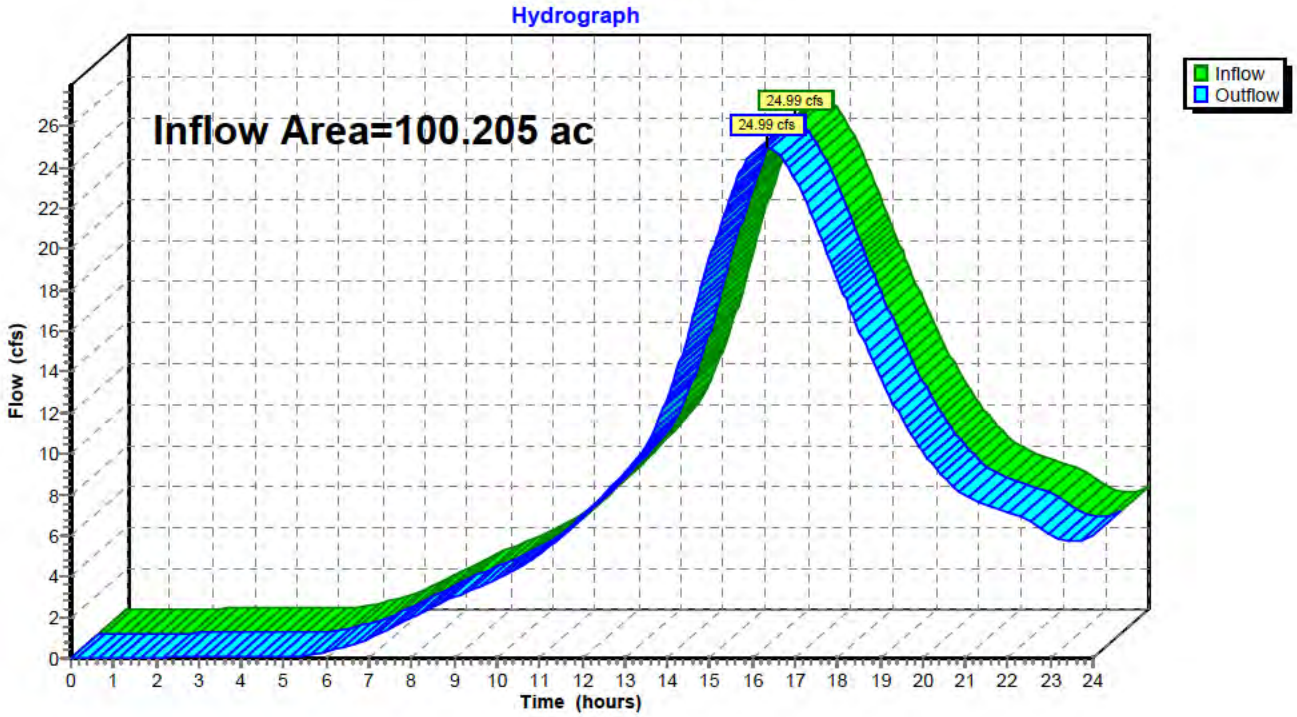
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.83		0.83
0.25	0.00		0.00	13.25	0.89		0.89
0.50	0.00		0.00	13.50	0.96		0.96
0.75	0.00		0.00	13.75	1.08		1.08
1.00	0.00		0.00	14.00	1.25		1.25
1.25	0.00		0.00	14.25	1.46		1.46
1.50	0.00		0.00	14.50	1.68		1.68
1.75	0.00		0.00	14.75	1.92		1.92
2.00	0.00		0.00	15.00	2.10		2.10
2.25	0.00		0.00	15.25	2.24		2.24
2.50	0.00		0.00	15.50	2.37		2.37
2.75	0.00		0.00	15.75	2.49		2.49
3.00	0.00		0.00	16.00	**2.57**		**2.57**
3.25	0.00		0.00	16.25	**2.56**		**2.56**
3.50	0.00		0.00	16.50	2.47		2.47
3.75	0.00		0.00	16.75	2.35		2.35
4.00	0.00		0.00	17.00	2.21		2.21
4.25	0.00		0.00	17.25	2.07		2.07
4.50	0.00		0.00	17.50	1.94		1.94
4.75	0.00		0.00	17.75	1.82		1.82
5.00	0.00		0.00	18.00	1.69		1.69
5.25	0.00		0.00	18.25	1.56		1.56
5.50	0.00		0.00	18.50	1.44		1.44
5.75	0.00		0.00	18.75	1.34		1.34
6.00	0.00		0.00	19.00	1.24		1.24
6.25	0.00		0.00	19.25	1.15		1.15
6.50	0.00		0.00	19.50	1.06		1.06
6.75	0.00		0.00	19.75	0.98		0.98
7.00	0.00		0.00	20.00	0.92		0.92
7.25	0.01		0.01	20.25	0.87		0.87
7.50	0.02		0.02	20.50	0.82		0.82
7.75	0.05		0.05	20.75	0.78		0.78
8.00	0.07		0.07	21.00	0.75		0.75
8.25	0.10		0.10	21.25	0.75		0.75
8.50	0.12		0.12	21.50	0.74		0.74
8.75	0.15		0.15	21.75	0.75		0.75
9.00	0.17		0.17	22.00	0.74		0.74
9.25	0.19		0.19	22.25	0.71		0.71
9.50	0.22		0.22	22.50	0.67		0.67
9.75	0.24		0.24	22.75	0.62		0.62
10.00	0.26		0.26	23.00	0.57		0.57
10.25	0.29		0.29	23.25	0.54		0.54
10.50	0.33		0.33	23.50	0.56		0.56
10.75	0.36		0.36	23.75	0.60		0.60
11.00	0.41		0.41	24.00	0.65		0.65
11.25	0.45		0.45				
11.50	0.50		0.50				
11.75	0.55		0.55				
12.00	0.60		0.60				
12.25	0.65		0.65				
12.50	0.71		0.71				
12.75	0.77		0.77				

Summary for Reach T: Total

Inflow Area = 100.205 ac, 1.37% Impervious, Inflow Depth > 1.77" for 2-year event
Inflow = 24.99 cfs @ 16.34 hrs, Volume= 14.740 af
Outflow = 24.99 cfs @ 16.34 hrs, Volume= 14.740 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach T: Total



Hydrograph for Reach T: Total

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	9.07		9.07
0.25	0.00		0.00	13.25	9.65		9.65
0.50	0.00		0.00	13.50	10.35		10.35
0.75	0.00		0.00	13.75	11.36		11.36
1.00	0.00		0.00	14.00	12.60		12.60
1.25	0.00		0.00	14.25	14.11		14.11
1.50	0.01		0.01	14.50	15.91		15.91
1.75	0.02		0.02	14.75	17.76		17.76
2.00	0.03		0.03	15.00	19.51		19.51
2.25	0.04		0.04	15.25	21.13		21.13
2.50	0.05		0.05	15.50	22.63		22.63
2.75	0.05		0.05	15.75	23.90		23.90
3.00	0.05		0.05	16.00	24.69		24.69
3.25	0.06		0.06	16.25	**24.98**		**24.98**
3.50	0.06		0.06	16.50	**24.87**		**24.87**
3.75	0.06		0.06	16.75	24.35		24.35
4.00	0.06		0.06	17.00	23.45		23.45
4.25	0.07		0.07	17.25	22.38		22.38
4.50	0.07		0.07	17.50	21.16		21.16
4.75	0.07		0.07	17.75	19.90		19.90
5.00	0.08		0.08	18.00	18.58		18.58
5.25	0.10		0.10	18.25	17.29		17.29
5.50	0.15		0.15	18.50	16.07		16.07
5.75	0.23		0.23	18.75	14.90		14.90
6.00	0.33		0.33	19.00	13.80		13.80
6.25	0.44		0.44	19.25	12.73		12.73
6.50	0.58		0.58	19.50	11.77		11.77
6.75	0.75		0.75	19.75	10.91		10.91
7.00	0.95		0.95	20.00	10.15		10.15
7.25	1.18		1.18	20.25	9.46		9.46
7.50	1.44		1.44	20.50	8.84		8.84
7.75	1.71		1.71	20.75	8.34		8.34
8.00	1.99		1.99	21.00	7.96		7.96
8.25	2.26		2.26	21.25	7.68		7.68
8.50	2.52		2.52	21.50	7.47		7.47
8.75	2.76		2.76	21.75	7.34		7.34
9.00	2.99		2.99	22.00	7.17		7.17
9.25	3.21		3.21	22.25	6.97		6.97
9.50	3.41		3.41	22.50	6.70		6.70
9.75	3.62		3.62	22.75	6.37		6.37
10.00	3.84		3.84	23.00	6.02		6.02
10.25	4.10		4.10	23.25	5.81		5.81
10.50	4.39		4.39	23.50	5.74		5.74
10.75	4.72		4.72	23.75	5.78		5.78
11.00	5.10		5.10	24.00	5.97		5.97
11.25	5.51		5.51				
11.50	5.96		5.96				
11.75	6.43		6.43				
12.00	6.92		6.92				
12.25	7.43		7.43				
12.50	7.96		7.96				
12.75	8.51		8.51				

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1-D: PR DA 1 Runoff Area=0.323 ac 100.00% Impervious Runoff Depth>8.30"
Flow Length=459' Tc=9.8 min CN=98 Runoff=0.30 cfs 0.223 af

Subcatchment1-U: PR DA 1 Runoff Area=3.806 ac 2.26% Impervious Runoff Depth>6.50"
Flow Length=459' Tc=9.8 min CN=83 Runoff=3.30 cfs 2.061 af

Subcatchment2-U: PR DA 2 Runoff Area=62.154 ac 0.50% Impervious Runoff Depth>6.67"
Flow Length=3,331' Tc=78.0 min CN=86 Runoff=52.41 cfs 34.569 af

Subcatchment3-D: PR DA 3 Runoff Area=0.651 ac 100.00% Impervious Runoff Depth>8.28"
Flow Length=1,305' Tc=17.6 min CN=98 Runoff=0.61 cfs 0.449 af

Subcatchment3-U: PR DA 3 Runoff Area=21.569 ac 0.00% Impervious Runoff Depth>6.23"
Flow Length=1,305' Tc=17.6 min CN=81 Runoff=18.22 cfs 11.204 af

Subcatchment4-U: PR DA 4 Runoff Area=11.702 ac 0.00% Impervious Runoff Depth>5.95"
Flow Length=1,661' Tc=33.8 min CN=79 Runoff=9.54 cfs 5.800 af

Reach 1-T: PR DA 1 TOTAL Inflow=3.60 cfs 2.284 af
Outflow=3.60 cfs 2.284 af

Reach 2-T: PR DA 2 TOTAL Inflow=52.41 cfs 34.569 af
Outflow=52.41 cfs 34.569 af

Reach 3-T: PR DA 3 TOTAL Inflow=18.83 cfs 11.653 af
Outflow=18.83 cfs 11.653 af

Reach 4-T: PR DA 4 TOTAL Inflow=9.54 cfs 5.800 af
Outflow=9.54 cfs 5.800 af

Reach T: Total Inflow=82.12 cfs 54.306 af
Outflow=82.12 cfs 54.306 af

Total Runoff Area = 100.205 ac Runoff Volume = 54.306 af Average Runoff Depth = 6.50"
98.63% Pervious = 98.832 ac 1.37% Impervious = 1.373 ac

Summary for Subcatchment 1-D: PR DA 1

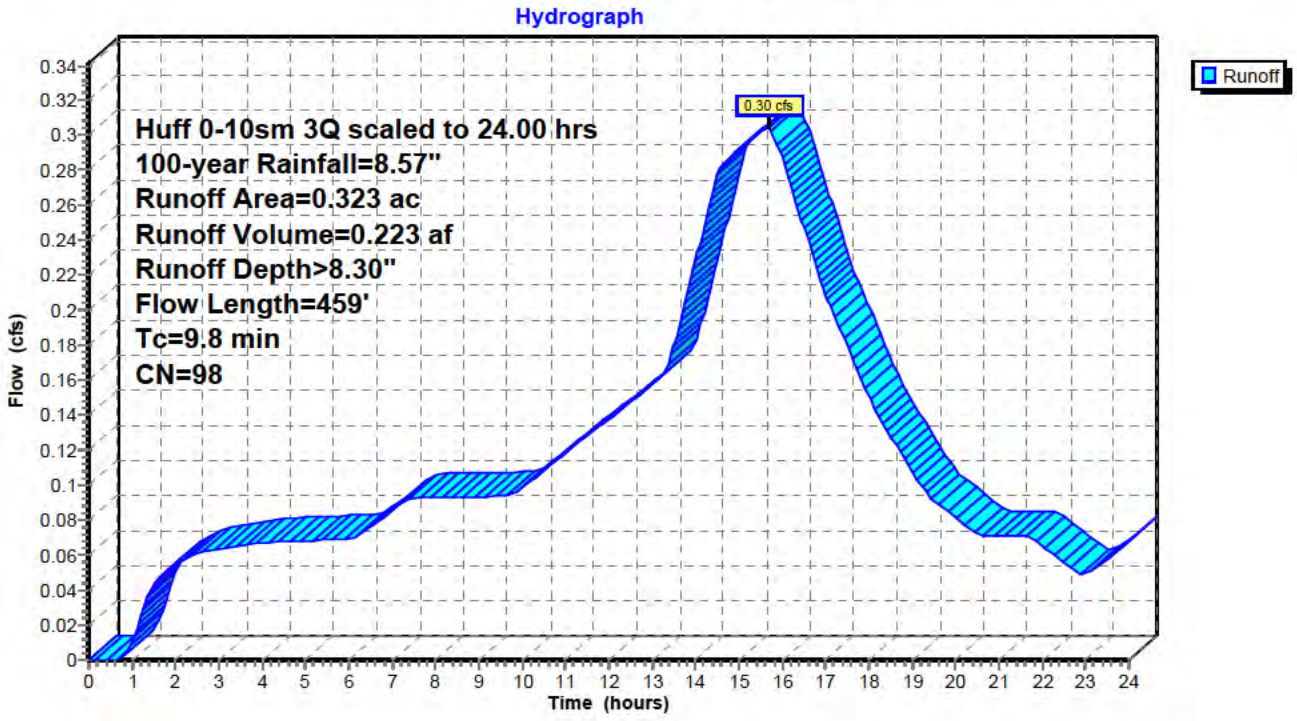
Runoff = 0.30 cfs @ 15.69 hrs, Volume= 0.223 af, Depth> 8.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
*	0.323	98	Impervious Area
	0.323		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.9	171	0.0290	1.53		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
0.2	16	0.0380	1.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	172	0.0122	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	459	Total			

Subcatchment 1-D: PR DA 1



Hydrograph for Subcatchment 1-D: PR DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.25	0.01	0.00	0.00
0.50	0.02	0.00	0.00
0.75	0.05	0.00	0.00
1.00	0.09	0.01	0.01
1.25	0.14	0.03	0.03
1.50	0.20	0.07	0.04
1.75	0.25	0.11	0.05
2.00	0.30	0.15	0.06
2.25	0.36	0.19	0.06
2.50	0.41	0.24	0.06
2.75	0.47	0.29	0.06
3.00	0.52	0.34	0.06
3.25	0.58	0.39	0.06
3.50	0.63	0.44	0.07
3.75	0.69	0.49	0.07
4.00	0.74	0.54	0.07
4.25	0.79	0.59	0.07
4.50	0.85	0.64	0.07
4.75	0.90	0.70	0.07
5.00	0.96	0.75	0.07
5.25	1.01	0.80	0.07
5.50	1.07	0.85	0.07
5.75	1.12	0.91	0.07
6.00	1.17	0.96	0.07
6.25	1.23	1.02	0.07
6.50	1.29	1.07	0.08
6.75	1.35	1.14	0.08
7.00	1.42	1.20	0.09
7.25	1.49	1.27	0.09
7.50	1.57	1.35	0.09
7.75	1.64	1.42	0.09
8.00	1.71	1.49	0.09
8.25	1.78	1.56	0.09
8.50	1.86	1.63	0.09
8.75	1.93	1.70	0.09
9.00	2.00	1.78	0.09
9.25	2.07	1.85	0.09
9.50	2.15	1.92	0.09
9.75	2.22	1.99	0.09
10.00	2.30	2.07	0.10
10.25	2.38	2.15	0.10
10.50	2.46	2.23	0.11
10.75	2.55	2.32	0.11
11.00	2.64	2.41	0.12
11.25	2.74	2.51	0.12
11.50	2.84	2.60	0.13
11.75	2.94	2.71	0.13
12.00	3.05	2.81	0.14
12.25	3.16	2.92	0.14
12.50	3.27	3.04	0.15
12.75	3.39	3.16	0.15
13.00	3.51	3.28	0.16
13.25	3.64	3.40	0.16
13.50	3.78	3.54	0.18
13.75	3.94	3.70	0.20
14.00	4.11	3.88	0.23
14.25	4.31	4.07	0.25
14.50	4.52	4.29	0.28
14.75	4.75	4.51	0.29
15.00	4.97	4.73	0.29
15.25	5.20	4.96	0.30
15.50	5.43	5.19	**0.30**
15.75	5.66	5.43	**0.30**
16.00	5.88	5.64	0.29
16.25	6.09	5.85	0.27
16.50	6.28	6.04	0.25
16.75	6.45	6.21	0.23
17.00	6.61	6.37	0.21
17.25	6.76	6.52	0.19
17.50	6.89	6.66	0.18
17.75	7.02	6.78	0.17
18.00	7.13	6.90	0.15
18.25	7.24	7.00	0.14
18.50	7.34	7.10	0.13
18.75	7.43	7.19	0.12
19.00	7.51	7.27	0.11
19.25	7.58	7.34	0.10
19.50	7.65	7.41	0.09
19.75	7.72	7.48	0.09
20.00	7.78	7.54	0.08
20.25	7.84	7.60	0.08
20.50	7.90	7.66	0.07
20.75	7.95	7.71	0.07
21.00	8.00	7.76	0.07
21.25	8.06	7.82	0.07
21.50	8.11	7.87	0.07
21.75	8.17	7.93	0.07
22.00	8.22	7.98	0.07
22.25	8.26	8.02	0.06
22.50	8.31	8.07	0.06
22.75	8.35	8.11	0.05
23.00	8.38	8.14	0.05
23.25	8.42	8.18	0.05
23.50	8.47	8.23	0.06
23.75	8.52	8.28	0.06
24.00	**8.57**	**8.33**	0.07

Summary for Subcatchment 1-U: PR DA 1

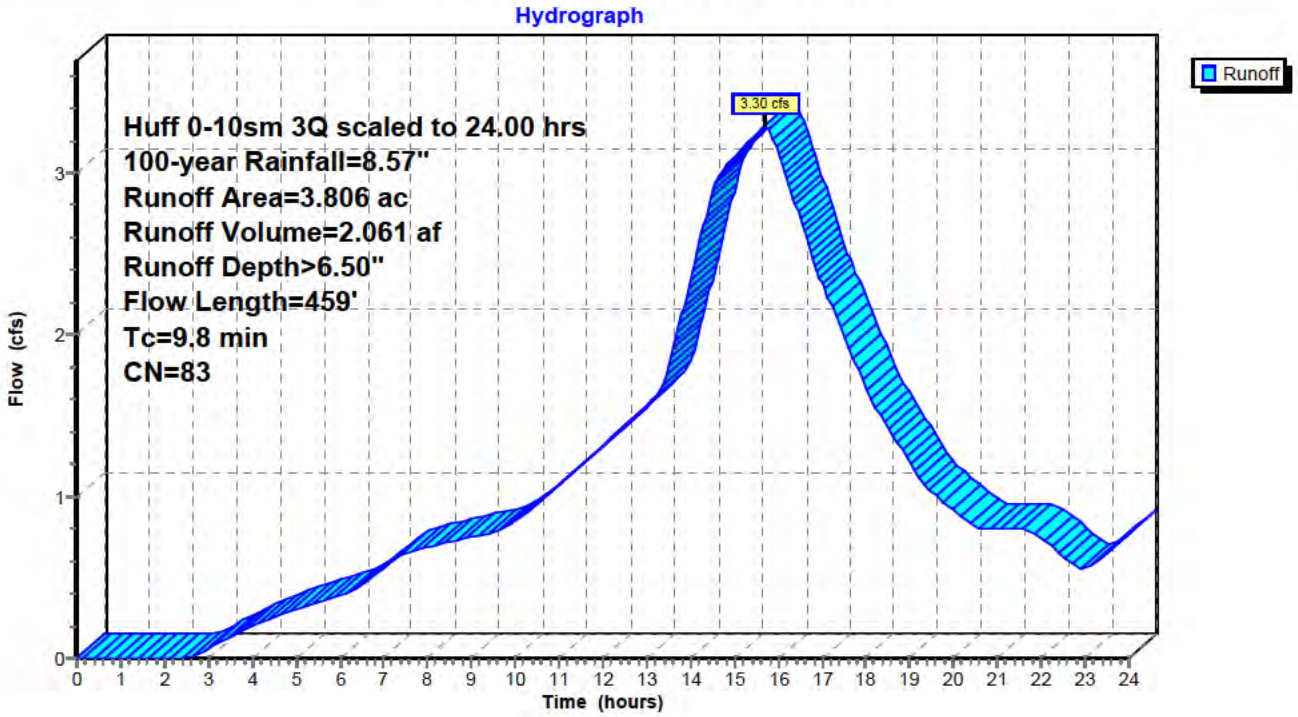
Runoff = 3.30 cfs @ 15.70 hrs, Volume= 2.061 af, Depth> 6.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
	0.000	89	Row crops, straight row, Good, HSG D
	0.753	89	Row crops, straight row, Good, HSG D
	0.711	80	Pasture/grassland/range, Good, HSG D
	1.342	85	Row crops, straight row, Good, HSG C
	0.914	74	Pasture/grassland/range, Good, HSG C
*	0.086	98	Impervious Area
	3.806	83	Weighted Average
	3.720		97.74% Pervious Area
	0.086		2.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.9	171	0.0290	1.53		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
0.2	16	0.0380	1.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	172	0.0122	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	459	Total			

Subcatchment 1-U: PR DA 1



Hydrograph for Subcatchment 1-U: PR DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.25	0.01	0.00	0.00
0.50	0.02	0.00	0.00
0.75	0.05	0.00	0.00
1.00	0.09	0.00	0.00
1.25	0.14	0.00	0.00
1.50	0.20	0.00	0.00
1.75	0.25	0.00	0.00
2.00	0.30	0.00	0.00
2.25	0.36	0.00	0.00
2.50	0.41	0.00	0.00
2.75	0.47	0.00	0.02
3.00	0.52	0.01	0.06
3.25	0.58	0.01	0.10
3.50	0.63	0.02	0.13
3.75	0.69	0.03	0.17
4.00	0.74	0.05	0.20
4.25	0.79	0.06	0.23
4.50	0.85	0.08	0.25
4.75	0.90	0.10	0.28
5.00	0.96	0.12	0.30
5.25	1.01	0.14	0.32
5.50	1.07	0.16	0.34
5.75	1.12	0.18	0.36
6.00	1.17	0.21	0.38
6.25	1.23	0.24	0.41
6.50	1.29	0.27	0.46
6.75	1.35	0.30	0.51
7.00	1.42	0.34	0.56
7.25	1.49	0.38	0.61
7.50	1.57	0.42	0.65
7.75	1.64	0.46	0.67
8.00	1.71	0.51	0.69
8.25	1.78	0.55	0.70
8.50	1.86	0.60	0.72
8.75	1.93	0.65	0.74
9.00	2.00	0.70	0.75
9.25	2.07	0.75	0.77
9.50	2.15	0.80	0.78
9.75	2.22	0.85	0.80
10.00	2.30	0.90	0.85
10.25	2.38	0.96	0.90
10.50	2.46	1.03	0.96
10.75	2.55	1.09	1.01
11.00	2.64	1.16	1.07
11.25	2.74	1.24	1.13
11.50	2.84	1.32	1.19
11.75	2.94	1.40	1.25
12.00	3.05	1.48	1.31
12.25	3.16	1.57	1.37
12.50	3.27	1.67	1.44
12.75	3.39	1.77	1.50
13.00	3.51	1.87	1.56
13.25	3.64	1.97	1.63
13.50	3.78	2.09	1.81
13.75	3.94	2.23	2.07
14.00	4.11	2.38	2.34
14.25	4.31	2.56	2.62
14.50	4.52	2.75	2.90
14.75	4.75	2.94	3.02
15.00	4.97	3.15	3.10
15.25	5.20	3.35	3.17
15.50	5.43	3.57	**3.25**
15.75	5.66	3.78	**3.29**
16.00	5.88	3.98	3.13
16.25	6.09	4.17	2.93
16.50	6.28	4.35	2.72
16.75	6.45	4.51	2.51
17.00	6.61	4.66	2.32
17.25	6.76	4.80	2.16
17.50	6.89	4.93	2.00
17.75	7.02	5.05	1.84
18.00	7.13	5.15	1.68
18.25	7.24	5.25	1.54
18.50	7.34	5.35	1.43
18.75	7.43	5.43	1.32
19.00	7.51	5.51	1.21
19.25	7.58	5.58	1.10
19.50	7.65	5.65	1.03
19.75	7.72	5.71	0.97
20.00	7.78	5.77	0.92
20.25	7.84	5.83	0.86
20.50	7.90	5.88	0.81
20.75	7.95	5.93	0.80
21.00	8.00	5.98	0.80
21.25	8.06	6.03	0.80
21.50	8.11	6.09	0.80
21.75	8.17	6.14	0.79
22.00	8.22	6.18	0.74
22.25	8.26	6.23	0.69
22.50	8.31	6.27	0.63
22.75	8.35	6.31	0.58
23.00	8.38	6.34	0.55
23.25	8.42	6.38	0.60
23.50	8.47	6.43	0.66
23.75	8.52	6.47	0.71
24.00	**8.57**	**6.52**	0.77

Summary for Subcatchment 2-U: PR DA 2

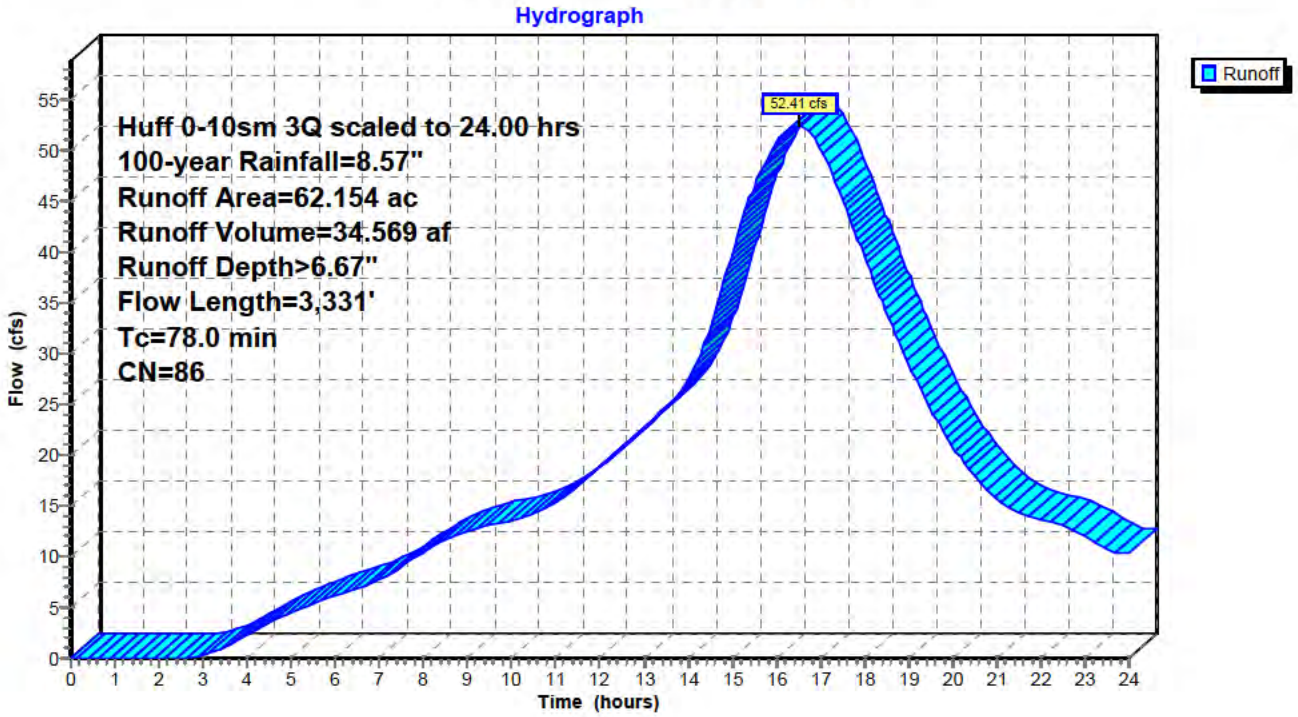
Runoff = 52.41 cfs @ 16.53 hrs, Volume= 34.569 af, Depth> 6.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
	11.052	89	Row crops, straight row, Good, HSG D
	2.151	80	Pasture/grassland/range, Good, HSG D
	0.061	89	Row crops, straight row, Good, HSG D
	10.906	89	Row crops, straight row, Good, HSG D
	8.457	80	Pasture/grassland/range, Good, HSG D
	9.982	89	Row crops, straight row, Good, HSG D
	0.038	80	Pasture/grassland/range, Good, HSG D
	14.843	85	Row crops, straight row, Good, HSG C
	2.519	74	Pasture/grassland/range, Good, HSG C
	0.830	85	Row crops, straight row, Good, HSG C
	1.002	74	Pasture/grassland/range, Good, HSG C
*	0.313	98	Impervious Area
	62.154	86	Weighted Average
	61.841		99.50% Pervious Area
	0.313		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	100	0.0421	0.49		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.5	141	0.0306	1.57		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
42.0	1,988	0.0077	0.79		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
31.1	1,102	0.0071	0.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
78.0	3,331	Total			

Subcatchment 2-U: PR DA 2



Hydrograph for Subcatchment 2-U: PR DA 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.25	0.01	0.00	0.00
0.50	0.02	0.00	0.00
0.75	0.05	0.00	0.00
1.00	0.09	0.00	0.00
1.25	0.14	0.00	0.00
1.50	0.20	0.00	0.00
1.75	0.25	0.00	0.00
2.00	0.30	0.00	0.00
2.25	0.36	0.00	0.00
2.50	0.41	0.00	0.01
2.75	0.47	0.01	0.08
3.00	0.52	0.02	0.27
3.25	0.58	0.03	0.63
3.50	0.63	0.05	1.12
3.75	0.69	0.07	1.69
4.00	0.74	0.08	2.28
4.25	0.79	0.10	2.87
4.50	0.85	0.13	3.43
4.75	0.90	0.15	3.97
5.00	0.96	0.18	4.48
5.25	1.01	0.20	4.95
5.50	1.07	0.23	5.39
5.75	1.12	0.26	5.80
6.00	1.17	0.29	6.19
6.25	1.23	0.32	6.54
6.50	1.29	0.36	6.89
6.75	1.35	0.40	7.26
7.00	1.42	0.44	7.74
7.25	1.49	0.49	8.32
7.50	1.57	0.54	9.01
7.75	1.64	0.59	9.75
8.00	1.71	0.64	10.48
8.25	1.78	0.69	11.13
8.50	1.86	0.74	11.66
8.75	1.93	0.80	12.11
9.00	2.00	0.85	12.46
9.25	2.07	0.91	12.79
9.50	2.15	0.96	13.06
9.75	2.22	1.02	13.31
10.00	2.30	1.08	13.55
10.25	2.38	1.14	13.81
10.50	2.46	1.21	14.19
10.75	2.55	1.28	14.68
11.00	2.64	1.36	15.36
11.25	2.74	1.44	16.11
11.50	2.84	1.52	16.96
11.75	2.94	1.61	17.84
12.00	3.05	1.70	18.76
12.25	3.16	1.80	19.71
12.50	3.27	1.90	20.67
12.75	3.39	2.00	21.66
13.00	3.51	2.11	22.63
13.25	3.64	2.22	23.65
13.50	3.78	2.34	24.64
13.75	3.94	2.49	25.81
14.00	4.11	2.65	27.34
14.25	4.31	2.83	29.57
14.50	4.52	3.03	32.52
14.75	4.75	3.23	36.02
15.00	4.97	3.44	39.82
15.25	5.20	3.65	43.33
15.50	5.43	3.87	46.39
15.75	5.66	4.09	48.76
16.00	5.88	4.30	50.68
16.25	6.09	4.49	51.98
16.50	6.28	4.67	**52.39**
16.75	6.45	4.84	**51.78**
17.00	6.61	4.99	50.13
17.25	6.76	5.13	47.87
17.50	6.89	5.26	45.13
17.75	7.02	5.38	42.35
18.00	7.13	5.50	39.50
18.25	7.24	5.60	36.73
18.50	7.34	5.69	34.01
18.75	7.43	5.78	31.37
19.00	7.51	5.86	28.95
19.25	7.58	5.93	26.67
19.50	7.65	6.00	24.61
19.75	7.72	6.06	22.63
20.00	7.78	6.12	20.87
20.25	7.84	6.18	19.29
20.50	7.90	6.23	17.94
20.75	7.95	6.28	16.76
21.00	8.00	6.34	15.72
21.25	8.06	6.39	14.89
21.50	8.11	6.44	14.26
21.75	8.17	6.49	13.87
22.00	8.22	6.54	13.60
22.25	8.26	6.59	13.39
22.50	8.31	6.63	13.08
22.75	8.35	6.67	12.62
23.00	8.38	6.70	12.02
23.25	8.42	6.74	11.32
23.50	8.47	6.79	10.71
23.75	8.52	6.83	10.34
24.00	**8.57**	**6.88**	10.36

Summary for Subcatchment 3-D: PR DA 3

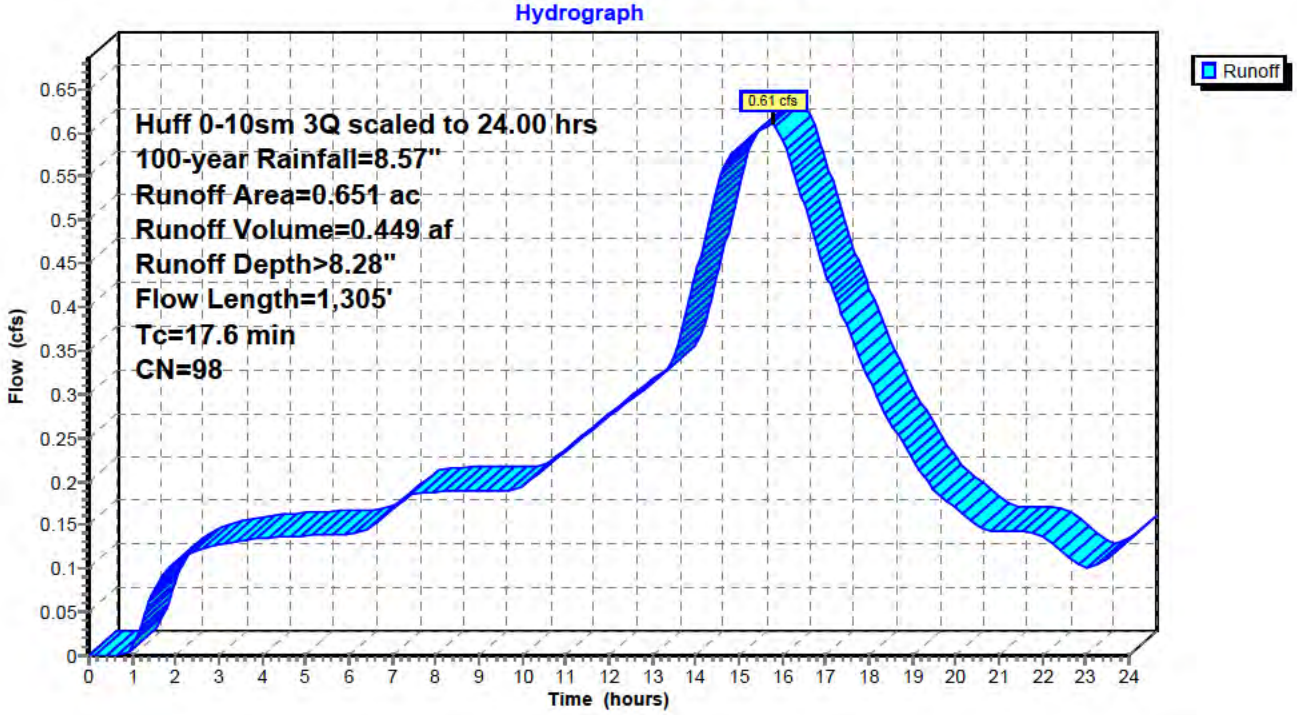
Runoff = 0.61 cfs @ 15.77 hrs, Volume= 0.449 af, Depth> 8.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
*	0.651	98	Impervious Area
	0.651		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0081	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
0.6	37	0.0151	1.11		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.8	758	0.0141	7.10	71.03	**Channel Flow,** Area= 10.0 sf Perim= 12.0' r= 0.83' n= 0.022 Earth, clean & straight
0.3	38	0.0146	2.45		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	372	0.0113	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.6	1,305	Total			

Subcatchment 3-D: PR DA 3



Hydrograph for Subcatchment 3-D: PR DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.25	0.01	0.00	0.00
0.50	0.02	0.00	0.00
0.75	0.05	0.00	0.00
1.00	0.09	0.01	0.01
1.25	0.14	0.03	0.04
1.50	0.20	0.07	0.07
1.75	0.25	0.11	0.09
2.00	0.30	0.15	0.11
2.25	0.36	0.19	0.11
2.50	0.41	0.24	0.12
2.75	0.47	0.29	0.12
3.00	0.52	0.34	0.13
3.25	0.58	0.39	0.13
3.50	0.63	0.44	0.13
3.75	0.69	0.49	0.13
4.00	0.74	0.54	0.13
4.25	0.79	0.59	0.14
4.50	0.85	0.64	0.14
4.75	0.90	0.70	0.14
5.00	0.96	0.75	0.14
5.25	1.01	0.80	0.14
5.50	1.07	0.85	0.14
5.75	1.12	0.91	0.14
6.00	1.17	0.96	0.14
6.25	1.23	1.02	0.14
6.50	1.29	1.07	0.15
6.75	1.35	1.14	0.16
7.00	1.42	1.20	0.17
7.25	1.49	1.27	0.18
7.50	1.57	1.35	0.19
7.75	1.64	1.42	0.19
8.00	1.71	1.49	0.19
8.25	1.78	1.56	0.19
8.50	1.86	1.63	0.19
8.75	1.93	1.70	0.19
9.00	2.00	1.78	0.19
9.25	2.07	1.85	0.19
9.50	2.15	1.92	0.19
9.75	2.22	1.99	0.19
10.00	2.30	2.07	0.19
10.25	2.38	2.15	0.20
10.50	2.46	2.23	0.21
10.75	2.55	2.32	0.22
11.00	2.64	2.41	0.23
11.25	2.74	2.51	0.24
11.50	2.84	2.60	0.25
11.75	2.94	2.71	0.26
12.00	3.05	2.81	0.27
12.25	3.16	2.92	0.28
12.50	3.27	3.04	0.29
12.75	3.39	3.16	0.30
13.00	3.51	3.28	0.31
13.25	3.64	3.40	0.32
13.50	3.78	3.54	0.34
13.75	3.94	3.70	0.39
14.00	4.11	3.88	0.44
14.25	4.31	4.07	0.49
14.50	4.52	4.29	0.54
14.75	4.75	4.51	0.57
15.00	4.97	4.73	0.58
15.25	5.20	4.96	0.59
15.50	5.43	5.19	0.60
15.75	5.66	5.43	**0.61**
16.00	5.88	5.64	0.59
16.25	6.09	5.85	0.56
16.50	6.28	6.04	0.52
16.75	6.45	6.21	0.48
17.00	6.61	6.37	0.44
17.25	6.76	6.52	0.41
17.50	6.89	6.66	0.38
17.75	7.02	6.78	0.35
18.00	7.13	6.90	0.32
18.25	7.24	7.00	0.29
18.50	7.34	7.10	0.27
18.75	7.43	7.19	0.25
19.00	7.51	7.27	0.23
19.25	7.58	7.34	0.21
19.50	7.65	7.41	0.19
19.75	7.72	7.48	0.18
20.00	7.78	7.54	0.17
20.25	7.84	7.60	0.16
20.50	7.90	7.66	0.15
20.75	7.95	7.71	0.14
21.00	8.00	7.76	0.14
21.25	8.06	7.82	0.14
21.50	8.11	7.87	0.14
21.75	8.17	7.93	0.14
22.00	8.22	7.98	0.14
22.25	8.26	8.02	0.13
22.50	8.31	8.07	0.12
22.75	8.35	8.11	0.11
23.00	8.38	8.14	0.10
23.25	8.42	8.18	0.10
23.50	8.47	8.23	0.11
23.75	8.52	8.28	0.12
24.00	**8.57**	**8.33**	0.13

Summary for Subcatchment 3-U: PR DA 3

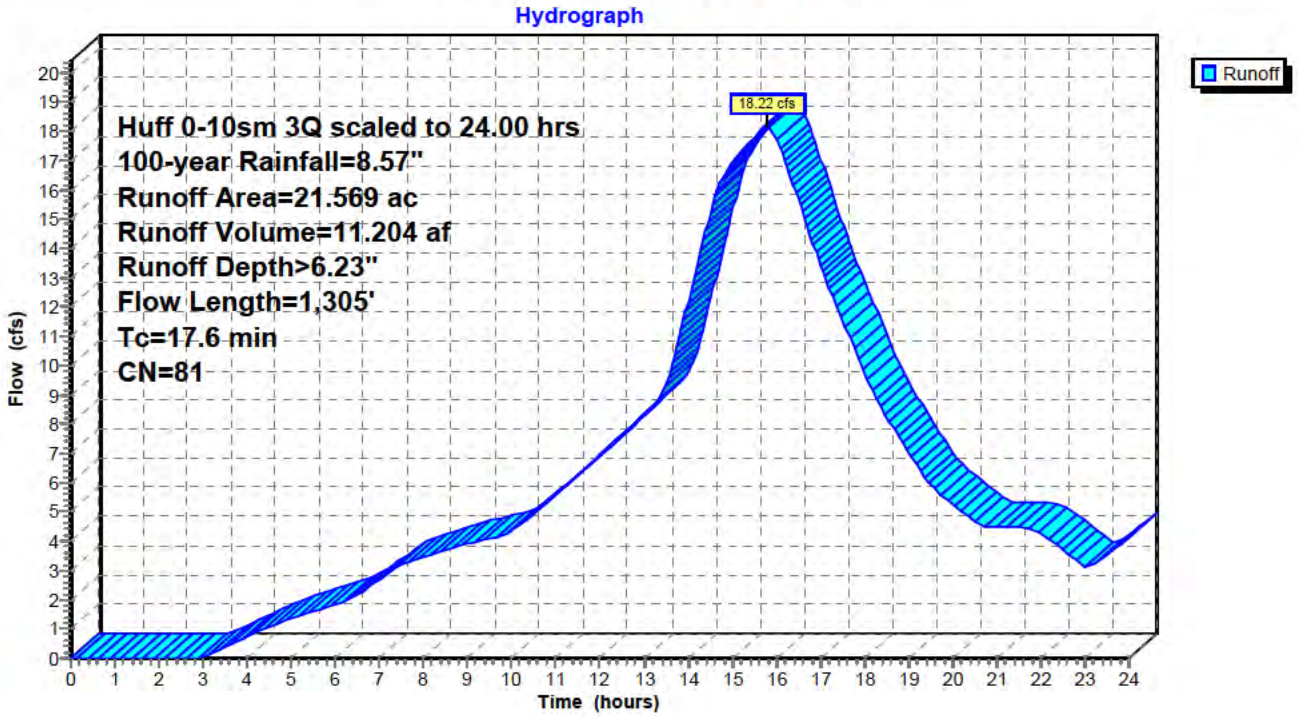
Runoff = 18.22 cfs @ 15.79 hrs, Volume= 11.204 af, Depth> 6.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

Area (ac)	CN	Description
3.171	89	Row crops, straight row, Good, HSG D
4.736	80	Pasture/grassland/range, Good, HSG D
1.134	89	Row crops, straight row, Good, HSG D
5.352	80	Pasture/grassland/range, Good, HSG D
3.187	85	Row crops, straight row, Good, HSG C
3.989	74	Pasture/grassland/range, Good, HSG C
21.569	81	Weighted Average
21.569		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0081	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
0.6	37	0.0151	1.11		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.8	758	0.0141	7.10	71.03	**Channel Flow,** Area= 10.0 sf Perim= 12.0' r= 0.83' n= 0.022 Earth, clean & straight
0.3	38	0.0146	2.45		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	372	0.0113	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.6	1,305	Total			

Subcatchment 3-U: PR DA 3



Hydrograph for Subcatchment 3-U: PR DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.51	1.72	8.34
0.25	0.01	0.00	0.00	13.25	3.64	1.82	8.70
0.50	0.02	0.00	0.00	13.50	3.78	1.94	9.35
0.75	0.05	0.00	0.00	13.75	3.94	2.07	10.66
1.00	0.09	0.00	0.00	14.00	4.11	2.22	12.14
1.25	0.14	0.00	0.00	14.25	4.31	2.38	13.66
1.50	0.20	0.00	0.00	14.50	4.52	2.57	15.22
1.75	0.25	0.00	0.00	14.75	4.75	2.76	16.34
2.00	0.30	0.00	0.00	15.00	4.97	2.96	16.90
2.25	0.36	0.00	0.00	15.25	5.20	3.16	17.36
2.50	0.41	0.00	0.00	15.50	5.43	3.37	17.80
2.75	0.47	0.00	0.00	15.75	5.66	3.58	**18.20**
3.00	0.52	0.00	0.03	16.00	5.88	3.78	**17.80**
3.25	0.58	0.00	0.19	16.25	6.09	3.96	16.80
3.50	0.63	0.01	0.39	16.50	6.28	4.14	15.70
3.75	0.69	0.02	0.57	16.75	6.45	4.30	14.56
4.00	0.74	0.03	0.75	17.00	6.61	4.44	13.43
4.25	0.79	0.04	0.91	17.25	6.76	4.58	12.47
4.50	0.85	0.05	1.07	17.50	6.89	4.71	11.58
4.75	0.90	0.07	1.21	17.75	7.02	4.82	10.69
5.00	0.96	0.08	1.35	18.00	7.13	4.93	9.80
5.25	1.01	0.10	1.48	18.25	7.24	5.03	8.94
5.50	1.07	0.12	1.60	18.50	7.34	5.12	8.28
5.75	1.12	0.14	1.71	18.75	7.43	5.20	7.67
6.00	1.17	0.16	1.82	19.00	7.51	5.28	7.07
6.25	1.23	0.19	1.95	19.25	7.58	5.35	6.46
6.50	1.29	0.21	2.16	19.50	7.65	5.42	5.93
6.75	1.35	0.24	2.41	19.75	7.72	5.48	5.59
7.00	1.42	0.28	2.68	20.00	7.78	5.54	5.28
7.25	1.49	0.31	2.96	20.25	7.84	5.59	4.97
7.50	1.57	0.35	3.21	20.50	7.90	5.64	4.67
7.75	1.64	0.39	3.36	20.75	7.95	5.70	4.49
8.00	1.71	0.43	3.49	21.00	8.00	5.75	4.46
8.25	1.78	0.47	3.60	21.25	8.06	5.80	4.46
8.50	1.86	0.52	3.71	21.50	8.11	5.85	4.47
8.75	1.93	0.56	3.81	21.75	8.17	5.90	4.46
9.00	2.00	0.61	3.90	22.00	8.22	5.95	4.29
9.25	2.07	0.65	3.99	22.25	8.26	5.99	4.00
9.50	2.15	0.70	4.08	22.50	8.31	6.03	3.70
9.75	2.22	0.75	4.16	22.75	8.35	6.07	3.39
10.00	2.30	0.80	4.36	23.00	8.38	6.10	3.12
10.25	2.38	0.86	4.65	23.25	8.42	6.14	3.24
10.50	2.46	0.91	4.96	23.50	8.47	6.19	3.53
10.75	2.55	0.98	5.27	23.75	8.52	6.23	3.84
11.00	2.64	1.04	5.59	24.00	**8.57**	**6.28**	4.15
11.25	2.74	1.11	5.92				
11.50	2.84	1.19	6.26				
11.75	2.94	1.27	6.59				
12.00	3.05	1.35	6.94				
12.25	3.16	1.43	7.28				
12.50	3.27	1.52	7.63				
12.75	3.39	1.62	7.99				

Summary for Subcatchment 4-U: PR DA 4

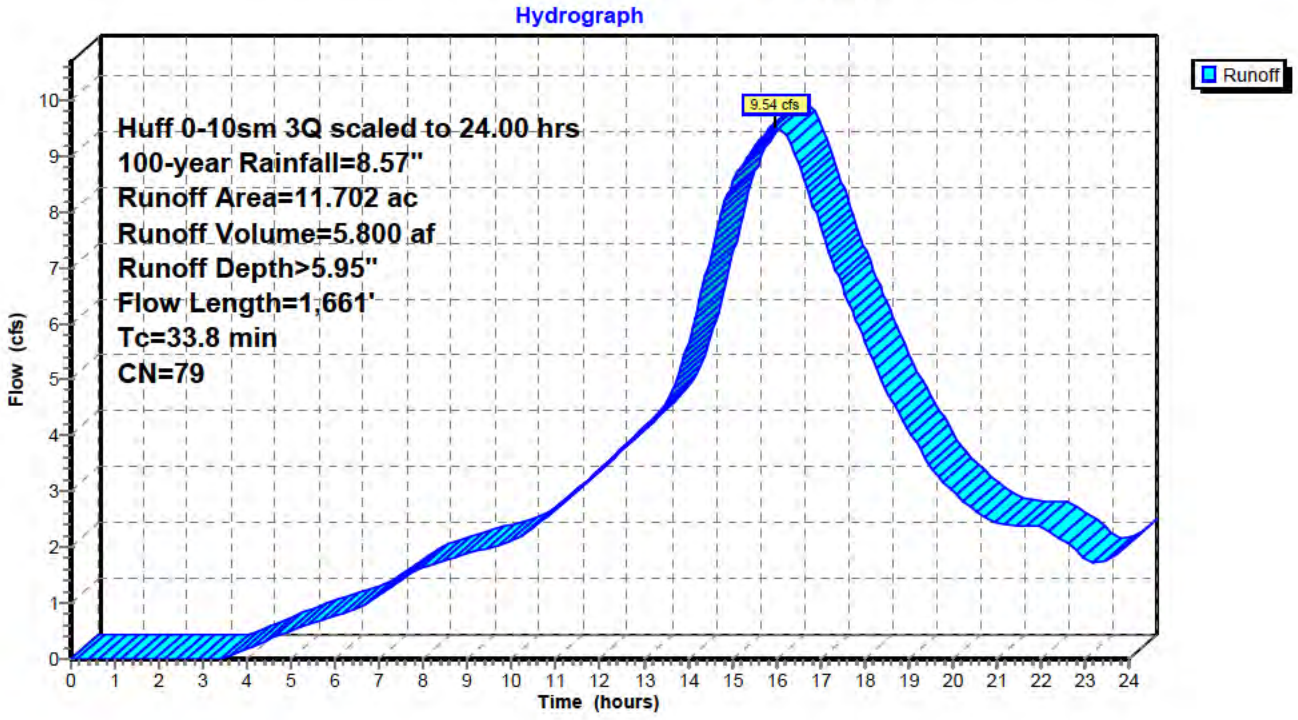
Runoff = 9.54 cfs @ 15.97 hrs, Volume= 5.800 af, Depth> 5.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

Area (ac)	CN	Description
0.399	89	Row crops, straight row, Good, HSG D
4.560	80	Pasture/grassland/range, Good, HSG D
0.000	89	Row crops, straight row, Good, HSG D
3.035	80	Pasture/grassland/range, Good, HSG D
0.695	85	Row crops, straight row, Good, HSG C
3.013	74	Pasture/grassland/range, Good, HSG C
11.702	79	Weighted Average
11.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0080	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
2.7	198	0.0180	1.21		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
24.5	1,363	0.0175	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
33.8	1,661	Total			

Subcatchment 4-U: PR DA 4



Hydrograph for Subcatchment 4-U: PR DA 4

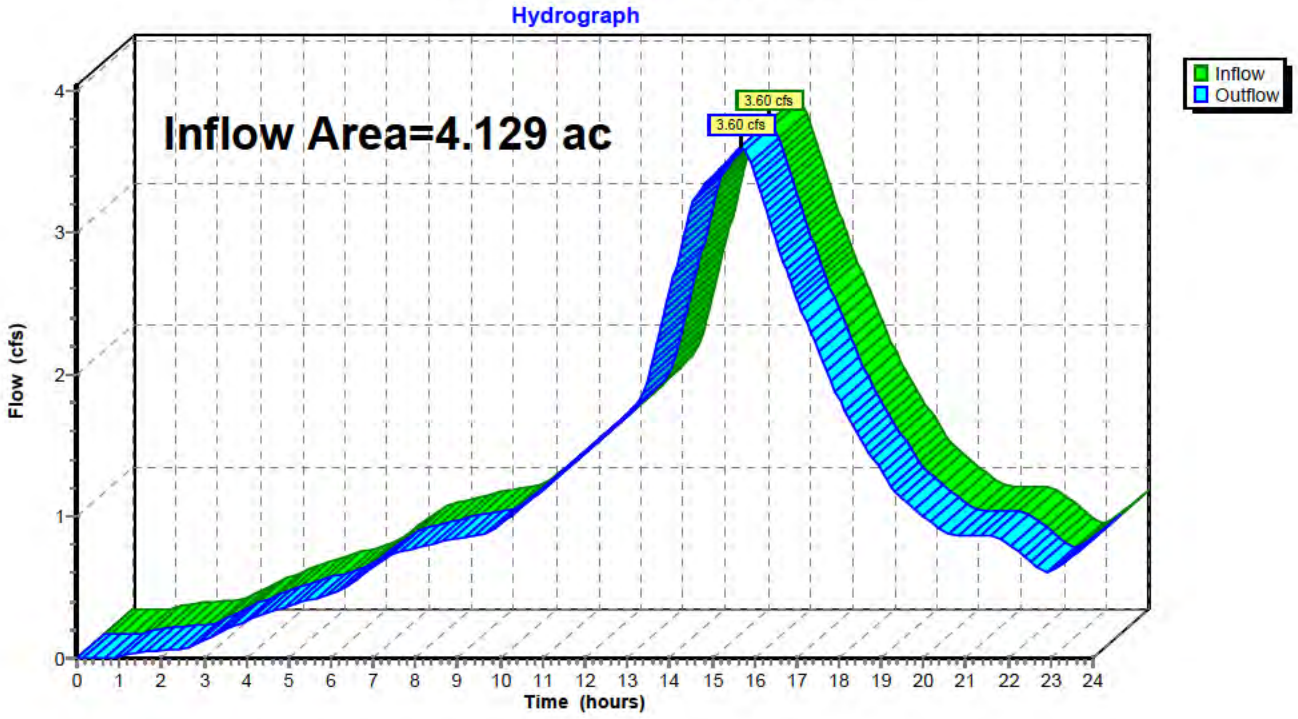
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00
0.25	0.01	0.00	0.00
0.50	0.02	0.00	0.00
0.75	0.05	0.00	0.00
1.00	0.09	0.00	0.00
1.25	0.14	0.00	0.00
1.50	0.20	0.00	0.00
1.75	0.25	0.00	0.00
2.00	0.30	0.00	0.00
2.25	0.36	0.00	0.00
2.50	0.41	0.00	0.00
2.75	0.47	0.00	0.00
3.00	0.52	0.00	0.00
3.25	0.58	0.00	0.00
3.50	0.63	0.00	0.02
3.75	0.69	0.01	0.09
4.00	0.74	0.02	0.18
4.25	0.79	0.02	0.26
4.50	0.85	0.03	0.35
4.75	0.90	0.05	0.43
5.00	0.96	0.06	0.51
5.25	1.01	0.07	0.58
5.50	1.07	0.09	0.65
5.75	1.12	0.11	0.72
6.00	1.17	0.13	0.78
6.25	1.23	0.15	0.84
6.50	1.29	0.17	0.92
6.75	1.35	0.19	1.02
7.00	1.42	0.22	1.15
7.25	1.49	0.26	1.29
7.50	1.57	0.29	1.43
7.75	1.64	0.33	1.54
8.00	1.71	0.36	1.63
8.25	1.78	0.40	1.71
8.50	1.86	0.44	1.77
8.75	1.93	0.48	1.83
9.00	2.00	0.52	1.89
9.25	2.07	0.57	1.95
9.50	2.15	0.61	2.00
9.75	2.22	0.66	2.05
10.00	2.30	0.70	2.11
10.25	2.38	0.76	2.22
10.50	2.46	0.81	2.36
10.75	2.55	0.87	2.52
11.00	2.64	0.93	2.69
11.25	2.74	1.00	2.86
11.50	2.84	1.07	3.03
11.75	2.94	1.14	3.21
12.00	3.05	1.22	3.39
12.25	3.16	1.30	3.57
12.50	3.27	1.39	3.76
12.75	3.39	1.48	3.95
13.00	3.51	1.57	4.14
13.25	3.64	1.67	4.34
13.50	3.78	1.78	4.56
13.75	3.94	1.91	4.98
14.00	4.11	2.06	5.63
14.25	4.31	2.22	6.38
14.50	4.52	2.40	7.18
14.75	4.75	2.58	7.95
15.00	4.97	2.78	8.51
15.25	5.20	2.97	8.86
15.50	5.43	3.18	9.16
15.75	5.66	3.38	**9.41**
16.00	5.88	3.57	**9.54**
16.25	6.09	3.76	9.32
16.50	6.28	3.93	8.87
16.75	6.45	4.08	8.32
17.00	6.61	4.23	7.74
17.25	6.76	4.36	7.18
17.50	6.89	4.49	6.66
17.75	7.02	4.60	6.18
18.00	7.13	4.71	5.71
18.25	7.24	4.80	5.23
18.50	7.34	4.89	4.81
18.75	7.43	4.98	4.44
19.00	7.51	5.05	4.11
19.25	7.58	5.12	3.78
19.50	7.65	5.19	3.46
19.75	7.72	5.25	3.20
20.00	7.78	5.31	3.00
20.25	7.84	5.36	2.83
20.50	7.90	5.41	2.66
20.75	7.95	5.46	2.51
21.00	8.00	5.51	2.43
21.25	8.06	5.56	2.40
21.50	8.11	5.61	2.39
21.75	8.17	5.66	2.39
22.00	8.22	5.71	2.37
22.25	8.26	5.75	2.27
22.50	8.31	5.79	2.13
22.75	8.35	5.83	1.98
23.00	8.38	5.87	1.82
23.25	8.42	5.90	1.73
23.50	8.47	5.95	1.78
23.75	8.52	5.99	1.91
24.00	**8.57**	**6.04**	2.06

Summary for Reach 1-T: PR DA 1 TOTAL

Inflow Area = 4.129 ac, 9.91% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 3.60 cfs @ 15.70 hrs, Volume= 2.284 af
Outflow = 3.60 cfs @ 15.70 hrs, Volume= 2.284 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 1-T: PR DA 1 TOTAL



Hydrograph for Reach 1-T: PR DA 1 TOTAL

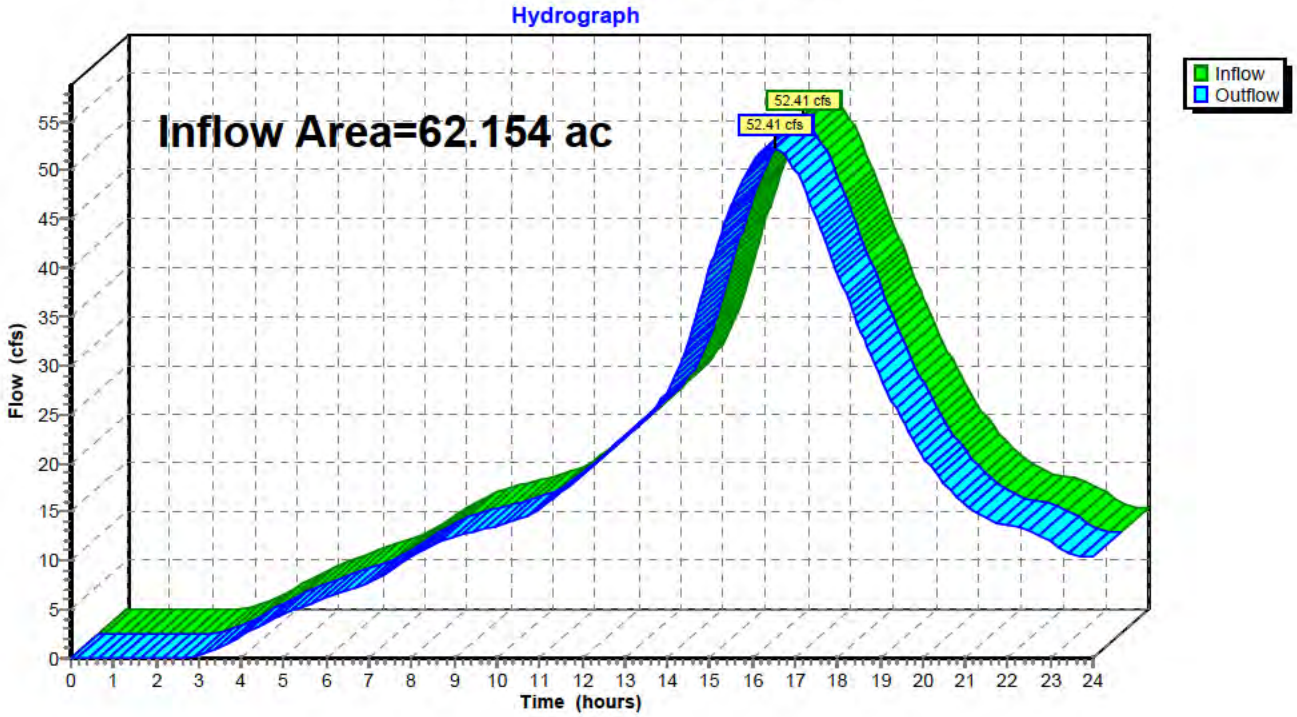
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	1.72		1.72
0.25	0.00		0.00	13.25	1.79		1.79
0.50	0.00		0.00	13.50	1.99		1.99
0.75	0.00		0.00	13.75	2.28		2.28
1.00	0.01		0.01	14.00	2.57		2.57
1.25	0.03		0.03	14.25	2.87		2.87
1.50	0.04		0.04	14.50	3.17		3.17
1.75	0.05		0.05	14.75	3.31		3.31
2.00	0.06		0.06	15.00	3.39		3.39
2.25	0.06		0.06	15.25	3.47		3.47
2.50	0.06		0.06	15.50	**3.55**		**3.55**
2.75	0.08		0.08	15.75	**3.60**		**3.60**
3.00	0.12		0.12	16.00	3.41		3.41
3.25	0.16		0.16	16.25	3.19		3.19
3.50	0.20		0.20	16.50	2.97		2.97
3.75	0.23		0.23	16.75	2.74		2.74
4.00	0.26		0.26	17.00	2.53		2.53
4.25	0.29		0.29	17.25	2.35		2.35
4.50	0.32		0.32	17.50	2.18		2.18
4.75	0.35		0.35	17.75	2.00		2.00
5.00	0.37		0.37	18.00	1.83		1.83
5.25	0.39		0.39	18.25	1.68		1.68
5.50	0.41		0.41	18.50	1.56		1.56
5.75	0.43		0.43	18.75	1.44		1.44
6.00	0.45		0.45	19.00	1.32		1.32
6.25	0.48		0.48	19.25	1.20		1.20
6.50	0.53		0.53	19.50	1.12		1.12
6.75	0.59		0.59	19.75	1.06		1.06
7.00	0.64		0.64	20.00	1.00		1.00
7.25	0.70		0.70	20.25	0.94		0.94
7.50	0.74		0.74	20.50	0.88		0.88
7.75	0.76		0.76	20.75	0.87		0.87
8.00	0.78		0.78	21.00	0.87		0.87
8.25	0.80		0.80	21.25	0.87		0.87
8.50	0.81		0.81	21.50	0.87		0.87
8.75	0.83		0.83	21.75	0.86		0.86
9.00	0.85		0.85	22.00	0.81		0.81
9.25	0.86		0.86	22.25	0.75		0.75
9.50	0.87		0.87	22.50	0.69		0.69
9.75	0.89		0.89	22.75	0.63		0.63
10.00	0.94		0.94	23.00	0.60		0.60
10.25	1.00		1.00	23.25	0.65		0.65
10.50	1.07		1.07	23.50	0.71		0.71
10.75	1.13		1.13	23.75	0.77		0.77
11.00	1.19		1.19	24.00	0.83		0.83
11.25	1.26		1.26				
11.50	1.32		1.32				
11.75	1.39		1.39				
12.00	1.45		1.45				
12.25	1.52		1.52				
12.50	1.58		1.58				
12.75	1.65		1.65				

Summary for Reach 2-T: PR DA 2 TOTAL

Inflow Area = 62.154 ac, 0.50% Impervious, Inflow Depth > 6.67" for 100-year event
Inflow = 52.41 cfs @ 16.53 hrs, Volume= 34.569 af
Outflow = 52.41 cfs @ 16.53 hrs, Volume= 34.569 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 2-T: PR DA 2 TOTAL



Hydrograph for Reach 2-T: PR DA 2 TOTAL

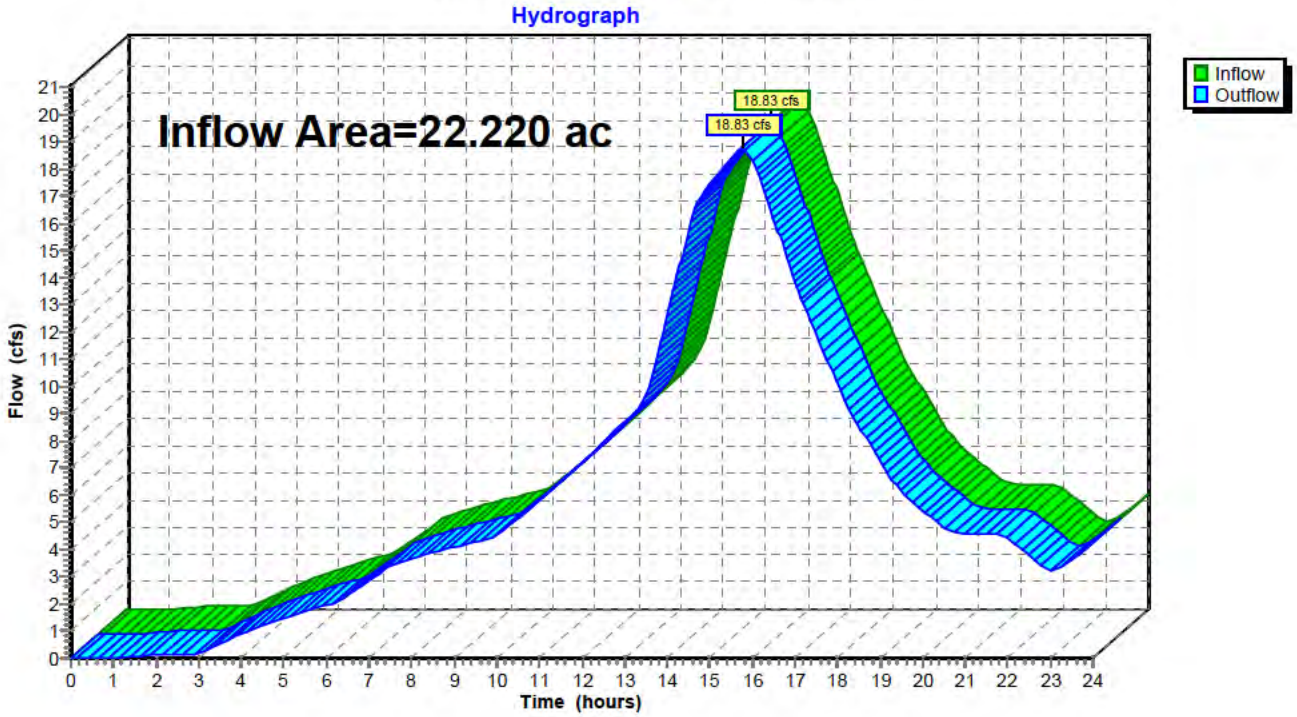
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	22.63		22.63
0.25	0.00		0.00	13.25	23.65		23.65
0.50	0.00		0.00	13.50	24.64		24.64
0.75	0.00		0.00	13.75	25.81		25.81
1.00	0.00		0.00	14.00	27.34		27.34
1.25	0.00		0.00	14.25	29.57		29.57
1.50	0.00		0.00	14.50	32.52		32.52
1.75	0.00		0.00	14.75	36.02		36.02
2.00	0.00		0.00	15.00	39.82		39.82
2.25	0.00		0.00	15.25	43.33		43.33
2.50	0.01		0.01	15.50	46.39		46.39
2.75	0.08		0.08	15.75	48.76		48.76
3.00	0.27		0.27	16.00	50.68		50.68
3.25	0.63		0.63	16.25	51.98		51.98
3.50	1.12		1.12	16.50	**52.39**		**52.39**
3.75	1.69		1.69	16.75	**51.78**		**51.78**
4.00	2.28		2.28	17.00	50.13		50.13
4.25	2.87		2.87	17.25	47.87		47.87
4.50	3.43		3.43	17.50	45.13		45.13
4.75	3.97		3.97	17.75	42.35		42.35
5.00	4.48		4.48	18.00	39.50		39.50
5.25	4.95		4.95	18.25	36.73		36.73
5.50	5.39		5.39	18.50	34.01		34.01
5.75	5.80		5.80	18.75	31.37		31.37
6.00	6.19		6.19	19.00	28.95		28.95
6.25	6.54		6.54	19.25	26.67		26.67
6.50	6.89		6.89	19.50	24.61		24.61
6.75	7.26		7.26	19.75	22.63		22.63
7.00	7.74		7.74	20.00	20.87		20.87
7.25	8.32		8.32	20.25	19.29		19.29
7.50	9.01		9.01	20.50	17.94		17.94
7.75	9.75		9.75	20.75	16.76		16.76
8.00	10.48		10.48	21.00	15.72		15.72
8.25	11.13		11.13	21.25	14.89		14.89
8.50	11.66		11.66	21.50	14.26		14.26
8.75	12.11		12.11	21.75	13.87		13.87
9.00	12.46		12.46	22.00	13.60		13.60
9.25	12.79		12.79	22.25	13.39		13.39
9.50	13.06		13.06	22.50	13.08		13.08
9.75	13.31		13.31	22.75	12.62		12.62
10.00	13.55		13.55	23.00	12.02		12.02
10.25	13.81		13.81	23.25	11.32		11.32
10.50	14.19		14.19	23.50	10.71		10.71
10.75	14.68		14.68	23.75	10.34		10.34
11.00	15.36		15.36	24.00	10.36		10.36
11.25	16.11		16.11				
11.50	16.96		16.96				
11.75	17.84		17.84				
12.00	18.76		18.76				
12.25	19.71		19.71				
12.50	20.67		20.67				
12.75	21.66		21.66				

Summary for Reach 3-T: PR DA 3 TOTAL

Inflow Area = 22.220 ac, 2.93% Impervious, Inflow Depth > 6.29" for 100-year event
Inflow = 18.83 cfs @ 15.79 hrs, Volume= 11.653 af
Outflow = 18.83 cfs @ 15.79 hrs, Volume= 11.653 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 3-T: PR DA 3 TOTAL



Hydrograph for Reach 3-T: PR DA 3 TOTAL

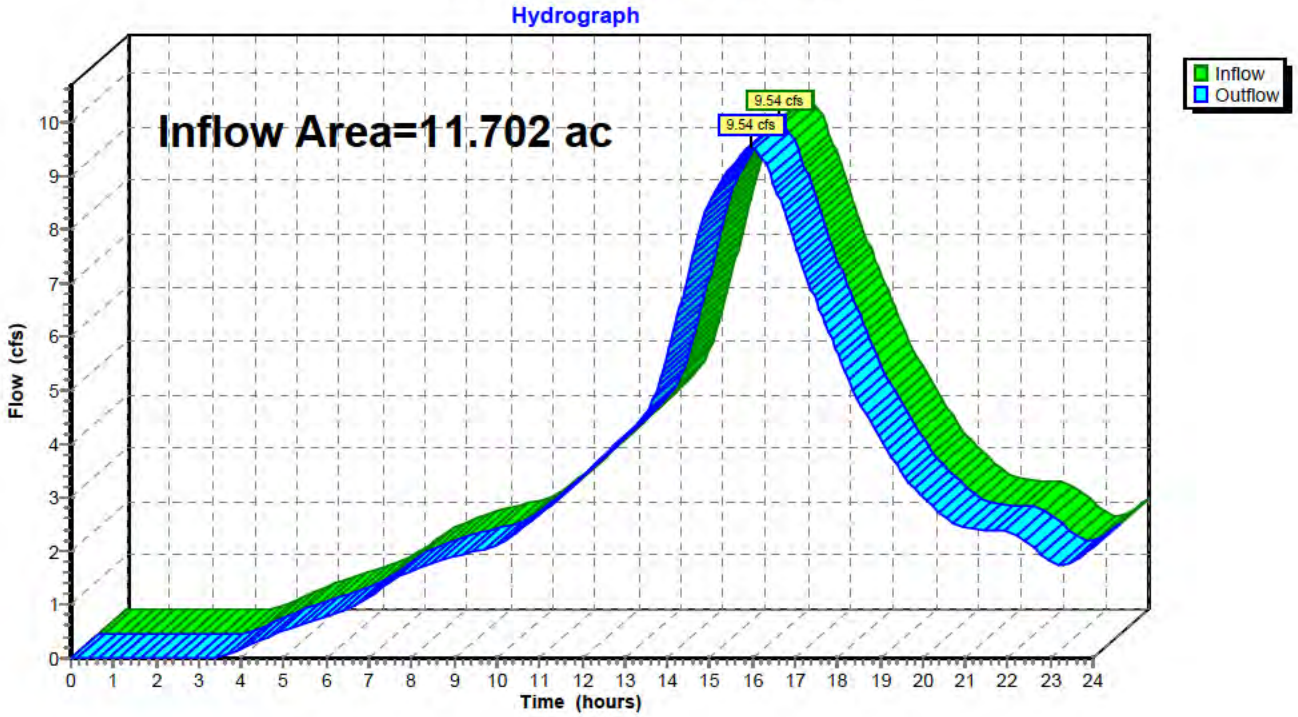
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	8.65		8.65
0.25	0.00		0.00	13.25	9.02		9.02
0.50	0.00		0.00	13.50	9.70		9.70
0.75	0.00		0.00	13.75	11.05		11.05
1.00	0.01		0.01	14.00	12.58		12.58
1.25	0.04		0.04	14.25	14.15		14.15
1.50	0.07		0.07	14.50	15.75		15.75
1.75	0.09		0.09	14.75	16.91		16.91
2.00	0.11		0.11	15.00	17.48		17.48
2.25	0.11		0.11	15.25	17.95		17.95
2.50	0.12		0.12	15.50	18.40		18.40
2.75	0.12		0.12	15.75	**18.81**		**18.81**
3.00	0.16		0.16	16.00	**18.39**		**18.39**
3.25	0.32		0.32	16.25	17.35		17.35
3.50	0.52		0.52	16.50	16.22		16.22
3.75	0.71		0.71	16.75	15.04		15.04
4.00	0.88		0.88	17.00	13.87		13.87
4.25	1.05		1.05	17.25	12.88		12.88
4.50	1.20		1.20	17.50	11.95		11.95
4.75	1.35		1.35	17.75	11.04		11.04
5.00	1.49		1.49	18.00	10.12		10.12
5.25	1.61		1.61	18.25	9.23		9.23
5.50	1.74		1.74	18.50	8.55		8.55
5.75	1.85		1.85	18.75	7.92		7.92
6.00	1.96		1.96	19.00	7.29		7.29
6.25	2.09		2.09	19.25	6.67		6.67
6.50	2.31		2.31	19.50	6.12		6.12
6.75	2.57		2.57	19.75	5.77		5.77
7.00	2.85		2.85	20.00	5.45		5.45
7.25	3.14		3.14	20.25	5.13		5.13
7.50	3.40		3.40	20.50	4.82		4.82
7.75	3.55		3.55	20.75	4.63		4.63
8.00	3.67		3.67	21.00	4.61		4.61
8.25	3.79		3.79	21.25	4.61		4.61
8.50	3.90		3.90	21.50	4.61		4.61
8.75	4.00		4.00	21.75	4.61		4.61
9.00	4.09		4.09	22.00	4.43		4.43
9.25	4.18		4.18	22.25	4.13		4.13
9.50	4.26		4.26	22.50	3.81		3.81
9.75	4.35		4.35	22.75	3.49		3.49
10.00	4.55		4.55	23.00	3.22		3.22
10.25	4.85		4.85	23.25	3.34		3.34
10.50	5.17		5.17	23.50	3.64		3.64
10.75	5.50		5.50	23.75	3.96		3.96
11.00	5.83		5.83	24.00	4.28		4.28
11.25	6.16		6.16				
11.50	6.51		6.51				
11.75	6.86		6.86				
12.00	7.21		7.21				
12.25	7.57		7.57				
12.50	7.92		7.92				
12.75	8.29		8.29				

Summary for Reach 4-T: PR DA 4 TOTAL

Inflow Area = 11.702 ac, 0.00% Impervious, Inflow Depth > 5.95" for 100-year event
Inflow = 9.54 cfs @ 15.97 hrs, Volume= 5.800 af
Outflow = 9.54 cfs @ 15.97 hrs, Volume= 5.800 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 4-T: PR DA 4 TOTAL



Hydrograph for Reach 4-T: PR DA 4 TOTAL

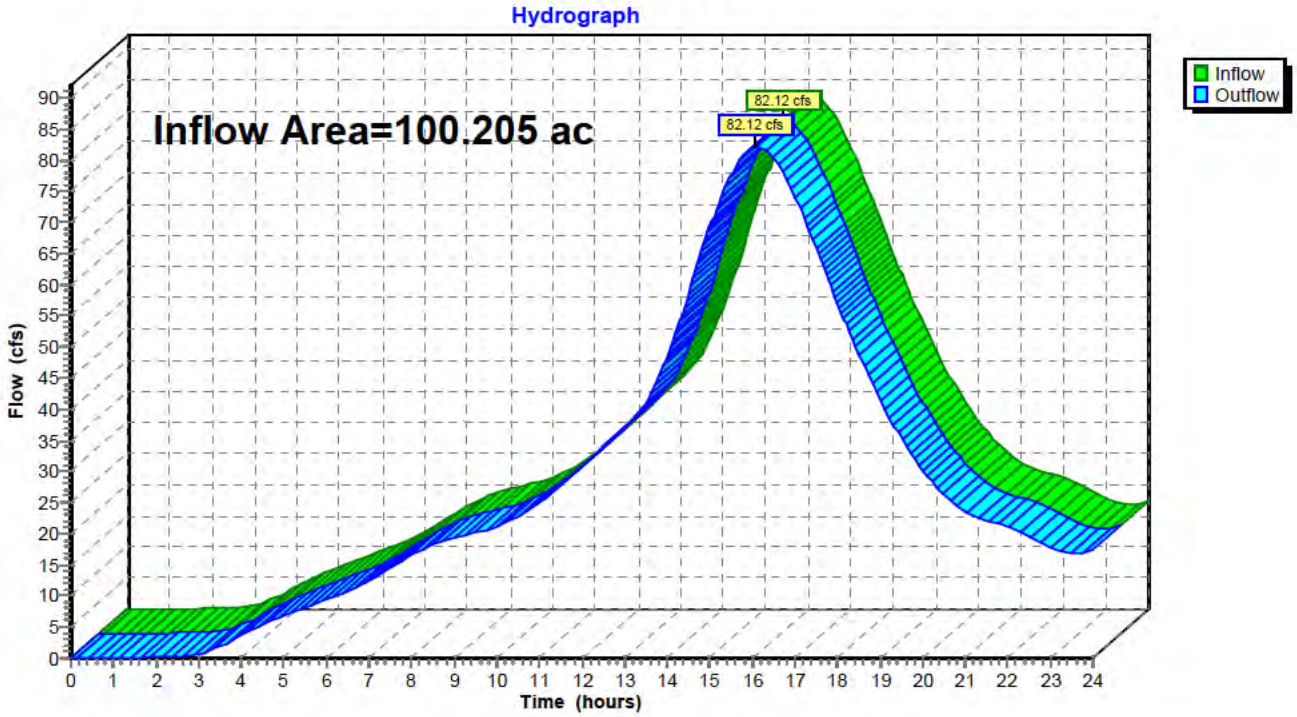
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	4.14		4.14
0.25	0.00		0.00	13.25	4.34		4.34
0.50	0.00		0.00	13.50	4.56		4.56
0.75	0.00		0.00	13.75	4.98		4.98
1.00	0.00		0.00	14.00	5.63		5.63
1.25	0.00		0.00	14.25	6.38		6.38
1.50	0.00		0.00	14.50	7.18		7.18
1.75	0.00		0.00	14.75	7.95		7.95
2.00	0.00		0.00	15.00	8.51		8.51
2.25	0.00		0.00	15.25	8.86		8.86
2.50	0.00		0.00	15.50	9.16		9.16
2.75	0.00		0.00	15.75	**9.41**		**9.41**
3.00	0.00		0.00	16.00	**9.54**		**9.54**
3.25	0.00		0.00	16.25	9.32		9.32
3.50	0.02		0.02	16.50	8.87		8.87
3.75	0.09		0.09	16.75	8.32		8.32
4.00	0.18		0.18	17.00	7.74		7.74
4.25	0.26		0.26	17.25	7.18		7.18
4.50	0.35		0.35	17.50	6.66		6.66
4.75	0.43		0.43	17.75	6.18		6.18
5.00	0.51		0.51	18.00	5.71		5.71
5.25	0.58		0.58	18.25	5.23		5.23
5.50	0.65		0.65	18.50	4.81		4.81
5.75	0.72		0.72	18.75	4.44		4.44
6.00	0.78		0.78	19.00	4.11		4.11
6.25	0.84		0.84	19.25	3.78		3.78
6.50	0.92		0.92	19.50	3.46		3.46
6.75	1.02		1.02	19.75	3.20		3.20
7.00	1.15		1.15	20.00	3.00		3.00
7.25	1.29		1.29	20.25	2.83		2.83
7.50	1.43		1.43	20.50	2.66		2.66
7.75	1.54		1.54	20.75	2.51		2.51
8.00	1.63		1.63	21.00	2.43		2.43
8.25	1.71		1.71	21.25	2.40		2.40
8.50	1.77		1.77	21.50	2.39		2.39
8.75	1.83		1.83	21.75	2.39		2.39
9.00	1.89		1.89	22.00	2.37		2.37
9.25	1.95		1.95	22.25	2.27		2.27
9.50	2.00		2.00	22.50	2.13		2.13
9.75	2.05		2.05	22.75	1.98		1.98
10.00	2.11		2.11	23.00	1.82		1.82
10.25	2.22		2.22	23.25	1.73		1.73
10.50	2.36		2.36	23.50	1.78		1.78
10.75	2.52		2.52	23.75	1.91		1.91
11.00	2.69		2.69	24.00	2.06		2.06
11.25	2.86		2.86				
11.50	3.03		3.03				
11.75	3.21		3.21				
12.00	3.39		3.39				
12.25	3.57		3.57				
12.50	3.76		3.76				
12.75	3.95		3.95				

Summary for Reach T: Total

Inflow Area = 100.205 ac, 1.37% Impervious, Inflow Depth > 6.50" for 100-year event
Inflow = 82.12 cfs @ 16.06 hrs, Volume= 54.306 af
Outflow = 82.12 cfs @ 16.06 hrs, Volume= 54.306 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach T: Total



Hydrograph for Reach T: Total

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	37.14		37.14
0.25	0.00		0.00	13.25	38.80		38.80
0.50	0.00		0.00	13.50	40.89		40.89
0.75	0.00		0.00	13.75	44.11		44.11
1.00	0.02		0.02	14.00	48.12		48.12
1.25	0.07		0.07	14.25	52.97		52.97
1.50	0.12		0.12	14.50	58.63		58.63
1.75	0.14		0.14	14.75	64.20		64.20
2.00	0.16		0.16	15.00	69.20		69.20
2.25	0.17		0.17	15.25	73.62		73.62
2.50	0.19		0.19	15.50	77.49		77.49
2.75	0.28		0.28	15.75	80.58		80.58
3.00	0.55		0.55	16.00	**82.03**		**82.03**
3.25	1.11		1.11	16.25	**81.85**		**81.85**
3.50	1.86		1.86	16.50	80.45		80.45
3.75	2.72		2.72	16.75	77.89		77.89
4.00	3.60		3.60	17.00	74.27		74.27
4.25	4.47		4.47	17.25	70.28		70.28
4.50	5.31		5.31	17.50	65.92		65.92
4.75	6.10		6.10	17.75	61.58		61.58
5.00	6.84		6.84	18.00	57.15		57.15
5.25	7.54		7.54	18.25	52.87		52.87
5.50	8.20		8.20	18.50	48.92		48.92
5.75	8.81		8.81	18.75	45.17		45.17
6.00	9.38		9.38	19.00	41.67		41.67
6.25	9.95		9.95	19.25	38.32		38.32
6.50	10.65		10.65	19.50	35.31		35.31
6.75	11.45		11.45	19.75	32.65		32.65
7.00	12.38		12.38	20.00	30.32		30.32
7.25	13.45		13.45	20.25	28.19		28.19
7.50	14.57		14.57	20.50	26.30		26.30
7.75	15.61		15.61	20.75	24.78		24.78
8.00	16.57		16.57	21.00	23.63		23.63
8.25	17.43		17.43	21.25	22.77		22.77
8.50	18.14		18.14	21.50	22.13		22.13
8.75	18.77		18.77	21.75	21.73		21.73
9.00	19.29		19.29	22.00	21.20		21.20
9.25	19.77		19.77	22.25	20.54		20.54
9.50	20.19		20.19	22.50	19.72		19.72
9.75	20.60		20.60	22.75	18.72		18.72
10.00	21.16		21.16	23.00	17.65		17.65
10.25	21.89		21.89	23.25	17.03		17.03
10.50	22.78		22.78	23.50	16.83		16.83
10.75	23.83		23.83	23.75	16.98		16.98
11.00	25.06		25.06	24.00	17.54		17.54
11.25	26.39		26.39				
11.50	27.82		27.82				
11.75	29.29		29.29				
12.00	30.81		30.81				
12.25	32.37		32.37				
12.50	33.94		33.94				
12.75	35.56		35.56				

APPENDIX D-3

HYDROCAD REPORT FOR 2-YEAR & 100-YEARSTORM EVENT

POST-DEVELOPMENT CONDITION WITH STORMWATER BASINS

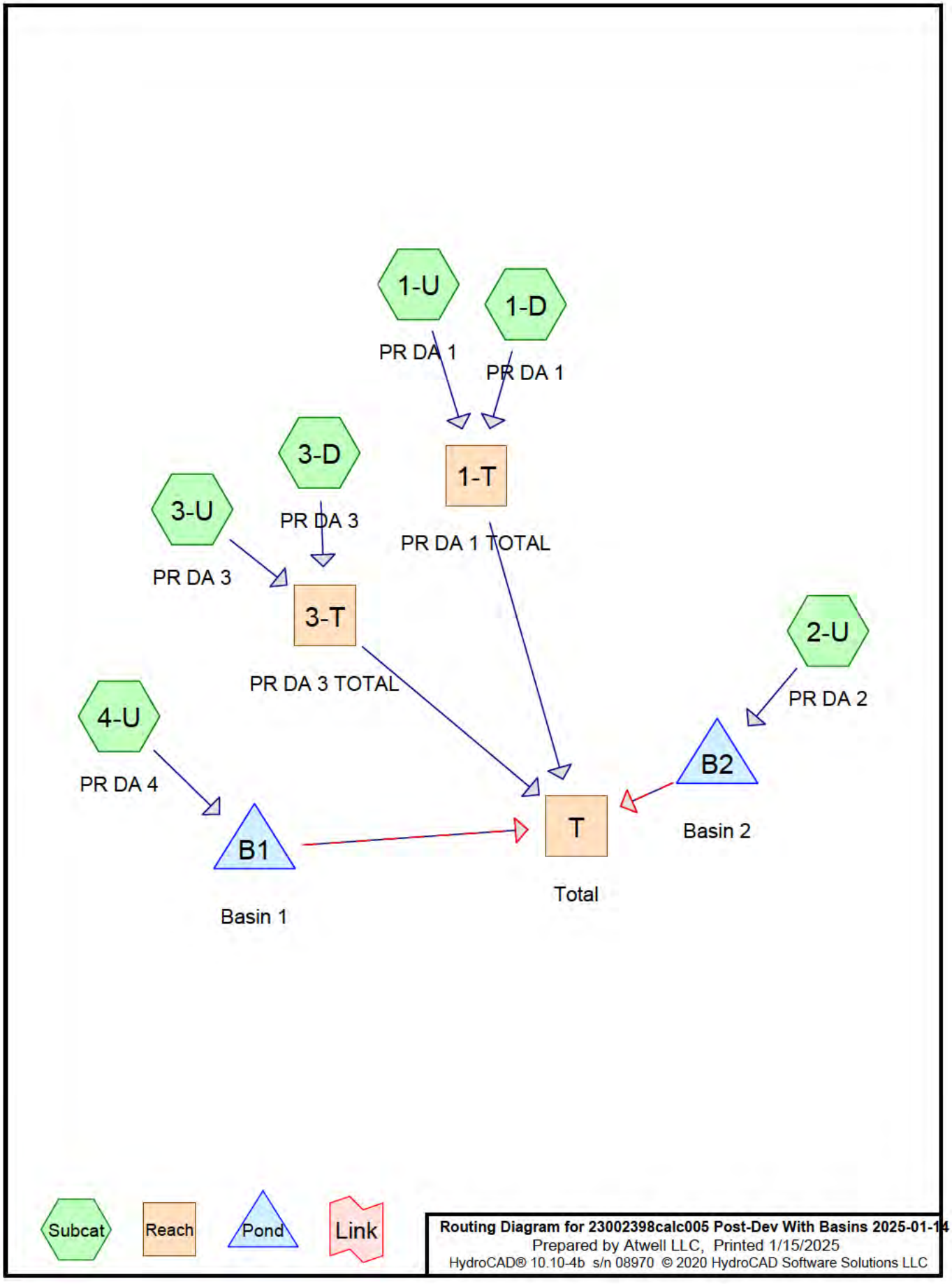
23002398calc005 Post-Dev With Basins 2025-01-14 *Table of Contents*
Prepared by Atwell LLC Printed 1/15/2025
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Link
Routing Diagram for 23002398calc005 Post-Dev With Basins 2025-01-14
Prepared by Atwell LLC, Printed 1/15/2025
HydroCAD® 10.10-4b s/n 08970 © 2020 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-year	Huff 0-10sm	3Q	Scale	24.00	1	3.34	2
2	100-year	Huff 0-10sm	3Q	Scale	24.00	1	8.57	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.373	98	Impervious Area (1-D, 1-U, 2-U, 3-D)
11.437	74	Pasture/grassland/range, Good, HSG C (1-U, 2-U, 3-U, 4-U)
29.040	80	Pasture/grassland/range, Good, HSG D (1-U, 2-U, 3-U, 4-U)
20.897	85	Row crops, straight row, Good, HSG C (1-U, 2-U, 3-U, 4-U)
37.458	89	Row crops, straight row, Good, HSG D (1-U, 2-U, 3-U, 4-U)
100.205	**84**	**TOTAL AREA**

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1-D: PR DA 1 Runoff Area=0.323 ac 100.00% Impervious Runoff Depth>3.10"
Flow Length=459' Tc=9.8 min CN=98 Runoff=0.12 cfs 0.083 af

Subcatchment1-U: PR DA 1 Runoff Area=3.806 ac 2.26% Impervious Runoff Depth>1.72"
Flow Length=459' Tc=9.8 min CN=83 Runoff=0.99 cfs 0.544 af

Subcatchment2-U: PR DA 2 Runoff Area=62.154 ac 0.50% Impervious Runoff Depth>1.88"
Flow Length=3,331' Tc=78.0 min CN=86 Runoff=16.64 cfs 9.755 af

Subcatchment3-D: PR DA 3 Runoff Area=0.651 ac 100.00% Impervious Runoff Depth>3.09"
Flow Length=1,305' Tc=17.6 min CN=98 Runoff=0.24 cfs 0.167 af

Subcatchment3-U: PR DA 3 Runoff Area=21.569 ac 0.00% Impervious Runoff Depth>1.56"
Flow Length=1,305' Tc=17.6 min CN=81 Runoff=5.20 cfs 2.811 af

Subcatchment4-U: PR DA 4 Runoff Area=11.702 ac 0.00% Impervious Runoff Depth>1.41"
Flow Length=1,661' Tc=33.8 min CN=79 Runoff=2.58 cfs 1.378 af

Reach 1-T: PR DA 1 TOTAL Inflow=1.11 cfs 0.628 af
Outflow=1.11 cfs 0.628 af

Reach 3-T: PR DA 3 TOTAL Inflow=5.44 cfs 2.979 af
Outflow=5.44 cfs 2.979 af

Reach T: Total Inflow=23.95 cfs 14.287 af
Outflow=23.95 cfs 14.287 af

Pond B1: Basin 1 Peak Elev=689.13' Storage=17,821 cf Inflow=2.58 cfs 1.378 af
Primary=0.84 cfs 0.786 af Secondary=1.25 cfs 0.277 af Outflow=2.10 cfs 1.063 af

Pond B2: Basin 2 Peak Elev=689.48' Storage=12,232 cf Inflow=16.64 cfs 9.755 af
Primary=0.70 cfs 0.840 af Secondary=15.90 cfs 8.778 af Outflow=16.59 cfs 9.618 af

Total Runoff Area = 100.205 ac Runoff Volume = 14.740 af Average Runoff Depth = 1.77"
98.63% Pervious = 98.832 ac 1.37% Impervious = 1.373 ac

Summary for Subcatchment 1-D: PR DA 1

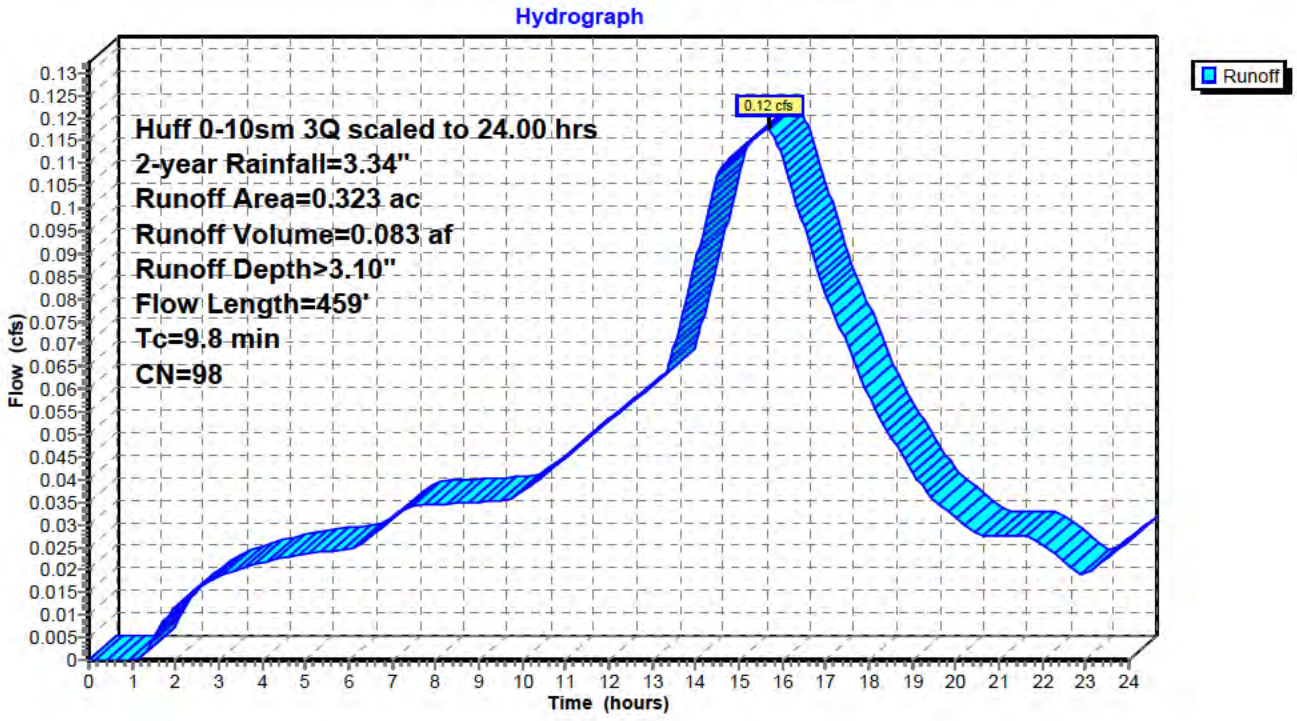
Runoff = 0.12 cfs @ 15.69 hrs, Volume= 0.083 af, Depth> 3.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
*	0.323	98	Impervious Area
	0.323		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.9	171	0.0290	1.53		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
0.2	16	0.0380	1.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	172	0.0122	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	459	Total			

Subcatchment 1-D: PR DA 1



Hydrograph for Subcatchment 1-D: PR DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	1.15	0.06
0.25	0.00	0.00	0.00	13.25	1.42	1.20	0.06
0.50	0.01	0.00	0.00	13.50	1.47	1.25	0.07
0.75	0.02	0.00	0.00	13.75	1.53	1.31	0.08
1.00	0.04	0.00	0.00	14.00	1.60	1.38	0.09
1.25	0.06	0.00	0.00	14.25	1.68	1.46	0.10
1.50	0.08	0.01	0.01	14.50	1.76	1.54	0.11
1.75	0.10	0.01	0.01	14.75	1.85	1.63	0.11
2.00	0.12	0.02	0.01	15.00	1.94	1.71	0.11
2.25	0.14	0.03	0.01	15.25	2.03	1.80	0.11
2.50	0.16	0.04	0.02	15.50	2.12	1.89	**0.12**
2.75	0.18	0.06	0.02	15.75	2.21	1.98	**0.12**
3.00	0.20	0.07	0.02	16.00	2.29	2.06	0.11
3.25	0.22	0.09	0.02	16.25	2.37	2.14	0.10
3.50	0.25	0.10	0.02	16.50	2.45	2.22	0.10
3.75	0.27	0.12	0.02	16.75	2.51	2.28	0.09
4.00	0.29	0.14	0.02	17.00	2.58	2.35	0.08
4.25	0.31	0.15	0.02	17.25	2.63	2.40	0.08
4.50	0.33	0.17	0.02	17.50	2.69	2.46	0.07
4.75	0.35	0.19	0.02	17.75	2.74	2.51	0.06
5.00	0.37	0.21	0.02	18.00	2.78	2.55	0.06
5.25	0.39	0.22	0.02	18.25	2.82	2.59	0.05
5.50	0.42	0.24	0.02	18.50	2.86	2.63	0.05
5.75	0.44	0.26	0.02	18.75	2.89	2.66	0.05
6.00	0.46	0.28	0.02	19.00	2.93	2.70	0.04
6.25	0.48	0.30	0.03	19.25	2.96	2.72	0.04
6.50	0.50	0.32	0.03	19.50	2.98	2.75	0.04
6.75	0.53	0.34	0.03	19.75	3.01	2.78	0.03
7.00	0.55	0.37	0.03	20.00	3.03	2.80	0.03
7.25	0.58	0.39	0.03	20.25	3.06	2.82	0.03
7.50	0.61	0.42	0.03	20.50	3.08	2.85	0.03
7.75	0.64	0.45	0.03	20.75	3.10	2.87	0.03
8.00	0.67	0.47	0.03	21.00	3.12	2.89	0.03
8.25	0.70	0.50	0.03	21.25	3.14	2.91	0.03
8.50	0.72	0.53	0.03	21.50	3.16	2.93	0.03
8.75	0.75	0.55	0.03	21.75	3.18	2.95	0.03
9.00	0.78	0.58	0.04	22.00	3.20	2.97	0.03
9.25	0.81	0.61	0.04	22.25	3.22	2.99	0.02
9.50	0.84	0.63	0.04	22.50	3.24	3.00	0.02
9.75	0.86	0.66	0.04	22.75	3.25	3.02	0.02
10.00	0.89	0.69	0.04	23.00	3.27	3.03	0.02
10.25	0.93	0.72	0.04	23.25	3.28	3.05	0.02
10.50	0.96	0.75	0.04	23.50	3.30	3.07	0.02
10.75	0.99	0.78	0.04	23.75	3.32	3.09	0.02
11.00	1.03	0.82	0.04	24.00	**3.34**	**3.11**	0.03
11.25	1.07	0.86	0.05				
11.50	1.10	0.89	0.05				
11.75	1.15	0.93	0.05				
12.00	1.19	0.97	0.05				
12.25	1.23	1.01	0.05				
12.50	1.27	1.06	0.06				
12.75	1.32	1.10	0.06				

Summary for Subcatchment 1-U: PR DA 1

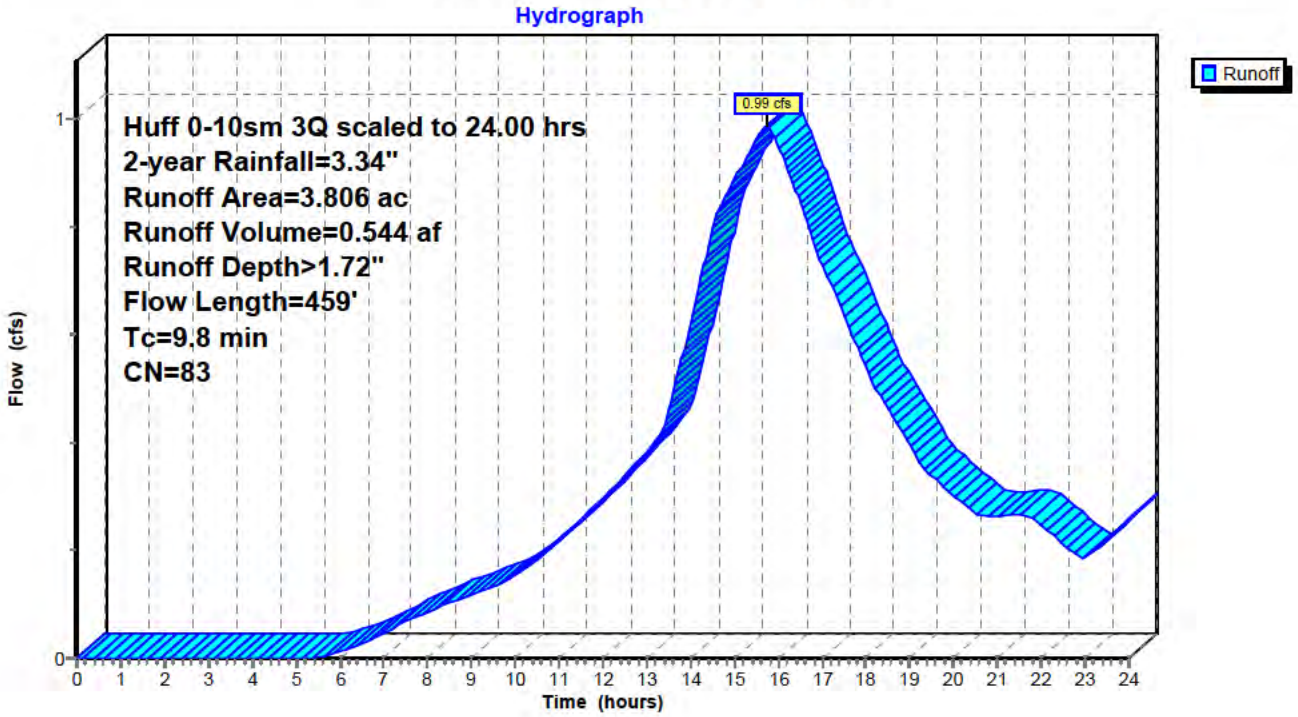
Runoff = 0.99 cfs @ 15.73 hrs, Volume= 0.544 af, Depth> 1.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
	0.000	89	Row crops, straight row, Good, HSG D
	0.753	89	Row crops, straight row, Good, HSG D
	0.711	80	Pasture/grassland/range, Good, HSG D
	1.342	85	Row crops, straight row, Good, HSG C
	0.914	74	Pasture/grassland/range, Good, HSG C
*	0.086	98	Impervious Area
	3.806	83	Weighted Average
	3.720		97.74% Pervious Area
	0.086		2.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.9	171	0.0290	1.53		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
0.2	16	0.0380	1.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	172	0.0122	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	459	Total			

Subcatchment 1-U: PR DA 1



Hydrograph for Subcatchment 1-U: PR DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.31	0.38
0.25	0.00	0.00	0.00	13.25	1.42	0.33	0.41
0.50	0.01	0.00	0.00	13.50	1.47	0.36	0.46
0.75	0.02	0.00	0.00	13.75	1.53	0.40	0.54
1.00	0.04	0.00	0.00	14.00	1.60	0.44	0.62
1.25	0.06	0.00	0.00	14.25	1.68	0.49	0.71
1.50	0.08	0.00	0.00	14.50	1.76	0.54	0.80
1.75	0.10	0.00	0.00	14.75	1.85	0.59	0.85
2.00	0.12	0.00	0.00	15.00	1.94	0.65	0.89
2.25	0.14	0.00	0.00	15.25	2.03	0.71	0.93
2.50	0.16	0.00	0.00	15.50	2.12	0.78	0.96
2.75	0.18	0.00	0.00	15.75	2.21	0.84	**0.99**
3.00	0.20	0.00	0.00	16.00	2.29	0.90	0.95
3.25	0.22	0.00	0.00	16.25	2.37	0.96	0.90
3.50	0.25	0.00	0.00	16.50	2.45	1.01	0.85
3.75	0.27	0.00	0.00	16.75	2.51	1.07	0.79
4.00	0.29	0.00	0.00	17.00	2.58	1.11	0.73
4.25	0.31	0.00	0.00	17.25	2.63	1.16	0.69
4.50	0.33	0.00	0.00	17.50	2.69	1.20	0.64
4.75	0.35	0.00	0.00	17.75	2.74	1.24	0.59
5.00	0.37	0.00	0.00	18.00	2.78	1.27	0.54
5.25	0.39	0.00	0.00	18.25	2.82	1.30	0.50
5.50	0.42	0.00	0.00	18.50	2.86	1.33	0.46
5.75	0.44	0.00	0.00	18.75	2.89	1.36	0.43
6.00	0.46	0.00	0.01	19.00	2.93	1.39	0.40
6.25	0.48	0.00	0.02	19.25	2.96	1.41	0.36
6.50	0.50	0.00	0.03	19.50	2.98	1.43	0.34
6.75	0.53	0.01	0.04	19.75	3.01	1.45	0.32
7.00	0.55	0.01	0.05	20.00	3.03	1.47	0.30
7.25	0.58	0.01	0.06	20.25	3.06	1.49	0.29
7.50	0.61	0.02	0.07	20.50	3.08	1.51	0.27
7.75	0.64	0.02	0.08	20.75	3.10	1.53	0.26
8.00	0.67	0.03	0.09	21.00	3.12	1.54	0.26
8.25	0.70	0.03	0.09	21.25	3.14	1.56	0.27
8.50	0.72	0.04	0.10	21.50	3.16	1.58	0.27
8.75	0.75	0.05	0.11	21.75	3.18	1.60	0.26
9.00	0.78	0.06	0.12	22.00	3.20	1.61	0.25
9.25	0.81	0.06	0.13	22.25	3.22	1.63	0.23
9.50	0.84	0.07	0.13	22.50	3.24	1.64	0.21
9.75	0.86	0.08	0.14	22.75	3.25	1.65	0.19
10.00	0.89	0.09	0.15	23.00	3.27	1.66	0.18
10.25	0.93	0.10	0.17	23.25	3.28	1.68	0.20
10.50	0.96	0.12	0.18	23.50	3.30	1.69	0.22
10.75	0.99	0.13	0.20	23.75	3.32	1.71	0.24
11.00	1.03	0.14	0.22	24.00	**3.34**	**1.72**	0.26
11.25	1.07	0.16	0.24				
11.50	1.10	0.18	0.26				
11.75	1.15	0.19	0.28				
12.00	1.19	0.21	0.30				
12.25	1.23	0.23	0.32				
12.50	1.27	0.26	0.34				
12.75	1.32	0.28	0.36				

Summary for Subcatchment 2-U: PR DA 2

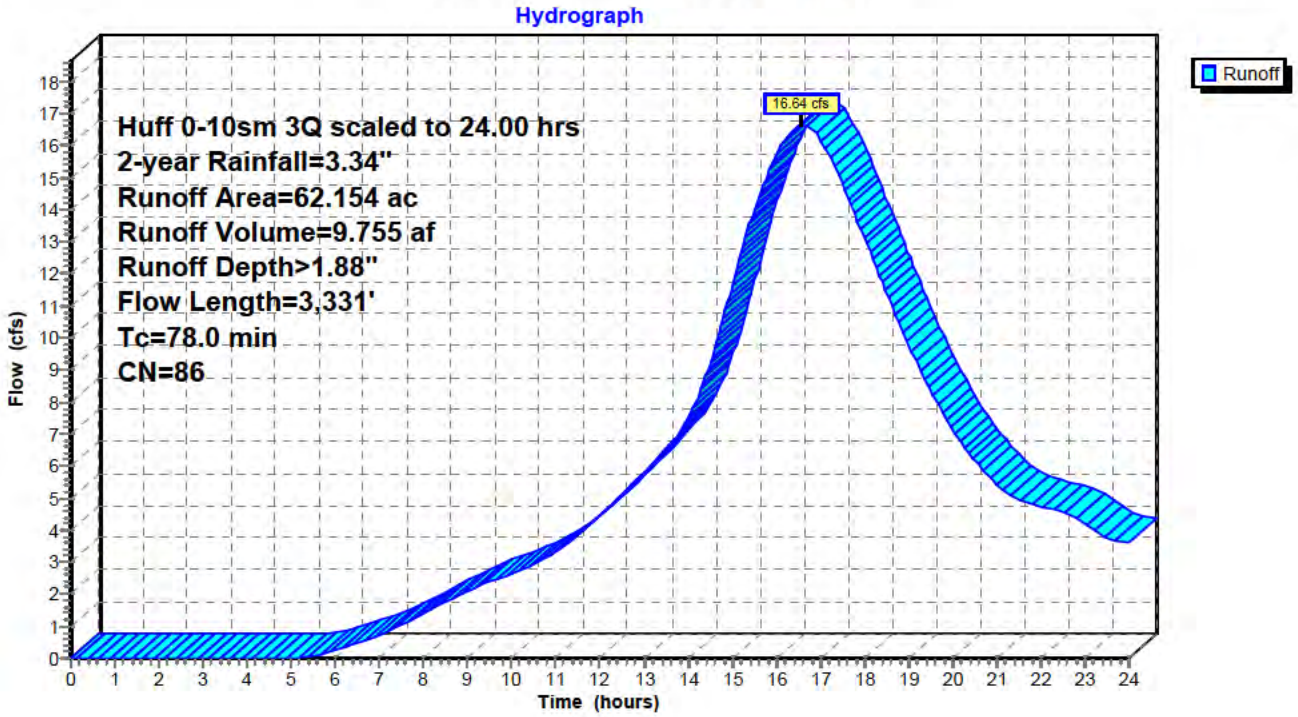
Runoff = 16.64 cfs @ 16.57 hrs, Volume= 9.755 af, Depth> 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
	11.052	89	Row crops, straight row, Good, HSG D
	2.151	80	Pasture/grassland/range, Good, HSG D
	0.061	89	Row crops, straight row, Good, HSG D
	10.906	89	Row crops, straight row, Good, HSG D
	8.457	80	Pasture/grassland/range, Good, HSG D
	9.982	89	Row crops, straight row, Good, HSG D
	0.038	80	Pasture/grassland/range, Good, HSG D
	14.843	85	Row crops, straight row, Good, HSG C
	2.519	74	Pasture/grassland/range, Good, HSG C
	0.830	85	Row crops, straight row, Good, HSG C
	1.002	74	Pasture/grassland/range, Good, HSG C
*	0.313	98	Impervious Area
	62.154	86	Weighted Average
	61.841		99.50% Pervious Area
	0.313		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	100	0.0421	0.49		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.5	141	0.0306	1.57		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
42.0	1,988	0.0077	0.79		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
31.1	1,102	0.0071	0.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
78.0	3,331	Total			

Subcatchment 2-U: PR DA 2



Hydrograph for Subcatchment 2-U: PR DA 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.41	5.80
0.25	0.00	0.00	0.00	13.25	1.42	0.44	6.17
0.50	0.01	0.00	0.00	13.50	1.47	0.47	6.54
0.75	0.02	0.00	0.00	13.75	1.53	0.51	6.96
1.00	0.04	0.00	0.00	14.00	1.60	0.56	7.49
1.25	0.06	0.00	0.00	14.25	1.68	0.61	8.24
1.50	0.08	0.00	0.00	14.50	1.76	0.67	9.21
1.75	0.10	0.00	0.00	14.75	1.85	0.74	10.37
2.00	0.12	0.00	0.00	15.00	1.94	0.80	11.64
2.25	0.14	0.00	0.00	15.25	2.03	0.87	12.86
2.50	0.16	0.00	0.00	15.50	2.12	0.94	13.97
2.75	0.18	0.00	0.00	15.75	2.21	1.01	14.89
3.00	0.20	0.00	0.00	16.00	2.29	1.08	15.69
3.25	0.22	0.00	0.00	16.25	2.37	1.14	16.29
3.50	0.25	0.00	0.00	16.50	2.45	1.20	**16.60**
3.75	0.27	0.00	0.00	16.75	2.51	1.25	**16.58**
4.00	0.29	0.00	0.00	17.00	2.58	1.31	16.19
4.25	0.31	0.00	0.00	17.25	2.63	1.35	15.59
4.50	0.33	0.00	0.00	17.50	2.69	1.40	14.81
4.75	0.35	0.00	0.00	17.75	2.74	1.44	13.99
5.00	0.37	0.00	0.01	18.00	2.78	1.48	13.13
5.25	0.39	0.00	0.03	18.25	2.82	1.51	12.27
5.50	0.42	0.00	0.08	18.50	2.86	1.54	11.42
5.75	0.44	0.01	0.15	18.75	2.89	1.57	10.58
6.00	0.46	0.01	0.24	19.00	2.93	1.60	9.80
6.25	0.48	0.01	0.35	19.25	2.96	1.62	9.06
6.50	0.50	0.02	0.46	19.50	2.98	1.65	8.38
6.75	0.53	0.02	0.57	19.75	3.01	1.67	7.73
7.00	0.55	0.03	0.71	20.00	3.03	1.69	7.15
7.25	0.58	0.03	0.86	20.25	3.06	1.71	6.62
7.50	0.61	0.04	1.03	20.50	3.08	1.73	6.17
7.75	0.64	0.05	1.22	20.75	3.10	1.75	5.78
8.00	0.67	0.06	1.41	21.00	3.12	1.77	5.43
8.25	0.70	0.07	1.60	21.25	3.14	1.78	5.15
8.50	0.72	0.08	1.78	21.50	3.16	1.80	4.94
8.75	0.75	0.09	1.94	21.75	3.18	1.82	4.81
9.00	0.78	0.10	2.10	22.00	3.20	1.84	4.72
9.25	0.81	0.11	2.24	22.25	3.22	1.85	4.65
9.50	0.84	0.12	2.38	22.50	3.24	1.87	4.55
9.75	0.86	0.13	2.51	22.75	3.25	1.88	4.40
10.00	0.89	0.15	2.64	23.00	3.27	1.89	4.19
10.25	0.93	0.16	2.77	23.25	3.28	1.91	3.95
10.50	0.96	0.18	2.93	23.50	3.30	1.92	3.74
10.75	0.99	0.19	3.11	23.75	3.32	1.94	3.62
11.00	1.03	0.21	3.34	24.00	**3.34**	**1.96**	3.63
11.25	1.07	0.23	3.59				
11.50	1.10	0.25	3.86				
11.75	1.15	0.27	4.15				
12.00	1.19	0.30	4.46				
12.25	1.23	0.32	4.78				
12.50	1.27	0.35	5.11				
12.75	1.32	0.38	5.46				

Summary for Subcatchment 3-D: PR DA 3

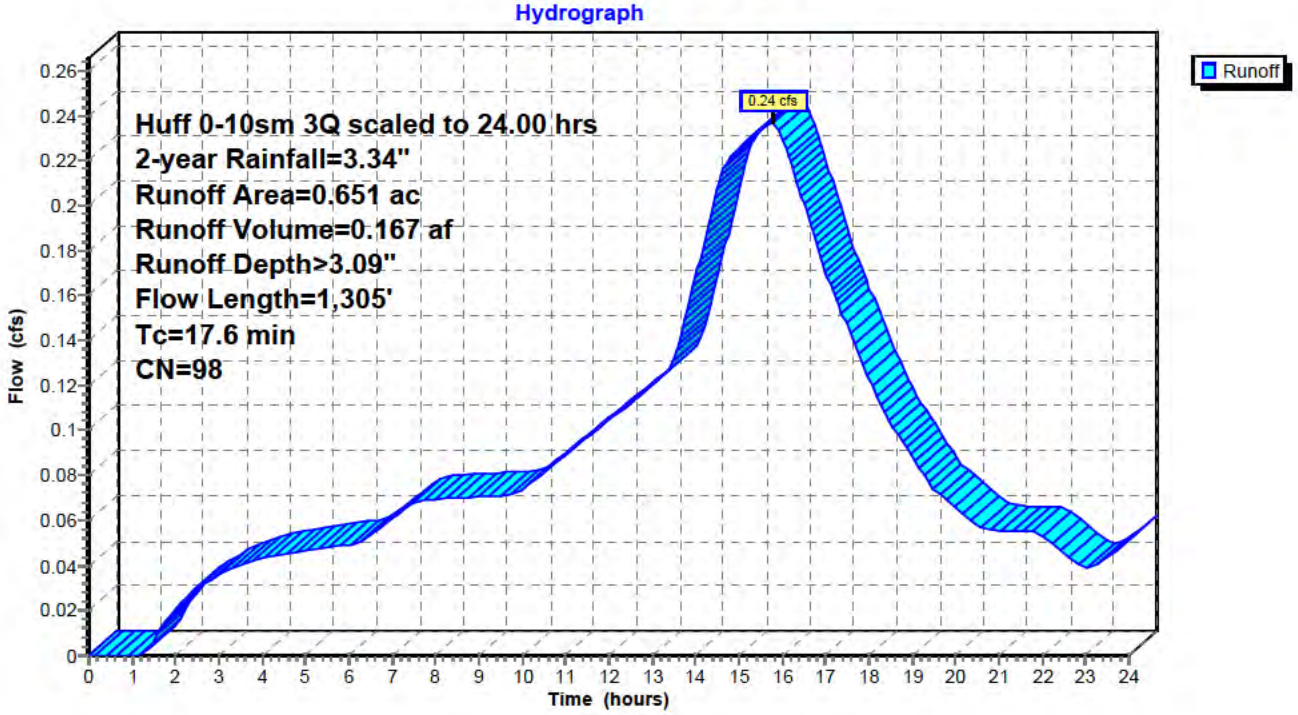
Runoff = 0.24 cfs @ 15.77 hrs, Volume= 0.167 af, Depth> 3.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

	Area (ac)	CN	Description
*	0.651	98	Impervious Area
	0.651		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0081	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
0.6	37	0.0151	1.11		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.8	758	0.0141	7.10	71.03	**Channel Flow,** Area= 10.0 sf Perim= 12.0' r= 0.83' n= 0.022 Earth, clean & straight
0.3	38	0.0146	2.45		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	372	0.0113	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.6	1,305	Total			

Subcatchment 3-D: PR DA 3



Hydrograph for Subcatchment 3-D: PR DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	1.15	0.12
0.25	0.00	0.00	0.00	13.25	1.42	1.20	0.12
0.50	0.01	0.00	0.00	13.50	1.47	1.25	0.13
0.75	0.02	0.00	0.00	13.75	1.53	1.31	0.15
1.00	0.04	0.00	0.00	14.00	1.60	1.38	0.17
1.25	0.06	0.00	0.00	14.25	1.68	1.46	0.19
1.50	0.08	0.01	0.01	14.50	1.76	1.54	0.21
1.75	0.10	0.01	0.01	14.75	1.85	1.63	0.22
2.00	0.12	0.02	0.02	15.00	1.94	1.71	0.23
2.25	0.14	0.03	0.03	15.25	2.03	1.80	0.23
2.50	0.16	0.04	0.03	15.50	2.12	1.89	0.23
2.75	0.18	0.06	0.03	15.75	2.21	1.98	**0.24**
3.00	0.20	0.07	0.04	16.00	2.29	2.06	0.23
3.25	0.22	0.09	0.04	16.25	2.37	2.14	0.22
3.50	0.25	0.10	0.04	16.50	2.45	2.22	0.20
3.75	0.27	0.12	0.04	16.75	2.51	2.28	0.19
4.00	0.29	0.14	0.04	17.00	2.58	2.35	0.17
4.25	0.31	0.15	0.04	17.25	2.63	2.40	0.16
4.50	0.33	0.17	0.05	17.50	2.69	2.46	0.15
4.75	0.35	0.19	0.05	17.75	2.74	2.51	0.13
5.00	0.37	0.21	0.05	18.00	2.78	2.55	0.12
5.25	0.39	0.22	0.05	18.25	2.82	2.59	0.11
5.50	0.42	0.24	0.05	18.50	2.86	2.63	0.10
5.75	0.44	0.26	0.05	18.75	2.89	2.66	0.10
6.00	0.46	0.28	0.05	19.00	2.93	2.70	0.09
6.25	0.48	0.30	0.05	19.25	2.96	2.72	0.08
6.50	0.50	0.32	0.05	19.50	2.98	2.75	0.07
6.75	0.53	0.34	0.06	19.75	3.01	2.78	0.07
7.00	0.55	0.37	0.06	20.00	3.03	2.80	0.07
7.25	0.58	0.39	0.06	20.25	3.06	2.82	0.06
7.50	0.61	0.42	0.07	20.50	3.08	2.85	0.06
7.75	0.64	0.45	0.07	20.75	3.10	2.87	0.06
8.00	0.67	0.47	0.07	21.00	3.12	2.89	0.06
8.25	0.70	0.50	0.07	21.25	3.14	2.91	0.06
8.50	0.72	0.53	0.07	21.50	3.16	2.93	0.06
8.75	0.75	0.55	0.07	21.75	3.18	2.95	0.06
9.00	0.78	0.58	0.07	22.00	3.20	2.97	0.05
9.25	0.81	0.61	0.07	22.25	3.22	2.99	0.05
9.50	0.84	0.63	0.07	22.50	3.24	3.00	0.05
9.75	0.86	0.66	0.07	22.75	3.25	3.02	0.04
10.00	0.89	0.69	0.07	23.00	3.27	3.03	0.04
10.25	0.93	0.72	0.08	23.25	3.28	3.05	0.04
10.50	0.96	0.75	0.08	23.50	3.30	3.07	0.04
10.75	0.99	0.78	0.08	23.75	3.32	3.09	0.05
11.00	1.03	0.82	0.09	24.00	**3.34**	**3.11**	0.05
11.25	1.07	0.86	0.09				
11.50	1.10	0.89	0.10				
11.75	1.15	0.93	0.10				
12.00	1.19	0.97	0.10				
12.25	1.23	1.01	0.11				
12.50	1.27	1.06	0.11				
12.75	1.32	1.10	0.12				

Summary for Subcatchment 3-U: PR DA 3

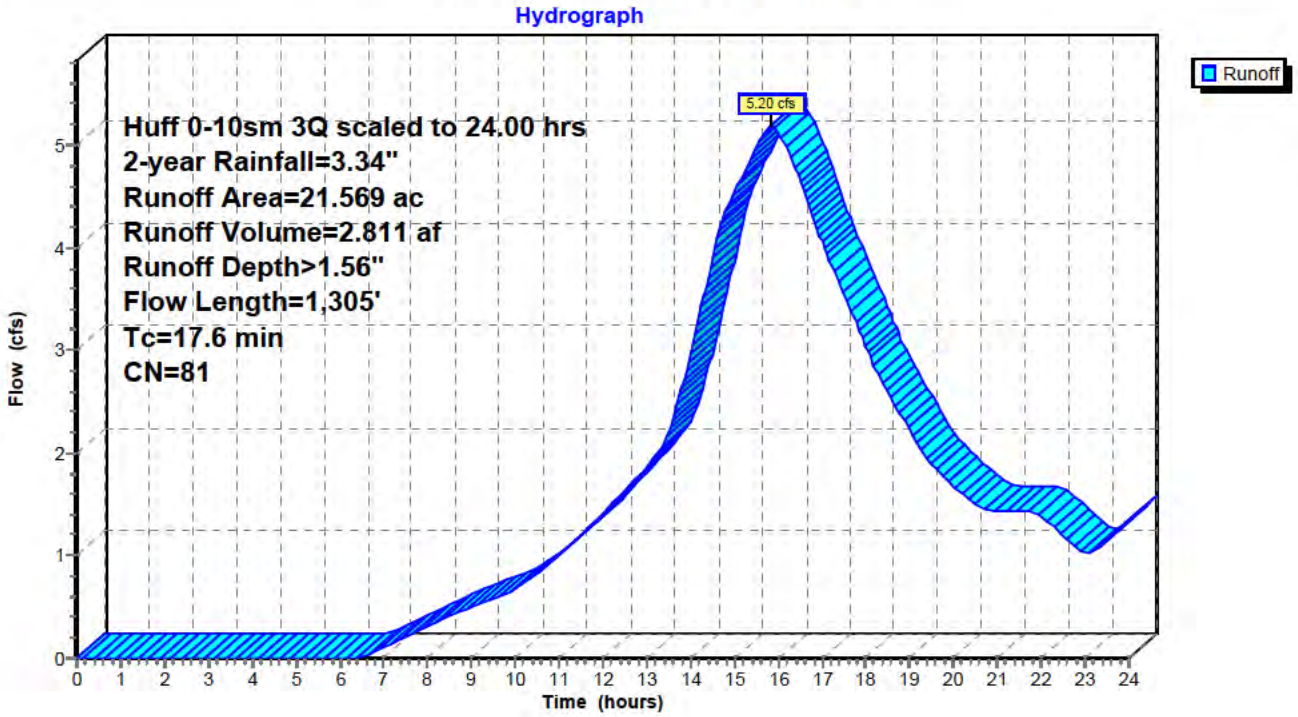
Runoff = 5.20 cfs @ 15.84 hrs, Volume= 2.811 af, Depth> 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

Area (ac)	CN	Description
3.171	89	Row crops, straight row, Good, HSG D
4.736	80	Pasture/grassland/range, Good, HSG D
1.134	89	Row crops, straight row, Good, HSG D
5.352	80	Pasture/grassland/range, Good, HSG D
3.187	85	Row crops, straight row, Good, HSG C
3.989	74	Pasture/grassland/range, Good, HSG C
21.569	81	Weighted Average
21.569		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0081	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
0.6	37	0.0151	1.11		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.8	758	0.0141	7.10	71.03	**Channel Flow,** Area= 10.0 sf Perim= 12.0' r= 0.83' n= 0.022 Earth, clean & straight
0.3	38	0.0146	2.45		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	372	0.0113	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.6	1,305	Total			

Subcatchment 3-U: PR DA 3



Hydrograph for Subcatchment 3-U: PR DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.25	1.87
0.25	0.00	0.00	0.00	13.25	1.42	0.27	1.99
0.50	0.01	0.00	0.00	13.50	1.47	0.30	2.19
0.75	0.02	0.00	0.00	13.75	1.53	0.33	2.55
1.00	0.04	0.00	0.00	14.00	1.60	0.37	2.97
1.25	0.06	0.00	0.00	14.25	1.68	0.41	3.43
1.50	0.08	0.00	0.00	14.50	1.76	0.46	3.91
1.75	0.10	0.00	0.00	14.75	1.85	0.51	4.29
2.00	0.12	0.00	0.00	15.00	1.94	0.57	4.54
2.25	0.14	0.00	0.00	15.25	2.03	0.62	4.76
2.50	0.16	0.00	0.00	15.50	2.12	0.68	4.97
2.75	0.18	0.00	0.00	15.75	2.21	0.74	**5.17**
3.00	0.20	0.00	0.00	16.00	2.29	0.80	**5.14**
3.25	0.22	0.00	0.00	16.25	2.37	0.85	4.92
3.50	0.25	0.00	0.00	16.50	2.45	0.90	4.65
3.75	0.27	0.00	0.00	16.75	2.51	0.95	4.36
4.00	0.29	0.00	0.00	17.00	2.58	1.00	4.06
4.25	0.31	0.00	0.00	17.25	2.63	1.04	3.80
4.50	0.33	0.00	0.00	17.50	2.69	1.08	3.55
4.75	0.35	0.00	0.00	17.75	2.74	1.11	3.30
5.00	0.37	0.00	0.00	18.00	2.78	1.15	3.04
5.25	0.39	0.00	0.00	18.25	2.82	1.18	2.79
5.50	0.42	0.00	0.00	18.50	2.86	1.21	2.59
5.75	0.44	0.00	0.00	18.75	2.89	1.23	2.41
6.00	0.46	0.00	0.00	19.00	2.93	1.26	2.23
6.25	0.48	0.00	0.00	19.25	2.96	1.28	2.04
6.50	0.50	0.00	0.02	19.50	2.98	1.30	1.88
6.75	0.53	0.00	0.06	19.75	3.01	1.32	1.78
7.00	0.55	0.00	0.10	20.00	3.03	1.34	1.68
7.25	0.58	0.01	0.16	20.25	3.06	1.36	1.59
7.50	0.61	0.01	0.21	20.50	3.08	1.37	1.49
7.75	0.64	0.01	0.27	20.75	3.10	1.39	1.44
8.00	0.67	0.02	0.32	21.00	3.12	1.41	1.43
8.25	0.70	0.02	0.36	21.25	3.14	1.42	1.44
8.50	0.72	0.02	0.41	21.50	3.16	1.44	1.44
8.75	0.75	0.03	0.45	21.75	3.18	1.46	1.44
9.00	0.78	0.04	0.50	22.00	3.20	1.47	1.39
9.25	0.81	0.04	0.54	22.25	3.22	1.49	1.30
9.50	0.84	0.05	0.58	22.50	3.24	1.50	1.20
9.75	0.86	0.06	0.62	22.75	3.25	1.51	1.10
10.00	0.89	0.07	0.68	23.00	3.27	1.52	1.01
10.25	0.93	0.07	0.75	23.25	3.28	1.53	1.05
10.50	0.96	0.08	0.83	23.50	3.30	1.55	1.15
10.75	0.99	0.10	0.91	23.75	3.32	1.56	1.25
11.00	1.03	0.11	1.00	24.00	**3.34**	**1.58**	1.36
11.25	1.07	0.12	1.10				
11.50	1.10	0.14	1.20				
11.75	1.15	0.15	1.30				
12.00	1.19	0.17	1.41				
12.25	1.23	0.19	1.52				
12.50	1.27	0.21	1.63				
12.75	1.32	0.23	1.75				

Summary for Subcatchment 4-U: PR DA 4

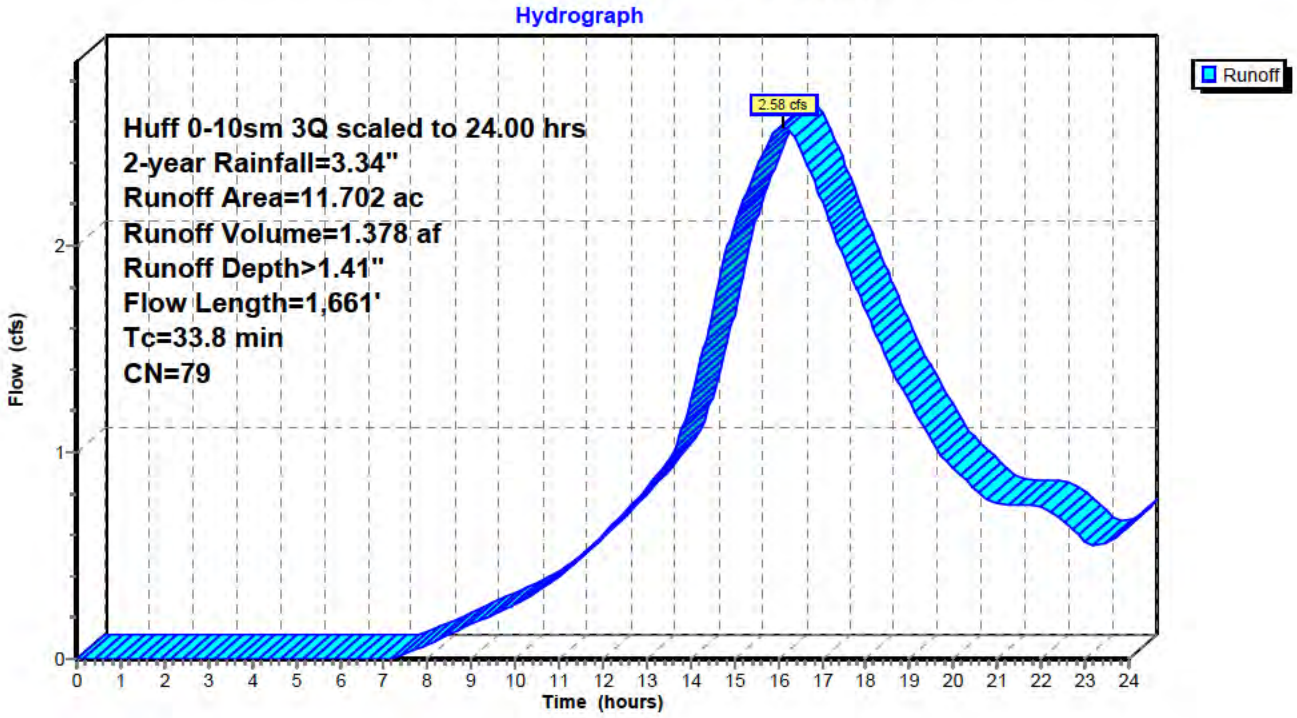
Runoff = 2.58 cfs @ 16.08 hrs, Volume= 1.378 af, Depth> 1.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 2-year Rainfall=3.34"

Area (ac)	CN	Description
0.399	89	Row crops, straight row, Good, HSG D
4.560	80	Pasture/grassland/range, Good, HSG D
0.000	89	Row crops, straight row, Good, HSG D
3.035	80	Pasture/grassland/range, Good, HSG D
0.695	85	Row crops, straight row, Good, HSG C
3.013	74	Pasture/grassland/range, Good, HSG C
11.702	79	Weighted Average
11.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0080	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
2.7	198	0.0180	1.21		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
24.5	1,363	0.0175	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
33.8	1,661	Total			

Subcatchment 4-U: PR DA 4



Hydrograph for Subcatchment 4-U: PR DA 4

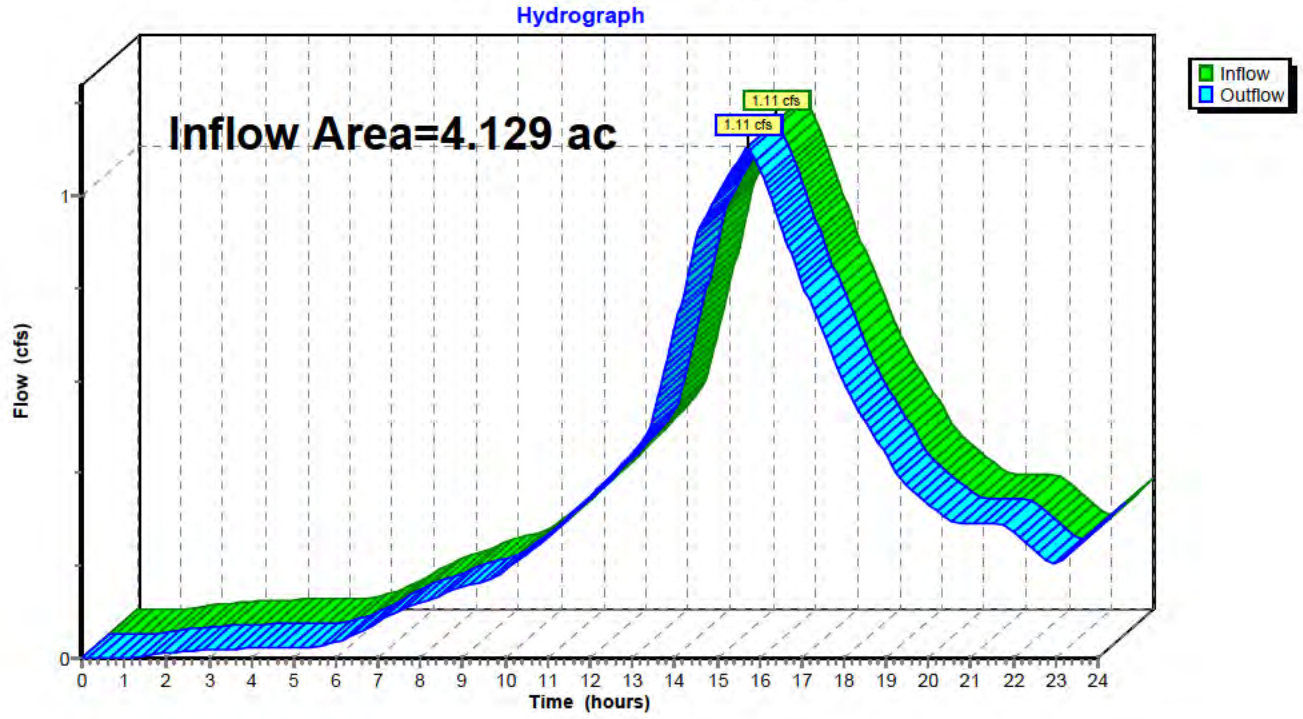
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	1.37	0.20	0.83
0.25	0.00	0.00	0.00	13.25	1.42	0.22	0.89
0.50	0.01	0.00	0.00	13.50	1.47	0.25	0.96
0.75	0.02	0.00	0.00	13.75	1.53	0.27	1.08
1.00	0.04	0.00	0.00	14.00	1.60	0.31	1.25
1.25	0.06	0.00	0.00	14.25	1.68	0.35	1.46
1.50	0.08	0.00	0.00	14.50	1.76	0.39	1.68
1.75	0.10	0.00	0.00	14.75	1.85	0.44	1.92
2.00	0.12	0.00	0.00	15.00	1.94	0.49	2.10
2.25	0.14	0.00	0.00	15.25	2.03	0.54	2.24
2.50	0.16	0.00	0.00	15.50	2.12	0.59	2.37
2.75	0.18	0.00	0.00	15.75	2.21	0.65	2.49
3.00	0.20	0.00	0.00	16.00	2.29	0.70	**2.57**
3.25	0.22	0.00	0.00	16.25	2.37	0.75	**2.56**
3.50	0.25	0.00	0.00	16.50	2.45	0.80	2.47
3.75	0.27	0.00	0.00	16.75	2.51	0.85	2.35
4.00	0.29	0.00	0.00	17.00	2.58	0.89	2.21
4.25	0.31	0.00	0.00	17.25	2.63	0.93	2.07
4.50	0.33	0.00	0.00	17.50	2.69	0.97	1.94
4.75	0.35	0.00	0.00	17.75	2.74	1.00	1.82
5.00	0.37	0.00	0.00	18.00	2.78	1.03	1.69
5.25	0.39	0.00	0.00	18.25	2.82	1.06	1.56
5.50	0.42	0.00	0.00	18.50	2.86	1.09	1.44
5.75	0.44	0.00	0.00	18.75	2.89	1.11	1.34
6.00	0.46	0.00	0.00	19.00	2.93	1.14	1.24
6.25	0.48	0.00	0.00	19.25	2.96	1.16	1.15
6.50	0.50	0.00	0.00	19.50	2.98	1.18	1.06
6.75	0.53	0.00	0.00	19.75	3.01	1.19	0.98
7.00	0.55	0.00	0.00	20.00	3.03	1.21	0.92
7.25	0.58	0.00	0.01	20.25	3.06	1.23	0.87
7.50	0.61	0.00	0.02	20.50	3.08	1.25	0.82
7.75	0.64	0.00	0.05	20.75	3.10	1.26	0.78
8.00	0.67	0.01	0.07	21.00	3.12	1.28	0.75
8.25	0.70	0.01	0.10	21.25	3.14	1.29	0.75
8.50	0.72	0.01	0.12	21.50	3.16	1.31	0.74
8.75	0.75	0.02	0.15	21.75	3.18	1.32	0.75
9.00	0.78	0.02	0.17	22.00	3.20	1.34	0.74
9.25	0.81	0.03	0.19	22.25	3.22	1.35	0.71
9.50	0.84	0.03	0.22	22.50	3.24	1.36	0.67
9.75	0.86	0.04	0.24	22.75	3.25	1.38	0.62
10.00	0.89	0.04	0.26	23.00	3.27	1.39	0.57
10.25	0.93	0.05	0.29	23.25	3.28	1.40	0.54
10.50	0.96	0.06	0.33	23.50	3.30	1.41	0.56
10.75	0.99	0.07	0.36	23.75	3.32	1.43	0.60
11.00	1.03	0.08	0.41	24.00	**3.34**	**1.44**	0.65
11.25	1.07	0.09	0.45				
11.50	1.10	0.10	0.50				
11.75	1.15	0.12	0.55				
12.00	1.19	0.13	0.60				
12.25	1.23	0.15	0.65				
12.50	1.27	0.16	0.71				
12.75	1.32	0.18	0.77				

Summary for Reach 1-T: PR DA 1 TOTAL

Inflow Area = 4.129 ac, 9.91% Impervious, Inflow Depth > 1.82" for 2-year event
Inflow = 1.11 cfs @ 15.73 hrs, Volume= 0.628 af
Outflow = 1.11 cfs @ 15.73 hrs, Volume= 0.628 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 1-T: PR DA 1 TOTAL



Hydrograph for Reach 1-T: PR DA 1 TOTAL

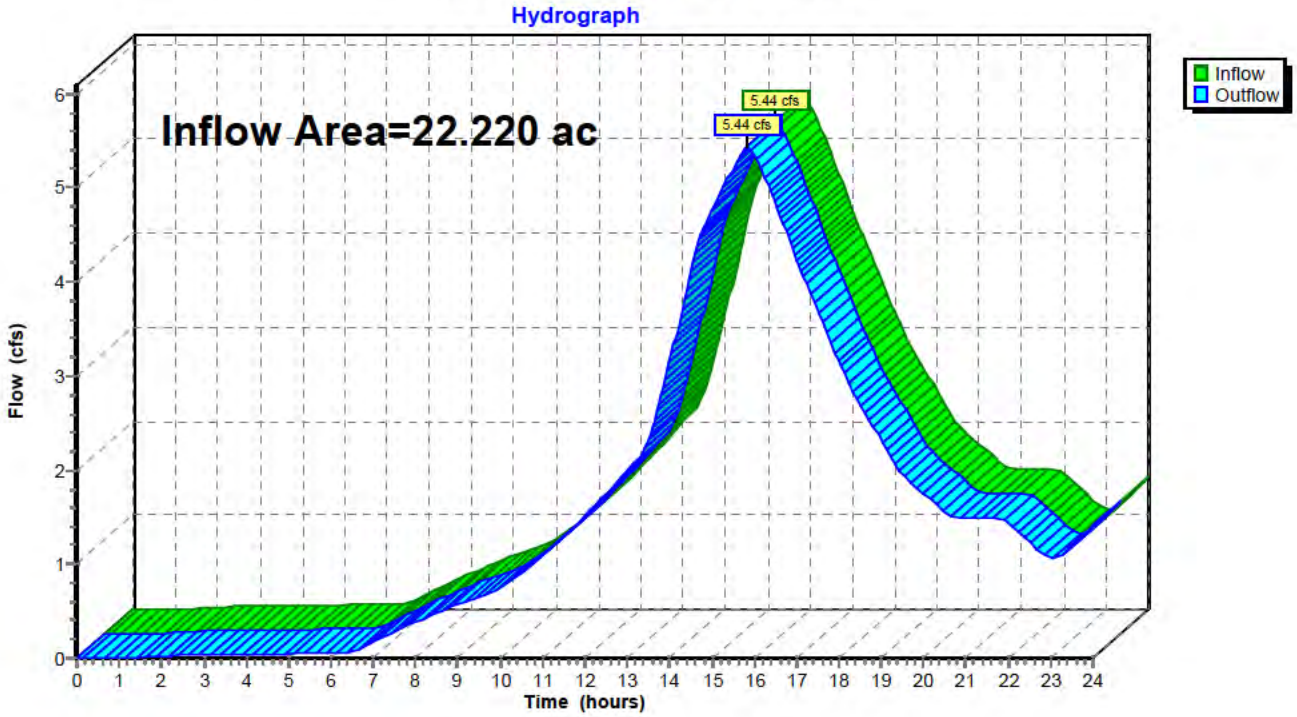
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	0.44		0.44
0.25	0.00		0.00	13.25	0.47		0.47
0.50	0.00		0.00	13.50	0.53		0.53
0.75	0.00		0.00	13.75	0.62		0.62
1.00	0.00		0.00	14.00	0.71		0.71
1.25	0.00		0.00	14.25	0.81		0.81
1.50	0.01		0.01	14.50	0.91		0.91
1.75	0.01		0.01	14.75	0.96		0.96
2.00	0.01		0.01	15.00	1.00		1.00
2.25	0.01		0.01	15.25	1.04		1.04
2.50	0.02		0.02	15.50	1.08		1.08
2.75	0.02		0.02	15.75	**1.11**		**1.11**
3.00	0.02		0.02	16.00	1.06		1.06
3.25	0.02		0.02	16.25	1.00		1.00
3.50	0.02		0.02	16.50	0.94		0.94
3.75	0.02		0.02	16.75	0.88		0.88
4.00	0.02		0.02	17.00	0.81		0.81
4.25	0.02		0.02	17.25	0.76		0.76
4.50	0.02		0.02	17.50	0.71		0.71
4.75	0.02		0.02	17.75	0.65		0.65
5.00	0.02		0.02	18.00	0.60		0.60
5.25	0.02		0.02	18.25	0.55		0.55
5.50	0.02		0.02	18.50	0.51		0.51
5.75	0.03		0.03	18.75	0.48		0.48
6.00	0.04		0.04	19.00	0.44		0.44
6.25	0.04		0.04	19.25	0.40		0.40
6.50	0.05		0.05	19.50	0.37		0.37
6.75	0.06		0.06	19.75	0.35		0.35
7.00	0.08		0.08	20.00	0.33		0.33
7.25	0.09		0.09	20.25	0.31		0.31
7.50	0.10		0.10	20.50	0.30		0.30
7.75	0.11		0.11	20.75	0.29		0.29
8.00	0.12		0.12	21.00	0.29		0.29
8.25	0.13		0.13	21.25	0.29		0.29
8.50	0.14		0.14	21.50	0.29		0.29
8.75	0.15		0.15	21.75	0.29		0.29
9.00	0.15		0.15	22.00	0.27		0.27
9.25	0.16		0.16	22.25	0.25		0.25
9.50	0.17		0.17	22.50	0.23		0.23
9.75	0.18		0.18	22.75	0.21		0.21
10.00	0.19		0.19	23.00	0.20		0.20
10.25	0.21		0.21	23.25	0.22		0.22
10.50	0.23		0.23	23.50	0.24		0.24
10.75	0.24		0.24	23.75	0.26		0.26
11.00	0.26		0.26	24.00	0.28		0.28
11.25	0.28		0.28				
11.50	0.31		0.31				
11.75	0.33		0.33				
12.00	0.35		0.35				
12.25	0.37		0.37				
12.50	0.40		0.40				
12.75	0.42		0.42				

Summary for Reach 3-T: PR DA 3 TOTAL

Inflow Area = 22.220 ac, 2.93% Impervious, Inflow Depth > 1.61" for 2-year event
Inflow = 5.44 cfs @ 15.84 hrs, Volume= 2.979 af
Outflow = 5.44 cfs @ 15.84 hrs, Volume= 2.979 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 3-T: PR DA 3 TOTAL



Hydrograph for Reach 3-T: PR DA 3 TOTAL

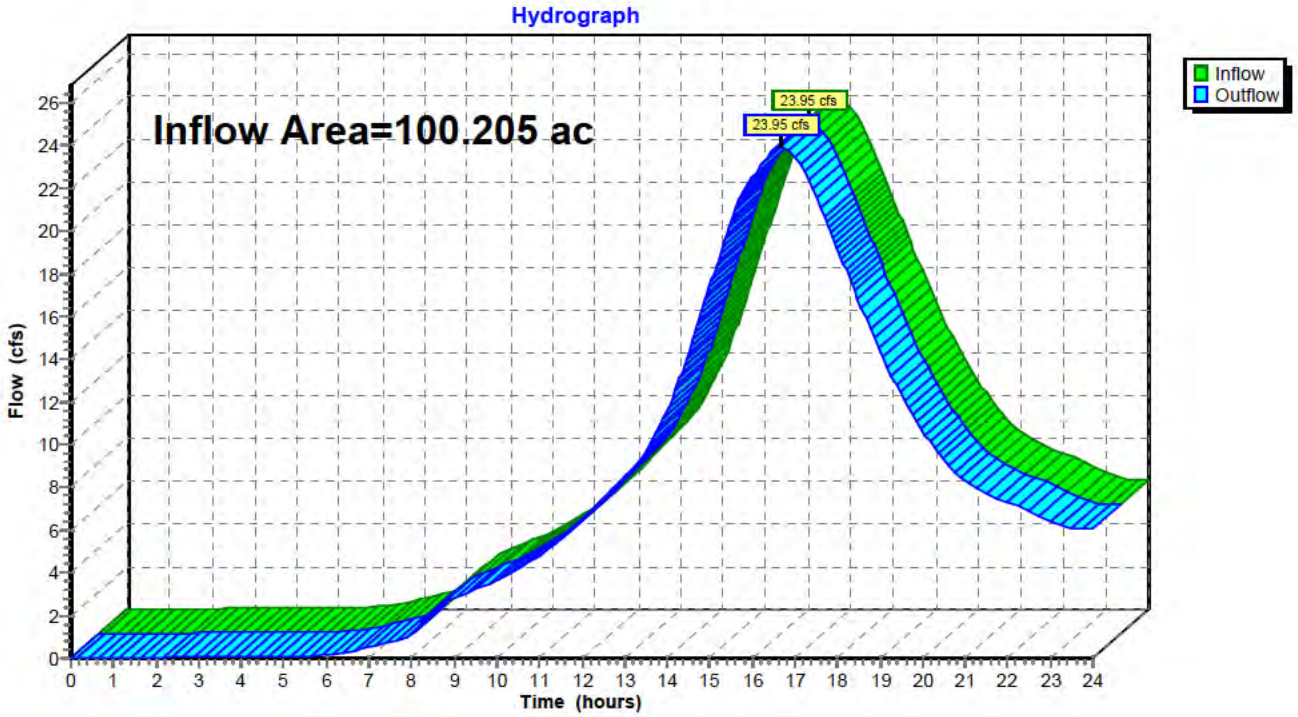
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	1.99		1.99
0.25	0.00		0.00	13.25	2.12		2.12
0.50	0.00		0.00	13.50	2.32		2.32
0.75	0.00		0.00	13.75	2.70		2.70
1.00	0.00		0.00	14.00	3.14		3.14
1.25	0.00		0.00	14.25	3.61		3.61
1.50	0.01		0.01	14.50	4.11		4.11
1.75	0.01		0.01	14.75	4.51		4.51
2.00	0.02		0.02	15.00	4.76		4.76
2.25	0.03		0.03	15.25	4.99		4.99
2.50	0.03		0.03	15.50	5.20		5.20
2.75	0.03		0.03	15.75	**5.41**		**5.41**
3.00	0.04		0.04	16.00	**5.37**		**5.37**
3.25	0.04		0.04	16.25	5.13		5.13
3.50	0.04		0.04	16.50	4.85		4.85
3.75	0.04		0.04	16.75	4.55		4.55
4.00	0.04		0.04	17.00	4.23		4.23
4.25	0.04		0.04	17.25	3.96		3.96
4.50	0.05		0.05	17.50	3.70		3.70
4.75	0.05		0.05	17.75	3.43		3.43
5.00	0.05		0.05	18.00	3.16		3.16
5.25	0.05		0.05	18.25	2.90		2.90
5.50	0.05		0.05	18.50	2.70		2.70
5.75	0.05		0.05	18.75	2.51		2.51
6.00	0.05		0.05	19.00	2.32		2.32
6.25	0.05		0.05	19.25	2.12		2.12
6.50	0.07		0.07	19.50	1.96		1.96
6.75	0.11		0.11	19.75	1.85		1.85
7.00	0.17		0.17	20.00	1.75		1.75
7.25	0.22		0.22	20.25	1.65		1.65
7.50	0.28		0.28	20.50	1.55		1.55
7.75	0.34		0.34	20.75	1.50		1.50
8.00	0.38		0.38	21.00	1.49		1.49
8.25	0.43		0.43	21.25	1.49		1.49
8.50	0.48		0.48	21.50	1.50		1.50
8.75	0.52		0.52	21.75	1.50		1.50
9.00	0.57		0.57	22.00	1.44		1.44
9.25	0.61		0.61	22.25	1.35		1.35
9.50	0.65		0.65	22.50	1.25		1.25
9.75	0.69		0.69	22.75	1.14		1.14
10.00	0.75		0.75	23.00	1.05		1.05
10.25	0.83		0.83	23.25	1.09		1.09
10.50	0.91		0.91	23.50	1.19		1.19
10.75	1.00		1.00	23.75	1.30		1.30
11.00	1.09		1.09	24.00	1.41		1.41
11.25	1.19		1.19				
11.50	1.29		1.29				
11.75	1.40		1.40				
12.00	1.51		1.51				
12.25	1.62		1.62				
12.50	1.74		1.74				
12.75	1.86		1.86				

Summary for Reach T: Total

Inflow Area = 100.205 ac, 1.37% Impervious, Inflow Depth > 1.71" for 2-year event
Inflow = 23.95 cfs @ 16.67 hrs, Volume= 14.287 af
Outflow = 23.95 cfs @ 16.67 hrs, Volume= 14.287 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach T: Total



Hydrograph for Reach T: Total

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	8.49		8.49
0.25	0.00		0.00	13.25	9.03		9.03
0.50	0.00		0.00	13.50	9.68		9.68
0.75	0.00		0.00	13.75	10.56		10.56
1.00	0.00		0.00	14.00	11.59		11.59
1.25	0.00		0.00	14.25	12.83		12.83
1.50	0.01		0.01	14.50	14.31		14.31
1.75	0.02		0.02	14.75	15.86		15.86
2.00	0.03		0.03	15.00	17.41		17.41
2.25	0.04		0.04	15.25	18.96		18.96
2.50	0.05		0.05	15.50	20.43		20.43
2.75	0.05		0.05	15.75	21.71		21.71
3.00	0.05		0.05	16.00	22.52		22.52
3.25	0.06		0.06	16.25	23.18		23.18
3.50	0.06		0.06	16.50	**23.81**		**23.81**
3.75	0.06		0.06	16.75	**23.92**		**23.92**
4.00	0.06		0.06	17.00	23.49		23.49
4.25	0.07		0.07	17.25	22.70		22.70
4.50	0.07		0.07	17.50	21.65		21.65
4.75	0.07		0.07	17.75	20.46		20.46
5.00	0.07		0.07	18.00	19.20		19.20
5.25	0.07		0.07	18.25	17.93		17.93
5.50	0.09		0.09	18.50	16.73		16.73
5.75	0.11		0.11	18.75	15.55		15.55
6.00	0.15		0.15	19.00	14.42		14.42
6.25	0.20		0.20	19.25	13.34		13.34
6.50	0.28		0.28	19.50	12.34		12.34
6.75	0.39		0.39	19.75	11.47		11.47
7.00	0.51		0.51	20.00	10.66		10.66
7.25	0.64		0.64	20.25	9.92		9.92
7.50	0.77		0.77	20.50	9.26		9.26
7.75	0.88		0.88	20.75	8.73		8.73
8.00	1.02		1.02	21.00	8.30		8.30
8.25	1.71		1.71	21.25	7.96		7.96
8.50	2.21		2.21	21.50	7.69		7.69
8.75	2.53		2.53	21.75	7.50		7.50
9.00	2.79		2.79	22.00	7.31		7.31
9.25	3.02		3.02	22.25	7.10		7.10
9.50	3.23		3.23	22.50	6.89		6.89
9.75	3.44		3.44	22.75	6.64		6.64
10.00	3.66		3.66	23.00	6.36		6.36
10.25	3.91		3.91	23.25	6.20		6.20
10.50	4.18		4.18	23.50	6.09		6.09
10.75	4.48		4.48	23.75	6.04		6.04
11.00	4.81		4.81	24.00	6.10		6.10
11.25	5.20		5.20				
11.50	5.61		5.61				
11.75	6.04		6.04				
12.00	6.50		6.50				
12.25	6.97		6.97				
12.50	7.46		7.46				
12.75	7.97		7.97				

Summary for Pond B1: Basin 1

Inflow Area = 11.702 ac, 0.00% Impervious, Inflow Depth > 1.41" for 2-year event
Inflow = 2.58 cfs @ 16.08 hrs, Volume= 1.378 af
Outflow = 2.10 cfs @ 17.21 hrs, Volume= 1.063 af, Atten= 19%, Lag= 67.4 min
Primary = 0.84 cfs @ 17.21 hrs, Volume= 0.786 af
Secondary = 1.25 cfs @ 17.21 hrs, Volume= 0.277 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 689.13' @ 17.21 hrs Surf.Area= 24,369 sf Storage= 17,821 cf

Plug-Flow detention time= 149.7 min calculated for 1.060 af (77% of inflow)
Center-of-Mass det. time= 70.3 min (1,076.6 - 1,006.3)

Volume	Invert	Avail.Storage	Storage Description
#1	687.60'	47,069 cf	**Storage (Prismatic)**Listed below (Recalc)

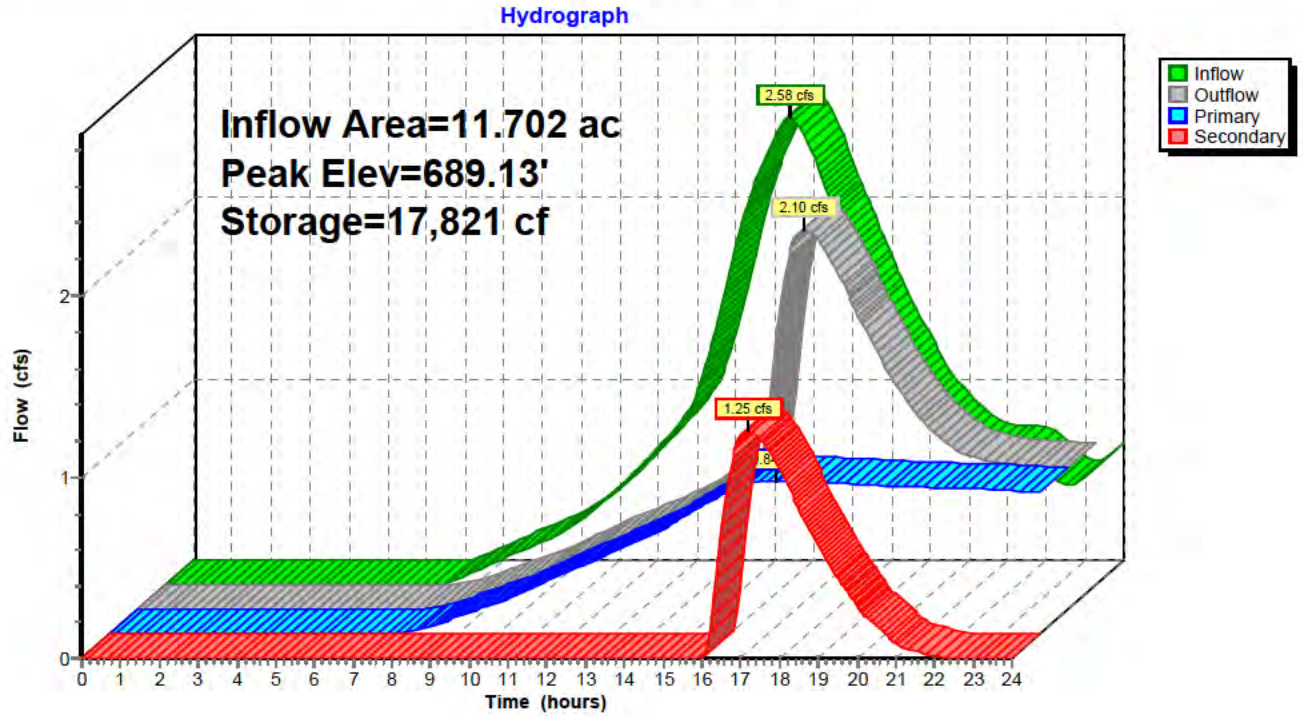
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
687.60	29	0	0
688.00	5,769	1,160	1,160
689.00	21,757	13,763	14,923
690.00	42,536	32,147	47,069

Device	Routing	Invert	Outlet Devices
#1	Primary	687.60'	**6.0" Round 6" PVC Pipe** L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 687.60' / 685.09' S= 0.0418 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Secondary	689.00'	**11.0' long x 11.5' breadth Emergency Overflow** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.55 2.60 2.70 2.67 2.67 2.67 2.66 2.64

Primary OutFlow Max=0.84 cfs @ 17.21 hrs HW=689.13' (Free Discharge)
↑—**1=6" PVC Pipe** (Inlet Controls 0.84 cfs @ 4.29 fps)

Secondary OutFlow Max=1.25 cfs @ 17.21 hrs HW=689.13' (Free Discharge)
↑—**2=Emergency Overflow** (Weir Controls 1.25 cfs @ 0.90 fps)

Pond B1: Basin 1



Hydrograph for Pond B1: Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	687.60	0.00	0.00	0.00
0.50	0.00	0	687.60	0.00	0.00	0.00
1.00	0.00	0	687.60	0.00	0.00	0.00
1.50	0.00	0	687.60	0.00	0.00	0.00
2.00	0.00	0	687.60	0.00	0.00	0.00
2.50	0.00	0	687.60	0.00	0.00	0.00
3.00	0.00	0	687.60	0.00	0.00	0.00
3.50	0.00	0	687.60	0.00	0.00	0.00
4.00	0.00	0	687.60	0.00	0.00	0.00
4.50	0.00	0	687.60	0.00	0.00	0.00
5.00	0.00	0	687.60	0.00	0.00	0.00
5.50	0.00	0	687.60	0.00	0.00	0.00
6.00	0.00	0	687.60	0.00	0.00	0.00
6.50	0.00	0	687.60	0.00	0.00	0.00
7.00	0.00	0	687.60	0.00	0.00	0.00
7.50	0.02	13	687.64	0.00	0.00	0.00
8.00	0.07	77	687.70	0.02	0.02	0.00
8.50	0.12	182	687.76	0.06	0.06	0.00
9.00	0.17	313	687.81	0.09	0.09	0.00
9.50	0.22	458	687.85	0.13	0.13	0.00
10.00	0.26	612	687.89	0.17	0.17	0.00
10.50	0.33	792	687.93	0.21	0.21	0.00
11.00	0.41	1,023	687.98	0.26	0.26	0.00
11.50	0.50	1,318	688.03	0.31	0.31	0.00
12.00	0.60	1,694	688.08	0.36	0.36	0.00
12.50	0.71	2,178	688.15	0.41	0.41	0.00
13.00	0.83	2,787	688.22	0.45	0.45	0.00
13.50	0.96	3,538	688.29	0.50	0.50	0.00
14.00	1.25	4,560	688.38	0.55	0.55	0.00
14.50	1.68	6,153	688.51	0.61	0.61	0.00
15.00	2.10	8,436	688.66	0.67	0.67	0.00
15.50	2.37	11,205	688.82	0.73	0.73	0.00
16.00	**2.57**	14,302	688.97	0.79	0.79	0.00
16.50	**2.47**	16,919	689.09	1.56	0.83	0.73
17.00	2.21	**17,771**	**689.12**	**2.07**	**0.84**	**1.22**
17.50	1.94	**17,756**	**689.12**	**2.06**	**0.84**	**1.21**
18.00	1.69	17,473	689.11	1.88	0.84	1.04
18.50	1.44	17,091	689.10	1.66	0.83	0.83
19.00	1.24	16,704	689.08	1.45	0.83	0.63
19.50	1.06	16,328	689.06	1.26	0.82	0.44
20.00	0.92	15,966	689.05	1.11	0.82	0.29
20.50	0.82	15,656	689.03	0.99	0.81	0.18
21.00	0.75	15,369	689.02	0.89	0.81	0.09
21.50	0.74	15,160	689.01	0.84	0.80	0.04
22.00	0.74	15,008	689.00	0.82	0.80	0.01
22.50	0.67	14,836	689.00	0.80	0.80	0.00
23.00	0.57	14,519	688.98	0.79	0.79	0.00
23.50	0.56	14,088	688.96	0.79	0.79	0.00
24.00	0.65	13,763	688.95	0.78	0.78	0.00

Summary for Pond B2: Basin 2

Inflow Area = 62.154 ac, 0.50% Impervious, Inflow Depth > 1.88" for 2-year event
Inflow = 16.64 cfs @ 16.57 hrs, Volume= 9.755 af
Outflow = 16.59 cfs @ 16.73 hrs, Volume= 9.618 af, Atten= 0%, Lag= 9.6 min
Primary = 0.70 cfs @ 16.73 hrs, Volume= 0.840 af
Secondary = 15.90 cfs @ 16.73 hrs, Volume= 8.778 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 689.48' @ 16.73 hrs Surf.Area= 23,712 sf Storage= 12,232 cf

Plug-Flow detention time= 18.0 min calculated for 9.598 af (98% of inflow)
Center-of-Mass det. time= 11.9 min (1,007.8 - 995.9)

Volume	Invert	Avail.Storage	Storage Description
#1	688.36'	77,771 cf	**Storage (Prismatic)**Listed below (Recalc)

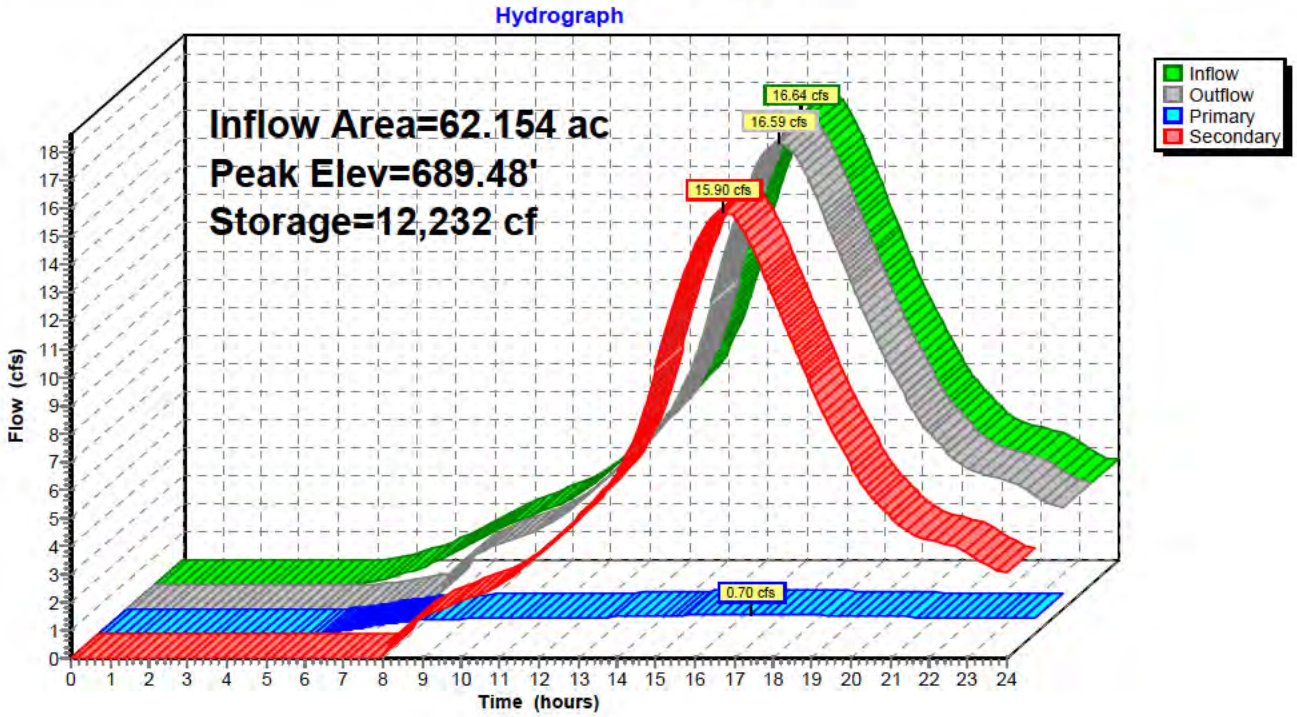
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
688.36	42	0	0
689.00	11,522	3,700	3,700
690.00	36,691	24,107	27,807
691.00	63,237	49,964	77,771

Device	Routing	Invert	Outlet Devices
#1	Primary	688.36'	**6.0" Round 6" PVC Pipe** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 688.36' / 685.05' S= 0.0662 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Secondary	689.00'	**18.0' long x 10.0' breadth Emergency Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.70 cfs @ 16.73 hrs HW=689.48' (Free Discharge)
↑—**1=6" PVC Pipe** (Inlet Controls 0.70 cfs @ 3.55 fps)

Secondary OutFlow Max=15.89 cfs @ 16.73 hrs HW=689.48' (Free Discharge)
↑—**2=Emergency Spillway** (Weir Controls 15.89 cfs @ 1.82 fps)

Pond B2: Basin 2



Hydrograph for Pond B2: Basin 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	688.36	0.00	0.00	0.00
0.50	0.00	0	688.36	0.00	0.00	0.00
1.00	0.00	0	688.36	0.00	0.00	0.00
1.50	0.00	0	688.36	0.00	0.00	0.00
2.00	0.00	0	688.36	0.00	0.00	0.00
2.50	0.00	0	688.36	0.00	0.00	0.00
3.00	0.00	0	688.36	0.00	0.00	0.00
3.50	0.00	0	688.36	0.00	0.00	0.00
4.00	0.00	0	688.36	0.00	0.00	0.00
4.50	0.00	0	688.36	0.00	0.00	0.00
5.00	0.01	2	688.37	0.00	0.00	0.00
5.50	0.08	52	688.43	0.01	0.01	0.00
6.00	0.24	264	688.53	0.06	0.06	0.00
6.50	0.46	694	688.64	0.16	0.16	0.00
7.00	0.71	1,349	688.75	0.27	0.27	0.00
7.50	1.03	2,311	688.87	0.38	0.38	0.00
8.00	1.41	3,740	689.00	0.49	0.47	0.02
8.50	1.78	4,705	689.08	1.53	0.51	1.02
9.00	2.10	5,000	689.10	1.98	0.52	1.45
9.50	2.38	5,193	689.11	2.28	0.53	1.75
10.00	2.64	5,359	689.13	2.55	0.54	2.02
10.50	2.93	5,521	689.14	2.83	0.54	2.29
11.00	3.34	5,737	689.15	3.20	0.55	2.65
11.50	3.86	6,018	689.17	3.69	0.56	3.14
12.00	4.46	6,340	689.19	4.28	0.57	3.71
12.50	5.11	6,685	689.21	4.92	0.58	4.34
13.00	5.80	7,043	689.23	5.60	0.59	5.02
13.50	6.54	7,413	689.25	6.33	0.60	5.73
14.00	7.49	7,848	689.28	7.20	0.61	6.59
14.50	9.21	8,582	689.32	8.69	0.63	8.06
15.00	11.64	9,683	689.37	10.97	0.65	10.32
15.50	13.97	10,817	689.42	13.41	0.67	12.74
16.00	15.69	11,660	689.46	15.29	0.69	14.61
16.50	**16.60**	**12,173**	**689.48**	**16.45**	**0.70**	**15.76**
17.00	**16.19**	**12,141**	**689.48**	**16.38**	**0.70**	**15.68**
17.50	14.81	11,615	689.46	15.19	0.69	14.51
18.00	13.13	10,882	689.43	13.56	0.67	12.88
18.50	11.42	10,102	689.39	11.85	0.66	11.20
19.00	9.80	9,319	689.35	10.21	0.64	9.57
19.50	8.38	8,612	689.32	8.75	0.63	8.12
20.00	7.15	7,983	689.28	7.47	0.61	6.85
20.50	6.17	7,461	689.26	6.42	0.60	5.82
21.00	5.43	7,054	689.23	5.63	0.59	5.04
21.50	4.94	6,760	689.21	5.06	0.58	4.48
22.00	4.72	6,610	689.21	4.77	0.58	4.20
22.50	4.55	6,522	689.20	4.61	0.57	4.04
23.00	4.19	6,359	689.19	4.31	0.57	3.74
23.50	3.74	6,115	689.18	3.87	0.56	3.31
24.00	3.63	5,981	689.17	3.63	0.56	3.07

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1-D: PR DA 1 Runoff Area=0.323 ac 100.00% Impervious Runoff Depth>8.30"
Flow Length=459' Tc=9.8 min CN=98 Runoff=0.30 cfs 0.223 af

Subcatchment1-U: PR DA 1 Runoff Area=3.806 ac 2.26% Impervious Runoff Depth>6.50"
Flow Length=459' Tc=9.8 min CN=83 Runoff=3.30 cfs 2.061 af

Subcatchment2-U: PR DA 2 Runoff Area=62.154 ac 0.50% Impervious Runoff Depth>6.67"
Flow Length=3,331' Tc=78.0 min CN=86 Runoff=52.41 cfs 34.569 af

Subcatchment3-D: PR DA 3 Runoff Area=0.651 ac 100.00% Impervious Runoff Depth>8.28"
Flow Length=1,305' Tc=17.6 min CN=98 Runoff=0.61 cfs 0.449 af

Subcatchment3-U: PR DA 3 Runoff Area=21.569 ac 0.00% Impervious Runoff Depth>6.23"
Flow Length=1,305' Tc=17.6 min CN=81 Runoff=18.22 cfs 11.204 af

Subcatchment4-U: PR DA 4 Runoff Area=11.702 ac 0.00% Impervious Runoff Depth>5.95"
Flow Length=1,661' Tc=33.8 min CN=79 Runoff=9.54 cfs 5.800 af

Reach 1-T: PR DA 1 TOTAL Inflow=3.60 cfs 2.284 af
Outflow=3.60 cfs 2.284 af

Reach 3-T: PR DA 3 TOTAL Inflow=18.83 cfs 11.653 af
Outflow=18.83 cfs 11.653 af

Reach T: Total Inflow=81.19 cfs 53.688 af
Outflow=81.19 cfs 53.688 af

Pond B1: Basin 1 Peak Elev=689.44' Storage=26,555 cf Inflow=9.54 cfs 5.800 af
Primary=0.94 cfs 1.261 af Secondary=8.46 cfs 4.137 af Outflow=9.40 cfs 5.398 af

Pond B2: Basin 2 Peak Elev=690.04' Storage=29,378 cf Inflow=52.41 cfs 34.569 af
Primary=0.89 cfs 1.196 af Secondary=51.37 cfs 33.157 af Outflow=52.26 cfs 34.353 af

Total Runoff Area = 100.205 ac Runoff Volume = 54.306 af Average Runoff Depth = 6.50"
98.63% Pervious = 98.832 ac 1.37% Impervious = 1.373 ac

Summary for Subcatchment 1-D: PR DA 1

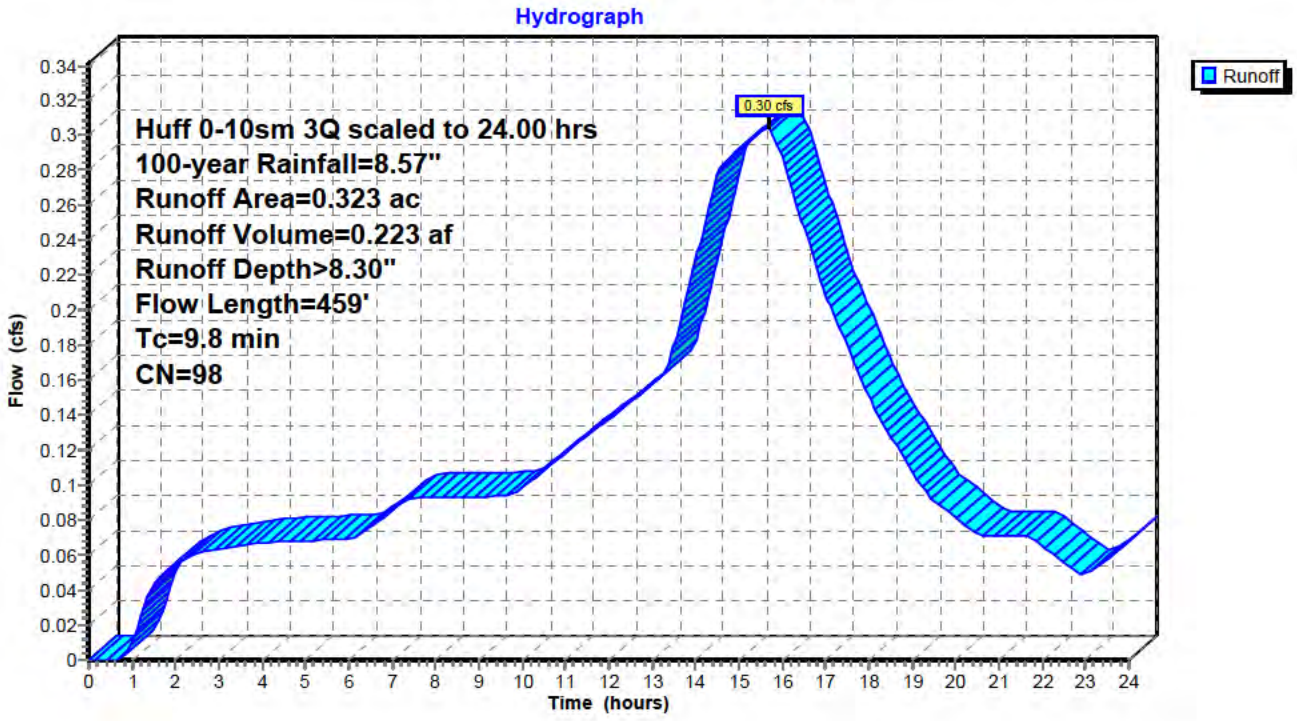
Runoff = 0.30 cfs @ 15.69 hrs, Volume= 0.223 af, Depth> 8.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
*	0.323	98	Impervious Area
	0.323		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.9	171	0.0290	1.53		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
0.2	16	0.0380	1.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	172	0.0122	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	459	Total			

Subcatchment 1-D: PR DA 1



Hydrograph for Subcatchment 1-D: PR DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.51	3.28	0.16
0.25	0.01	0.00	0.00	13.25	3.64	3.40	0.16
0.50	0.02	0.00	0.00	13.50	3.78	3.54	0.18
0.75	0.05	0.00	0.00	13.75	3.94	3.70	0.20
1.00	0.09	0.01	0.01	14.00	4.11	3.88	0.23
1.25	0.14	0.03	0.03	14.25	4.31	4.07	0.25
1.50	0.20	0.07	0.04	14.50	4.52	4.29	0.28
1.75	0.25	0.11	0.05	14.75	4.75	4.51	0.29
2.00	0.30	0.15	0.06	15.00	4.97	4.73	0.29
2.25	0.36	0.19	0.06	15.25	5.20	4.96	0.30
2.50	0.41	0.24	0.06	15.50	5.43	5.19	**0.30**
2.75	0.47	0.29	0.06	15.75	5.66	5.43	**0.30**
3.00	0.52	0.34	0.06	16.00	5.88	5.64	0.29
3.25	0.58	0.39	0.06	16.25	6.09	5.85	0.27
3.50	0.63	0.44	0.07	16.50	6.28	6.04	0.25
3.75	0.69	0.49	0.07	16.75	6.45	6.21	0.23
4.00	0.74	0.54	0.07	17.00	6.61	6.37	0.21
4.25	0.79	0.59	0.07	17.25	6.76	6.52	0.19
4.50	0.85	0.64	0.07	17.50	6.89	6.66	0.18
4.75	0.90	0.70	0.07	17.75	7.02	6.78	0.17
5.00	0.96	0.75	0.07	18.00	7.13	6.90	0.15
5.25	1.01	0.80	0.07	18.25	7.24	7.00	0.14
5.50	1.07	0.85	0.07	18.50	7.34	7.10	0.13
5.75	1.12	0.91	0.07	18.75	7.43	7.19	0.12
6.00	1.17	0.96	0.07	19.00	7.51	7.27	0.11
6.25	1.23	1.02	0.07	19.25	7.58	7.34	0.10
6.50	1.29	1.07	0.08	19.50	7.65	7.41	0.09
6.75	1.35	1.14	0.08	19.75	7.72	7.48	0.09
7.00	1.42	1.20	0.09	20.00	7.78	7.54	0.08
7.25	1.49	1.27	0.09	20.25	7.84	7.60	0.08
7.50	1.57	1.35	0.09	20.50	7.90	7.66	0.07
7.75	1.64	1.42	0.09	20.75	7.95	7.71	0.07
8.00	1.71	1.49	0.09	21.00	8.00	7.76	0.07
8.25	1.78	1.56	0.09	21.25	8.06	7.82	0.07
8.50	1.86	1.63	0.09	21.50	8.11	7.87	0.07
8.75	1.93	1.70	0.09	21.75	8.17	7.93	0.07
9.00	2.00	1.78	0.09	22.00	8.22	7.98	0.07
9.25	2.07	1.85	0.09	22.25	8.26	8.02	0.06
9.50	2.15	1.92	0.09	22.50	8.31	8.07	0.06
9.75	2.22	1.99	0.09	22.75	8.35	8.11	0.05
10.00	2.30	2.07	0.10	23.00	8.38	8.14	0.05
10.25	2.38	2.15	0.10	23.25	8.42	8.18	0.05
10.50	2.46	2.23	0.11	23.50	8.47	8.23	0.06
10.75	2.55	2.32	0.11	23.75	8.52	8.28	0.06
11.00	2.64	2.41	0.12	24.00	**8.57**	**8.33**	0.07
11.25	2.74	2.51	0.12				
11.50	2.84	2.60	0.13				
11.75	2.94	2.71	0.13				
12.00	3.05	2.81	0.14				
12.25	3.16	2.92	0.14				
12.50	3.27	3.04	0.15				
12.75	3.39	3.16	0.15				

Summary for Subcatchment 1-U: PR DA 1

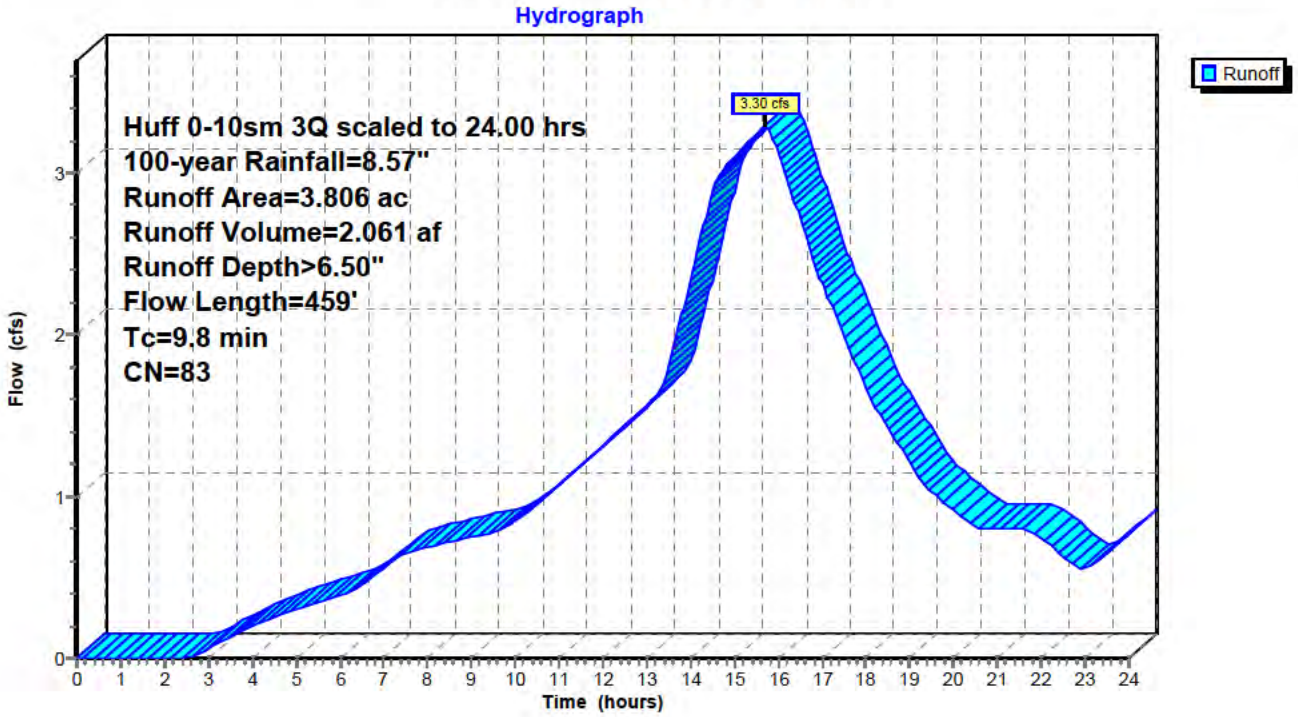
Runoff = 3.30 cfs @ 15.70 hrs, Volume= 2.061 af, Depth> 6.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
	0.000	89	Row crops, straight row, Good, HSG D
	0.753	89	Row crops, straight row, Good, HSG D
	0.711	80	Pasture/grassland/range, Good, HSG D
	1.342	85	Row crops, straight row, Good, HSG C
	0.914	74	Pasture/grassland/range, Good, HSG C
*	0.086	98	Impervious Area
	3.806	83	Weighted Average
	3.720		97.74% Pervious Area
	0.086		2.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.0	100	0.0282	0.42		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.9	171	0.0290	1.53		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
0.2	16	0.0380	1.36		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
3.7	172	0.0122	0.77		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
9.8	459	Total			

Subcatchment 1-U: PR DA 1



Hydrograph for Subcatchment 1-U: PR DA 1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.51	1.87	1.56
0.25	0.01	0.00	0.00	13.25	3.64	1.97	1.63
0.50	0.02	0.00	0.00	13.50	3.78	2.09	1.81
0.75	0.05	0.00	0.00	13.75	3.94	2.23	2.07
1.00	0.09	0.00	0.00	14.00	4.11	2.38	2.34
1.25	0.14	0.00	0.00	14.25	4.31	2.56	2.62
1.50	0.20	0.00	0.00	14.50	4.52	2.75	2.90
1.75	0.25	0.00	0.00	14.75	4.75	2.94	3.02
2.00	0.30	0.00	0.00	15.00	4.97	3.15	3.10
2.25	0.36	0.00	0.00	15.25	5.20	3.35	3.17
2.50	0.41	0.00	0.00	15.50	5.43	3.57	**3.25**
2.75	0.47	0.00	0.02	15.75	5.66	3.78	**3.29**
3.00	0.52	0.01	0.06	16.00	5.88	3.98	3.13
3.25	0.58	0.01	0.10	16.25	6.09	4.17	2.93
3.50	0.63	0.02	0.13	16.50	6.28	4.35	2.72
3.75	0.69	0.03	0.17	16.75	6.45	4.51	2.51
4.00	0.74	0.05	0.20	17.00	6.61	4.66	2.32
4.25	0.79	0.06	0.23	17.25	6.76	4.80	2.16
4.50	0.85	0.08	0.25	17.50	6.89	4.93	2.00
4.75	0.90	0.10	0.28	17.75	7.02	5.05	1.84
5.00	0.96	0.12	0.30	18.00	7.13	5.15	1.68
5.25	1.01	0.14	0.32	18.25	7.24	5.25	1.54
5.50	1.07	0.16	0.34	18.50	7.34	5.35	1.43
5.75	1.12	0.18	0.36	18.75	7.43	5.43	1.32
6.00	1.17	0.21	0.38	19.00	7.51	5.51	1.21
6.25	1.23	0.24	0.41	19.25	7.58	5.58	1.10
6.50	1.29	0.27	0.46	19.50	7.65	5.65	1.03
6.75	1.35	0.30	0.51	19.75	7.72	5.71	0.97
7.00	1.42	0.34	0.56	20.00	7.78	5.77	0.92
7.25	1.49	0.38	0.61	20.25	7.84	5.83	0.86
7.50	1.57	0.42	0.65	20.50	7.90	5.88	0.81
7.75	1.64	0.46	0.67	20.75	7.95	5.93	0.80
8.00	1.71	0.51	0.69	21.00	8.00	5.98	0.80
8.25	1.78	0.55	0.70	21.25	8.06	6.03	0.80
8.50	1.86	0.60	0.72	21.50	8.11	6.09	0.80
8.75	1.93	0.65	0.74	21.75	8.17	6.14	0.79
9.00	2.00	0.70	0.75	22.00	8.22	6.18	0.74
9.25	2.07	0.75	0.77	22.25	8.26	6.23	0.69
9.50	2.15	0.80	0.78	22.50	8.31	6.27	0.63
9.75	2.22	0.85	0.80	22.75	8.35	6.31	0.58
10.00	2.30	0.90	0.85	23.00	8.38	6.34	0.55
10.25	2.38	0.96	0.90	23.25	8.42	6.38	0.60
10.50	2.46	1.03	0.96	23.50	8.47	6.43	0.66
10.75	2.55	1.09	1.01	23.75	8.52	6.47	0.71
11.00	2.64	1.16	1.07	24.00	**8.57**	**6.52**	0.77
11.25	2.74	1.24	1.13				
11.50	2.84	1.32	1.19				
11.75	2.94	1.40	1.25				
12.00	3.05	1.48	1.31				
12.25	3.16	1.57	1.37				
12.50	3.27	1.67	1.44				
12.75	3.39	1.77	1.50				

Summary for Subcatchment 2-U: PR DA 2

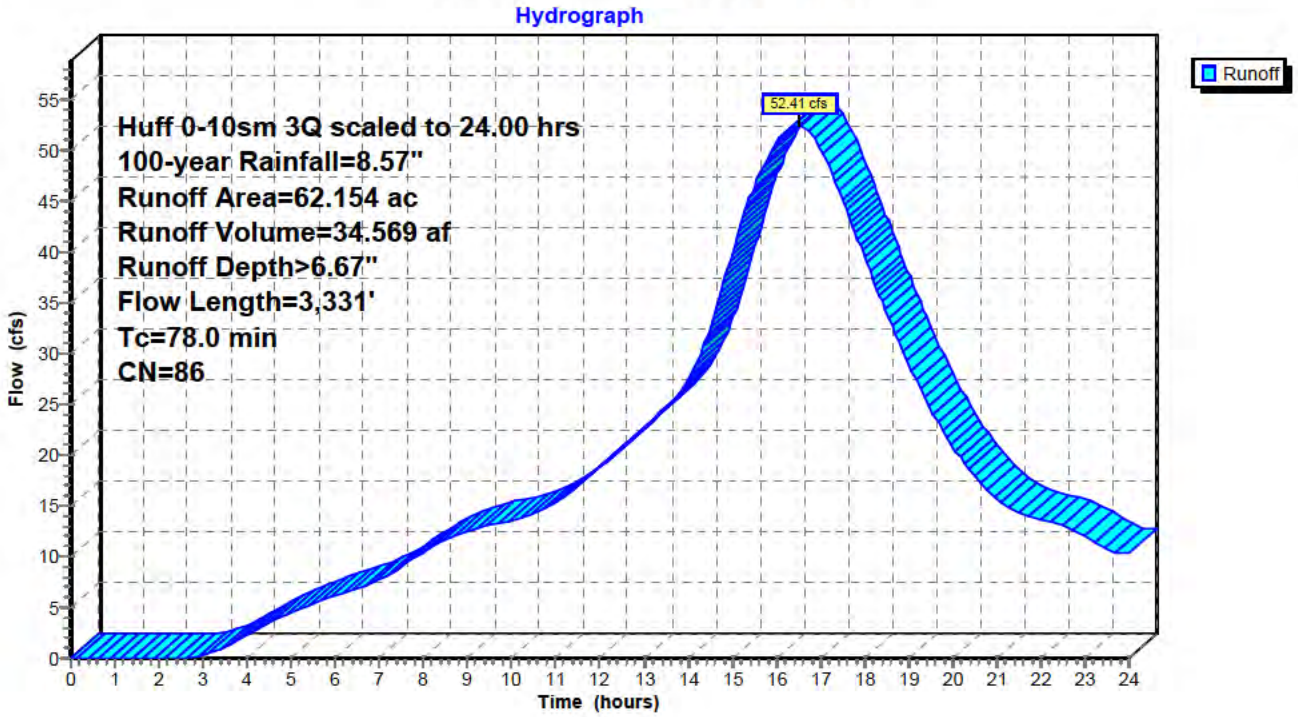
Runoff = 52.41 cfs @ 16.53 hrs, Volume= 34.569 af, Depth> 6.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
	11.052	89	Row crops, straight row, Good, HSG D
	2.151	80	Pasture/grassland/range, Good, HSG D
	0.061	89	Row crops, straight row, Good, HSG D
	10.906	89	Row crops, straight row, Good, HSG D
	8.457	80	Pasture/grassland/range, Good, HSG D
	9.982	89	Row crops, straight row, Good, HSG D
	0.038	80	Pasture/grassland/range, Good, HSG D
	14.843	85	Row crops, straight row, Good, HSG C
	2.519	74	Pasture/grassland/range, Good, HSG C
	0.830	85	Row crops, straight row, Good, HSG C
	1.002	74	Pasture/grassland/range, Good, HSG C
*	0.313	98	Impervious Area
	62.154	86	Weighted Average
	61.841		99.50% Pervious Area
	0.313		0.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.4	100	0.0421	0.49		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
1.5	141	0.0306	1.57		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
42.0	1,988	0.0077	0.79		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
31.1	1,102	0.0071	0.59		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
78.0	3,331	Total			

Subcatchment 2-U: PR DA 2



Hydrograph for Subcatchment 2-U: PR DA 2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.51	2.11	22.63
0.25	0.01	0.00	0.00	13.25	3.64	2.22	23.65
0.50	0.02	0.00	0.00	13.50	3.78	2.34	24.64
0.75	0.05	0.00	0.00	13.75	3.94	2.49	25.81
1.00	0.09	0.00	0.00	14.00	4.11	2.65	27.34
1.25	0.14	0.00	0.00	14.25	4.31	2.83	29.57
1.50	0.20	0.00	0.00	14.50	4.52	3.03	32.52
1.75	0.25	0.00	0.00	14.75	4.75	3.23	36.02
2.00	0.30	0.00	0.00	15.00	4.97	3.44	39.82
2.25	0.36	0.00	0.00	15.25	5.20	3.65	43.33
2.50	0.41	0.00	0.01	15.50	5.43	3.87	46.39
2.75	0.47	0.01	0.08	15.75	5.66	4.09	48.76
3.00	0.52	0.02	0.27	16.00	5.88	4.30	50.68
3.25	0.58	0.03	0.63	16.25	6.09	4.49	51.98
3.50	0.63	0.05	1.12	16.50	6.28	4.67	**52.39**
3.75	0.69	0.07	1.69	16.75	6.45	4.84	**51.78**
4.00	0.74	0.08	2.28	17.00	6.61	4.99	50.13
4.25	0.79	0.10	2.87	17.25	6.76	5.13	47.87
4.50	0.85	0.13	3.43	17.50	6.89	5.26	45.13
4.75	0.90	0.15	3.97	17.75	7.02	5.38	42.35
5.00	0.96	0.18	4.48	18.00	7.13	5.50	39.50
5.25	1.01	0.20	4.95	18.25	7.24	5.60	36.73
5.50	1.07	0.23	5.39	18.50	7.34	5.69	34.01
5.75	1.12	0.26	5.80	18.75	7.43	5.78	31.37
6.00	1.17	0.29	6.19	19.00	7.51	5.86	28.95
6.25	1.23	0.32	6.54	19.25	7.58	5.93	26.67
6.50	1.29	0.36	6.89	19.50	7.65	6.00	24.61
6.75	1.35	0.40	7.26	19.75	7.72	6.06	22.63
7.00	1.42	0.44	7.74	20.00	7.78	6.12	20.87
7.25	1.49	0.49	8.32	20.25	7.84	6.18	19.29
7.50	1.57	0.54	9.01	20.50	7.90	6.23	17.94
7.75	1.64	0.59	9.75	20.75	7.95	6.28	16.76
8.00	1.71	0.64	10.48	21.00	8.00	6.34	15.72
8.25	1.78	0.69	11.13	21.25	8.06	6.39	14.89
8.50	1.86	0.74	11.66	21.50	8.11	6.44	14.26
8.75	1.93	0.80	12.11	21.75	8.17	6.49	13.87
9.00	2.00	0.85	12.46	22.00	8.22	6.54	13.60
9.25	2.07	0.91	12.79	22.25	8.26	6.59	13.39
9.50	2.15	0.96	13.06	22.50	8.31	6.63	13.08
9.75	2.22	1.02	13.31	22.75	8.35	6.67	12.62
10.00	2.30	1.08	13.55	23.00	8.38	6.70	12.02
10.25	2.38	1.14	13.81	23.25	8.42	6.74	11.32
10.50	2.46	1.21	14.19	23.50	8.47	6.79	10.71
10.75	2.55	1.28	14.68	23.75	8.52	6.83	10.34
11.00	2.64	1.36	15.36	24.00	**8.57**	**6.88**	10.36
11.25	2.74	1.44	16.11				
11.50	2.84	1.52	16.96				
11.75	2.94	1.61	17.84				
12.00	3.05	1.70	18.76				
12.25	3.16	1.80	19.71				
12.50	3.27	1.90	20.67				
12.75	3.39	2.00	21.66				

Summary for Subcatchment 3-D: PR DA 3

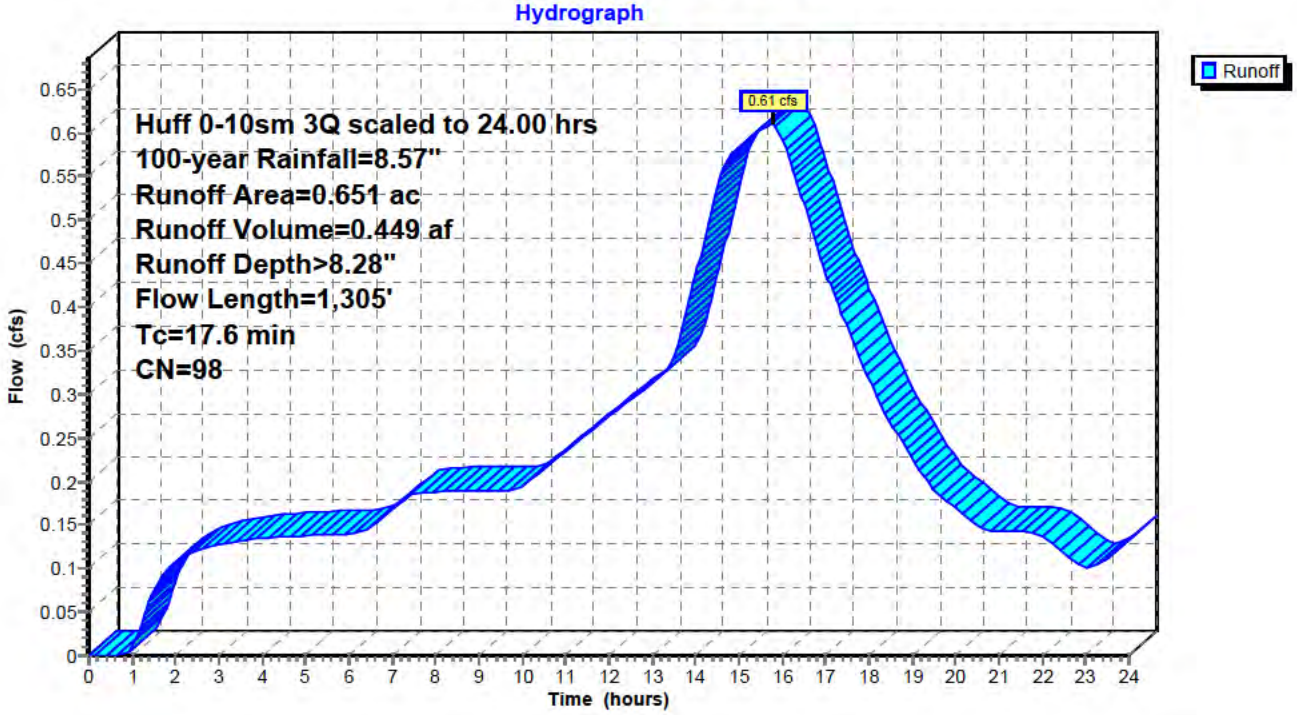
Runoff = 0.61 cfs @ 15.77 hrs, Volume= 0.449 af, Depth> 8.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

	Area (ac)	CN	Description
*	0.651	98	Impervious Area
	0.651		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0081	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
0.6	37	0.0151	1.11		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.8	758	0.0141	7.10	71.03	**Channel Flow,** Area= 10.0 sf Perim= 12.0' r= 0.83' n= 0.022 Earth, clean & straight
0.3	38	0.0146	2.45		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	372	0.0113	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.6	1,305	Total			

Subcatchment 3-D: PR DA 3



Hydrograph for Subcatchment 3-D: PR DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.51	3.28	0.31
0.25	0.01	0.00	0.00	13.25	3.64	3.40	0.32
0.50	0.02	0.00	0.00	13.50	3.78	3.54	0.34
0.75	0.05	0.00	0.00	13.75	3.94	3.70	0.39
1.00	0.09	0.01	0.01	14.00	4.11	3.88	0.44
1.25	0.14	0.03	0.04	14.25	4.31	4.07	0.49
1.50	0.20	0.07	0.07	14.50	4.52	4.29	0.54
1.75	0.25	0.11	0.09	14.75	4.75	4.51	0.57
2.00	0.30	0.15	0.11	15.00	4.97	4.73	0.58
2.25	0.36	0.19	0.11	15.25	5.20	4.96	0.59
2.50	0.41	0.24	0.12	15.50	5.43	5.19	0.60
2.75	0.47	0.29	0.12	15.75	5.66	5.43	**0.61**
3.00	0.52	0.34	0.13	16.00	5.88	5.64	0.59
3.25	0.58	0.39	0.13	16.25	6.09	5.85	0.56
3.50	0.63	0.44	0.13	16.50	6.28	6.04	0.52
3.75	0.69	0.49	0.13	16.75	6.45	6.21	0.48
4.00	0.74	0.54	0.13	17.00	6.61	6.37	0.44
4.25	0.79	0.59	0.14	17.25	6.76	6.52	0.41
4.50	0.85	0.64	0.14	17.50	6.89	6.66	0.38
4.75	0.90	0.70	0.14	17.75	7.02	6.78	0.35
5.00	0.96	0.75	0.14	18.00	7.13	6.90	0.32
5.25	1.01	0.80	0.14	18.25	7.24	7.00	0.29
5.50	1.07	0.85	0.14	18.50	7.34	7.10	0.27
5.75	1.12	0.91	0.14	18.75	7.43	7.19	0.25
6.00	1.17	0.96	0.14	19.00	7.51	7.27	0.23
6.25	1.23	1.02	0.14	19.25	7.58	7.34	0.21
6.50	1.29	1.07	0.15	19.50	7.65	7.41	0.19
6.75	1.35	1.14	0.16	19.75	7.72	7.48	0.18
7.00	1.42	1.20	0.17	20.00	7.78	7.54	0.17
7.25	1.49	1.27	0.18	20.25	7.84	7.60	0.16
7.50	1.57	1.35	0.19	20.50	7.90	7.66	0.15
7.75	1.64	1.42	0.19	20.75	7.95	7.71	0.14
8.00	1.71	1.49	0.19	21.00	8.00	7.76	0.14
8.25	1.78	1.56	0.19	21.25	8.06	7.82	0.14
8.50	1.86	1.63	0.19	21.50	8.11	7.87	0.14
8.75	1.93	1.70	0.19	21.75	8.17	7.93	0.14
9.00	2.00	1.78	0.19	22.00	8.22	7.98	0.14
9.25	2.07	1.85	0.19	22.25	8.26	8.02	0.13
9.50	2.15	1.92	0.19	22.50	8.31	8.07	0.12
9.75	2.22	1.99	0.19	22.75	8.35	8.11	0.11
10.00	2.30	2.07	0.19	23.00	8.38	8.14	0.10
10.25	2.38	2.15	0.20	23.25	8.42	8.18	0.10
10.50	2.46	2.23	0.21	23.50	8.47	8.23	0.11
10.75	2.55	2.32	0.22	23.75	8.52	8.28	0.12
11.00	2.64	2.41	0.23	24.00	**8.57**	**8.33**	0.13
11.25	2.74	2.51	0.24				
11.50	2.84	2.60	0.25				
11.75	2.94	2.71	0.26				
12.00	3.05	2.81	0.27				
12.25	3.16	2.92	0.28				
12.50	3.27	3.04	0.29				
12.75	3.39	3.16	0.30				

Summary for Subcatchment 3-U: PR DA 3

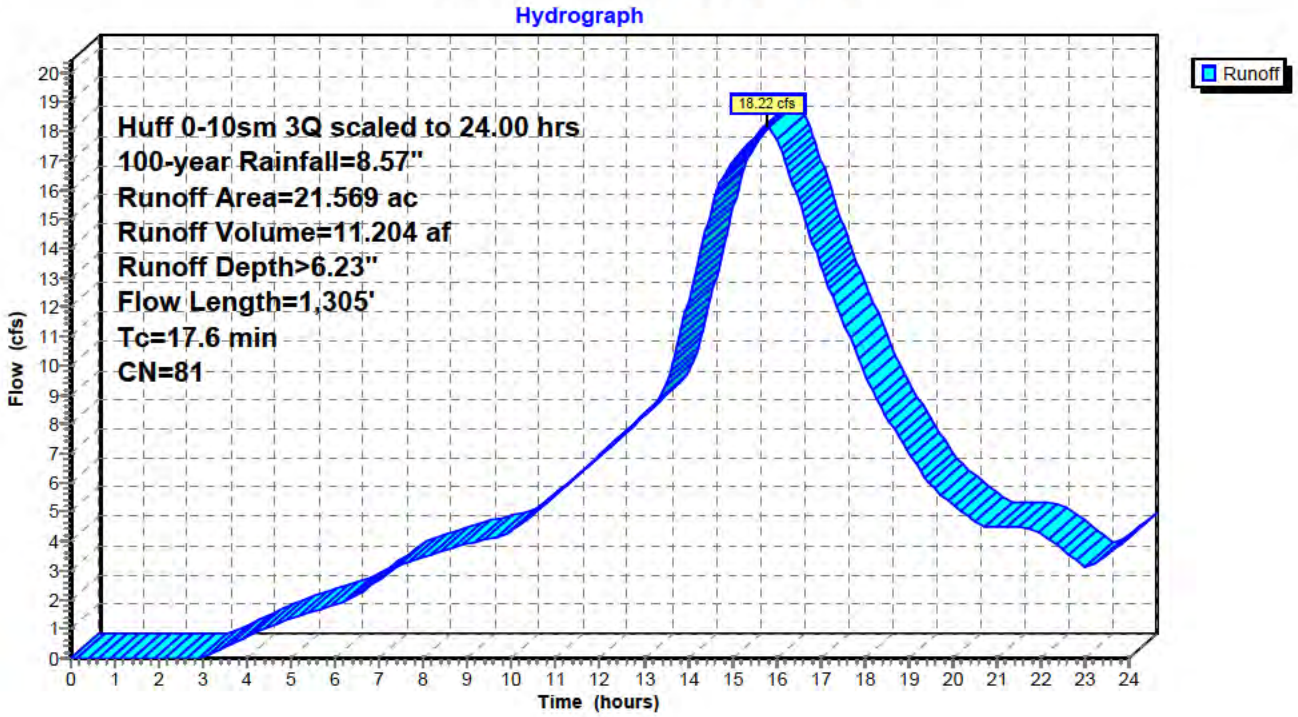
Runoff = 18.22 cfs @ 15.79 hrs, Volume= 11.204 af, Depth> 6.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

Area (ac)	CN	Description
3.171	89	Row crops, straight row, Good, HSG D
4.736	80	Pasture/grassland/range, Good, HSG D
1.134	89	Row crops, straight row, Good, HSG D
5.352	80	Pasture/grassland/range, Good, HSG D
3.187	85	Row crops, straight row, Good, HSG C
3.989	74	Pasture/grassland/range, Good, HSG C
21.569	81	Weighted Average
21.569		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0081	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
0.6	37	0.0151	1.11		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
1.8	758	0.0141	7.10	71.03	**Channel Flow,** Area= 10.0 sf Perim= 12.0' r= 0.83' n= 0.022 Earth, clean & straight
0.3	38	0.0146	2.45		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
8.3	372	0.0113	0.74		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
17.6	1,305	Total			

Subcatchment 3-U: PR DA 3



Hydrograph for Subcatchment 3-U: PR DA 3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.51	1.72	8.34
0.25	0.01	0.00	0.00	13.25	3.64	1.82	8.70
0.50	0.02	0.00	0.00	13.50	3.78	1.94	9.35
0.75	0.05	0.00	0.00	13.75	3.94	2.07	10.66
1.00	0.09	0.00	0.00	14.00	4.11	2.22	12.14
1.25	0.14	0.00	0.00	14.25	4.31	2.38	13.66
1.50	0.20	0.00	0.00	14.50	4.52	2.57	15.22
1.75	0.25	0.00	0.00	14.75	4.75	2.76	16.34
2.00	0.30	0.00	0.00	15.00	4.97	2.96	16.90
2.25	0.36	0.00	0.00	15.25	5.20	3.16	17.36
2.50	0.41	0.00	0.00	15.50	5.43	3.37	17.80
2.75	0.47	0.00	0.00	15.75	5.66	3.58	**18.20**
3.00	0.52	0.00	0.03	16.00	5.88	3.78	**17.80**
3.25	0.58	0.00	0.19	16.25	6.09	3.96	16.80
3.50	0.63	0.01	0.39	16.50	6.28	4.14	15.70
3.75	0.69	0.02	0.57	16.75	6.45	4.30	14.56
4.00	0.74	0.03	0.75	17.00	6.61	4.44	13.43
4.25	0.79	0.04	0.91	17.25	6.76	4.58	12.47
4.50	0.85	0.05	1.07	17.50	6.89	4.71	11.58
4.75	0.90	0.07	1.21	17.75	7.02	4.82	10.69
5.00	0.96	0.08	1.35	18.00	7.13	4.93	9.80
5.25	1.01	0.10	1.48	18.25	7.24	5.03	8.94
5.50	1.07	0.12	1.60	18.50	7.34	5.12	8.28
5.75	1.12	0.14	1.71	18.75	7.43	5.20	7.67
6.00	1.17	0.16	1.82	19.00	7.51	5.28	7.07
6.25	1.23	0.19	1.95	19.25	7.58	5.35	6.46
6.50	1.29	0.21	2.16	19.50	7.65	5.42	5.93
6.75	1.35	0.24	2.41	19.75	7.72	5.48	5.59
7.00	1.42	0.28	2.68	20.00	7.78	5.54	5.28
7.25	1.49	0.31	2.96	20.25	7.84	5.59	4.97
7.50	1.57	0.35	3.21	20.50	7.90	5.64	4.67
7.75	1.64	0.39	3.36	20.75	7.95	5.70	4.49
8.00	1.71	0.43	3.49	21.00	8.00	5.75	4.46
8.25	1.78	0.47	3.60	21.25	8.06	5.80	4.46
8.50	1.86	0.52	3.71	21.50	8.11	5.85	4.47
8.75	1.93	0.56	3.81	21.75	8.17	5.90	4.46
9.00	2.00	0.61	3.90	22.00	8.22	5.95	4.29
9.25	2.07	0.65	3.99	22.25	8.26	5.99	4.00
9.50	2.15	0.70	4.08	22.50	8.31	6.03	3.70
9.75	2.22	0.75	4.16	22.75	8.35	6.07	3.39
10.00	2.30	0.80	4.36	23.00	8.38	6.10	3.12
10.25	2.38	0.86	4.65	23.25	8.42	6.14	3.24
10.50	2.46	0.91	4.96	23.50	8.47	6.19	3.53
10.75	2.55	0.98	5.27	23.75	8.52	6.23	3.84
11.00	2.64	1.04	5.59	24.00	**8.57**	**6.28**	4.15
11.25	2.74	1.11	5.92				
11.50	2.84	1.19	6.26				
11.75	2.94	1.27	6.59				
12.00	3.05	1.35	6.94				
12.25	3.16	1.43	7.28				
12.50	3.27	1.52	7.63				
12.75	3.39	1.62	7.99				

Summary for Subcatchment 4-U: PR DA 4

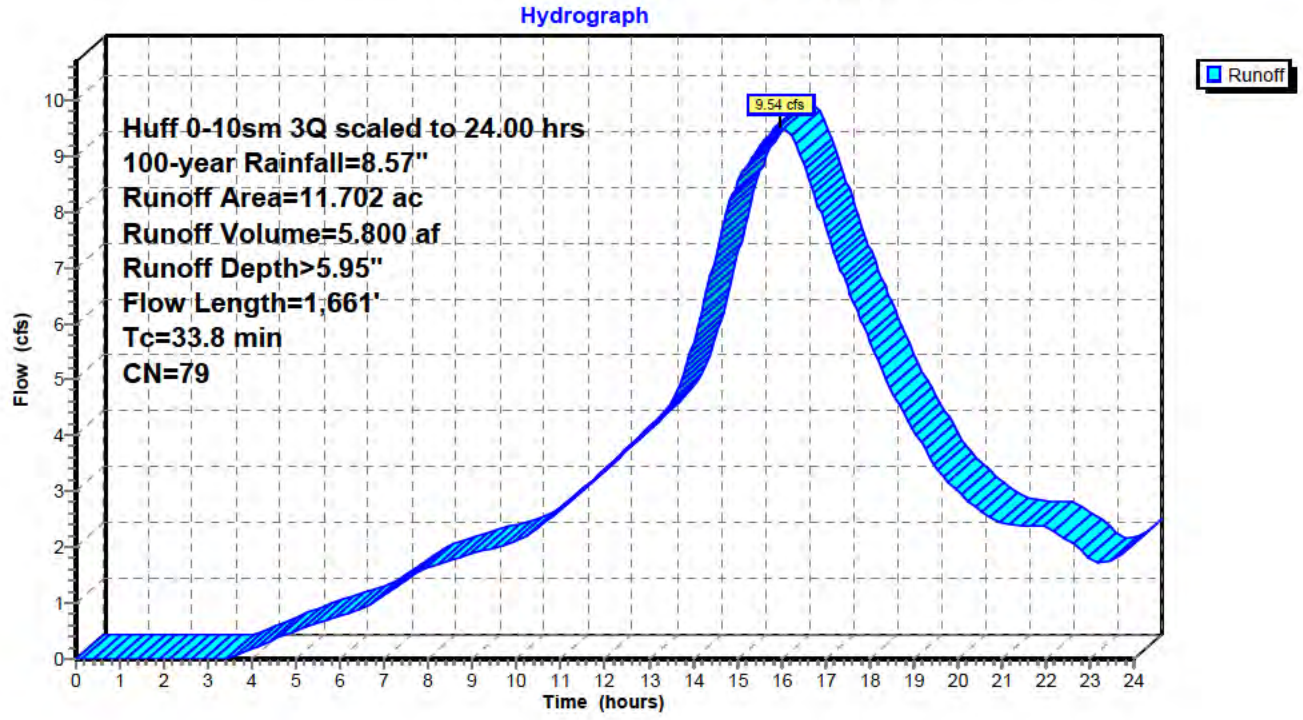
Runoff = 9.54 cfs @ 15.97 hrs, Volume= 5.800 af, Depth> 5.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Huff 0-10sm 3Q scaled to 24.00 hrs 100-year Rainfall=8.57"

Area (ac)	CN	Description
0.399	89	Row crops, straight row, Good, HSG D
4.560	80	Pasture/grassland/range, Good, HSG D
0.000	89	Row crops, straight row, Good, HSG D
3.035	80	Pasture/grassland/range, Good, HSG D
0.695	85	Row crops, straight row, Good, HSG C
3.013	74	Pasture/grassland/range, Good, HSG C
11.702	79	Weighted Average
11.702		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.0080	0.25		**Sheet Flow,** Cultivated: Residue<=20% n= 0.060 P2= 3.34"
2.7	198	0.0180	1.21		**Shallow Concentrated Flow,** Cultivated Straight Rows Kv= 9.0 fps
24.5	1,363	0.0175	0.93		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
33.8	1,661	Total			

Subcatchment 4-U: PR DA 4



Hydrograph for Subcatchment 4-U: PR DA 4

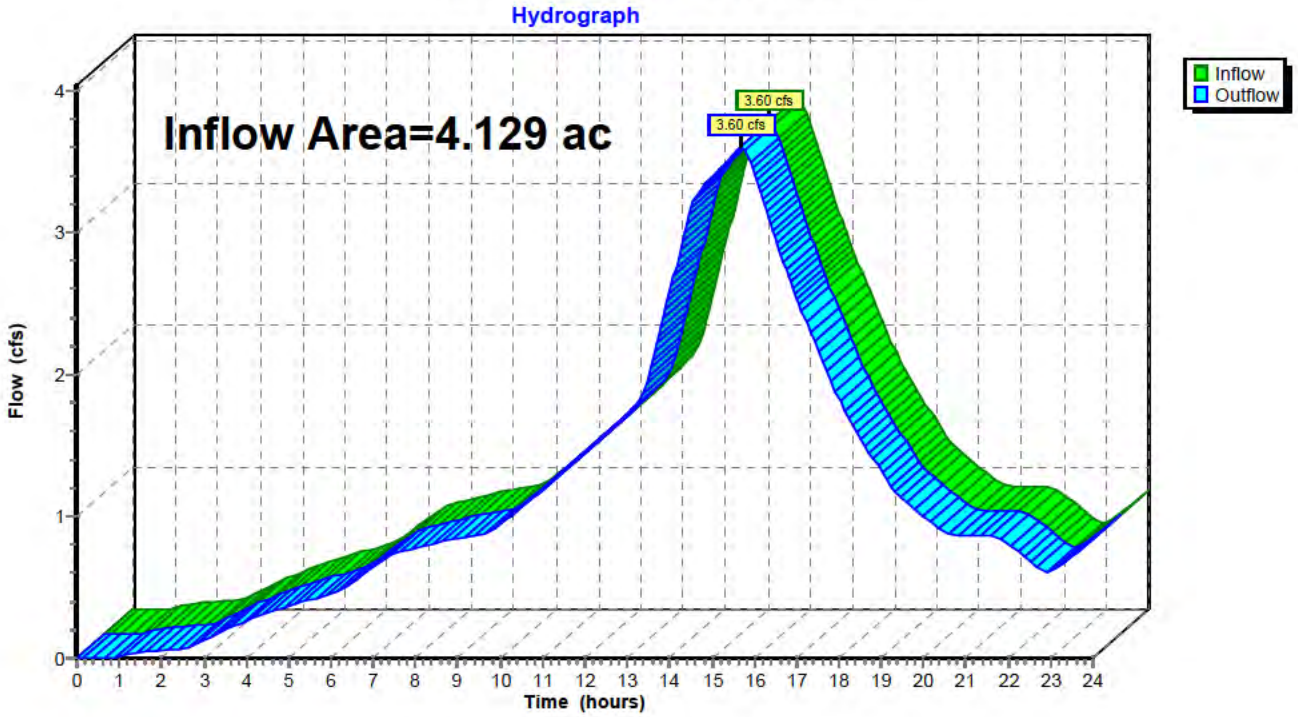
Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	13.00	3.51	1.57	4.14
0.25	0.01	0.00	0.00	13.25	3.64	1.67	4.34
0.50	0.02	0.00	0.00	13.50	3.78	1.78	4.56
0.75	0.05	0.00	0.00	13.75	3.94	1.91	4.98
1.00	0.09	0.00	0.00	14.00	4.11	2.06	5.63
1.25	0.14	0.00	0.00	14.25	4.31	2.22	6.38
1.50	0.20	0.00	0.00	14.50	4.52	2.40	7.18
1.75	0.25	0.00	0.00	14.75	4.75	2.58	7.95
2.00	0.30	0.00	0.00	15.00	4.97	2.78	8.51
2.25	0.36	0.00	0.00	15.25	5.20	2.97	8.86
2.50	0.41	0.00	0.00	15.50	5.43	3.18	9.16
2.75	0.47	0.00	0.00	15.75	5.66	3.38	**9.41**
3.00	0.52	0.00	0.00	16.00	5.88	3.57	**9.54**
3.25	0.58	0.00	0.00	16.25	6.09	3.76	9.32
3.50	0.63	0.00	0.02	16.50	6.28	3.93	8.87
3.75	0.69	0.01	0.09	16.75	6.45	4.08	8.32
4.00	0.74	0.02	0.18	17.00	6.61	4.23	7.74
4.25	0.79	0.02	0.26	17.25	6.76	4.36	7.18
4.50	0.85	0.03	0.35	17.50	6.89	4.49	6.66
4.75	0.90	0.05	0.43	17.75	7.02	4.60	6.18
5.00	0.96	0.06	0.51	18.00	7.13	4.71	5.71
5.25	1.01	0.07	0.58	18.25	7.24	4.80	5.23
5.50	1.07	0.09	0.65	18.50	7.34	4.89	4.81
5.75	1.12	0.11	0.72	18.75	7.43	4.98	4.44
6.00	1.17	0.13	0.78	19.00	7.51	5.05	4.11
6.25	1.23	0.15	0.84	19.25	7.58	5.12	3.78
6.50	1.29	0.17	0.92	19.50	7.65	5.19	3.46
6.75	1.35	0.19	1.02	19.75	7.72	5.25	3.20
7.00	1.42	0.22	1.15	20.00	7.78	5.31	3.00
7.25	1.49	0.26	1.29	20.25	7.84	5.36	2.83
7.50	1.57	0.29	1.43	20.50	7.90	5.41	2.66
7.75	1.64	0.33	1.54	20.75	7.95	5.46	2.51
8.00	1.71	0.36	1.63	21.00	8.00	5.51	2.43
8.25	1.78	0.40	1.71	21.25	8.06	5.56	2.40
8.50	1.86	0.44	1.77	21.50	8.11	5.61	2.39
8.75	1.93	0.48	1.83	21.75	8.17	5.66	2.39
9.00	2.00	0.52	1.89	22.00	8.22	5.71	2.37
9.25	2.07	0.57	1.95	22.25	8.26	5.75	2.27
9.50	2.15	0.61	2.00	22.50	8.31	5.79	2.13
9.75	2.22	0.66	2.05	22.75	8.35	5.83	1.98
10.00	2.30	0.70	2.11	23.00	8.38	5.87	1.82
10.25	2.38	0.76	2.22	23.25	8.42	5.90	1.73
10.50	2.46	0.81	2.36	23.50	8.47	5.95	1.78
10.75	2.55	0.87	2.52	23.75	8.52	5.99	1.91
11.00	2.64	0.93	2.69	24.00	**8.57**	**6.04**	2.06
11.25	2.74	1.00	2.86				
11.50	2.84	1.07	3.03				
11.75	2.94	1.14	3.21				
12.00	3.05	1.22	3.39				
12.25	3.16	1.30	3.57				
12.50	3.27	1.39	3.76				
12.75	3.39	1.48	3.95				

Summary for Reach 1-T: PR DA 1 TOTAL

Inflow Area = 4.129 ac, 9.91% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 3.60 cfs @ 15.70 hrs, Volume= 2.284 af
Outflow = 3.60 cfs @ 15.70 hrs, Volume= 2.284 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 1-T: PR DA 1 TOTAL



Hydrograph for Reach 1-T: PR DA 1 TOTAL

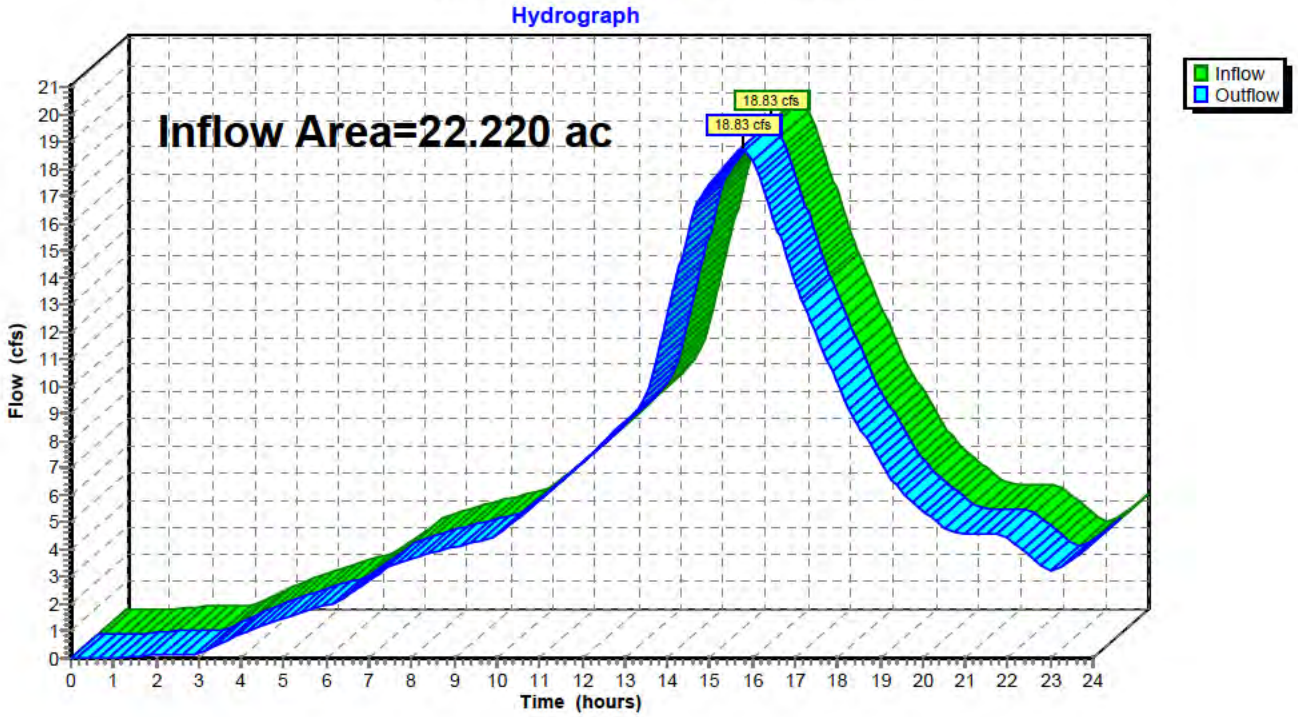
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	1.72		1.72
0.25	0.00		0.00	13.25	1.79		1.79
0.50	0.00		0.00	13.50	1.99		1.99
0.75	0.00		0.00	13.75	2.28		2.28
1.00	0.01		0.01	14.00	2.57		2.57
1.25	0.03		0.03	14.25	2.87		2.87
1.50	0.04		0.04	14.50	3.17		3.17
1.75	0.05		0.05	14.75	3.31		3.31
2.00	0.06		0.06	15.00	3.39		3.39
2.25	0.06		0.06	15.25	3.47		3.47
2.50	0.06		0.06	15.50	**3.55**		**3.55**
2.75	0.08		0.08	15.75	**3.60**		**3.60**
3.00	0.12		0.12	16.00	3.41		3.41
3.25	0.16		0.16	16.25	3.19		3.19
3.50	0.20		0.20	16.50	2.97		2.97
3.75	0.23		0.23	16.75	2.74		2.74
4.00	0.26		0.26	17.00	2.53		2.53
4.25	0.29		0.29	17.25	2.35		2.35
4.50	0.32		0.32	17.50	2.18		2.18
4.75	0.35		0.35	17.75	2.00		2.00
5.00	0.37		0.37	18.00	1.83		1.83
5.25	0.39		0.39	18.25	1.68		1.68
5.50	0.41		0.41	18.50	1.56		1.56
5.75	0.43		0.43	18.75	1.44		1.44
6.00	0.45		0.45	19.00	1.32		1.32
6.25	0.48		0.48	19.25	1.20		1.20
6.50	0.53		0.53	19.50	1.12		1.12
6.75	0.59		0.59	19.75	1.06		1.06
7.00	0.64		0.64	20.00	1.00		1.00
7.25	0.70		0.70	20.25	0.94		0.94
7.50	0.74		0.74	20.50	0.88		0.88
7.75	0.76		0.76	20.75	0.87		0.87
8.00	0.78		0.78	21.00	0.87		0.87
8.25	0.80		0.80	21.25	0.87		0.87
8.50	0.81		0.81	21.50	0.87		0.87
8.75	0.83		0.83	21.75	0.86		0.86
9.00	0.85		0.85	22.00	0.81		0.81
9.25	0.86		0.86	22.25	0.75		0.75
9.50	0.87		0.87	22.50	0.69		0.69
9.75	0.89		0.89	22.75	0.63		0.63
10.00	0.94		0.94	23.00	0.60		0.60
10.25	1.00		1.00	23.25	0.65		0.65
10.50	1.07		1.07	23.50	0.71		0.71
10.75	1.13		1.13	23.75	0.77		0.77
11.00	1.19		1.19	24.00	0.83		0.83
11.25	1.26		1.26				
11.50	1.32		1.32				
11.75	1.39		1.39				
12.00	1.45		1.45				
12.25	1.52		1.52				
12.50	1.58		1.58				
12.75	1.65		1.65				

Summary for Reach 3-T: PR DA 3 TOTAL

Inflow Area = 22.220 ac, 2.93% Impervious, Inflow Depth > 6.29" for 100-year event
Inflow = 18.83 cfs @ 15.79 hrs, Volume= 11.653 af
Outflow = 18.83 cfs @ 15.79 hrs, Volume= 11.653 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach 3-T: PR DA 3 TOTAL



Hydrograph for Reach 3-T: PR DA 3 TOTAL

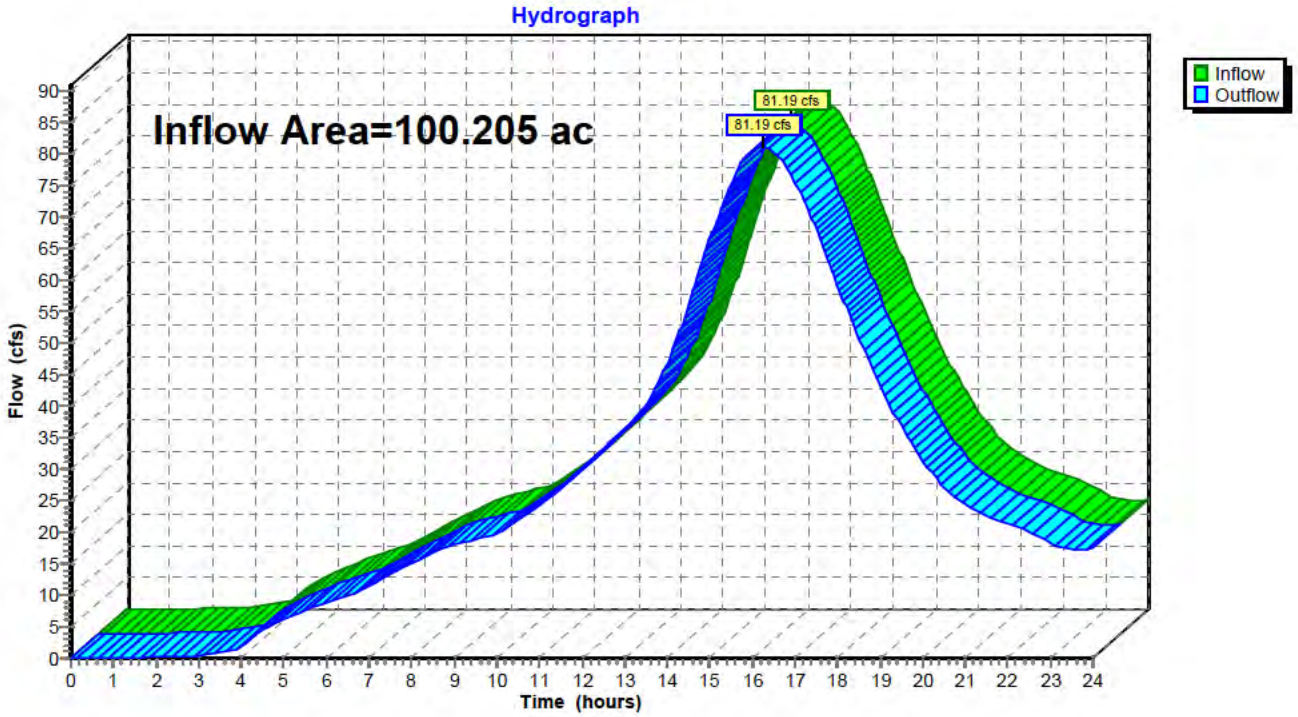
Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	8.65		8.65
0.25	0.00		0.00	13.25	9.02		9.02
0.50	0.00		0.00	13.50	9.70		9.70
0.75	0.00		0.00	13.75	11.05		11.05
1.00	0.01		0.01	14.00	12.58		12.58
1.25	0.04		0.04	14.25	14.15		14.15
1.50	0.07		0.07	14.50	15.75		15.75
1.75	0.09		0.09	14.75	16.91		16.91
2.00	0.11		0.11	15.00	17.48		17.48
2.25	0.11		0.11	15.25	17.95		17.95
2.50	0.12		0.12	15.50	18.40		18.40
2.75	0.12		0.12	15.75	**18.81**		**18.81**
3.00	0.16		0.16	16.00	**18.39**		**18.39**
3.25	0.32		0.32	16.25	17.35		17.35
3.50	0.52		0.52	16.50	16.22		16.22
3.75	0.71		0.71	16.75	15.04		15.04
4.00	0.88		0.88	17.00	13.87		13.87
4.25	1.05		1.05	17.25	12.88		12.88
4.50	1.20		1.20	17.50	11.95		11.95
4.75	1.35		1.35	17.75	11.04		11.04
5.00	1.49		1.49	18.00	10.12		10.12
5.25	1.61		1.61	18.25	9.23		9.23
5.50	1.74		1.74	18.50	8.55		8.55
5.75	1.85		1.85	18.75	7.92		7.92
6.00	1.96		1.96	19.00	7.29		7.29
6.25	2.09		2.09	19.25	6.67		6.67
6.50	2.31		2.31	19.50	6.12		6.12
6.75	2.57		2.57	19.75	5.77		5.77
7.00	2.85		2.85	20.00	5.45		5.45
7.25	3.14		3.14	20.25	5.13		5.13
7.50	3.40		3.40	20.50	4.82		4.82
7.75	3.55		3.55	20.75	4.63		4.63
8.00	3.67		3.67	21.00	4.61		4.61
8.25	3.79		3.79	21.25	4.61		4.61
8.50	3.90		3.90	21.50	4.61		4.61
8.75	4.00		4.00	21.75	4.61		4.61
9.00	4.09		4.09	22.00	4.43		4.43
9.25	4.18		4.18	22.25	4.13		4.13
9.50	4.26		4.26	22.50	3.81		3.81
9.75	4.35		4.35	22.75	3.49		3.49
10.00	4.55		4.55	23.00	3.22		3.22
10.25	4.85		4.85	23.25	3.34		3.34
10.50	5.17		5.17	23.50	3.64		3.64
10.75	5.50		5.50	23.75	3.96		3.96
11.00	5.83		5.83	24.00	4.28		4.28
11.25	6.16		6.16				
11.50	6.51		6.51				
11.75	6.86		6.86				
12.00	7.21		7.21				
12.25	7.57		7.57				
12.50	7.92		7.92				
12.75	8.29		8.29				

Summary for Reach T: Total

Inflow Area = 100.205 ac, 1.37% Impervious, Inflow Depth > 6.43" for 100-year event
Inflow = 81.19 cfs @ 16.23 hrs, Volume= 53.688 af
Outflow = 81.19 cfs @ 16.23 hrs, Volume= 53.688 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Reach T: Total



Hydrograph for Reach T: Total

Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Outflow (cfs)
0.00	0.00		0.00	13.00	36.41		36.41
0.25	0.00		0.00	13.25	38.04		38.04
0.50	0.00		0.00	13.50	40.08		40.08
0.75	0.00		0.00	13.75	43.04		43.04
1.00	0.02		0.02	14.00	46.62		46.62
1.25	0.07		0.07	14.25	50.94		50.94
1.50	0.12		0.12	14.50	56.12		56.12
1.75	0.14		0.14	14.75	61.38		61.38
2.00	0.16		0.16	15.00	66.37		66.37
2.25	0.17		0.17	15.25	71.13		71.13
2.50	0.18		0.18	15.50	75.35		75.35
2.75	0.22		0.22	15.75	78.87		78.87
3.00	0.32		0.32	16.00	80.72		80.72
3.25	0.60		0.60	16.25	**81.19**		**81.19**
3.50	0.95		0.95	16.50	80.54		80.54
3.75	1.32		1.32	16.75	78.71		78.71
4.00	1.65		1.65	17.00	75.75		75.75
4.25	3.24		3.24	17.25	72.13		72.13
4.50	4.56		4.56	17.50	68.07		68.07
4.75	5.47		5.47	17.75	63.73		63.73
5.00	6.25		6.25	18.00	59.33		59.33
5.25	6.95		6.95	18.25	55.00		55.00
5.50	7.61		7.61	18.50	50.98		50.98
5.75	8.22		8.22	18.75	47.12		47.12
6.00	8.78		8.78	19.00	43.46		43.46
6.25	9.33		9.33	19.25	40.00		40.00
6.50	9.99		9.99	19.50	36.86		36.86
6.75	10.70		10.70	19.75	34.11		34.11
7.00	11.48		11.48	20.00	31.52		31.52
7.25	12.39		12.39	20.25	29.25		29.25
7.50	13.34		13.34	20.50	27.24		27.24
7.75	14.27		14.27	20.75	25.61		25.61
8.00	15.18		15.18	21.00	24.33		24.33
8.25	16.03		16.03	21.25	23.31		23.31
8.50	16.77		16.77	21.50	22.52		22.52
8.75	17.40		17.40	21.75	21.97		21.97
9.00	17.94		17.94	22.00	21.39		21.39
9.25	18.40		18.40	22.25	20.75		20.75
9.50	18.82		18.82	22.50	20.03		20.03
9.75	19.21		19.21	22.75	19.17		19.17
10.00	19.78		19.78	23.00	18.20		18.20
10.25	20.75		20.75	23.25	17.60		17.60
10.50	21.84		21.84	23.50	17.22		17.22
10.75	23.01		23.01	23.75	17.12		17.12
11.00	24.28		24.28	24.00	17.38		17.38
11.25	25.64		25.64				
11.50	27.07		27.07				
11.75	28.55		28.55				
12.00	30.07		30.07				
12.25	31.62		31.62				
12.50	33.19		33.19				
12.75	34.80		34.80				

Summary for Pond B1: Basin 1

Inflow Area = 11.702 ac, 0.00% Impervious, Inflow Depth > 5.95" for 100-year event
Inflow = 9.54 cfs @ 15.97 hrs, Volume= 5.800 af
Outflow = 9.40 cfs @ 16.19 hrs, Volume= 5.398 af, Atten= 1%, Lag= 13.5 min
Primary = 0.94 cfs @ 16.19 hrs, Volume= 1.261 af
Secondary = 8.46 cfs @ 16.19 hrs, Volume= 4.137 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 689.44' @ 16.19 hrs Surf.Area= 30,932 sf Storage= 26,555 cf

Plug-Flow detention time= 76.8 min calculated for 5.387 af (93% of inflow)
Center-of-Mass det. time= 44.6 min (976.1 - 931.5)

Volume	Invert	Avail.Storage	Storage Description
#1	687.60'	47,069 cf	**Storage (Prismatic)**Listed below (Recalc)

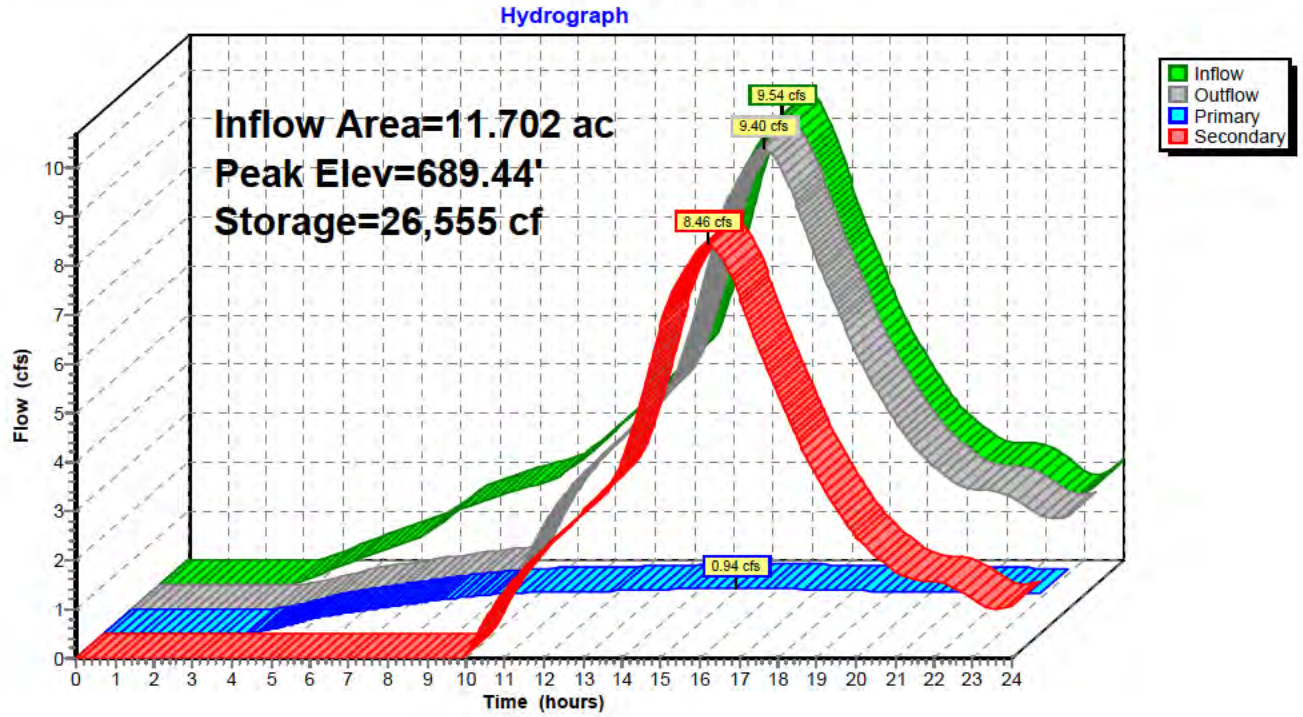
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
687.60	29	0	0
688.00	5,769	1,160	1,160
689.00	21,757	13,763	14,923
690.00	42,536	32,147	47,069

Device	Routing	Invert	Outlet Devices
#1	Primary	687.60'	**6.0" Round 6" PVC Pipe** L= 60.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 687.60' / 685.09' S= 0.0418 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Secondary	689.00'	**11.0' long x 11.5' breadth Emergency Overflow** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.55 2.60 2.70 2.67 2.67 2.67 2.66 2.64

Primary OutFlow Max=0.94 cfs @ 16.19 hrs HW=689.44' (Free Discharge)
↑—**1=6" PVC Pipe** (Inlet Controls 0.94 cfs @ 4.80 fps)

Secondary OutFlow Max=8.46 cfs @ 16.19 hrs HW=689.44' (Free Discharge)
↑—**2=Emergency Overflow** (Weir Controls 8.46 cfs @ 1.74 fps)

Pond B1: Basin 1



Hydrograph for Pond B1: Basin 1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	687.60	0.00	0.00	0.00
0.50	0.00	0	687.60	0.00	0.00	0.00
1.00	0.00	0	687.60	0.00	0.00	0.00
1.50	0.00	0	687.60	0.00	0.00	0.00
2.00	0.00	0	687.60	0.00	0.00	0.00
2.50	0.00	0	687.60	0.00	0.00	0.00
3.00	0.00	0	687.60	0.00	0.00	0.00
3.50	0.02	8	687.63	0.00	0.00	0.00
4.00	0.18	143	687.74	0.04	0.04	0.00
4.50	0.35	461	687.85	0.13	0.13	0.00
5.00	0.51	903	687.95	0.24	0.24	0.00
5.50	0.65	1,436	688.04	0.33	0.33	0.00
6.00	0.78	2,068	688.13	0.40	0.40	0.00
6.50	0.92	2,820	688.22	0.45	0.45	0.00
7.00	1.15	3,802	688.32	0.51	0.51	0.00
7.50	1.43	5,145	688.43	0.57	0.57	0.00
8.00	1.63	6,838	688.56	0.63	0.63	0.00
8.50	1.77	8,730	688.68	0.68	0.68	0.00
9.00	1.89	10,765	688.79	0.72	0.72	0.00
9.50	2.00	12,923	688.90	0.77	0.77	0.00
10.00	2.11	15,191	689.01	0.85	0.80	0.04
10.50	2.36	17,002	689.09	1.61	0.83	0.78
11.00	2.69	18,044	689.13	2.24	0.85	1.39
11.50	3.03	18,734	689.16	2.69	0.86	1.84
12.00	3.39	19,299	689.18	3.09	0.86	2.23
12.50	3.76	19,821	689.21	3.48	0.87	2.61
13.00	4.14	20,326	689.22	3.86	0.87	2.99
13.50	4.56	20,827	689.24	4.26	0.88	3.38
14.00	5.63	21,667	689.27	4.95	0.89	4.06
14.50	7.18	23,168	689.33	6.23	0.91	5.33
15.00	8.51	24,816	689.38	7.73	0.92	6.80
15.50	**9.16**	25,867	689.42	8.73	0.93	7.79
16.00	**9.54**	**26,478**	**689.44**	**9.33**	**0.94**	**8.38**
16.50	8.87	**26,358**	**689.44**	**9.21**	**0.94**	**8.27**
17.00	7.74	25,473	689.41	8.34	0.93	7.41
17.50	6.66	24,340	689.37	7.29	0.92	6.37
18.00	5.71	23,245	689.33	6.30	0.91	5.40
18.50	4.81	22,177	689.29	5.38	0.90	4.48
19.00	4.11	21,235	689.26	4.59	0.89	3.70
19.50	3.46	20,394	689.23	3.92	0.88	3.04
20.00	3.00	19,658	689.20	3.36	0.87	2.49
20.50	2.66	19,095	689.18	2.95	0.86	2.09
21.00	2.43	18,638	689.16	2.63	0.85	1.77
21.50	2.39	18,401	689.15	2.47	0.85	1.62
22.00	2.37	18,313	689.15	2.41	0.85	1.56
22.50	2.13	18,135	689.14	2.29	0.85	1.45
23.00	1.82	17,762	689.12	2.06	0.84	1.22
23.50	1.78	17,424	689.11	1.85	0.84	1.01
24.00	2.06	17,517	689.11	1.91	0.84	1.07

Summary for Pond B2: Basin 2

Inflow Area = 62.154 ac, 0.50% Impervious, Inflow Depth > 6.67" for 100-year event
Inflow = 52.41 cfs @ 16.53 hrs, Volume= 34.569 af
Outflow = 52.26 cfs @ 16.61 hrs, Volume= 34.353 af, Atten= 0%, Lag= 4.8 min
Primary = 0.89 cfs @ 16.61 hrs, Volume= 1.196 af
Secondary = 51.37 cfs @ 16.61 hrs, Volume= 33.157 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Peak Elev= 690.04' @ 16.61 hrs Surf.Area= 37,810 sf Storage= 29,378 cf

Plug-Flow detention time= 11.3 min calculated for 34.282 af (99% of inflow)
Center-of-Mass det. time= 8.2 min (940.6 - 932.4)

Volume	Invert	Avail.Storage	Storage Description
#1	688.36'	77,771 cf	**Storage (Prismatic)**Listed below (Recalc)

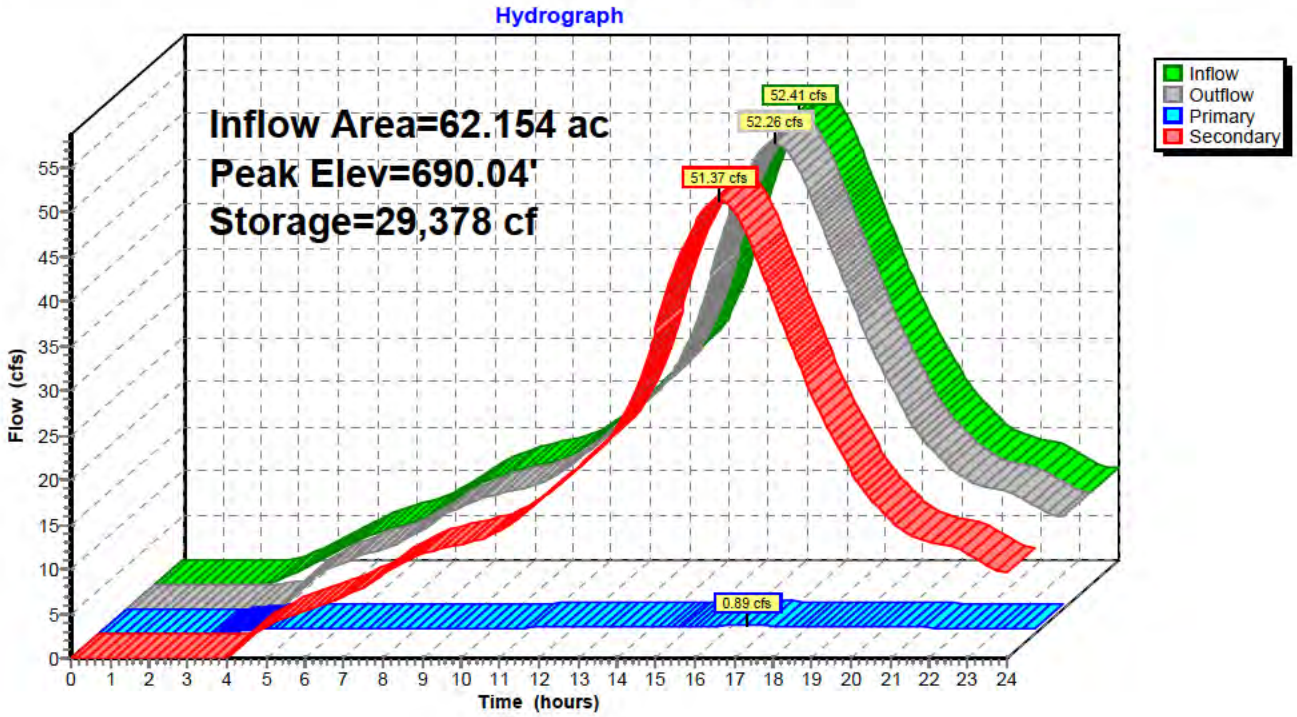
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
688.36	42	0	0
689.00	11,522	3,700	3,700
690.00	36,691	24,107	27,807
691.00	63,237	49,964	77,771

Device	Routing	Invert	Outlet Devices
#1	Primary	688.36'	**6.0" Round 6" PVC Pipe** L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 688.36' / 685.05' S= 0.0662 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.20 sf
#2	Secondary	689.00'	**18.0' long x 10.0' breadth Emergency Spillway** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.89 cfs @ 16.61 hrs HW=690.04' (Free Discharge)
↑—**1=6" PVC Pipe** (Inlet Controls 0.89 cfs @ 4.55 fps)

Secondary OutFlow Max=51.36 cfs @ 16.61 hrs HW=690.04' (Free Discharge)
↑—**2=Emergency Spillway** (Weir Controls 51.36 cfs @ 2.74 fps)

Pond B2: Basin 2



Hydrograph for Pond B2: Basin 2

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Primary (cfs)	Secondary (cfs)
0.00	0.00	0	688.36	0.00	0.00	0.00
0.50	0.00	0	688.36	0.00	0.00	0.00
1.00	0.00	0	688.36	0.00	0.00	0.00
1.50	0.00	0	688.36	0.00	0.00	0.00
2.00	0.00	0	688.36	0.00	0.00	0.00
2.50	0.01	3	688.37	0.00	0.00	0.00
3.00	0.27	156	688.49	0.04	0.04	0.00
3.50	1.12	1,105	688.71	0.23	0.23	0.00
4.00	2.28	3,510	688.98	0.46	0.46	0.00
4.50	3.43	5,564	689.14	2.90	0.54	2.36
5.00	4.48	6,275	689.19	4.16	0.57	3.59
5.50	5.39	6,797	689.22	5.13	0.58	4.55
6.00	6.19	7,229	689.24	5.97	0.59	5.37
6.50	6.89	7,597	689.26	6.69	0.60	6.09
7.00	7.74	7,988	689.28	7.48	0.61	6.86
7.50	9.01	8,558	689.31	8.64	0.63	8.01
8.00	10.48	9,263	689.35	10.10	0.64	9.45
8.50	11.66	9,876	689.38	11.38	0.65	10.72
9.00	12.46	10,297	689.40	12.28	0.66	11.61
9.50	13.06	10,593	689.41	12.92	0.67	12.25
10.00	13.55	10,825	689.42	13.43	0.67	12.76
10.50	14.19	11,079	689.43	13.99	0.68	13.32
11.00	15.36	11,540	689.45	15.02	0.69	14.34
11.50	16.96	12,213	689.48	16.54	0.70	15.85
12.00	18.76	12,988	689.52	18.31	0.71	17.60
12.50	20.67	13,809	689.55	20.21	0.72	19.49
13.00	22.63	14,650	689.58	22.17	0.74	21.43
13.50	24.64	15,523	689.61	24.13	0.75	23.38
14.00	27.34	16,658	689.66	26.52	0.76	25.76
14.50	32.52	18,783	689.73	30.96	0.79	30.17
15.00	39.82	22,110	689.84	37.78	0.83	36.95
15.50	46.39	25,553	689.94	44.68	0.86	43.82
16.00	50.68	28,041	690.01	49.59	0.88	48.71
16.50	**52.39**	**29,325**	**690.04**	**52.15**	**0.89**	**51.26**
17.00	**50.13**	**28,752**	**690.03**	**51.01**	**0.89**	**50.12**
17.50	45.13	26,547	689.97	46.64	0.87	45.78
18.00	39.50	23,748	689.88	41.08	0.84	40.24
18.50	34.01	20,990	689.80	35.50	0.81	34.68
19.00	28.95	18,444	689.72	30.25	0.79	29.47
19.50	24.61	16,269	689.64	25.70	0.76	24.95
20.00	20.87	14,456	689.57	21.72	0.73	20.98
20.50	17.94	13,108	689.52	18.59	0.71	17.88
21.00	15.72	12,074	689.48	16.23	0.70	15.53
21.50	14.26	11,340	689.45	14.57	0.68	13.89
22.00	13.60	10,964	689.43	13.74	0.68	13.06
22.50	13.08	10,739	689.42	13.24	0.67	12.57
23.00	12.02	10,320	689.40	12.33	0.66	11.66
23.50	10.71	9,706	689.37	11.02	0.65	10.37
24.00	10.36	9,389	689.36	10.36	0.64	9.71

APPENDIX E

ASCE STUDY ON FLOWS FROM SOLAR FARMS

Check for updates

Hydrologic Response of Solar Farms

Lauren M. Cook, S.M.ASCE[1]; and Richard H. McCuen, M.ASCE[2]

Abstract: Because of the benefits of solar energy, the number of solar farms is increasing; however, their hydrologic impacts have not been studied. The goal of this study was to determine the hydrologic effects of solar farms and examine whether or not storm-water management is needed to control runoff volumes and rates. A model of a solar farm was used to simulate runoff for two conditions: the pre- and postpaneled conditions. Using sensitivity analyses, modeling showed that the solar panels themselves did not have a significant effect on the runoff volumes, peaks, or times to peak. However, if the ground cover under the panels is gravel or bare ground, owing to design decisions or lack of maintenance, the peak discharge may increase significantly with storm-water management needed. In addition, the kinetic energy of the flow that drains from the panels was found to be greater than that of the rainfall, which could cause erosion at the base of the panels. Thus, it is recommended that the grass beneath the panels be well maintained or that a buffer strip be placed after the most downgradient row of panels. This study, along with design recommendations, can be used as a guide for the future design of solar farms. **DOI: 10.1061/(ASCE)HE.1943-5584.0000530.** © *2013 American Society of Civil Engineers.*

CE Database subject headings: Hydrology; Land use; Solar power; Floods; Surface water; Runoff; Stormwater management.

Author keywords: Hydrology; Land use change; Solar energy; Flooding; Surface water runoff; Storm-water management.

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Introduction

Storm-water management practices are generally implemented to reverse the effects of land-cover changes that cause increases in volumes and rates of runoff. This is a concern posed for new types of land-cover change such as the solar farm. Solar energy is a renewable energy source that is expected to increase in importance in the near future. Because solar farms require considerable land, it is necessary to understand the design of solar farms and their potential effect on erosion rates and storm runoff, especially the impact on offsite properties and receiving streams. These farms can vary in size from 8 ha (20 acres) in residential areas to 250 ha (600 acres) in areas where land is abundant.

The solar panels are impervious to rain water; however, they are mounted on metal rods and placed over pervious land. In some cases, the area below the panel is paved or covered with gravel. Service roads are generally located between rows of panels. Although some panels are stationary, others are designed to move so that the angle of the panel varies with the angle of the sun. The angle can range, depending on the latitude, from 22° during the summer months to 74° during the winter months. In addition, the angle and direction can also change throughout the day. The issue posed is whether or not these rows of impervious panels will change the runoff characteristics of the site, specifically increase runoff volumes or peak discharge rates. If the increases are hydrologically significant, storm-water management facilities may be needed. Additionally, it is possible that the velocity of water draining from the edge of the panels is sufficient to cause erosion of the soil below the panels, especially where the maintenance roadways are bare ground.

The outcome of this study provides guidance for assessing the hydrologic effects of solar farms, which is important to those who plan, design, and install arrays of solar panels. Those who design solar farms may need to provide for storm-water management. This study investigated the hydrologic effects of solar farms, assessed whether or not storm-water management might be needed, and if the velocity of the runoff from the panels could be sufficient to cause erosion of the soil below the panels.

Model Development

Solar farms are generally designed to maximize the amount of energy produced per unit of land area, while still allowing space for maintenance. The hydrologic response of solar farms is not usually considered in design. Typically, the panels will be arrayed in long rows with separations between the rows to allow for maintenance vehicles. To model a typical layout, a unit width of one panel was assumed, with the length of the downgradient strip depending on the size of the farm. For example, a solar farm with 30 rows of 200 panels each could be modeled as a strip of 30 panels with space between the panels for maintenance vehicles. Rainwater that drains from the upper panel onto the ground will flow over the land under the 29 panels on the downgradient strip. Depending on the land cover, infiltration losses would be expected as the runoff flows to the bottom of the slope.

To determine the effects that the solar panels have on runoff characteristics, a model of a solar farm was developed. Runoff in the form of sheet flow without the addition of the solar panels served as the prepaneled condition. The paneled condition assumed a downgradient series of cells with one solar panel per ground cell. Each cell was separated into three sections: wet, dry, and spacer.

The dry section is that portion directly underneath the solar panel, unexposed directly to the rainfall. As the angle of the panel from the horizontal increases, more of the rain will fall directly onto

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the ground; this section of the cell is referred to as the wet section. The spacer section is the area between the rows of panels used by maintenance vehicles. Fig. 1 is an image of two solar panels and the spacer section allotted for maintenance vehicles. Fig. 2 is a schematic of the wet, dry, and spacer sections with their respective dimensions. In Fig. 1, tracks from the vehicles are visible on what is modeled within as the spacer section. When the solar panel is horizontal, then the length longitudinal to the direction that runoff will occur is the length of the dry and wet sections combined. Runoff from a dry section drains onto the downgradient spacer section. Runoff from the spacer section flows to the wet section of the next downgradient cell. Water that drains from a solar panel falls directly onto the spacer section of that cell.

The length of the spacer section is constant. During a storm event, the loss rate was assumed constant for the 24-h storm because a wet antecedent condition was assumed. The lengths of the wet and dry sections changed depending on the angle of the solar panel. The total length of the wet and dry sections was set equal to the length of one horizontal solar panel, which was assumed to be 3.5 m. When a solar panel is horizontal, the dry section length would equal 3.5 m and the wet section length would be zero. In the paneled condition, the dry section does not receive direct rainfall because the rain first falls onto the solar panel then drains onto the spacer section. However, the dry section does infiltrate some of the runoff that comes from the upgradient wet section. The wet section was modeled similar to the spacer section with rain falling directly onto the section and assuming a constant loss rate.

For the presolar panel condition, the spacer and wet sections are modeled the same as in the paneled condition; however, the cell does not include a dry section. In the prepaneled condition, rain falls directly onto the entire cell. When modeling the prepaneled condition, all cells receive rainfall at the same rate and are subject to losses. All other conditions were assumed to remain the same such that the prepaneled and paneled conditions can be compared.

Rainfall was modeled after an natural resources conservation service (NRCS) Type II Storm (McCuen 2005) because it is an accurate representation of actual storms of varying characteristics that are imbedded in intensity-duration-frequency (IDF) curves. For each duration of interest, a dimensionless hyetograph was developed using a time increment of 12 s over the duration of the storm (see Fig. 3). The depth of rainfall that corresponds to each storm magnitude was then multiplied by the dimensionless hyetograph. For a 2-h storm duration, depths of 40.6, 76.2, and 101.6 mm were used for the 2-, 25-, and 100-year events. The 2- and 6-h duration hyetographs were developed using the center portion of the 24-h storm, with the rainfall depths established with the Baltimore IDF curve. The corresponding depths for a 6-h duration were 53.3, 106.7, and 132.1 mm, respectively. These magnitudes were chosen to give a range of storm conditions.

During each time increment, the depth of rain is multiplied by the cell area to determine the volume of rain added to each section of each cell. This volume becomes the storage in each cell. Depending on the soil group, a constant volume of losses was subtracted from the storage. The runoff velocity from a solar panel was calculated using Manning's equation, with the hydraulic radius for sheet flow assumed to equal the depth of the storage on the panel (Bedient and Huber 2002). Similar assumptions were made to compute the velocities in each section of the surface sections.



Fig. 1. Maintenance or "spacer" section between two rows of solar panels (photo by John E. Showler, reprinted with permission)

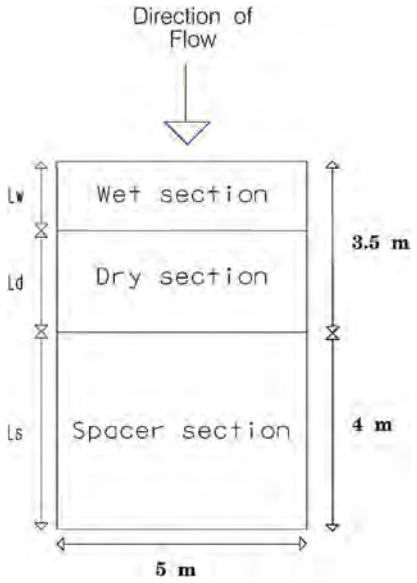


Fig. 2. Wet, dry, and spacer sections of a single cell with lengths *Lw*, *Ls*, and *Ld* with the solar panel covering the dry section

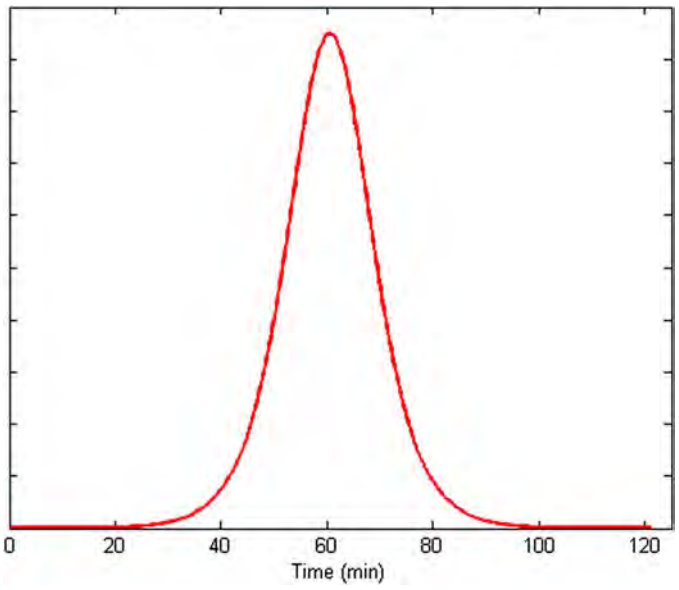


Fig. 3. Dimensionless hyetograph of 2-h Type II storm

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Runoff from one section to the next and then to the next downgradient cell was routed using the continuity of mass. The routing coefficient depended on the depth of flow in storage and the velocity of runoff. Flow was routed from the wet section to the dry section to the spacer section, with flow from the spacer section draining to the wet section of the next cell. Flow from the most downgradient cell was assumed to be the outflow. Discharge rates and volumes from the most downgradient cell were used for comparisons between the prepaneled and paneled conditions.

Alternative Model Scenarios

To assess the effects of the different variables, a section of 30 cells, each with a solar panel, was assumed for the base model. Each cell was separated individually into wet, dry, and spacer sections. The area had a total ground length of 225 m with a ground slope of 1% and width of 5 m, which was the width of an average solar panel. The roughness coefficient (Engman 1986) for the silicon solar panel was assumed to be that of glass, 0.01. Roughness coefficients of 0.15 for grass and 0.02 for bare ground were also assumed. Loss rates of 0.5715 cm/h (0.225 in./h) and 0.254 cm/h (0.1 in./h) for B and C soils, respectively, were assumed.

The prepaneled condition using the 2-h, 25-year rainfall was assumed for the base condition, with each cell assumed to have a good grass cover condition. All other analyses were made assuming a paneled condition. For most scenarios, the runoff volumes and peak discharge rates from the paneled model were not significantly greater than those for the prepaneled condition. Over a total length of 225 m with 30 solar panels, the runoff increased by 0.26 m^3, which was a difference of only 0.35%. The slight increase in runoff volume reflects the slightly higher velocities for the paneled condition. The peak discharge increased by 0.0013 m^3, a change of only 0.31%. The time to peak was delayed by one time increment, i.e., 12 s. Inclusion of the panels did not have a significant hydrologic impact.

Storm Magnitude

The effect of storm magnitude was investigated by changing the magnitude from a 25-year storm to a 2-year storm. For the 2-year storm, the rainfall and runoff volumes decreased by approximately 50%. However, the runoff from the paneled watershed condition increased compared to the prepaneled condition by approximately the same volume as for the 25-year analysis, 0.26 m^3. This increase represents only a 0.78% increase in volume. The peak discharge and the time to peak did not change significantly. These results reflect runoff from a good grass cover condition and indicated that the general conclusion of very minimal impacts was the same for different storm magnitudes.

Ground Slope

The effect of the downgradient ground slope of the solar farm was also examined. The angle of the solar panels would influence the velocity of flows from the panels. As the ground slope was increased, the velocity of flow over the ground surface would be closer to that on the panels. This could cause an overall increase in discharge rates. The ground slope was changed from 1 to 5%, with all other conditions remaining the same as the base conditions.

With the steeper incline, the volume of losses decreased from that for the 1% slope, which is to be expected because the faster velocity of the runoff would provide less opportunity for infiltration. However, between the prepaneled and paneled conditions, the increase in runoff volume was less than 1%. The peak discharge and the time to peak did not change. Therefore, the greater ground slope did not significantly influence the response of the solar farm.

Soil Type

The effect of soil type on the runoff was also examined. The soil group was changed from B soil to C soil by varying the loss rate. As expected, owing to the higher loss rate for the C soil, the depths of runoff increased by approximately 7.5% with the C soil when compared with the volume for B soils. However, the runoff volume for the C soil condition only increased by 0.17% from the prepaneled condition to the paneled condition. In comparison with the B soil, a difference of 0.35% in volume resulted between the two conditions. Therefore, the soil group influenced the actual volumes and rates, but not the relative effect of the paneled condition when compared to the prepaneled condition.

Panel Angle

Because runoff velocities increase with slope, the effect of the angle of the solar panel on the hydrologic response was examined. Analyses were made for angles of 30° and 70° to test an average range from winter to summer. The hydrologic response for these angles was compared to that of the base condition angle of 45°. The other site conditions remained the same. The analyses showed that the angle of the panel had only a slight effect on runoff volumes and discharge rates. The lower angle of 30° was associated with an increased runoff volume, whereas the runoff volume decreased for the steeper angle of 70° when compared with the base condition of 45°. However, the differences (~0.5%) were very slight. Nevertheless, these results indicate that, when the solar panel was closer to horizontal, i.e., at a lower angle, a larger difference in runoff volume occurred between the prepaneled and paneled conditions. These differences in the response result are from differences in loss rates.

The peak discharge was also lower at the lower angle. At an angle of 30°, the peak discharge was slightly lower than at the higher angle of 70°. For the 2-h storm duration, the time to peak of the 30° angle was 2 min delayed from the time to peak of when the panel was positioned at a 70° angle, which reflects the longer travel times across the solar panels.

Storm Duration

To assess the effect of storm duration, analyses were made for 6-h storms, testing magnitudes for 2-, 25-, and 100-year return periods, with the results compared with those for the 2-h rainfall events. The longer storm duration was tested to determine whether a longer duration storm would produce a different ratio of increase in runoff between the prepaneled and paneled conditions. When compared to runoff volumes from the 2-h storm, those for the 6-h storm were 34% greater in both the paneled and prepaneled cases. However, when comparing the prepaneled to the paneled condition, the increase in the runoff volume with the 6-h storm was less than 1% regardless of the return period. The peak discharge and the time-to-peak did not differ significantly between the two conditions. The trends in the hydrologic response of the solar farm did not vary with storm duration.

Ground Cover

The ground cover under the panels was assumed to be a native grass that received little maintenance. For some solar farms, the area beneath the panel is covered in gravel or partially paved because the panels prevent the grass from receiving sunlight. Depending on the

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volume of traffic, the spacer cell could be grass, patches of grass, or bare ground. Thus, it was necessary to determine whether or not these alternative ground-cover conditions would affect the runoff characteristics. This was accomplished by changing the Manning's n for the ground beneath the panels. The value of n under the panels, i.e., the dry section, was set to 0.015 for gravel, with the value for the spacer or maintenance section set to 0.02, i.e., bare ground. These can be compared to the base condition of a native grass ($n = 0.15$). A good cover should promote losses and delay the runoff.

For the smoother surfaces, the velocity of the runoff increased and the losses decreased, which resulted in increasing runoff volumes. This occurred both when the ground cover under the panels was changed to gravel and when the cover in the spacer section was changed to bare ground. Owing to the higher velocities of the flow, runoff rates from the cells increased significantly such that it was necessary to reduce the computational time increment. Fig. 4(a) shows the hydrograph from a 30-panel area with a time increment of 12 s. With a time increment of 12 s, the water in each cell is discharged at the end of every time increment, which results in no attenuation of the flow; thus, the undulations shown in Fig. 4(a) result. The time increment was reduced to 3 s for the 2-h storm, which resulted in watershed smoothing and a rational hydrograph shape [Fig. 4(b)]. The results showed that the storm runoff

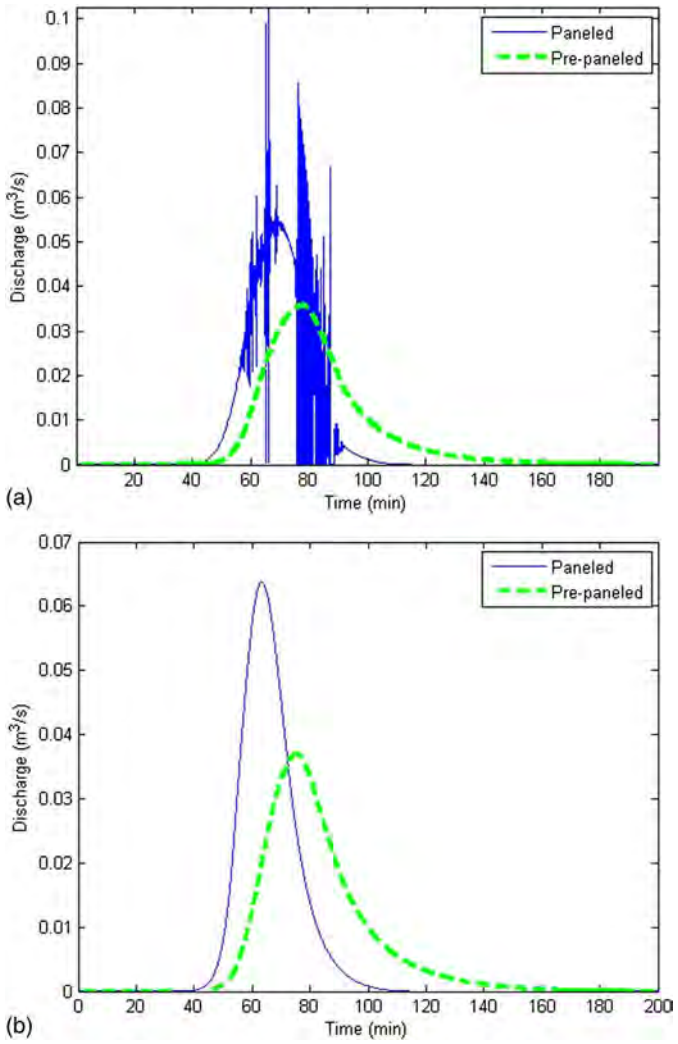


Fig. 4. Hydrograph with time increment of (a) 12 s; (b) 3 s with Manning's n for bare ground

increased by 7% from the grass-covered scenario to the scenario with gravel under the panel. The peak discharge increased by 73% for the gravel ground cover when compared with the grass cover without the panels. The time to peak was 10 min less with the gravel than with the grass, which reflects the effect of differences in surface roughness and the resulting velocities.

If maintenance vehicles used the spacer section regularly and the grass cover was not adequately maintained, the soil in the spacer section would be compacted and potentially the runoff volumes and rates would increase. Grass that is not maintained has the potential to become patchy and turn to bare ground. The grass under the panel may not get enough sunlight and die. Fig. 1 shows the result of the maintenance trucks frequently driving in the spacer section, which diminished the grass cover.

The effect of the lack of solar farm maintenance on runoff characteristics was modeled by changing the Manning's n to a value of 0.02 for bare ground. In this scenario, the roughness coefficient for the ground under the panels, i.e., the dry section, as well as in the spacer cell was changed from grass covered to bare ground ($n = 0.02$).The effects were nearly identical to that of the gravel. The runoff volume increased by 7% from the grass-covered to the bare-ground condition. The peak discharge increased by 72% when compared with the grass-covered condition. The runoff for the bare-ground condition also resulted in an earlier time to peak by approximately 10 min. Two other conditions were also modeled, showing similar results. In the first scenario, gravel was placed directly under the panel, and healthy grass was placed in the spacer section, which mimics a possible design decision. Under these conditions, the peak discharge increased by 42%, and the volume of runoff increased by 4%, which suggests that storm-water management would be necessary if gravel is placed anywhere.

Fig. 5 shows two solar panels from a solar farm in New Jersey. The bare ground between the panels can cause increased runoff rates and reductions in time of concentration, both of which could necessitate storm-water management. The final condition modeled involved the assumption of healthy grass beneath the panels and bare ground in the spacer section, which would simulate the condition of unmaintained grass resulting from vehicles that drive over the spacer section. Because the spacer section is 53% of the cell, the change in land cover to bare ground would reduce losses and decrease runoff travel times, which would cause runoff to amass as it

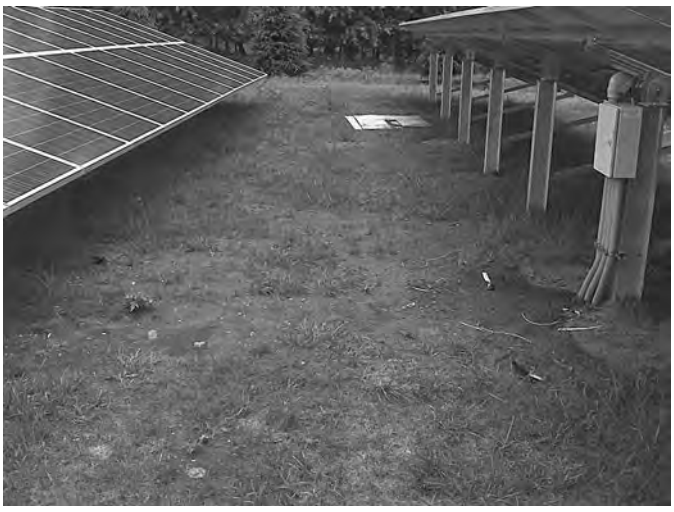


Fig. 5. Site showing the initiation of bare ground below the panels, which increases the potential for erosion (photo by John Showler, reprinted with permission)

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moves downgradient. With the spacer section as bare ground, the peak discharge increased by 100%, which reflected the increases in volume and decrease in timing. These results illustrate the need for maintenance of the grass below and between the panels.

Design Suggestions

With well-maintained grass underneath the panels, the solar panels themselves do not have much effect on total volumes of the runoff or peak discharge rates. Although the panels are impervious, the rainwater that drains from the panels appears as runoff over the downgradient cells. Some of the runoff infiltrates. If the grass cover of a solar farm is not maintained, it can deteriorate either because of a lack of sunlight or maintenance vehicle traffic. In this case, the runoff characteristics can change significantly with both runoff rates and volumes increasing by significant amounts. In addition, if gravel or pavement is placed underneath the panels, this can also contribute to a significant increase in the hydrologic response.

If bare ground is foreseen to be a problem or gravel is to be placed under the panels to prevent erosion, it is necessary to counteract the excess runoff using some form of storm-water management. A simple practice that can be implemented is a buffer strip (Dabney et al. 2006) at the downgradient end of the solar farm. The buffer strip length must be sufficient to return the runoff characteristics with the panels to those of runoff experienced before the gravel and panels were installed. Alternatively, a detention basin can be installed.

A buffer strip was modeled along with the panels. For approximately every 200 m of panels, or 29 cells, the buffer must be 5 cells long (or 35 m) to reduce the runoff volume to that which occurred before the panels were added. Even if a gravel base is not placed under the panels, the inclusion of a buffer strip may be a good practice when grass maintenance is not a top funding priority. Fig. 6 shows the peak discharge from the graveled surface versus the length of the buffer needed to keep the discharge to prepaneled peak rate.

Water draining from a solar panel can increase the potential for erosion of the spacer section. If the spacer section is bare ground, the high kinetic energy of water draining from the panel can cause soil detachment and transport (Garde and Raju 1977; Beuselinck et al. 2002). The amount and risk of erosion was modeled using the velocity of water coming off a solar panel compared with the velocity and intensity of the rainwater. The velocity of panel runoff was calculated using Manning's equation, and the velocity of falling rainwater was calculated using the following:

$$V_t = 120\, d_r^{0.35} \tag{1}$$

where d_r = diameter of a raindrop, assumed to be 1 mm. The relationship between kinetic energy and rainfall intensity is

$$K_e = 916 + 330 \log_{10} i \tag{2}$$

where i = rainfall intensity (in./h) and K_e = kinetic energy (ft-tons per ac-in. of rain) of rain falling onto the wet section and the panel, as well as the water flowing off of the end of the panel (Wischmeier and Smith 1978). The kinetic energy (Salles et al. 2002) of the rainfall was greater than that coming off the panel, but the area under the panel (i.e., the product of the length, width, and cosine of the panel angle) is greater than the area under the edge of the panel where the water drains from the panel onto the ground. Thus, dividing the kinetic energy by the respective areas gives a more accurate representation of the kinetic energy experienced by the soil. The energy of the water draining from the panel onto the ground can be nearly 10 times greater than the rain itself falling onto the ground area. If the solar panel runoff falls onto an unsealed soil, considerable detachment can result (Motha et al. 2004). Thus, because of the increased kinetic energy, it is possible that the soil is much more prone to erosion with the panels than without. Where panels are installed, methods of erosion control should be included in the design.

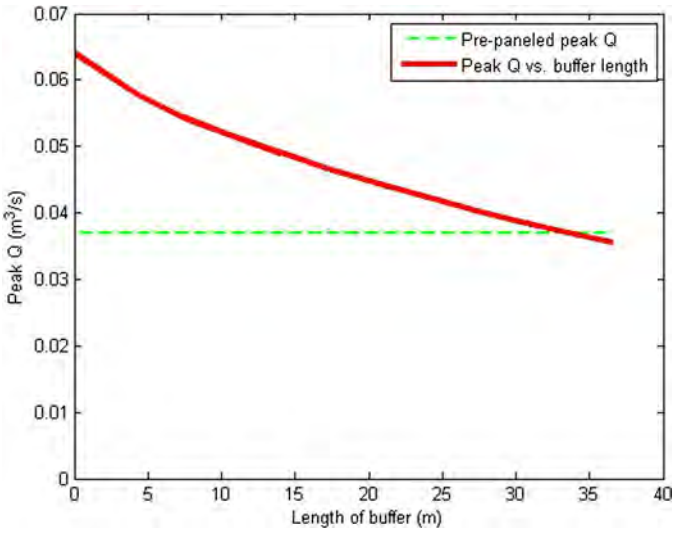


Fig. 6. Peak discharge over gravel compared with buffer length

Conclusions

Solar farms are the energy generators of the future; thus, it is important to determine the environmental and hydrologic effects of these farms, both existing and proposed. A model was created to simulate storm-water runoff over a land surface without panels and then with solar panels added. Various sensitivity analyses were conducted including changing the storm duration and volume, soil type, ground slope, panel angle, and ground cover to determine the effect that each of these factors would have on the volumes and peak discharge rates of the runoff.

The addition of solar panels over a grassy field does not have much of an effect on the volume of runoff, the peak discharge, nor the time to peak. With each analysis, the runoff volume increased slightly but not enough to require storm-water management facilities. However, when the land-cover type was changed under the panels, the hydrologic response changed significantly. When gravel or pavement was placed under the panels, with the spacer section left as patchy grass or bare ground, the volume of the runoff increased significantly and the peak discharge increased by approximately 100%. This was also the result when the entire cell was assumed to be bare ground.

The potential for erosion of the soil at the base of the solar panels was also studied. It was determined that the kinetic energy of the water draining from the solar panel could be as much as 10 times greater than that of rainfall. Thus, because the energy of the water draining from the panels is much higher, it is very possible that soil below the base of the solar panel could erode owing to the concentrated flow of water off the panel, especially if there is bare ground in the spacer section of the cell. If necessary, erosion control methods should be used.

Bare ground beneath the panels and in the spacer section is a realistic possibility (see Figs. 1 and 5). Thus, a good, well-maintained grass cover beneath the panels and in the spacer section is highly recommended. If gravel, pavement, or bare ground is

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deemed unavoidable below the panels or in the spacer section, it may necessary to add a buffer section to control the excess runoff volume and ensure adequate losses. If these simple measures are taken, solar farms will not have an adverse hydrologic impact from excess runoff or contribute eroded soil particles to receiving streams and waterways.

Acknowledgments

The authors appreciate the photographs (Figs. 1 and 5) of Ortho Clinical Diagnostics, 1001 Route 202, North Raritan, New Jersey, 08869, provided by John E. Showler, Environmental Scientist, New Jersey Department of Agriculture. The extensive comments of reviewers resulted in an improved paper.

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EXISTING AGRICULTURAL DRAIN TILE
PROBABILITY MAPPING
YORKVILLE AMENT Rd SOLAR
PREPARED FOR New Leaf Energy
Section no. 16, Kendall Twp., Kendall Co., IL

EXISTING SUBSURFACE AGRICULTURAL DRAIN TILE INVESTIGATION REPORT

YORKVILLE AMENT Rd SOLAR
New Leaf Energy

YORKVILLE AMENT Rd SOLAR / New Leaf Energy , FIELD FILE NO. 8-4-16 , DATE: 7/20/2024 ,
IN ACCORDANCE WITH LOCAL STORMWATER ORDINANCE STANDARDS FOR PROBABLY DRAIN TILE MAPPING
COPYRIGHT © 2024, BY HUDDLESTON MCBRIDE LAND DRAINAGE COMPANY

DESCRIPTION CHART NO. 1A : *INVESTIGATION SLIT TRENCH LOCATIONS*

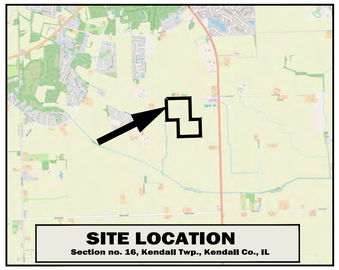
ID NO.	SZ.	TYPE / QUALITY	FLOW %	SILT %	DEPTH GRD./INV.	FIELD NOTES:

NOTE: THIS DESCRIPTION CHART IS RESERVED FOR SITE INTENSIVE DRAIN TILE INVESTIGATION LOCATION, STAKING, GPS MAPPING AND EVALUATION IN ACCORDANCE WITH LOCAL STORMWATER ORDINANCE SPECIFICATIONS.

DESCRIPTION CHART NO. 1B : *SURVEY DATA POINT LOCATIONS*

DATA POINT	SZ.	TYPE / QUALITY	FLOW %	SILT %	DEPTH HUB/INV.	FIELD NOTES:

NOTE: THIS DESCRIPTION CHART IS RESERVED FOR SITE INTENSIVE DRAIN TILE INVESTIGATION LOCATION, STAKING, GPS MAPPING AND EVALUATION IN ACCORDANCE WITH LOCAL STORMWATER ORDINANCE SPECIFICATIONS.



SITE LOCATION
Section no. 16, Kendall Twp., Kendall Co., IL

MAP LEGEND :

- *<<<FLOW<<<* — *EXISTING DRAIN TILE FLOW DIRECTION*
- *EX. POLYETHYLENE MAINLINE OR SYSTEM PART*
- *EX. CLAY DRAIN TILE MAINLINE OR SYSTEM PARTS*
- *EX. CONCRETE DRAIN TILE MAINLINE OR SYSTEM PART*
- *EXISTING DRAIN TILE CONTINUES TO UPLAND WATERSHED*
- *EXISTING DRAIN TILE OUTLETS TO SURFACE*
- *EXIST. DRAIN TILE (1) INSPECTION STRUCTURE , / (2) CATCH BASIN*
- *EXIST. DRAIN TILE (1) LOCATED END / (2) ASSUMED END*
- *EXISTING DRAIN TILE CONTINUES TO OFF-SITE OUTLET SYSTEM*
- *EXISTING DRAIN TILE FAILURE , / FLOW SURCHARGE TO SURFACE*
- *EXISTING DRAIN TILE MAPPED BY SPECULATION AND ASSUMPTION*
- *EXISTING DRAIN TILE ABANDONED (NOT FUNCTIONAL)*
- *EXISTING DRAIN TILE "BLOWOUT" OR FAILURE*
- *HAND PROBE OR ELECTRONIC SCAN FOR DRAIN TILE LOCATION*
- *INVESTIGATION SLIT TRENCH FOR INVESTIGATION*
- *SPECIFIC PIT EXCAVATION FOR INVESTIGATION*
- *SURVEY DATA POINTS*
- *REPORT IDENTIFICATION NUMBER*

REPORT LEGEND :

ID NO.	*POINT OF EXCAVATION FOR SPECIFIC DRAIN TILE INVESTIGATION.*
SZ. (SIZE)	*DRAIN TILE INTERNAL DIAMETER IN INCHES.*
MATERIAL / QUALITY	*TYPE OF TILE MATERIALS, PIPE QUALITY - GOOD, FAIR & POOR.*
FLOW %	*PERCENTAGE OF TILE DIAMETER OCCUPIED BY ACTIVE FLOW.*
(R)	*RESTRICTED OR BACHED UP FLOW, SURCHARGED CONDITION*
SILT %	*PERCENTAGE OF TILE DIAMETER OCCUPIED BY RESTRICTIVE SILT.*
(A)	*ABANDONED, FILLED WITH SILT BLOCKAGE, NO FLOW POTENTIAL*
DEPTH	*MEASUREMENT FROM EXISTING GROUND LEVEL TO PIPE INVERT.*

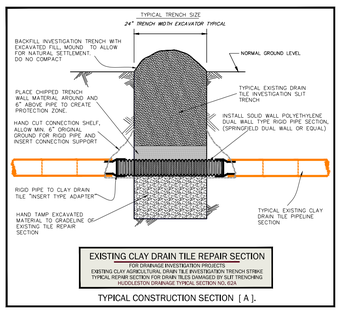
(GENERAL NOTES)

MAINLINE TILE	*TRUNK LINE OR MUTUAL DRAIN, COLLECTOR OF SUB-SYSTEMS.*
SUB-MAIN TILE	*SECONDARY TRUNK LINE OR RANDOM SYSTEM COLLECTOR.*
LATERAL TILE	*FEEDER LINE, SERVICE TILE OR SYSTEM SPUR.*
"BLOWOUT"	*EXISTING SYSTEM PIPE FAILURE OR RESTRICTION.*
DRAIN TILE ENDS	*MAINLINE, SUB-MAIN OR LATERAL PLANNED TERMINATION.*
SLIT TRENCH	*INVESTIGATION TRENCH, TYPICAL 2'- 0" WIDE x 6'- 0" DEPTH.*

SPECIAL NOTES :

- *ALL EXISTING AGRICULTURAL DRAIN TILES LOCATED DURING THIS INVESTIGATION SURVEY HAVE BEEN IDENTIFIED ON THIS PLAN AND FIELD STAKED AT < 50' INTERVALS, IN SOME OCCASIONS CERTAIN EXISTING LOCAL DRAIN TILE SECTIONS MAY BE SPECULATED AND CONSIDERED AS AN ASSUMED ROUTE WHICH SHALL BE DELINEATED ON THIS PLAN.*
- *ALL EXISTING DRAIN TILES DAMAGED DURING THE INVESTIGATION PROCESS SHALL BE REPAIRED TO THEIR ORIGINAL STATE IN ACCORDANCE WITH NATURAL RESOURCE CONSERVATION SERVICE STANDARDS FOR DRAIN TILE INSTALLATION AND REPAIR. (HUDDLESTON DRAINAGE (624) TYPICAL STANDARD "A")*
- *ALL EXISTING DRAIN TILE LOCATION DIMENSIONS HAVE BEEN SURVEYED BY AGRICULTURAL GRADE GPS SURVEY SYSTEMS AND INCLUDE SUB METER ACCURACY, ALL LOCATIONS PERTINENT TO FINAL DESIGN SHALL BE VERIFIED BY THE PROJECT SURVEYOR.*
- *THIS DRAIN TILE INVESTIGATION REPORT IS INTENDED TO IDENTIFY EXISTING DRAIN TILE MAINLINE SYSTEMS ONLY WITH ADDITIONAL PRIORITY ON DRAIN TILES WHICH MAY SERVICE THE UPLAND PROPERTY OF OTHERS OR WITH MUTUAL DRAINAGE STATUS.*
- *THIS DRAIN TILE INVESTIGATION REPORT SHALL BE FILED WITH HUDDLESTON DRAINAGE LAND DRAINAGE CO., AND WILL BE REPRODUCED AND DISBURSED ONLY BY PERMISSION OF THE CONTRACT PRINCIPALS.*

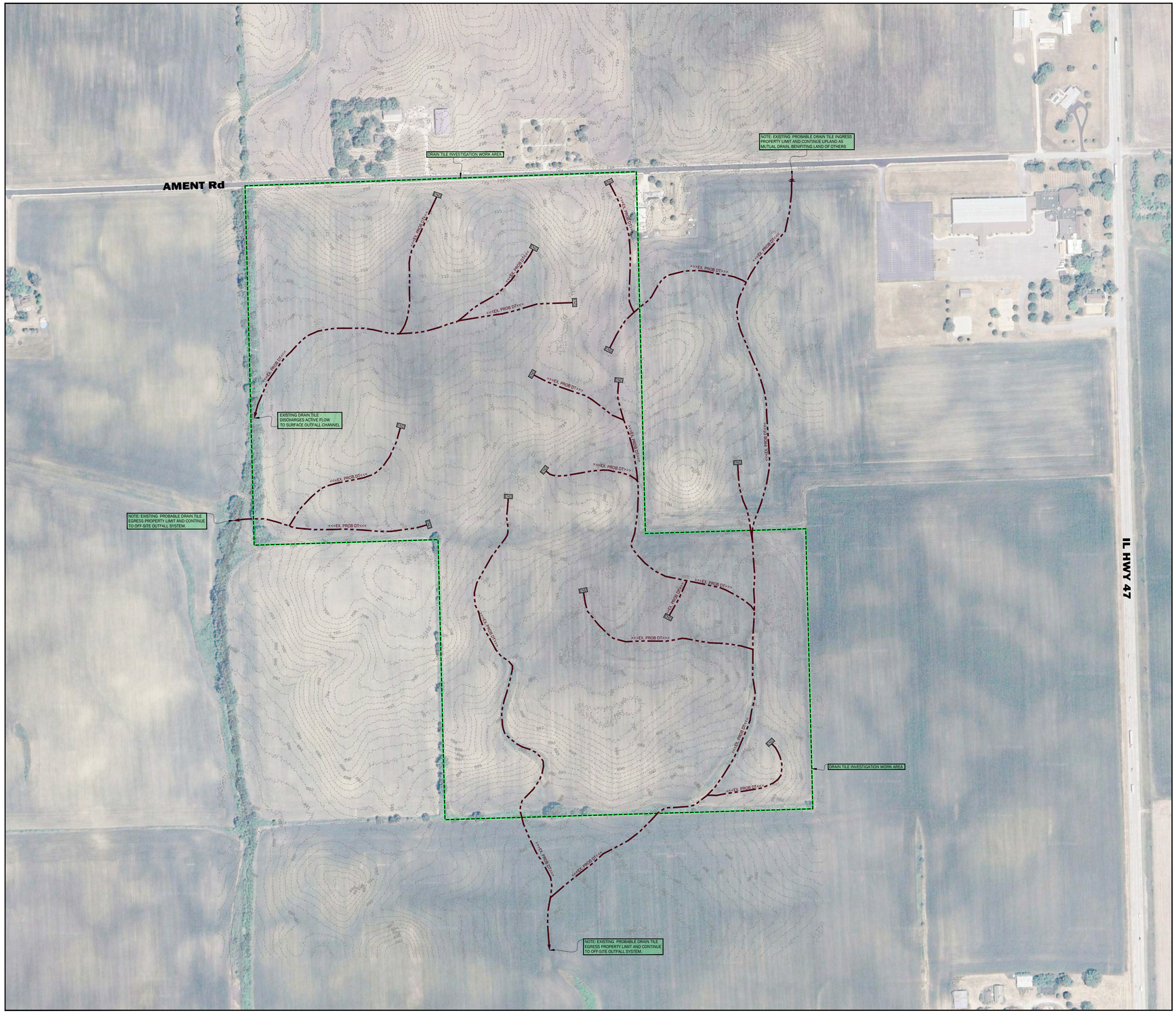
TOM HUDDLESTON, HUDDLESTON McBRIDE DRAINAGE CO.



EXISTING CLAY DRAIN TILE REPAIR SECTION
FOR DRAINAGE INVESTIGATION PROJECTS
EXISTING CLAY AGRICULTURAL DRAIN TILES DAMAGED BY TRENCH STRIKE
TYPICAL REPAIR SECTION FOR DRAIN TILES DAMAGED BY SLIT TRENCHING
HUDDLESTON DRAINAGE TYPICAL SECTION NO. 624

TYPICAL CONSTRUCTION SECTION [A].

THESE SYMBOLS REPRESENT SURVEY DATA POINTS WHICH HAVE BEEN STAKED IN THE FIELD FOR THE SPECIFIC PURPOSE OF ELECTRONIC LOCATION AND ELEVATION DETERMINATION BY THE PROJECT SURVEYOR.
THESE DATA POINTS CONSIST OF A 2" X 2" GROUND HUB AND A 3'-0" ON-LINE LOCATION STAKE WHICH INCLUDES DATA POINT IDENTIFICATION NUMBER, SEPARATION MEASUREMENT FROM HUB TO PIPE INVERT, AND PIPE SIZE.
ALL EXISTING DRAIN TILE ROUTES HAVE BEEN FIELD STAKED WITH "EXISTING DRAIN TILE" PIN FLAGS AT 50' INTERVALS AND DOUBLE FLAGS AT INTERSECTIONS.



PROJECT CLIENT:
New Leaf Energy
Tom Ryan , Project Manager
55 Technology Drive, Suite 102, Lowell, MA 01851

APPROVED BY AND DATE:	*RUDY P. DIXON, P.E., 10/17/24*
ACKNOWLEDGMENTS:	*HUDDLESTON DRAINAGE MAP and ARCHIVE SYSTEMS*
DRAWN BY AND DATE:	*TOM HUDDLESTON 10/17/24*
PROJECT DATE:	10/17/24
FIELD FILE NO.:	8-4-16
DRAWING NO.	8-4-16_P1

REVISIONS

DATE:	BY:	DESCRIPTION:

WEATHER CONDITIONS:	DRAWING SCALE:	SHEET NO.
SUNNY/ WARM - 45o	*1" TO 200'*	*ONE OF ONE*

RUDY P. DIXON 062.065333 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

1976 HUDDLESTON-MCBRIDE 48 Anniversary 2024 DRAINAGE SERVICES

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COORDINATE SYSTEM: ILLINOIS STATE PLANE EAST NAD 83

FORGESOLAR GLARE ANALYSIS

Project: **Ament Road - Kendal County**
5MW Solar Site

Site configuration: **Ament Road - Kendal County**

Created 09 Jul, 2024
Updated 09 Jul, 2024
Time-step 1 minute
Timezone offset UTC-6
Minimum sun altitude 0.0 deg
DNI peaks at 1,034.0 W/m^2
Category 1 MW to 5 MW
Site ID 123723.21235

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	-

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
Ament Road	0	0.0	0	0.0
Illinois Route 47	0	0.0	0	0.0
Immanuel Road	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

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0
OP 14	0	0.0	0	0.0

Component Data

PV Arrays

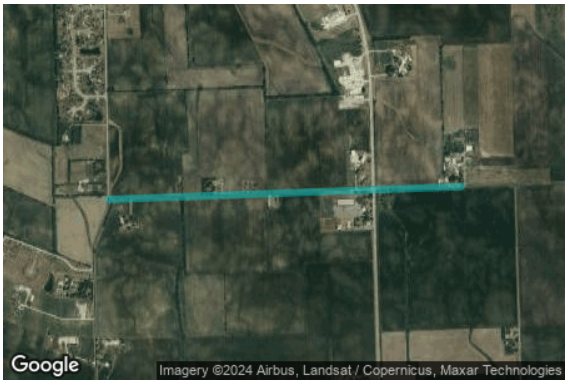
Name: PV array 1
Axis tracking: Single-axis rotation
Backtracking: Shade-slope
Tracking axis orientation: 180.0°
Max tracking angle: 52.0°
Resting angle: 52.0°
Ground Coverage Ratio: 0.5
Rated power: -
Panel material: Smooth glass without AR coating
Reflectivity: Vary with sun
Slope error: correlate with material



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.592943	-88.440589	699.77	20.00	719.77
2	41.589733	-88.440375	696.92	20.00	716.92
3	41.589653	-88.446018	693.17	20.00	713.17
4	41.592862	-88.446104	712.38	20.00	732.38

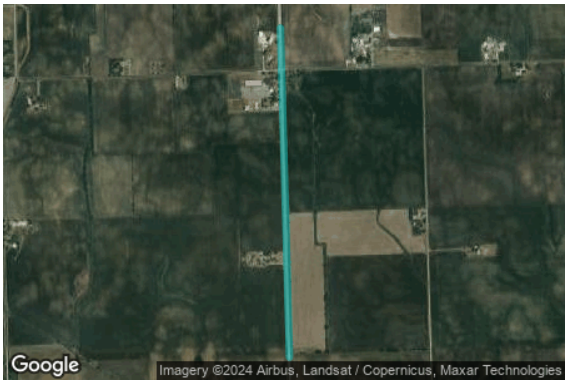
Route Receptors

Name: Ament Road
Path type: Two-way
Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.596670	-88.454069	725.54	5.00	730.54
2	41.597328	-88.429864	700.23	5.00	705.23

Name: Illinois Route 47
Path type: Two-way
Observer view angle: 50.0°



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.599350	-88.435937	716.32	5.00	721.32
2	41.582499	-88.435315	668.79	5.00	673.79

Name: Immanuel Road
Path type: Two-way
Observer view angle: 50.0°



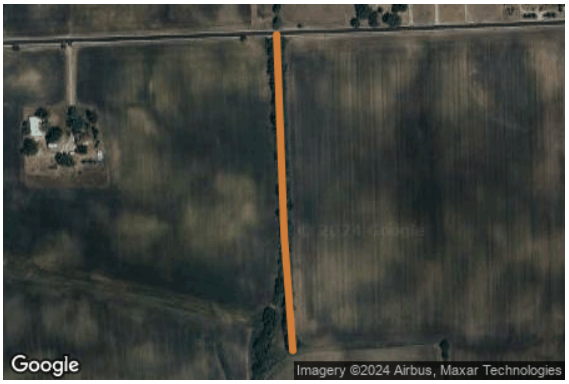
Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	41.598883	-88.454116	737.83	5.00	742.83
2	41.596460	-88.454095	724.20	5.00	729.20
3	41.595208	-88.454588	719.17	5.00	724.17
4	41.594213	-88.455125	718.71	5.00	723.71
5	41.593764	-88.455125	718.19	5.00	723.19
6	41.590270	-88.454996	707.54	5.00	712.54
7	41.585776	-88.454803	680.48	5.00	685.48

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	41.596629	-88.442893	717.46	5.50
OP 2	2	41.596247	-88.438321	705.82	5.50
OP 3	3	41.595481	-88.436320	702.68	5.00
OP 4	4	41.587506	-88.436939	688.28	5.50
OP 5	5	41.580453	-88.450356	696.79	5.00
OP 6	6	41.588179	-88.454638	692.17	5.00
OP 7	7	41.589250	-88.454386	706.23	5.00
OP 8	8	41.589182	-88.457272	703.80	5.00
OP 9	9	41.591232	-88.455743	713.27	5.00
OP 10	10	41.592024	-88.456231	722.74	5.50
OP 11	11	41.595420	-88.452272	721.49	5.00
OP 12	12	41.597066	-88.454673	729.19	5.50
OP 13	13	41.597293	-88.446986	734.84	5.50
OP 14	14	41.597695	-88.436659	710.56	5.50

Obstruction Components

Name: Tree Line 1
Top height: 25.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.596783	-88.449005	719.57
2	41.594231	-88.448876	702.47
3	41.592739	-88.448726	703.41

Name: Tree Line 2
Top height: 25.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	41.589481	-88.448919	686.05
2	41.591038	-88.449305	692.86
3	41.592209	-88.449412	698.37
4	41.593156	-88.449176	702.37
5	41.593685	-88.448962	704.66

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	-

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
Ament Road	0	0.0	0	0.0
Illinois Route 47	0	0.0	0	0.0
Immanuel Road	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

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
Ament Road	0	0.0	0	0.0
Illinois Route 47	0	0.0	0	0.0
Immanuel Road	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

PV array 1 and Route: Ament Road

No glare found

PV array 1 and Route: Illinois Route 47

No glare found

PV array 1 and Route: Immanuel Road

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

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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REAL ESTATE ADJACENT PROPERTY VALUE IMPACT REPORT:

Academic and Peer Authored Property Value Impact Studies, Research and Analysis of Existing Solar Facilities, and Market Participant and Assessor Interviews

Prepared For:

New Leaf Energy, Inc.

Submitted By:

CohnReznick LLP
Valuation Advisory Services
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Patricia L. McGarr, MAI, CRE, FRICS
Andrew R. Lines, MAI
Erin C. Bowen, MAI

March 21, 2023



LETTER OF TRANSMITTAL

March 21, 2023

Mr. Ben Sych
Project Developer
New Leaf Energy, Inc.
[redacted]

SUBJECT: Property Value Impact Report
An Analysis of Existing Solar Farms

To Whom it May Concern:

CohnReznick is pleased to submit the accompanying property values impact report for proposed solar energy uses in Illinois. Per the client's request, CohnReznick researched property transactions adjacent to existing solar farms, researched and analyzed articles and other published studies, and interviewed real estate professionals and Township/County Assessors active in the market where solar farms are located, to gain an understanding of actual market transactions in the presence of solar energy uses.

The purpose of this consulting assignment is to determine whether proximity to a renewable energy use (solar farm) has an impact adjacent property values. The intended use of our opinions and conclusions is to assist the client in addressing local concerns and to provide information that local bodies are required to consider in their evaluation of solar project use applications. We have not been asked to value any specific property, and we have not done so.

The client and intended user for the assignment is New Leaf Energy, Inc. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

This consulting assignment is intended to conform to the Uniform Standards of Professional Appraisal Practice (USPAP), the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, as well as applicable state appraisal regulations.

Based on the analysis in the accompanying report, and subject to the definitions, assumptions, and limiting conditions expressed in the report, our findings are:

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FINDINGS

I. Academic Studies *(pages 18-20):* CohnReznick reviewed and analyzed published academic studies that specifically analyzed the impact of solar facilities on nearby property values. These studies include multiple regression analyses of hundreds and thousands of sales transactions, and opinion surveys, for both residential homes and farmland properties in rural communities, which concluded existing solar facilities have had no negative impact on adjacent property values.

Peer Authored Studies: CohnReznick also reviewed studies prepared by other real estate valuation experts that specifically analyzed the impact of solar facilities on nearby property values. These studies found little to no measurable or consistent difference in value between the Test Area Sales and the Control Area Sales attributed to the proximity to existing solar farms and noted that solar energy uses are generally considered a compatible use.

II. CohnReznick Studies *(pages 21-91)*: Further, CohnReznick has performed 30 studies in over 15 states, of both residential and agricultural properties, in which we have determined that the existing solar facilities have not caused any consistent and measurable negative impact on property values.

For this Project, we have included 10 of these studies which are most similar to the subject in terms of general location and size, summarized as follows:

CohnReznick - Existing Solar Farms Studied

Solar Farm #	Solar Farm	County	State	Power Output (MW AC)	Site Area (Acres)	Date Project Completed	Impact on Surrounding Property Values
1	DTE Lapeer	LaPeer	MI	48.28	±365	May-17	No Impact
2	Grand Ridge Solar	LaSalle	IL	20.00	158	Jul-12	No Impact
3	Woodland Solar	Isle of Wight	VA	19.00	211	Dec-16	No Impact
4	Dominion Indy Solar III	Marion	IN	8.60	129	Dec-13	No Impact
5	Sunfish Farm	Wake	NC	5.00	50	Dec-15	No Impact
6	2662 Freeport Solar CSG	Stephenson	IL	2.00	18	Dec-20	No Impact
7	Portage Solar	Porter	IN	2.00	56	Sep-12	No Impact
8	IMPA Frankton Solar	Madison	IN	1.40	13	Jun-14	No Impact
9	Jefferson County Community	Jefferson	CO	1.20	14	May-16	No Impact
10	Valparaiso Solar	Porter	IN	1.00	28	Dec-12	No Impact

It is noted that proximity to the solar farms has not deterred sales of nearby agricultural land and residential single-family homes nor has it deterred the development of new single-family homes on adjacent land.

This report also includes two "Before and After" analysis, in which sales that occurred prior to the announcement and construction of the solar farm project were compared with sales that occurred after completion of the solar farm project, for both adjoining and non-adjoining properties. No measurable impact on property values was demonstrated.

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III. Market Participant Interviews *(pages 92-94)*: Our conclusions also consider interviews with over 45 County and Township Assessors, who have at least one solar farm in their jurisdiction, and in which they have determined that solar farms have not negatively affected adjacent property values.

With regards to the Project, we specifically interviewed Assessors in Illinois:

- In Otter Creek Township, in LaSalle County, Illinois, we spoke with Viki Crouch, the Township Assessor, who she said that *there has been no impact on property values due to their proximity to the **Grand Ridge Solar Farm***.
- We spoke with Ken Crowley, Rockford Township Assessor in Winnebago County, Illinois, who stated that he has seen *no impact on property values in his township as an effect of proximity to the **Rockford Solar Farm***.
- We spoke with James Weisiger, the Champaign Township Assessor in Champaign County, where the **University of Illinois Solar Farm** is located, and he noted *there appears to have been no impact on property values as a result of proximity to the solar farm*.
- Cindi Lotz of Fayette County, Illinois did indicate that the **Dressor Plains Solar** project *has not had any impact whatsoever on adjacent property values.*

To give us additional insight as to how the market evaluates farmland and single-family homes with views of solar farms, we interviewed numerous real estate brokers and other market participants who were party to actual sales of property adjacent to solar; these professionals also confirmed that solar farms did not diminish property values or marketability in the areas they conducted their business.

IV. Solar Farm Factors on Harmony of Use *(pages 95-101)*: In the course of our research and studies, we have recorded information regarding the compatibility of these existing solar facilities and their adjoining uses, including the continuing development of land adjoining these facilities.

CONCLUSION

Considering all of the preceding, the data indicates that solar facilities do not have a negative impact on adjacent property values.

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If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Very truly yours,

CohnReznick LLP



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SCOPE OF WORK

CLIENT AND INTENDED USERS

The client and intended user of this report is New Leaf Energy, Inc.; other intended users may include the client's legal and site development professionals. Additional intended users of our findings include all relevant permitting authorities for New Leaf Energy's proposed solar projects in Illinois.

INTENDED USE

The intended use of our findings and conclusions is to assist the client in addressing local concerns and to provide information that permitting bodies consider in their evaluation of solar project use applications. We have not been asked to value any specific property, and we have not done so. The report may be used only for the aforementioned purpose and may not be distributed without the written consent of CohnReznick LLP ("CohnReznick").

PURPOSE

The purpose of this consulting assignment is to determine whether proximity to the proposed solar facility will result in an impact on adjacent property values.

DEFINITION OF VALUE

This report utilizes Market Value as the appropriate premise of value. Market value is defined as:

"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;
2. Both parties are well informed or well advised, and acting in what they consider their own best interests;
3. A reasonable time is allowed for exposure in the open market.
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."[1]

[1] Code of Federal Regulations, Title 12, Chapter I, Part 34.42[h]

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EFFECTIVE DATE & DATE OF REPORT

March 21, 2023 (Paired sale analyses contained within each study are periodically updated.)

PRIOR SERVICES

USPAP requires appraisers to disclose to the client any services they have provided in connection with the subject property in the prior three years, including valuation, consulting, property management, brokerage, or any other services.

This report is a compilation of the Existing Solar Farms which we have studied over the past year, and is not evaluating a specific subject site. In this instance, there is no "subject property" to disclose.

INSPECTION

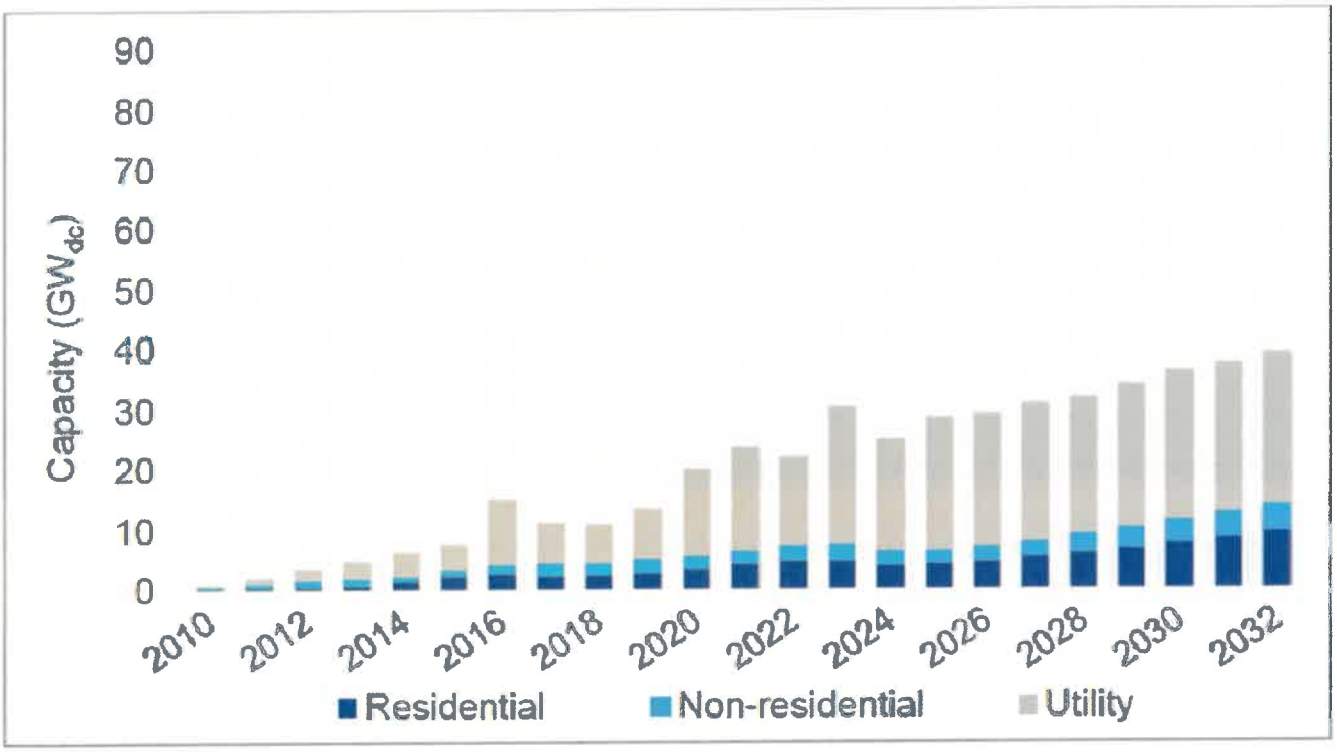
Patricia L. McGarr, MAI, CRE, FRICS, Andrew R. Lines, MAI, and Erin C. Bowen, MAI have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.

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OVERVIEW OF SOLAR DEVELOPMENT IN THE UNITED STATES

Solar development increased almost exponentially over the past ten years in the United States as technology and the economic incentives (Solar Investment Tax Credits or ITC) made the installation of solar farms economically reasonable. The cost to install solar panels has dropped nationally by 70 percent since 2010, which has been one cause that led to the increase in installations. A majority of these solar farm installations are attributed to larger-scale solar farm developments for utility purposes. The chart below portrays the historical increase on an annual basis of solar installations in the US as a whole, courtesy of research by Solar Energy Industries Association (SEIA) and Wood Mackenzie, and projects solar photovoltaic (PV) deployment for the next ten years through 2032, with the largest percentage of installations attributed to utility-scale projects.

US PV installation historical data and forecast, 2010-2032



Wood Mackenzie POWER & RENEWABLES SEIA Solar Energy Industries Association ©2022

The United States installed 4.6 Gigawatts (GW) DC of solar photovoltaic capacity for all the sectors, residential, commercial, community solar and utility-scale solar projects in Q3 2022, a 17 percent decrease from Q3 2021 and a 2 percent increase from Q2 2022, which could have been higher without supply chain constraints. Due to the anti-circumvention investigation instigated by Auxin Solar's petition to the Department of Commerce, most manufacturers have simply stopped shipping equipment to the United States to avoid tariff risk. Additionally, the

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Uyghur Forced Labor Prevention Act (UFLPA) went into effect on June 21, 2022 which has resulted in a reduction in expectations of utility-scale projects in the pipeline, reduced down 10 GWdc from Q1 2022. Most of the reduction comes from the utility-scale solar segment while expectations for distributed solar have increased, effectively balancing each other out.

The beginning dates for operation of multiple gigawatts of projects have been pushed from 2022 into 2023 or later. The projects likely to come online in 2022 already have secured equipment, as of the end of 2021.

However, solar power generation still accounted for 45 percent of all new electricity-generating capacity additions in Q3 2022 and continues to make up the largest share of new generating capacity in the U.S.

As of August 12, 2022, the Inflation Reduction Act was passed in the Senate and The House of Representatives, which includes long-term solar incentives and investment in domestic solar manufacturing. Included in the bill, a 10-year extension and expansion of the Investment Tax Credit (ITC) and Production Tax Credit (PTC) will provide tax credits for solar manufacturing and direct payment options for tax credits. While the uncertainty of the anti-circumvention investigation remains present, the passage of the Inflation Reduction Act gives the solar industry long-term market certainty.

Recent articles show that over the past decade, the solar industry has experienced unprecedented growth. Among the factors contributing to its growth were government incentives, significant capacity additions from existing and new entrants and continual innovation. Solar farms offer a wide array of economic and environmental benefits to surrounding properties. Unlike other energy sources, solar energy does not produce emissions that may cause negative health effects or environmental damage. Solar farms produce a lower electromagnetic field exposure than most household appliances, such as TV and refrigerators, and studies have confirmed there are no health issues related to solar farms.[2]

Solar farm construction in rural areas has also dramatically increased the tax value of the land on which they are built, which has provided a financial boost to some counties. CohnReznick has studied real estate tax increases due to the installation of solar, which can range up to 10-12 times the rate for farmland. A majority of tax revenue is funneled back into the local area, and as much as 50 percent of increased tax revenue can typically be allocated to the local school district. By converting farmland to a passive solar use for the duration of the system's life, the solar energy use does not burden school systems, utilities, traffic, nor infrastructure as it is a passive use that does not increase population as say a residential subdivision would.

Beyond creating jobs, solar farms are also benefiting the overall long-term agricultural health of the community. The unused land, and also all the land beneath the solar panels, will be left to rejuvenate naturally. In the long run this is a better use of land since the soil is allowed to recuperate instead of being ploughed and fertilized year after year. A solar farm can offer some financial security for the property owner over 20 to 25 years. Once solar panel racking systems are removed, the land can revert to its original use.[3]

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[2] "Electromagnetic Field and Public Health." Media Centre (2013): 1-4. World Health Organization.
[3] NC State Extension. (May 2016). Landowner Solar Leasing: Contract Terms Explained. Retrieved from: https://content.ces.ncsu.edu/landowner-solar-leasing-contract-terms-explained

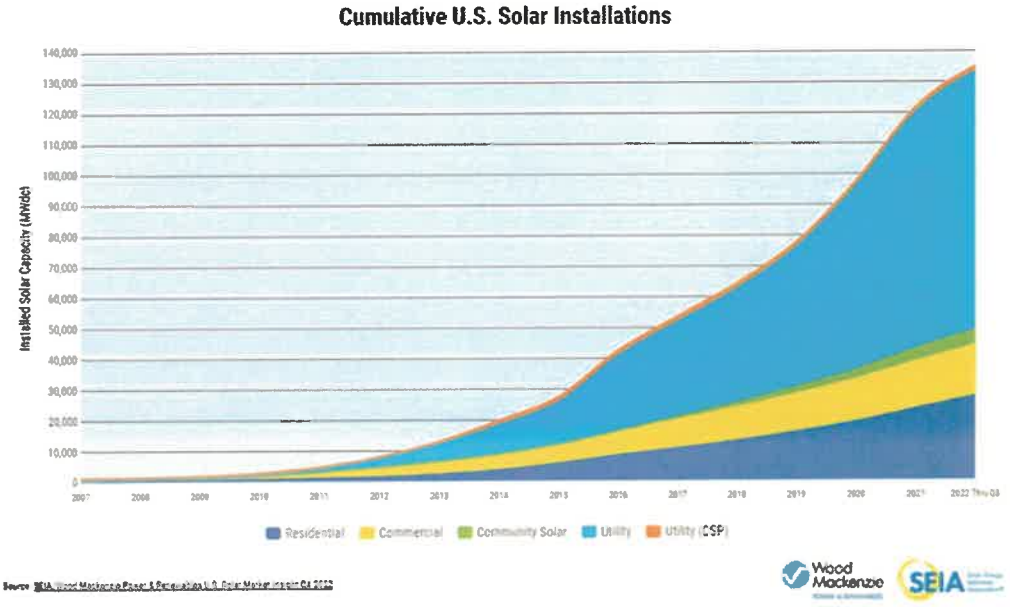
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NATIONAL COMMUNITY SOLAR ENERGY PRODUCTION

Community solar projects (facilities that generate 5 MW AC or less of power) account for 9,600 MW of installed power in the U.S. as of the fourth quarter 2022, according to SEIA data. The community solar industry had a robust year in 2022 with 416 MW installed, according to SEIA data. According to the U.S. Energy Information Administration (EIA) through December 2022, there are over 4,258 community solar facilities in operation across the country.

Community solar installations declined 17 percent year-over-year as of third quarter 2022, and installations are down 17 percent from the second quarter 2022. Due to uncertainty around the anti-circumvention investigation, supply chain issues, and long timelines for new community solar policies, community solar installations are expected to contract in 2023. The growth of community solar installations from 2014 to 2022 is presented in the following chart.



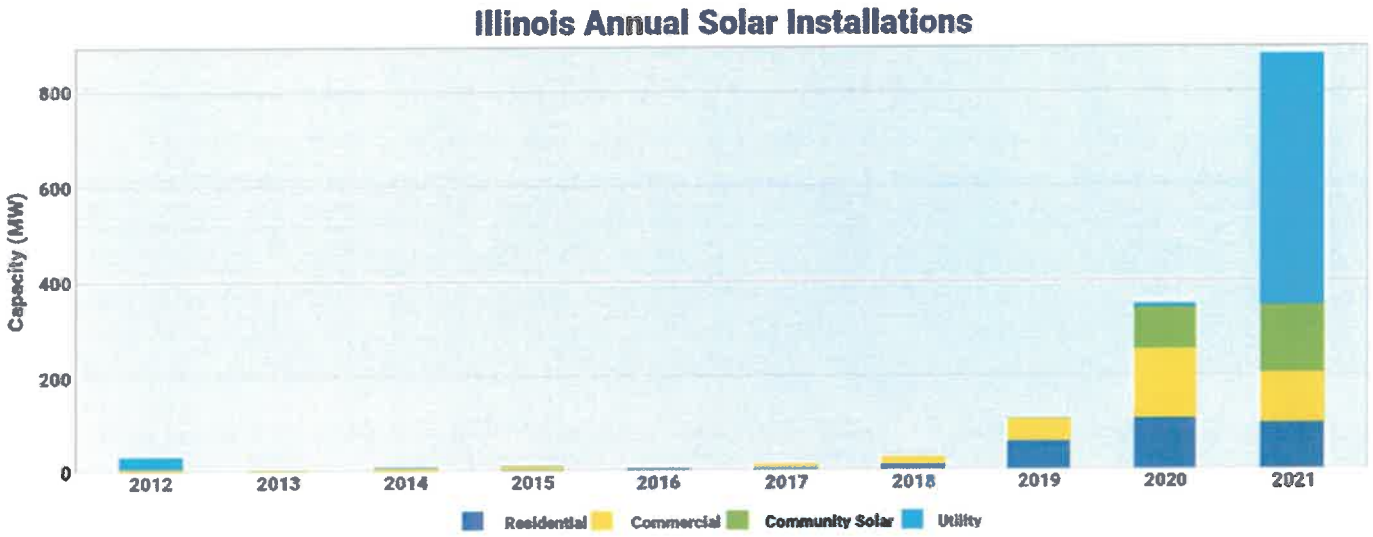
While early growth for community solar installations was led primarily by three key markets - New York, Minnesota, and Massachusetts - a growing list of states with community solar programs have helped diversify the market, creating large pipelines set to come to fruition over the next several years.

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SOLAR ENERGY PRODUCTION IN ILLINOIS

As of the end of Q3 2022, Illinois has 1,909 MW of solar installed, ranking 15th in the US for the capacity of solar installed according to the Solar Energy Industries Association (SEIA). There have been significantly more utility investments in clean energy with continued growth on the horizon, with 4,943 MW of solar proposed to be installed over the next five years.



Illinois has 1,446.1 MW AC of solar power planned for installation through December 2022 in 15 facilities across the state. Seven of the planned solar installations in Illinois are utility scale and total 1,430.8 MW AC, or 99 percent of all planned installations. The largest new solar facility in Illinois will be a 600 MW AC utility scale installation projected to become operational in December 2024 in Lee County, that is being developed by Steward Creek Solar. The total planned solar facilities will increase solar power generation in the state by approximately 176 percent.

There are 9 community solar projects planned for the state of Illinois before the end of 2023, generating a total of 24.1 MW AC of power.

Additionally, on January 27, 2023, Illinois Governor, JB Pritzker, signed into law House Bill 4412 which protects clean energy projects in Illinois from the increasing number of local bans. House Bill 4412 establishes statewide wind and solar project siting regulations, prioritizes protection for endangered species and natural areas, and limits the restrictions allowed in local ordinances that have previously hindered wind and solar clean energy projects. A rapid development in clean energy across the state can be expected as House Bill 4412 prevents future bans of clean energy projects on a local level and takes precedence over current bans.

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APPRAISAL THEORY – ADJACENT PROPERTY'S IMPACT ON VALUE

According to Randall Bell, PhD, MAI, author of text *Real Estate Damages,* published by the Appraisal Institute in 2016, understanding the market's perceptions on all factors that may have an influence on a property's desirability (and therefore its value) is essential in determining if a diminution or enhancement of value has occurred.[4] According to Dr. Bell:

> *"There is often a predisposition to believe that detrimental conditions automatically have a negative impact on property values. However, it is important to keep in mind that if a property's value is to be affected by a negative condition, whether internal or external to the property, that condition must be given enough weight in the decision-making process of buyers and sellers to have a material effect on pricing relative to all the other positive and negative attributes that influence the value of that particular property."*[5]

Market data and empirical research through the application of the three traditional approaches to value should be utilized to estimate the market value to determine if there is a material effect on pricing due, to the influence of a particular characteristic of or on a property.

A credible impact analysis is one that is logical, innate, testable and repeatable, prepared in conformity with approved valuation techniques. In order to produce credible assignment results, more than one valuation technique should be utilized for support for the primary method, or a check of reasonableness, such as utilization of more than one approach to value, conducting a literature review, or having discussions (testimony) with market participants.[6] CohnReznick implemented the scientific method[7] to determine if a detrimental condition of proximity to a solar farm exists, further described in the next section.

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[4] Bell, Randall, PhD, MAI. *Real Estate Damages. Third ed.* Chicago, IL: Appraisal Institute, 2016. (Pages 1-2)
[5] Ibid, Page 314
[6] Ibid, Pages 7-8
[7] The scientific method is a process that involves observation, development of a theory, establishment of a hypothesis, and testing. The valuation process applies principles of the scientific method as a model, based upon economic principles (primarily substitution) as the hypothesis. The steps for the scientific method are outlined as follows:

1. Identify the problem.
2. Collect relevant data.
3. Propose a hypothesis.
4. Test the hypothesis.
5. Assess the validity of the hypothesis.

Bell, Randall, PhD, MAI. *Real Estate Damages. Third ed.* Chicago, IL: Appraisal Institute, 2016. (Pages 314-316)

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METHODOLOGY

The purpose of this report is to determine whether proximity to the solar facility resulted in any measurable and consistent impact on adjacent property values. To test this hypothesis, CohnReznick identified three relevant techniques to test if a detrimental condition exists.

(1) A review of published studies;
(2) Paired sale analysis of properties adjacent to existing solar generating facilities, which may include repeat sale analyses or "Before and After" analyses; and,
(3) Interviews with real estate professionals and local real estate assessors.

The paired sales analysis is an effective method of determining if there is a detrimental impact on surrounding properties.

> *"One of the most useful applications of the sales comparison approach is paired sale analysis. This type of analysis may compare the subject property or similarly impacted properties called* ***Test Areas*** *(at Points B, C, D, E, or F) with unimpaired properties called* ***Control Areas*** *(Point A). A comparison may also be made between the unimpaired value of the subject property before and after the discovery of a detrimental condition. If a legitimate detrimental condition exists, there will likely be a* ***measurable and consistent difference*** *between the two sets of market data; if not, there will likely be no significant difference between the two sets of data. This process involves the study of a group of sales with a detrimental condition, which are then compared to a group of otherwise similar sales without the detrimental condition."*[8]

As an approved method, paired sales analysis can be utilized to extract the effect of a single characteristic on value. By definition, paired data analysis is "a quantitative technique used to identify and measure adjustments to the sale prices or rents of comparable properties; to apply this technique, sales or rental data on nearly identical properties is analyzed to isolate a single characteristic's effect on value or rent."[9] The text further describes that this method is theoretically sound when an abundance of market data, or sale transactions, is available for analysis.

Where data is available, CohnReznick has also prepared "Before and After" analyses or a Repeat Sale Analysis,[10] to determine if a detrimental impact has occurred.

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[8] Bell, Randall, PhD, MAI. *Real Estate Damages. Third ed.* Chicago, IL: Appraisal Institute, 2016. (Page 33)
[9] *The Appraisal of Real Estate 14th Edition.* Chicago, IL: Appraisal Institute, 2013.
[10] Another type of paired sales analysis involves studying the sale and subsequent resale of the same property. This method is used to determine the influence of time on market values or to determine the impact of a detrimental condition by comparing values before and after the discovery of the condition.
Bell, Randall, PhD, MAI. *Real Estate Damages. Third ed.* Chicago, IL: Appraisal Institute, 2016. (Page 35)

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SCOPE OF WORK

The scope of work utilized to test the hypothesis stated on the prior page is as follows:

1. Review published studies, assess credibility, and validity of conclusions;
2. Prepare paired sale analyses for existing solar farms as follows:
    2.1. Identify existing solar farms comparable to the proposed project to analyze;
    2.2. Define Test Area Sales and Control Areas Sales;
    2.3. Collect market data (sale transactions) for both Test Area and Control Area Sales;
    2.4. Analyze and confirm sales, including omission of sales that are not reflective of market value;
    2.5. Prepare comparative analysis of Test Area and Control Area sales, adjusting for market conditions;
    2.6. Interpret calculations; and
3. Conduct interviews with real estate professionals and local real estate assessors who have evaluated real property adjacent to existing solar farms.

It should be noted that our impact report data and methodology have been previously reviewed by our peer in the field – Kirkland Appraisals, LLC – as well as by the Solar Energy Industries Association (SEIA).

The following bullet points summarize important elements to consider in our scope of work:

- Due to the limited number of community solar projects that qualified for study in the state of Illinois, we have incorporated some regional utility scale projects and community solar projects in other states.

- Test Area Sales consists of sales that are adjacent to an existing solar facility. Ownership and sales history for each adjoining property to an existing solar farm through the effective date of this report is maintained within our workfile. Adjoining properties with no sales data or that sold prior to the announcement of the solar farm were excluded from further analysis.

- Control Area Sales are generally located in the same market area, although varies based on the general location of the existing solar farm under analysis. In rural areas, sales are identified first within the township, and expands radially outward through the county until a reliable set of data points is obtained.

- Control Area Sales are generally between 12 and 18 months before or after the date of the Test Area Sale(s), and are comparable in physical characteristics such as age, condition, style, and size.

- Sales of properties that sold in a non-arm's length transaction (such as a transaction between related parties, bank-owned transaction, or between adjacent owners) were excluded from analysis as these are not considered to be reflective of market value, as defined earlier in this report. The sales that remained after exclusions were considered for a paired sale analysis.

- The methodology employed in this report for paired sale analysis does not rely on multiple subjective adjustments that are typical in many appraisals and single-paired sales analyses. Rather, the

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methodology remains objective, and the only adjustment required is for market conditions;[11] the analysis relies upon market conditions trends tracked by credible agencies such as the Federal Housing Finance Agency ("FHFA"), who maintains a House Price Index ("HPI")[12] for macro and micro regions in the United States. A market conditions adjustment is a variable that affects all properties similarly and can be adjusted for in an objective manner.

- To make direct comparisons, the sale price of the Control Area Sales was adjusted for market conditions to a common date. In this analysis, the common date is the date of the Test Area Sale(s). After adjustment, any measurable difference between the sale prices would be indicative of a possible price impact by the solar facility.

- If there is more than one Test Area Sale to evaluate, the sales are grouped if they exhibit similar transactional and physical characteristics; otherwise, they are evaluated separately with their own respective Control Area Sale groups.

[11] Adjusting for market conditions is necessary as described in The Appraisal of Real Estate 14th Edition as follows: "Comparable sales that occurred under market conditions different from those applicable to the subject on the effective date of appraisal require adjustment for any differences that affect their values. An adjustment for market conditions is made if general property values have increased or decreased since the transaction dates."

[12] The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancings on the same properties. This information is obtained by reviewing repeat mortgage transactions on single-family properties whose mortgages have been purchased or securitized by Fannie Mae or Freddie Mac since January 1975. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels. Because of the breadth of the sample, it provides more information than is available in other house price indexes.

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TECHNIQUE 1: REVIEW OF PUBLISHED STUDIES

The following is a discussion of various studies that consider the impact of solar farms on surrounding property values. The studies range from quantitative analysis to survey-based formal research to less formal analyses.

ACADEMIC REPORTS

There have been three academic reports that attempt to quantify the effect on property values due to proximity to solar.

i. The first report is a study completed by **The University of Texas at Austin**, published in May 2018.[13] The portion of the study focusing on property impact was an Opinion Survey of Assessors with no sales data or evidence included in the survey. The opinion survey was sent to 400 accessors nationwide and received only 37 responses. Of those 37 assessors, only 18 had assessed a home near a utility-scale solar installation, the remainder had not. Of the 18 assessors with experience in valuing homes near solar farms, 17 had not found any impact on home values near solar. Those are the actual facts in the study. A small number of those assessor respondents hypothetically surmised an impact, but none had evidence to support such statements.

   The paper admits that there is no actual sales data analyzed, and further denotes its own areas of weakness, including "This study did not differentiate between ground-mounted and rooftop installations." The author states on the last line of page 22: ***"Finally, to shift from perceived to actual property value impacts, future research can conduct analyses on home sales data to collect empirical evidence of actual property value impacts."***

   The paper concludes with a suggestion that a statistic hedonic regression model may better identify impacts. It should be noted that the type of statistical analysis that the author states is required to determine "*actual property value impacts*' was completed two years later by the following Academic Studies.

ii. The second report is a study prepared by a team at the **University of Rhode Island**, published in September 2020, "*Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island.*"[14] The study utilized a hedonic pricing model, or multiple regression analysis, to quantify the effect of proximity on property values due to solar by studying existing solar installations in Massachusetts and Rhode Island. The study evaluated 208 solar facilities, 71,373 housing sales occurring within one-mile of the solar facilities (Test Group), and 343,921 sales between one-to-three miles (Control Group). Because it is a hedonic regression model, it allowed them to isolate specific

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[13] Al-Hamoodah, Leila, et al. An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations. Policy Research Project (PRP), LBJ School of Public Affairs, The University of Texas at Austin, May 2018, emp.lbl.gov/sites/default/files/property-value_impacts_near_utility-scale_solar_installations.pdf.

[14] Gaur, V. and C. Lang. (2020). Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island. Submitted to University of Rhode Island Cooperative Extension on September 29, 2020. Accessed at https://web.uri.edu/coopext/valuing-sitingoptions-for-commercial-scale-solar-energy-in-rhode-island/.

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variables that could impact value, including isolating rural and non-rural locations. The study defines "**Rural**," as an area having a "population density of 850 people per square mile or fewer."

The study provides data which found no negative impact to residential homes near solar arrays in rural areas: "these results suggest that [the Test Area] in rural areas ***is effectively zero*** (a statistically insignificant 0.1%), and that the negative externalities of solar arrays are only occurring in non-rural areas."[15] Further, the study tested to determine if the size of the installation impacted values, and found no evidence of differential property values impacts by the solar installation's size.

Thus, not only are there no impacts to homes in similar areas as the proposed Project, but any differences in the size of a solar farm are similarly not demonstrating an impact.

iii. The third report is a published study prepared by Dr. Nino Abashidze, School of Economics, Georgia Institute of Technology, dated October 20, 2020, entitled "*Utility Scale Solar Farms and Agricultural Land Values*." Abashidze examined 451 solar farms in North Carolina. "Across many samples and specifications, we find ***no direct negative or positive spillover effect of a solar farm construction on nearby agricultural land values.*** Although there are no direct effects of solar farms on nearby agricultural land values, we do find evidence that suggests construction of a solar farm may create a small, positive, option-value for land owners that is capitalized into land prices. Specifically, after construction of a nearby solar farm, we find that agricultural land that is also located near transmission infrastructure may increase modestly in value."

iv. On March 1, 2023, an article was prepared by the Energy Analysis and Environmental Impacts Division, Lawrence Berkeley National Lab, Berkeley, CA, which measured 1.8 million residential transactions around solar facilities greater than 1 MW in the states of CA, CT, MA, MN, NC and NJ. We are still reviewing this article although it does note that for the overwhelming majority of the transactions (in the states of CA, CT and MA), no impact was measured near large-scale photo-voltaic facilities or LSPVs. We expect to have additional opinions regarding the merits and conclusions of this study in the coming weeks after the date of this report.

VALUATION EXPERT REPORTS

We have similarly considered property value impact studies prepared by other experts, which have also noted that the installation of utility-scale solar on a property has no measurable or consistent impact on adjoining property value. According to a report titled "Mapleton Solar Impact Study" from Kirkland Appraisals, LLC, conducted in Murfreesboro, North Carolina in September 2017, which studied 13 existing solar farms in the state, found that the solar farms had no impact on adjacent vacant residential, agricultural land, or residential homes. The paired sales data analysis in the report primarily consisted of low density residential and agricultural land uses and included one case where the solar farm adjoined to two dense subdivisions of homes.

[15] The University of Rhode Island study's conclusion that there may be an impact to non-rural communities is surmised is that "land is abundant in rural areas, so the development of some land into solar does little to impact scarcity, whereas in non-rural areas it makes a noticeable impact.

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Donald Fisher, ARA who has served six years as Chair of the American Society of Farm Managers and Rural Appraisers, and has prepared several market studies examining the impact of solar on residential values was quoted in a press release dated February 15, 2021 stating, "Most of the locations were in either suburban or rural areas, and all of these studies found either a neutral impact or, ironically, a positive impact, where values on properties after the installation of solar farms went up higher than time trends."

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REAL ESTATE ASSESSOR SOLAR IMPACT REPORTS

The Chisago County (Minnesota) Assessor's Office conducted their own study on property prices adjacent to and in the close vicinity of the North Star solar farm in Chisago County, Minnesota. At the November 2017 Chisago County Board meeting, John Keefe, the Chisago County Assessor, presented data from his study. He concluded that the North Star solar farm had, "no adverse impact" on property values. His study encompassed 15 parcels that sold and were adjacent or in the close vicinity to the solar farm between January 2016 and October 2017; the control group used for comparison comprised of over 700 sales within the county. Almost all of the [Test Area] properties sold were at a price above the assessed value. He further stated that, "It seems conclusive that valuation has not suffered."[16]

Furthermore, Grant County, Kentucky Property Value Administrator, Elliott Anderson, stated that Duke Energy built a solar farm near Crittenden, adjacent to existing homes on Claiborne Drive in December 2017. At the time of the interview, there have been nine arm's length homes sales on that street since the solar farm commenced operations. Each of those nine homes sold higher than its assessed value, and one over 32 percent higher. At the time, Anderson noted that several more lots were for sale by the developer and four more homes were currently under construction. Anderson said that *the solar farm had no impact either on adjoining home values or on marketability or desirability of those homes adjacent to the solar farm.*

CONCLUSION

These published studies and other valuation expert opinions conclude that there is no impact to property adjacent to established solar farms. These conclusions have been confirmed by academic studies utilizing large sales databases and regression analysis investigating this uses' potential impact on property values. Further, the conclusion has been confirmed by county assessors who have also investigated this adjacent land use' potential impact on property values.

[16] Chisago County Press: County Board Real Estate Update Shows No "Solar Effects" (11/03/2017)

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TECHNIQUE 2: PAIRED SALE ANALYSIS

SOLAR FARM 1: DTE LAPEER SOLAR PROJECT, LAPEER, MICHIGAN

Coordinates: Latitude 43.0368219316, Longitude -83.3369986251

PINs: L20-95-705-050-00, L20-98-008-003-00

Total Land Size: ±365 Acres

Date Project Announced: 2016

Date Project Completed: May 2017

Output: 48.28 MW AC



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The Surrounding Area: The DTE Lapeer solar farm is located just south of the City of Lapeer, in Lapeer County, Michigan and is a joint project between the City of Lapeer and DTE Electric Company. The solar farm was developed with Inovateus Solar MI, LLC to meet Michigan renewable energy standards. The solar farm features over 200,000 panels, a power output of 48.28 MW AC, and produces enough energy to power 14,000 homes. The Lapeer solar project was developed in two phases: the Demille Solar installation and the Turrill Solar installation. For purposes of our study, taken together, both installations are considered one solar farm.



DTE's Lapeer Solar Projects Demille and Turrill Solar installations

Lapeer is considered to be in the Tri-Cities area of central Michigan and is approximately 21 miles east of the City of Flint. Interstate-69 serves Lapeer and runs east-west just south of the solar farm. The two phases of the solar installation are on the east and west sides of Michigan State Route 24 from each other.

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The Immediate Area: Land uses surrounding the Demille installation include a correctional facility and industrial uses to the west, buffered by a mature stand of trees, a retail center to the northeast, other commercial uses to the east along MI-24/South Lapeer Road, and residential homes to the southeast. Interstate-69 runs south of the Demille solar installation.

The Turrill installation is surrounded to the north by a residential subdivision, to the north and east by industrial uses, to the south by vacant land and residential homes, and to the west by light commercial and professional uses along MI-24/South Lapeer Road. Hunter's Creek divides two sets of solar arrays in the Turrill installation.

The Demille installation adjoins Interstate-69 to the South; while a residential subdivision adjoins the solar farm to the east. To the northeast corner of the solar panels is a senior living facility, Stonegate Health Campus, developed before the solar facility.

Real Estate Tax Information:

Prior to the development of the solar farm, the land under the Demille and Turrill solar installations were municipal-owned and were not subject to property tax. After development, in 2017, the land became taxable and taxes were $82,889 total, as shown below.

PIN	Acres	2016 Taxes Paid	2017 Taxes Paid	Tax Increase	2016 Assessed Value	2017 Assessed Value	Value Increase
Lapeer County, MI							
L20-98-008-003-00*	110.84	$ -	$ 34,294	N/A	$ -	$ 726,700	N/A
L20-95-705-050-00*	254.84	$ -	$ 48,595	N/A	$ -	$ 1,029,750	N/A
TOTAL	**365.68**	**$ -**	**$ 82,889**	**N/A**	**$ -**	**$ 1,756,450**	**N/A**

* Prior to development as a solar farm, the parcels were municpal property without a taxable value.

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PAIRED SALE ANALYSIS

The maps, below, and on the following pages display properties adjoining the solar sites that are numbered in red for subsequent analysis.

Demille Solar Farm



DTE Lapeer Solar Projects - Demille Adjoining Properties

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DTE Lapeer Solar Projects - Demille Adjoining Properties

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Turrill Solar Farm



DTE Lapeer Solar Projects - Turrill Adjoining Properties

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DTE Lapeer Solar Projects - Turrill Adjoining Properties

In reviewing Adjoining Properties to study in a Paired Sale Analysis, several properties and sales were considered but eliminated from further consideration as discussed below.

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We identified eight Adjoining Properties that sold since the solar farm started operations in May of 2017: Adjoining Properties 3, 4, 7, 9, 10, and 16 for the Demille Solar Farm, and Adjoining Properties 3 and 4 for the Turrill Solar Farm. Of these properties, three were considered atypical for the area.

Adjoining Property 7 adjacent to the Demille Solar farm is a split-level home with a finished walk out basement with a pool. The typical home in the area has a traditional basement and pools are atypical. The unusual nature of this sale was confirmed with the selling broker, Renee Voss (see comments below). We note that this home sold twice after the construction of the solar farm, once in September 2018 and again in August 2019. The appreciate rate between the two sale dates are analyzed further later in this section.

Adjoining Property 16 just south of the Demille Solar Farm is a 10.1-acre lot that is buffered by trees. The home is atypical for the area, as most homes are situated on lots between 1-acre and 1.5-acres in size and were built before 1980; this home was built in 2008. We interviewed the broker Josh Holbrook (see comments below) who confirmed the atypical nature of this property.

Adjoining Property 3, just west of the Turrill Solar Farm, was a ranch home with 1,348 square feet on a lot that was just over one acre. Comparables for homes of this size, type, and lot size were not available in the immediate market area. It should be noted that the price per square foot for this home ($108.01) is significantly higher than median price per square foot of either data set we studied.

As a part of our research, we interviewed three local real estate brokers that sold homes adjacent to the Lapeer Solar farm. According to the brokers, there was no impact on the home prices or marketability due to the homes' proximity to the solar arrays.

Renee Voss of Coldwell Banker, selling broker of the raised ranch at 1138 Don Wayne Drive (Adjoining Property 7), which is adjacent to the Demille solar farm at the southeast corner, noted that there was no impact on this sale from the solar farm located to the rear. The home, which has a pool in the backyard, sold quickly with multiple offers, Voss stated.

Josh Holbrook, the selling broker of 1408 Turrill Road (known as Adjoining Property 16), located just south of the Demille Solar Farm, said the solar farm had no impact on the sale and that the community takes pride in the solar farm.

Anne Pence of National Realty Centers, the selling broker for 1126 Don Wayne Drive, a single-family home adjacent to the Demille solar farm (known as Test Area Sale 9), reported that "the solar farm did not have any effect on the sale of this home. The buyers did not care one bit about the solar field in the back yard. The fact is that you know no one is going to be behind you when they develop a solar farm in your back yard. And [sometimes the developer] put up trees to block the view. My in-laws also actually live at end of that street, even though they haven't sold or put their house on market, they don't mind the solar panels either. It's not an eyesore. And another house sold on that block, a raised ranch home, and it sold with no problems."

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Adjoining Properties 3, 4, and 9 to the Demille Solar Farm were considered for a paired sales analysis, and we analyzed these properties as single-family home uses in Group 1. The improvements on these properties are located between 275 to 305 feet to the nearest solar panel.

Test Area Sales Group 1 - Demille Solar									
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median Square Feet	Median Sale Date	Median Price PSF
3, 4, 9	1174 Alice Dr, 1168 Alice Dr, 1126 Don Wayne Drive	$165,000	0.50	3	2.0	1973	1,672	Jan-19	$105.26

We analyzed six Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to the solar farm, that sold within a reasonable time frame from the median sale date of the Test Area Sales in Group 1. The Control Area Sales for Group 1 are ranch homes with three bedrooms and one and a half to two bathrooms. We excluded sales that were bank-owned, and those between related parties.



Lapeer Solar-Demille - Group 1: Test Area Sales Map

Control Area Sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeat-sales index measuring average price changes in repeat sales or

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refinancing of the same properties. The result of our analysis for DTE Lapeer Solar Project - Group 1-Demille is presented on the below.

CohnReznick Paired Sale Analysis DTE Lapeer Solar Group 1 - Demille Solar		
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF
Test Area Sales (3)	Adjoining solar farm	$105.26
Control Area Sales (6)	No: Not adjoining solar farm	$99.64
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		5.65%

The days on market for the three Test Area Sales had a median of 29 days on market (ranging from 5 to 48 days), while the median days on market for the Control Area Sales was 21 days (ranging from 5 to 224 days), ***and we note no significant marketing time differential.***

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GROUP 2 – DEMILLE

Adjoining Property 10 to the Demille Solar Farm was considered for a paired sales analysis, and we analyzed this property as a single-family home use in Group 2. The improvements on this property are located approximately 315 to the nearest solar panel.

Test Area Sale Group 2 - Demille Solar										
Adj. Property #	Address	Sale Price	Median Site Size (AC)	Bedrooms	Bathrooms	Year Built/Renovated	Square Feet	Other Features	Sale Date	Price PSF
10	1120 Don Wayne Drive, Lapeer	$194,000	0.47	3	2.5	1976/2006	1,700	Above Ground Pool, Two Car Garage	Nov-19	$114.12

We analyzed five Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to the solar farm, that sold within a reasonable time frame from the sale date of the Test Area Sale in Group 2. The Control Area Sales for Group 2 are similarly sized homes in Lapeer County with three to four bedrooms and one and half to three bathrooms, with an above-ground pool, and an attached garage. We excluded sales that were bank-owned, and those between related parties.



DTE Lapeer Solar-Demille - Group 2: Test Area Sales Map

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Control Area Sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeat-sales index measuring average price changes in repeat sales or refinancing of the same properties. The result of our analysis for DTE Lapeer Solar Project - Group 2 is presented below.

CohnReznick Paired Sale Analysis DTE Lapeer Solar Group 2 - Demille Solar		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sales (1)	Adjoining solar farm	$114.12
Control Area Sales (5)	No: Not adjoining solar farm	$113.01
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		**0.98%**

The marketing time for the Test Area Sales was 90 days on market, while the median marketing time for the Control Area Sales was 34 days (ranging from 3 to 73 days). We note the Test Area Sale was initially listed above its market value, as there was a listing price decline after a month on the market. We also note that after the final decrease of the list price, the Test Area Sale home was only on the market 51 more days, which is within the range exhibited by the Control Area Sales.

GROUP 3 – TURRILL

Adjoining Property 4 to the Turrill Solar Farm was analyzed separately since it is a two-story home on a larger lot than the Test Area Sale in Group 2. The home on Adjoining Property 4 is 290 feet from the property line to the nearest solar panel.

Test Area Sale Group 3 - Turrill Solar									
Adj. Property #	**Address**	**Median Sale Price**	**Median Site Size (AC)**	**Median Beds**	**Median Baths**	**Median Year Built**	**Median Square Feet**	**Median Sale Date**	**Median Price PSF**
4	1060 Cliff Drive	$200,500	1.30	4	2.5	1970	2,114	Sep-18	$94.84

We analyzed four single-family homes as Control Area Sales with similar construction that were not located in close proximity to the solar farm, that sold within a reasonable time frame from the sale date of Adjoining Property 4.

The Control Area Sales for Group 3 are two-story homes with two to four bedrooms and 2.5 to 3 bathrooms. We excluded sales that were bank-owned, and those between related parties.

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DTE Lapeer Solar-Turrill - Group 3: Test Area Sales Map

Control Area Sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeat-sales index measuring average price changes in repeat sales or refinancing of the same properties. The result of our analysis for DTE Lapeer Solar Project-Turrill – Group 3 is presented on the following page.

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CohnReznick Paired Sale Analysis DTE Lapeer Solar Group 3 - Turrill Solar		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Adjoining solar farm	$94.84
Control Area Sales (4)	No: Not adjoining solar farm	$96.32
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**-1.53%**

The marketing time for the Test Area Sale was two days on market, while the median days on market for the Control Area Sales was 35 days (ranging from 11 to 177 days), ***and we note no negative marketing time differential.***

Noting no significant price differential in any of the three groups, it does not appear that the DTE Lapeer Solar Farm had any negative impact on adjacent property values.

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BEFORE & AFTER ANALYSIS – DEMILLE SOLAR PROJECT

We note two of the Test Area Sales in Group 1 of the Demille Solar project (Adjoining Properties 4 and 9), one sale in Group 2 of the Demille Solar farm (Adjoining Property 10), as well as Adjoining Property 7 have sold at least twice over the past 15 years. To determine if any of the rates of appreciation for these identified home sales were affected by the proximity to the Demille Solar farm, we prepared a Repeat-Sales Analysis on each identified adjoining property. First, we calculated the total appreciation between each sale of the same property, the number of months that elapsed between each sale, and determined the monthly appreciation rate. Then, we compared extracted appreciation rates reflected in the Federal Housing Finance Agency (FHFA) Home Price Index for Michigan's 48446 zip code (where the identified homes are located) over the same period. The index for zip codes is measured on a yearly basis and is presented below.

48446 Zip Code - Housing Price Index Change (Year over Year) Not Seasonally Adjusted					
Five-Digit ZIP Code	Year	Annual Change (%)	HPI	HPI with 1990 base	HPI with 2000 base
48446	2004	2.02	438.38	206.29	111.35
48446	2005	3.68	454.53	213.89	115.45
48446	2006	-1.76	446.53	210.12	113.42
48446	2007	-6.35	418.17	196.78	106.22
48446	2008	-8.37	383.17	180.31	97.33
48446	2009	-10.62	342.49	161.16	86.99
48446	2010	-8.94	311.86	146.75	79.21
48446	2011	-6.89	290.37	136.64	73.75
48446	2012	0.29	291.22	137.04	73.97
48446	2013	7.27	312.39	147.00	79.35
48446	2014	7.10	334.56	157.43	84.98
48446	2015	5.10	351.63	165.47	89.32
48446	2016	6.10	373.08	175.56	94.76
48446	2017	6.74	398.23	187.39	101.15
48446	2018	5.96	421.96	198.56	107.18
48446	2019	5.74	446.17	209.95	113.33
48446	2020	4.99	468.43	220.43	118.98

We have presented the full repeat sales analysis on the following page.

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Repeat Sales Analysis											48446 Zip Code - FHFA House Price Index Change			
Property ID	Address	Land Area (Acres)	Total Finished Living Area (SF)	Most Recent Sale Date	Most Recent Sale Price	Prior Sale Date	Prior Sale Price	Total Appreciation	Months Elapsed Between Sales	Monthly Appreciation Rate	Index Level During Year of Most Recent Sale	Prior Sale Year Index Level	Total Appreciation	Monthly Appreciation Rate
4	1168 Alice Drive	0.46	1,672	10/9/2019	$176,000	12/8/2017	$144,000	22.22%	22	0.92%	446.17	398.23	12.04%	0.52%
4	1168 Alice Drive	0.46	1,672	12/8/2017	$144,000	10/1/1993	$100,000	44.00%	290	0.13%	398.23	238.05	67.29%	0.18%
9	1126 Don Wayne Drive	0.50	1,900	5/21/2018	$160,000	12/21/2007	$119,000	34.45%	125	0.24%	446.17	418.17	6.70%	0.05%
10	1120 Don Wayne Drive	0.47	1,700	11/8/2019	$194,000	10/15/2014	$173,200	12.01%	61	0.19%	446.17	334.56	33.36%	0.47%
7	1138 Don Wayne Drive	0.47	2,128	9/7/2018	$179,900	8/22/2014	$148,500	21.14%	49	0.40%	446.17	334.56	33.36%	0.60%
7	1138 Don Wayne Drive	0.47	2,128	8/28/2019	$191,000	9/7/2018	$179,900	6.17%	12	0.51%	446.17	446.17	0.00%	0.00%
	Median - Test Area Sales	*0.47*	*1,800*							*0.32%*				*0.33%*
	Median - Before/After	*0.49*	*2,019*							*0.21%*				*0.11%*

Conclusion

When compared to the FHFA home price index for the local zip code, the median monthly appreciation rate of the sales of properties adjoining the Demille Solar Farm that sold before construction of the solar farm and again after construction of the solar farm outperformed the median for the zip code, as depicted in the far-right column in the table above (and highlighted in orange). Additionally, the extracted appreciation rate for the resales of Adjoining Properties 4 and 7, that sold twice after the solar farm was constructed, exhibited higher rates of appreciation than the Home Price Index for the zip code (highlighted in white). As such, *we have concluded that there does not appear to be a consistent detrimental impact on the value of properties adjacent to the DTE Lapeer-Demille Solar Farm.*

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SOLAR FARM 2: GRAND RIDGE SOLAR FARM, LASALLE COUNTY, ILLINOIS

Coordinates: Latitude 41.143421, Longitude -88.758340

PINs: 34-22-100-000, 34-22-101-000

Total Land Size: 158 acres

Date Project Announced: December 31, 2010

Date Project Completed: July 2012

Output: 20 MW AC

This solar farm is located in the southeast quadrant of the intersection of E. 21st and N. 15th Roads, near Streator, in LaSalle County, Illinois. The solar farm was developed by Invenergy and is part of a renewable energy center known as Grand Ridge. The Energy Center includes the 20 MW AC solar facility, a 210 MW wind farm, and a 36 MW advanced-energy storage facility, all in one local vicinity. The solar site is located adjacent to the south and west of Invenergy's wind farm.

The solar facility consists of 20 individual 1-MW solar inverters and over 155,000 photovoltaic solar panels manufactured by General Electric.

The Surrounding Area: The Grand Ridge Solar Farm is situated just outside of the City of Streator, in Otter Creek Township, in LaSalle County, Illinois. The solar farm is located in a primarily rural part of Illinois, with the nearest interstate, Interstate-55, located approximately 14 miles southeast of the site.

The Immediate Area: Within a one-mile radius of the solar farm, surrounding uses mainly consist of agricultural land, with some single-family homes to the west. All of the adjacent land parcels to the solar farm are used for agricultural and/or residential purposes.

The solar site is surrounded by row crops to the north adjoining N. 15th Road. Row crops also adjoin the solar arrays to the east. Scrub shrubbery exists on the western border of the solar site, along E. 21st Road. On the west side of E. 21st Road is the 28-acre private Sandy Ford Sportsmans Club that includes a 12-acre fishing lake. The private Lazy Acres Fishing Club adjoins the solar site to the south and is surrounded by mature trees.

Real Estate Tax Information: Prior to development of the solar farm, in 2011, the owner of this 158-acre site paid real estate taxes of $3,000 annually. In the year following the solar farm development, 2012, real estate taxes increased to approximately $240,000, a 7,791 percent increase in tax revenue for the site.

PIN	Acres	2011 Taxes Paid	2012 Taxes Paid	Tax Increase	2011 Assessed Value	2012 Assessed Value	Value Increase
LaSalle County, IL							
34-22-100-000	78.99	$ 1,580	$ 120,064	7501%	$ 23,830	$ 1,812,357	7505%
34-22-101-000	78.80	$ 1,457	$ 119,539	8106%	$ 21,975	$ 1,804,433	8111%
TOTAL	**157.79**	**$ 3,036**	**$ 239,602**	**7791%**	**$ 45,805**	**$ 3,616,790**	**7796%**

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The map below displays the parcels in the solar farm site (outlined in red). Properties adjoining the solar parcels are numbered for subsequent analysis.



Grand Ridge Solar - Adjoining Properties

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The surrounding area is primarily populated with agricultural uses. Some of these agricultural parcels contain homesteads on the site and others are fully unimproved.

Adjoining Properties 1, 3, 5, 6, 7, 13, and 14 have no sales data, therefore, those properties djoining Properties have been excluded from further analysis.

Recall, the solar farm was announced on December 31, 2010 and began operations in July 2012. Adjoining Properties 8 and 9 were sold in 1997 and 1996, respectively. These sales did not occur within a reasonable time period prior to announcement/completion. Therefore, Adjoining Properties 8 and 9 were excluded from further analysis.

Adjoining Property 4 sold in March 2011 while construction was ongoing. However, we have not considered this property for a paired sales analysis because the impact of being proximate to the solar farm could not be differentiated from the impact of the construction. Therefore, Adjoining Property 4 was excluded from further analysis.

Adjoining Property 2 transferred in September of 2018 with no consideration amount on a Trustee's deed from Gemini Farms LLC to the Bedeker Family Gift Trust. John and Susan Bedeker are owners of the Adjoining Property 1. This is not considered an arm's length transaction, therefore, Adjoining Property 2 was excluded from further analysis.

Adjoining Properties 11 and 12 were initially one parcel of 37.07 acres. Adjoining Property 12 sold in October 2016, which is a reasonable time period after completion of the solar farm. When Adjoining Property 12 was sold, the parcel was split into the two-acre homesite now known as Adjoining Propeprty 12, and the 35.07 acre farm, that was retained by the seller. Therefore, we have excluded Adjoining Property 11 and only considered Adjoining Property 12 (Test Area Sale) for paired sales analysis.

PAIRED SALES ANALYSIS

We have considered only one type of paired sales analysis, we have compared sales of similar properties not proximate to the solar farm (Control Area Sales) to the sales of the adjoining property (Test Area Sale), after the completion of the solar farm project.

Adjoining Property 12 (Test Area Sale) was considered for a paired sales analysis, and we analyzed this property as a single-family home use, a 2,328 square foot home located on a 2.0- acre parcel that sold in October 2016. This parcel is approximately 366 feet from the closest solar panel, and the improvements are approximately 479 feet from the closest solar panel. The table on the following page outlines the other important characteristics of Adjoining Property 12.

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Grand Ridge Solar Farm Test Area Sale - Adjoining Property 12										
Property #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/SF	Sale Date
Adjoining Property 12	2098 N 15th Rd, Streator, IL	$186,000	3	4.0	1997	2,328	Single Family Home and Garage and Farm Acreage	2.0	$79.90	Oct-16

We have found five Control Area Sales using data from the Northern Illinois Multiple Listing Service (MLS) and verified these sales through county records, conversations with brokers, and the County Assessor's office. We excluded sales that were not arm's length, such as REO sales or those between related parties. We have excluded any home sites under one acre and included only sales with a similar quantity of bedrooms, bathrooms, and living area. The Control Area Sales are comparable in most physical characteristics and bracket Adjoining Property 12 reasonably.



Grand Ridge Solar: Test Area Sale Map

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It is important to note that the Control Area Sales are not adjoining to any solar farm, nor do they have a view of one from the property. Therefore, neither the announcement nor the completion of the solar farm use could have impacted the sales price of these properties. It is informative to note that the average marketing time (from list date to closing date) for Control Area Sales of 171 days is consistent with the marketing time for the Test Area Sale which was on the market for 169 days. This is an indication that the marketability of the Test Area Sale was not negatively influenced by proximity to the solar farm.

We analyzed the five Control Area Sales and adjusted for market conditions using a regression analysis to identity the appropriate monthly market conditions adjustment. The results of the paired sales analysis for the Grand Ridge Solar Farm are presented below.

CohnReznick Paired Sales Anaysis Grand Ridge Solar Farm Adjoining Property 12		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Yes: Adjoining solar farm	$79.90
Control Area Sales (5)	No: Not adjoining solar farm	$74.35
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		7.46%

The unit sale price of the Test Area Sale was somewhat higher than the median adjusted unit sale price of the Control Area Sales.

We contacted the selling broker of the Test Area Sale home, Tina Sergenti with Coldwell Banker, who said that the proximity of the solar farm had no impact on the marketing time or selling price of the home. The Test Area Sale sold with 169 days on market (5 – 6 months) compared to the Control Area Sales, which sold between 10 471 days on market (0 and 16 months).

Noting no negative price differential, it does not appear that the Grand Ridge Solar Farm impacted the sales price of the Test Area Sale, Adjoining Property 12. This was confirmed by the real estate agent who marketed and sold this home.

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SOLAR FARM 3: WOODLAND SOLAR FARM, ISLE OF WIGHT COUNTY, VIRGINIA

Coordinates: Latitude 36.890000, Longitude -76.611000

PINs: 41-02-004, 41-02-001, 41-02-001A, 41-02-005

Total Land Size: 211.12 acres

Date Project Announced: August 4, 2015

Date Project Completed: December 2016

Output: 19.0 MW AC



Aerial imagery retrieved from Google Earth

The Woodland Solar Farm is located in unincorporated Isle of Wight County, Virginia, and was developed by Dominion Virginia Power in 2016. This solar farm has a capacity of 19.0 Megawatts (MW) AC of power, which is enough to power 4,700 homes. The solar farm sits on 204 acres, part of Oliver Farms, a 1,000-acre site that was chosen for its flat land and proximity to power lines. The land under the solar arrays was previously farmed and

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used to grow broccoli, collards, peas, strawberries, and butter beans. The solar installation includes 79,648 solar panels and was one of the largest of its kind at the time of construction.

The Surrounding Area: Isle of Wight County is in the southeast part of Virginia and has shoreline along the James River on its eastern border. The county is predominantly rural and has two incorporated towns, Smithfield and Windsor. The Woodland Solar facility is approximately 27 miles northwest of Norfolk, Virginia, across the Elizabeth River and the Nansemond River. The solar site is also approximately 21 miles southwest of Newport News, Virginia. The town of Smithfield is approximately nine miles northeast of the solar facility and the town of Windsor is approximately 12 miles southwest. The solar facility is near the intersection of State Route 600 (Oliver Drive) and State Route 602 (Longview Drive).

The Immediate Area: Land uses surrounding the Woodland Solar facility include forests and agricultural land to the north, west, and south, and residential and farmland to the east.

Landscaping around the solar site consists of the naturally occurring vegetation and forests. It should be noted that the landowner that leases the land to the solar owner has agricultural buildings and other structures along Longview Drive and the nearest solar panels are approximately 220 feet from the property line.

Real Estate Tax Information: In 2015, prior to the property being assessed as a solar farm, the assessed value of the property was approximately $542,200 and ownership paid $4,609 in real estate taxes (see below). In 2016, the assessed value increased to $3,021,600 and the real estate tax increased to $27,844.

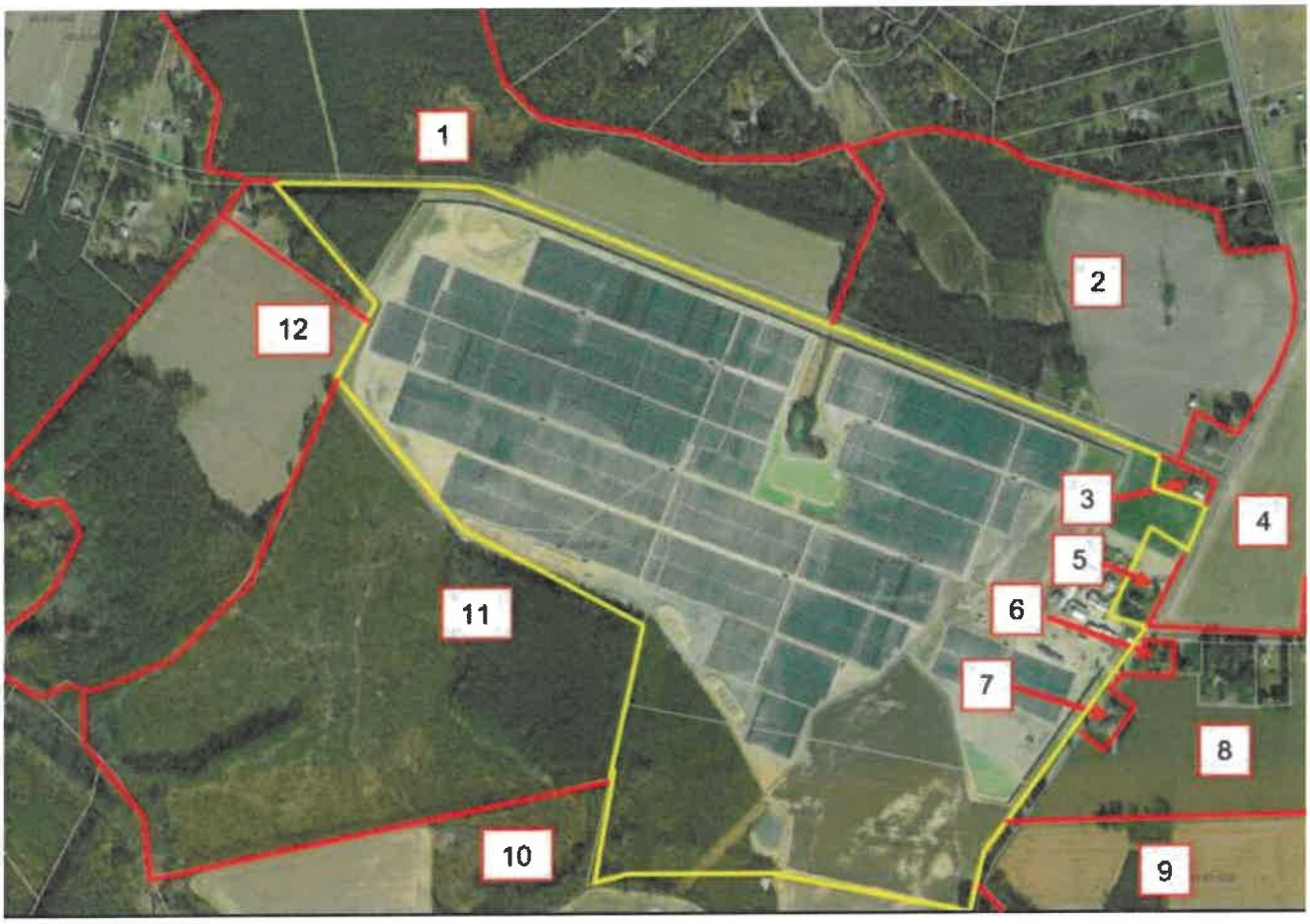
PIN	Acres	2015 Taxes Paid	2016 Taxes Paid	Tax Increase	2015 Assessed Value	2016 Assessed Value	Value Increase
Isle of Wight County, VA							
41-02-004	107.32	$ 2,250	$ 15,985	610%	$ 264,700	$ 1,728,100	553%
41-02-001	62.66	$ 1,369	$ 8,601	529%	$ 161,000	$ 939,900	484%
41-02-001A	8.08	$ 230	$ 1,193	420%	$ 27,000	$ 110,700	310%
41-02-005	33.06	$ 761	$ 2,065	171%	$ 89,500	$ 242,900	171%
TOTAL	**211.12**	**$ 4,609**	**$ 27,844**	**504%**	**$ 542,200**	**$ 3,021,600**	**457%**

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PAIRED SALE ANALYSIS:

The map below displays the Adjoining Properties to the solar farm (outlined in red). Properties adjoining the solar farm parcels are numbered for subsequent analysis.



Woodland Solar - Adjoining Properties

In reviewing Adjoining Properties to study in a Paired Sale Analysis, several properties and sales were considered but eliminated from further consideration as discussed below.

We identified three Adjoining Properties that sold since the solar farm started operations in December 2016: Adjoining Property 3, and two parcels included in Adjoining Property 5. The two properties that were considered part of Adjoining Property 5, sold between related parties, and were sales between family members of the land lessor for the solar site. These two sales were excluded from further analysis as they were not arms' length transactions.

Adjoining Property 3 was considered for a paired sales analysis and we analyzed this property as single-family home use. The improvements on this property are located approximately 600 feet from the nearest solar panel.

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Woodland Solar Farm Test Area Sale - Adjoining Property 3									
Adj. Property #	Address	Sale Price	Site Size (AC)	Beds	Baths	Year Built	Home Size GLA (SF)	Sale Date	Price PSF
3	18146 Longview Drive	$175,000	1.00	3	1	1978	1,210	Jun-16	$144.63

We analyzed five Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to the solar farm, that sold within a reasonable time frame from the sale date of the Test Area Sale. The Control Area Sales are one-story homes with three bedrooms and either one or two bathrooms. We excluded sales that were bank-owned, REO sales, and those between related parties.



Woodland Solar – Test Area Sale Map

The Control Area Sales were adjusted for market conditions using a regression analysis to identify the appropriate monthly market conditions adjustment. The result of our analysis for Woodland Solar Farm is presented on the following page.

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CohnReznick Paired Sales Anaysis Woodland Solar Farm Adjoining Property 3		
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF
Test Area Sale (1)	Yes: Adjoining solar farm	$144.63
Control Area Sales (5)	No: Not adjoining solar farm	$137.76
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		4.99%

The difference between the unit price of the Test Area Sale and the Adjusted Median Unit Price of the Control Area Sales is considered within the range for a typical market area.

Noting no negative marketing time differential, the Test Area Sale sold in 33 days (1-2 months), while the Control Area Sales sold between 17 and 37 days (0-2 months), with a median time on market of 28 days.

Noting no negative price differential, with the Test Area Sale having a higher unit sale price than the Control Area Sales, it does not appear that the Woodland Solar Farm had any negative impact on adjacent property values.

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SOLAR FARM 4: DOMINION INDY SOLAR III, MARION COUNTY, INDIANA

Coordinates: Latitude 39°39'14.16"N, Longitude 86°15'35.06"W

PIN: 49-13-13-113-001.000-200

Total Land Size: 129 acres

Date Project Announced: August 2012

Date Project Completed: December 2013

Output: 8.6 MW AC (11.9 MW DC)

The Dominion Indy III solar farm was developed by Dominion Renewable Energy and became operable in December 2013. This solar farm has ground-mounted solar panels and has the capacity for 8.6 Megawatts (MW) AC of power. The panels are mounted in a fixed tilt fashion with 12 inverters.

The Surrounding Area: The Dominion Indy III solar farm is located in Decatur Township, in the southwest portion of Marion County, Indiana. The solar farm is approximately 10 miles southeast of the Indianapolis International Airport and approximately eight and a half miles from the center of Indianapolis.

The Immediate Area: The solar installation is on the southern side of West Southport Road. Adjoining parcels to the west, south, and east are agricultural in nature, actively farmed primarily with row crops and large areas of mature trees. There is one single family home on 4.78 acres of land at the northwest corner of the solar site, with frontage on West Southport Road, identified in our analysis as Adjoining Property 9.

To the north, across West Southport Road from the solar site, is the single-family residential subdivision known as Crossfield. Originally developed with over 81 acres of land by the Key Life Insurance Company, the one- and two-story homes in the subdivision were built between approximately 1998 and 2011.

All of the adjacent land parcels to the solar farm are used for agricultural or residential purposes.

The solar farm is surrounded by a chain link fence around all of the solar panels. Additionally, there are some natural shrubs and trees on all sides of the property; this vegetation was in place before the solar farm was developed.

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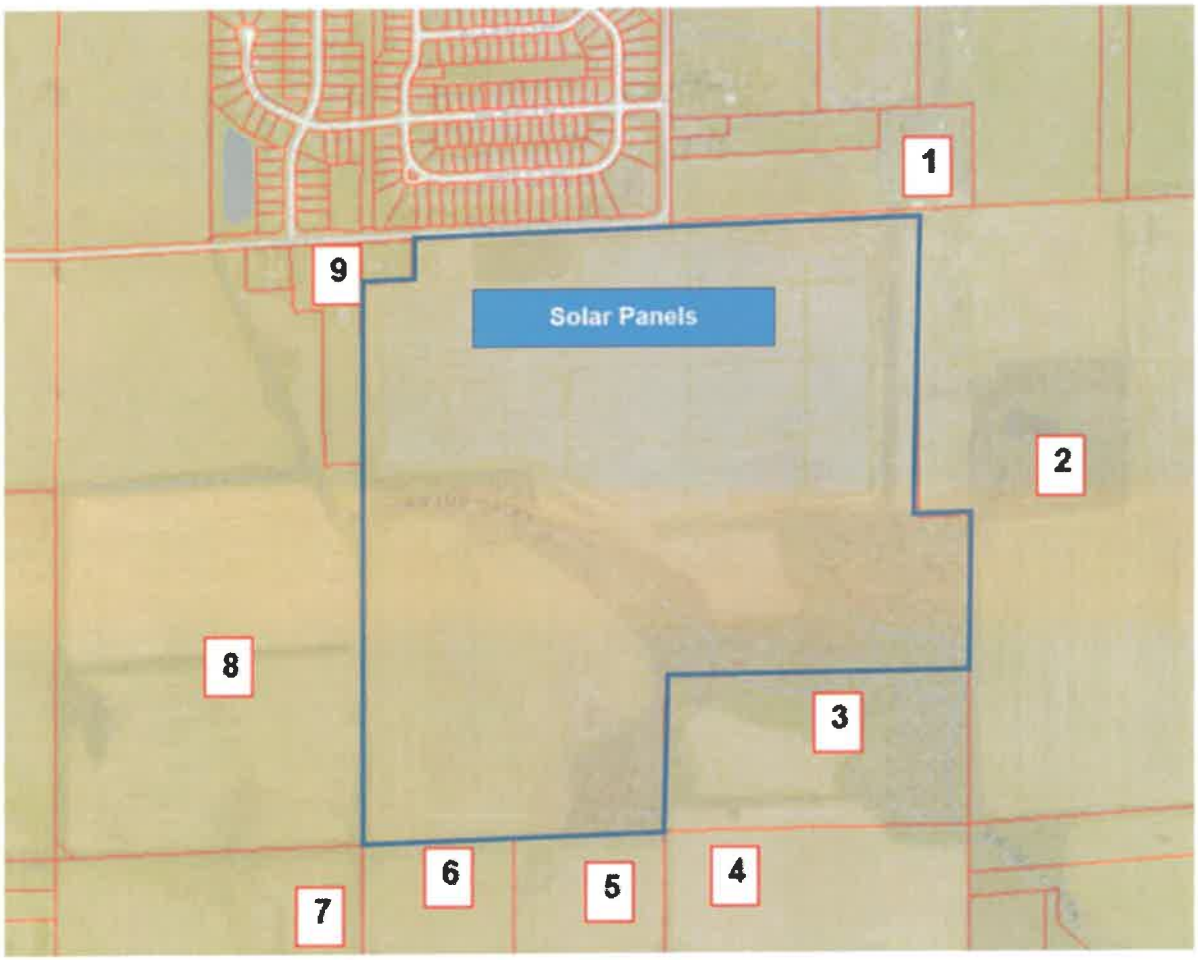
Real Estate Tax Information: Prior to development of the solar farm, in 2013, the owner of this 129-acre site paid real estate taxes of $1,788 annually. After development of the solar farm development, in 2015, real estate taxes increased to approximately $16,405, an 818 percent increase in tax revenue for the site.

PIN	Acres
Marion County, IN 49-13-13-113-001.000-200	129.04
TOTAL	**129.04**

2013 Taxes Paid	2015 Taxes Paid	Tax Increase
$ 1,788	$ 16,405	818%
$ 1,788	**$ 16,405**	**818%**

2013 Assessed Value	2015 Assessed Value	Value Increase
$ 89,400	$ 109,900	23%
$ 89,400	**$ 109,900**	**23%**

The map below, and the maps on the following pages, display the parcels within the solar farm is located (outlined in blue). Properties adjoining this site are numbered for subsequent analysis.



Dominion Indy III - Adjoining Properties

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PAIRED SALES ANALYSIS

We have considered two types of paired sales analysis with regards to the Dominion Indy III solar farm. The first compares sales of Adjoining Properties (Test Area Sales) to the solar farm after the completion of the solar farm site to similar properties not proximate to the solar farm (Control Area Sales). We utilized this type of paired sale analysis for all three groups of Adjoining Properties under study.

The second type of paired sale analysis is known as a Before and After analysis which compares sales of Adjoining Properties that occurred prior to the announcement of the solar farm with the sales of the same Adjoining Properties after the completion of the solar farm development. We were able to use home sale data from the Crossfield subdivision that is located to the north of the solar site, across West Southport Road, for this analysis.

GROUP 1

Adjoining Property 2 is a vacant 86.96-acre agricultural parcel located to the east of the solar site. Adjoining Property 2 sold in October 2017 and was considered for a paired sale analysis, known as a Test Area Sale, in Group 1.

The property line of this unimproved parcel is approximately 166 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 12.

Test Area Sale Group 1 - Agricultural Land								
Adjoining Property #	Address	Sale Price	Site Size (AC)	NCCPI Index	Wetlands	Floodplain	Sale Price/AC	Sale Date
Adjoining Property 2	5755 W Southport Rd, Indianapolis, IN	$738,584	89.96	63.4	1%	Zone X	$8,210	Oct-17

Soil Productivity and Land Value Trends and the NCCPI Productivity Index

Crop yields have been the basis for establishing a soil productivity index, and are used by county assessors, farmers, and market participants in assessing agricultural land. While crop yields are an integral part in assessing soil qualities, it is not an appropriate metric to rely on because "yields fluctuate from year to year, and absolute yields mean little when comparing different crops. Productivity indices provide a single scale on which soils may be rated according to their suitability for several major crops under specified levels of management such as an average level."[1] The productivity index, therefore, not crop yields, is best suited for applications in land appraisal and land-use planning.

The United States Department of Agriculture's (USDA) National Resources Conservation Services (NRCS) developed and utilizes the National Commodity Crop Productivity Index (NCCPI) as a national soil interpreter and is used in the National Soil Information System (NASIS), but it is not intended to replace other crop

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production models developed by individual states.[17] The focus of the model is on identifying the best soils for the growth of commodity crops, as the best soils for the growth of these crops are generally the best soils for the growth of other crops.[18] The NCCPI model describes relative productivity ranking over a period of years and not for a single year where external influences such as extreme weather or change in management practices may have affected production. At the moment, the index only describes non-irrigated crops, and will later be expanded to include irrigated crops, rangeland, and forestland productivity.[19]

Yields are influenced by a variety of different factors including environmental traits and management inputs. Tracked climate and soil qualities have been proven by researchers to directly explain fluctuations in crop yields, especially those qualities that relate to moisture-holding capacity. Some states such as Illinois have developed a soil productivity model that considers these factors to describe "optimal" productivity of farmed land. Except for these factors, "inherent soil quality or inherent soil productivity varies little over time or from place to place for a specific soil (map unit component) identified by the National Cooperative Soil Survey (NCSS)."[20] The NRCS Web Soil Survey website has additional information on how the ratings are determined. The **State of Indiana** does not have its own crop production model and utilizes the NCCPI.

In analyzing agricultural land sales for Control Area Sales with similar characteristics to Adjoining Property 2, we have excluded any parcels with NCCPI soil indices less than 50.0 and greater than 85.0.

We identified and analyzed four Control Area Sales that were comparable in location, size, and use that were not located in close proximity to the solar farm. The Control Area Sales for Adjoining Property 2 are land tracts that were larger than 20 acres and utilized specifically as farmland. We excluded sales that were bank-owned, those between related parties, split transactions, and land with significant improvements.

The Control Area Sales that are included in this analysis sold within a reasonable time frame from the sale date of the Test Area Sale and are similar to the Test Area Sale in physical characteristics.

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[17] Agricultural land rental payments are typically tied to crop production of the leased agricultural land and is one of the primary reasons the NCCPI was developed, especially since the model needed to be consistent across political boundaries.
[18] Per the User Guide for the National Commodity Crop Productivity Index, the NCCPI uses natural relationships of soil, landscape and climate factors to model the response of commodity crops in soil map units. The present use of the land is not considered in the ratings.
[19] AgriData Inc. Docs: http://support.agridatainc.com/NationalCommodityCropProductivityIndex(NCCPI).ashx
[20] USDA NRCS's User Guide National Commodity Crop Productivity Index (NCCPI)

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Dominion Indy III - Group 1: Test Area Sale Map

The Control Area Sales were adjusted for market conditions using a regression and trend analysis to identify the appropriate monthly market condition adjustment. Using the agricultural land sale data published in the *Land Sales Bulletin,*[21] from January 2016 through December 2017, which includes reliable and credible data for analysis, we extracted a monthly rate of change of 0.50 percent.

The results of our analysis for Adjoining Property 2, in Group 1 are presented on the following page.

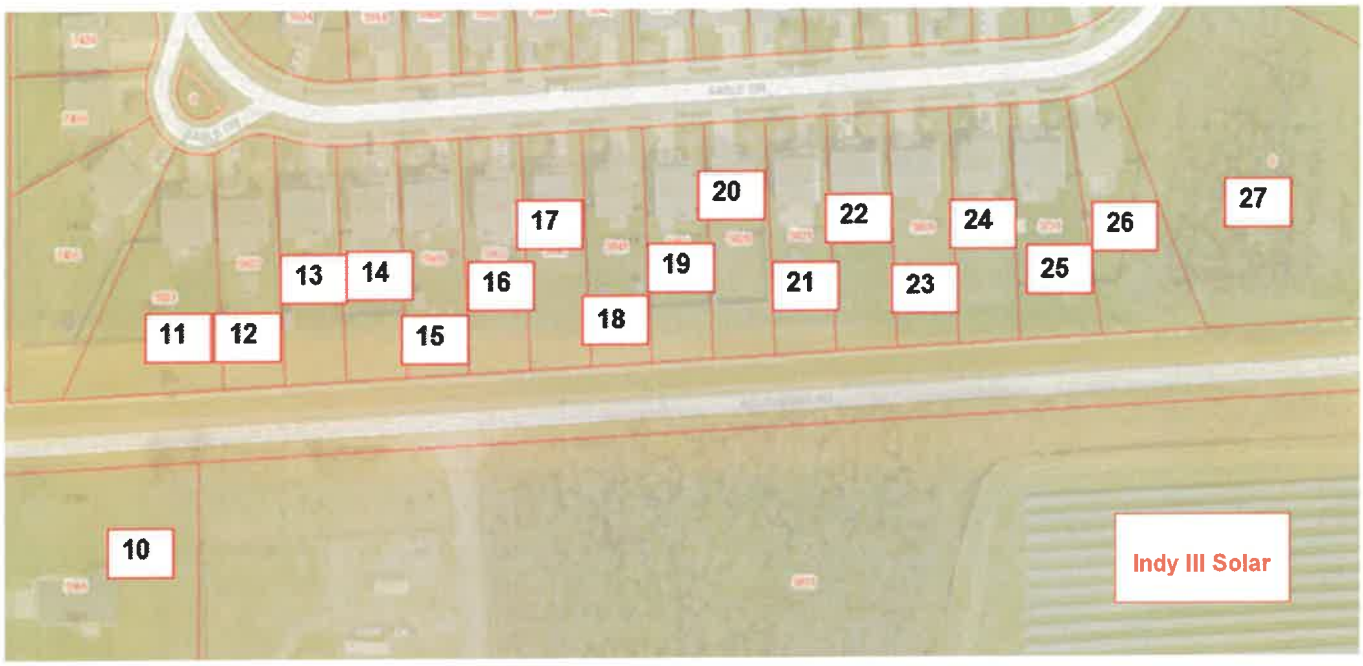
[21] https://www.landsalesbulletin.com/

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CohnReznick Paired Sale Analysis Dominion Indy III Solar Group 1 - Agricultural Land		
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per Acre
Test Area Sale (Adjoining Property 2)	Yes: Solar Farm was completed by the sale date	$8,210
Control Area Sales (4)	No: Not adjoining solar farm	$8,091
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		1.47%

Noting the relatively low price differential, in which the Test Area Sale was higher than the median for the Control Areas Sales, it does not appear that the Dominion Indy III solar farm had any negative impact on the adjoining agricultural property value.



Dominion Indy III Solar - Adjoining Properties

We idenitified a total of nine Adjoining Properties that sold after the develoment of the solar farm as single-family home uses. Adjoining Properties 11, 13, 14, 15, 18, 20, 22, 24 and 26 were analyzed in two paired sales analyses (Group 2 and Group 3). These nine properties were analyzed as single-family homes and they are located in the Crossfield subdivision, across West Southport Road from the solar site, as seen in the map above.

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It should be noted that Adjoining Properties 11 and 24 have sold more than once since the solar farm was constructed, and each sale is included in the analysis. Adjoining Property 11 sold first in December 2015 and later in July 2018, approximately two and a half years later. Adjoining Property 24 sold first in February 2014 and later in April 2019, approximately five years later. Our research indicated that these were arm's-length sales.

The nine Adjoining Properties that were included in our paired sales analysis were divided into two groups, based on the sale dates of the Test Area Sales.

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GROUP 2

For Group 2 (sales in 2014 – 2016), we analyzed four Control Area Sales with similar location, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Group 2 Test Area Sales.

Test Area Sales Group 2									
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median Square Feet	Median Sale Date	Median Price PSF
11, 20, 22, 24	5933 Sable Dr, 5829 Sable Dr, 5813 Sable Dr, 5737 Sable Dr	$129,375	0.23	4	2.0	2008	2,163	Jul-15	$60.61

The Test Area Sales in Group 2 are located between 230 feet and 404 feet from the house to the solar panels. The Control Area Sales for Group 2 are located beyond this area in other areas of the Crossfield Division and in other nearby subdivisions.



Dominion Indy III – Group 2: Test Area Sales

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GROUP 3

For Group 3 (sales occurring in 2017 - 2019), we analyzed a set of seven Control Area Sales with similar locations, square footages, lot sizes, and ages that sold within a reasonable time frame from the median sale date of the Group 3 Test Area Sales.

Dominion Indy III Solar Test Area Sales Group 3									
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median Square Feet	Median Sale Date	Median Price PSF
11, 13, 14, 15, 18, 24, 26	5933 Sable Dr, 5921 Sable Dr, 5915 Sable Dr, 5909 Sable Dr, 5841 Sable Dr, 5737 Sable Dr, 5731 Sable Dr	$169,900	0.23	3	2.5	2006	2,412	Jul-18	$72.15

The Test Area Sales in Group 3 are located between 227 feet and 419 feet from the house to the solar panels. The Control Area Sales are located beyond this area, in other areas of the Crossfield Division, and in other nearby subdivisions.



Dominion Indy III – Group 3: Test Area Sales

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Control Area Sales in Groups 2 and 3 were adjusted for market conditions using a regression analysis to identify the appropriate monthly market condition adjustment. The results of our study are presented below.

CohnReznick Paired Sale Analysis Dominion Indy III Solar Group 2		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sales (4)	Adjoining solar farm	$60.61
Control Area Sales (8)	No: Not adjoining solar farm	$57.84
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		**4.78%**

CohnReznick Paired Sale Analysis Dominion Indy III Solar Group 3		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sales (7)	Adjoining solar farm	$72.15
Control Area Sales (11)	No: Not adjoining solar farm	$71.69
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		**0.65%**

The Test Area Sales in Group 2 sold between 18 and 75 days on market (0-3 months), while the Control Area Sales in Group 2 sold between 2 and 649 days on market (0-23 months). The Test Area Sales in Group 3 sold between 3 and 75 days on market (0-3 months), while the Control Area Sales in Group 3 sold between 2 and 89 days on market (0-3 months).

Noting the relatively low price differentials, it does not appear that the Dominion Indy III solar farm had any negative impact on adjoining residential property values.

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BEFORE ANNOUNCEMENT AND AFTER CONSTRUCTION OF THE SOLAR FARM ANALYSIS

Due to the number of sales over time in the Crossfield subdivision, we were able to conduct an analysis on the prices of single-family homes before the solar farm announcement date in comparison to the prices of single-family homes after the construction of the Dominion Indy III solar farm. This analysis shows the appreciation rates of homes in the subdivision over the period before the solar farm was announced to after construction was complete. If there were a difference in the appreciation rates of homes within the Test Area (homes adjoining the solar farm) from the homes within the Control Areas (homes not adjoining the solar farm), we would expect to see it in the results of this analysis. We have provided our conclusions from the analysis below, and the following page displays an explanatory chart.

- The Before the Announcement of the solar farm period is from 2006 to July 2012. The After Construction of the solar farm period is from December 2013 to 2019.
- 25 Test Area Sales were sold from 2006 to 2019 and 46 Control Area Sales sold from 2008 to 2019.
    - The Test Area Sales are homes located adjoining the Dominion Indy III Solar Farm in the Crossfield subdivision.
    - The Control Area Sales are homes located in the remainder of the Crossfield subdivision, not adjoining the solar farm.
- In both the Test Area Sales (ORANGE) and Control Area Sales (BLUE) plotted on the chart on the following page, new construction homes sold through 2011, prior to announcement of the solar farm.
- The dotted lines are polynomial trend lines plotted by Microsoft Excel in order to illustrate and approximate the "average" trend of each set of data.
- After construction of the solar farm, in parallel with the improving economic climate (as depicted by the Red lines representing the Federal Housing Finance Agency's House Price Index for the East North Central region that includes Indiana), it appears that unit prices for both the Test Area Sales and the Control Area Sales appreciated at a similar rate over the period from 2013 to 2019.
- The economic climate improved in the period from 2013 to 2019, as shown by the Red line representing the Federal Housing Finance Agency's House Price Index for the East North Central region that includes Indiana. After construction of the solar farm, in parallel with the improving economic climate, it appears that unit prices for both the Test Area Sales and the Control Area Sales appreciated at a similar rate over the period from 2013 to 2019.

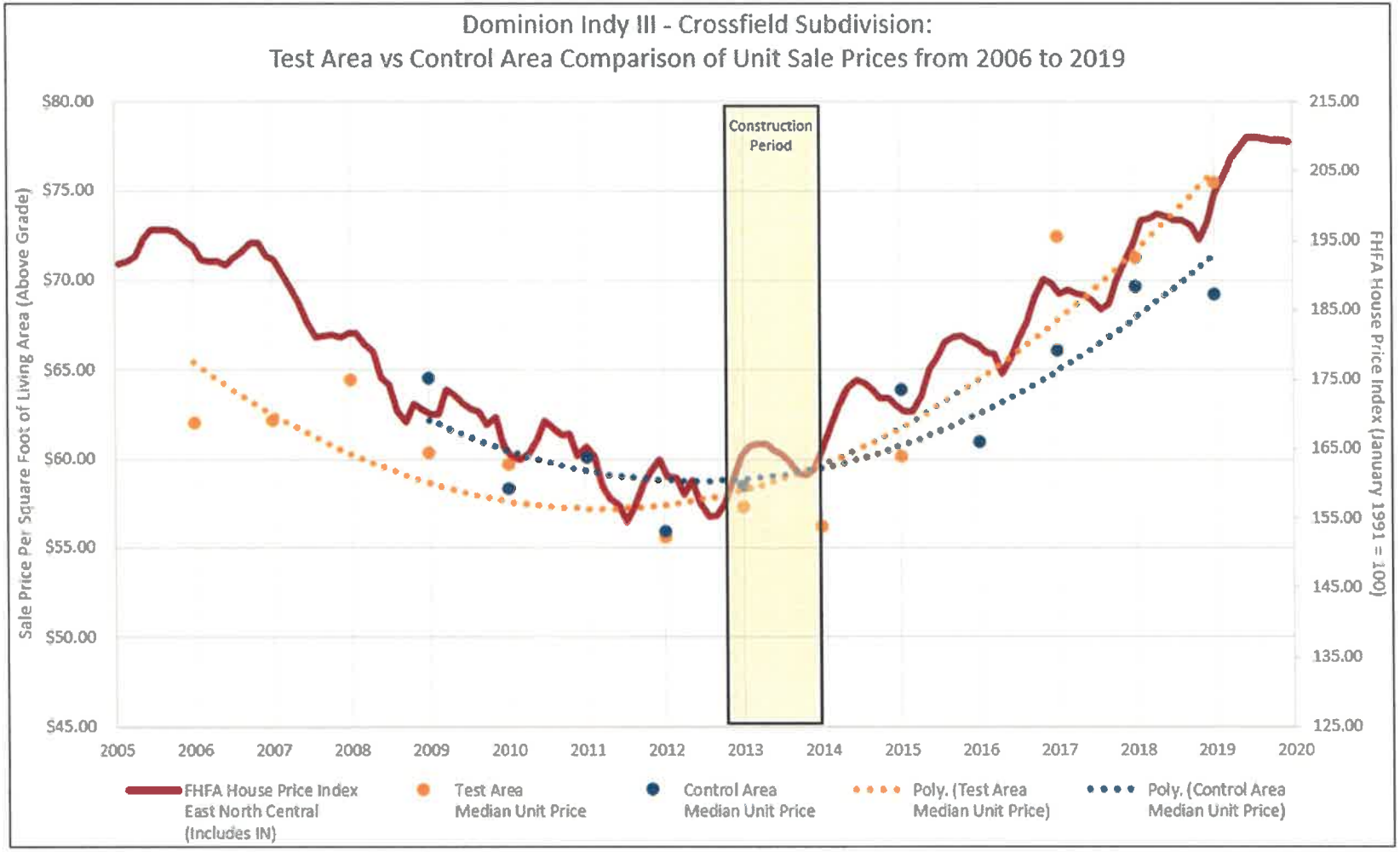
A difference in appreciation rates does not appear to exist between Test Area Sale homes versus the Control Area Sale homes.

Sale prices of single-family homes after the construction of the solar farm exhibit a similar appreciation trend as sales prior to the solar farm announcement. Overall, our findings indicate that there *is not a consistent and measurable difference* in prices that exists in association with homes proximate to the Dominion Indy III solar farm

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ANALYSIS OF BEFORE ANNOUNCEMENT AND AFTER CONSTRUCTION OF THE DOMINION INDY III SOLAR FAR



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SOLAR FARM 5: SUNFISH FARM SOLAR, WAKE COUNTY, NORTH CAROLINA

Coordinates: Latitude 35 33.457, Longitude 78 44.190

PIN: 675874971

Total Land Size: Approximately 49.6 acres

Date Project Completed: December 2015

Output: 5 MW AC



This Sunfish Farm solar facility is located in the southern portion of Wake County, North Carolina, approximately 16 miles south of Raleigh. The solar facility was placed into service in December 2015 and has a power generating capacity of 5 MW AC. The solar facility was developed by Cypress Creek Renewables, which has built several community-scale solar farms in North Carolina.

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The Surrounding Area: The Sunfish Farm solar facility is surrounding by single family homes, some of which are in subdivisions, as well as agricultural and forest land. The local area is accessible from Raleigh via Fayetteville Road (US Hwy 401) and Interstate 40. The Sunfish Farm solar farm is located southwest of the town of Fuquay-Varina, which has experienced considerable population growth over the past 10 years due to the area's proximity to Research Triangle Park (Raleigh, Durham, Chapel Hill).

The Immediate Area: The solar farm is buffered from residences and road frontages by trees and is surrounded by fencing. The solar farm is clearly visible from the roadways. Immediate land uses surrounding the solar farm include residential homes to the north, some residential homes (some that also contain commercial uses) to the west, agricultural land to the south, and agricultural land and residential homes to the east.

There is an 11.25-acre carve-out of land in the original, larger farmland parcel that was split from the parent parcel in 2014, as pictured below. Both the carved out parcel and the solar farm parcel are owned by an individual who leases the land for the solar farm use.



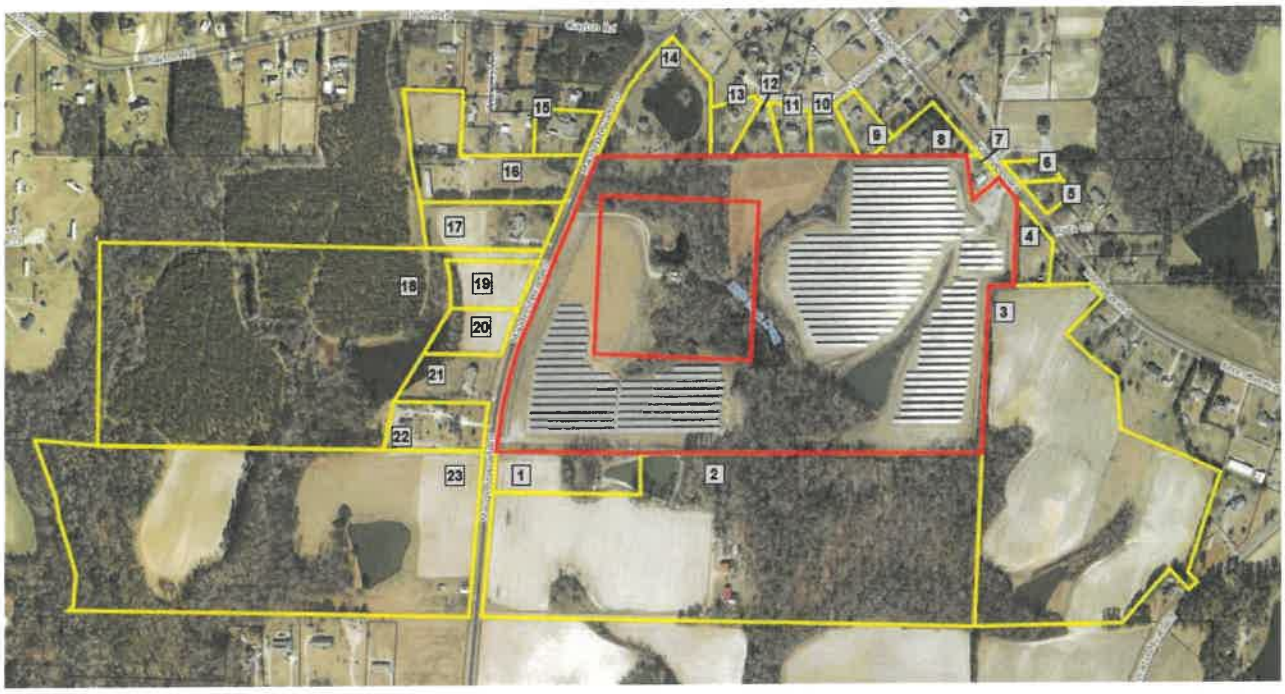
Real Estate Tax Information: Solar farms in North Carolina are assessed as personal property, separate from the land assessment. After the solar farm was placed into service, there was an increase of 180 percent in total assessed value, and 203 percent increase in total taxes paid.

PIN	Acres	2013 Taxes Paid (Per Acre)	2016 Taxes Paid (Per Acre)	Tax Increase	2013 Assessed Value (Per Acre)	2016 Assessed Value (Per Acre)	Value Increase
Wake County, NC							
675874971 (Post 2015 Split)	49.60	$ 119.52	$ 105.33		$ 18,589	$ 15,123	
Personal Property Tax		$ -	$ 256.81		$ -	$ 36,871	
TOTAL	**49.60**	**$ 119.52**	**$ 362.14**	**203%**	**$ 18,588.83**	**$ 51,994.82**	**180%**

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The map below displays the properties adjoining the solar arrays and are numbered for subsequent analysis (outlined in yellow).



Sunfish Farm Solar - Adjoining Properties

PAIRED SALES ANALYSIS

We have considered only one type of paired sales analysis, comparing sales of properties not proximate to the solar farm (Control Area Sales) to the sales of adjoining properties (Test Area Sales) after the completion of the solar farm project. We were able to identify two Adjoining Properties to the Sunfish Farm solar facility that sold after the solar installation was placed into service (Adjoining Properties 10 and 15). These sales were analyzed in separate Test Area Sale groups based on home type (conventional single-family home and manufactured single-family home) and sale dates.

We collected Control Area Sale data from the Wake County Real Estate database which summarizes data directly from the Real Estate Assessor website for the county. We have also reviewed other public records and verified marketing information through online sources such as Zillow.com, Redfin.com, Realtor.com and Estately.com. We have verified these sales through county records, conversations with brokers, and the County Assessor's Office. We excluded sales that were not arm's length, such as REO sales or bank-owned properties, or those between related parties.

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GROUP 1

Adjoining Property 10 (Test Area Sale 1) was considered for a paired sales analysis, and we analyzed this property as a single-family home use. The property is a single-story 1,470 square foot home located on a 0.79-acre lot that sold in September 2017. This property line is approximately 50 feet from the closest solar panel, and the improvements are approximately 200 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 10.

SUNFISH FARM SOLAR TEST AREA SALE GROUP 1										
Property #	Address	Sale Price	Site Size (AC)	Beds	Baths	Year Built	Home Size (SF)	Improvements	Sale Price/SF	Sale Date
Test Sale 1 Adjoining Property 10	7513 Glen Willow Court	$188,000	0.79	3	2	1989	1,470	One-Story, No Basement	$127.89	Sep-17

We have identified 14 single-family home sales in the Control Area Sale group that are located within Wake County, either in Middle Creek Township or Panther Branch Township. They were built generally from 1989 to 1999 and are each similar in square footage and layout, as well as quality of construction, to the Test Area Sale and they sold within a reasonable time frame from the sale date of the Test Area Sale.



Sunfish Farm Solar - Group 1: Test Area Sale Map

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It is informative to note that the marketing time (from list date to closing date) for Control Area Sales ranged from 30 to 127 days on market, and the marketing time for Adjoining Property 10 was 98 days, which is within the range of the Control Area Sales. This is an indication that the marketability of the Test Area Sale was not negatively influenced by proximity to the solar farm.

We adjusted the Control Area Sales for market conditions using the compounded monthly growth rate exhibited in the FHFA House Price Index, for the period from December 2015 to the end of December 2018 (36 months).

When adjusting sales prices for market conditions (time between date of Test Area Sale and Control Area Sales date) throughout this analysis we have used regression analysis to identify the appropriate monthly market conditions adjustment. We utilized the Federal Housing Finance Agency House Price Index (FHFA HPI) for the 27592 zip code to determine the average monthly rate of appreciation. The FHFA HPI is a broad measure of the movement of single-family house prices. The FHFA HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or re-financings on the same properties. The FHFA HPI serves as a timely, accurate indicator of house price trends at various geographic levels.[22]

The results of the paired sales analysis for Adjoining Property 10 are presented below.

CohnReznick Paired Sales Analysis Sunfish Farm Solar GROUP 1 - Adjoining Property 10		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Yes: Adjoining solar farm	$127.89
Control Area Sales (14)	No: Not adjoining solar farm	$124.86
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**2.43%**

The difference between the unit price of the Test Area Sale and the Adjusted Median Unit Price of the Control Area Sales is considered within the range for a typical market area.

Noting no negative price differential, it does not appear that the Sunfish Farm solar installation impacted the sale price of the Test Area Sale, Adjoining Property 10.

[22] https://www.fhfa.gov/DataTools/Downloads/Pages/House-Price-Index.aspx

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GROUP 2

Adjoining Property 15 (Test Area Sale) was considered for a paired sales analysis, and we analyzed this property as a manufactuerd single-family home use, with 1,860 square feet of improvements, on a parcel of 1.24-acres, that sold in October 2019. The property line for this property is approximately 665 feet from the closest solar panel, and the improvements are approximately 760 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 15.

SUNFISH FARM SOLAR TEST AREA SALE GROUP 2										
Property #	Address	Sale Price	Site Size (AC)	Beds	Baths	Year Built	Home Size (SF)	Improvements	Sale Price/SF	Sale Date
Test Sale 1 Adjoining Property 15	7608 Maude Stewart Road	$125,000	1.24	2	2	1990	1,860	One-Story, Manufactured, No Basement	$67.20	Oct-19

In Group 2, we have studied only homes on lots between 0.50 and 1.60 acres and homes that are greater than 1,750 square feet, built between 1990 and 2003, so as to be comparable to the Test Area Sale home. The Control Area Sales sold within a reasonable time frame from the sale date of the Test Area Sale and are similar to the Test Area Sale in physical characteristics, that is they are one-story manufactured homes with no basements, that are located in Wake County, either in Middle Creek Township or Panther Branch Township.



Sunfish Farm Solar - Group 2: Test Area Sale Map

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We analyzed the eight Control Area Sales and adjusted the Control Area Sales for market conditions using the compounded monthly growth rate exhibited in the FHFA House Price Index, for the period from December 2018 to December 2020 (24 months).

The results of the paired sales analysis for Adjoining Property 15 are presented below.

CohnReznick Paired Sales Analysis Sunfish Farm Solar GROUP 2 - Adjoining Property 15		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sale (1)	Yes: Adjoining solar farm	$67.20
Control Area Sales (8)	No: Not adjoining solar farm	$66.23
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**1.47%**

The unit sale price of the Test Area Sale was slightly higher than the median adjusted unit sale price of the Control Area Sales and is considered within the range for a typical market area.

Noting no negative price differential, it does not appear that the Sunfish Farm solar installation impacted the sale price of the Test Area Sale, Adjoining Property 15.

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SOLAR FARM 6: 2662 FREEPORT SOLAR CSG, STEPHENSON COUNTY, IL

Coordinates: Latitude 42.33941447101255, Longitude -89.6394781667045

PIN: 08-00-13-800-001

Total Land Size: 17.84 acres

Date Project Announced: N/A

Date Project Completed: December 2020

Output: 2.0 MW AC



Approximate 2662 Freeport Solar CSG boundaries outlined in yellow, aerial imagery provided by Google Earth

2662 Freeport Solar CSG is located in Stephenson County, Illinois and is accessible via Illinois Route 26 N. The solar farm was developed by Borrego Solar Systems, Inc. and RECON Corporation and the improvements are owned by 2662 Freeport Solar I LLC. The solar farm went into operation in December 2020 with a total of 140,438 square feet of solar panels. The 17.84-acre solar farm was located on a larger 45-acre parcel that was replatted in January 2021. The underlying land of the solar farm sold in May 2022 for $200,000, with a 20-year ground

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lease for the solar panels. The remaining portion of the parcel – 27.16 acres – includes a single-family home, farm buildings, and farmland and has an easement for access to the solar site.

The Surrounding Area: The 2662 Freeport Solar CSG installation is located in Stephenson County, directly north of the City of Freeport. Stephenson County is located on the northern border of the state of Illinois, along the border with Wisconsin. The solar site is approximately 3 miles north of downtown Freeport and 100 miles northwest of the City of Chicago.

The 2662 Freeport Solar CSG project is one of 134 solar farms in Illinois and one of nine solar farms located within Stephenson County. The 2662 Freeport Solar CSG project is a similar size to all of the existing solar farms in Illinois with the exception of seven that are significantly larger and have output ranging from 10 to 200 MW. All of the solar farms in Stephenson County have capacity of 2.0 MW, similar to 2662 Freeport Solar CSG.

The Immediate Area: The solar farm is located in between W. Winneshiek Road to the north, Jay Street to the south, Blumenthal Road to the west, and Route 26 N to the east. The solar site is surrounded by farmland to the north and west, farmland and farmhouse buildings to the east, and single-family homes in a community surrounding Willow Lake to the south. The parcel lines of the single-family homes to the south are lined with mature trees. The single-family home located adjacent to the east of the solar site is surrounded by mature trees while the farm buildings have direct views of the solar site.

Real Estate Tax Info: In 2021 (payable 2022), the assessed value of the improvements was $145,333 and the owner paid $16,038 in real estate taxes. The 2021 assessed value of the underlying land was $2,404 and the participating the landowner paid $265 in real estate taxes. Prior assessment and tax information was unavailable given the split of the parcels, and the previous assessment and taxes included the larger 45-acre site and structures.

Adjoining Parcels: The following map displays the parcel in the solar farm site (outlined in red). Properties adjoining the solar parcels are numbered for subsequent analysis.

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2662 Freeport Solar CSG - Adjoining Properties

The surrounding area is primarily populated with agricultural uses to the north, east, and west, and a single-family home residential community to the south. Some of the agricultural parcels contain homesteads on the site and others are fully unimproved.

Adjoining Properties 4, 6, 8, and 9 have no sales data. Therefore, Adjoining Properties 4, 6, 8, and 9 are excluded from further analysis.

Recall, the solar farm under analysis began operations in December 2020. Adjoining Properties 1, 3, 5, 7, and 12 were sold in 2003, 2019, 2002, 2012, and 2008, respectively. These sales did not occur within a reasonable time period prior to /completion. Therefore, Adjoining Properties 1, 3, 5, 7, and 12 were excluded from further analysis.

Adjoining Property 11 sold in December 2021 and is comprised of 27 acres. Adjoining Property 11 consists of the remaining portion of the solar farm's parcel that was subdivided in 2020. Adjoining Property 11 includes a farmhouse, farm buildings, farmland, and an easement for access to the solar farm. We searched Stephenson County for sales of similar properties to Sale 3 with large areas of farmland and farm buildings and only found two comparables sales more than 15 acres. We excluded Adjoining Property 11 as a Test Area Sale given the easement and limited comparable Control Area Sales.

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Therefore, we have only considered Adjoining Properties 2 and 10 for paired sales analysis (identified as Test Area Sales 1 and 2 going forward).

PAIRED SALES ANALYSIS

We considered only one type of paired sales anaylsis, which was comparing sales of properties not proximate to the solar farm (Control Area Sales) to the sales of adjoining properties after the completion of the solar farm project (Test Area Sales). Test Area Sales 1 and 2 are located in the single-family residential subdivision ajdacent to the south of the solar farm and have been utilized as a group of test sales.

We identified Control Area Sale data through the RealQuest database which aggregates real estate sales from public record. We verified these sales through county records and conversations with brokers and sellers. We excluded sales that were not arm's length, such as REO sales or bank-owned properties, or those between related parties.

It is important to note the these Control Area Sales are not adjoining to any solar farm, nor do they have a view of one from the property. Therefore, the announcement nor the completion of the solar farm use could not have impacted the sales price of these properties. Additionally, these Control Area Sales are all located within a one mile radius of the 2662 Freeport Solar CSG project.

Test Area Sale 1 sold in November 2020 for $140,000 after being on the market for 40 days. The property is a single-story 1,750 square foot home with a 2-car attached garage, located on a 0.5-acre lot. The improvements on this property are located approximately 230 feet to the nearest solar panel while the property line is approximately 100 feet to the nearest solar panel. Test Area Sale 2 sold in January 2021 for $150,000 after being on the market for 51 days. The property is a one- to two-story 2,009 square foot home with a 2-car attached garage and 2.5-stall detached garage, located on a 0.5-acre lot. The improvements on this property are located approximately 330 feet to the nearest solar panel while the property line is approximately 280 feet to the nearest solar panel.

The table on the following page outlines the characteristics of the Test Area Sales.



Test Area Sale 1



Test Area Sale 2

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2662 Freeport Solar 1 CSG Test Area Sales										
Sale #	Address	Sale Price	Beds	Baths	Year Built	Home Size (SF)	Improvements	Site Size (AC)	Sale Price/ SF	Sale Date
1	1424 Jay St. Freeport, IL 61032	$140,000	3	2.0 (1 full, 2 half)	1979	1,750	1-story SFH with 2-car attached garage	0.5	$80.00	Nov-20
2	1226 Jay St. Freeport, IL 61032	$150,000	3	2.5	1977	2,009	1-2 story SFH with 2-car attached garage and detached 2.5 stall garage	0.5	$74.66	Jan-21

We analyzed 14 Control Area Sales of single-family homes with similar construction and use that were not located in close proximity to the solar farm, that sold within 12 months from the median sale date of the Test Area Sales. The Control Area Sales are single-family homes with three to four bedrooms and 2 to 2.5 baths, consist of between 1,200 square feet and 2,300 square feet of gross living area, and built between 1957 and 1993. The Control Area Sales have a partial unfinished basement or finished basement, and are located on lots between 0.3 and 0.6 acres in size.

The Control Area Sales were adjusted for market conditions using the Federal Housing Finance Agency's House Price Index (HPI), a weighted, repeated-sales index measuring the average price changes in repeat sales or refinancing of the same properties. The result of our analysis for the 2662 Freeport Solar CSG project is presented below.

CohnReznick Paired Sales Anaysis 2662 Freeport Solar 1 CSG		
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per SF
Test Area Sales (2)	Yes: Adjoining solar farm	$77.33
Control Area Sales (14)	No: Not adjoining solar farm	$76.08
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		1.65%

The marketing time (from list date to closing date) for Control Area Sales ranged from 16 to 87 days on market with a median of 61 days. The marketing time for to Test Area Sales ranged from 40 to 51 days, which is within the range of the Control Area Sales and below the median, ***and we note no significant marketing time differential.***

The small differential between the Test Area Sale and the Control Area Sales is within the range of normal market variance, and therefore it does not appear that the 2662 Freeport Solar CSG installation impacted the sale price of the Test Area Sales.

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We contacted the selling broker of Test Area Sale 2, Julie Wenzel of RE/MAX Town Lake & Country, who indicated that proximity to the solar farm did not impact the sale of the property.

Additionally, we spoke with Cami Grossenbacher, Stephenson County Deputy Assessor, who stated that there has been *no impact on property values due to their proximity to the **2662 Freeport Solar CSG** project.*

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SOLAR FARM 7: PORTAGE SOLAR FARM, PORTAGE, PORTER COUNTY, INDIANA

Coordinates: Latitude 41.333263, Longitude -87.093015

PIN: 64-06-19-176-001.000-015

Total Land Size: 56 AC

Date Project Announced: February 2012

Date Project Completed: September 2012

Output: 1.96 MW AC (1.5 MW DC)

The solar farm was developed by Ecos Energy, a subsidiary of Allco Renewable Energy Limited, and is currently owned by PLH, Inc. This solar panels are ground-mounted the facility has the capacity for 1.96 Megawatts (MW) AC of power, which is enough to power 300 homes. This solar farm consists of 7,128 solar modules which are of a fixed tilt installation and it contains three inverters.

The Surrounding Area: The Portage Solar Farm is located outside the City of Portage, in Portage Township, approximately 2.5 miles to the southeast of the city center. The solar farm is also approximately two miles northwest of South Haven, a neighboring residential community. Portage Township is in the northern portion of Porter County, which is in the northwestern corner of the state of Indiana. The solar farm is approximately 45 miles southeast of downtown Chicago.

The Immediate Area: This solar farm is located on the south side of Robbins Road, and is surrounded to the west, south, and east by agricultural land. Just beyond the agricultural land buffer, uses to the west and east area single family homes, and to the south is an apartment complex and a commercial development with an IMAX movie theater and restaurants. To the north of the solar farm, across Robbins Road uses consist of a residential subdivision and vacant land. The solar farm and surrounding properties have a Valparaiso mailing address.

The solar farm is fenced from adjacent properties by a fence that surrounds all of the solar panels. Natural vegetation borders the northern, and eastern sides of the larger agricultural parcel the solar farm is nestled within.

Real Estate Tax Information: The taxes on the 56 acres of farmland were $1,400 per year prior to the solar farm development. After the solar farm was developed, only 13 acres (23 percent of the site) were re-assessed and the remaining 43 acres continued to be farmed. The total real estate tax bill increased to $16,350 after the solar farm was built, including both uses on the site. This indicates that the real estate taxes for the solar farm increased from $25 per acre to $1,175 per acre after the solar farm was developed.

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The map below displays the solar farm parcel shaded in blue, and the adjoining properties (outlined in red). Adjoining Properties to the solar farm are numbered for subsequent analysis.



Portage Solar Farm - Adjoining Properties

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Portage Solar Farm - Adjoining Properties

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PAIRED SALES ANALYSIS

Adjoining Properties 1 and 7 (Test Area Sales) were each considered for a paired sales analysis. Adjoining Property 1 was analyzed as homestead-small farmland tract since at the time of purchase the site was used only as agricultural land. The buyer bought it as vacant land and subsequently built a home on the site. Adjoining Property 7 was analyzed as a single-family home use.

GROUP 1

For Adjoining Property 1 (Group 1), the property line is approximtately 836 feet from the closest solar panel and the residential home that was eventually built is approximately 1,228 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 10.

Portage Solar Test Area Sale Group 1								
Adj. Property #	Address	Sale Price	Site Size (AC)	PI Index (Corn)	Year Built	Vacant at the Time of Sale	Sale Price per Acre	Sale Date
1	442 W 875 N, Valparaiso	$149,600	18.70	139.30	2017 (After Purchase)	Yes	$8,000	Feb-14

In Group 1, we analyzed nine Control Area Sales of homesteads-small farmland tracts that sold within a reasonable time frame from the sale date of Adjoining Property 1. All Control Area Sales were adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment.

The result of our analysis for Group 1 is presented below.

CohnReznick Paired Sale Analysis Portage Solar Group 1		
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price Per Acre
Test Area Sales (1)	Adjoining solar farm	$8,000
Control Area Sales (9)	No: Not adjoining solar farm	$7,674
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		4.25%

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GROUP 2

For Adjoining Property 7 (Group 2), the residential home is approximately 1,227 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 7.

Portage Solar Test Area Sale Group 2									
Adj. Property #	Address	Sale Price	Site Size (AC)	Beds	Baths	Year Built	Square Feet	Sale Price per SF	Sale Date
7	836 N 450 W Valparaiso	$149,800	1.00	3.0	1.5	1964	1,776	$84.35	Sep-13

For Adjoining Property 7, we analyzed seven Control Area Sales of similar single family homes that sold within a reasonable time frame from the sale date of Adjoining Property 7. All Control Area Sales were adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment.



Portage Solar - Group 2: Test Area Sale Map

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The result of our analysis for Group 2 is presented below.

CohnReznick Paired Sale Analysis Portage Solar Group 2		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sales (1)	Adjoining solar farm	$84.35
Control Area Sales (7)	No: Not adjoining solar farm	$84.27
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**0.10%**

Noting the relatively small price differentials between Test Area Sales and Control Area Sales, with both Test Area Sales (Adjoining Property 1 and 7) having higher unit sale prices than the respective Control Area Sales, it does not appear that the Portage Solar Farm had any negative impact on adjacent property values.

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SOLAR FARM 8: IMPA FRANKTON SOLAR FARM, FRANKTON, INDIANA

Location: Frankton, Madison County, Indiana

Coordinates: Latitude 40.125701; Longitude -85.4626.88

PIN: 48-08-06-500-012.001-020

Total Land Size: 13 acres

Date Project Announced: November 2013

Date Project Completed: June 2014

Output: 1.0 MW AC (1.426 MW DC)

IMPA Frankton Solar Farm is located on the west side of South Lafayette Street, in the Town of Frankton. The solar farm was built in 2014 in joint effort by Inovateus Solar and Indiana Municipal Power Agency (IMPA). This solar farm has the capacity for 1 MW AC and its expected annual output is 1,426 MWh (megawatt hours). The solar farm is separated off from the adjacent properties by a 6 foot fence that surrounds the entirety of the solar panels. From our inspection of the site, we noted that the driveway to access the panels slopes downward and allows some views of the site.

The Surrounding Area: The IMPA Frankton solar farm is located in Lafayette Township, in the central portion of Madison County, Indiana. The solar farm is approximately 50 miles northeast of the center of Indianapolis and 65 miles northeast of the Indianapolis International Airport.

The Immediate Area: The solar installation is relatively centrally located in an undeveloped pocket of the town of Frankton, on the western side of South Lafayette Street. Adjoining parcels to the west include park land featuring baseball fields. Land further to the west is agricultural in nature, actively farmed primarily with row crops. Adjoining parcels to the north are residential with large estate homes. Adjoining the solar farm to the southeast is a single-family home identified in our analysis as Adjoining Property 7, and a baseball field. More farmland is directly south of the solar site. The solar site is adjoining a number of homes located east of the panels, along Lafayette Street. Mature trees at the rear of residential properties act as vegetative buffers.

Across Lafayette Street, to the east, are single-family residential homes forming the southeast quadrant of homes in Frankton.

All of the adjacent land parcels to the solar farm are used for agricultural, residential, or recreational purposes.

The solar farm is surrounded by a chain link fence that contains all the solar panels. Additionally, vegetative buffers along sides facing residential properties were planted as part of the solar farm development.

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Real Estate Tax Information: Prior to development of the solar farm in 2014, the original owner held one parcel of 15.667 acres with a home, pole barn and a utility shed, and no personal property was assessed on this parcel. In 2014 the parcel was split into two parcels and 13 acres was sold to IMPA for development of the solar farm. The owner of the parent parcel of 15.667 acres paid real estate taxes of $1,799 annually, prior to the split. After development of the solar farm, real estate taxes for both parcels, plus personal property tax revenue generated from the solar parcel, caused an increase $8,275, or a 360 percent increase in tax revenue for the entire site.

PIN	Acres	2013 Taxes Paid	2017 Taxes Paid	Tax Increase	2013 Assessed Value	2017 Assessed Value	Value Increase
Madison County, IN							
48-08-06-500-012.000-020 (parent)	15.667 (2013)	$ 1,799	$ 1,402		$ 138,700	$ 127,000	
Personal Property		$ -	$ -		$ -	$ -	
48-08-06-500-012.001-020 (2014 solar parcel split)	13.00 (2017)	$ -	$ 4,063		$ -	$ 137,400	
Personal Property		$ -	$ 2,810		$ -	$ 440,380	
TOTAL	**0.00**	**$ 1,799**	**$ 8,275**	**360%**	**$ 138,700**	**$ 704,780**	**408%**

The map below displays the solar farm parcel (outlined in red). Properties adjoining this parcel are numbered for subsequent analysis.



IMPA Frankton Solar Farm - Adjoining Properties

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PAIRED SALES ANALYSIS

We have performed a paired sales analysis with regards to the IMPA Frankton solar farm. The analysis compares sales of Adjoining Properties to the solar farm after the completion of the solar farm site (Test Area Sales) to similar properties not proximate to the solar farm (Control Area Sales). We utilized this type of paired sale analysis for both groups of Adjoining Properties under study.

GROUP 1

In Group 1, we identified and analyzed six Control Area Sales that were comparable to the Test Area Sale in location, size, and use that were not located in close proximity to the solar farm. We excluded sales that were bank-owned, or otherwise non arms'-length transactions. Adjoining Property 2 was manufactured single-family home use.

IMPA Frankton Solar Farm Test Area Sales Group 1									
Adj. Property #	Address	Sale Price	Site Size (AC)	Beds	Baths	Year Built	Home Size (SF)	Sale Date	Price PSF
2	607 S. Lafayette St Frankton, IN	$41,900	0.37	2	2	1991	1,466	Jun-15	$28.58

We identified six Control Area Sales that are included in this analysis that sold within a reasonable time frame from the sale date of the Test Area Sale (Adjoining Property 2) and are similar to the Test Area Sale in physical characteristics.

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IMPA Frankton Solar Farm – Group 1: Test Area Sale Map

Control Area Sales in Group 1 were adjusted for market conditions using a regression analysis to identify the appropriate monthly market condition adjustment. The results of our study are presented below.

CohnReznick Paired Sale Analysis IMPA Frankton Solar Farm Group 1		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price per SF**
Test Area Sale (1)	Adjoining Solar Farm	$28.58
Control Area Sales (6)	No: Not adjoining solar farm	$28.42
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		**0.56%**

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GROUP 2

In Group 2, we identified and analyzed five Control Area Sales that were comparable to the Test Area Sale (Adjoining Property 7) in location, size, and use that were not located in close proximity to the solar farm. We excluded sales that were bank-owned, or otherwise non arms'-length transactions. Adjoining Property 7 was analyzed as a single-family home use.

IMPA Frankton Solar Farm Test Area Sales Group 2									
Adj. Property #	Address	Sale Price	Site Size (AC)	Beds	Baths	Year Built	Home Size (SF)	Sale Date	Price PSF
7	713 S. Lafeytte St Frankton, IN	$131,000	3.04	4	2	2003	2,500	Oct-16	$52.40

We identified five Control Area Sales that are included in this analysis that sold within a reasonable time frame from the sale date of the Test Area Sale and are similar to the Test Area Sale in physical characteristics.



IMPA Frankton Solar Farm – Group 2: Test Area Sale Map

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Control Area Sales in Group 2 were adjusted for market conditions using a regression analysis to identify the appropriate monthly market condition adjustment. The results of our study are presented below.

CohnReznick Paired Sale Analysis IMPA Frankton Solar Farm Group 2		
No. of Sales	Potentially Impacted by Solar Farm	Adjusted Median Price per SF
Test Area Sale (1)	Adjoining Solar Farm	$52.40
Control Area Sales (5)	No: Not adjoining solar farm	$51.47
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		1.81%

Noting the relatively small price differential, in which the Test Area Sales were higher than the median for the Control Areas Sales, in both Groups 1 and 2, it does not appear that the IMPA Frankton solar farm had any negative impact on adjoining property values.

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SOLAR FARM 9: JEFFERSON COUNTY COMMUNITY SOLAR GARDEN, JEFFERSON COUNTY, COLORADO

Coordinates: Latitude 39.859564, Longitude -105.1497

PIN: 29-194-01-037

Total Land Size: 13.63 acres

Date Project Announced: November 2013

Date Project Completed: May 2016

Output: 1.2 MW AC

The Jefferson County Community Solar Garden is adjacent to the Whisper Creek residential subdivision, just outside the City of Arvada, and was developed by SunShare Management. This solar farm has the capacity for 1.2 Megawatts (AC) of power, which is enough to power 300 homes. After two months of operation, the solar farm was 100 percent subscribed and its three largest customers are the cities of Arvada and Northglenn, as well as the Green Mountain Water and Sanitation District.

The Surrounding Area: The Whisper Creek subdivision is located between the Welton Reservoir to the west and Standley Lake to the east. To the northwest of the subdivision lies the Colorado Hills Open Space and the Rocky Flats national Wildlife Refuge. The subdivision is primarily in the City of Arvada city limits, but the municipal boundary splits the street the Test Area Sales are located on, West 89th Loop, some are in Arvada and some are in unincorporated Jefferson County. Arvada is a northwestern suburb of the City of Denver and is accessible via Interstate-25 and Interstate-70 and Interstate-76.

The Immediate Area: The immediate area has uses that consist of vacant land to the north and east, a horse and alpaca farm to the south, known as Evening Star Farms, and single-family homes and a municipal police station and vacant land to the west.

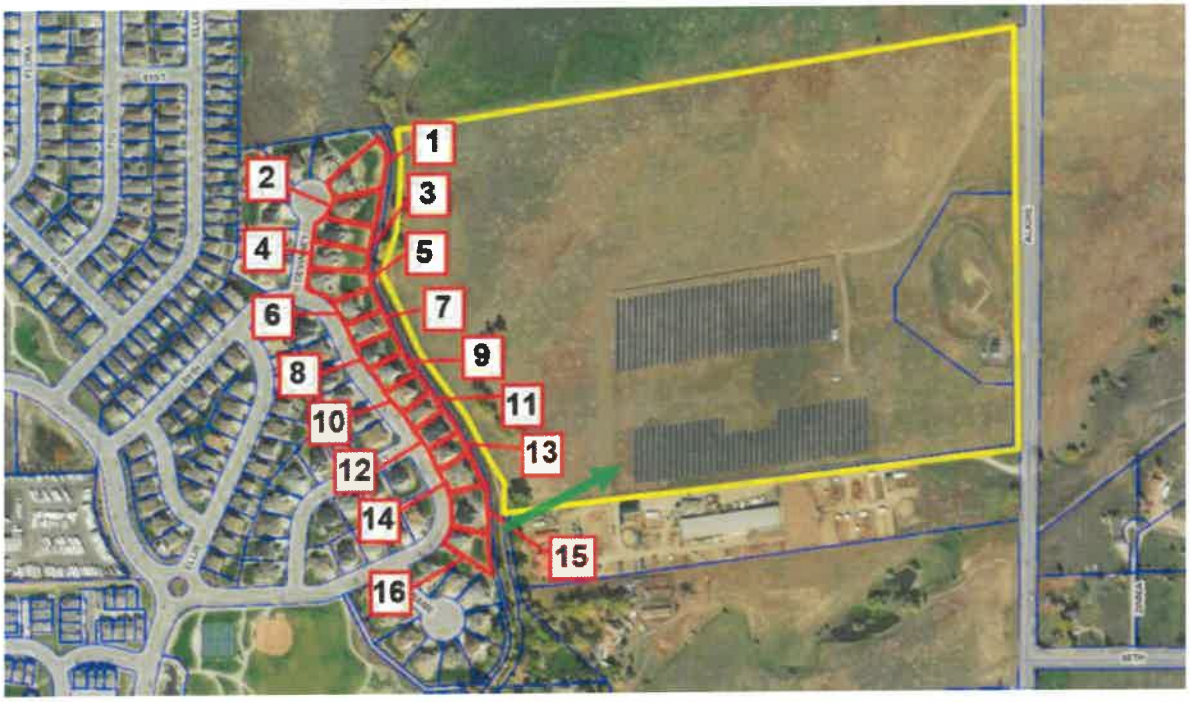
Real Estate Tax Information: In 2017, real estate taxes totaled $79.10 for the entire parcel for the year, which is slightly less than taxes billed in 2016 and 2015.

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PAIRED SALES ANALYSIS

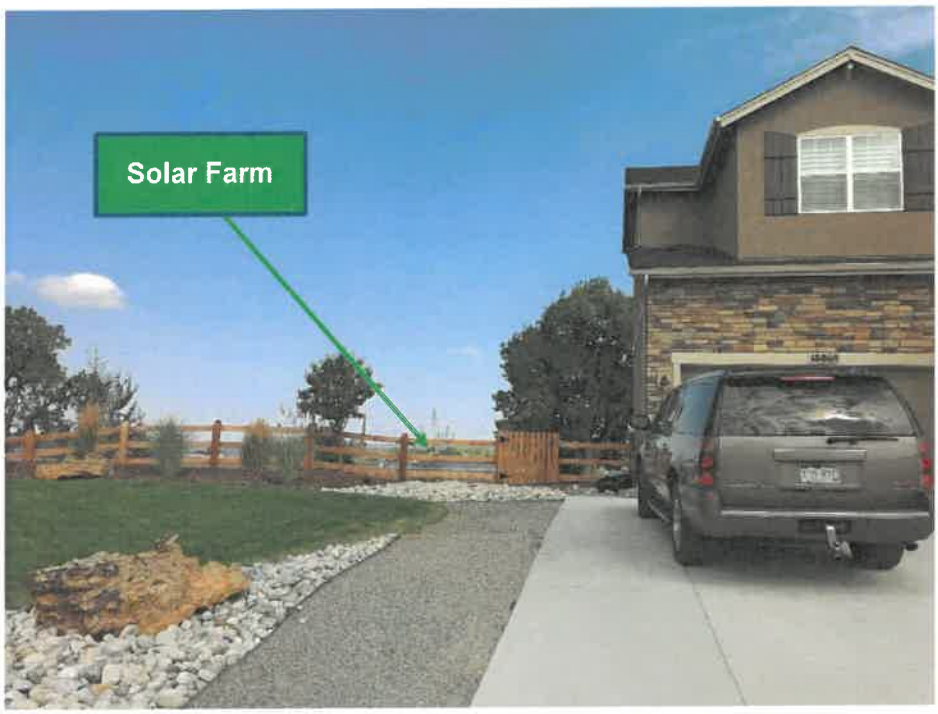
We found three Adjoining Properties that qualified for a paired sales analysis. The map below displays the solar farm parcel (outlined in yellow) and the Adjoining Properties (outlined in red) are numbered for subsequent analysis



Jefferson County Community Solar Garden - Adjoining Properties
(Q2 2016 imagery date)
(Green Arrow – Direction of Photos on Following Page)

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View from 89th Loop towards Solar Farm at rear of home



View from the rear of a Test Area Sale, towards Solar Farm

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Adjoining Properties 9, 10, and 13 (Test Area Sales 1, 2, and 3, respectively), were considered for a paired sales analysis. The Test Area Sales are two-story, single-family residential homes with four bedrooms and three and a half bathrooms, between 3,000 and 4,000 square feet of gross living area, on less than 0.30 acre of land, and each sold in 2016 as new construction homes.

Jefferson County Community Solar Garden Test Area Sales									
Adj. Property #	Address	Median Sale Price	Median Site Size (AC)	Median Beds	Median Baths	Median Year Built	Median Square Feet	Median Sale Date	Median Price PSF
9, 10, 13	13929 W 89TH LOOP, 13919 W 89TH LOOP, 13889 W 89TH LOOP	$635,500	0.23	4	3.5	2016	3,848	Jun-16	$165.15

The Test Area Sales are located between 595 feet and 720 feet from the house to the solar panels. We analyzed six Control Area Sales of single-family homes that are included in this analysis that sold within a reasonable time frame from the median sale date of the Test Area Sales and are similar to the Test Area Sales in physical characteristics. The Control Area Sales are removed from the solar panels in other areas of the Whisper Creek subdivision.



Jefferson County Community Solar Garden – Test Area Sales Map

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All Control Area Sales were adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment.

The results of our analyses for the Jefferson County Community Solar Garden are presented below.

CohnReznick Paired Sale Analysis Jefferson County Community Solar Garden		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sales (3)	Adjoining solar farm	$165.15
Control Area Sales (6)	No: Not Adjoining solar farm	$164.36
Difference between Unit Price of Test Area Sales and Adjusted Median Unit Price of Control Area Sales		**0.48%**

Noting no negative price differential, it does not appear that the Jefferson County Community Solar Garden had any negative impact on adjacent property values.

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SOLAR FARM 10: VALPARAISO SOLAR, VALPARAISO, PORTER COUNTY, INDIANA

Coordinates: Latitude 41.301180, Longitude –87.094055

PINs: 64-09-07-152-001.000-019 and 64-09-07-152-002.000-019

Total Land Size: 27.9 Acres

Date Project Announced: March 2012

Date Project Completed: December 20, 2012

Output: 1 MW AC (1.3 MW DC)

The Valparaiso solar farm was developed by Sustainable Power Group, LLC and became operational in December 2012. The solar facility has ground mounted capacity for 1.0 Megawatts (MW) AC of power. The panels are mounted in a fixed tilt fashion and there are two inverters in this solar farm.

The Surrounding Area: The Valparaiso solar farm is located in Union Township, in the northwest portion of Porter County, Indiana. Porter County is located in the very northwest corner of the state of Indiana. The solar farm is approximately 10 miles northwest of the Porter County Regional Airport and approximately six and a half miles northwest of the center of the city of Valparaiso.

The Immediate Area: This solar farm is located on the southern side of Indiana Route 130 (Railroad Avenue) in Valparaiso, Porter County, Indiana and is located approximately 35 miles southwest of downtown Chicago.

Adjoining parcels to the solar farm to the east and south are residential homes and to the west and north are agricultural in nature.

The solar farm is lined by a chain link fence that surrounds all of the solar panels. Additionally, there are bushes and trees to the north and west of the solar panels; this vegetation has been in place since before development of the solar farm. Other small trees were planted and spaced out around the perimeter of the solar farm after development. From our inspection, the solar panels cannot be seen from Indiana State Route 130 from the north, nor on N 475 W Road to the east as this is a raised roadway. The adjacent properties to the east of the solar panels have full view of the panels from the backyards of the homes.

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Real Estate Tax Information: Prior to development of the solar farm, in 2011, the original parent parcel contained a home, a homesite, excess land, and agricultural land. In 2012, Valparaiso Solar, LLC bought the entire property to develop the solar farm on. Subsequently when Valparaiso Solar, LLC sold the project to PLH, LLC, they split the parcels so that the home and homesite were one parcel of 3.25 acres and the remaining 24.65 acres were the solar panel site. After development of the solar farm development, in 2015, total real estate taxes for both parcels had increased to approximately $2,587, a 25 percent increase in tax revenue for the site.

PIN	Acres	2011 Taxes Paid	2015 Taxes Paid	Tax Increase	2011 Assessed Value	2015 Assessed Value	Value Increase
Porter County, IN							
64-09-07-151-001.000-019 (parent parcel)		$ 2,072			$ 203,800		
64-09-07-152-001.000-019 (split parcel)	24.65		$ 2,587			$ 156,800	
64-09-07-152-002.000-019 (split parcel)	3.25		$ 1,741			$ 187,900	
TOTAL	**27.90**	**$ 2,072**	**$ 2,587**	**25%**	**$ 203,800**	**$ 344,700**	**69%**

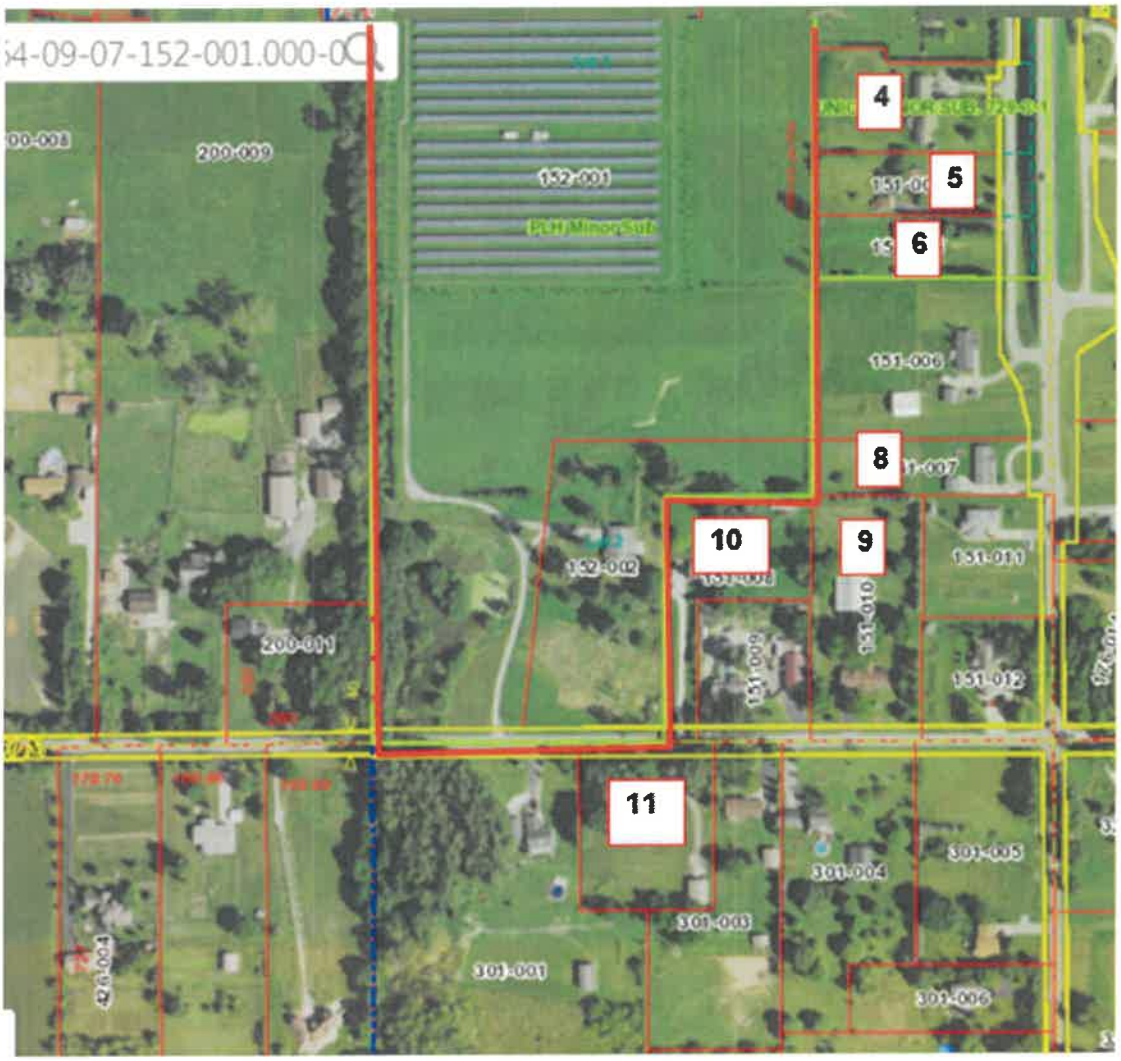
The maps below and on the following page display the solar farm parcels (outlined in red). Properties adjoining this parcel are numbered for subsequent analysis.



Valparaiso Solar Farm - Adjoining Properties

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Valparaiso Solar Farm - Adjoining Properties

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PAIRED SALES ANALYSIS

Adjoining Properties 10 and 14 (Test Area Sales) were each considered for a paired sales analysis. Both were analyzed as single-family home uses.

GROUP 1

For Adjoining Property 10 (Group 1), the residential home is approximately 514 feet from the closest solar panel. The following table outlines the other important characteristics of Adjoining Property 10.

Valparaiso Solar Test Area Sale Group 1									
Adj. Property #	Address	Sale Price	Site Size (AC)	Beds	Baths	Year Built	Square Feet	Price PSF	Sale Date
10	489 W 450 N, Valparaiso, IN	$105,000	1.45	3	2	1993	1,274	$ 82.42	Jul-15

We analyzed five Control Area Sales that sold within a reasonable time frame from the sale date of Adjoining Property 10. All Control Area Sales were adjusted for market conditions using regression analysis to identify the appropriate monthly market conditions adjustment.

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Valparaiso Solar - Group 1: Test Area Sale Map

The result of our analyses for Group 1 is presented below.

CohnReznick Paired Sale Analysis Valparaiso Solar Group 1		
No. of Sales	**Potentially Impacted by Solar Farm**	**Adjusted Median Price Per SF**
Test Area Sales (1)	Adjoining solar farm	$82.42
Control Area Sales (5)	No: Not adjoining solar farm	$79.95
Difference between Unit Price of Test Area Sale and Adjusted Median Unit Price of Control Area Sales		**3.09%**

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TECHNIQUE 3: MARKET COMMENTARY

Additionally, we have contacted market participants such as appraisers, brokers, and developers familiar with property values around solar farms. Commentary from our conversations with these market participants is recorded below.

In Otter Creek Township, in LaSalle County, Illinois, we spoke with Viki Crouch, the Township Assessor, who she said that *there has been no impact on property values due to their proximity to the* ***Grand Ridge Solar Farm***.

We spoke with Ken Crowley, Rockford Township Assessor in Winnebago County, Illinois, who stated that he has seen *no impact on property values in his township as an effect of proximity to the* ***Rockford Solar Farm***.

We spoke with James Weisiger, the Champaign Township Assessor in Champaign County, where the **University of Illinois Solar Farm** is located, and he noted that no one has petitioned to have their property assessments lowered and *there appears to have been no impact on property values as a result of proximity to the solar farm*.

We spoke with Ken Surface, a Senior Vice President of Nexus Group. Nexus Group is a large valuation group in Indiana and has been hired by 20 counties in Indiana regarding property assessments. Mr. Surface is familiar with the solar farm sites in Harrison County (Lanesville Solar Farm) and Monroe County (Ellettsville Solar Farm) and stated he has noticed *no impact on property values from proximity to these sites*.

We interviewed Missy Tetrick, a Commercial Valuation Analyst for the Marion County Indiana Assessor. She mentioned the Indy Solar III sites and stated that she saw *no impact on land or property prices from proximity to this solar farm*.

We spoke with Dorene Greiwe, Decatur County Indiana Assessor, and she stated that solar farms have only been in the county a couple of years, but she has seen *no impact on land or property prices due to proximity to this solar farm*.

Connie Gardner, First Deputy Assessor for Madison County Indiana, stated that there are three solar farms in her county, and she has seen *no impact on land or property prices due to proximity to these solar farms*.

We spoke with Tara Shaver, Director of Administration for Marion County, Indiana Assessor/Certified Assessor, and she stated that she has seen *no impact on land or property prices due to proximity to solar farms*.

Candace Rindahl of ReMax Results, a real estate broker with 16 years of experience in the North Branch, Minnesota area, said that she has been in most of the homes surrounding the North Star Solar Farm and personally sold two of them. She reported that the neighboring homes sold at market rates comparable to other homes in the area not influenced by the solar farm, and they sold within 45 days of offering, at the end of 2017, *which was in line with the market.*

Dan Squires, Chisago County Tax Assessor (Minnesota), confirmed that the Chisago County Assessor's Office completed their own study on property values adjacent to and in close vicinity to the solar farm from January

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2016 to October 2017. From the study, the assessor determined the residential homes adjacent to the North Star Solar Farm (Minnesota) *were in-line with the market and were appreciating at the same rate as the market.*[23]

Renee Davis, Tax Administrator for Bladen County, North Carolina, stated that she *has not seen any effect on property values due to proximity to a solar farm.*

We spoke with Jim Brown, an appraiser for Scotland County, North Carolina, who stated that he *has seen no effect on property values due to proximity to a solar farm.*

We spoke with Gary Rose, a tax assessor for Duplin County, North Carolina, who stated that *he has seen no effect on property values in regards to proximity to a solar farm.*

Kathy Renn, a property Valuation Manager for Vance County, North Carolina, stated that she has *not noticed any effect on property values due to proximity to a solar farm.*

Larry Newton, a Tax Assessor for Anson County, North Carolina, stated that there are six solar farms in the county ranging from 20 to 40 acres and he *has not seen any evidence that solar farms have had any effect on property values due to proximity to a solar farm.*

We spoke with Patrice Stewart, a Tax Administrator for Pasquotank County, North Carolina, and she has seen *no effect on land or residential property values due to proximity to the solar farms in Pasquotank County.*

We spoke with the selling broker of the Adjoining Property for Elm City Solar, in North Carolina, Selby Brewer, who said the solar farm *did not impact the buyer's motivation.*

We spoke with Amy Carr, Commissioner of Revenue in Southampton County, Virginia, who stated that most of the solar farms are in rural areas, but she *has not seen any effect or made any adjustments on property values.* They have evaluated the solar farmland considering a more intense use, which increased the assessed value.

The Interim Assessor for the town of Whitestown in Oneida County, New York, Frank Donato, stated that he *has seen no impact on property values of properties nearby solar farms.*

Steve Lehr at the Department of Assessment for Tompkins County, New York, mentioned that the appraisal staff *has made no adjustments regarding assessed values of properties surrounding solar farms. Marketing times for properties have also stayed consistent.* Lehr noted that a few of the solar farms in Thompkins County are on land owned by colleges and universities and a few are in rural areas.

At this point in time, Al Fiorille, Senior Valuation Specialist in the Tompkins County Assessment department in New York, reported that he *cannot measure any negativity from the solar farms and arrays that have been installed within the county.*

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[23] Chisago County Press: County Board Real Estate Update Shows No "Solar Effects" (11/03/2017)

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In the Assessor's office in the town of Seneca, Ontario County, New York, Shana Jo Hamilton stated that she *has seen no impact on property values of properties adjacent to solar farms*.

Michael Zazzara, Assessor of the City of Rochester in Monroe County, New York commented that the City has a couple of solar farms, and they *have seen no impact on nearby property values and have received no complaints from property owners.*

While there are one or two homes nearby to existing solar farms in the town of Lisbon in St. Lawrence County, New York, Assessor Stephen Teele *has not seen any impact on property values in his town.* The solar farms in the area are in rural or agricultural areas in and around Lisbon.

The Assessor for the Village of Whitehall in Washington County, New York, Bruce Caza, noted that there are solar farms located in both rural and residential areas in the village and *he has seen no impact on adjacent properties, including any concerns related to glare form solar panels.*

Laurie Lambertson, the Town Assessor for Bethlehem, in Albany County, New York noted that the solar farms in her area are tucked away in rural or industrial areas. *Lambertson has seen no impact on property values in properties adjacent to solar farms.*

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SOLAR FARM FACTORS ON HARMONY OF USE

Zoning changes and conditional use permits often require that the proposed use is compatible with surrounding uses.

The following section analyzes specific physical characteristics of solar farms and is based on research and CohnReznick's personal solar farm site visits and indicate that solar farms are generally harmonious with surrounding property and compliant with most zoning standards.

Appearance: Most solar panels have a similar appearance to a greenhouse or single-story residence can range from 8 to 20 feet but are usually not more than 15 feet high. As previously mentioned, developers generally surround a solar farm with a fence and often leave existing perimeter foliage, which minimizes the visibility of the solar farm. The physical characteristics of solar farms are compatible with adjoining agricultural and residential uses.

Sound: Solar panels in general are effectively silent and sound levels are minimal, like ambient sound. There are limited sound-emitting pieces of equipment on-site, which only produce a quiet hum (e.g., inverters). However, these sources are not typically heard outside the solar farm perimeter fence.

Odor: Solar panels do not produce any byproduct or odor.

Greenhouse Gas (GHG) Emissions: Much of the GHG produced in the United States is linked to the combustion of fossil fuels, such as coal, natural gas, and petroleum, for energy use. Generating renewable energy from operating solar panels for energy use does not have significant GHG emissions, promoting cleaner air and reducing carbon dioxide (CO_2) emissions to fight climate change.

Traffic: The solar farm requires minimal daily onsite monitoring by operational employees and thus minimal operational traffic.

Hazardous Material: Modern solar panel arrays are constructed to U.S. government standards. Testing shows that modern solar modules are both safe to dispose of in landfills and are also safe in worst case conditions of abandonment or damage in a disaster.[24] Reuse or recycling of materials would be prioritized over disposal. Recycling is an area of significant focus in the solar industry, and programs for both batteries and solar panels are advancing every year. While the exact method of recycling may not be known yet as it is dependent on specific design and manufacturer protocol, the equipment is designed with recyclability of its components in mind, and it is likely that solar panel and battery energy storage recycling and reuse programs will only improve in 25 years' time.

Examples of homes built adjoining to solar farms are presented on the following pages.

[24] Virginia Solar Initiative - Weldon Cooper Center for Public Service – University of Virginia (https://solar.coopercenter.org/taxonomy/term/5311)

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For the Dominion Indy III solar farm, the adjacent land to the west was acquired and subsequently developed with a large estate home – after the solar panels had been in operation for years.



Dominion Indy III Solar Farm
September 2014



Dominion Indy III Solar Farm
October 2016



Estate home adjacent to Dominion Indy III Solar Farm

In ground pool and attached garage (home cost estimated at $450,000 - October 2015)

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Innovative Solar 42 (2017)
Cumberland County, NC



Innovative Solar 42 (2019)
Cumberland County, NC

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Developer Built Home

Sold 6/18/19 for $265,900 ($110.75/sf)

Cumberland County, NC (adjacent to Innovative 42 solar farm)

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Portage Solar Farm, IN
October 2015



Portage Solar Farm, IN
October 2016



4,255 square foot estate home under construction, adjacent to Portage Solar Farm located in Indiana

On-site pond and attached garage (cost estimated at $465,000) April 2018

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The Brighton PV Solar farm became operational in December 2012. Located in Adams County, north of Denver, CO, this solar farm has a capacity of 1.8 MW AC and is located on a triangular parcel of land east of an area of existing custom-built estate homes. A photo of one home (15880 Jackson Street) located directly north of the circled area below, is presented to the right.



In December 2012, the 2.55-acre lot circled in red below (15840 Jackson Street) was purchased for future development of a single-family home. This home was built in 2017, and per the county assessor, the two-story home is 3,725 square feet above ground with 4 bedrooms and 3.5 bathrooms. According to the building permit issued in August 2016, the construction cost was budgeted at $410,000.



Brighton PV Solar, Adams County, CO
June 2016



Brighton PV Solar, Adams County, CO
June 2017

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SUMMARY OF ADJOINING USES

The table below summarizes each Existing Solar Farm's adjoining uses.

Composition of Surrounding Uses (% of Surrounding Acreage)							
Solar Farm #	Solar Farm	Acreage % of Surrounding Agricultural Uses	Acreage % of Surrounding Residential Uses	Acreage % of Surrounding Industrial Uses	Acreage % of Surrounding Office Uses	Acreage % of Surrounding Other Uses	Avg. Distance from Panels to Improvements (Feet)
1	DTE Lapeer	60.00%	35.00%	0.00%	0.00%	5.00%	260
2	Grand Ridge	97.60%	1.40%	0.00%	0.00%	1.00%	553
3	Woodland Solar	25.00%	5.00%	10.00%	0.00%	60.00%	615
4	Dominion Indy Solar III	97.70%	2.30%	0.00%	0.00%	0.00%	474
5	Sunfish Farm	81.70%	18.30%	0.00%	0.00%	0.00%	380
6	2662 Freeport Solar	96.30%	3.50%	0.00%	0.00%	0.00%	243
7	Portage Solar	65.50%	34.50%	0.00%	0.00%	0.00%	991
8	IMPA Frankton	76.30%	5.70%	0.00%	0.00%	18.00%	236
9	Jefferson County Solar Garden	73.00%	10.00%	0.00%	0.00%	16.67%	730
10	Valparaiso Solar LLC	81.60%	18.40%	0.00%	0.00%	0.00%	659

Overall, the vast majority of the surrounding acreage for each comparable solar farm is made up of agricultural land, some of which have homesteads. There are also smaller single-family home sites that adjoin the solar farms analyzed in this report. Generally, these solar farms are sound comparables to New Leaf Energy's proposed solar project in terms of adjoining uses, location, and size.

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SUMMARY AND FINAL CONCLUSIONS

The purpose of this property value impact report is to determine whether the presence of a solar farm has caused a measurable and consistent impact on adjacent property values. Under the identified methodology and scope of work, CohnReznick reviewed published methodology for measuring impact on property values as well as published reports that analyzed the impact of solar farms on property values. These studies found little to no measurable and consistent difference between Test Area Sales and Control Area Sales attributed to the solar farms.

A summary of the chosen CohnReznick impact studies prepared is presented below.

CohnReznick Solar Analysis Conclusions

Solar Farm No.	Solar Farm	Number of Test Area Sales	Number of Control Area Sales	Median Adjoining Property Sale Price per Unit (Test Area Sales)	Median Control Area Sales Price per Unit	Difference (%)	Avg. Feet from Panel to Lot	Avg. Feet from Panel to House	Impact Found
Single-Family Residential									
1	DTE Lapeer Solar Group 1	3	6	$105.26	$99.64	+5.64%	205	285	No Impact
	DTE Lapeer Solar Group 2	1	5	$114.12	$113.01	+0.98%	225	315	No Impact
	DTE Lapeer Solar Group 3	1	4	$94.84	$91.80	+3.31%	165	250	No Impact
2	Grand Ridge Solar	1	5	$79.90	$74.35	+7.46%	366	479	No Impact
3	Woodland Solar	1	5	$144.63	$137.76	+4.99%	420	615	No Impact
4	Dominion Indy Solar III Group 2	4	8	$59.10	$57.84	+2.18%	240	350	No Impact
	Dominion Indy Solar III Group 3	7	11	$72.15	$72.69	-0.74%	165	300	No Impact
5	Sunfish Farm Solar Group 1	1	14	$127.89	$124.86	+2.43%	50	200	No Impact
	Sunfish Farm Solar Group 2	1	10	$67.20	$66.23	+1.46%	665	760	No Impact
6	2662 Freeport Solar	2	14	$77.33	$76.08	+1.64%	114	243	No Impact
7	Portage Solar Group 2	1	7	$84.35	$84.27	+0.09%	1070	1233	No Impact
8	IMPA Frankton Solar Group 1	1	6	$28.58	$28.42	+0.56%	120	153	No Impact
	IMPA Frankton Solar Group 2	1	5	$52.40	$51.47	+1.81%	163	415	No Impact
9	Jefferson Community Solar Garden	3	6	$165.15	$164.36	+0.48%	609	658	No Impact
10	Valparaiso Solar Group 1	1	5	$82.42	$79.95	+3.09%	323	516	No Impact
Median Variance in Sale Prices for Test Area Sales to Control Area Sales						**+1.81%**			
29 Adjoining Test Area Sales studied and compared to 111 Control Area Sales									
** Note, the paired sale analysis for this group is an outlier as determined earlier in this report and was excluded from this summary table.*									
Land (Agricultural/Single Family Lots)									
4	Dominion Indy Solar III Group 1	1	4	$8,210	$8,091	+1.47%	280	-	No Impact
7	Portage Solar Group 1	1	9	$8,000	$7,674	+4.25%	845	-	No Impact
Median Variance in Sale Prices for Test to Control Areas						**+2.86%**			
2 Adjoining Test Area Sale studied and compared to 13 Control Area Sales									

As summarized above, we evaluated 31 property sales adjoining existing solar facilities (Test Area Sales) and 124 Control Area Sales. In addition, we studied a total of 37 Test Area Sales and 46 Control Area Sales in two Before and After analyses. In total, we have studied over 1,430 sale transactions across the United States.

The solar farms analyzed reflected sales of property adjoining an existing solar farm (Test Area Sales) in which the unit sale prices were effectively the same or higher than the comparable Control Area Sales that were not near a solar farm. The conclusions support that there is no negative impact for improved residential homes adjacent to solar, nor agricultural acreage. This was confirmed with market participants interviews, which provided additional insight as to how the market evaluates farmland and single-family homes with views of the solar farm.

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It can be concluded that since the Adjoining Property Sales (Test Area Sales) were not adversely affected by their proximity to the solar farm, that properties surrounding other proposed solar farms operating in compliance with all regulatory standards will similarly not be adversely affected, in either the short or long term periods.

Based upon the examination, research, and analyses of the existing solar farm uses, the surrounding areas, and an extensive market database, we have concluded that ***no consistent negative impact has occurred to adjacent property values that could be attributed to proximity to the adjacent solar farm***, with regard to unit sale prices or other influential market indicators. Additionally, in our workfile we have retained analyses of additional existing solar farms, each with their own set of matched control sales, which had consistent results, indicating no consistent and measurable impact on adjacent property values. This conclusion has been confirmed by numerous county assessors who have also investigated this use's potential impact on property values.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

CohnReznick LLP



Andrew R. Lines, MAI
Principal
Certified General Real Estate Appraiser
Illinois License No. [redacted]
Expires 9/30/2023
Indiana License No. [redacted]
Expires 6/30/2024



Patricia L. McGarr, MAI, CRE, FRICS
National Director - Valuation Advisory Services
Certified General Real Estate Appraiser
Illinois License No. [redacted]
Expires 9/30/2023
Indiana License No. [redacted]
Expires 6/30/2024
Michigan License No. [redacted]
Expires 7/31/2024



Erin C. Bowen, MAI
Senior Manager
Certified General Real Estate Appraiser
Arizona License No. [redacted]
Expires 12/31/2024

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CERTIFICATION

We certify that, to the best of our knowledge and belief:

1. The statements of fact and data reported are true and correct.
2. The reported analyses, findings, and conclusions in this consulting report are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, findings, and conclusions.
3. We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. We have performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. We have no bias with respect to the property that is the subject of this report or the parties involved with this assignment.
6. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value finding, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this report.
8. Our analyses, findings, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, which includes the Uniform Standards of Professional Appraisal Practice (USPAP).
9. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
10. Patricia L. McGarr, MAI, CRE, FRICS, Andrew R. Lines, MAI, and Erin C. Bowen, MAI have viewed the exterior of all comparable data referenced in this report in person, via photographs, or aerial imagery.
11. We have not relied on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, and receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value.
12. Joseph P. B. Ficenec provided significant appraisal consulting assistance to the persons signing this certification, including data verification, research, and administrative work all under the appropriate supervision.
13. We have experience in reviewing properties similar to the subject and are in compliance with the Competency Rule of USPAP.
14. As of the date of this report, Patricia L. McGarr, MAI, CRE, FRICS, Andrew R. Lines, MAI, and Erin C. Bowen, MAI have completed the continuing education program for Designated Members of the Appraisal Institute.

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If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

CohnReznick LLP



Andrew R. Lines, MAI
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Illinois License No. [redacted]
Expires 9/30/2023
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Erin C. Bowen, MAI
Senior Manager
Certified General Real Estate Appraiser
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ASSUMPTIONS AND LIMITING CONDITIONS

The fact witness services will be subject to the following assumptions and limiting conditions:

1. No responsibility is assumed for the legal description provided or for matter pertaining to legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated. The legal description used in this report is assumed to be correct.
2. The property is evaluated free and clear of any or all liens or encumbrances unless otherwise stated.
3. Responsible ownership and competent management are assumed.
4. Information furnished by others is believed to be true, correct and reliable, but no warranty is given for its accuracy.
5. All engineering studies are assumed to be correct. The plot plans and illustrative material in this report are included only to help the reader visualize the property.
6. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for obtaining the engineering studies that may be required to discover them.
7. It is assumed that the property is in full compliance with all applicable federal, state, and local and environmental regulations and laws unless the lack of compliance is stated, described, and considered in the evaluation report.
8. It is assumed that the property conforms to all applicable zoning and use regulations and restrictions unless nonconformity has been identified, described and considered in the evaluation report.
9. It is assumed that all required licenses, certificates of occupancy, consents, and other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
10. It is assumed that the use of the land and improvements is confined within the boundaries or property lines of the property described and that there is no encroachment or trespass unless noted in this report.
11. The date of value to which the findings are expressed in this report apply is set forth in the letter of transmittal. The appraisers assume no responsibility for economic or physical factors occurring at some later date which may affect the opinions herein stated.
12. Unless otherwise stated in this report, the existence of hazardous materials, which may or may not be present on the property, was not observed by the appraisers. The appraisers have no knowledge of the existence of such substances on or in the property. The appraisers, however, are not qualified to detect such substances. The presence of substances such as asbestos, urea-formaldehyde foam insulation, radon gas, lead or lead-based products, toxic waste contaminants, and other potentially hazardous materials may affect the value of the property. The value estimate is predicated on the assumption that there is no such material on or in the property that would cause a loss in value. No

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responsibility is assumed for such conditions or for any expertise or engineering knowledge required to discover them. The client is urged to retain an expert in this field, if desired.

13. The forecasts, projections, or operating estimates included in this report were utilized to assist in the evaluation process and are based on reasonable estimates of market conditions, anticipated supply and demand, and the state of the economy. Therefore, the projections are subject to changes in future conditions that cannot be accurately predicated by the appraisers and which could affect the future income or value projections.

14. Fundamental to the appraisal analysis is the assumption that no change in zoning is either proposed or imminent, unless otherwise stipulated. Should a change in zoning status occur from the property's present classification, the appraisers reserve the right to alter or amend the value accordingly.

15. It is assumed that the property does not contain within its confined any unmarked burial grounds which would prevent or hamper the development process.

16. The Americans with Disabilities Act (ADA) became effective on January 26, 1992. We have not made a specific compliance survey and analysis of the property to determine if it is in conformance with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA, could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect on the value of the property. Unless otherwise noted in this report, we have not been provided with a compliance survey of the property. Any information regarding compliance surveys or estimates of costs to conform to the requirements of the ADA are provided for information purposes. No responsibility is assumed for the accuracy or completeness of the compliance survey cited in this report, or for the eventual cost to comply with the requirements of the ADA.

17. Any value estimates provided in this report apply to the entire property, and any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in this report.

18. Any proposed improvements are assumed to have been completed unless otherwise stipulated; any construction is assumed to conform with the building plans referenced in this report.

19. Unless otherwise noted in the body of this report, this evaluation assumes that the subject does not fall within the areas where mandatory flood insurance is effective.

20. Unless otherwise noted in the body of this report, we have not completed nor are we contracted to have completed an investigation to identify and/or quantify the presence of non-tidal wetland conditions on the subject property.

21. This report should not be used as a basis to determine the structural adequacy/inadequacy of the property described herein, but for evaluation purposes only.

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22. It is assumed that the subject structure meets the applicable building codes for its respective jurisdiction. We assume no responsibility/liability for the inclusion/exclusion of any structural component item which may have an impact on value. It is further assumed that the subject property will meet code requirements as they relate to proper soil compaction, grading, and drainage.

23. The appraisers are not engineers, and any references to physical property characteristics in terms of quality, condition, cost, suitability, soil conditions, flood risk, obsolescence, etc., are strictly related to their economic impact on the property. No liability is assumed for any engineering-related issues.

The evaluation services will be subject to the following limiting conditions:

1. The findings reported herein are only applicable to the properties studied in conjunction with the Purpose of the Evaluation and the Function of the Evaluation as herein set forth; the evaluation is not to be used for any other purposes or functions.

2. Any allocation of the total value estimated in this report between the land and the improvements applies only to the stated program of utilization. The separate values allocated to the land and buildings must not be used in conjunction with any other appraisal and are not valid if so used.

3. No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and we have assumed that the property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in the evaluation.

4. This report has been prepared by CohnReznick under the terms and conditions outlined by the enclosed engagement letter. Therefore, the contents of this report and the use of this report are governed by the client confidentiality rules of the Appraisal Institute. Specifically, this report is not for use by a third party and CohnReznick is not responsible or liable, legally or otherwise, to other parties using this report unless agreed to in writing, in advance, by both CohnReznick and/or the client or third party.

5. Disclosure of the contents of this evaluation report is governed by the by-laws and Regulations of the Appraisal Institute has been prepared to conform with the reporting standards of any concerned government agencies.

6. The forecasts, projections, and/or operating estimates contained herein are based on current market conditions, anticipated short-term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changes with future conditions. This evaluation is based on the condition of local and national economies, purchasing power of money, and financing rates prevailing at the effective date of value.

7. This evaluation shall be considered only in its entirety, and no part of this evaluation shall be utilized separately or out of context. Any separation of the signature pages from the balance of the evaluation report invalidates the conclusions established herein.

8. **Possession of this report, or a copy thereof, does not carry with it the right of publication, nor may it be used for any purposes by anyone other than the client without the prior written consent of the appraisers, and in any event, only with property qualification.**

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9. The appraisers, by reason of this study, are not required to give further consultation or testimony or to be in attendance in court with reference to the property in question unless arrangements have been previously made.

10. Neither all nor any part of the contents of this report shall be conveyed to any person or entity, other than the appraiser's client, through advertising, solicitation materials, public relations, news, sales or other media, without the written consent and approval of the authors, particularly as to evaluation conclusions, the identity of the appraisers or CohnReznick, LLC, or any reference to the Appraisal Institute, or the MAI designation. Further, the appraisers and CohnReznick, LLC assume no obligation, liability, or accountability to any third party. If this report is placed in the hands of anyone but the client, client shall make such party aware of all the assumptions and limiting conditions of the assignment.

11. This evaluation is not intended to be used, and may not be used, on behalf of or in connection with a real estate syndicate or syndicates. A real estate syndicate means a general or limited partnership, joint venture, unincorporated association or similar organization formed for the purpose of, and engaged in, an investment or gain from an interest in real property, including, but not limited to a sale or exchange, trade or development of such real property, on behalf of others, or which is required to be registered with the United States Securities and Exchange commissions or any state regulatory agency which regulates investments made as a public offering. It is agreed that any user of this evaluation who uses it contrary to the prohibitions in this section indemnifies the appraisers and the appraisers' firm and holds them harmless from all claims, including attorney fees, arising from said use.

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ADDENDUM A:
APPRAISER QUALIFICATIONS

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Patricia L. McGarr, MAI, CRE, FRICS, CRA

Principal and CohnReznick Group – Valuation Advisory National Director

200 S. Wacker Drive, Suite 2600
Chicago, IL 60606
312-508-5802
patricia.mcgarr@cohnreznick.com

Patricia L. McGarr, MAI, CRE, FRICS, CRA, is a principal and National Director of CohnReznick Advisory Group's Valuation Advisory Services practice. Pat's experience includes market value appraisals of varied property types for acquisition, condemnation, mortgage, estate, ad valorem tax, litigation, zoning, and other purposes. Pat has been involved in the real estate business since 1980. From June 1980 to January 1984, she was involved with the sales and brokerage of residential and commercial properties. Her responsibilities during this time included the formation, management, and training of sales staff in addition to her sales, marketing, and analytical functions. Of special note was her development of a commercial division for a major Chicago-area brokerage firm.

Since January 1984, Pat has been exclusively involved in the valuation of real estate. Her experience includes the valuation of a wide variety of property types including residential (SF/MF/LIHTC), commercial, industrial, and special purpose properties including such diverse subjects as quarries, marinas, riverboat gaming sites, shopping centers, manufacturing plants, and office buildings. She is also experienced in the valuation of leasehold and leased fee interests. Pat has performed appraisal assignments throughout the country, including the Chicago Metropolitan area as well as New York, New Jersey, California, Nevada, Florida, Utah, Texas, Wisconsin, Indiana, Michigan, and Ohio. Pat has gained substantial experience in the study and analysis of the establishment and expansion of sanitary landfills in various metropolitan areas including the preparation of real estate impact studies to address criteria required by Senate Bill 172. She has also developed an accepted format for allocating value of a landfill operation between real property, landfill improvements, and franchise (permits) value.

Over the past several years, Pat has developed a valuation group that specializes in the establishment of new utility corridors for electric power transmission and pipelines. This includes determining acquisition budgets, easement acquisitions, corridor valuations, and litigation support. Pat has considerable experience in performing valuation impact studies on potential detrimental conditions and has studied properties adjoining solar farms, wind farms, landfills, waste transfer stations, stone quarries, cellular towers, schools, electrical power transmission lines, "Big Box" retail facilities, levies, properties with restrictive covenants, landmark districts, environmental contamination, airports, material defects in construction, stigma, and loss of view amenity for residential high rises. Most recently, the firm has studied property values adjacent to Solar Farms to address criteria required for special use permits across the Midwest.

Pat has qualified as an expert valuation witness in numerous local, state, and federal courts.

Pat has participated in specialized real estate appraisal education and has completed more than 50 courses and seminars offered by the Appraisal Institute totaling more than 600 classroom hours, including real estate transaction courses as a prerequisite to obtaining a State of Illinois Real Estate Salesman License.

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Pat has earned the professional designations of Counselors of Real Estate (CRE), Member of the Appraisal Institute (MAI), Fellow of Royal Institution of Chartered Surveyors (FRICS) and Certified Review Appraiser (CRA). She has also been a certified general real estate appraiser in 21 states (see below).

Education

- North Park University: Bachelor of Science, General Studies

Professional Affiliations

- National Association of Realtors
- CREW Commercial Real Estate Executive Women
- IRWA International Right Of Way Association

Licenses and Accreditations

- Member of the Appraisal Institute (MAI)
- Counselors of Real Estate, designated CRE
- Fellow of Royal Institution of Chartered Surveyors (FRICS)
- Certified Review Appraiser (CRA)
- Alabama State Certified General Real Estate Appraiser
- California State Certified General Real Estate Appraiser
- Connecticut State Certified General Real Estate Appraiser
- Colorado State Certified General Real Estate Appraiser
- District of Columbia Certified General Real Estate Appraiser
- Illinois State Certified General Real Estate Appraiser
- Indiana State Certified General Real Estate Appraiser
- Louisiana State Certified General Real Estate Appraiser
- Maryland State Certified General Real Estate Appraiser
- Massachusetts Certified General Real Estate Appraiser
- Michigan State Certified General Real Estate Appraiser
- North Carolina State Certified General Real Estate Appraiser
- New Jersey State Certified General Real Estate Appraiser
- Nevada State Certified General Real Estate Appraiser
- New York State Certified General Real Estate Appraiser
- Pennsylvania State Certified General Real Estate Appraiser
- South Carolina State Certified General Real Estate Appraiser
- Tennessee State Certified General Real Estate Appraiser
- Texas State Certified General Real Estate Appraiser
- Virginia State Certified General Real Estate Appraiser
- Wisconsin State Certified General Real Estate Appraiser

Appointments

- Appointed by two Governors of Illinois to the State Real Estate Appraisal Board (2017 & 2021)
- Chairperson of the State of Illinois Real Estate Appraisal Board (2021)

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Andrew R. Lines, MAI

Principal, CohnReznick Advisory

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Andrew R. Lines is a principal in CohnReznick's Valuation Advisory Services group where he specializes in Real Estate, Affordable Housing, Cannabis and Renewable Energy. Andrew leads a group of appraisers across the country performing valuations on a wide variety of real estate property types including residential, commercial, industrial, hospitality and special purpose properties: landfills, waste transfer stations, marinas, hospitals, universities, self-storage facilities, racetracks, CCRCs, and railroad corridors. Affordable Housing experience includes Market Studies, Rent Compatibility Studies and Feasibility Analysis for LIHTC and mixed-income developments. Cannabis assignments have covered cultivation, processing and dispensaries in over 10 states, including due diligence for mergers and acquisitions of multi-state operational and early stage companies. Renewable Energy assignments have included preparation of impact studies and testimony at local zoning hearings in eight states.

Andrew is experienced in the valuation of leasehold, leased fee, and partial interests and performs appraisals for all purposes including financial reporting, litigation, and gift/estate planning. Andrew is a State Certified General Real Estate Appraiser in the states of Illinois, Indiana, Maryland, Georgia, Florida, Ohio, New York, New Jersey, Arizona, Kentucky, and the District of Columbia.

Before joining CohnReznick, Andrew was with Integra Realty Resources, starting as analyst support in 2002 and leaving the firm as a director in late 2011 (including two years with the Phoenix branch). His real estate experience also includes one year as administrator for the residential multifamily REIT Equity Residential Properties Trust (ERP), in the transactions department, where he performed due diligence associated with the sale and acquisition of REIT properties and manufactured home communities.

Education

- Syracuse University: Bachelor of Fine Arts
- MAI Designation (Member of the Appraisal Institute)

Professional Affiliations

- Chicago Chapter of the Appraisal Institute
  - Alternate Regional Representative (2016 - 2018)
  - MAI Candidate Advisor (2014 - Present)
- International Real Estate Management (IREM)
- National Council of Real Estate Investment Fiduciaries (NCREIF)

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Community Involvement

- Syracuse University Regional Council – Active Member
- Syracuse University Alumni Association of Chicago, Past Board member
- Chicago Friends School – Treasurer & Board Member

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CohnReznick



Erin Bowen, MAI

Senior Manager, Valuation Advisory Services

404-847-7740
erin.bowen@cohnreznick.com
www.cohnreznick.com

Erin Bowen, MAI is a Senior Manager with CohnReznick in Valuation Advisory Services. Ms. Bowen is based in Phoenix, Arizona, with presence covering the west coast. Ms. Bowen's work in Commercial Real Estate valuation spans over 12 years.

Ms. Bowen specializes in lodging, cannabis, seniors housing, large scale retail and multifamily conversion properties. Lodging work includes all hotel property types and brand segments including limited, full service and resort properties; additionally, Ms. Bowen has appraised numerous hotel to multifamily conversion properties including market rate and affordable housing. Cannabis work includes dispensaries, cultivation facilities including specialized indoor facilities and greenhouse properties, processing and manufacturing facilities. Senior's housing assignments include assisted living, skilled nursing facilities and rehabilitation centers. Retail work spans power centers, lifestyle centers, outlet centers and malls. She has appraised numerous additional properties including multifamily, office, medical office, industrial, churches, and vacant land.

Ms. Bowen has expertise in appraising properties at all stages of development, including existing as is, proposed, under construction, renovations and conversion to alternate use. Valuations have been completed nationwide for a variety of assignments including mortgage financing, litigation, eminent domain, tax appeal, estate gifts, asset management, as well as valuation for financial reporting including purchase price allocations (ASC 805). Impact Study Reports have also been generated for zoning hearings related to the development of solar facilities and wind powered facilities. Ms. Bowen has qualified as an expert witness and provided testimony for zoning and county commission hearings.

Education

- University of California, San Diego: Bachelor of Arts in Psychology and Theater; College Honors

Professional Affiliations

- Appraisal Institute, Designated Member

Licenses

- Certified General Real Estate Appraiser licensed in Oregon, Arizona, California, and Nevada

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Matt Asselmeier

From: Doug Westphal <dwestphal@kendalltwp.com>
Sent: Wednesday, October 23, 2024 7:53 PM
To: Matt Asselmeier
Subject: [External]Re: Ament Road Solar Project Question

CAUTION - This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Yes I would like that
Sent from my iPhone

On Oct 23, 2024, at 12:03 PM, Matt Asselmeier <masselmeier@kendallcountyil.gov> wrote:

Doug:

I received an email from Yorkville requesting a ROW dedication 40' in depth for this project.

Since this project is unincorporated, the land would go to the Township.

Do you want the ROW dedication?

Thanks,

Matthew H. Asselmeier, AICP, CFM
Director
Kendall County Planning, Building & Zoning
111 West Fox Street
Yorkville, IL 60560-1498
PH: 630-553-4139
Fax: 630-553-4179

From: Matt Asselmeier
Sent: Tuesday, October 22, 2024 3:05 PM
To: Doug Westphal (dwestphal@kendalltwp.com) <dwestphal@kendalltwp.com>
Cc: Steve Gebner <sgrebner@kendalltwp.com>; Steve Gengler (sgengler@kendalltwp.com) <sgengler@kendalltwp.com>
Subject: Ament Road Solar Project Question

Doug:

For the solar project on Ament Road, does Kendall Township want any ROW dedication?

Thanks,

Matthew H. Asselmeier, AICP, CFM

Matt Asselmeier

From: Krysti Barksdale-Noble <knoble@yorkville.il.us>
Sent: Wednesday, October 23, 2024 11:53 AM
To: Matt Asselmeier
Subject: RE: [External]RE: Ament Road Solar - Yorkville

That would be preferred. Thanks.

Best Regards,

Krysti J. Barksdale-Noble, AICP
(she/her)
Community Development Director
United City of Yorkville
651 Prairie Pointe Drive
Yorkville, Illinois 60560
(630) 553-8573
(630) 742-7808
www.yorkville.il.us

From: Matt Asselmeier <masselmeier@kendallcountyil.gov>
Sent: Wednesday, October 23, 2024 8:06 AM
To: Krysti Barksdale-Noble <knoble@yorkville.il.us>
Subject: RE: [External]RE: Ament Road Solar - Yorkville

It could be dedicated to the township.

Matthew H. Asselmeier, AICP, CFM
Director
Kendall County Planning, Building & Zoning
111 West Fox Street
Yorkville, IL 60560-1498
PH: 630-553-4139
Fax: 630-553-4179

From: Krysti Barksdale-Noble <knoble@yorkville.il.us>
Sent: Tuesday, October 22, 2024 6:40 PM
To: Matt Asselmeier <masselmeier@kendallcountyil.gov>
Subject: RE: [External]RE: Ament Road Solar - Yorkville

Matt,

Since the parcel is not contiguous, I don't think it can be dedicated to the city. Can the County dedicate it to the township for now? If so, the City would like 40' half right of way.

ZONING, PLATTING & ADVISORY COMMITTEE (ZPAC)
November 5, 2024 – Unapproved Meeting Minutes

PBZ Chairman Seth Wormley called the meeting to order at 9:01 a.m.

Present:
Matt Asselmeier – PBZ Department
Lauren Belville – Health Department
David Guritz – Forest Preserve
Brian Holdiman – PBZ Department
Commander Jason Langston – Sheriff's Department
Alyse Olson – Soil and Water Conservation District
Seth Wormley – PBZ Committee Chair

Absent:
Meagan Briganti – GIS Department
Greg Chismark – WBK Engineering, LLC
Fran Klaas – Highway Department

Audience:
James Kerrigan, Nicholas Bellone, and Nicholas Standiford

PETITIONS

Petition 24-30 Nicholas S. Bellone on Behalf of Ament Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)
Mr. Asselmeier summarized the request.

The Petitioner is seeking a special use permit for a commercial solar energy facility and a variance to Section 36-282(17)a of the Kendall County Code to allow a commercial solar energy facility on land within one point five (1.5) miles of municipality without an annexation agreement.

The application materials, wetland delineation reports (including EcoCat information), NRI Report, property survey, site plan, vegetative management plan, decommissioning information, stormwater information, drain tile information, glare study, and property value study were provided.

The property is located south of 9949 and 10021 Ament Road.

The total acreage of the two (2) parcels is approximately ninety-three point four (93.4) acres. The disturbed area is approximately thirty-nine point three (39.3) acres. The fenced area is approximately thirty-five point six (35.6) acres.

The existing land use is Agricultural.

The County's Future Land Use Map calls for the property to be Rural Residential. Yorkville's Plan calls for the property to be Agricultural.

Ament Road is a Local Road maintained by Kendall Township.

The United City of Yorkville has a trail planned along Ament Road.

There are no floodplains on the property. There are two (2) farmed wetlands in the vicinity of the proposed use.

The adjacent land uses are Agricultural, Farmstead, Public Institutional (Cemetery), and Single-Family Residential.

The adjacent properties are zoned A-1, A-1SU and R-3.

The County's Plan calls for the area to be Rural Residential and Transportation Corridor.

Yorkville Plan calls for the area to be Agricultural.

Properties within one half (1/2) mile are zoned A-1, A-1SU, R-1, R-1 PUD, R-3, RPD-2, and M-1.

The A-1 special use permit to the north is for a cemetery. The A-1 special use permits to the east are for a church and school and for agricultural implement sales and service.

The Deere Crossing subdivision is located near the subject property. Approximately fourteen (14) homes are located within a half mile (0.5) miles of the subject property.

EcoCAT Report was submitted on July 10, 2023, for the eastern parcel and November 16, 2023, for the western parcel and consultation was terminated for both parcels.

A LESA Score was not generated for the property. The land evaluation was 96 out of 100 indicating the soils were well suited for agricultural. The NRI Report was provided.

Petition information was sent to Kendall Township on October 25, 2024. No comments received.

Petition information was sent to the United City of Yorkville on October 25, 2024. Prior to formal application submittal, the United City of Yorkville submitted a letter stating they would not pursue annexation at this time; this was provided. Yorkville also submitted an email requesting a forty foot (40') right-of-way dedication; Kendall Township was agreeable to this request. The emails related to the right-of-way dedication were provided.

Petition information was sent to the Bristol-Kendall Fire Protection District on October 25, 2024. No comments received.

§ 36-282(17) of the Kendall County Zoning Ordinance, commercial solar energy facilities businesses can be special uses on A-1 zoned property subject to the following conditions:

a. All commercial solar energy facilities and test solar energy systems located within one point five (1.5) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property. Petitioner is requesting a variance.

b. The setbacks for commercial solar energy facilities shall be measured from the nearest edge of any component of the facility as follows:

   Occupied Community Buildings or Dwellings on Nonparticipating Properties-One hundred fifty feet (150') from the nearest point on the outside wall of the structure

   Boundary Lines of Participating Properties-None

   Boundary Lines of Nonparticipating Properties- Fifty feet (50') to the nearest point on the property line of the nonparticipating property

   Public Road Rights-Of-Way-Fifty feet (50') from the nearest edge

   The above setbacks do not exempt or excuse compliance with electric facility clearances approved or required by the National Electrical Code, the National Electrical Safety Code, Commerce Commission, Federal Energy Regulatory Commission, and their designees or successors. Per the site plan, the closet nonparticipating structure is approximately one thousand, thirty feet (1,030') to the southeast of the commercial solar energy facility. A church is located approximately one thousand, four hundred thirty-three feet (1,433') to the northeast of the commercial solar energy facility. The perimeter fence is setback fifty feet (50') from the adjoining property line. The commercial solar energy facility is approximately one thousand, four hundred forty-two feet (1,442') from the Ament Road. At their closest points, the panels are approximately forty-nine feet (49') south of the northern fence line, twenty-nine point five feet (29.5) west of the eastern fence line, just under nineteen feet (19') north of the southern fence line, and twenty-one point five feet (21.5') east of the western fence line.

c. A commercial solar energy facility's perimeter shall be enclosed by fencing having a height of at least six feet (6') and no more than twenty-five feet (25'). This is true. Per the site plan, the fence is proposed to be seven feet (7') in height and will be chain link.

d. No component of a solar panel as part of a commercial solar energy facility shall have a height of more than twenty feet (20') above ground when the solar energy facility's arrays are at full tilt. This is true. Per the site plan, the

maximum height will be nine feet (9'). The Petitioner does not want a restriction setting the maximum height at this level.

e. The above setback, fencing, and component height requirements may be waived subject to written consent of the owner of each affected nonparticipating property. This written consent shall be submitted at the time of application submittal. No such consent requested or needed.

f. Sound limitations for components in commercial solar energy facilities shall follow the sound limitations established by the Illinois Pollution Control Board. A noise study was provided.

g. The County shall not require standards for construction, decommissioning, or deconstruction of a commercial solar energy system or related financial assurances to be more restrictive than agricultural impact mitigation agreement set in State law. The amount of any decommissioning payment shall be limited to the cost identified in the decommissioning or deconstruction plan, as required by the agricultural impact mitigation agreement, minus the salvage value of the project. A copy of the agricultural impact mitigation agreement shall be submitted with the application materials. The decommissioning plan was provided and is outlined in the AIMA. As noted, the estimated cost of decommissioning is Four Hundred Twenty-Five Thousand, Eight Hundred Ninety-Seven Dollars and Thirty-Seven Cents ($425,897.37). This money will be provided to the County in the form of a bond as outlined in the AIMA.

h. A vegetative screening shall be placed around the commercial solar energy facility. The landscaping plan was provided with the site plan and more detailed landscaping information included in the vegetative management plan. The plan includes a cover crop seed mix, a native pollinator seed mix, and a native grazing seed mix. The performance standards and ground cover maintenance requirements were included in the vegetative management plan.

i. Commercial solar energy facility applicants shall provide the results and recommendations from consultations with the Illinois Department of Natural Resources obtained through the Ecological Compliance Assessment Tool (EcoCat) or a comparable successor tool. The commercial solar energy facility applicant shall adhere to the recommendations provided through this consultation. The EcoCat was submitted and consultation was terminated without any specific recommendations.

j. Commercial solar energy facility applicants shall provide the results of the United States Fish and Wildlife Service's Information for Planning and Consulting environmental review or a comparable successor toll that is consistent with the U.S. Fish and Wildlife Service's Land-Based Wind Energy Guidelines and any applicable United States Fish and Wildlife Service solar wildlife guidelines that have been subject to public review. This was provided in both wetland delineation reports. Six (6) threatened or endangered species were in the area, but no impacts were anticipated.

k. A facility owner shall demonstrate avoidance of protected lands as identified by the Illinois Department of Natural Resources and the Illinois Nature Preserve Commission or consider the recommendations of the Illinois Department of Natural Resources for setbacks from protected lands, including areas identified by the Illinois Nature Preserve Commission. This is true. The site is designed around the farmed wetlands.

l. A facility owner shall provide evidence at the time of application submittal of consultation with the Illinois State Historic Preservation Office to assess potential impacts on State-registered historic sites under applicable State law. No potential impacts to State-registered historic sites exist.

m. A commercial solar energy facility owner shall plant, establish, and maintain for the life of the facility vegetative ground cover consistent with State law and the guidelines of the Illinois Department of Natural Resources' vegetative management plans. The vegetation management plan shall be required at the time of application submittal. The vegetation management plan, including timelines for planting and maintenance of the vegetation was provided.

n. The facility owner shall enter into a road use agreement with the jurisdiction having control over the applicable roads. The road use agreement shall follow applicable law. The facility owner shall supply the Kendall County Planning, Building and Zoning Department with a copy of the road use agreement. This provision shall be waived if the jurisdiction having control over the applicable roads does not wish to enter into an agreement. To date, the road use agreement negotiations are ongoing. No transportation or access plan was provided. The site plan shows

one (1) twenty foot (20') wide gravel driveway approximately thirty feet (30') west of the eastern property line.

o. The facility owner shall repair or pay for the repair of all damage to the drainage system caused by the construction of the commercial solar energy system within a reasonable time after construction of the commercial solar energy facility is complete. The specific time shall be set in the special use permit. A tentative drain tile study was provided. The foundations for the racking will be placed in a manner that minimizes impacts on the drain tile.

No buildings are planned for the site. Any structures proposed for the site, including the solar arrays, shall obtain applicable permits.

The property is presently farmland. No wells, septic systems, or refuse collection points were identified.

The proposed area of disturbance is slightly less than one (1) acre. The County requested that the Petitioner submit an escrow payment so that WBK can evaluate the proposal; this was provided.

Per the site plan, the Petitioner propose one (1) twenty foot (20') wide access road.

There is one (1) forty foot (40') wide vehicular access gate and approximately ten (10) four foot (4') access gates proposed around the perimeter of the property. The locations of the smaller gates have not been determined. Knox box information will be provided to the County.

No permeant parking was proposed. There will be a staging area during construction; the specific location of the staging area was undetermined, but will likely be northwest of the vehicular access gate.

No lighting was proposed.

No specific signage was planned. The Petitioner was agreeable to installing one (1) sign at the vehicular access gate stating emergency contact information.

The Petitioner provided a glare study.

The Petitioner provided a general property values study. Mr. Asselmeier noted that the same company that provided the property value study for this project also prepared the property value study for the project on Simons Road. An email outlining the differences between the studies was available. The conclusion of both studies, that property values would not be negatively impacted, was the same.

No odors were foreseen.

If approved, this would be the second special use permit for a commercial solar energy facility in unincorporated Kendall County.

The proposed Findings of Fact for the special use permit were as follows:

The establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. The Project will generate clean, renewable electricity while producing no air, noise, or water pollution, or ground contamination. The front portion of the parcel closest to Ament Road will be retained for agricultural use as well as the surrounding land of the other parcel, which will create a natural screening during the growing season. The Petitioner submitted a vegetative management plan outlining the types of vegetation that will be planted, the timing of planting, and a maintenance plan for the vegetation.

The special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use makes adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole. The proposal will not interfere with the use and enjoyment of nearby properties. The surrounding properties are zoned primarily A-1 and will not be prevented from continuing any existing use or from pursuing future uses. The proposal's operations would be quiet and

minimal traffic will occur after installation is completed. The solar panels are setback from Ament Road and neighboring houses to avoid negative visual impacts.

Adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided. The proposal will have adequate utility interconnections designed in collaboration with ComEd. The proposal does not require water, sewer, or any other public utility facilities to operate. The Petitioner will also build all roads and entrances at the facility and will enter into an agreement with Kendall Township regarding road use. After initial construction traffic, landscape maintenance and maintenance to the project components are anticipated to occur on an as-needed basis, consistent with the vegetative management plan. Existing traffic patterns will not be impacted in the post-construction operations phase. A drain tile survey will be completed prior to construction and foundation design will work around or reroute any identified drain tiles to ensure proper drainage.

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 County Board pursuant to the recommendation of the Zoning Board of Appeals. If the requested variance is granted, the proposal meets all applicable regulations.

The special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies. The proposal is also consistent with a goal and objective found on page 3-34 of the Land Resource Management Plan, “Support the public and private use of sustainable energy systems (examples include wind, solar, and geo-thermal).” However, the proposal is located on property classified as Rural Residential on the Future Land Use Map.

The proposed Findings of Fact for the variance:

The particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship or practical difficulty upon the owner if the strict letter of the regulations were carried out. The subject property is located within one point five (1.5) miles of the United City of Yorkville. The Petitioner provided a letter from the United City of Yorkville stating that Yorkville did not wish to annex the property or enter into a pre-annexation agreement.

The conditions upon which the requested variation is based would not be applicable, generally, to other property within the same zoning classification. Other A-1 zoned properties within one point five (1.5) miles of a municipality could request a similar variance, if the municipality refuses to annex or enter into a pre-annexation agreement.

The alleged difficulty or hardship has not been created by any person presently having an interest in the property. The difficulty was created because the United City of Yorkville did not wish to enter into a pre-annexation agreement or annex the property.

The granting of the variation will not materially be detrimental to the public welfare or substantially injurious to other property or improvements in the neighborhood in which the property is located. Granting the variance would not be detrimental to the public or substantially injurious to other properties.

That the proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets or increase the danger of fire, or endanger the public safety or substantially diminish or impair property values within the neighborhood. The proposed variance would not impair light or air on adjacent property, cause congestion, increase the danger of fire, or negatively impact property values.

Staff will wait with issuing a recommendation on this proposal, pending comments from the Regional Planning Commission. The proposed conditions and restrictions are listed:

1. The site shall be developed substantially in accordance with the submitted site plan, vegetative management plan, decommissioning plan, road access plan, and Agricultural Impact Mitigation Agreement.
2. Within ninety (90) days of the approval of the special use permit, the owners of the subject property shall dedicate a strip of land forty feet (40’) in depth along the northern property line to Kendall Township. The Kendall County Planning, Building and Zoning Committee may grant an extension to this deadline.
3. None of the vehicles or equipment parked or stored on the subject property allowed by the special use permit shall be considered agricultural vehicles or agricultural equipment.
4. All of the vehicles and equipment stored on the subject property allowed by the special use permit shall be maintained in good condition with no deflated tires and shall be licensed if required by law.

5. Any structures, included solar arrays, constructed, installed, or used allowed by this special use permit shall not be considered for agricultural purposes and must secure applicable building permits.

6. One (1) warning sign shall be placed near or on the vehicular entrance gate. This sign shall include, at minimum, the address of the subject property and a twenty-four (24) hour emergency contact phone number. Additional signage may be installed, if required by applicable law.

7. KenCom and other applicable public safety agencies shall be supplied the access code to the Knox Box/security gate.

8. The operators of the use allowed by this special use permit acknowledge and agree to follow Kendall County's Right to Farm Clause.

9. The property owner and operator of the use allowed by this special use permit shall follow all applicable Federal, State, and Local laws related to the operation of this type of use.

10. Failure to comply with one or more of the above conditions or restrictions could result in the amendment or revocation of the special use permit.

11. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid.

12. This special use permit and variance shall be treated as a covenant running with the land and is binding on the successors, heirs, and assigns as to the same special use conducted on the property.

Commander Langston made a motion, seconded by Mr. Guritz, to forward the proposal to the Kendall County Regional Planning Commission.

The votes were follows:
Ayes (7): Asselmeier, Belville, Guritz, Holdiman, Langston, Olson, and Wormley
Nays (0): None
Abstain (0): None
Absent (3): Briganti, Chismark, and Klaas

The motion passed.

The proposal goes to the Kendall County Regional Planning Commission on December 11, 2024.

PUBLIC COMMENT

None

ADJOURNMENT

Mr. Guritz made a motion, seconded by Commander Langston, to adjourn.

With a voice vote of seven (7) ayes, the motion carried.

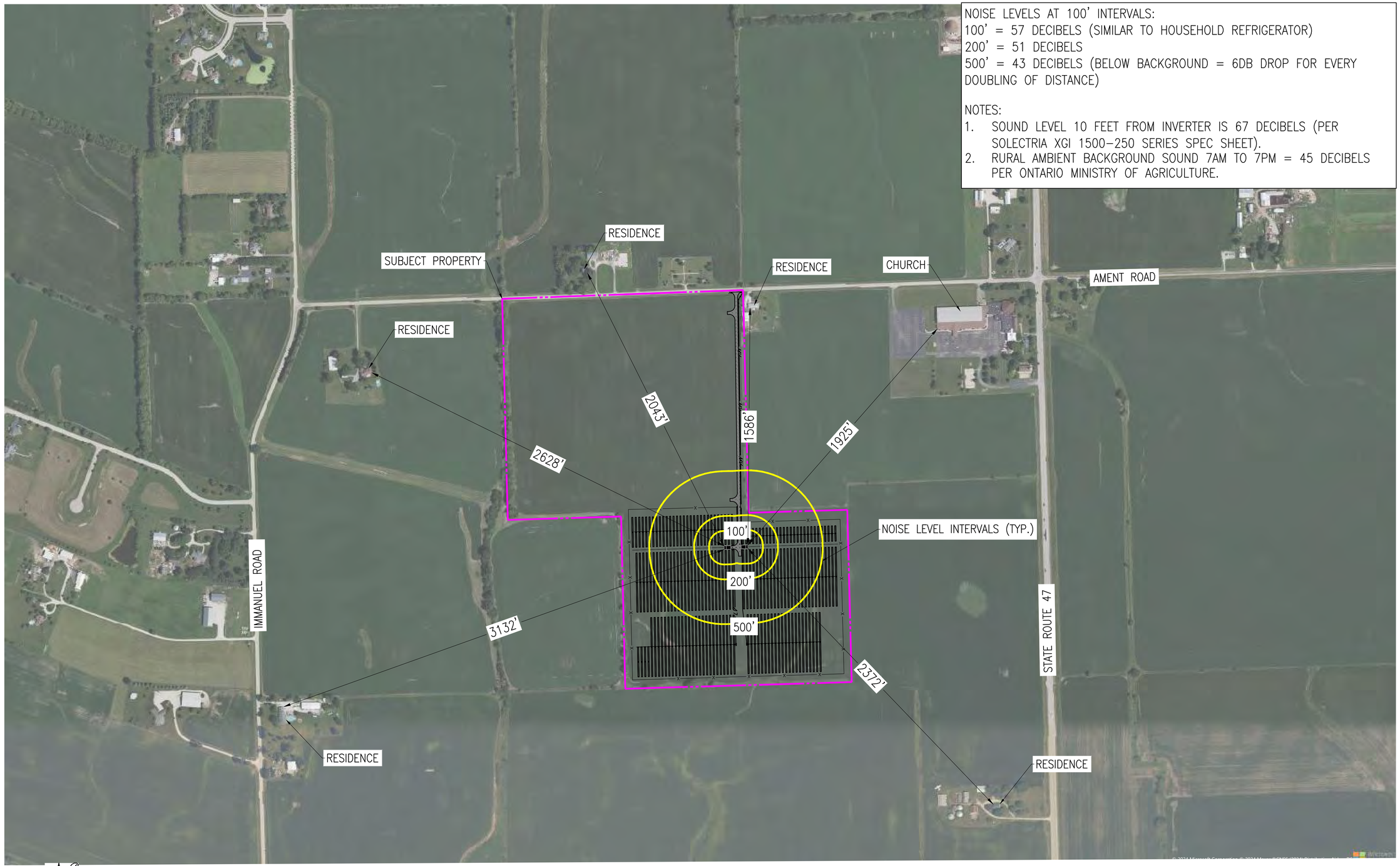
The ZPAC, at 9:31 a.m., adjourned.

Respectfully Submitted,
Matthew H. Asselmeier, AICP, CFM
Director

Enc.

NOISE LEVELS AT 100' INTERVALS:
100' = 57 DECIBELS (SIMILAR TO HOUSEHOLD REFRIGERATOR)
200' = 51 DECIBELS
500' = 43 DECIBELS (BELOW BACKGROUND = 6DB DROP FOR EVERY DOUBLING OF DISTANCE)

NOTES:
1. SOUND LEVEL 10 FEET FROM INVERTER IS 67 DECIBELS (PER SOLECTRIA XGI 1500-250 SERIES SPEC SHEET).
2. RURAL AMBIENT BACKGROUND SOUND 7AM TO 7PM = 45 DECIBELS PER ONTARIO MINISTRY OF AGRICULTURE.



NOISE LEVEL EXHIBIT

SCALE: 1" = 300'

0 300' 600'

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SPECIAL USE PERMIT SET
AMENT ROAD- KENDALL IL

PROJECT NUMBER:
22-4525

REV	DATE	DRAWN	CHECKED	RELEASE LEVEL

SCALES STATED ON DRAWINGS ARE VALID ONLY WHEN PLOTED ARCH D 24" X 36"

NOISE LEVEL EXHIBIT

C:\Users\vhelmine_newleafener\Box\Salesforce\Opportunities\Ament Road - Kendall IL\CAD_Ament Road\C-X.0 NOISE LEVEL EXHIBIT.dwg

Matt Asselmeier

From: Erin Bowen <Erin.Bowen@CohnReznick.com>
Sent: Wednesday, October 23, 2024 2:35 PM
To: Matt Asselmeier
Subject: RE: [External]RE: Solar Property Value Studies Question

Matt,

Thanks. The two reports have the same conclusions that "the data indicates that solar facilities do not have a negative impact on adjacent property values". They include the same paired sales studies, although are in a slightly different order. The New Leaf report is dated March 2023, which mentions the recent publication of the academic study published by Lawrence Berkely National Lab which was published a couple of weeks before we submitted the report. The TPE report dated September, has a more in depth analysis of the study on pages 20-21. The TPE report also includes another example of new development adjacent solar facilities, a new 175-home subdivision next to the Portage Solar Farm in Indiana, presented on page 103 of the report.

I'd like to also bring to your attention a newer academic study not in either report, that was published last month that focusses on solar facilities in the Midwest:

> In September 2024 a study prepared by Simeng Hao and Gilbert Michaud of **Loyola University Chicago**'s School of Environmental Sustainability was published, "Assessing Property Value Impacts Near Utility-Scale Solar in the Midwestern United State". The study examined 70 utility-scale solar farms in the states of IL, IN, IA, KS, MI, MN, MO, NE, OH and WI, that were completed between 2009 and 2022 and measured over 20,800 average home values (AHV) from this time period. The study utilized difference-in-differences (DiD) models which compared the change in AHV for "treatment groups", zip codes which have a utility-scale solar projects, to the change in AHV for "control groups", zip codes that did not have a utility-scale solar project and were in the same state as the treatment groups. ***The results of the study indicate that utility-scale solar projects increase nearby property values by roughly 0.5-2.0 percent, with smaller projects (less than 20 MW) having more of a positive impact on nearby property values than project over 20 MW.***
>
> The study included models with unadjusted AHV (does not account for increase in value due to market conditions) and adjusted AHV (accounted for increase in value due to market conditions by utilizing the Case Schiller Index, which is measured using data on repeated sales of single-family homes over time). Both models indicated similar results, strengthening the finding of a positive correlation between utility-scale solar projects and nearby property values.
>
> The study further suggested, "the positive correlation between utility-scale solar projects and nearby property values could be due to the new tax revenues, which are often used to support local school and other public services, as well as the local employment opportunities that utility-cale solar projects can provide".

Let me know if you have any questions.

Erin Bowen, MAI
Director
Valuation Advisory
Value360

November 7, 2024

Kendall County Board
111 W. Fox Street
Yorkville, IL 60560

Dear Members of the Kendall County Board,

I am the landowner of the property on Ament Road where the solar farm is proposed. I am writing to express my support for the Ament Solar Farm's special use application. As a landowner and long-time resident of the area until recently, I have a deep connection to this community, and I believe that this project will be a positive and forward-thinking addition to our county.

I was born and raised in the house around corner of Ament Road and had lived here my entire life. My family and I have deep roots in this area, having been members of the nearby church for many generations. I personally attended the school associated with the church, and my parents were incredibly active in supporting both the church and its community.

When my parents passed away, they left a generous donation to the church, a testament to their lifelong commitment to this community. Additionally, my parents donated the land on which the cemetery sits today, and my father personally dug most of the graves there. His work and dedication to our community's spiritual and historical legacy are something I hold dear.

I share these details not to dwell on the past, but to highlight the enduring relationship my family has had with this land and this community. I believe the Ament Solar Farm aligns with the values of stewardship and long-term planning that my family has always embraced. The transition to renewable energy offers an opportunity to honor our land in a new way, while also providing sustainable benefits to the community.

The proposed solar farm will not only support environmental goals, but it will also provide clean, renewable energy for future generations. I believe this project represents a responsible, progressive use of the land that will have a minimal impact on the area while contributing to a greener future. The property will also continue to be farmed in front of the solar farm.

I strongly encourage the Board to approve the Ament Solar Farm's special use application and allow this important project to move forward. It is my hope that we can continue to preserve the legacy of our community while embracing opportunities for a brighter and more sustainable future.

Thank you for your time and consideration.

Sincerely,

[redacted]

Matt Asselmeier

From: Steve Grebner <sgrebner@kendalltwp.com>
Sent: Friday, November 22, 2024 1:01 PM
To: Nicholas Bellone; Matt Asselmeier; Tom Ryan
Cc: Steve Gengler; Cathy Scalise; Doug Westphal; jakecoopfarms[redacted] Don Hirsch; Carolyn Pottinger; Timothy Karales; Doug Thanepohn; bjandersonfarms[redacted] mikehomerding[redacted] mbsweeney919[redacted]
Subject: [External]Position of Kendall Township on the proposed Ament Road Solar Farm 1 LLC Special Use Permit Request 24-30

CAUTION - This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

ATTN: Kendall County Zoning Board et. al

Please note that on Monday November 18th the Kendall Township Planning Commission entertained New Leaf Energy Representatives to present the *AMENT ROAD SOLAR FARM 1 LLC* Project. While the individuals were forthcoming and answered the questions to the best of their ability, there were some major concerns. These concerns are addressed in the recommendations below:

The below was approved to be passed on to the full Kendall Township Board for review and vote.

Motion by the Planning Commission regarding the Ament Solar 1 LLC.

The Planning Commission recommends approval of Petition 24-30 with these recommendations:

The entity will maintain and repair the subsurface drainage throughout the entirety of the lease to be repaired within the timeframe indicated in the special use permit (sup). The entity will commit to, as part of their maintenance schedule, perform a physical inspection of the property to include drain tile observation for damage and necessary repair. The surrounding property owners shall be provided a copy of the existing drain tile survey of subject property as well as any changes made as part of this project.

We would request that there be a subsurface drainage repair bond to ensure there are sufficient funds available for any required repair of materials and labor at the time of agreement. All replacement tile shall equal to or greater than its current flow.

The planning and zoning committee also recommends as part of the comprehensive MONITORING AND MANAGEMENT PLAN AMENT ROAD SOLAR FARM – KENDALL COUNTY (section 1-6) specific attention to the noxious weeds including but not limited to water hemp, and Giant Ragweed.

However, the Full Township Board is concerned these recommendations may or may not be considered and may not have the ability to be applied to ANY AND ALL future owners of the subject property. That being said, the Township board is informing both the county Zoning Board and any decision-making bodies, that Kendall Township will table any decision until the following questions/issues/requests are resolved.

- That it appears specifically and in writing that any fiduciary instrument (i.e. Bond) be attached to the Title and or abstract of the Subject Property presently identified as *AMENT ROAD SOLAR FARM*. In so much as that responsibility will pass to any and all owners until the end of the deconstruction phase of the project.
- That the concerns expressed above regarding the subsoil drainage issues be specifically addressed in any SUP, and failure to do so will result in a violation of the terms of the agreement and a monetary penalty will be applied.
- That the concerns regarding the noxious weeds shall be specifically spelled out in the SUP and future agreements.

It is therefore the position of the Kendall Township Board that no action to approve this Project should go forward until the local body of government in which the project resides has these questions answered to their satisfaction.

In addition there was a request to the NewLeaf Representatives for contact information for non participating property owners for other completed projects that is as of yet outstanding.

The Next Kendall Township Planning Commission Meeting is presently scheduled for December 16th 2024 at 7:00 PM and the next full board meeting will be Tuesday December 17th at 7:30 PM

Steve Grebner, Clerk Kendall Township
Check out our New Township website by clicking the QR code

Matt Asselmeier

From: Nicholas Bellone <nbellone@newleafenergy.com>
Sent: Tuesday, December 3, 2024 2:38 PM
To: Steve Grebner
Cc: Matt Asselmeier; Tom Ryan; Steve Gengler; Cathy Scalise; Doug Westphal; jakecoopfarms@gmail.com; Don Hirsch; Carolyn Pottinger; Timothy Karales; Doug Thanepohn; bjandersonfarms[redacted] mikehomerding@[redacted]; mbsweeney919[redacted] Nick Standiford
Subject: [External]Re: Position of Kendall Township on the proposed Ament Road Solar Farm 1 LLC Special Use Permit Request 24-30
Attachments: NLE Response Letter to Kendall Twp_241203.pdf

CAUTION - This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Afternoon,

In response to the email sent by the Kendall Township Board, New Leaf has put together the attached memo to help address the concerns. We are happy to be put on the next township agenda for December 16th and 17th to go over these concerns and our solutions. In the meantime feel free to reach out with any additional questions or comments.

It is important to us that the Township's concerns are addressed prior to attending the hearings at the county level. With that said, we would like to request a continuance on our Kendall County hearing dates (RPC: Dec. 11th & ZBA: Dec. 16th) to the following month (RPC: Jan. 22nd & ZBA : Jan. 27th) in hopes that these have been resolved.

Thank you,
Nick

Nicholas Bellone
Civil Project Engineer I

nbellone@newleafenergy.com Cell: 401.644.6824

On Fri, Nov 22, 2024 at 2:01 PM Steve Grebner <sgrebner@kendalltwp.com> wrote:

ATTN: Kendall County Zoning Board et. al

Please note that on Monday November 18th the Kendall Township Planning Commission entertained New Leaf Energy Representatives to present the *AMENT ROAD SOLAR FARM 1 LLC* Project. While the

Ament Solar 1, LLC (Kendall County Petition 24-30)

December 3, 2024

VIA EMAIL
Kendall Township
c/o Steve Grebner, Clerk
sgrebner@kendalltwp.com

RE: Ament Solar 1, LLC's Response to Kendall Township

Dear Members of the Kendall Township Board,

New Leaf Energy / Ament Solar 1, LLC (the Applicant) is in receipt of the Township's emailed plan review comments from November 22, 2024. In its correspondence, the Township listed three (3) proposed conditions that the Township's Planning Commission recommended after New Leaf representatives presented about the proposed 5-megawatt commercial solar energy facility to be located on Ament Road (Kendall County Petition 24-30). The Township's correspondence also included certain questions, issues, and requests from the Township Board. In the Township's correspondence, it requested that the County table any decision on Petition 24-30 until the Township's comments are resolved.

In the hopes of receiving a positive recommendation from the Township, the Applicant hereby requests that the County continue its upcoming public hearings to January 22, 2025 (for the Regional Planning Commission) and January 27, 2025 (for the County's Zoning Board of Appeals). As for the Township Planning Commission's proposed conditions and the Township Board's questions, issues, and requests, the Applicant responds as follows:

Township Planning Commission's Proposed Conditions

1. The entity will maintain and repair the subsurface drainage throughout the entirety of the lease to be repaired within the timeframe indicated in the special use permit (sup). The entity will commit to, as part of their maintenance schedule, perform a physical inspection of the property to include drain tile observation for damage and necessary repair. The surrounding property owners shall be provided a copy of the existing drain tile survey of subject property as well as any changes made as part of this project.
   The Applicant agrees to comply with Section 36-282(17)(o) of the Kendall County Zoning Ordinance, which requires the Applicant to repair or pay for repairs to damages to the drainage system within a reasonable time after construction. A

copy of Kendall County's Solar and Wind Ordinance is enclosed herewith for the Township's reference. *See* Zoning Ord., §36-282(17)(o) ("[t]he facility owner shall repair or pay for the repair of all damage to the drainage system caused by the construction of the commercial solar energy system within a reasonable time after construction of the commercial solar energy facility is complete. The specific time shall be set in the special use permit.").

The Applicant will repair any damaged drain tiles in the project limits prior to commercial operation of the solar farm. The Applicant will also repair any damaged drain tile in the project limits that occurs after decommissioning. There is not anticipated to be any damaged drain tile while the project is operating, as there will be no site activities other than power generation and maintenance. However, the applicant agrees to repair any drain tile malfunctions that occur within the project limits during the project's operational lifespan. As for a drain tile study, the Applicant provided a preliminary drain tile study to the County. A copy is enclosed for the Township's reference. The Applicant agrees to provide a copy of the final drain tile study to the adjacent property owners after the study is completed. The Applicant also agrees to provide a copy of the final drain tile study to the Township.

2. We would request that there be a subsurface drainage repair bond to ensure there are sufficient funds available for any required repair of materials and labor at the time of agreement. All replacement tile shall equal to or greater than its current flow.
As set forth above, the Applicant agrees to comply with Section 36-282(17)(o) of the County's Zoning Ordinance, which requires that damaged drain tile be repaired within a reasonable time after the construction of the solar farm.

Additionally, County staff has recommended several conditions for the special use (the Conditions). A copy of the County's Staff Report for Petition 24-30 is enclosed herewith. The Applicant agrees to comply with the Conditions, including but not limited to Condition #10, which requires that all conditions and restrictions be followed or the special use permit could be amended or revoked. *See* Staff Report, p. 8, Condition #10 ("Failure to comply with one or more of the above conditions or restrictions could result in the amendment or revocation of the special use permit.")

3. The planning and zoning committee also recommends as part of the comprehensive MONITORING AND MANAGEMENT PLAN AMENT ROAD SOLAR FARM – KENDALL COUNTY (section 1-6) specific attention to the noxious weeds including but not limited to water hemp, and Giant Ragweed.

The Applicant agrees to comply with Section 36-282(17)(m) of the County's Zoning Ordinance, which requires the Applicant to install vegetative groundcover consistent with state law and IDNR guidelines. *See* Zoning Ord., §36-282(17)(m) ("A commercial solar energy facility owner shall plant, establish, and maintain for the life of the facility vegetative ground cover consistent with State law and the guidelines of the Illinois Department of Natural Resources' vegetative management plans. The vegetation management plan shall be required at the time of application submittal.")

The Applicant also agrees to comply with the County's proposed Condition #1, which requires that the site be developed in accordance with the submitted site plan and vegetative management plan. *See* County's Staff Report, p. 7, Condition #1. In this case, the Applicant's Management and Monitoring (M&M) plan (enclosed for the Township's reference) states that:

- **"Mow[ing] (including weed whipping) the planted areas to a height of 8-12 inches, 3 times during the early growing season or as needed to control non-native and invasive annual species." *See* M&M Plan, p. 6.**
- **"As the planted areas mature… the plant communities will stabilize and be effectively managed through a reduced schedule of spot mowing, selective herbicide application, and hand pulling as necessary." *See* M&M Plan, p. 7.**

To further satisfy the concerns of the Township in regards to the noxious weeds of water hemp and giant ragweed, the Applicant modified Section 2.4 of its Monitoring and Management Plan to state:

- **"At the end of each growing season, none of the three most dominant species within the planted areas shall be non-native, invasive, or noxious weed species, including but not limited to: Giant and Common Ragweed (Ambrosia trifida & artemisiifolia), Wild Carrot (Daucus carota), Purple Loosestrife (Lythrum salicaria), Teasel (Dipsacus spp.), Reed Canary Grass (Phalaris arundinacea), Sweet Clover (Melilotus spp.), Common Buckthorn (Rhamnus cathartica), Kentucky Blue Grass (Poa pratensis), Thistle (Cirsium spp.), Honeysuckle (Lonicera sp.), Common Reed (Phragmites australis), Sandbar Willow (Salix interior), and Water Hemp (Amaranthus tuberculatus)." *See* M&M Plan, pp. 5-6.**

The Applicant also agrees to comply with the County's proposed Condition #9, which requires all laws to be follows, including noxious weed laws. *See* County's Staff Report, p. 8, Condition #9 ("The property owner and operator of the use allowed by this special use permit shall follow all applicable Federal, State, and

Local laws related to the operation of this type of use." Noxious weed laws are currently in effect that would require the removal of water hemp and giant ragweed.

The Applicant also agrees to comply with the County's proposed Condition #10, which conditions the special use permit on compliance with its terms and conditions. *See* County's Staff Report, p. 8, Condition #10 ("Failure to comply with one or more of the above conditions or restrictions could result in the amendment or revocation of the special use permit.").

Township Board's Questions, Issues, and Requests

4. The Township Board voiced concerns as to whether the Recommendations would apply to "ANY AND ALL future owners of the subject property."
   The Applicant agrees to comply with the County's proposed Condition #12, which treats the approval as a covenant running with the land and binding on successors, heirs and assigns. *See* County's Staff Report, p. 10, Condition #12. ("This special use permit and variance shall be treated as a covenant running with the land and is binding on the successors, heirs, and assigns as to the same special use conducted on the property.")

5. That it appears specifically and in writing that any fiduciary instrument (i.e. Bond) be attached to the Title and or abstract of the Subject Property presently identified as AMENT ROAD SOLAR FARM. In so much as that responsibility will pass to any and all owners until the end of the deconstruction phase of the project.
   The Applicant agrees to comply with Section 36-282(17)(g) of the County's Zoning Ordinance, which requires the Applicant to comply with its decommissioning obligations under its Agricultural Impact Mitigation Agreement. *See* Zoning Ord., §36-282(17)(g) ("The County shall not require standards for construction, decommissioning, or deconstruction of a commercial solar energy system or related financial assurances to be more restrictive than agricultural impact mitigation agreement set in State law. The amount of any decommissioning payment shall be limited to the cost identified in the decommissioning or deconstruction plan, as required by the agricultural impact mitigation agreement, minus the salvage value of the project. A copy of the agricultural impact mitigation agreement shall be submitted with the application materials.").

   A copy of the AIMA that the Applicant submitted to the County is enclosed for the Township's reference. As set forth in the AIMA, if the Applicant does not decommission the site, then the County may draw on the decommissioning

bond, which is $425,897.37. *See* Decommissioning Estimate, p. 6; *see also* AIMA p. 12, §17(F) ("Upon Abandonment, the County may take all appropriate actions for Deconstruction including drawing upon the Financial Assurance."). There would be no need to record the bond on the subject property, as it will be provided to the County.

6. That the concerns expressed above regarding the subsoil drainage issues be specifically addressed in any SUP, and failure to do so will result in a violation of the terms of the agreement and a monetary penalty will be applied.
   The Applicant agrees to comply with Section 36-282(17)(o) of the County's Zoning Ordinance, which requires the Applicant to repair or pay for repairs to damages to the drainage system within a reasonable time after construction.

   The Applicant also agrees to comply with the County's proposed Condition #10, which conditions the special use permit on compliance with its terms and conditions. *See* County's Staff Report, p. 8, Condition #10.

   The Applicant also agrees to comply with the County's proposed Condition #12, which treats the approval as a covenant running with the land and binding on successors, heirs and assigns. *See* County's Staff Report, p. 9, Condition #12. ("This special use permit and variance shall be treated as a covenant running with the land and is binding on the successors, heirs, and assigns as to the same special use conducted on the property.").

7. That the concerns regarding the noxious weeds shall be specifically spelled out in the SUP and future agreements.
   ***See* Response to Item #3, above.**

8. It is therefore the position of the Kendall Township Board that no action to approve this Project should go forward until the local body of government in which the project resides has these questions answered to their satisfaction.
   The Applicant believes that the above responses satisfy the Township's questions, issues, and requests. The Applicant is available to answer questions at the Kendall Township Planning Commission meeting on December 16th and Board meeting on December 17th. Given that the Township Board will not have its recommendation for Petition 24-30 before the RPC or ZBA dates (on December 11th and December 16th, respectively), the Applicant agrees to continue the County's public hearings to January 22, 2025 (for the Regional Planning Commission) and January 27, 2025 (for the County's Zoning Board of Appeals).

9. In addition there was a request to the NewLeaf Representatives for contact information for non participating property owners for other completed projects that is as of yet outstanding.
   The contact information of non-participating parcels surrounding previous New Leaf Energy projects is publicly available. New Leaf Energy can supply information pertaining to previous projects if needed. New Leaf representatives are available to answer questions about their projects at the upcoming meetings.

10. The Next Kendall Township Planning Commission Meeting is presently scheduled for December 16th 2024 at 7:00 PM and the next full board meeting will be Tuesday December 17th at 7:30 PM.
    Thank you – a New Leaf representative will plan to attend and answer any questions in hopes of receiving a positive recommendation from the Township.

Sincerely,

Tom Ryan

Senior Project Developer, New Leaf Energy

Cc: Matt Asselmeier, AICP, CFM - masselmeier@kendallcountyil.gov

Encl. Kendall County Solar and Wind Ordinance
Kendall County Staff Report
Preliminary Drain Tile Study
Management and Monitoring Plan
Decommissioning Estimate
Agricultural Impact Mitigation Agreement

Kendall County Solar and Wind Ordinance

State of Illinois
County of Kendall

Zoning Petition
#23-12

ORDINANCE NUMBER 2023- 24

TEXT AMENDMENTS PERTAINING TO THE REGULATION OF COMMERCIAL SOLAR ENERGY FACILITIES, COMMERCIAL WIND ENERGY FACILITIES, TEST SOLAR ENERGY FACILITIES, TEST WIND TOWERS, SMALL WIND ENERGY SYSTEMS, PRIVATE SOLAR ENERGY SYSTEMS, COMMERCIAL WIND FARMS, SOLAR GARDENS, AND SOLAR FARMS IN THE KENDALL COUNTY ZONING ORDINANCE

WHEREAS, Public Act 102-1123, enacted by the State of Illinois on January 27, 2023, amended the Illinois Counties Code by allowing counties to establish certain zoning and permitting regulations for commercial solar energy facilities, commercial wind energy facilities, test solar energy facilities, and test wind towers; and

WHEREAS, Section 13:07 of the Kendall County Zoning Ordinance permits the Kendall County Board to approve text amendments and provides the procedure through which text amendments are granted; and

WHEREAS, the Kendall Planning, Building and Zoning Committee, hereinafter be referred to as "Petitioner", desires to have regulations for commercial solar energy facilities, commercial wind energy facilities, test solar energy facilities, and test wind towers in compliance with Public Act 102-1123; and

WHEREAS, on February 9, 2023, the Petitioner submitted text amendments to the Kendall County Zoning Ordinance amending, adding, and deleting regulations pertaining to commercial solar energy facilities, commercial wind energy facilities, test solar energy facilities, test wind towers, small wind energy systems, private solar energy systems, commercial wind farms, solar gardens, and solar farms; and

WHEREAS, following due and proper notice by publication in the Kendall County Record on March 2, 2023, the Kendall County Zoning Board of Appeals conducted a public hearing on March 27, 2023, at 7:00 p.m., in the County Office Building at 111 W. Fox Street in Yorkville, at which the Petitioner's representative presented evidence, testimony, and exhibits in support of the requested text amendments and zero members of the public testified in favor or in opposition to the request and two members of the public asked questions and provided suggested amendments regarding aspects of the proposal; and

WHEREAS, based on the evidence, testimony, and exhibits, the Kendall County Zoning Board of Appeals has recommended approval of the text amendments on March 27, 2023, with an amendment requiring Petitioners for commercial wind and commercial solar projects to notify the drainage district, if the property is in a drainage district, of the proposal by certified, return receipt mail and that proof of the mailing be submitted at the time of application; and

WHEREAS, the Kendall County Planning, Building and Zoning Committee of the Kendall County Board has reviewed the testimony presented at the aforementioned public hearing, and has forwarded to the Kendall County Board a recommendation of approval of the requested text amendments; and

WHEREAS, the Kendall County Board has considered the recommendations of the Planning, Building and Zoning Committee and the Kendall County Zoning Board of Appeals, and has determined that said petition is in conformance with the provisions and intent of the Kendall County Zoning Ordinance; and

NOW, THEREFORE, BE IT ORDAINED, BY THE COUNTY BOARD OF KENDALL COUNTY, ILLINOIS, that the Kendall County Zoning Ordinance be amended as follows:

I. Recitals: The recitals set forth above are incorporated as if fully set forth herein.

II. Amended Text: Section 3:02 of the Kendall County Zoning Ordinance is hereby amended by deleting the following terms:

Grid-Interie Solar Energy System.
Ground Mount Solar Energy System.
Passive Solar Energy System.
Photovoltaic System.
Solar Access.
Solar Energy Easement.
Solar Energy System Addition.
Solar Farm.
Solar Garden.
Solar Heat Exchanger.
Solar Mounting Devices.
Solar Storage Unit.
Wind Farm, Commercial.

III. Amended Text: Section 3:02 of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present definition of Building Integrated Solar Energy System replacing it with the following:

"BUILDING-INTEGRATED SOLAR ENERGY SYSTEMS. An active solar energy system that is an integral part of a principal or accessory building, rather than a separate mechanical device, replacing or substituting for an architectural or structural component of the building. Building-integrated systems include but are not limited to photovoltaic or hot water solar energy systems that are contained within roofing materials, windows, skylights, and awnings."

IV. Amended Text: Section 3:02 of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present definition of Solar Energy System, Private and replacing it with the following:

"SOLAR ENERGY SYSTEM, PRIVATE. A collection of one (1) or more solar collectors designed for use by the occupant(s) of the zoning lot, planned development, commercial and industrial park, or subdivision on which or in which said system is located; excess power generation is limited to net metering or similar technology with regulations set by the local power utility, community, county, and state. Private solar energy system equipment shall conform to applicable industry standards, and applicants for building permits for private solar energy systems shall submit certificates from equipment manufacturers that the equipment is manufactured in compliance with industry standards."

V. Amended Text: Section 3:02 of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present definition of Wind Energy System, Small and replacing it with the following:

"WIND ENERGY SYSTEM, SMALL A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity that does not meet the kilowatt capacity in total nameplate generating capacity as defined by 55 ILCS 5/5-12 and which is intended to primarily reduce onsite consumption of utility power. If all applicable regulations are met a small wind energy system may contain more than one wind energy conversion system. This system may power properties in planned developments, commercial and industrial parks, or subdivisions on which or in which said system is located."

VI. Amended Text: Section 3:02 of the of the Kendall County Zoning Ordinance is hereby amended by adding the following terms in the appropriate places alphabetically to the list of definitions:

"COMMERCIAL SOLAR ENERGY FACILITY. Shall have the same meaning as defined in 55 ILCS 5/5-12."

"COMMERCIAL WIND ENERGY FACILITY. Shall have the same meaning as defined in 55 ILCS 5/5-12."

"FACILITY OWNER. For the purposes of commercial solar energy facilities and commercial wind energy facilities, a facility owner shall have the same meaning defined in 55 ILCS 5/5-12."

"NONPARTICIPATING PROPERTY. For the purposes of commercial solar energy facilities and commercial wind energy facilities, a nonparticipating property shall have the same meaning as defined in 55 ILCS 5/5-12."

"NONPARTICIPATING RESIDENCE. For the purposes of commercial solar energy facilities and commercial wind energy facilities, a nonparticipating residence shall have the same meaning as defined in 55 ILCS 5/5-12."

"OCCUPIED COMMUNITY BUILDING. For the purposes of commercial solar energy facilities and commercial wind energy facilities, an occupied community building shall have the same meaning as defined in 55 ILCS 5/5-12."

"PARTICIPATING PROPERTY. For the purposes of commercial solar energy facilities and commercial wind energy facilities, a participating property shall have the same meaning as defined in 55 ILCS 5/5-12."

"PARTICIPATING RESIDENCE. For the purposes of commercial solar energy facilities and commercial wind energy facilities, a participating residence shall have the same meaning as defined in 55 ILCS 5/5-12."

"PROTECTED LANDS. For the purposes of commercial solar energy facilities and commercial wind energy facilities, protected lands shall have the same meaning as defined in 55 ILCS 5/5-12."

"SUPPORTING FACILITIES. For the purposes of commercial solar energy facilities and commercial wind energy facilities, supporting facilities shall have the same meaning as defined in 55 ILCS 5/5-12."

"WIND TOWER. For the purposes of commercial solar energy facilities and commercial wind energy facilities, a wind tower shall have the same meaning as defined in 55 ILCS 5/5-12."

VII. Amended Text: Section 4:05.A.12 of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"12. Small wind energy system (Permitted as Accessory Use only in the A-1, R-1, R-2, R-3, and all Business and Manufacturing Districts – may also be approved as part of a Residential Planned Development) subject to the conditions of Section 4:17."

VIII. Amended Text: Section 4:05.A.13 of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"13. Solar Energy System, Private subject to the conditions of Section 4:18."

IX. Amended Text: Section 4:17.H of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"H. Visual Effects and Safety. All reasonable visual and safety concerns of adjacent property owners must be resolved before Construction Permit will be issued."

X. Amended Text: Section 4:18 of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"4:18 SOLAR ENERGY SYSTEM, PRIVATE

A. Roof Mounted for On-Site Energy Consumption. Solar panels located on the roof of an existing structure shall be permitted in all districts. Roof mounted solar energy systems shall not extend beyond the exterior perimeter of the building on which the system is mounted. Roof mounted solar energy systems shall not exceed the maximum allowed height in any zoning district. Roof mounted or building integrated private solar energy systems for residential or business use shall be considered an accessory use in all zoning districts where there is a principal structure and shall meet the regulations of the Kendall County Zoning Ordinance. Roof mounted solar panels used as accessory to agricultural uses and which the energy generated from the solar panels is consumed on-site shall be exempt from building permits. The use of roof mounted solar panels for on-site energy consumption

shall comply with all applicable federal, state, and local laws and the rules of the local electrical utility.

B. Freestanding for On-Site Energy Consumption. Solar panels located on the ground or attached to a framework located on the ground shall be classified as accessory structures in all zoning districts provided that the system is no larger than necessary to provide one hundred twenty percent (120%) of the electrical and/or thermal requirements of the structure, planned development, commercial and industrial park, or subdivision to which it is accessory as determined by a contractor licensed to install photovoltaic and thermal solar energy systems. Freestanding solar energy systems, private may be the first structure constructed on lots zoned residential, business, or manufacturing. Freestanding solar panels shall be permitted if they comply with the standards listed in the Kendall County Zoning Ordinance. Ground or pole mounted solar energy systems shall not exceed the maximum height, when oriented at maximum tilt, for the zoning district in which it is located. Freestanding solar panels used as accessory to agricultural uses and which the energy generated from the solar panels is consumed on-site shall be exempt from building permits. The use of freestanding solar panels for on-site energy consumption shall comply with all applicable federal, state, and local laws and the rules of the local electrical utility.

C. Setback Requirements. Unless otherwise stated in the Kendall County Zoning Ordinance, the setback requirements for all solar energy systems shall meet the structure minimum setback requirements when the solar energy system is oriented at any and all positions. No solar energy system shall be located in any front yard of any residentially zoned or used property.

D. Design Standards. Active solar energy systems shall be designed to conform to the County's Land Resource Management Plan and to blend into the architecture of the building or may be required to be screened from the routine view from public rights-of-way other than alleys. Screening may be required to the extent it does not affect the operation of the system. The color of the solar collector is not required to be consistent with other roofing materials.

1. Building integrated photovoltaic solar energy systems shall be allowed regardless of whether the system is visible from the public right-of-way, provided the building component in which the system is integrated meets all required setback, land use or performance standards for the district in which the building is located.

2. Solar energy systems using roof mounting devices or ground-mount solar energy systems shall not be restricted if the system is not visible from the closest edge of any public right-of-way or immediately adjacent to a residential structure.

3. All solar energy systems using a reflector to enhance solar production shall minimize glare from the reflector affecting adjacent or nearby properties. Measures to minimize glare include selective placement of the system, screening on the north side of the solar array, modifying the orientation of the system, reducing use of the reflector system, or other remedies that limit glare.

4. Damaged field drain tile shall be repaired or rerouted on a timetable approved by the Kendall County Planning, Building and Zoning Department.

E. Coverage. Roof or building mounted solar energy systems, excluding building-integrated systems, shall allow for adequate roof access for firefighting purposes to the south-facing or flat roof upon which the panels are mounted. Ground-mount private solar energy systems shall be exempt from impervious surface calculations if the soil under the collector is not compacted and maintained in vegetation. Foundations, gravel, or compacted soils are considered impervious.

F. Plan Approval Required. All solar energy systems shall require administrative plan approval by the Kendall County Building Official via the review of the application for a building permit.

1. Plan applications for solar energy systems shall be accompanied by horizontal and vertical (elevation) drawings. The drawings must show the location of the system on the building or on the property for a ground-mount system including the property lines.

2. For all roof-mounted systems other than a flat roof, the elevation must show the highest finished slope of the solar collector and the slope of the finished roof surface on which it is mounted.

3. For flat roof applications, a drawing shall be submitted showing the distance to the roof edge and any parapets on the building shall identify the height of the building on the street frontage side, the shortest distance of the system from the street frontage edge of the building, and the highest finished height of the solar collector above the finished surface of the roof.

4. Applications that meet the design requirements of the Kendall County Zoning Ordinance and do not require an administrative variance shall be granted administrative approval by the Zoning Administrator and not require Planning, Building and Zoning Committee review. Plan approval does not indicate compliance with Building or Electrical Codes.

G. Approved Solar Components. Electric solar energy system components must have a UL listing approved equivalent and solar hot water systems must have an SRCC rating.

H. Compliance with Building Code. All active solar energy systems shall meet approval of County building officials; solar thermal systems shall comply with HVAC-related requirements of the Illinois State Energy Code. All County adopted building codes will apply and take precedence where applicable.

I. Utility Notification. All grid-intertie solar energy systems shall comply with the interconnection requirements of the electric utility. Off-grid systems are exempt from this requirement.

J. Building Permit Requirements and Fees. All solar energy systems will be required to have a Kendall County Building Permit before any work can be started. A written plan and a plat/drawing for the proposed solar energy system shall be provided with the Building Permit Application. The

plat/drawing must show the location of the system on the building or on the property, (for a ground-mount system show arrangement of panels), with all property lines and set back footages indicated. Fees for processing the applications for building permits shall be established by the County Board. Any solar energy system that construction has started before a Building Permit has been applied and paid for will be charged double the permit fee. The above fees do not apply to solar energy systems used to generate energy for on-site consumption of energy for agricultural purposes.

K. Decommissioning Plan.

1. Upon the request of the Kendall County Planning, Building and Zoning Department, an owner of a solar energy system must provide documentation, within thirty (30) days, that the solar energy system is still in use. If the solar energy system is not in use, the owner of the system shall have 180 days, after notification from the Kendall County Planning, Building and Zoning Department, to remove the solar energy system from the property.

2. Decommission of solar panels must occur in the event they are not in use for ninety (90) consecutive days.

L. Other Requirements.

1. No fencing is required; however, if installed on the property the fencing shall have a maximum height of eight feet (8'). The fence shall contain appropriate warning signage that is posted such that is clearly visible on the site.

2. Reflection angles for solar collectors shall be oriented such that they do not project glare onto adjacent properties.

3. Electric solar energy system components must have a UL listing and must be designed with anti-reflective coating(s).

4. Solar energy systems must be in compliance with all State of Illinois Plumbing and Energy Codes.

5. For solar energy systems located within five hundred feet (500') of an airport or within approach zones of an airport, the applicant must complete and provide the results of the Solar Glare Hazard Analysis Tool (SGHAT) for the Airport Traffic Control Tower cab and final approach paths, consistent with the Interim Policy, FAA Review of Solar Energy Projects on Federally Obligated Airports, or most recent version adopted by the FAA.

M. Applicability. The regulations in this Section apply only to solar energy system, private and do not apply to commercial solar energy facilities."

XI. Amended Text: Section 7:01.D of the of the Kendall County Zoning Ordinance is hereby amended by adding the following use to appropriate place alphabetically to the list of special uses:

"Commercial Solar Energy Facility and Test Solar Energy Systems subject to the following conditions:

a. All commercial solar energy facilities and test solar energy systems located within one point five (1.5) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property.

b. The setbacks for commercial solar energy facilities shall be measured from the nearest edge of any component of the facility as follows:

Occupied Community Buildings or Dwellings on Nonparticipating Properties	One hundred fifty feet (150') from the nearest point on the outside wall of the structure
Boundary Lines of Participating Properties	None
Boundary Lines of Nonparticipating Properties	Fifty feet (50') to the nearest point on the property line of the nonparticipating property
Public Road Rights-Of-Way	Fifty feet (50') from the nearest edge

The above setbacks do not exempt or excuse compliance with electric facility clearances approved or required by the National Electrical Code, the National Electrical Safety Code, Illinois Commerce Commission, Federal Energy Regulatory Commission, and their designees or successors.

c. A commercial solar energy facility's perimeter shall be enclosed by fencing having a height of at least six feet (6') and no more than twenty-five feet (25').

d. No component of a solar panel as part of a commercial solar energy facility shall have a height of more than twenty feet (20') above ground when the solar energy facility's arrays are at full tilt.

e. The above setback, fencing, and component height requirements may be waived subject to written consent of the owner of each affected nonparticipating property. This written consent shall be submitted at the time of application submittal.

f. Sound limitations for components in commercial solar energy facilities shall follow the sound

limitations established by the Illinois Pollution Control Board.

g. The County shall not require standards for construction, decommissioning, or deconstruction of a commercial solar energy system or related financial assurances to be more restrictive than agricultural impact mitigation agreement set in State law. The amount of any decommissioning payment shall be limited to the cost identified in the decommissioning or deconstruction plan, as required by the agricultural impact mitigation agreement, minus the salvage value of the project. A copy of the agricultural impact mitigation agreement shall be submitted with the application materials.

h. A vegetative screening shall be placed around the commercial solar energy facility.

i. Commercial solar energy facility applicants shall provide the results and recommendations from consultations with the Illinois Department of Natural Resources obtained through the Ecological Compliance Assessment Tool (EcoCat) or a comparable successor tool. The commercial solar energy facility applicant shall adhere to the recommendations provided through this consultation.

j. Commercial solar energy facility applicants shall provide the results of the United States Fish and Wildlife Service's Information for Planning and Consulting environmental review or a comparable successor toll that is consistent with the U.S. Fish and Wildlife Service's Land-Based Wind Energy Guidelines and any applicable United States Fish and Wildlife Service solar wildlife guidelines that have been subject to public review.

k. A facility owner shall demonstrate avoidance of protected lands as identified by the Illinois Department of Natural Resources and the Illinois Nature Preserve Commission or consider the recommendations of the Illinois Department of Natural Resources for setbacks from protected lands, including areas identified by the Illinois Nature Preserve Commission.

l. A facility owner shall provide evidence at the time of application submittal of consultation with the Illinois State Historic Preservation Office to assess potential impacts on State-registered historic sites under applicable State law.

m. A commercial solar energy facility owner shall plant, establish, and maintain for the life of the facility vegetative ground cover consistent with State law and the guidelines of the Illinois Department of Natural Resources' vegetative management plans. The vegetation management plan shall be required at the time of application submittal.

n. The facility owner shall enter into a road use agreement with the jurisdiction having control over the applicable roads. The road use agreement shall follow applicable law. The facility owner shall supply the Kendall County Planning, Building and Zoning Department with a copy of the road use agreement. This provision shall be waived if the jurisdiction having control over the applicable roads does not wish to enter into an agreement.

o. The facility owner shall repair or pay for the repair of all damage to the drainage system caused by the construction of the commercial solar energy system within a reasonable time after construction of the commercial solar energy facility is complete. The specific time shall be set in the special use permit."

XII. Amended Text: Section 7:01.D of the of the Kendall County Zoning Ordinance is hereby amended by adding the following use to appropriate place alphabetically to the list of special uses:

"Commercial Wind Energy Facility and Test Wind Towers subject to the following conditions:

a. The following conditions apply to all commercial wind energy facilities located outside the one point five (1.5) mile zoning jurisdiction of municipalities and within the one point five (1.5) mile zoning jurisdictions of municipalities under intergovernmental agreements with the County for zoning services. All commercial wind energy facilities located within one point five (1.5) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property, unless not required to do so by applicable law.

b. The setbacks for wind towers as measured from the center of the base of the wind tower shall be as follows:

Occupied Community Buildings or Nonparticipating Residences	Two point one (2.1) times the maximum blade tip height of the wind tower to the nearest point on the outside wall of the structure
Participating Residences	One point one (1.1) times the maximum blade tip height of the wind tower to the nearest point on the outside wall of the structure
Boundary Lines of Participating Properties	None
Boundary Lines of Nonparticipating Properties	One point one (1.1) times the maximum blade tip height of the wind tower to the nearest point on the property line of the nonparticipating property
Public Road Rights-Of-Way	One point one (1.1) times the maximum blade tip height of the wind tower to the center point of the public road right-of-way

Overhead Communication and Electric Transmission and Distribution Facilities (Not Including Overhead Utility Service Lines to Individual Homes or Outbuildings)	One point one (1.1) times the maximum blade tip height of the wind tower to the nearest edge of the property line, easement, or right-of-way containing the overhead line
Overhead Utility Service Lines to Individual Houses or Outbuildings	None
Fish and Wildlife Areas and Illinois Nature Preserve Commission Protected Lands	Two point one (2.1) times the maximum blade tip height of the wind tower to the nearest point on the property line of the fish and wildlife or protected land

The above setbacks do not exempt or excuse compliance with electric facility clearances approved or required by the National Electrical Code, the National Electrical Safety Code, Illinois Commerce Commission, Federal Energy Regulatory Commission, and their designees or successors.

A wind tower of a commercial wind energy facility shall be sited so that industry standard computer modeling indicates that any occupied community building or nonparticipating residence will not experience more than thirty (30) hours per year of shadow flicker under planned operating conditions.

The above setback may be waived subject to written consent of the owner of each affected nonparticipating property. This written consent shall be submitted at the time of application submittal.

c. Sound limitations for wind towers in commercial wind energy facilities shall follow the sound limitations established by the Illinois Pollution Control Board.

d. The County shall not require standards for construction, decommissioning, or deconstruction of a commercial wind energy system or related financial assurances to be more restrictive than agricultural impact mitigation agreement set in State law. The amount of any decommissioning payment shall be limited to the cost identified in the decommissioning or deconstruction plan, as required by the agricultural impact mitigation agreement, minus the salvage value of the project. A copy of the agricultural impact mitigation agreement shall be submitted with the application materials.

e. A vegetative screening shall be placed around the commercial wind energy facility.

f. The commercial wind energy facility shall follow applicable federal regulations pertaining to blade tip height maximums.

g. Commercial wind energy systems applicants shall provide the results and recommendations from consultations with the Illinois Department of Natural Resources obtained through the Ecological Compliance Assessment Tool (EcoCat) or a comparable successor tool. The commercial wind energy system applicant shall adhere to the recommendations provided through this consultation.

h. Commercial wind energy systems applicants shall provide the results of the United States Fish and Wildlife Service's Information for Planning and Consulting environmental review or a comparable successor toll that is consistent with the U.S. Fish and Wildlife Service's Land-Based Wind Energy Guidelines and any applicable United States Fish and Wildlife Service solar wildlife guidelines that have been subject to public review.

i. A facility owner shall demonstrate avoidance of protected lands as identified by the Illinois Department of Natural Resources and the Illinois Nature Preserve Commission or consider the recommendations of the Illinois Department of Natural Resources for setbacks from protected lands. including areas identified by the illinois Nature Preserve Commission.

j. A facility owner shall provide evidence at the time of application submittal of consultation with the Illinois State Historic Preservation Office to assess potential impacts on State-registered historic sites under applicable State law.

k. The facility owner shall enter into a road use agreement with the jurisdiction having control over the applicable roads. The road use agreement shall follow applicable law. The facility owner shall supply the Kendall County Planning, Building and Zoning Department with a copy of the road use agreement. This provision shall be waived if the jurisdiction having control over the applicable roads does not wish to enter into an agreement.

l. The facility owner shall repair or pay for the repair of all damage to the drainage system caused by the construction of the commercial wind energy system within a reasonable time after construction of the commercial wind energy facility is complete. The specific time shall be set in the special use permit."

XIII. Amended Text: Section 7:01.D of the of the Kendall County Zoning Ordinance is hereby amended by adding deleting the following uses from the appropriate places alphabetically from the list of special uses:

Solar Gardens.
Solar Farms.
Wind, Farms Commercial

XIV. Amended Text: Section 7:01.E of the of the Kendall County Zoning Ordinance is hereby amended by adding deleting the following use from the appropriate place alphabetically from the list of conditional uses:

Small Wind Energy Systems.

XV. Amended Text: Section 8:02.B of the of the Kendall County Zoning Ordinance is hereby amended by adding deleting the following use from the appropriate place alphabetically from the list of conditional uses:

Small Wind Energy Systems.

XVI. Amended Text: Section 8:02.C of the of the Kendall County Zoning Ordinance is hereby amended by adding the following uses to the appropriate places alphabetically to the list of special uses:

"Commercial Solar Energy Facility and Test Solar Energy Systems subject to the conditions contained in Section 7:01.D."

"Commercial Wind Energy Facility and Test Wind Towers subject to the conditions contained in Section 7:01.D."

XVII. Amended Text: Section 8:03.G.2.d of the of the Kendall County Zoning Ordinance is hereby amended by adding deleting the following use from the appropriate place alphabetically from the list of conditional uses:

Small Wind Energy Systems.

XVIII. Amended Text: Section 8:03.H.1.o of the of the Kendall County Zoning Ordinance is hereby amended by deleting the following use in the appropriate place alphabetically from the list of special uses:

Solar Gardens.

XIX. Amended Text: Section 8:03.H.1 of the of the Kendall County Zoning Ordinance is hereby amended by adding the following uses to the appropriate places alphabetically to the list of special uses:

"Commercial Solar Energy Facility and Test Solar Energy Systems subject to the conditions contained in Section 7:01.D."

"Commercial Wind Energy Facility and Test Wind Towers subject to the conditions contained in Section 7:01.D."

XX. Amended Text: Section 8:06.B.1 of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"Any use permitted as a special use in the R-1 One-Family Estate Residence District, Section 8:02.C, except Commercial Solar Energy Facilities, Test Solar Energy Facilities, Commercial Wind Energy Facilities, and Test Wind Towers, and that Planned Developments may be considered where the zoning lot proposed for development has a gross area of not less than forty (40) acres."

XXI. Amended Text: Section 8:06.C of the of the Kendall County Zoning Ordinance is hereby amended by adding deleting the following use from the appropriate place alphabetically from the list of conditional uses:

Small Wind Energy Systems.

XXII. Amended Text: Section 8:07.B.1 of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"Any use permitted as a special use in the R-1 One-Family Estate Residence District, Section 8:02.C, except Commercial Solar Energy Facilities, Test Solar Energy Facilities, Commercial Wind Energy Facilities, and Test Wind Towers, and that Planned Developments may be considered where the zoning lot proposed for development has a gross area of not less than forty (40) acres."

XXIII. Amended Text: Section 8:08.B of the of the Kendall County Zoning Ordinance is hereby amended by deleting the following use in the appropriate place alphabetically from the list of special uses:

Solar Gardens.

XXIV. Amended Text: Section 9:01.C of the of the Kendall County Zoning Ordinance is hereby amended by deleting the following use in the appropriate place alphabetically from the list of special uses:

Solar Gardens.

XXV. Amended Text: Section 9:01.D of the of the Kendall County Zoning Ordinance is hereby amended by adding deleting the following use from the appropriate place alphabetically from the list of conditional uses:

Small Wind Energy Systems.

XXVI. Amended Text: Section 9:02.C of the of the Kendall County Zoning Ordinance is hereby amended by deleting the following use in the appropriate place alphabetically from the list of special uses:

Solar Gardens.

XXVII. Amended Text: Section 9:02.D of the of the Kendall County Zoning Ordinance is hereby amended by adding deleting the following use from the appropriate place alphabetically from the list of conditional uses:

Small Wind Energy Systems.

XXVIII. Amended Text: Section 9:03.C of the of the Kendall County Zoning Ordinance is hereby amended by deleting the following use in the appropriate place alphabetically from the list of special uses:

Solar Gardens.

XXIX. Amended Text: Section 9:04.C of the of the Kendall County Zoning Ordinance is hereby amended by deleting the following use in the appropriate place alphabetically from the list of special uses:

Solar Gardens.

XXX. Amended Text: Section 9:04.D of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"Reserved."

XXXI. Amended Text: Section 9:05.E of the of the Kendall County Zoning Ordinance is hereby amended by deleting the following use in the appropriate place alphabetically from the list of special uses:

Solar Gardens.

XXXII. Amended Text: Section 9:06.D of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"Reserved."

XXXIII. Amended Text: Section 10:01.C.1 of the of the Kendall County Zoning Ordinance is hereby amended by adding the following uses to the appropriate places alphabetically to the list of special uses:

"Commercial Solar Energy Facility and Test Solar Energy Systems subject to the conditions contained in Section 7:01.D."

"Commercial Wind Energy Facility and Test Wind Towers subject to the conditions contained in Section 7:01.D."

XXXIV. Amended Text: Section 10:01.D of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"Reserved."

XXXV. Amended Text: Section 10:02.D of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"Reserved."

XXXVI. Amended Text: Section 10:01.C of the of the Kendall County Zoning Ordinance is hereby amended by adding the following uses to the appropriate places alphabetically to the list of special uses:

"Commercial Solar Energy Facility and Test Solar Energy Systems subject to the conditions contained in Section 7:01.D."

"Commercial Wind Energy Facility and Test Wind Towers subject to the conditions contained in Section 7:01.D."

XXXVII. Amended Text: Section 10:03.C of the of the Kendall County Zoning Ordinance is hereby amended by deleting the following use in the appropriate place alphabetically from the list of special uses:

Solar Gardens.

XXXVIII. Amended Text: Section 10:03.D of the of the Kendall County Zoning Ordinance is hereby amended by deleting the present text and replacing it with the following:

"Reserved."

XXXIX. Amended Text: Section 13:08 of the Kendall County Zoning Ordinance is hereby amended by adding the following text:

"4. In cases involving special use permit applications or applications for major amendments to existing special use permits for commercial solar energy facilities and commercial wind energy facilities, the County Board shall make its decision not more than thirty (30) days after the conclusion of the public hearing."

State of Illinois
County of Kendall

Zoning Petition
#23-12

XL. Amended Text: Appendix 9 of the Kendall County Zoning Ordinance is hereby amended to reflect the addition of Commercial Solar Energy Facility and Test Solar Energy Systems as special uses in the A-1, R-1, RPD-1, RPD-2, RPD-3, M-1, M-2, and M-3 Districts.

XLI. Amended Text: Appendix 9 of the Kendall County Zoning Ordinance is hereby amended to reflect the addition of Commercial Wind Energy Facility and Test Wind Towers as special uses in the A-1, R-1, RPD-1, RPD-2, RPD-3, M-1, M-2, and M-3 Districts.

XLII. Amended Text: Appendix 9 of the Kendall County Zoning Ordinance is hereby amended to reflect the addition of Solar Energy System, Private as permitted use in all zoning districts.

XLIII. Amended Text: Appendix 9 of the Kendall County Zoning Ordinance is hereby amended to change Small Wind Energy Systems to permitted uses in the A-1, R-1, RPD-1, RPD-2, RPD-3, R-2, B-1, B-2. B-3, B-4, B-5, B-6, M-1, M-2, and M-3 Districts.

XLIV. Amended Text: Appendix 9 of the Kendall County Zoning Ordinance is hereby amended to reflect the addition of Small Wind Energy Systems as permitted uses in the R-3 Districts.

XLV. Amended Text: Appendix 9 of the Kendall County Zoning Ordinance is hereby amended to reflect the deletion of Solar Farms, Solar Gardens, and Wind Farms, Commercial from the list of uses within the Kendall County Zoning Ordinance.

XLVI. Any reference or citation errors created by the above text amendments are hereby corrected.

IN WITNESS OF, this ordinance has been enacted by a majority vote of the Kendall County Board and is effective this 16th day of May, 2023.

Attest:

Kendall County Clerk
Debbie Gillette

Kendall County Board Chairman
Matt Kellogg

COUNTY CLERK
OFFICIAL SEAL
KENDALL COUNTY, ILLINOIS

Kendall County Staff Report

DEPARTMENT OF PLANNING, BUILDING & ZONING
111 West Fox Street • Room 203
Yorkville, IL • 60560
(630) 553-4141 Fax (630) 553-4179

Petition 24-30
Nicholas S. Bellone on Behalf of Ament Road Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)
A-1 Special Use Permit for Commercial Solar Energy Facility and Variance to Allow the Facility on Land Within 1.5 Miles of a Municipality Without an Annexation Agreement

INTRODUCTION

The Petitioner is seeking a special use permit for a commercial solar energy facility and a variance to Section 36-282(17)a of the Kendall County Code to allow a commercial solar energy facility on land within one point five (1.5) miles of municipality without an annexation agreement.

The application materials are included as Attachment 1. The wetland delineation reports, including EcoCat information is included as Attachment 2. The NRI Report is included as Attachment 3. The property survey is included as Attachment 4. The site plan is included as Attachment 5. The vegetative management plan is included as Attachment 6. Decommissioning information is included as Attachment 7. Stormwater information is included as Attachment 8. Drain tile information is included as Attachment 9. A glare study is included as Attachment 10. A property value study is included as Attachment 11.

SITE INFORMATION

PETITIONER: Nicholas S. Bellone on Behalf of Ament Road Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)

ADDRESS: South of 9949 and 10021 Ament Road, Yorkville

LOCATION: Approximately 0.33 Miles West of Route 47 on the South Side of Ament Road

Aerial of Entire Property



TOWNSHIP: Kendall

PARCEL #s: 05-16-300-006 and 05-17-400-005

LOT SIZE: 93.4 +/- Acres (Total Parcel), 39.3 +/- (Disturbed Area), 35.6 +/- (Fenced Area)

EXISTING LAND USE: Agricultural

ZONING: A-1

LRMP:

Future Land Use	Rural Residential (Max 0.65 DU/Acre) (County) Agricultural (Yorkville)
Roads	Ament Road is a Local Road maintained by Kendall Township.
Trails	The United City of Yorkville has a trail planned along Ament Road.
Floodplain/ Wetlands	There are no floodplains on the property. There are two (2) farmed wetlands in the vicinity of the proposed use.

REQUESTED ACTIONS: Special Use Permit for a Commercial Solar Energy System

Variance to Allow a Commercial Solar Energy System on Land with One Point Five (1.5) Miles of a Municipality without an Annexation Agreement

APPLICABLE REGULATIONS: §36-282(17) – A-1 Special Uses

§36-39 – Variance Procedures

Chapter 36, Article II, Division 3, Subdivision I – Special Use Procedures

SURROUNDING LAND USE

Location	Adjacent Land Use	Adjacent Zoning	Land Resource Management Plan	Zoning within ½ Mile
North	Agricultural/Farmstead/ Public Institutional (Cemetery)	A-1 and A-1 SU	Rural Residential (Max 0.65 DU/Acre) and Commercial (County) Agricultural (Yorkville)	A-1, A-1 SU, R-1, R-3, and M-1 (County)
South	Agricultural/Farmstead	A-1	Rural Residential (County) Agricultural (Yorkville)	A-1
East	Agricultural/Single-Family Residential	A-1 and R-3	Rural Residential and Transportation Corridor (County) Agricultural (Yorkville)	A-1, A-1 SU, and R-3 (County)

West	Agricultural	A-1	Rural Residential (County) Agricultural (Yorkville)	A-1, R-1 PUD, and RPD-2

The A-1 special use permit to the north is for a cemetery. The A-1 special use permits to the east are for a church and school and for agricultural implement sales and service.

The Deere Crossing subdivision is located near the subject property. Approximately fourteen (14) homes are located within a half mile (0.5) miles of the subject property.

PHYSICAL DATA

ENDANGERED SPECIES REPORT

EcoCAT Report was submitted on July 10, 2023, for the eastern parcel and November 16, 2023, for the western parcel and consultation was terminated for both parcels, see Attachment 2, Pages 42 and 133.

NATURAL RESOURCES INVENTORY

A LESA Score was not generated for the property. The land evaluation was 96 out of 100 indicating the soils were well suited for agricultural. The NRI Report is included as Attachment 3.

ACTION SUMMARY

KENDALL TOWNSHIP

Petition information was sent to Kendall Township on October 25, 2024.

UNITED CITY OF YORKVILLE

Petition information was sent to the United City of Yorkville on October 25, 2024. Prior to formal application submittal, the United City of Yorkville submitted a letter stating they would not pursue annexation at this time, see Attachment 1, Page 16. Yorkville also submitted an email requesting a forty foot (40') right-of-way dedication; Kendall Township was agreeable to this request. The emails related to the right-of-way dedication are included as Attachment 12.

BRISTOL-KENDALL FIRE PROTECTION DISTRICT

Petition information was sent to the Bristol-Kendall Fire Protection District on October 25, 2024.

GENERAL INFORMATION

§ 36-282(17) of the Kendall County Zoning Ordinance, commercial solar energy facilities businesses can be special uses on A-1 zoned property subject to the following conditions (Staff Comments in Bold):

a. All commercial solar energy facilities and test solar energy systems located within one point five (1.5) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property. **Petitioner is requesting a variance.**

b. The setbacks for commercial solar energy facilities shall be measured from the nearest edge of any component of the facility as follows:

   Occupied Community Buildings or Dwellings on Nonparticipating Properties-One hundred fifty feet (150') from the nearest point on the outside wall of the structure

   Boundary Lines of Participating Properties-None

   Boundary Lines of Nonparticipating Properties- Fifty feet (50') to the nearest point on the property line of the nonparticipating property

   Public Road Rights-Of-Way-Fifty feet (50') from the nearest edge

   The above setbacks do not exempt or excuse compliance with electric facility clearances approved or

required by the National Electrical Code, the National Electrical Safety Code, Commerce Commission, Federal Energy Regulatory Commission, and their designees or successors. **Per the site plan, see Attachment 5, Page 4, the closet nonparticipating structure is approximately one thousand, thirty feet (1,030') to the southeast of the commercial solar energy facility. A church is located approximately one thousand, four hundred thirty-three feet (1,433') to the northeast of the commercial solar energy facility. The perimeter fence is setback fifty feet (50') from the adjoining property line. The commercial solar energy facility is approximately one thousand, four hundred forty-two feet (1,442') from the Ament Road. At their closest points, the panels are approximately forty-nine feet (49') south of the northern fence line, twenty-nine point five feet (29.5) west of the eastern fence line, just under nineteen feet (19') north of the southern fence line, and twenty-one point five feet (21.5') east of the western fence line.**

c. A commercial solar energy facility's perimeter shall be enclosed by fencing having a height of at least six feet (6') and no more than twenty-five feet (25'). **This is true. Per the site plan, see Attachment 5, Page 5, the fence is proposed to be seven feet (7') in height and will be chain link.**

d. No component of a solar panel as part of a commercial solar energy facility shall have a height of more than twenty feet (20') above ground when the solar energy facility's arrays are at full tilt. **This is true. Per the site plan, see Attachment 5, Page 4, the maximum height will be nine feet (9'). The Petitioner does not want a restriction setting the maximum height at this level.**

e. The above setback, fencing, and component height requirements may be waived subject to written consent of the owner of each affected nonparticipating property. This written consent shall be submitted at the time of application submittal. **No such consent requested or needed.**

f. Sound limitations for components in commercial solar energy facilities shall follow the sound limitations established by the Illinois Pollution Control Board. **No noise information was provided.**

g. The County shall not require standards for construction, decommissioning, or deconstruction of a commercial solar energy system or related financial assurances to be more restrictive than agricultural impact mitigation agreement set in State law. The amount of any decommissioning payment shall be limited to the cost identified in the decommissioning or deconstruction plan, as required by the agricultural impact mitigation agreement, minus the salvage value of the project. A copy of the agricultural impact mitigation agreement shall be submitted with the application materials. **The decommissioning plan is included as Attachment 7 and is outlined in the AIMA provided in Attachment 1, starting on page 18. As noted on Page 6 of Attachment 7, the estimated cost of decommissioning is Four Hundred Twenty-Five Thousand, Eight Hundred Ninety-Seven Dollars and Thirty-Seven Cents ($425,897.37). This money will be provided to the County in the form of a bond as outlined in the AIMA on Pages 28 and 29 of Attachment 1.**

h. A vegetative screening shall be placed around the commercial solar energy facility. **The landscaping plan was included on Pages 7 and 8 of the site plan (Attachment 5) with more detailed landscaping information included in the vegetative management plan (Attachment 6). The plan includes a cover crop seed mix, a native pollinator seed mix, and a native grazing seed mix. The performance standards and ground cover maintenance requirements were included in the vegetative management plan.**

i. Commercial solar energy facility applicants shall provide the results and recommendations from consultations with the Illinois Department of Natural Resources obtained through the Ecological Compliance Assessment Tool (EcoCat) or a comparable successor tool. The commercial solar energy facility applicant shall adhere to the recommendations provided through this consultation. **The EcoCat was submitted and consultation was terminated without any specific recommendations.**

j. Commercial solar energy facility applicants shall provide the results of the United States Fish and Wildlife Service's Information for Planning and Consulting environmental review or a comparable successor toll that is consistent with the U.S. Fish and Wildlife Service's Land-Based Wind Energy Guidelines and any applicable United States Fish and Wildlife Service solar wildlife guidelines that have been subject to public review. **This was provided on Pages 21 and 117 of both wetland delineation**

reports (Attachment 2). Six (6) threatened or endangered species were in the area, but no impacts were anticipated.

k. A facility owner shall demonstrate avoidance of protected lands as identified by the Illinois Department of Natural Resources and the Illinois Nature Preserve Commission or consider the recommendations of the Illinois Department of Natural Resources for setbacks from protected lands, including areas identified by the Illinois Nature Preserve Commission. **This is true. The site is designed around the farmed wetlands.**

l. A facility owner shall provide evidence at the time of application submittal of consultation with the Illinois State Historic Preservation Office to assess potential impacts on State-registered historic sites under applicable State law. **No potential impacts to State-registered historic sites exists, see Attachment 1, Page 74.**

m. A commercial solar energy facility owner shall plant, establish, and maintain for the life of the facility vegetative ground cover consistent with State law and the guidelines of the Illinois Department of Natural Resources' vegetative management plans. The vegetation management plan shall be required at the time of application submittal. **The vegetation management plan, including timelines for planting and maintenance of the vegetation was provided, see Attachment 6.**

n. The facility owner shall enter into a road use agreement with the jurisdiction having control over the applicable roads. The road use agreement shall follow applicable law. The facility owner shall supply the Kendall County Planning, Building and Zoning Department with a copy of the road use agreement. This provision shall be waived if the jurisdiction having control over the applicable roads does not wish to enter into an agreement. **As of the date of this memo, the road use agreement negotiations are ongoing. No transportation or access plan was provided. The site plan (Attachment 5) shows one (1) twenty foot (20') wide gravel driveway approximately thirty feet (30') west of the eastern property line.**

o. The facility owner shall repair or pay for the repair of all damage to the drainage system caused by the construction of the commercial solar energy system within a reasonable time after construction of the commercial solar energy facility is complete. The specific time shall be set in the special use permit. **A tentative drain tile study was provided (See Attachment 9). The foundations for the racking will be placed in a manner that minimizes impacts on the drain tile.**

BUILDINGS AND BUILDING CODES
No buildings are planned for the site. Any structures proposed for the site, including the solar arrays, shall obtain applicable permits.

ENVIRONMENTAL HEALTH
The property is presently farmland. No wells, septic systems, or refuse collection points were identified.

STORMWATER
The proposed area of disturbance is slightly less than one (1) acre. The County requested that the Petitioner submit an escrow payment so that WBK can evaluate the proposal.

ACCESS
Per the site plan (See Attachment 5), the Petitioner's propose one (1) twenty foot (20') wide access road.

There is one (1) forty foot (40') wide vehicular access gate and approximately ten (10') four foot (4') access gates proposed around the perimeter of the property. The locations of the smaller gates have not been determined. Knox box information will be provided to the County.

PARKING AND INTERNAL TRAFFIC CIRCULATION
No permeant parking was proposed. There will be a staging area during construction; the specific location of the staging area was undetermined, but will likely be northwest of the vehicular access gate.

LIGHTING
No lighting was proposed.

SIGNAGE
No specific signage was planned. The Petitioner was agreeable to installing one (1) sign at the vehicular access gate stating emergency contact information.

GLARE
The Petitioner provided a glare study, see Attachment 10.

IMPACT ON PROPERTY VALUES
The Petitioner provided a general property values study, see Attachment 11.

ODORS
No odors were foreseen.

RELATION TO OTHER SPECIAL USES
If approved, this would be the second special use permit for a commercial solar energy facility in unincorporated Kendall County.

FINDINGS OF FACT-SPECIAL USE PERMIT
§ 36-119 of the Kendall County Code outlines findings that the Zoning Board of Appeals must make in order to recommend in favor of the applicant on special use permit applications. They are listed below in *italics.* Staff has provided findings in **bold** below based on the recommendation:

The establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. **The Project will generate clean, renewable electricity while producing no air, noise, or water pollution, or ground contamination. The front portion of the parcel closest to Ament Road will be retained for agricultural use as well as the surrounding land of the other parcel, which will create a natural screening during the growing season. The Petitioner submitted a vegetative management plan outlining the types of vegetation that will be planted, the timing of planting, and a maintenance plan for the vegetation.**

The special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use makes adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole. **The proposal will not interfere with the use and enjoyment of nearby properties. The surrounding properties are zoned primarily A-1 and will not be prevented from continuing any existing use or from pursuing future uses. The proposal's operations would be quiet and minimal traffic will occur after installation is completed. The solar panels are setback from Ament Road and neighboring houses to avoid negative visual impacts.**

Adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided. **The proposal will have adequate utility interconnections designed in collaboration with ComEd. The proposal does not require water, sewer, or any other public utility facilities to operate. The Petitioner will also build all roads and entrances at the facility and will enter into an agreement with Kendall Township regarding road use. After initial construction traffic, landscape maintenance and maintenance to the project components are anticipated to occur on an as-needed basis, consistent with the vegetative management plan. Existing traffic patterns will not be impacted in the post-construction operations phase. A drain tile survey will be completed prior to construction and foundation design will work around or reroute any identified drain tiles to ensure proper drainage.**

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 County Board pursuant to the

recommendation of the Zoning Board of Appeals. **If the requested variance is granted, the proposal meets all applicable regulations.**

The special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies. **The proposal is also consistent with a goal and objective found on page 3-34 of the Land Resource Management Plan**, **"Support the public and private use of sustainable energy systems (examples include wind, solar, and geo-thermal)." However, the proposal is located on property classified as Rural Residential on the Future Land Use Map.**

FINDINGS OF FACT-VARIANCE
§36-39 of the Kendall County Code outlines findings that the Zoning Board of Appeals must make in order to grant variations. They are listed below in *italics.* Staff has provided findings in **bold** below based on the recommendation:

The particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship or practical difficulty upon the owner if the strict letter of the regulations were carried out. **The subject property is located within one point five (1.5) miles of the United City of Yorkville. The Petitioner provided a letter from the United City of Yorkville stating that Yorkville did not wish to annex the property or enter into a pre-annexation agreement.**

The conditions upon which the requested variation is based would not be applicable, generally, to other property within the same zoning classification. **Other A-1 zoned properties within one point five (1.5) miles of a municipality could request a similar variance, if the municipality refuses to annex or enter into a pre-annexation agreement.**

The alleged difficulty or hardship has not been created by any person presently having an interest in the property. **The difficulty was created because the United City of Yorkville did not wish to enter into a pre-annexation agreement or annex the property.**

The granting of the variation will not materially be detrimental to the public welfare or substantially injurious to other property or improvements in the neighborhood in which the property is located. **Granting the variance would not be detrimental to the public or substantially injurious to other properties.**

That the proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets or increase the danger of fire, or endanger the public safety or substantially diminish or impair property values within the neighborhood. **The proposed variance would not impair light or air on adjacent property, cause congestion, increase the danger of fire, or negatively impact property values.**

RECOMMENDATION
Staff will wait with issuing a recommendation on this proposal, pending comments from the Regional Planning Commission. The proposed conditions and restrictions are listed; as of the date of this memo, the Petitioner has not agreed to these conditions and restrictions:

1. The site shall be developed substantially in accordance with the submitted site plan (Attachment 5), vegetative management plan, (Attachment 6), decommissioning plan, (Attachment 7), road access plan (yet to be submitted), and Agricultural Impact Mitigation Agreement (Attachment 1, Pages 18-31).
2. Within ninety (90) days of the approval of the special use permit, the owners of the subject property shall dedicate a strip of land forty feet (40') in depth along the northern property line to Kendall Township. The Kendall County Planning, Building and Zoning Committee may grant an extension to this deadline.
3. None of the vehicles or equipment parked or stored on the subject property allowed by the special use permit shall be considered agricultural vehicles or agricultural equipment.
4. All of the vehicles and equipment stored on the subject property allowed by the special use permit shall be maintained in good condition with no deflated tires and shall be licensed if required by law.
5. Any structures, included solar arrays, constructed, installed, or used allowed by this special use permit

shall not be considered for agricultural purposes and must secure applicable building permits.

6. One (1) warning sign shall be placed near or on the vehicular entrance gate. This sign shall include, at minimum, the address of the subject property and a twenty-four (24) hour emergency contact phone number. Additional signage may be installed, if required by applicable law.

7. KenCom and other applicable public safety agencies shall be supplied the access code to the Knox Box/security gate.

8. The operators of the use allowed by this special use permit acknowledge and agree to follow Kendall County's Right to Farm Clause.

9. The property owner and operator of the use allowed by this special use permit shall follow all applicable Federal, State, and Local laws related to the operation of this type of use.

10. Failure to comply with one or more of the above conditions or restrictions could result in the amendment or revocation of the special use permit.

11. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid.

12. This special use permit and variance shall be treated as a covenant running with the land and is binding on the successors, heirs, and assigns as to the same special use conducted on the property.

ATTACHMENTS

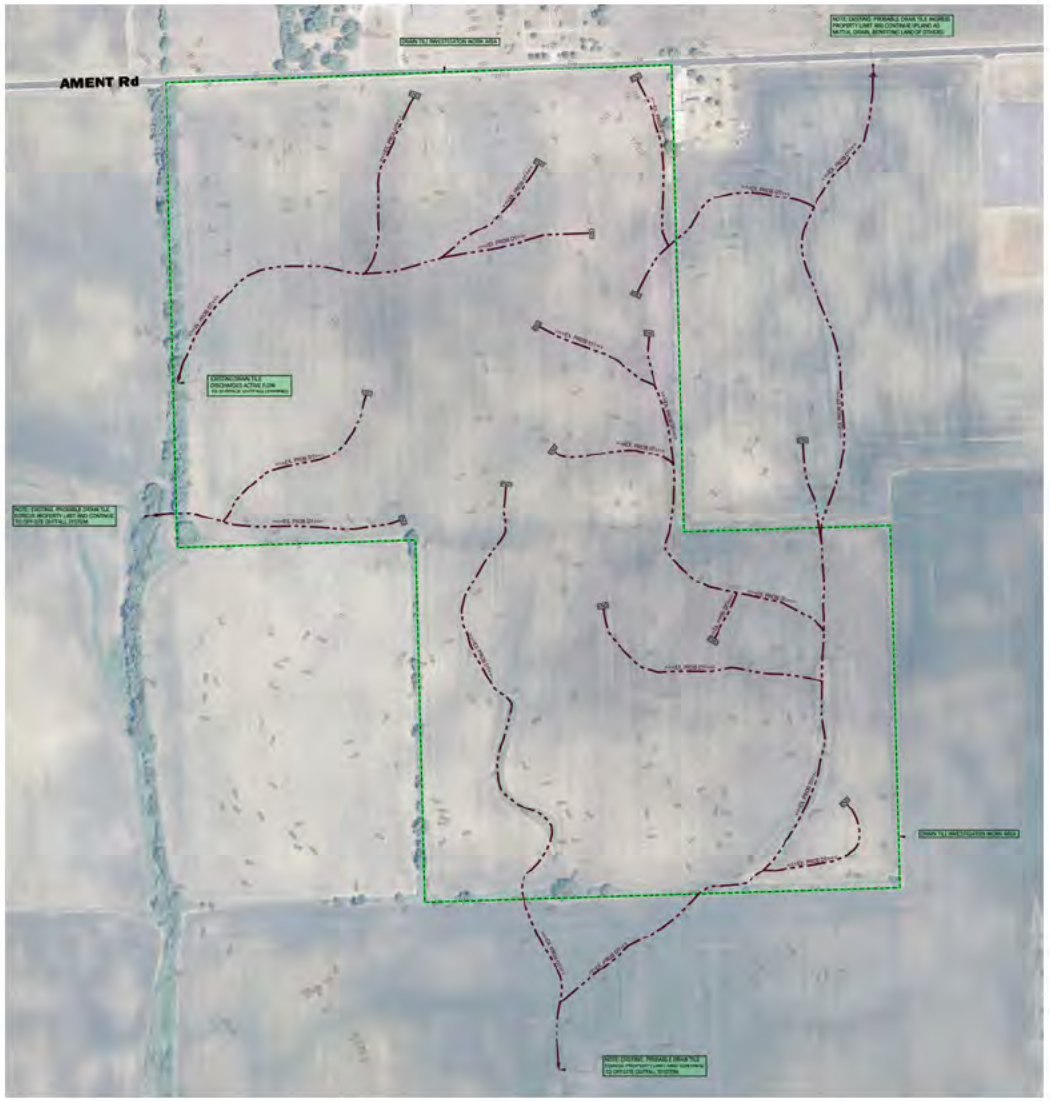
1. Application Materials
2. Wetland Delineation Reports
3. NRI Report
4. Property Survey
5. Site Plan
6. Vegetative Management Plan
7. Decommissioning Information
8. Stormwater Management Memo
9. Drain Tile Information
10. Glare Study
11. Property Value Study
12. Right-of-Way Dedication Emails

Preliminary Drain Tile Study

Project Site Overview: Drainage

After construction, the field will drain the same way that it did prior to the solar installation:

- Drain tile is considered in final layout design and avoided when practical
- During construction, tile locations are flagged to facilitate avoidance
- Broken tile is repaired or replaced in-kind
- Construction crews regularly monitor the site for any tile or drainage issues



Drain Tile Probability Map prepared by Tom Huddleston of Huddleston McBride

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Management and Monitoring Plan

Management and Monitoring (M&M) Specifications & Guidelines

Project Name: Ament Road Solar Farm

Applicant: Ament Road Solar 1, LLC

ENCAP, Inc. Project Number: 24-0923D

Document Preparer: S. Rowley, PWS, ENCAP, Inc.

Date Prepared: October 17, 2024
Date Revised: November 27, 2024

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NATIVE AREA SPECIFICATIONS

AMENT ROAD SOLAR FARM – KENDALL COUNTY

1.0 PURPOSE

The purpose of this plan is to provide native area specifications for the Ament Road Solar Farm project. The areas underneath and around the solar array panels will be planted with a native grazing seed mix and a native pollinator seed mix. These native plantings will provide water quality benefits, pollinator friendly habitat, soil stabilization, and watershed benefits for the local streams.

2.0 CONTRACTOR QUALIFICATIONS

1. The Native Landscape Contractor chosen for the establishment and enhancement of the natural areas must be experienced in the restoration, installation, and management of said areas. They must have a minimum five years of experience conducting ecological restoration and management projects.

2. There shall be a supervisor available at all times that can identify non-native and native plants by genus and species. The goal of installing successful native plant communities is a long-term process. Therefore, it is imperative that a qualified Native Landscape Contractor perform the initial installation and maintenance.

3.0 QUALITY AND CONDITION

1. All native seed proposed for the project shall be provided as Pure Live Seed (PLS) and sourced from within a 200-mile radius of the project location. Plant origins outside of this range must be approved by the Wetland Consultant.

2. Native seeds shall be blended by the vendor, and the mixture and ratio shall be guaranteed in writing to be as specified. The amount of seed indicated on the specifications shall mean the total amount of pure live seed (PLS) per acre for all species listed. It is the sole responsibility of the Native Landscape Contractor to provide approved seed that meets industry-standard PLS requirements.

3. Native Landscape Contractor shall provide the Wetland Consultant with the name and location of the seed supplier, origin of the various kinds of plants, and a statement of the purity of the seed.

4. Seed shall conform to applicable State and Federal regulations as in effect on the date of letting. Unless otherwise specified, seed shall not contain in excess of 1 percent weed seeds; 0 percent is desirable.

5. All storage requirements, stratification, and scarification considerations shall be the sole responsibility of the Native Landscape Contractor.

6. If specified for the seed mixture, mycorrhizal inoculants shall be pelletized and mixed at 1 lb. per acre with the fine seeds before installation. The inoculants shall contain a diverse mixture of Glomales fungal species (*Glomus* spp.) in pelletized form.

7. Under no circumstances shall Wheat (*Triticum aestivum*), Cereal Rye (*Secale cereale*), Perennial Rye (*Lolium perenne*), or Barley (*Hordeum vulgare*) be used as a temporary cover crop.

4.0 HANDLING

1. Native Landscape Contractor shall be solely responsible for the proper handling and storage of the seed according to the best seed handling and storage practices, including fungicide treatments and stratification considerations. Owner shall make no compensation for damage to the seed because of improper storage, cleaning, threshing, or screening operations.

2. All native seeds shall be packed and covered in such a manner as to ensure adequate protection against damage and maintain dormancy while in transit, storage, or during planting operations.

3. Seed shall be kept dry and unopened until needed for use. Seed shall not be stored or temporarily stored in locations or vehicles where the temperature will be in excess of 90 degrees F.

5.0 SITE PREPARATION

1. Site should be cleared of undesirable vegetation prior to seeding. If necessary, non-selective herbicide (Aquatic-approved Glyphosate formulation) should be applied within the proposed planting zones at least 2 weeks prior to seedbed preparation.

2. The General Contractor and Native Landscape Contractor shall be responsible for performing all work necessary to achieve and maintain an acceptable seedbed prior to seeding. All areas must be properly prepared before seeding begins. Underground utility location maps and plans should be reviewed prior to work. Equipment having low unit pressure ground contact shall be utilized within the planting areas.

3. Unless the Wetland Consultant agrees to another approach, the seedbed shall be prepared by working the topsoil to a depth of 3 inches. Site preparation equipment shall be of a design that can be utilized efficiently by the Native Landscape Contractor to meet the requirements for the work specified. The equipment proposed for use by the Native Landscape Contractor for disking and herbicide applications shall be subject to approval by the Wetland Consultant.

4. Prior to seeding, at least 6 inches of topsoil shall be present and free of all clods, stones, roots, sticks, rivulets, gullies, crusting, and cracking. The soil aggregate size will be no greater than 2 inches in the largest diameter.

5. If present, compacted soils shall be disked or raked prior to seeding. Remedial measures for the access area may, at the direction of the Wetland Consultant, involve ripping from 12 to 18 inches of the soil horizon prior to disking. If compaction is not a concern and the seedbed needs to be loosened prior to seeding to ensure good seed-soil contact, disking or raking shall be performed using equipment and the approach recommended by the Native Landscape Contractor, subject to approval by the Wetland Consultant.

6. If needed, cultivation shall occur within 24 hours prior to seeding. Seeding should occur immediately after the last cultivation, preferably before a rain.

6.0 PLANT MATERIALS

See Sheet C-5.1 for Seed Mixes; however, the following cover crop should be added to both seed mixes during installation.

Scientific Name	Common Name	Lbs/Acre
Avena sativa	Seed Oats	40.000

7.0 SEED INSTALLATION

1. Seeding shall take place AFTER solar panel installation is completed.

2. Except where site conditions preclude their use, seeding shall be performed using a Truax drill, Truax Trillion seeder, or comparable equipment designed specifically for installation of native seed. For areas where site conditions preclude the use of specialized equipment, seed may be installed through hand broadcasting and lightly raking in the seed. **Hand broadcast seed shall be spread at twice the specified rate.** Other methods of seed installation may be used with prior approval from the Wetland Consultant.

3. Seasonal Considerations:

   November 1 through February 28: Seed must be protected from displacement due to water and wind erosion. Seeding on bare, graded surfaces must be protected with double netted erosion control blankets on slopes. Less cover crop will be observed during the following spring due to frost damage.

   March 1 through June 29: Seeding during this period is appropriate but germination of a portion of the seed may not occur until the following season due to lack of cold stratification to break seed dormancy. Cover crop generally germinates within 2-3 weeks of seeding operation. Seeding on bare, graded surfaces must be protected with erosion control blankets on slopes.

   June 30 through September 15: Installation of native seed should be suspended unless irrigation can be provided or unseasonably cool conditions persist. Also, any annual forbs planted with the mix during this time period may germinate but not have sufficient time to flower before fall senescence. Seeding on bare, graded surfaces must be protected with erosion control blankets on slopes.

   September 15 through October 31: Seeding on bare, graded surfaces must be protected with double netted erosion control blankets on slopes. Less cover crop will be observed during the following spring due to frost damage.

4. Prior to starting work, all seeding equipment shall be calibrated and adjusted to sow seeds at the proper seeding rate. In general, the optimum seeding depth is 0.25 inch below the soil surface. Areas where the seed has not been incorporated into the soil to the proper depths will not be accepted, and no compensation for materials or labor for the rejected work will be made by the Owner.

5. Equipment shall be operated in a manner to ensure complete, uniform coverage of the entire area to be seeded and to avoid damage to existing woody plants. Any area inadequately covered, as solely determined by the Wetland Consultant, shall be retreated at no additional cost to the Owner.

6. Seeding and soil tracking/firming shall not be done during periods of rain, severe drought, high winds, excessive moisture, frozen ground, or other conditions that preclude satisfactory results.

7. To achieve best results, seed boxes should be kept more than one-quarter full at all times and ground speed should be no more than 2 to 3 mph.

8. Seeding operations must occur when soil moisture is appropriate for seeding operation.

9. Native plant seed shall not receive fertilizer.

10. Wet seed that is moldy or otherwise damaged in transit or storage shall not be used.

11. After seeding operation is completed, install erosion control blanket per manufacturer's specifications as necessary.

8.0 EROSION CONTROL

1. The Native Landscape Contractor shall be fully responsible for implementing erosion control measures within prescribed planting areas.

2. All disturbed areas or areas of bare soil are recommended to be covered with erosion control blanket; North American Green S-75 or equivalent will be used at a minimum. Fall-winter plantings and/or 3:1 slopes require North American Green S-150 or equivalent. Erosion control blanket shall be installed within 24 hours after an area is seeded. See manufacturer's specifications for erosion control blanket composition.

9.0 CLEAN-UP AND PROTECTION

1. During landscape work, store materials and equipment where directed. Keep pavements clean and work areas and adjoining areas in an orderly condition.

2. Protect landscape work and materials from damage due to landscape operations or operations by other trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed by the Wetland Consultant.

10.0 INSPECTIONS AND ACCEPTANCE

1. Owner reserves the right to inspect all seeds and plants either at place of growth or at site before planting for compliance with requirements for name, variety, size, quantity, quality or mix proportion.

2. Native Landscape Contractor is to keep records of the certificates of composition or invoices of seed mixtures and integrity of plant materials with respect to species, variety, and source after purchase.

3. Native Landscape Contractor is to notify Owner within five days after completing initial and/or supplemental plantings in each area.

MONITORING AND MANAGEMENT PLAN

AMENT ROAD SOLAR FARM – KENDALL COUNTY

1.0 MONITORING METHODOLOGY – SHORT TERM (YEARS 1-3)

The planted areas will be monitored annually for a three-year period to ensure successful establishment of the plantings. The primary objective of the short-term monitoring program is to track the success of the planted species over the 3-year period of regularly scheduled monitoring sessions. The monitoring documents changes in plant community composition and reveals the need for management changes to improve floristic quality and coverage. Specific goals of the monitoring are to determine the vegetative species present, the percent cover by vegetation, and identify hydrology and erosion problems.

Monitoring within the planted areas shall be conducted annually utilizing a meander survey methodology. The monitoring shall identify:

1. the five dominant vegetative species within each planting zone,
2. the approximate percent coverage by overall vegetation in each planting zone,
3. the approximate percent vegetative coverage by native and non-native/invasive species within each planting zone,
4. erosion or sedimentation issues,
5. bare areas or areas not fully vegetated,
6. management recommendations for improved quality and invasive species removals, and
7. wildlife and pollinator usage (visual observations).

Observations shall be made during the monitoring to identify specific management strategies necessary to reach design goals. Site conditions shall be photo documented during monitoring sessions.

2.0 PERFORMANCE CRITERIA (YEARS 1-3)

1. By the end of the first full growing season, the planted areas shall exhibit at least 75% vegetative coverage, primarily by Seed Oats (*Avena sativa*). There shall be no areas greater than 1.0 square meter devoid of vegetation, and at least 25% of the species present as measured by aerial coverage shall be native and non-invasive, or planted species.

2. By the end of the second growing season, at least 90% of the ground as measured by aerial coverage shall be vegetated, and at least 50% of the species present as measured by aerial coverage shall be native and non-invasive, or planted species. There shall be no areas greater than 1.0 square meter devoid of vegetation.

3. By the end of the third growing season, at least 90% of the ground as measured by aerial coverage shall be vegetated, and at least 75% of the species present shall be native and non-invasive, or planted species. There shall be no areas greater than 0.5 square meter devoid of vegetation.

4. At the end of each growing season, none of the three most dominant species within the planted areas shall be non-native, invasive, or noxious weed species, including but not limited to: Giant and Common Ragweed (Ambrosia trifida & artemisiifolia), Wild Carrot (Daucus carota), Purple Loosestrife (Lythrum salicaria), Teasel (Dipsacus spp.), Reed Canary Grass (Phalaris

arundinacea), Sweet Clover (Melilotus spp.), Common Buckthorn (Rhamnus cathartica), Kentucky Blue Grass (Poa pratensis), Thistle (Cirsium spp.), Honeysuckle (Lonicera sp.), Common Reed (Phragmites australis), Sandbar Willow (Salix interior), and Water Hemp (Amaranthus tuberculatus).

3.0 REPORTING (YEARS 1-3)

An annual vegetation monitoring report will be submitted to the Owner and Kendall County by January 31st following the monitoring season each year. This report will be used to determine if the natural areas are meeting performance standards. The report shall include information on site location; permit numbers; methodology used (including monitoring dates); data results; summary relative to performance criteria; a summary of the annual monitoring observations; a description of the management performed during the year; a list of recommendations for management during the upcoming year; and representative photographs of the natural areas. The natural areas shall meet certification requirements, associated performance standards, and will be monitored and maintained for a period of three years or until performance standards have been met to ensure successful establishment.

4.0 SHORT-TERM MANAGEMENT PLAN (YEARS 1-3)

1. First Year. Mow the planted areas to a height of 8-12 inches, 3 times during the early growing season or as needed to control non-native and invasive annual species. Mowing (including weed whipping) shall take place prior to or when non-native and invasive species are flowering to prevent seed set. Control undesirable plant species, when present in small quantities, by hand pulling prior to the development and maturity of the plant. Hand removal shall include the removal of all aboveground and belowground stems, roots and flower masses prior to development of seeds. Apply herbicide (as necessary) to non-native and invasive perennial species within the natural areas with appropriate herbicide. Management site visits should be conducted at a minimum of 3 times annually. Soil erosion and sediment controls shall be regularly maintained.

2. Second Year. Control of undesirable plant species during the second growing season shall consist primarily of selective herbicide application, spot mowing, and hand pulling. Mowing (including weed whipping) shall be conducted 3 times during the early growing season and as needed to a height of 8-12 inches to prevent annual weeds from producing seed. Management site visits should be conducted at a minimum of 3 times annually. Soil erosion and sediment controls shall be regularly maintained.

3. Third Year. Undesirable plant species will be controlled (as necessary) by mowing (including weed whipping), hand pulling, and/or selective herbicide application. Continue to perform management site visit at least 3 times annually during the growing season. Soil erosion and sediment controls shall be regularly maintained.

   Since the site is not suitable for prescribed burning, it is recommended to conduct a late fall mowing with mulching/thatch removal at the completion of the third growing season, during the dormant season (November-April). This regimen will mimic the conditions and benefits of a controlled burn.

5.0 LONG-TERM MANAGEMENT PLAN (YEARS 4+)

1. Long Term. As the planted areas mature, required supplemental management will be significantly reduced. The plant communities will stabilize and be effectively managed through a reduced schedule of spot mowing, selective herbicide application, and hand pulling as necessary. Every 3-5 years, a late fall mowing with thatch mulching/removal should be conducted during the dormant season (November-April). Management site visits should be conducted 2-3 times annually. Soil erosion and sediment controls shall be regularly maintained.

   The natural areas require long-term management to maintain their function as designed. It is expected that the natural areas will be maintained in their permitted condition. The long-term manager for the natural areas will be the Lessee or Owner. An annual letter report documenting the completion of inspection and management tasks based on the information herein should be submitted to the Owner each year.

   Management tasks should be preceded by a site inspection to determine if remedial measures are required and to recommend procedures to correct any deficiencies. The site inspection should be conducted by a qualified individual knowledgeable in native plants and management of native plantings. Areas of observation during the site inspection should include but are not limited to: dominant species within distinct planting communities; erosion or herbivory concerns that develop over time; changes in hydrology that may require additional planting to adjust for higher or lower water levels; or the appearance of invasive species in the managed area that require alternative management methods.

   The following management tasks should be completed annually, unless otherwise specified below:

   a. Debris Removal: All debris shall be removed, via non-invasive methods, from within the natural areas.
   b. Herbicide Application: Selective herbicide to control invasive species should be completed 2-3 times annually. A certified and licensed pesticide applicator shall select herbicide, appropriate for the area of use (such as wetlands or other special management area), and shall apply the herbicide by the appropriate method, to prevent killing of desirable native species. Invasive and non-native species, and woody plant species not specified as part of the planting plan, shall be controlled by appropriate management practices of the approved plan.
   c. Mowing: Selective mowing is a preferred method for control of annual non-native and invasive species to prevent seed proliferation. Mowing with a specialty flail-type mower to mulch thatch or weed whip with thatch removal (or combination) may be substituted for prescribed burns in instances where a burn is not permissible or weather does not allow for a safe/effective burn.
   d. Erosion Control & Stabilization: When conducting the annual inspection, it is important to observe and note areas of bare soil and other early warning signs of erosion. If caught early enough, they may be easily stabilized with seed and erosion control blanket.
   e. Brush Clearing: Management of woody species is not likely necessary if herbicide applications are successful and continued each year. If invasive shrubs become a problem they should be cut and all remaining stumps should be treated with an appropriate herbicide to prevent resprout, either through a basal oil treatment, hand wick applicator, or other approved method. Brush clearing should be conducted in the winter months with frozen ground conditions.

Table 1: Typical Management Schedule for Natural Areas

Management Task	Spring	Summer	Fall	Winter
Annual Site Inspection		X		
Annual Letter Report				X
Debris Removal (As Necessary)	X	X	X	X
Herbicide Application	X	X	X	
Mowing	X	X	X	
Erosion Control & Stabilization	X	X	X	
Brush Clearing			X	X

6.0 HERBICIDE APPLICATION

This section applies to all site preparation and management herbicide application that is proposed to occur onsite.

1. Any person applying herbicide shall hold appropriate licensure for pesticide application in the state of Illinois. A licensed Illinois Pesticide Applicator shall be on-site at all times when herbicide is being applied.

2. Herbicide usage will vary based on site conditions and target species. The following herbicides are allowed for use in natural areas; aquatic approved Glyphosate formulations (Aquaneat®, Rodeo®, etc.), Clethodim (Intensity®, etc.), aquatic approved Imazapyr (Habitat®, etc.), Triclopyr 3A (Tahoe 3A®, Garlon 3A®, etc.), Garlon 4 Ultra® (no substitutions), and Aminopyralid (Milestone®) to control target species. It is the sole responsibility of the Contractor to evaluate the site and select the appropriate herbicide for both site conditions and target species in accordance with herbicide labeling.

Decommissioning Estimate

Decommissioning Estimate/Plan

Ament Road
Kendall County, IL

Date: 9/17/2024
Calculated By: CG

This Decommissioning Estimate has been prepared by New Leaf Energy in an attempt to predict the cost associated with the removal of the proposed solar facility. The primary cost of decommissioning is the labor to dismantle and load as well as the cost of trucking and equipment. All material will be removed from the site, including the concrete equipment pads, which will be broken up at the site and hauled to the nearest transfer station.

No salvage values have been assumed in this calculation.

The following values were used in this Decommissioning Estimate:

System Specifications	
Number of Modules	13,390
Linear Feet of Racking (ft)	50,213
Number of Inverters	20
Number of Transformers	2
Number of Tracker Motors	6
Electrical Wiring Length (ft)	3,276
Number of Foundation Piles	3,044
Length of Perimeter Fence (ft)	5,096
Number of Power Poles	5
Access Rd Material Volume (YD)	1,791
Total Disturbed Area (SF)	49,851
Total Fence Weight (lbs)	3,618
Total Racking Weight (lbs)	314,665
Total Foundation Pile Weight (lbs)	410,940
Total Solar Module Weight (lbs)	803,400

Labor and Equipment Costs		
Labor Rate ($/hr)	$	35.00
Operator Rate ($/hr)	$	47.00
Bobcat Cost ($/hr)	$	101.90
Front End Loader Cost ($/Day)	$	845.77
Excavator Cost ($/Day)	$	1,365.46
Trucking Cost ($/hr)	$	127.38
Backhoe Cost ($/hr)	$	101.90
Power Pole Removal Cost ($/pole)	$	1,500.00
Grader Cost ($/day)	$	1,324.70
Gravel Export Cost ($/YD)	$	8.00
Loam Import Cost ($/YD)	$	20.00
Seeding Cost ($/SF)	$	0.10
Fuel Cost ($/mile)	$	0.50

Equipment & Material Removal Rates	
Module Removal Rate (min/module)	1
Rack Wiring Rem. Rate (min/mod)	0.25
Racking Dismantling Rate (min/LF)	0.2
Inverter Removal Rate (hr/unit)	0.5
Transformer Removal Rate (hr/unit)	1
Motor Removal Rate (hr/unit)	1
Rack Loading Rate (min/LF)	0.1
Elect. Wiring Removal Rate (min/LF)	0.5
Pile Rem. Rate (piles/day)	300
Fence Removal Rate (min/LF)	1
Days req. to break up concrete pads	1
Days req. with Rough Grader	1
Days req. with Fine Grader	2
Total Truckloads Required	29
Round-Trip Dist. to Trans. Sta.(miles)	17
Round-Trip Time to Trans. Sta. (hr)	0.5

Labor, Material, and Equipment Costs

1. Remove Modules

The solar modules are fastened to racking with clamps. They slide in a track. A laborer needs only unclamp the module and reach over and slide the module out of the track.

Module Removal Rate • Total Number of Solar Modules • Labor Rate = Module Removal Cost

Total = $ 7,810.83

2. Remove Rack Wiring

The modules are plugged together in the same manner as an electrical cord from a light is plugged into a wall socket. The string wires are in a tray. A laborer needs only unplug the module, reach into the tray and remove the strands of wire.

Wire Removal Rate • Total Number of Solar Modules • Labor Rate = Rack Wiring Removal Cost

Total = $ 1,952.71

3. Dismantle Racks

Tracker module racking primarily consists of torque tubes and a driveline. These are supported on driven piles. The torque tubes and driveline unbolt from the foundation piles.

Linear feet of Racking • Rack Dismantling Rate • Labor Rate = Rack Dismantling Cost

Total = $ 5,858.18

4. Remove and Load Electrical Equipment

Electrical equipment includes transformers, inverters, and tracker motors.

(Number of Inverters • Inverter Removal Rate + Number of Transformers • Transformer Removal Rate + Number of Motors • Motor Removal Rate) • (Operator Rate + Bobcat Cost) = Electrical Equipment Removal Cost

Total = $ 2,680.20

5. Break Up Concrete Pads

Concrete pads are broken up using an excavator and jackhammer.

Number of Demolition Days • (Excavator Cost + Operator Cost) = Total Concrete Pad Removal

Total = $ 1,221.77

6. Load Racks

Once the racking has been dismantled, it will be loaded onto trucks for removal from the site. The trucking cost associated with this line item represents the additional time a truck will be needed during loading. Please see item # 13 for the cost of trucking off-site.

Linear feet of Racking • Rack Loading Rate • (Operator Cost + Front End Loader Cost + Trucking Cost) = Total Rack Removal Cost

Total = $ 23,120.99

7. Remove Electrical Wiring

Electrical wiring will be removed from all underground conduits.

Cable Length • Cable Removal Rate • (Operator Cost + Backhoe Cost) = Total Cable Removal Cost

Total = $ 4,064.97

8. Remove Foundation Piles

Foundation piles will be pulled out of the ground and loaded onto a truck to be removed from site.

(Total Number of Piles / Daily Pile Removal Rate) • (Operator Rate + Excavator Cost) = Total Pile Removal Cost

Total = $ 26,505.02

9. Remove Fencing

Fencing posts, mesh, and foundations will be loaded onto a truck and removed from site. Trucking costs included in this line item are for the removal process. Trucking to a recycling facility are included in item #13.

(Total Length of Fence • Fence Removal Rate) • (Operator Rate + Bobcat Cost + Trucking Cost) =

Total = $ 23,464.96

10. Remove Power Poles

Power poles will be removed and shipped off site.

Number of Power Poles • Pole Removal cost = Total Power Pole Removal Cost

Total = $ 7,500.00

11. Gravel Road Reclamation

Reclamation of the gravel access road will entail removing the gravel material and exporting it off site. The area will then be backfilled with loam and graded.

(Days with Rough Grader + Days with Fine Grader) • (Grader Cost per Day+Operator Cost per Day) + [Roadway Material Volume • (Gravel Export Cost + Loam Import Cost)] = Gravel Road Reclamation Cost

Total = $ 55,253.21

12. Seed Disturbed Areas

Seeding cost includes labor and materials for reseeding all disturbed areas including the reclaimed gravel road area, former electrical areas, and areas disturbed by racking foundation removal.

Seeding Cost • Disturbed Area = Total Seeding Cost

Total = $ 4,985.06

13. Truck to Transfer Station

All material will be trucked to the nearest Transfer station that accepts construction material. The nearest transfer station is Groot Recycling & Waste - Aurora

(Total Truckloads • Roundtrip Distance • Fuel Cost) + (Total Truckloads • Round Trip Time • Trucking Cost) = Total Trucking Cost to Transfer Station

Total = $ 2,093.44

Salvage Values

Salvage Value Not Included

Racking Disposal Cost

1S. Racking Disposal Cost

The racking can be disposed of at the Transfer Station. They will be trucked to Groot Recycling & Waste - Aurora.

(Total Racking Weight)/2000 • Cost per Ton of disposal =

Total = $ 32,831.25

Panel Disposal

2S. Solar Panel Disposal Cost

The panels can be disposed of at facilities which except electronics. They will be trucked to Groot Recycling & Waste - Aurora.

(Total Panel Weight)/2000 • Cost per Ton of disposal =

Total = $ 60,255.00

Summary of Decommissioning Costs and Salvage Values

Line Item	Task	Cost
1	Module Removal	$ 7,810.83
2	Rack Wiring Removal	$ 1,952.71
3	Rack Dismantling	$ 5,858.18
4	Electrical Equipment Loading and Removal	$ 2,680.20
5	Break Up Concrete Pads	$ 1,221.77
6	Load Racks	$ 23,120.99
7	Electrical Wiring Removal	$ 4,064.97
8	Foundation Pile Removal	$ 26,505.02
9	Fence Removal	$ 23,464.96
10	Power Pole Removal	$ 7,500.00
11	Gravel Road Reclamation	$ 55,253.21
12	Seed Disturbed Areas	$ 4,985.06
13	Trucking to Transfer Station	$ 2,093.44
	Subtotal =	$ 166,511.35

Additional Item	Task	Value
Salvage Values Not Included		
1S	Racking Disposal Cost	$ 32,831.25
2S	Solar Panel Disposal Cost	$ 60,255.00
	Additional Item Subtotal	$ 93,086.25

Present Value Total = $ 255,048.39

Task	Future Value

Inflation

# of Years= 25

Inflation Rate= 2.0%

Total • (1+ Inflation Rate)^Number of Years =Grand Total

Grand Total = $ 425,897.37

Agricultural Impact Mitigation Agreement

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT
between
Ament Solar 1, 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).

Ament Solar 1, LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 4.99MW Commercial Solar Energy Facility in Kendall County [GPS Coordinates: 41.591540, -88.443737], 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 Ament Solar 1, 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

[redacted]

By: Jerry Costello II, Director

[redacted]

By Clay Nordsiek, Deputy General Counsel

801 E. Sangamon Avenue,
State Fairgrounds, POB 19281
Springfield, IL 62794-9281

7/19, 2024

Ament Solar 1, LLC

[redacted]

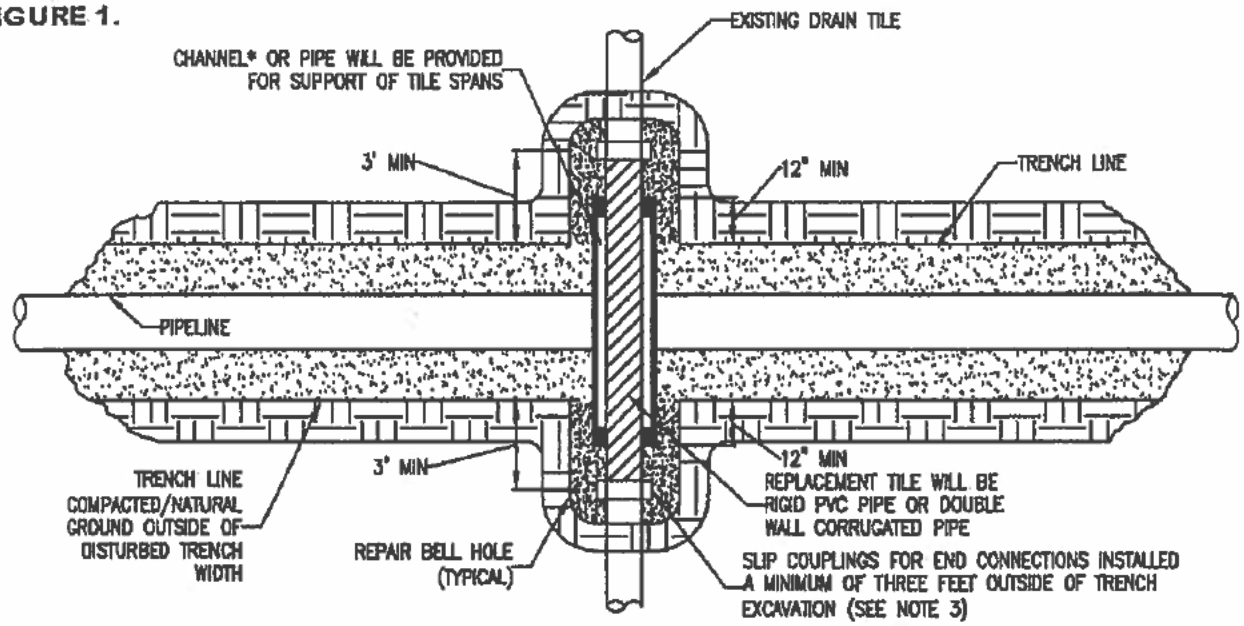
By Nicholas Bellone

[redacted]

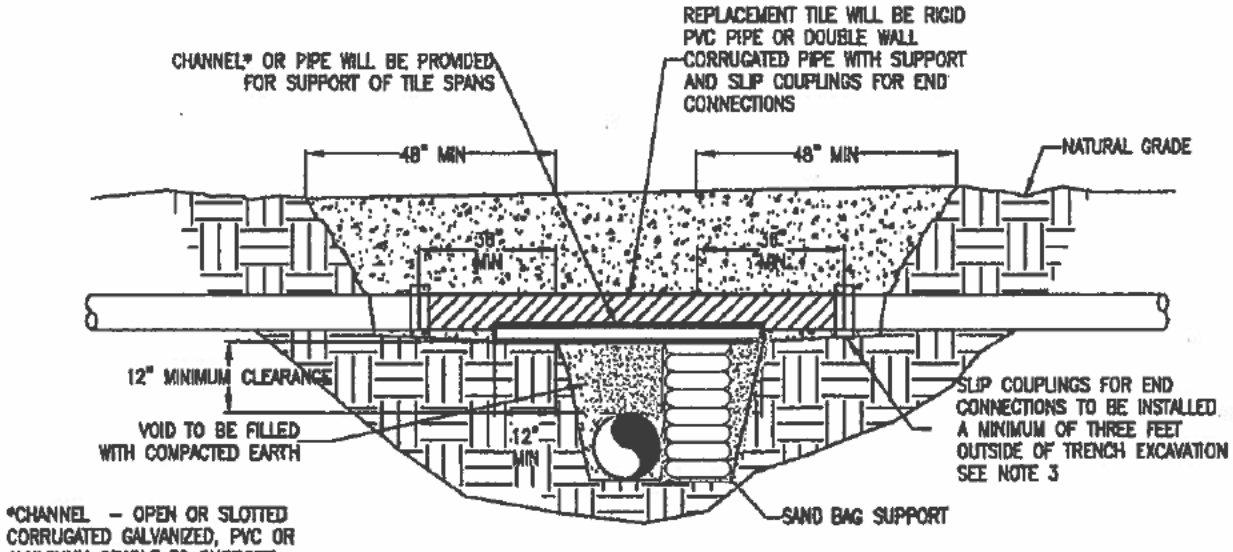
Address

July 16, 2024

FIGURE 1.



PLAN
N.T.S.



*CHANNEL – OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

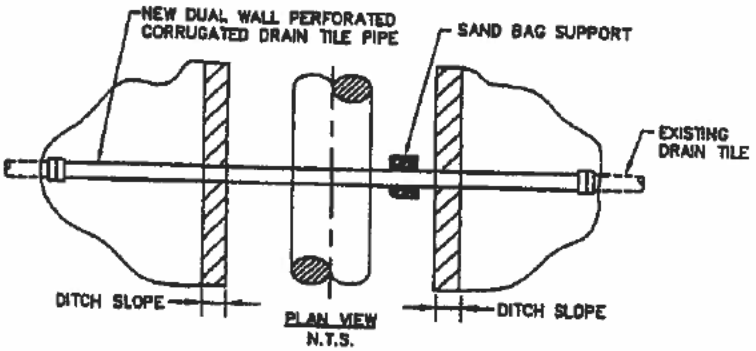
CROSS SECTION
N.T.S.

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.

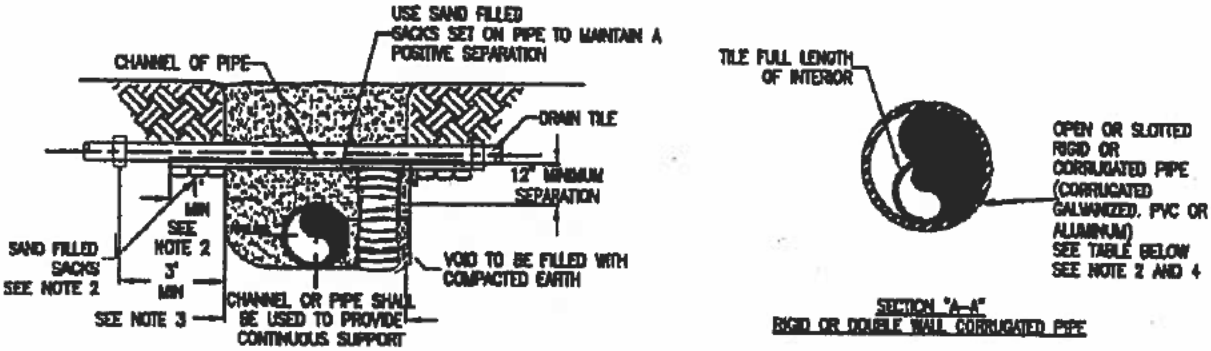
TEMPORARY DRAIN TILE REPAIR

FIGURE 2.



PLAN VIEW
N.T.S.

PLAN VIEW



SECTION "A-A"
RIGID OR DOUBLE WALL CORRUGATED PIPE

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

November 15, 2024

Mr. Matt Asselmeier
Kendall County Planning, Building, & Zoning
111 West Fox Street
Yorkville, IL 60560-1498

Subject: 1000 Ament Road – Solar Farm WBK Project 19-102.CI

Dear Mr. Asselmeier:

We have received and reviewed the following information for the subject project:

- Stormwater/ Drainage Memorandum prepared by Atwell, LLC. dated September 27, 2024 and received November 11, 2024.
- Project Narrative Prepared by Atwell, LLC. Dated September 12, 2024 and received November 11, 2024.
- Water Resources Delineation Report Prepared by Encap Inc. Dated July 13, 2023 and June 18, 2024 both received November 11, 2024.
- ALTA/NSPS Land Title Survey Prepared by Atwell, LLC. Dated October 17, 2024 and received November 11, 2024.
- Engineering Plans (Special Use Permit Set) Prepared by Atwell, LLC. Dated October 17, 2024, and received November 11, 2024.
- Management and Monitoring Specifications & Guidelines, Prepared by Encap Inc. dated October 17, 2024, and received November 11, 2024.
- Drain Tile Information, Prepared by Huddleston McBride Professional Land Drainage Services, dated October 17, 2024, and received November 11, 2024.

The following comments require resolution prior to our recommendation for approval of plans and stormwater permit.

General Comments

1. Please utilize the attached Kendall County Stormwater Permit Application form to present the information required by Section 16-174.C.1 where applicable.
2. Per requirement in Section 16-174.C.1 please provide copies of all other related permits or permit applications by other jurisdictions or agencies. Wetlands are noted on site and although it appears avoidance is the approach, the consultant recommendations indicate coordinate with USACE for concurrence and clearance to proceed. Provide correspondence with USACE regarding this project. Excerpts noted hereafter:

RECOMMENDATIONS

One farmed wetland totaling 0.08 acres was identified on the project area. The boundary of Farmed Wetland 1 was not field staked by ENCAP, Inc. Farmed wetland boundaries must be scaled from the attached aerial photograph (Exhibit G) onto the property boundary survey.

The U.S. Army Corps of Engineers has the final authority in determining the jurisdictional status of the wetland identified on site. ENCAP, Inc. recommends that a request for jurisdictional determination be sent to the U.S. Army Corps of Engineers as soon as possible. An Approved Jurisdictional Determination may take between 3-6 months to receive from the USACE offices.

If wetlands can be completely avoided by project development, a Letter of No Objection (LONO) / No Permit Required may be obtained from the USACE in lieu of an Approved Jurisdictional Determination. A LONO/No Permit Required letter may take between 2-3 months to receive from the USACE offices.

RECOMMENDATIONS

Two wetlands totaling approximately 0.55 acres were identified on the project area. The boundaries of Farmed Wetland 1 were not field staked by ENCAP, Inc. Farmed wetland boundaries must be scaled from the attached aerial photograph (Exhibit G) onto the property boundary survey.

The U.S. Army Corps of Engineers has the final authority in determining the jurisdictional status of the wetlands and water resources identified on site. In the past, projects have been able to apply to the USACE for a jurisdictional determination (JD) to find out which governing body regulates the wetlands on site. JD's, however, have been deprioritized and are being discouraged by the USACE Chicago District. In lieu of a JD, which can take over a year to be processed, if wetlands can be completely avoided by project development, a No Permit Required (NPR) may be obtained from the USACE. A No Permit Required letter may take between 2-5 months to receive from the USACE offices.

Stormwater Report Comments

1. Based on existing topography it appears site disturbance is routed in various directions and not to a single location or outfall. Evaluating the entire site as one drainage area is not representative of proposed conditions.
2. Identify all existing site outfalls based on the full extent of proposed disturbance.
3. Site runoff storage is required for new impervious surfaces greater than 32,000 sf. The project appears to exceed this amount and will require plan revisions to include stormwater storage, decrease impervious surfaces or other measures to mitigate impacts.
4. Identify any off-site flows tributary to the project site and particularly crossing the gravel roadway and parking areas.

Erosion Control Comments

1. Please include the following information on Sheet C0.0 in the Erosion and Sediment Control Measures Notes.
    - The plan shall provide a description of the nature of the construction activity, the name of the receiving waters, an estimate of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading or other activities.

- Description of all off-site tributary areas that will cause runoff and the potential to cause sediment flow on to the project site and or within the project limits. The extent of off-site area, nature of land use and off-site land cover shall be identified."
- Description of dust control measures.

2. Sheet C-3.0: Please include drainage pattern arrows and locations of site outfalls. It is noted that these will be existing drainage patterns to be maintained.
3. The specifications and notes both indicate instances where erosion control blanket is required. Please confirm erosion control blanket is not proposed. If erosion control blanket is to be provided, please note this in the landscape plan (Sheet C-5.0) and provide the associated detail (Sheet C-4.0).
4. Sheet C-3.0: The concrete washout basin appears to be located outside of the silt fence. Please relocate or confirm in the call out that the concrete washout basin shall be located within the silt fence.

Engineering Plans

1. Identify the entity for post-construction maintenance. The entity responsible for maintenance appears to be mentioned for erosion control but not post-construction maintenance. (Sheet C-5.1).
2. Please depict the drain tiles included in Attachment 9 within the plan sheets.
3. Provide a drain tile repair detail on the plan sheets.

The applicant's design professionals are responsible for performing and checking all design computations, dimensions, details, and specifications in accordance with all applicable codes and regulations, and obtaining all permits necessary to complete this work. In no way does this review relieve applicant's design professionals of their duties to comply with the law and any applicable codes and regulations, nor does it relieve the Contractors in any way from their sole responsibility for the quality and workmanship of the work and for strict compliance with the permitted plans and specifications.

If you have any questions or comments, please contact us at (630) 443-7755.

Sincerely,

[redacted]

Greg Chismark PE
WBK Engineering, LLC

STORMWATER MANAGEMENT PERMIT

PERMIT APPLICATION #_____

Conformance with all Federal, State, and County Regulations is required. Applicants are encouraged to read the Stormwater Management Division of the Kendall County Code and consider a pre-application meeting with Department staff prior to submittal. See attached highlights of regulations.

Property: Name_____

Owner Address_____

Phone_____

Agent: Name_____

Address_____

Phone_____

Site: Address or Location_____

Tax Parcel #_____

Zoning/Land Use/Acres_____

Proposed Development:

Attachments: Plat_____ Construction Plans_____

Soils_____ Landscaping_____

Grading_____ Phasing_____

Other_____

Fees $_____ Processing Fee ($50.00)

$_____ Engineering Review Deposit ($2,500.00 *or* 2% of estimated cost of the proposed improvements, whichever is greater. A $3,500.00 Construction Inspection Services Fee and General Consultation Fee Might Be Required as the Project Progresses)

TOTAL $ _____ One check is acceptable made out to the Kendall County Treasurer

Staff will contact Applicant regarding schedule and reviews.

I hereby certify that the information on this application, on the documents attached, and on other submittals made during the review process is true and correct; that I am authorized to file this application; and that I agree to conform to all requirements set forth by the County and all conditions of the Kendall County Code related to stormwater management. I understand that by signing this form, that the property in question may be visited by County Staff and County Engineers throughout the permit and construction process. I also understand that I am responsible for all costs associated with this application. The applicant attests that they are free of debt or current on all debts owed to Kendall County as of the application date.

Owner's Signature (Including Middle Initial)_____ Date_____

Agent's Signature (Including Middle Initial)_____ Date_____

Kendall County Planning, Building, & Zoning Department
111 West Fox Street, Room 203
Yorkville, Illinois 60560
Phone: (630) 553-4139, Fax (630) 553-4179
www.kendallcountyil.gov

DEPARTMENT OF PLANNING, BUILDING & ZONING
111 West Fox Street • Yorkville, IL • 60560
(630) 553-4141 Fax (630) 553-4179

ENGINEERING CONSULTANT FEES

I, _____ understand that Kendall County uses the services of a
Applicant Name

consultant for engineering reviews and inspections and that I will be responsible for payment of services on _____ project. I authorize the consulting
Project Name

services to proceed.

☐ IF THIS IS ***NOT*** PART OF A BUILDING PERMIT APPLICATION, PLEASE CHECK THE BOX AND COMPLETE THIS SECTION:

I hereby submit a deposit of _____ payable to the **Kendall County Treasurer**
$ Amount

to be used by Kendall County to reimburse consultant for charges invoiced for work done in the review, approval and inspection of the proposed improvements.

I understand that if the deposit is depleted that I may be required to replenish the deposit to have work proceed.

I further understand that Kendall County will not issue a Building Permit or a Certificate of Occupancy as the case may be until I provide payment or proof of payment for the engineering services.

Signature of Applicant:_____ Date: _____

STORMWATER MANAGEMENT REVIEW – ENGINEERING

Kendall County requires the engineering review of "development" to determine compliance with County regulations including the following portions of the Kendall County Code:

- Countywide Stormwater Ordinance (Includes Soil Erosion Control & Floodplain Protection)
- Subdivision Control Ordinance
- Zoning Ordinance

These portions of the Kendall County Code can be viewed online at https://library.municode.com/il/kendall_county/codes/code_of_ordinances or purchased at the Planning, Building, and Zoning Office. For further information, please contact PBZ Staff.

Development is broadly defined as any activity that has potential for adverse effect on adjacent properties due to changes in stormwater runoff. A permit may be needed for some activities that do not require a land use, subdivision or zoning petition. Please check with the County Planning Building & Zoning Office (630-553-4139) prior to any significant grading or filling on your property.

The consulting firm of WBK Engineering assists the County with the review of engineering plans submitted by developers. WBK is a multi-disciplinary, full-service civil and environmental engineering and consulting firm. Their Project Manager assigned to Kendall County is:

Greg Chismark, P.E.
WBK Engineering
116 West Main Street, Suite 201
St. Charles, IL 60174
Phone: 630-443-7755
Email: GChismark@bodwegroup.com

WBK charges fees for their review and consultation services. The applicant/developer will be expected to open an escrow account with Kendall County at the time of application. WBK's fees are in addition to the application fee charged by the County. Fees vary by project considering each project has different potential impacts and each development plan is different. If there is any question on fees, please contact the County Planning, Building, and Zoning Office (630-553-4139).

HIGHLIGHTS OF STORMWATER MANAGEMENT REGULATIONS

AUTHORITY: The County has statutory authority to regulate stormwater management and governing the location, width, course, and release rate of all stormwater runoff channels, streams and basins in the County.
OBJECTIVES: To protect upstream and downstream land owners from adverse impact of development activities. These impacts relate to stormwater quantity (flooding), soil erosion control, and floodplain and wetland protection.
EXEMPTIONS & LIMITATIONS: Most farming activities outside the floodplain and wetlands are exempt from the regulation. A farming activity that results in a total of more than 43,560 square feet of impervious surfaces (old & new) will require a permit. Many projects, such as ponds, berms, shore stabilization where more than 43,500 square feet of ground is disturbed or three feet of fill is placed, require a Stormwater Management Permit. Some exceptions include driveways, some swimming pools, utilities, and public roadway projects.
PROCEDURES: The owner should do their best to read and understand the requirements of the regulations prior to contacting the County and preparing an application. If the project involves impacts to floodplain or wetlands, it may be necessary to seek guidance from a design professional. We encourage early communication to help determine permit requirements. A pre-application meeting is encouraged. In order for the meeting to be as productive as possible, we recommend you bring a draft application, the engineering consultants fee deposit form, along with **two** copies of a concept grading plans that includes at a minimum, a location map, the extent of disturbance and a description of the change in ground elevation proposed. We recommend the applicant utilize the County GIS data in preparing initial project concepts. County Staff and WBK will determine if additional data is needed and whether other agency permits/consultation is required.

DEPARTMENT OF PLANNING, BUILDING & ZONING
111 West Fox Street • Room 203
Yorkville, IL • 60560
Phone (630) 553-4139 Fax (630) 553-4179

STORMWATER MANAGEMENT PERMIT

IF YOUR PROJECT...	THEN YOU NEED A STORMWATER MANAGEMENT PERMIT
☐	Any development or a substantial improvement located in the regulatory floodplain or wetland or there is a regulatory floodplain or wetland within the property boundary.
☐	Any land disturbing activity to be performed in a water course or water body or crossing a water course or waterbody.
☐	Any fill that will exceed three (3) feet in vertical height at its highest point measured from the natural ground surface.
☐	Any land disturbing activity requiring a site runoff storage facility (stormwater detention).
☐	Any development that disturbs more than 43,500 square feet of ground cover, **unless** the development solely involves one or more of the following: a. Installation, renovation, or replacement of a septic system, potable water service line, or other utility to serve an existing structure b. Maintenance, repair, or at grade replacement of: Existing lawn, Garden or cultivated areas or Residential Driveway c. Maintenance of an existing stormwater facility, not requiring other state or federal permits or approvals d. Excavation below final grade for tanks, vaults, tunnels, swimming pools, cellars, or for basements and/or footings of a single-family residence and appurtenant structures on a site that is part of an engineered and final platted subdivision or for which a building permit has been issued by the permitting authority, unless the site would otherwise require a Stormwater Management Permit e. Public roadway or bridge projects; consisting of improvement to an existing public roadway or public bridge sponsored by a public roadway agency and contracted as a public bid project

The following activities shall be EXEMPT and shall not require a stormwater management permit:

•	Tilling of soil for fire protection purposes
•	Engaging in the following only if in connection with a farming or other agricultural or conservation enterprise, purpose, or use and only if there is no placement of fill within a floodplain: a. Construction of sod waterways b. Construction of terraces c. Construction of surface water diversions (but not across watershed boundaries) d. Construction of grade stabilization berms or systems e. Tilling of the soil f. The implementation of conservation measures included in a farm conservation plan approved by the Kendall County Soil and Water Conservation District
•	Agricultural use of land and development on un-platted residentially zoned property larger than three acres provided the total impervious area is less than or equal to 43,560 square feet and no structure(s) or any substantial improvement to a building is within a floodplain

ALL DEVELOPMENT SHALL SECURE ALL FEDERAL, STATE, REGIONAL AND LOCAL APPROVALS, INCLUDING, WITHOUT LIMITATION, AN IDNR-OWR FLOODWAY/FLOODPLAIN CONSTRUCTION PERMIT, A USACOE PERMIT AND AN IDNR-OWR DAM SAFETY PERMIT IF REQUIRED, MEETING ALL FEDERAL, STATE, REGIONAL AND LOCAL APPROVALS PRIOR TO THE ISSUANCE OF A STORMWATER MANAGEMENT PERMIT FOR PROPOSED WORK AND AREAS OF A SITE REQUIRING SUCH OTHER APPROVALS.

Table 16-174 Required Submittals (Refer to Sections Listed for Specific Material)

	Section Number/ Description						
	16-174(c)	16-174(d)	16-174(e)	16-174(f)	16-174(g)	16-174(h)	16-174(i)
	Application & Project Overview Plan	Erosion Control Plan Set Submittal	Engineering Plan Set Submittal	Stormwater Submittal	Floodplain Submittal	Performance Security	Maintenance Schedule & Funding
All Development Requiring a Permit	X	X					X
All Development Requiring Detention/Retention	X	X	X	X		X	X
All Development Requiring a Permit > 20 acres	X	X	X	X		X	X
All Developments on Sites with Floodplains	X	X	X		X	X	X
All Applications Requesting Variances	X	X	X	X	If on site	X	X

Matt Asselmeier

From: Nicholas Bellone <nbellone@newleafenergy.com>
Sent: Friday, December 6, 2024 12:04 PM
To: Steve Grebner
Cc: Matt Asselmeier; Tom Ryan; Steve Gengler; Cathy Scalise; Doug Westphal; jakecoopfarms[redacted] Don Hirsch; Carolyn Pottinger; Timothy Karales; Doug Thanepohn; bjandersonfarms[redacted] mikehomerding[redacted] mbsweeney919[redacted] Nick Standiford
Subject: [External]Re: Position of Kendall Township on the proposed Ament Road Solar Farm 1 LLC Special Use Permit Request 24-30
Attachments: Beecher Road 500' Abutters List.pdf; 16400 Newark Road 500' Abutters List.pdf

CAUTION - This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hey Steve,

Attached are 500' abutters list for the two projects that we have had approved in Kendall County. The map showing these properties within the 500' is included in each pdf for reference. We do not have contact information for abutters other than the addresses that we send notice letters to. Please let me know if you need anything else for this request.

Have a great weekend!
Nick

Nicholas Bellone
Civil Project Engineer I

nbellone@newleafenergy.com Cell[redacted]

On Tue, Dec 3, 2024 at 4:28 PM Steve Grebner <sgrebner@kendalltwp.com> wrote:
Thank you, Nick, for your response. We will be sure to read your extensive reply. I would like to request, as you offered, a list of the non participating land owners
of your previous projects. While they are public record, I would like to ask you to provide that list.

> ***"The contact information of non-participating parcels surrounding previous New Leaf Energy projects is publicly available. New Leaf Energy can supply information pertaining to previous projects if needed. New Leaf representatives are available to answer questions about their projects at the upcoming meetings."***

Also I do appreciate your decision to hold any votes on this matter until January and your offer to attend our next round of Township Meetings.

Regards,
Steve Grebner, Clerk Kendall Township

From: Nicholas Bellone <nbellone@newleafenergy.com>,
Sent: Tuesday, December 3, 2024 2:38 PM
To: Steve Grebner <sgrebner@kendalltwp.com>
Cc: masselmeier@kendallcountyil.gov <masselmeier@kendallcountyil.gov>; Tom Ryan <tryan@newleafenergy.com>; Steve Gengler <sgengler@kendalltwp.com>; Cathy Scalise <cscalise@kendalltwp.com>; Doug Westphal <dwestphal@kendalltwp.com>; jakecoopfarm[redacted] <jakecoopfarms[redacted]>; Don Hirsch <dhirsch@kendalltwp.com>; Carolyn Pottinger <cpottinger@kendalltwp.com>; Timothy Karales <tkarales@kendalltwp.com>; Doug Thanepohn <dthanepohn@kendalltwp.com>; bjandersonfarms[redacted] <bjandersonfarms[redacted]>; mikehomerdin[redacted] <mikehomerding[redacted]>; mbsweeney[redacted] <mbsweene[redacted]>; Nick Standiford <nstandiford@schainbanks.com>
Subject: Re: Position of Kendall Township on the proposed Ament Road Solar Farm 1 LLC Special Use Permit Request 24-30

Good Afternoon,

In response to the email sent by the Kendall Township Board, New Leaf has put together the attached memo to help address the concerns. We are happy to be put on the next township agenda for December 16th and 17th to go over these concerns and our solutions. In the meantime feel free to reach out with any additional questions or comments.

It is important to us that the Township's concerns are addressed prior to attending the hearings at the county level. With that said, we would like to request a continuance on our Kendall County hearing dates (RPC: Dec. 11th & ZBA: Dec. 16th) to the following month (RPC: Jan. 22nd & ZBA : Jan. 27th) in hopes that these have been resolved.

Thank you,
Nick

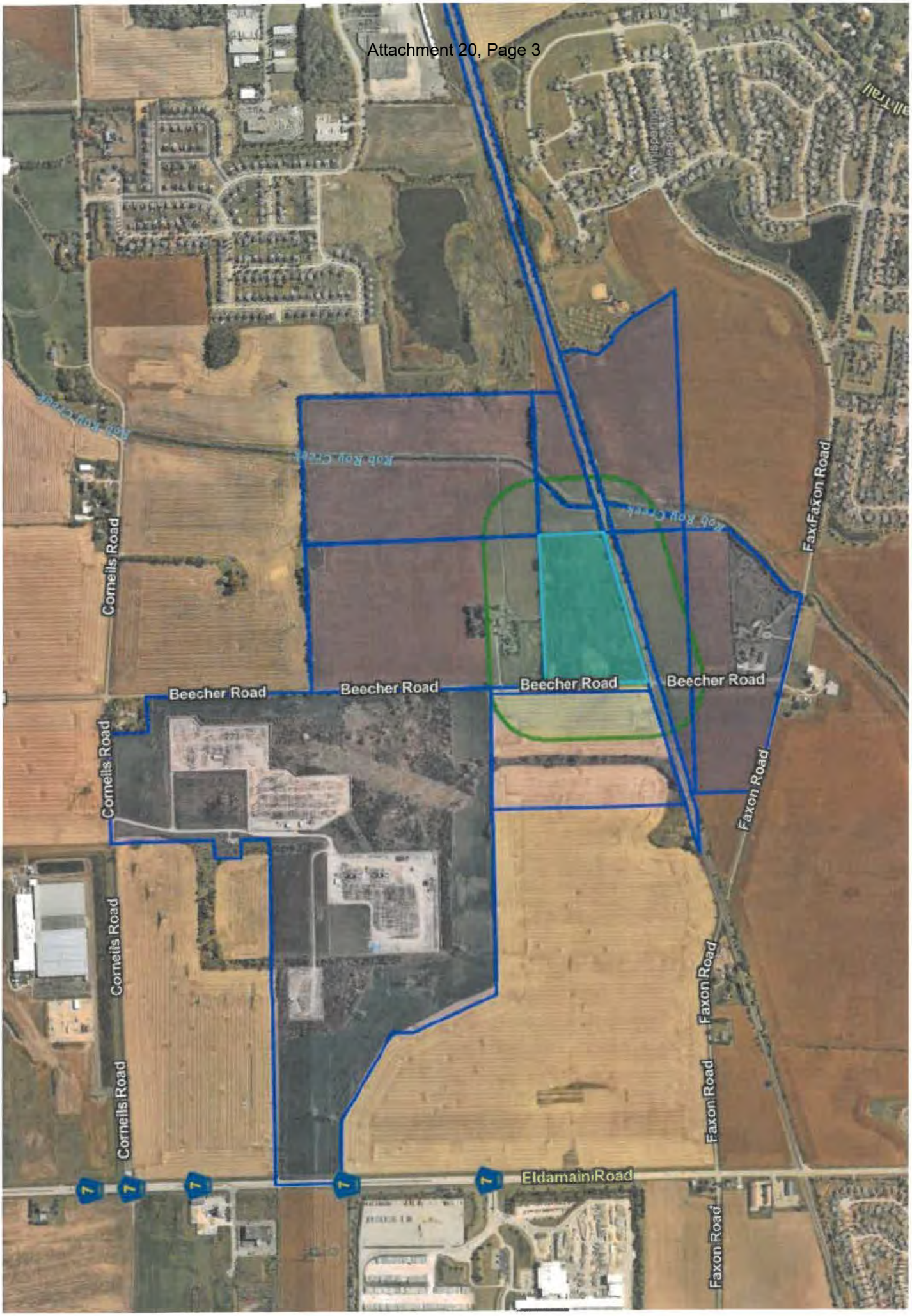
Nicholas Bellone
Civil Project Engineer I

nbellone@newleafenergy.com Cell: 401.644.6824

On Fri, Nov 22, 2024 at 2:01 PM Steve Grebner <sgrebner@kendalltwp.com> wrote:

ATTN: Kendall County Zoning Board et. al

Please note that on Monday November 18th the Kendall Township Planning Commission entertained New Leaf Energy Representatives to present the *AMENT ROAD SOLAR FARM 1 LLC* Project. While the individuals were forthcoming and answered the questions to the best of their ability, there were some major concerns. These concerns are addressed in the recommendations below:


Rob Roy Creek
Cornells Road
Beecher Road
Beecher Road
Beecher Road
Beecher Road
Faxon Road
Faxon Road
Cornells Road
Cornells Road
Cornells Road
Faxon Road
Faxon Road
Faxon Road
Eldamain Road

ROBERT M ILDEFONSA LIV TRUST LOFTUS
[redacted]

JYJ LLC
[redacted]

ROBERT M ILDEFONSA LIV TRUST LOFTUS
[redacted]

ROBERT M ILDEFONSA LIV TRUST LOFTUS
[redacted]

C1 YORKVILLE LLC
[redacted]

Beecher Road Solar, approved by the City of Yorkville in 2023 and building permit is nearing completion

COMMONWEALTH EDISON
[redacted]

ROBERT M ILDEFONSA LIV TRUST LOFTUS
[redacted]

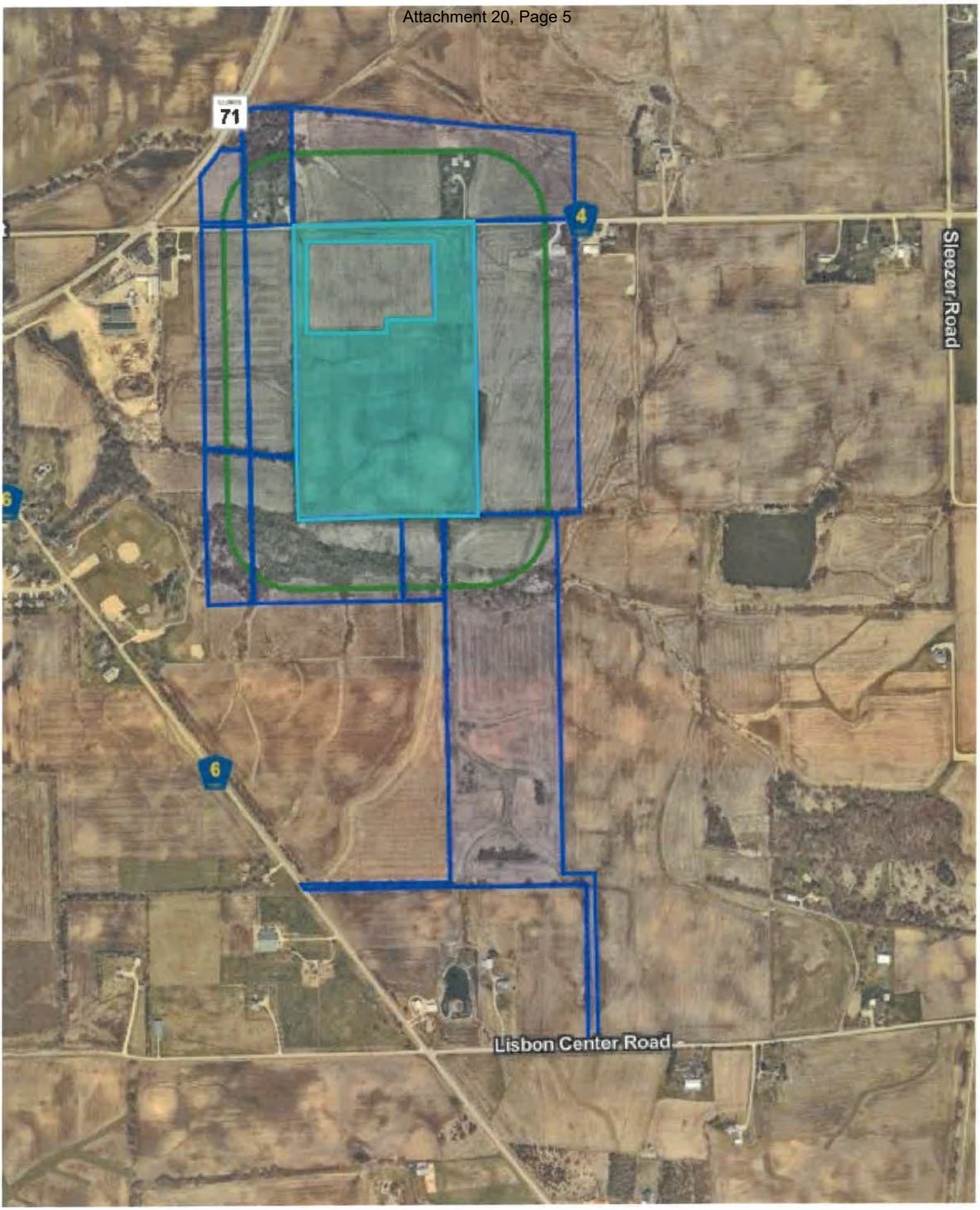
BN&SF RAILWAY CO
PROPERTY TAX DEPARTMENT
[redacted]

YORKVILLE MEADOWS LLC
C/O SHERRIE CHIOU
[redacted]

JYJ LLC
[redacted]

SCOTT D PAPENDICK
[redacted]

BN&SF RAILWAY CO
PROPERTY TAX DEPARTMENT
[redacted]


71
4
6
6
Sleezer Road
Lisbon Center Road

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

NEWARK ROAD KENDALL SOLAR 1 LLC
[redacted]

MARTIN H MYRE JR
[redacted]

NANCY L HARAZIN
[redacted]

KENDALL COUNTY FOREST PRESERVE 1
[redacted]

MARTIN H JR MYRE
[redacted]

Newark Road Solar, permitted by Borrego Solar and approved by Kendall County in 2018 and is nearing construction

MENTOR LLESHI
[redacted]

SHARP HOLDINGS LLC
[redacted]

DANA FRIESTAD
[redacted]

ROBERT ANDREA MCBROOM
[redacted]

THOMAS O MARY L BROMELAND
[redacted]

DANA J LAURIE M FRIESTAD
[redacted]

KENDALL COUNTY FOREST PRESERVE 1
[redacted]

Matt Asselmeier

From: Steve Grebner <sgrebner@kendalltwp.com>
Sent: Tuesday, December 17, 2024 9:01 AM
To: Matt Asselmeier
Cc: Steve Gengler; jakecoopfarms[redacted]
Subject: RE: [External]Re: Position of Kendall Township on the proposed Ament Road Solar Farm 1 LLC Special Use Permit Request 24-30

Hi Matt,
We do not have any action on our agenda for a vote on this at tonight's meeting as the zoning commission had some additional questions for The New Leaf Reps and a good discussion regarding clarification of some points occurred. The New Leaf Reps were going to get back to us with some additional information so it was decided the zoning commission would not change their position regarding the recommendation of conditional approval of the SUP. The whole Township board has a full agenda this evening and given we will have our January monthly meeting before the County Zoning meeting and we will await that additional information from New Leaf Reps and assuming we receive that, the board will plan on making that decision at the January meeting and provide that result at that time.

Both the Zoning Commission and the Township board of trustees are taking their responsibility to represent the electors of Kendall Township very seriously as the long term impact of this project is one that will be around well after many of us.

Regards,
Steve Grebner, Clerk

On Dec 17, 2024 8:34 AM, Matt Asselmeier <masselmeier@kendallcountyil.gov> wrote:

> Steve:
>
> How did it go last night?
>
> Will the Township Board take any action tonight?
>
> Thanks,
>
> Matthew H. Asselmeier, AICP, CFM
>
> Director

Matt Asselmeier

From: Sara Mendez <smendez@yorkville.il.us>
Sent: Thursday, January 9, 2025 9:26 AM
To: Matt Asselmeier
Cc: Krysti Barksdale-Noble; bolson@yorkville.il.us
Subject: RE: [External]EDC: Kendall County Petition 24-30 (1.5 Mile Review)

Good morning Matt,

Both EDC and PZC had no issues with the proposal. They recommended to permit the solar farm and variance.

All the best,

Sara Mendez
(she/her)
Planner I
United City of Yorkville
651 Prairie Pointe Drive
Yorkville, Illinois 60560
(630) 553-8555
(630) 450-1304
www.yorkville.il.us

From: Matt Asselmeier <masselmeier@kendallcountyil.gov>
Sent: Thursday, January 9, 2025 8:05 AM
To: Sara Mendez <smendez@yorkville.il.us>
Cc: Krysti Barksdale-Noble <knoble@yorkville.il.us>; Bart Olson <BOlson@yorkville.il.us>
Subject: RE: [External]EDC: Kendall County Petition 24-30 (1.5 Mile Review)

Sara:

Did either the EDC or the PZC have any comments regarding this proposal?

What were their recommendations?

Thanks,

Matthew H. Asselmeier, AICP, CFM
Director
Kendall County Planning, Building & Zoning
111 West Fox Street
Yorkville, IL 60560-1498
PH: 630-553-4139
Fax: 630-553-4179

From: Sara Mendez <smendez@yorkville.il.us>
Sent: Thursday, January 2, 2025 5:38 PM

KENDALL COUNTY
REGIONAL PLANNING COMMISSION

Kendall County Office Building
Rooms 209 and 210
111 W. Fox Street, Yorkville, Illinois

Unapproved - Meeting Minutes of December 11, 2024 - 7:00 p.m.

Chairman Bill Ashton called the meeting to order at 7:00 p.m.

ROLL CALL

Members Present: Bill Ashton, Eric Bernacki, Tom Casey, Dave Hamman, Keith Landovitz, Karin McCarthy-Lange, Ruben Rodriguez, Bob Stewart, and Claire Wilson
Members Absent: Seth Wormley
Staff Present: Matthew H. Asselmeier, Director, and Wanda A. Rolf, Office Assistant
Others Present: Tom Ryan, Juan Hernandez, and Tom Ryan

PETITIONS

Petition 24-30 Nicholas S. Bellone on Behalf of Ament Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)

Mr. Asselmeier summarized the request.

In October 2024, the County received an application for a special use permit and variance to allow a commercial solar energy facility on the subject property.

When Kendall Township reviewed the proposal in November, the Kendall Township Board had the following concerns:

1. "That it appears specifically and in writing that any fiduciary instrument (i.e. Bond) be attached to the Title and or abstract of the Subject Property presently identified as *AMENT ROAD SOLAR FARM*. In so much as that responsibility will pass to any and all owners until the end of the deconstruction phase of the project.

2. That the concerns expressed above regarding the subsoil drainage issues be specifically addressed in any SUP, and failure to do so will result in a violation of the terms of the agreement and a monetary penalty will be applied.

3. That the concerns regarding the noxious weeds shall be specifically spelled out in the SUP and future agreements."

In an effort to work with Kendall Township, the Petitioner submitted a request for a continuance to the January 2025 Kendall County Regional Planning Commission meeting and the January 2025 Kendall County Zoning Board of Appeals hearing. The Petitioner's cover email and cover letter, not including attachments, were provided.

The next Kendall Township Planning Commission meeting is December 16, 2024, and the next Kendall Township Board meeting is December 17, 2024.

The complete record of this Petition can be found on the County's website at https://www.kendallcountyil.gov/home/showpublisheddocument/31510/638665763806870000.

Member Berancki asked if the three (3) concerns raised by Kendall Township were actionable items. Mr. Asselmeier responded that bonds are set at a specific figure and then if some action occurs that triggers a need to use the funds, the County will draw on the bond to resolve the applicable issue. Regarding a drainage bond, it would be difficult to determine a dollar amount because the condition of the neighboring field tile is unknown, the impacts of the new field tile located on the subject property on the older field on neighboring properties, and if new problems with tiles on neighboring properties are connected with the development of the solar field. When the bonds funds are exhausted, there would be no additional funds. Regarding subsoil drainage issues, the Petitioners have to submit a drainage plan and the drainage plan would be a part of the special use permit. Also, the Petitioners have applied for a stormwater permit. If a violation to either the special use permit or the stormwater portion of the County Code occurs, the property would have to pay applicable fines. Regarding noxious weeds, there will be a requirement in the special use permit that they have to follow all applicable federal, state, and local laws. If they violate the Illinois Noxious Weed Law, they could be fined per the requirements of the State law and they would be in violation of their special use permit and could be fined for violating their special use permit.

Member Bernacki asked about enforcement of drainage issues. Mr. Asselmeier responded that a property owner cannot cause more or less water to go onto neighboring properties under Illinois Drainage Law. Illinois Drainage Law is enforced civilly. The Kendall County Stormwater Management portion of the County Code contains thresholds triggering the need for a County Stormwater Management Permit. It is possible that an activity does not reach the thresholds contained in the County Code. In that case, the matter would be handled civilly.

Member Wilson said the key was to get a large enough bond to cover the costs to remove all of the components of the solar project. Per State law, the salvage value reduces the total bond amount. She questioned the recycling ability of the solar panels. She encouraged her client in another case to hire their own engineer to estimate the decommissioning costs. She favored having a stormwater analysis. Some projects don't start immediately.

The subject property will be leased.

Member Wilson asked about the nearest crossroads. They are Route 47 and Ament Road. The subject property is west of Route 47 on the south side of Ament Road.

Member Rodriguez asked about the lease and a cleanup situation. It was noted that no solar project in Illinois had gone through the entire life cycle of a project. Mr. Asselmeier explained that the County would ask the court for permission to cleanup a site. The County would then take the bond and any costs the bond didn't cover would be liened against the property; it may take several years to redeem the lien.

Member Landovitz asked if the Township's concerns were about the beneficiaries and not the amount of the bond. Mr. Asselmeier responded that he did not believe a bond amount had been determined. The Township wanted to make sure the property owner and any future property owners knew that the bond was there should it need to be used.

No road use agreement has been finalized with Kendall Township.

Tom Ryan, New Leaf Energy, explained how the company calculates decommissioning bonds; they would use independent engineers if needed.

The continuation request is at the Petitioner's request.

Member Bernacki asked if New Leaf Energy had done any other projects in Illinois. Mr. Ryan responded yes, but most are still being processed and built.

Member Wilson asked about the scope the Planning Commission's review of this proposal. Mr. Asselmeier responded that the Commission's primary role is to examine projects in relation to the consistency with the Land Resource Management Plan and then examining projects in relation to the County's regulations.

Member Wilson asked if the Commission could impose conditions because of State law. Mr. Asselmeier responded that State law makes it difficult for the Commission to add new conditions, but the Petitioner may be agreeable to additional conditions. Mr. Ryan said that they would like to make the County happy.

Member Wilson asked about the relationship between Ament Solar 1, LLC and New Leaf Energy. Mr. Ryan said that Ament Solar 1 was created by New Leaf Energy; it would stay effective during operation.

Member Landovitz made a motion, seconded by Member Hamman, to continue the proposal at the Petitioner's request to the January 22, 2025, meeting, which will be held at the Historic Courthouse at 110 W. Madison Street, Yorkville.

Juan Hernandez noted that the road for the solar project will be next to his property. He was wanting to know pros and cons for having this type of development next to his property. The Petitioner has not met with him. Mr. Hernandez was directed to the County website and Kendall Township will be meeting on the proposal the week of December 16th.

With a voice vote of nine (9) ayes, the motion carried.

Steve Gengler, Kendall Township Supervisor, clarified the Township's position regarding the drain tile issues. Once the solar panels are installed, it will be difficult to work on drain tile. The Township is concerned about the impact on drainage of neighboring properties. Member Wilson noted the runoff from the panels; the field has a good slope.

The proposal goes to the Kendall County Regional Planning Commission on January 22, 2025.

CITIZENS TO BE HEARD/PUBLIC COMMENT
None

OTHER BUSINESS/ANNOUNCEMENTS
Mr. Asselmeier reported that the application deadline for the January meeting is December 24, 2024. Petitions 24-30 and 24-35 will be on the agenda.

Member Landovitz appreciated the Staff for updating the ordinance as necessary. Mr. Asselmeier said that the Staff was proposing text amendments reducing the number of plats submitted for certain applications.

Member Wilson suggested only including a summary instead of complete NRI Reports.

ADJOURNMENT
Member Wilson made a motion, seconded by Member Hamman, to adjourn. With a voice vote of nine (9) ayes,

the motion carried.

The Kendall County Regional Planning Commission meeting adjourned at 8:05 p.m.

Respectfully submitted by,
Matthew H. Asselmeier, AICP, CFM, Director

Enc.

KENDALL COUNTY
REGIONAL PLANNING COMMISSION
DECEMBER 11, 2024

IF YOU WOULD LIKE TO BE CONTACTED ON FUTURE MEETINGS REGARDING THIS TOPIC, PLEASE PROVIDE YOUR ADDRESS OR EMAIL ADDRESS

NAME	ADDRESS (OPTIONAL)	EMAIL ADDRESS (OPTIONAL)
Tom Ryan	[redacted]	
Juan Hernandez		
Steve Gengler		

MINUTES – UNOFFICIAL UNTIL APPROVED
KENDALL COUNTY
ZONING BOARD OF APPEALS MEETING
111 WEST FOX STREET, COUNTY BOARD ROOM (ROOMS 209 and 210)
YORKVILLE, IL 60560
December 16, 2024 – 7:00 p.m.

CALL TO ORDER
Chairman Randy Mohr called the Zoning Board of Appeals meeting to order at 7:00 p.m.

ROLL CALL:
Members Present: Scott Cherry, Cliff Fox, Tom LeCuyer, Randy Mohr, Jillian Prodehl, Dick Thompson, and Dick Whitfield
Members Absent: None
Staff Present: Matthew Asselmeier, AICP, CFM, Director and Wanda Rolf, Office Assistant
Others Present: Michael Faulkner and Miranda Marshall-Faulkner

PETITIONS:
The Zoning Board of Appeals started their reviews of Petitions 24-30 and 24-35 and opened the public hearings for both at 7:01 p.m.

Petition 24 – 30 – Nicholas S. Bellone on Behalf of Ament Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)

Request:	Special Use Permit for a Commercial Solar Energy Facility and Variance to Section 36-282(17)(a) of the Kendall County Code to Allow a Commercial Solar Energy Facility on Land within One Point Five (1.5) Miles of Municipality without an Annexation Agreement
PINs:	05-16-300-006 and 05-17-400-005
Location:	South of 9949 and 10021 Ament Road, Yorkville in Kendall Township
Purpose:	Petitioner Would Like to Install a Commercial Solar Energy Facility; Property is Zoned A-1

Petition 24 – 35 – Kendall County Regional Planning Commission

Request:	Text Amendment to the Kendall County Code Amending the Parking Regulations in Front Yard Setbacks
Purpose:	Petitioner Would Like to Allow Parking in the Interior ½ of the Front Yard Setback on Properties Zoned A-1

At the request of the Petitioners, Chairman Mohr stated that Petition 24 – 30 and Petition 24 – 35 will be continued until the January 27, 2025, meeting, at 7:00 p.m., at the Historic Courthouse.

With a voice vote of seven (7) ayes, the motion carried.

The Zoning Board of Appeals completed their reviews and recessed the public hearings for Petition 24-30 and 24-35 at 7:02 p.m.

PUBLIC COMMENTS

Mr. Asselmeier reported that the next application deadline was December 24, 2024. The only petitions, to date, for the January hearing are the solar project on Simons Road and the solar project on Ament Road and the two (2) petitions continued at tonight's meeting.

Michael Faulkner, a property owner in the A-1 district, wanted to speak about Petition 24-35, the parking regulations in the front yard setbacks.

Mr. Asselmeier spoke regarding the issue with the setbacks. It was noted that at their meeting on October 23, 2024, the Kendall County Regional Planning Commission decided to initiate a text amendment to the Kendall County Code allowing parking in the A-1 Zoning District in the interior seventy-five feet (75') from the centerline for properties where the right-of-way was not dedicated and the interior fifty feet (50') from the right-of-way line where a right-of-way existed.

Mr. Faulkner asked why he could not park within the first twenty-five feet (25') of the road if he is a owns property zoned A-1. Mr. Asselmeier stated that Mr. Faulkner is not allowed to count that parking spot as his principal, required parking spot.

Miranda Marshall-Faulkner discussed the situation at 1539 Collins Road regarding the demolition of the house and their concerns about setbacks at the property.

The reasoning behind this proposal was because there was a landscaping business that wanted to have their required parking spaces in the front yard setback and that is against regulation.

Chairman Mohr asked Mr. and Mrs. Faulkner to attend the January 27, 2025, meeting, at 7:00 p.m., at the Historic Courthouse.

Starting in January, the meetings will be in the Historic Courthouse.

ADJOURNMENT OF THE ZONING BOARD OF APPEALS

Member LeCuyer made a motion, seconded by Member Prodehl, to adjourn.

With a voice vote of seven ayes, the motion carried.

The Zoning Board of Appeals meeting adjourned at 7:33 p.m.

The next regularly scheduled meeting/hearing will be on Monday, January 27, 2025, in the Historic Courthouse.

Respectfully submitted by,
Wanda A Rolf
Planning, Building and Zoning Part-Time Administrative Assistant

Exhibits

1. Memo on Petition 24-30 Dated December 12, 2024
2. Certificate of Publication and Green Cards from Mailing for Petition 24-30 (Not Included with Report but on file in Planning, Building and Zoning Office)

DEPARTMENT OF PLANNING, BUILDING & ZONING
111 West Fox Street • Room 204
Yorkville, IL • 60560
(630) 553-4141 Fax (630) 553-4179

MEMORANDUM

To: Kendall County Zoning Board of Appeals
From: Matthew H. Asselmeier, AICP, CFM, Director
Date: December 12, 2024
Re: Proposed Commercial Solar Energy Facility South of 9949 and 10021 Ament Road (PINs: 05-16-300-006 and 05-17-400-005), Yorkville in Kendall Township (Petition 24-30)

In October 2024, the County received an application for a special use permit and variance to allow a commercial solar energy facility on the subject property.

When Kendall Township reviewed the proposal in November, the Kendall Township Board had the following concerns:

1. "That it appears specifically and in writing that any fiduciary instrument (i.e. Bond) be attached to the Title and or abstract of the Subject Property presently identified as *AMENT ROAD SOLAR FARM.* In so much as that responsibility will pass to any and all owners until the end of the deconstruction phase of the project.

2. That the concerns expressed above regarding the subsoil drainage issues be specifically addressed in any SUP, and failure to do so will result in a violation of the terms of the agreement and a monetary penalty will be applied.

3. That the concerns regarding the noxious weeds shall be specifically spelled out in the SUP and future agreements."

In an effort to work with Kendall Township, the Petitioner submitted a request for a continuance to the January 2025 Kendall County Regional Planning Commission meeting and the January 2025 Kendall County Zoning Board of Appeals hearing. The Petitioner's cover email and cover letter, not including attachments, are attached to this memo.

The next Kendall Township Planning Commission meeting is December 16, 2024, and the next Kendall Township Board meeting is December 17, 2024.

The Kendall County Regional Planning Commission met on this proposal on December 11, 2024.

The complete record of this Petition can be found on the County's website at https://www.kendallcountyil.gov/home/showpublisheddocument/31510/638665763806870000.

If you have any questions regarding this memo, please let me know.

MHA

Enc.: December 3, 2024, Email and Letter from Nicholas Bellone and Tom Ryan (Cover Letter and Email Only)

Date: December 23, 2024

To: Greg Chrismark, PE
WBK Engineering

From Nicholas Bellone
Civil Project Engineer
New Leaf Energy

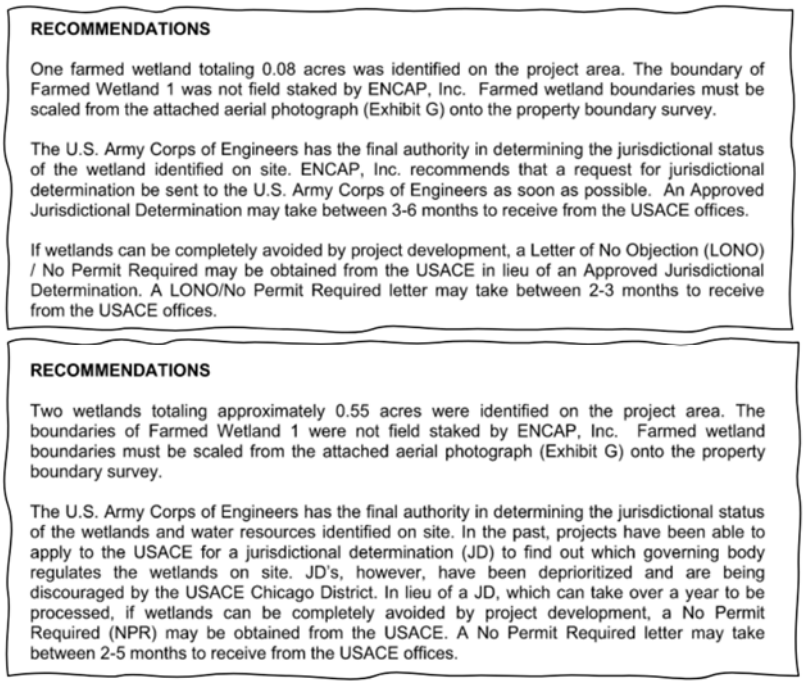
RE: 1000 Ament Road – Solar Farm WBK Project 19-102.CI

New Leaf Energy has reviewed the comments pertaining to the above referenced project, contained in a letter dated November 15, 2024. Our responses are in **bold** and are shown below:

General Comments

1. Please utilize the attached Kendall County Stormwater Permit Application form to present the information required by Section 16-174.C.1 where applicable.
    - **NLE Response: Based on our conversation on Nov. 27th and the updated calculations per your comments we demonstrated detention is not required. Therefore, the Kendall County Stormwater Permit Application form is not applicable.**

2. Per requirement in Section 16-174.C.1 please provide copies of all other related permits or permit applications by other jurisdictions or agencies. Wetlands are noted on site and although it appears avoidance is the approach, the consultant recommendations indicate coordinate with



RECOMMENDATIONS

One farmed wetland totaling 0.08 acres was identified on the project area. The boundary of Farmed Wetland 1 was not field staked by ENCAP, Inc. Farmed wetland boundaries must be scaled from the attached aerial photograph (Exhibit G) onto the property boundary survey.

The U.S. Army Corps of Engineers has the final authority in determining the jurisdictional status of the wetland identified on site. ENCAP, Inc. recommends that a request for jurisdictional determination be sent to the U.S. Army Corps of Engineers as soon as possible. An Approved Jurisdictional Determination may take between 3-6 months to receive from the USACE offices.

If wetlands can be completely avoided by project development, a Letter of No Objection (LONO) / No Permit Required may be obtained from the USACE in lieu of an Approved Jurisdictional Determination. A LONO/No Permit Required letter may take between 2-3 months to receive from the USACE offices.

RECOMMENDATIONS

Two wetlands totaling approximately 0.55 acres were identified on the project area. The boundaries of Farmed Wetland 1 were not field staked by ENCAP, Inc. Farmed wetland boundaries must be scaled from the attached aerial photograph (Exhibit G) onto the property boundary survey.

The U.S. Army Corps of Engineers has the final authority in determining the jurisdictional status of the wetlands and water resources identified on site. In the past, projects have been able to apply to the USACE for a jurisdictional determination (JD) to find out which governing body regulates the wetlands on site. JD's, however, have been deprioritized and are being discouraged by the USACE Chicago District. In lieu of a JD, which can take over a year to be processed, if wetlands can be completely avoided by project development, a No Permit Required (NPR) may be obtained from the USACE. A No Permit Required letter may take between 2-5 months to receive from the USACE offices.

55 Technology Drive, Suite 102
Lowell, MA 01851
newleafenergy.com

USACE for concurrence and clearance to proceed. Provide correspondence with USACE regarding this project. Excerpts noted hereafter:

- **NLE Response: On Dec. 12 we received notice from the USACE that the NPR letter was out on a 10-day review. Once passed through the review, assuming no objections, the letter will be generated and sent out. Once we receive the letter we will forward along for verification on your end.**

Stormwater Report Comments

1. Based on existing topography it appears site disturbance is routed in various directions and not to a single location or outfall. Evaluating the entire site as one drainage area is not representative of proposed conditions.
   - **NLE Response: The Stormwater Management (SWM) Report has been updated to show the different drainage divides. The site still drains to the same general area but the separate divides have been shown and the two outfalls from the site have been identified on the drainage divide plans in Appendix B.**

2. Identify all existing site outfalls based on the full extent of proposed disturbance.
   - **NLE Response: This has been shown in the SWM Report. See the drainage maps in Appendix B.**

3. Site runoff storage is required for new impervious surfaces greater than 32,000 sf. The project appears to exceed this amount and will require plan revisions to include stormwater storage, decrease impervious surfaces or other measures to mitigate impacts.
   - **NLE Response: The site does exceed the threshold for the 32,000 sf. of impervious area; however, detention is not required because the reduction in stormwater runoff is achieved through the use of revising the ground cover to absorb more water and increase the time of concentration from the pre-development site.**

4. Identify any off-site flows tributary to the project site and particularly crossing the gravel roadway and parking areas.
   - **NLE Response: This has been shown in the SWM Report. See Appendix B**

Erosion Control Comments

1. Please include the following information on Sheet C0.0 in the Erosion and Sediment Control Measures Note:
   - The plan shall provide a description of the nature of the construction activity, the name of the receiving waters, an estimate of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading or other activities.
   - Description of all off-site tributary areas that will cause runoff and the potential to cause sediment flow on to the project site and or within the project limits. The extent of off-site area, nature of land use and off-site land cover shall be identified.
   - Description of dust control measures.
   - **NLE Response: The notes on Sheet C-0.0 have been updated with these notes. See Erosion and Sediment Control Measure notes 24, 25 and 26.**

55 Technology Drive, Suite 102
Lowell, MA 01851
newleafenergy.com

2. Sheet C-3.0: Please include drainage pattern arrows and locations of site outfalls. It is noted that these will be existing drainage patterns to be maintained.
    - **NLE Response: These have been added to Sheet C-3.0.**

3. The specifications and notes both indicate instances where erosion control blanket is required. Please confirm erosion control blanket is not proposed. If erosion control blanket is to be provided, please note this in the landscape plan (Sheet C-5.0) and provide the associated detail (Sheet C-4.0).
    - **NLE Response: There are no instances of erosion control blankets needed within the plan set. If during final engineering plans it is determined that erosion control blankets are needed, they will be provided at that time with specification details and locations.**

4. Sheet C-3.0: The concrete washout basin appears to be located outside of the silt fence. Please relocate or confirm in the call out that the concrete washout basin shall be located within the silt fence.
    - **NLE Response: The limits of the silt fence has be relocated around the concrete washout basin.**

Engineering Plans

1. Identify the entity for post-construction maintenance. The entity responsible for maintenance appears to be mentioned for erosion control but not post-construction maintenance. (Sheet C-5.1).
    - **NLE Response: The entity responsible for post-construction maintenance will be determined with the final engineering permit plans.**

2. Please depict the drain tiles included in Attachment 9 within the plan sheets.
    - **NLE Response: The drain tiles in Attachment 9 are from a desktop review performed by Huddleston. A full drain tile survey will be performed if the project receives its Special Use Permit approval. The field surveyed drain tiles will be depicted on the final construction plans.**

3. Provide a drain tile repair detail on the plan sheets
    - **NLE Response: A drain tile repair detail has been added to the detail sheet.**

Please reach out if you have any additional comments or concerns.

Sincerely,

[redacted]

Nicholas Bellone
Civil Project Engineer
New Leaf Energy

55 Technology Drive, Suite 102
Lowell, MA 01851
newleafenergy.com

December 30, 2024

Mr. Matt Asselmeier
Kendall County Planning, Building, & Zoning
111 West Fox Street
Yorkville, IL 60560-1498

Subject: 1000 Ament Road – Solar Farm WBK Project 19-102.CI

Dear Mr. Asselmeier:

We have received and reviewed the following information for the subject project:

- Response Letter prepared by New Leaf Energy dated December 23, 2024 and received December 23, 2024
- Stormwater/ Drainage Memorandum prepared by Atwell, LLC. dated December 19, 2024 and received December 23, 2024.
- Engineering Plans (Special Use Permit Set) prepared by Atwell, LLC. Dated December 19, 2024, and received December 23, 2024.

The following comments require resolution prior to our recommendation for approval of plans and stormwater permit. Prior comments italicized for reference.

General Comments

1. *Please utilize the attached Kendall County Stormwater Permit Application form to present the information required by Section 16-174.C.1 where applicable*. Because the new impervious area exceeds 32,000 sf, stormwater storage is technically required under the ordinance. We understand that the intent of the submittal is to demonstrate compliance with the required release rate based on a change in ground cover and the submittal includes a request for approval of the project without stormwater storage. In this situation the vegetative ground cover becomes the stormwater element that needs to remain functional in lieu of storage and will be the permitted "control" element. Please submit the Kendall County Stormwater Permit Application.
2. *Per requirement in Section 16-174.C.1 please provide copies of all other related permits or permit applications by other jurisdictions or agencies. Wetlands are noted on site and although it appears avoidance is the approach, the consultant recommendations indicate coordinate with USACE for concurrence and clearance to proceed. Provide correspondence with USACE regarding this project.*

Stormwater Report Comments

1. Existing DA 3 flows to a closed depression. It appears this storage volume is not significant relative to the tributary drainage area. However, please identify this existing feature in your stormwater report narrative as well as provide a professional opinion as to the impact this depressional storage has on peak flow rates.
2. It is highly recommended and preferred if proposed impervious areas are managed within the property boundaries and not allowed to drain unmitigated onto adjacent property.

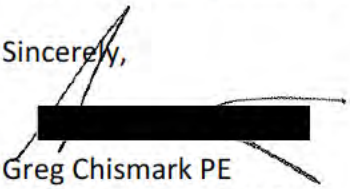
Engineering Plans

1. Pitch the gravel access road to the west and away from adjacent land at a 2% cross slope. As determined necessary, construct a low flow drainage pipe from the low point in DA #1 daylighting south to DA #3. Alternatively, raising the access road profile with a relatively flat overland drainage swale along the west side of the access road appears feasible.
2. Identify the entity for post-construction maintenance. The entity responsible for maintenance appears to be mentioned for erosion control but not post-construction maintenance. (Sheet C-5.1).
3. Please depict drain tiles on final engineering plans and provide a drain tile repair detail on the plan sheets.

The applicant's design professionals are responsible for performing and checking all design computations, dimensions, details, and specifications in accordance with all applicable codes and regulations, and obtaining all permits necessary to complete this work. In no way does this review relieve applicant's design professionals of their duties to comply with the law and any applicable codes and regulations, nor does it relieve the Contractors in any way from their sole responsibility for the quality and workmanship of the work and for strict compliance with the permitted plans and specifications.

If you have any questions or comments, please contact us at (630) 443-7755.

Sincerely,



Greg Chismark PE
WBK Engineering, LLC

Matt Asselmeier

From: Steve Grebner <sgrebner@kendalltwp.com>
Sent: Tuesday, January 21, 2025 10:38 PM
To: Matt Asselmeier
Cc: Steve Gengler
Subject: [External]Petition 24-30 Kendall Township Full Board vote on Petition 24-30

CAUTION - This email originated from outside the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Matt;
At our Monthly meeting on 1/21/2025 the Kendall Township Board of Trustees voted NOT to approve the Petition 24-30. While the township Planning Commission recommended the approval PENDING the approval of the plan by the County Engineer, the Full board was NOT willing to approve the Petition.

So the official position of Kendall Township at this time is NOT to approve the project known as Ament Solar 1 LLC.

Petition 24 – 30 – Nicholas S. Bellone on Behalf of Ament Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner) Special Use Permit for a Commercial Solar Energy Facility and Variance to Section 36 282(17)(a) of the Kendall County Code to Allow a Commercial Solar Energy Facility on Land within One Point Five (1.5) Miles of Municipality without an Annexation Agreement 05-16-300-006 and 05-17-400-005 South of 9949 and 10021 Ament Road, Yorkville in Kendall Township Petitioner Would Like to Install a Commercial Solar Energy Facility; Property is Zoned A 1

Steve Grebner, Clerk Kendall Township
Check out our New Township website by clicking the QR code

KENDALL COUNTY
REGIONAL PLANNING COMMISSION

Kendall County Historic Court House
Court Room
110 W. Madison Street, Yorkville, Illinois

Unapproved - Meeting Minutes of January 22, 2025 - 7:00 p.m.

Chairman Bill Ashton called the meeting to order at 7:03 p.m.

ROLL CALL

Members Present: Bill Ashton, Eric Bernacki, Tom Casey, Dave Hamman, Keith Landovitz, Karin McCarthy-Lange, Ruben Rodriguez, Bob Stewart, Claire Wilson, and Seth Wormley
Members Absent: None
Staff Present: Matthew H. Asselmeier, Director, and Wanda A. Rolf, Office Assistant
Others Present: Steve Grebner, Steve Gengler, Tom Ryan, and Nick Standiford

PETITIONS

Petition 24-30 Nicholas S. Bellone on Behalf of Ament Solar 1, LLC (Tenant) and Janet M. Dhuse on Behalf of the Janet Dhuse Declaration of Family Trust Dated March 1, 2013 (Owner)

Mr. Asselmeier summarized the request.

The Petitioner is seeking a special use permit for a commercial solar energy facility and a variance to Section 36-282(17)a of the Kendall County Code to allow a commercial solar energy facility on land within one point five (1.5) miles of municipality without an annexation agreement.

The application materials, wetland delineation reports (including EcoCat information), NRI Report, property survey, amended site plan, vegetative management plan, decommissioning information, amended stormwater information, drain tile information, glare study, and property value study were provided.

On November 7, 2024, the property owner submitted a letter supporting the project. This letter was provided.

The property is located south of 9949 and 10021 Ament Road.

The total acreage of the two (2) parcels is approximately ninety-three point four (93.4) acres. The disturbed area is approximately forty-two point four (42.4) acres. The fenced area is approximately thirty-five point seven (35.7) acres.

The existing land use is Agricultural.

The County's Future Land Use Map calls for the property to be Rural Residential. Yorkville's Plan calls for the property to be Agricultural.

Ament Road is a Local Road maintained by Kendall Township.

The United City of Yorkville has a trail planned along Ament Road.

There are no floodplains on the property. There are two (2) farmed wetlands in the vicinity of the proposed use.

The adjacent land uses are Agricultural, Farmstead, Public Institutional (Cemetery), and Single-Family Residential.

The adjacent properties are zoned A-1, A-1SU and R-3.

The County's Plan calls for the area to be Rural Residential and Transportation Corridor.

Yorkville Plan calls for the area to be Agricultural.

Properties within one half (1/2) mile are zoned A-1, A-1SU, R-1, R-1 PUD, R-3, RPD-2, and M-1.

The A-1 special use permit to the north is for a cemetery. The A-1 special use permits to the east are for a church and school and for agricultural implement sales and service.

The Deere Crossing subdivision is located near the subject property. Approximately fourteen (14) homes are located within a half mile (0.5) miles of the subject property.

EcoCAT Report was submitted on July 10, 2023, for the eastern parcel and November 16, 2023, for the western parcel and consultation was terminated for both parcels.

A LESA Score was not generated for the property. The land evaluation was 96 out of 100 indicating the soils were well suited for agricultural. The NRI Report was provided.

Petition information was sent to Kendall Township on October 25, 2024. The Kendall Township Planning Commission met on November 18, 2024. The Kendall Township Planning Commission recommended approval of the proposal with the following conditions:

> "The entity will maintain and repair the subsurface drainage throughout the entirety of the lease to be repaired within the timeframe indicated in the special use permit (sup). The entity will commit to, as part of their maintenance schedule, perform a physical inspection of the property to include drain tile observation for damage and necessary repair. The surrounding property owners shall be provided a copy of the existing drain tile survey of subject property as well as any changes made as part of this project.
>
> We would request that there be a subsurface drainage repair bond to ensure there are sufficient funds available for any required repair of materials and labor at the time of agreement. All replacement tile shall equal to or greater than its current flow.
>
> The planning and zoning committee also recommends as part of the comprehensive MONITORING AND MANAGEMENT PLAN AMENT ROAD SOLAR FARM – KENDALL COUNTY (section 1-6) specific attention to the noxious weeds including but not limited to water hemp, and Giant Ragweed."

The Kendall Township Board met on November 19, 2024, and requested that the County layover this proposal until the following items have been addressed to Kendall Township's satisfaction:

1. "That it appears specifically and in writing that any fiduciary instrument (i.e. Bond) be attached to the Title and or abstract of the Subject Property presently identified as *AMENT ROAD SOLAR FARM*. In so much as that responsibility will pass to any and all owners until the end of the deconstruction phase of the project.

2. That the concerns expressed above regarding the subsoil drainage issues be specifically addressed in any SUP, and failure to do so will result in a violation of the terms of the agreement and a monetary penalty will be applied.

3. That the concerns regarding the noxious weeds shall be specifically spelled out in the SUP and future agreements."

An email outlining Kendall Township's position was provided.

On December 3, 2024, the Petitioner submitted a letter responding to Kendall Township's requests and requesting that the proposal be continued to the January Kendall County Regional Planning Commission meeting and the January Zoning Board of Appeals hearing. This letter was provided.

On December 6, 2024, the Petitioner submitted an email to Kendall Township with the addresses of the abutting property owners for other solar projects in Kendall County. This email was provided.

On December 16, 2024, the Kendall Township Planning Commission met and reaffirmed their previous approval recommendation. An email to that effect was provided.

On January 21, 2025, the Kendall Township Board met and voted not to approve the proposal. An email to that effect was provided.

Petition information was sent to the United City of Yorkville on October 25, 2024. Prior to formal application submittal, the United City of Yorkville submitted a letter stating they would not pursue annexation at this time; this was provided. Yorkville also submitted an email requesting a forty foot (40') right-of-way dedication; Kendall Township was agreeable to this request. The emails related to the right-of-way dedication were provided.

The Yorkville Economic Development Committee reviewed the original proposal on January 7, 2025, and the Yorkville Planning and Zoning Committee reviewed the original proposal on January 8, 2025. Both boards recommended approval. An email from Yorkville was provided. The proposal goes to the Yorkville City Council on January 28, 2025.

Petition information was sent to the Bristol-Kendall Fire Protection District on October 25, 2024. No comments received.

ZPAC reviewed the original proposal at their meeting on November 5, 2024. ZPAC voted to forward the proposal to the Kendall County Regional Planning Commission by a vote of seven (7) in favor and zero (0) in opposition with three (3) members absent. The minutes of the meeting were provided.

The Kendall County Regional Planning Commission started their review of the proposal at their meeting on December 11, 2024. Discussion occurred regarding actionable items related to Kendall Township's concerns. Kendall Township's drainage concerns were centered on the impact of the proposal on neighboring property owners. Discussion occurred regarding Illinois Drainage Law and the need to have bonds of sufficient size to cover the complete cost of decommissioning and site cleanup. Discussion occurred regarding the ability of the County to place additional conditions on the special use permit. It was noted that Ament 1, LLC was created by New Leaf Energy. The Kendall County Regional Planning Commission voted to continue the Petition to the

January 22, 2025, meeting at the Petitioner's request by a vote of nine (9) in favor and zero (0) in opposition with one (1) member absent. The minutes were provided.

The Kendall County Zoning Board of Appeals initiated a public hearing on this proposal on December 16, 2024, and voted to continue the Petition to the January 27, 2025, hearing by a vote of seven (7) in favor and zero (0) in opposition. The minutes were provided.

Per § 36-282(17) of the Kendall County Code, commercial solar energy facilities businesses can be special uses on A-1 zoned property subject to the following conditions:

a. All commercial solar energy facilities and test solar energy systems located within one point five (1.5) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property. Petitioner is requesting a variance.

b. The setbacks for commercial solar energy facilities shall be measured from the nearest edge of any component of the facility as follows:

   Occupied Community Buildings or Dwellings on Nonparticipating Properties-One hundred fifty feet (150') from the nearest point on the outside wall of the structure

   Boundary Lines of Participating Properties-None

   Boundary Lines of Nonparticipating Properties- Fifty feet (50') to the nearest point on the property line of the nonparticipating property

   Public Road Rights-Of-Way-Fifty feet (50') from the nearest edge

   The above setbacks do not exempt or excuse compliance with electric facility clearances approved or required by the National Electrical Code, the National Electrical Safety Code, Commerce Commission, Federal Energy Regulatory Commission, and their designees or successors. Per the site plan, the closet nonparticipating structure is approximately one thousand, thirty feet (1,030') to the southeast of the commercial solar energy facility. A church is located approximately one thousand, four hundred thirty-three feet (1,433') to the northeast of the commercial solar energy facility. The perimeter fence is setback fifty feet (50') from the adjoining property line. The commercial solar energy facility is approximately one thousand, four hundred forty-two feet (1,442') from the Ament Road. At their closest points, the panels are approximately forty-nine feet (49') south of the northern fence line, twenty-nine point five feet (29.5) west of the eastern fence line, just under nineteen feet (19') north of the southern fence line, and twenty-one point five feet (21.5') east of the western fence line.

c. A commercial solar energy facility's perimeter shall be enclosed by fencing having a height of at least six feet (6') and no more than twenty-five feet (25'). This is true. Per the site plan, the fence is proposed to be seven feet (7') in height and will be chain link.

d. No component of a solar panel as part of a commercial solar energy facility shall have a height of more than twenty feet (20') above ground when the solar energy facility's arrays are at full tilt. This is true. Per the site plan, the maximum height will be nine feet (9'). The Petitioner does not want a restriction setting the maximum height at this level.

e. The above setback, fencing, and component height requirements may be waived subject to written

consent of the owner of each affected nonparticipating property. This written consent shall be submitted at the time of application submittal. No such consent requested or needed.

f. Sound limitations for components in commercial solar energy facilities shall follow the sound limitations established by the Illinois Pollution Control Board. A noise study was provided.

g. The County shall not require standards for construction, decommissioning, or deconstruction of a commercial solar energy system or related financial assurances to be more restrictive than agricultural impact mitigation agreement set in State law. The amount of any decommissioning payment shall be limited to the cost identified in the decommissioning or deconstruction plan, as required by the agricultural impact mitigation agreement, minus the salvage value of the project. A copy of the agricultural impact mitigation agreement shall be submitted with the application materials. The decommissioning plan was provided and is outlined in the AIMA. As noted, the estimated cost of decommissioning is Four Hundred Twenty-Five Thousand, Eight Hundred Ninety-Seven Dollars and Thirty-Seven Cents ($425,897.37). This money will be provided to the County in the form of a bond as outlined in the AIMA.

h. A vegetative screening shall be placed around the commercial solar energy facility. The landscaping plan was provided with the site plan and more detailed landscaping information included in the vegetative management plan. The plan includes a cover crop seed mix, a native pollinator seed mix, and a native grazing seed mix. The performance standards and ground cover maintenance requirements were included in the vegetative management plan.

i. Commercial solar energy facility applicants shall provide the results and recommendations from consultations with the Illinois Department of Natural Resources obtained through the Ecological Compliance Assessment Tool (EcoCat) or a comparable successor tool. The commercial solar energy facility applicant shall adhere to the recommendations provided through this consultation. The EcoCat was submitted and consultation was terminated without any specific recommendations.

j. Commercial solar energy facility applicants shall provide the results of the United States Fish and Wildlife Service's Information for Planning and Consulting environmental review or a comparable successor toll that is consistent with the U.S. Fish and Wildlife Service's Land-Based Wind Energy Guidelines and any applicable United States Fish and Wildlife Service solar wildlife guidelines that have been subject to public review. This was provided in both wetland delineation reports. Six (6) threatened or endangered species were in the area, but no impacts were anticipated.

k. A facility owner shall demonstrate avoidance of protected lands as identified by the Illinois Department of Natural Resources and the Illinois Nature Preserve Commission or consider the recommendations of the Illinois Department of Natural Resources for setbacks from protected lands, including areas identified by the Illinois Nature Preserve Commission. This is true. The site is designed around the farmed wetlands.

l. A facility owner shall provide evidence at the time of application submittal of consultation with the Illinois State Historic Preservation Office to assess potential impacts on State-registered historic sites under applicable State law. No potential impacts to State-registered historic sites exist.

m. A commercial solar energy facility owner shall plant, establish, and maintain for the life of the facility vegetative ground cover consistent with State law and the guidelines of the Illinois Department of Natural Resources' vegetative management plans. The vegetation management plan shall be required at the time of application submittal. The vegetation management plan, including timelines for planting and maintenance of the vegetation was provided.

n. The facility owner shall enter into a road use agreement with the jurisdiction having control over the applicable roads. The road use agreement shall follow applicable law. The facility owner shall supply the Kendall County Planning, Building and Zoning Department with a copy of the road use agreement. This provision shall be waived if the jurisdiction having control over the applicable roads does not wish to enter into an agreement. To date, the road use agreement negotiations are ongoing. No transportation or access plan was provided. The site plan shows one (1) twenty foot (20') wide gravel driveway approximately thirty feet (30') west of the eastern property line.

o. The facility owner shall repair or pay for the repair of all damage to the drainage system caused by the construction of the commercial solar energy system within a reasonable time after construction of the commercial solar energy facility is complete. The specific time shall be set in the special use permit. A tentative drain tile study was provided. The foundations for the racking will be placed in a manner that minimizes impacts on the drain tile.

No buildings are planned for the site. Any structures proposed for the site, including the solar arrays, shall obtain applicable permits.

The property is presently farmland. No wells, septic systems, or refuse collection points were identified.

The proposed area of disturbance is slightly less than one (1) acre. The County requested that the Petitioner submit an escrow payment so that WBK can evaluate the proposal; the Petitioner agreed to this request.

On November 15, 2024, WBK submitted a letter with several comments and questions. On December 23, 2024, the Petitioner submitted a response including a revised site plan and revised stormwater information. The cover letter outlining the changes was provided. On December 30, 2024, WBK submitted a response letter. On January 15, 2025, the Petitioner submitted an amendment site plan which incorporated the changes recommended by WBK and included two (2) basins requested by Kendall Township. The basins are shown on pages four (4) and five (5) of the site plan. The western basin has a depth of two point four feet (2.4') from the berm to the bottom of the basin. At the highest elevation, it has a surface area of forty-two thousand, five hundred thirty-five (42,535) square feet and will have a volume of forty-five thousand, three hundred nine (45,309) cubic feet. The eastern basin has a depth of one point eight (1.8') from the berm to the bottom of the basin. At the highest elevation, it has a surface area of thirty-nine thousand, seven hundred seventy-three (39,773) square feet and will have a volume of twenty-nine thousand, five hundred forty-six (29,546) cubic feet.

Per the site plan, the Petitioner propose one (1) twenty foot (20') wide access road.

There is one (1) forty foot (40') wide vehicular access gate and approximately ten (10) four foot (4') access gates proposed around the perimeter of the property. The locations of the smaller gates have not been determined. Knox box information will be provided to the County.

No permeant parking was proposed. There will be a staging area during construction; the specific location of the staging area was undetermined, but will likely be northwest of the vehicular access gate.

No lighting was proposed.

No specific signage was planned. The Petitioner was agreeable to installing one (1) sign at the vehicular access gate stating emergency contact information.

The Petitioner provided a glare study.

The Petitioner provided a general property values study. Mr. Asselmeier noted that the same company that provided the property value study for this project also prepared the property value study for the project on Simons Road. An email outlining the differences between the studies was available. The conclusion of both studies, that property values would not be negatively impacted, was the same.

No odors were foreseen.

The Petitioner provided noise information.

If approved, this would be the second special use permit for a commercial solar energy facility in unincorporated Kendall County.

The proposed Findings of Fact for the special use permit were as follows:

The establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare. The Project will generate clean, renewable electricity while producing no air, noise, or water pollution, or ground contamination. The front portion of the parcel closest to Ament Road will be retained for agricultural use as well as the surrounding land of the other parcel, which will create a natural screening during the growing season. The Petitioner submitted a vegetative management plan outlining the types of vegetation that will be planted, the timing of planting, and a maintenance plan for the vegetation.

The special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The Zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use makes adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to insure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole. The proposal will not interfere with the use and enjoyment of nearby properties. The surrounding properties are zoned primarily A-1 and will not be prevented from continuing any existing use or from pursuing future uses. The proposal's operations would be quiet and minimal traffic will occur after installation is completed. The solar panels are setback from Ament Road and neighboring houses to avoid negative visual impacts.

Adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided. The proposal will have adequate utility interconnections designed in collaboration with ComEd. The proposal does not require water, sewer, or any other public utility facilities to operate. The Petitioner will also build all roads and entrances at the facility and will enter into an agreement with Kendall Township regarding road use. After initial construction traffic, landscape maintenance and maintenance to the project components are anticipated to occur on an as-needed basis, consistent with the vegetative management plan. Existing traffic patterns will not be impacted in the post-construction operations phase. A drain tile survey will be completed prior to construction and foundation design will work around or reroute any identified drain tiles to ensure proper drainage.

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 County Board pursuant to the recommendation of the Zoning Board of Appeals. If the requested variance is granted, the proposal meets all applicable regulations.

The special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies. The proposal is also consistent with a goal and objective found on page 3-34 of the Land Resource Management Plan, "Support the public and private use of sustainable energy systems (examples include wind, solar, and geo-thermal)." However, the proposal is located on property classified as Rural Residential on the Future Land Use Map.

The proposed Findings of Fact for the variance:

The particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship or practical difficulty upon the owner if the strict letter of the regulations were carried out. The subject property is located within one point five (1.5) miles of the United City of Yorkville. The Petitioner provided a letter from the United City of Yorkville stating that Yorkville did not wish to annex the property or enter into a pre-annexation agreement.

The conditions upon which the requested variation is based would not be applicable, generally, to other property within the same zoning classification. Other A-1 zoned properties within one point five (1.5) miles of a municipality could request a similar variance, if the municipality refuses to annex or enter into a pre-annexation agreement.

The alleged difficulty or hardship has not been created by any person presently having an interest in the property. The difficulty was created because the United City of Yorkville did not wish to enter into a pre-annexation agreement or annex the property.

The granting of the variation will not materially be detrimental to the public welfare or substantially injurious to other property or improvements in the neighborhood in which the property is located. Granting the variance would not be detrimental to the public or substantially injurious to other properties.

That the proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets or increase the danger of fire, or endanger the public safety or substantially diminish or impair property values within the neighborhood. The proposed variance would not impair light or air on adjacent property, cause congestion, increase the danger of fire, or negatively impact property values.

Staff will wait with issuing a recommendation on this proposal, pending comments from the Regional Planning Commission. The proposed conditions and restrictions are as follows:

1. The site shall be developed substantially in accordance with the submitted site plan, vegetative management plan, decommissioning plan, road access plan, and Agricultural Impact Mitigation Agreement.
2. A variance to section 36-282(17)(a) of the Kendall County Code is hereby granted allowing a commercial solar energy facility within one point five (1.5) miles of a municipality without an annexation or pre-annexation agreement. (**Added after ZPAC**).

3. Within ninety (90) days of the approval of the special use permit, the owners of the subject property shall dedicate a strip of land forty feet (40') in depth along the northern property line to Kendall Township. The Kendall County Planning, Building and Zoning Committee may grant an extension to this deadline.
4. None of the vehicles or equipment parked or stored on the subject property allowed by the special use permit shall be considered agricultural vehicles or agricultural equipment.
5. All of the vehicles and equipment stored on the subject property allowed by the special use permit shall be maintained in good condition with no deflated tires and shall be licensed if required by law.
6. Any structures, included solar arrays, constructed, installed, or used allowed by this special use permit shall not be considered for agricultural purposes and must secure applicable building permits.
7. One (1) warning sign shall be placed near or on the vehicular entrance gate. This sign shall include, at minimum, the address of the subject property and a twenty-four (24) hour emergency contact phone number. Additional signage may be installed, if required by applicable law.
8. KenCom and other applicable public safety agencies shall be supplied the access code to the Knox Box/security gate.
9. The operators of the use allowed by this special use permit acknowledge and agree to follow Kendall County's Right to Farm Clause.
10. The property owner and operator of the use allowed by this special use permit shall follow all applicable Federal, State, and Local laws related to the operation of this type of use.
11. Failure to comply with one or more of the above conditions or restrictions could result in the amendment or revocation of the special use permit.
12. If one or more of the above conditions is declared invalid by a court of competent jurisdiction, the remaining conditions shall remain valid.
13. This special use permit and variance shall be treated as a covenant running with the land and is binding on the successors, heirs, and assigns as to the same special use conducted on the property.

Chairman Ashton asked about the LESA Score. Mr. Asselmeier responded that the land evaluation score was 96 out of 100.

Member Wilson asked why the County Code required annexation or pre-annexation to a municipality if a proposal was within one point five (1.5) miles of a municipality. Mr. Asselmeier responded that the County did not want commercial wind and solar projects to landlock municipalities. Member Wilson asked if the State law had similar annexation requirement. Mr. Asselmeier responded no.

Member Bernacki asked if WBK's comments had been resolved. Mr. Asselmeier responded that the Petitioner submitted revised stormwater information on January 15, 2025, and, to date, WBK has not provided a response to those comments.

Member Wilson asked if the bond information would be recorded. Mr. Asselmeier said the decommissioning bond would be kept on file at the County. The AIMA outlines when the County can review the bond. Member

Wilson asked why the bond could not be recorded. Mr. Asselmeier said the County could require the bond to be recorded; the special use permit would be recorded. Member Wilson favored recording the bond.

Member Wilson noted that in the financial impact study, there was a comparable project in Colorado. She has a client near the site in Colorado and asked her client for comments on that project. The client said the project is a community solar garden for the houses within the development; they can purchase electrons to offset their electric bills. The client has no complaints about the project.

Member Landovitz asked if WBK was evaluating the stormwater management plan. Mr. Asselmeier responded that the stormwater management plan was still under evaluation. Member Landovitz asked about ground cover as a detention mechanism. Mr. Asselmeier responded that WBK was evaluating the impact of ground cover on stormwater runoff.

Member Landovitz asked about the basis for the costs in the decommissioning estimate. Mr. Asselmeier said the calculation of the bond is based on State law and the AIMA requires periodic review of the bond amount. He was concerned because no authority was provided regarding the figures in the estimate.

Member Wilson requested an independent evaluation of the decommissioning estimate at the Petitioner's expense.

Member Landovitz asked if any projects had been decommissioned. Mr. Asselmeier responded that he was not aware of any commercial solar projects that had been decommissioned.

Member Wilson shared Member Landovitz's concerns regarding decommissioning.

Steve Grebner, Kendall Township Clerk, said that Kendall Township was trying to attach the bond to the title of the property. He praised New Leaf's involvement in this project. He praised the work of the Kendall Township Planning Commission. The Kendall Township Board questioned if the proposal was the best use of land and in the best interest of the residents of Kendall Township. He expressed concerns about the unknowns related to decommissioning. He argued that it might be better to place solar panels on buildings instead of on farmland.

Member Landovitz asked if the objection was about a resolvable detail. Mr. Grebner said the objection steams from the best use of farmland. He provided a history of the detention basins.

Member Wormley asked if the Kendall Township Planning Commission voted on the proposal before the matter went to the Township Board. Mr. Grebner responded yes, pending final sign off of the County engineer.

Member Landovitz stated that he was more in favor of solar than other uses that could go on agricultural land because the solar panels could be removed and the land reverted back to productive agriculture. He also noted the need for landowners to have alternative revenue streams.

Member Landovitz asked about alternative uses that the Township Board would favor. Mr. Grebner responded that other uses were hypothetical and the Township Board evaluated the proposal that was before them. Mr. Grebner questioned if other areas were better suited for solar than quality farmland.

Member Wormley spoke about the land use. Kendall County is the fastest growing county in Illinois. He stated that farming is important, but many of the properties that are agriculture will not be agriculture in the future. Much of the land will become commercial. The solar farm will be detrimental to the County's tax revenue compared to having subdivisions and schools. Member Wormley would like to see the solar farms go to areas without development potential. Kendall County's future land use map is currently outdated and will be updated sometime this year.

Member Bernacki agreed with Member Wormley. He stated there will be positive growth over the next twenty (20) years.

Steve Gengler, Kendall Township Supervisor, stated that just south of the site of the solar farm is a PUD. There are plans for a school to be built. He feels that a solar farm may be harmful near a school.

Member Wilson asked Mr. Asselmeier if he was aware of the PUD that Mr. Gengler referenced. Mr. Asselmeier stated he was not aware of a PUD in the vicinity of the solar farm.

Member Stewart asked Mr. Asselmeier why New Leaf requested a variance to the zoning requirement regarding annexation into Yorkville. Mr. Asselmeier stated that New Leaf requested an annexation agreement into Yorkville, but Yorkville declined.

Member Landovitz was concerned that neither Yorkville nor Kendall Township had any comment as to an alternate vision for the solar farm. Yorkville did not want to annex the project, but they didn't seem to raise a concern about the future use of the land. He understood the reason for a farmer to lease part of their land.

Nick Standiford, Land Use Attorney with Schain Banks, stated that he worked with thirty (30) to fifty (50) community solar farms and has heard many of the same concerns as Kendall County.

Member Casey stated that the main question is land usage. The solar farm will be there for twenty (20) years and extend for five (5) more years.

Tom Ryan, Project Developer for New Leaf Energy, stated that one (1) of the main questions is the use of the land and taking farmland is an issue. Mr. Ryan stated that solar panels are a temporary use. They have a lease with the landowner for a period of twenty (20) years with the right to extend it five (5) years four (4) times. If there is a lot of development in the area in (20) years, they will begin decommissioning and returning the site to its original state. There are many requirements needed for a solar farm. The correct interconnection is needed. Mr. Ryan stated that this area has a huge wave of solar projects. Mr. Ryan stated the solar farm industry will have to renounce some of their projects because of capacity issues. Mr. Ryan stated he received the interconnection and was placed in queue with ComEd three (3) years ago. He stated there was no more capacity in the substation. Until the substation gets upgraded which, will take millions of dollars, the building of solar farms will slow down.

Mr. Standiford stated the if the solar companies were able to find uneven, rocky land that was not good for farming, they would. Sites are limited because of the need for a substation.

Mr. Ryan stated that the landowner had some less favorable land with wetlands. This parcel falls into the best category for solar farms.

Member Wormley asked if they went to other counties to look for land. Mr. Ryan stated they have looked in other counties. They have approximately seventy (70) projects in Illinois. People within a certain radius will receive the community solar benefits.

Mr. Wormley stated that Kendall County is the fastest growing county in Illinois and people do not want to see solar farms. Mr. Ryan stated that the site of the project has been pushed back one thousand (1,000) feet from Ament Road and the same for Route 47. Member Wormley stated that, in the new future land use map, the guideline for solar farms will be one (1) mile from a state road or a county road from any direction.

Mr. Standiford explained the special use standards of approval and the variation standards. He discussed projects that New Leaf Energy has completed in Illinois. He discussed the adjoining land uses, as outlined in both the Kendall County Land Resource Management Plan and Yorkville's Comprehensive Plan. He discussed the pace of residential development in Yorkville. He discussed the proposed findings of fact contained in the Staff Report and the consistency with Land Resource Management Plan. He noted the classification of the property in Yorkville's plan. He noted the votes taken by Kendall Township. Discussion occurred regarding the amount tax dollars generated by the development; over twenty (20) years, the development will pay over Five Hundred Thousand Dollars ($500,000). Member Wormley said houses would generate comparable tax revenue and the property is generating food.

Member Wormley felt the area was not a good location because the area was going commercial or industrial. Those developments will generate more tax revenue.

Discussion occurred regarding updating the Land Resource Management Plan and the work with municipalities to update the Land Resource Management Plan.

Member Wormley discussed the need for the variance and explained the need for consistency in votes, which was why he was voting against the project. Mr. Standiford discussed State law related to the placement of commercial solar farms and the need for electricity.

Member Landovitz asked what the loss opportunity was, if the proposal does not occur at this time. Mr. Ryan responded that the interconnection could be lost.

The proposal goes to the Yorkville City Council on January 28, 2025.

Member Wilson asked why solar panels could not be placed on commercial properties like the former Caterpillar Plant in Montgomery. Mr. Ryan discussed distances to substations, a maximum distance of three (3) miles, and have proper feeder lines.

Member Wilson asked how many homes would be powered by this project. The response was about eight hundred (800).

There were no plans to expand at the site. Even if expansion was possible, New Leaf would an interconnection agreement with Comed.

Mr. Standiford was agreeable to recording the bond and having the Petitioner pay an independent consultant to prepare a decommissioning plan.

Member Hamman discussed the landowner perspective. A project like this could give a landowner additional income to keep their farm. He discussed a project on a property in Grundy County. He asked what happens if the County denies the project and gets sued. Mr. Asselmeier responded the County could get sued if the project is denied. Member Hamman noted that Grundy County denied a project on his property, was sued, and lost in court. Chairman Ashton noted that the Regional Planning Commission is purely advisory to the County Board. Member Hamman discussed predicted best uses on properties over twenty (20) years.

Member Bernacki discussed outstanding issues regarding stormwater and lack of comment from the Yorkville City Council. Mr. Asselmeier noted that the Kendall Township Planning Commission's recommendation was contingent on the resolution of stormwater issues. If those issues were not resolved to Kendall Township's satisfaction, their Planning Commission could recommend denial, which could trigger a supermajority vote at the County Board. Recommendations by the Yorkville City Council would be advisory. The Yorkville City Council could request an annexation agreement.

Member Wilson made a motion, seconded by Member Hamman, to recommend approval of the special use permit and variance with the conditions proposed by Staff, adding a condition that the decommissioning bond be attached to the decommissioning plan which would be recorded against the real estate, and adding a condition that an independent evaluation of the decommissioning cost occur at the Petitioner's expense.

The votes were as follows:
Ayes (2): Hamman and Wilson
Nays (8): Ashton, Bernacki, Casey, Landovitz, McCarthy-Lange, Rodriguez, Stewart, and Wormley
Absent (0): None
Abstain (0): None

The motion failed.

The proposal goes to the Kendall County Zoning Board of Appeals on January 27, 2025.

Member Landovitz voted no because of the potential land uses at the property. He gave deference to the voice of the elected officials, both the County and Kendall Township. He hoped that the updating of the Land Resource Management Plan will remove some of the differences. He felt bad for the landowners and the people that worked on the project.

Member Bernacki voted no because of the current classification of the land in the Land Resource Management Plan. He noted that Plainfield redid their plan recently and reclassified land to agricultural that had annexation agreements. He noted that Yorkville could redo their plan, which was completed in 2016. He felt working with Kendall Township was important. He also said that the Regional Planning Commission recommended denial of the solar project on Simons Road partially due to a lack of an annexation agreement with a municipality.

Member Wilson discussed balancing interests and unknowns. She noted that for farmers, their retirement is in their land. She understood the need to use farmland as a revenue source. She did not like the fact that farmer land is disappearing. In this case, she did not see an aesthetic issue and comparatively little farmland was being lost. She noted that solar panels have to be in certain locations related to substations and related infrastructure. She noted the project would comply with State law and she was unsure if the County's law related to annexation would hold in court. She favored the landowner and noted that the land could revert back to farm ground.

Member Hamman voted in favor of the proposal because the Petitioner presented a good case with the site setback from the roads. He favored being landowner's rights because selling the land may not be an option for tax reasons. He also had concerns regarding the legal aspects of denying this proposal.

Chairman Ashton voted no because of the high land evaluation score. He favored solar panels on ground that was not as productive for farming purposes.

Member Rodriguez discussed new developments and future land use in Kendall County. He voted no because of developments going on in Kendall County and future land uses in the County.

Member Casey favored commercial solar developments on commercial buildings.

Member McCarthy-Lange voted no because the proposal would look in the land use for twenty to forty (20-40) years. The County has changed drastically in the last forty (40) years. She did not want to lock in the land use that close to a municipality for such a long period of time. She would have liked the landowner to be present at the meeting; if the situation was dire, the landowner would appear at the meeting.

CITIZENS TO BE HEARD/PUBLIC COMMENT
None

OTHER BUSINESS/ANNOUNCEMENTS
Mr. Asselmeier reported there were no petitions for the February 26th meeting.

ADJOURNMENT
Member Wilson made a motion, seconded by Member Hamman, to adjourn. With a voice vote of ten (10) ayes, the motion carried.

The Kendall County Regional Planning Commission meeting adjourned at 9:08 p.m.

Respectfully submitted by,
Matthew H. Asselmeier, AICP, CFM, Director

Encs.

KENDALL COUNTY
REGIONAL PLANNING COMMISSION
JANUARY 22, 2025

IF YOU WOULD LIKE TO BE CONTACTED ON FUTURE MEETINGS REGARDING THIS TOPIC, PLEASE PROVIDE YOUR ADDRESS OR EMAIL ADDRESS

NAME	ADDRESS (OPTIONAL)	EMAIL ADDRESS (OPTIONAL)
Steve Grebner		SGrebner@KendallTwp.com
Steve Grengler		SGrengler@Kendall1twp.com
Nicki Standeford		[redacted]
Tom Ryan		

Ament Road

Kendall County, IL

Kendall County

Zoning Board of Appeals



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Agenda

- New Leaf Energy: Company Overview
- Property and Site Overview
- Solar Project Overview
- Drainage
- Project Benefits
- Decommissioning
- Questions



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Project Team

- Tom Ryan - New Leaf - Project Developer
- Nick Bellone - New Leaf - Civil Project Engineer
- Mike Keith - Atwell LLC - Civil Project Engineer
- Nick Standiford - Schain Banks - Counsel



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New Leaf Energy: Company Overview

About Us

- Formerly known as Borrego Solar, we have been business since the 1980s and developing community solar projects since 2002
- Midwest Development team located in Illinois; company is headquartered in Massachusetts

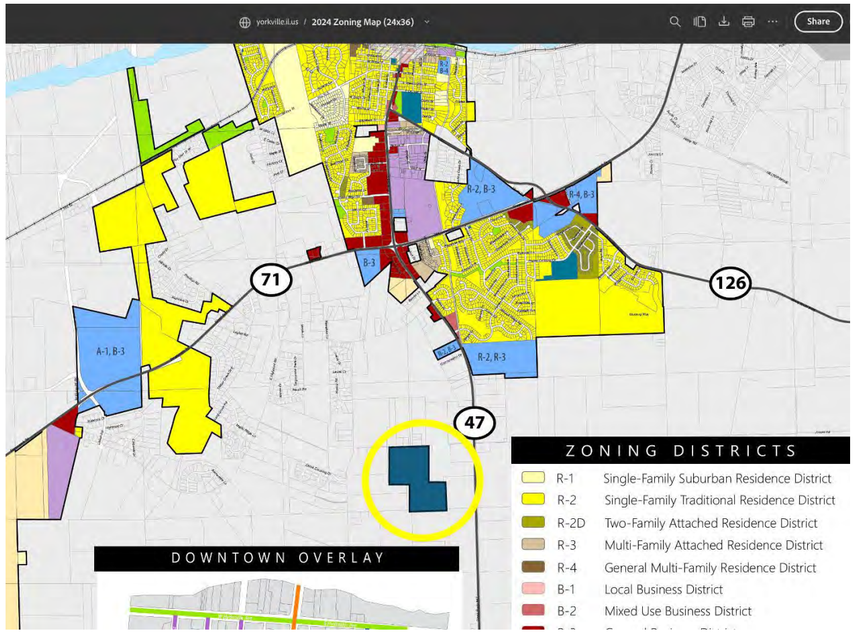
Our Success in Illinois

- Permitted over 70 community solar projects throughout Illinois
- 25 projects have been built in Illinois over the past 6 years
- 6 projects currently under construction; 14 projects expected to construct in 2025
- Worked with over 40 counties and municipalities in Illinois

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Project Site Overview

- Site Address: **Ament Rd - Kendall County**
- Landowner: **Janet Dhuse**
- Coordinates: **(41.597060, -88.443146)**
- Parcel ID**: 05-16-300-006 & 05-17-400-005**
- County: **Kendall County**
- Acres of Parcels: **94 acres**
- Targeted usable Acres: **40 acres**



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Project Site Overview

Power Capacity - 5MWac

Access - Ament Rd

Racking Type - Single Axis Tracker

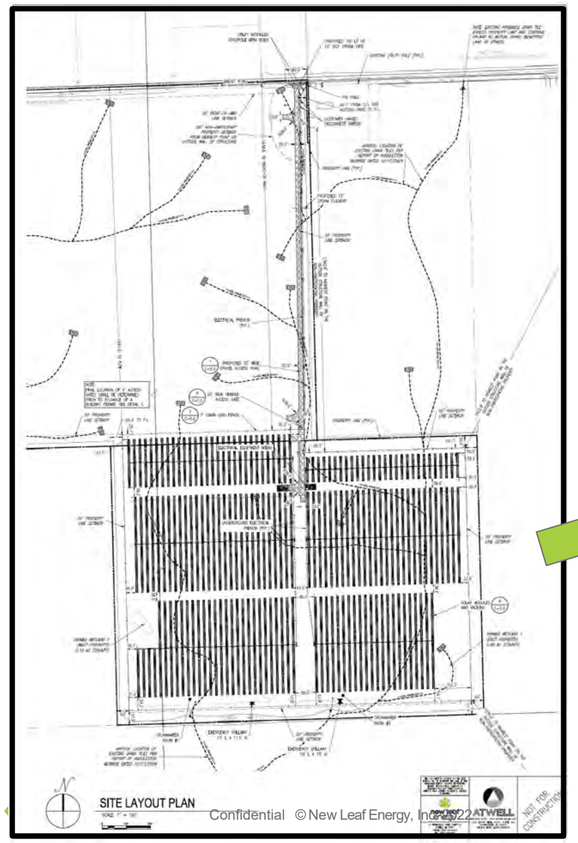
Interconnection Status - ComEd

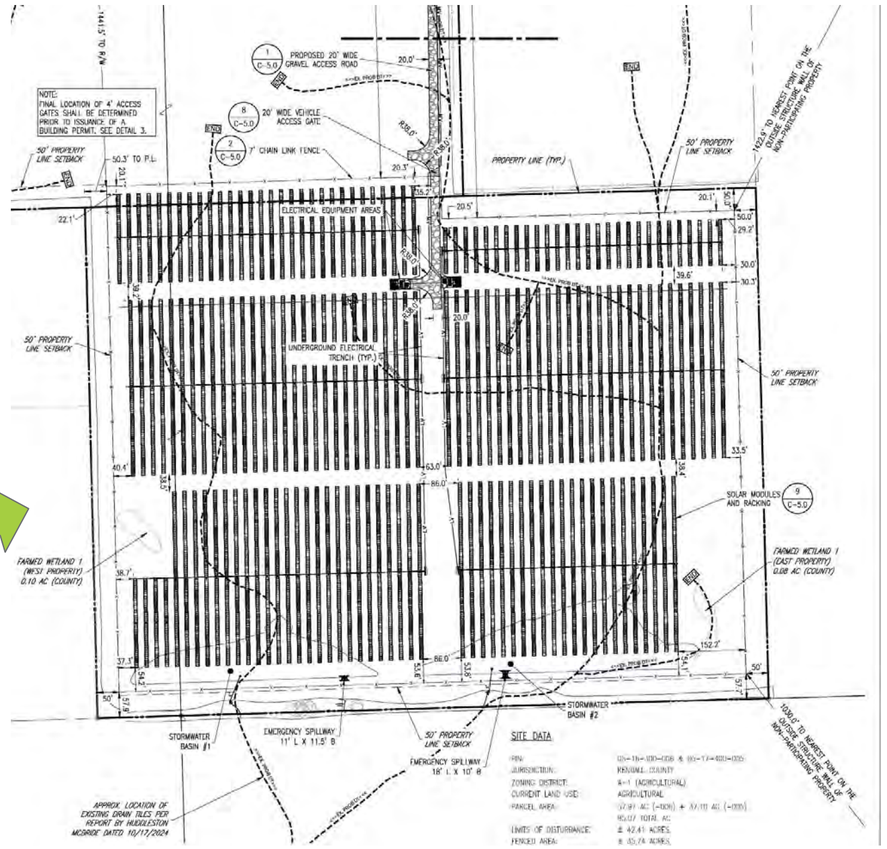
Storage - None



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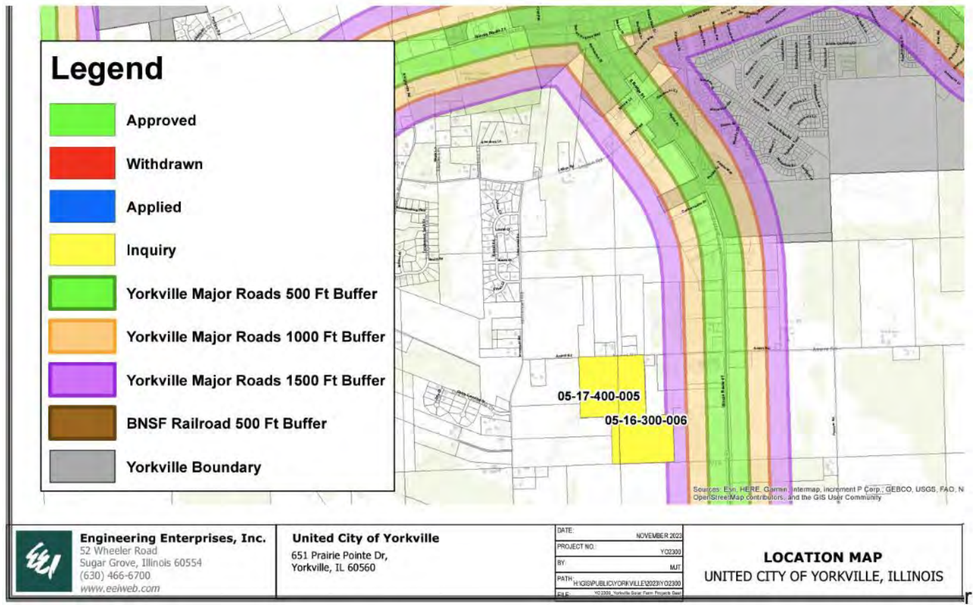
Site Layout

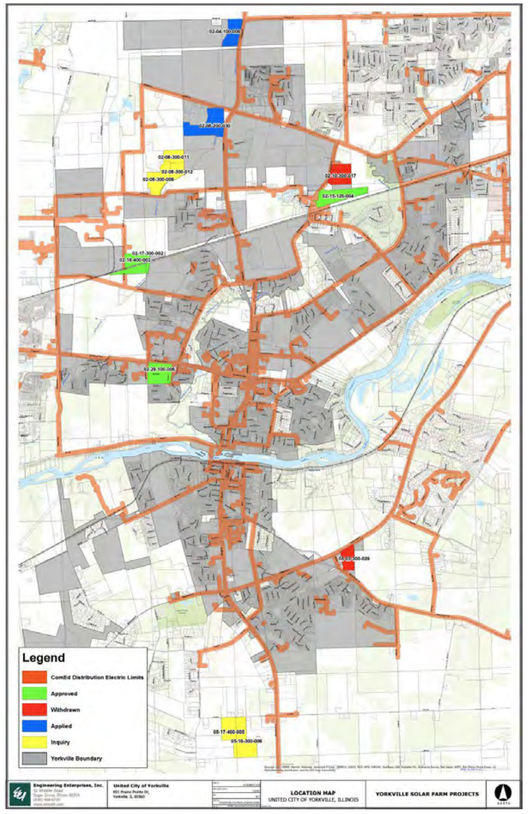




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Yorkville Ordinance Update

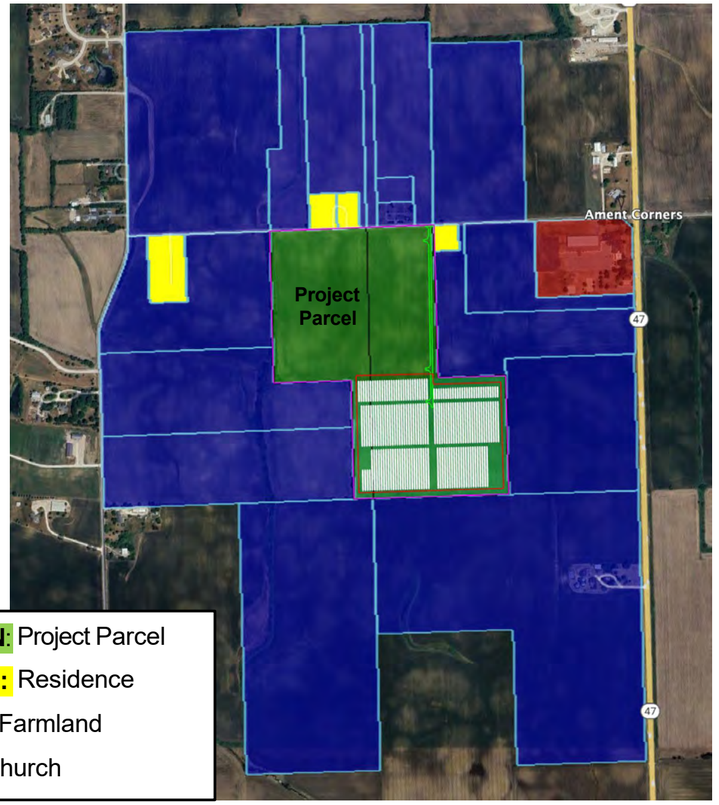




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Outreach Overview

- Notifications were sent to all surrounding property owners as well as Kendall Townships and The United City of Yorkville
- New Leaf representatives will conduct door to door outreach to all adjacent residences prior to KCRPC hearing.
- Closest residence is 1,378 feet to the north



GREEN: Project Parcel
Yellow: Residence
BLUE: Farmland
Red: Church

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Select Project Attributes

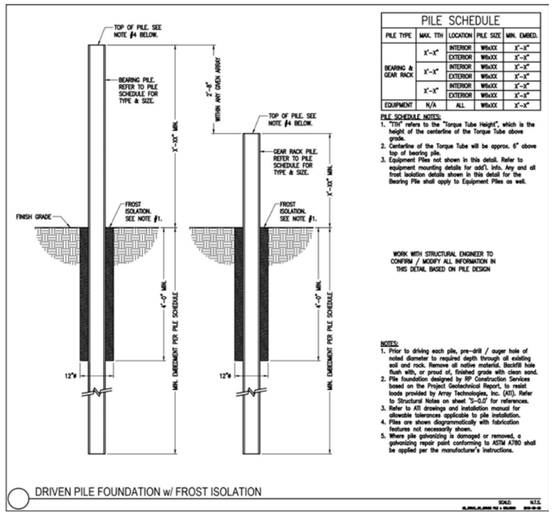


New Leaf Energy site in Will County

- Solar panel arrays consisting of trackers and racking
- Concrete limited to equipment pad for electrical equipment
- Security fence at 7’ height
- Underground trenching/cabling
- Gravel access road
- Limited access road grading and retention basins to maintain drainage patterns
- Planted with native pollinator mix
- Layout designed to accommodate agrivoltaics

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Racking Foundations



Driven Pile:
Most Common in Illinois



Ground Screw:
Typically only used when bedrock present (rare in Illinois)

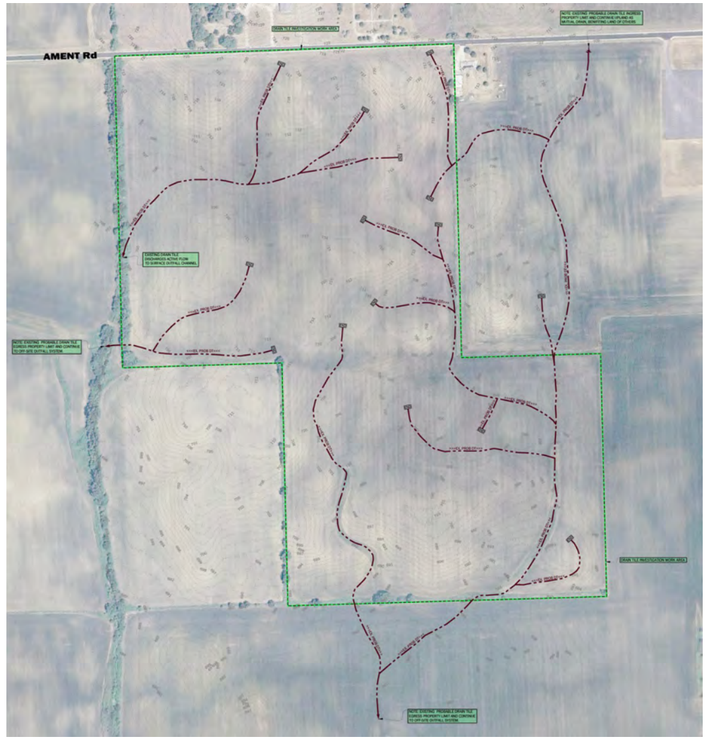
No concrete or cast foundations are used

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Project Site Overview: Drainage

After construction, the field will drain the same way that it did prior to the solar installation:

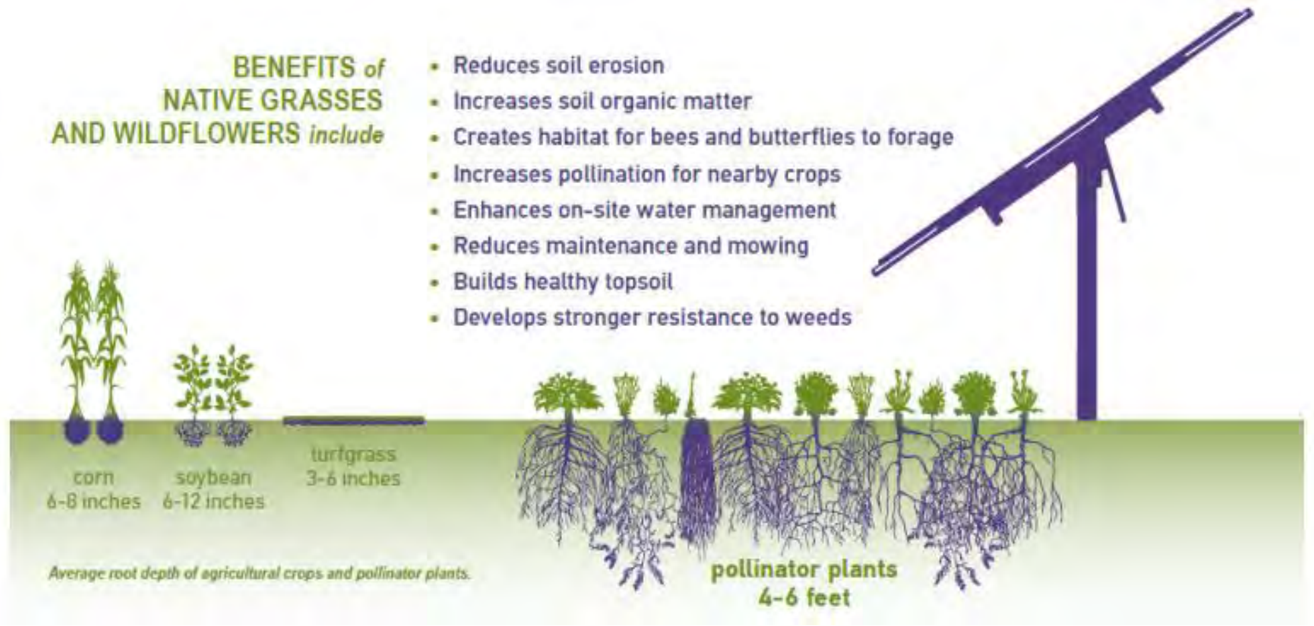
- Drain tile is considered in final layout design and avoided when practical
- During construction, tile locations are flagged to facilitate avoidance
- Broken tile is repaired or replaced in-kind
- Construction crews regularly monitor the site for any tile or drainage issues



Drain Tile Probability Map prepared by Tom Huddleston of Huddleston McBride

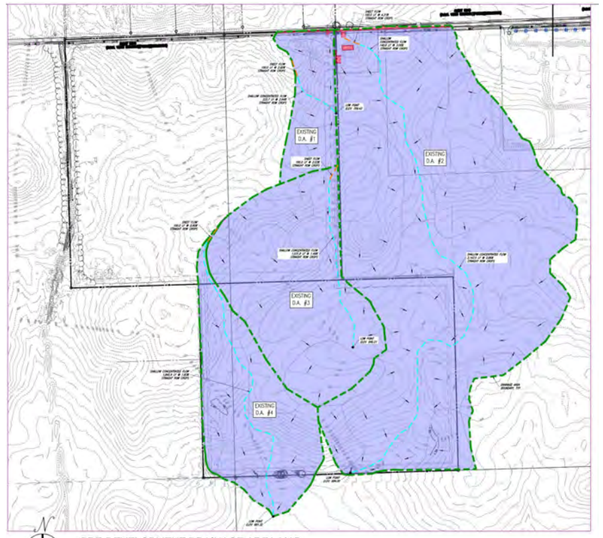
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Pollinators



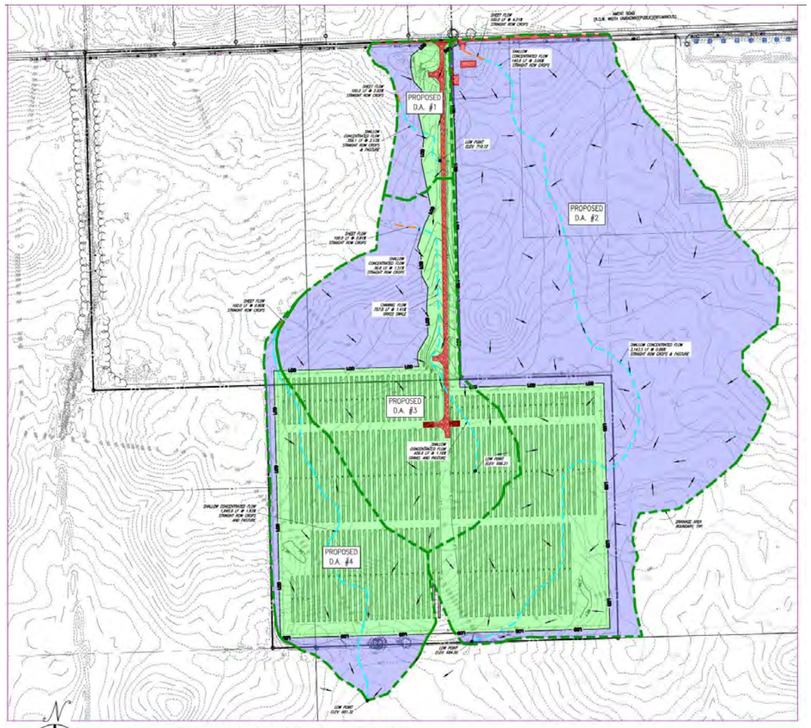
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Stormwater Study



PRE-DEVELOPMENT DRAINAGE AREA MAP

PROJECT LIMITS OF DISTURBANCE
DRAINAGE AREA BOUNDARY
SHEET FLOW
SHALLOW CONCENTRATED FLOW
ROW CROPS – GOOD CONDITION
PASTURE
IMPERVIOUS AREA
DRAINAGE FLOW ARROW

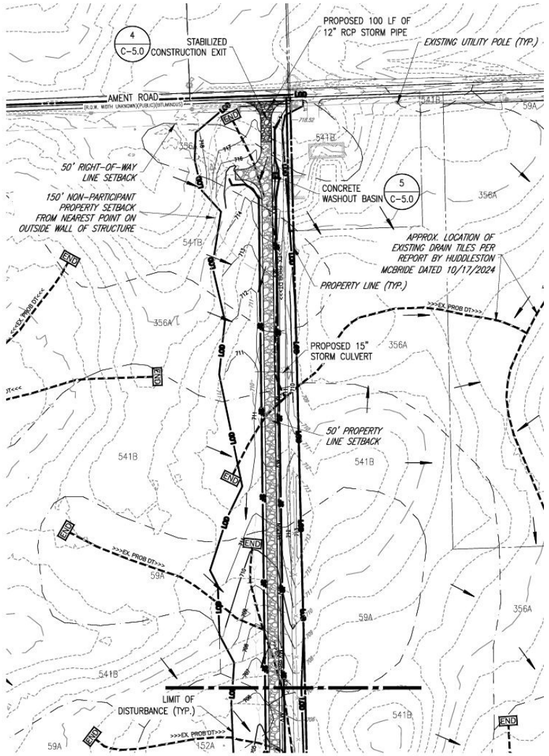


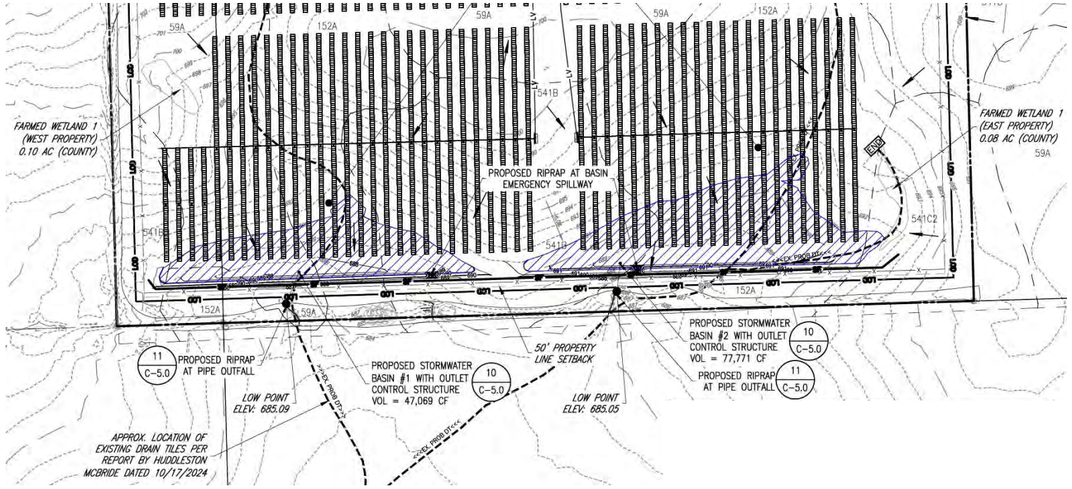
POST-DEVELOPMENT DRAINAGE AREA MAP

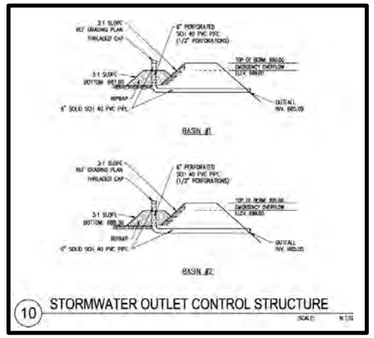
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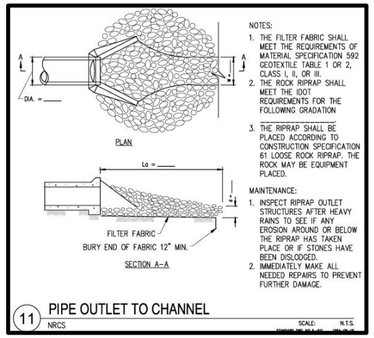
Prepared by Atwell, LLC on January 12, 2025

Stormwater Study - Kendall Township Requests









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Decommissioning Plan

Line Item	Task	Cost
1	Module Removal	$ 7,810.83
2	Rack Wiring Removal	$ 1,952.71
3	Rack Dismantling	$ 5,858.18
4	Electrical Equipment Loading and Removal	$ 2,680.20
5	Break Up Concrete Pads	$ 1,221.77
6	Load Racks	$ 23,120.99
7	Electrical Wiring Removal	$ 4,064.97
8	Foundation Pile Removal	$ 26,505.02
9	Fence Removal	$ 23,464.96
10	Power Pole Removal	$ 7,500.00
11	Gravel Road Reclamation	$ 55,253.21
12	Seed Disturbed Areas	$ 4,985.06
13	Trucking to Transfer Station	$ 2,093.44
	Total =	**$166,511.35**

25 Year Projection

# of Years = 25
Inflation Rate = 2.0%
Total * (1+ Inflation Rate)^ # of Years + Grand Total

Decommissioning Bond Total: $425,897.37

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Project Benefits

- **Will pay $575,858 in property taxes over 20 years**
  - Diversifies local economy without burdening infrastructure and services
- Maintains existing drainage; has minimal impervious areas
- Compatible with agrivoltaic uses like livestock grazing
- Native seed mix allows for reduced runoff and erosion and creates a habitat for pollinators
- Temporary use of the space – allows the soil to rest for 40 years and remain productive when returned to farming



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Tax Rate

This project will pay approximately $575,858 in property tax over its first 20 years of operations.

- The first year of operations will pay $38,994 in property tax.
- Current 2024 property tax at this site area is $2,200.

20 Years

District	%	20 Years
SCHOOL DISTRICT CU-115	75%	$431,893.50
BRISTOL-KENDALL FPD	8%	$46,068.64
KENDALL COUNTY	7%	$40,310.06
JR COLLEGE #516	5%	$28,792.90
KENDALL ROAD DISTRICT	2%	$11,517.16
FOREST PRESERVE	2%	$11,517.16
KENDALL TOWNSHIP	1%	$5,758.58
TOTAL		$575,858.00

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Thank you

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Appendix

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LAND USE ANALYSIS



AMENT SOLAR 1

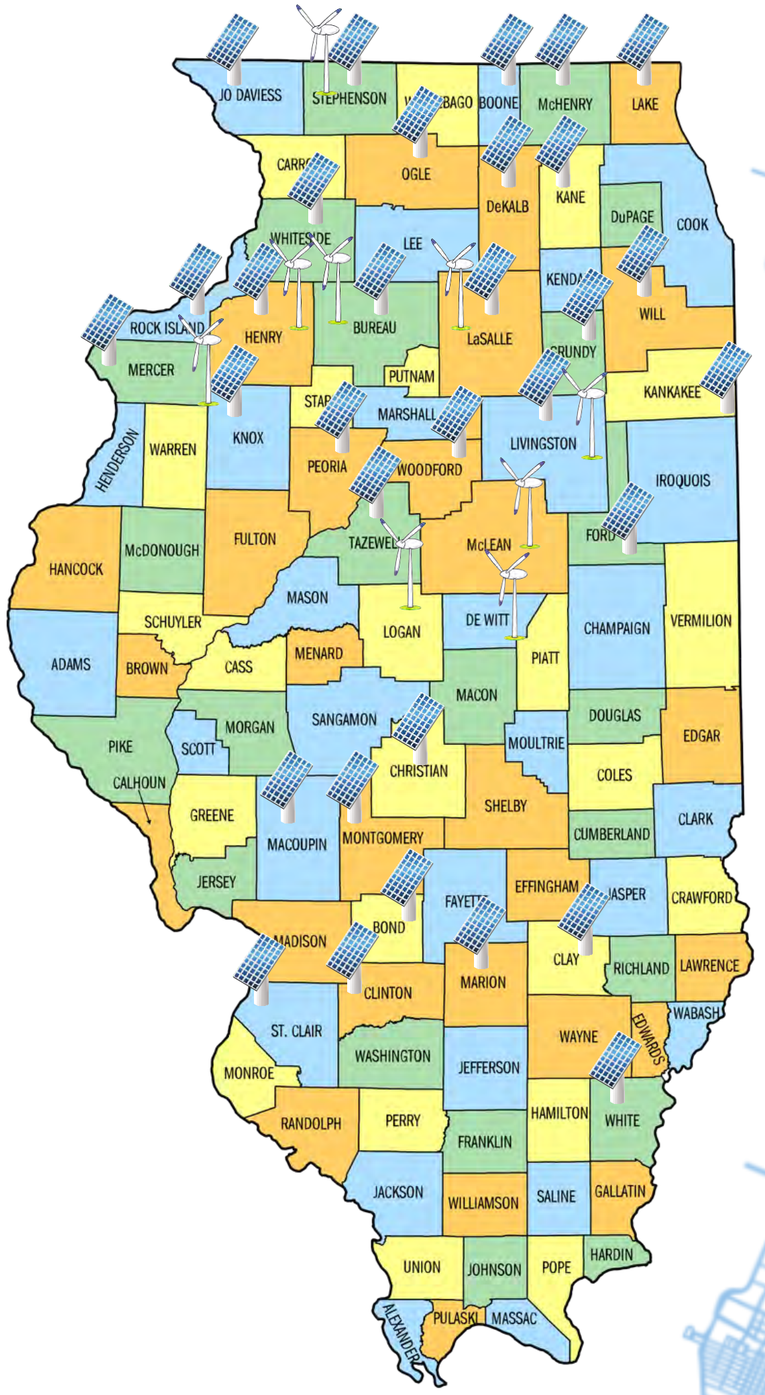
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SCHAIN BANKS ENERGY APPROVALS

- Obtained siting approvals and special use permits for utility and community scale projects throughout Illinois (as well as Michigan and Indiana)

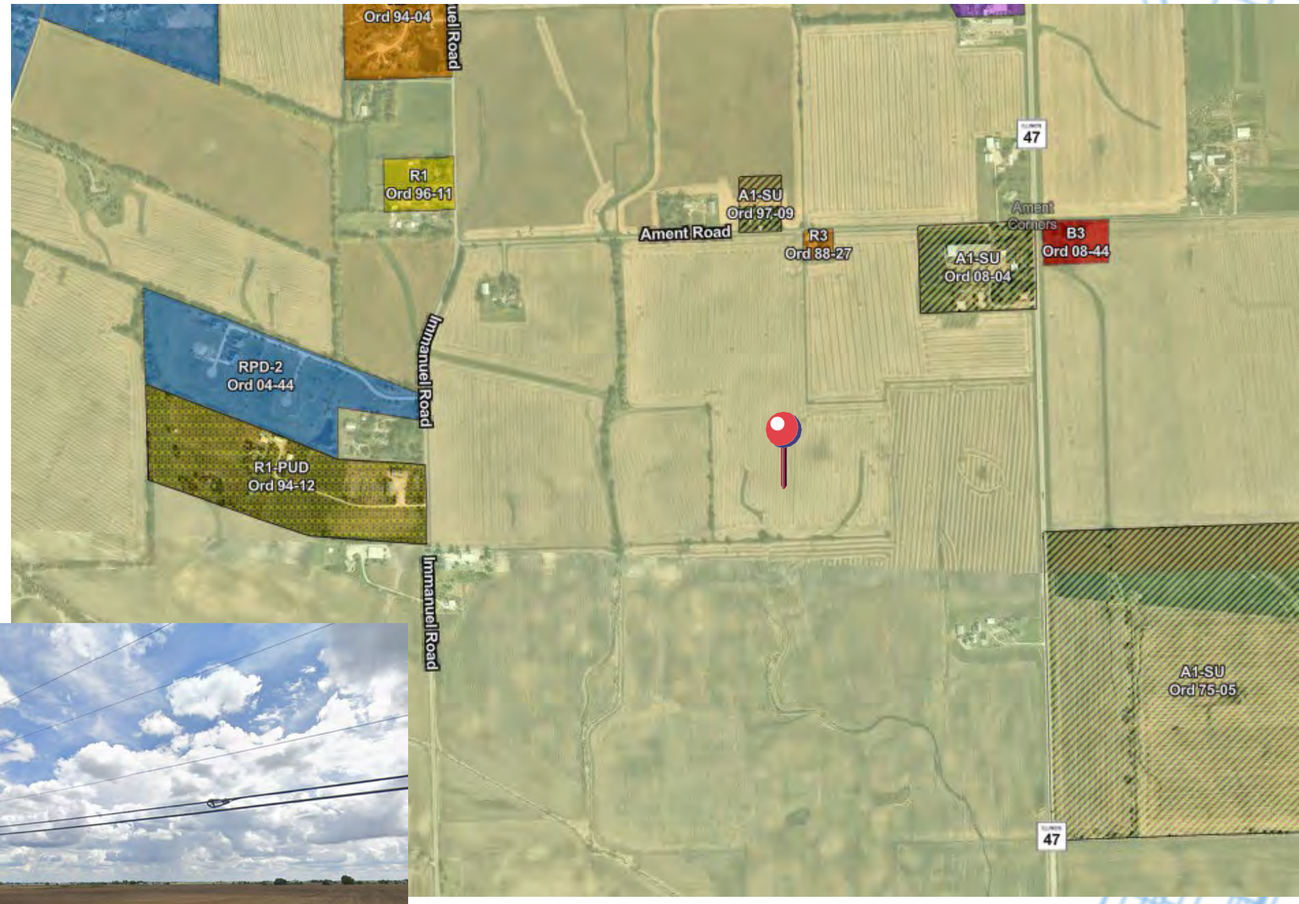






COUNTY'S ZONING MAP

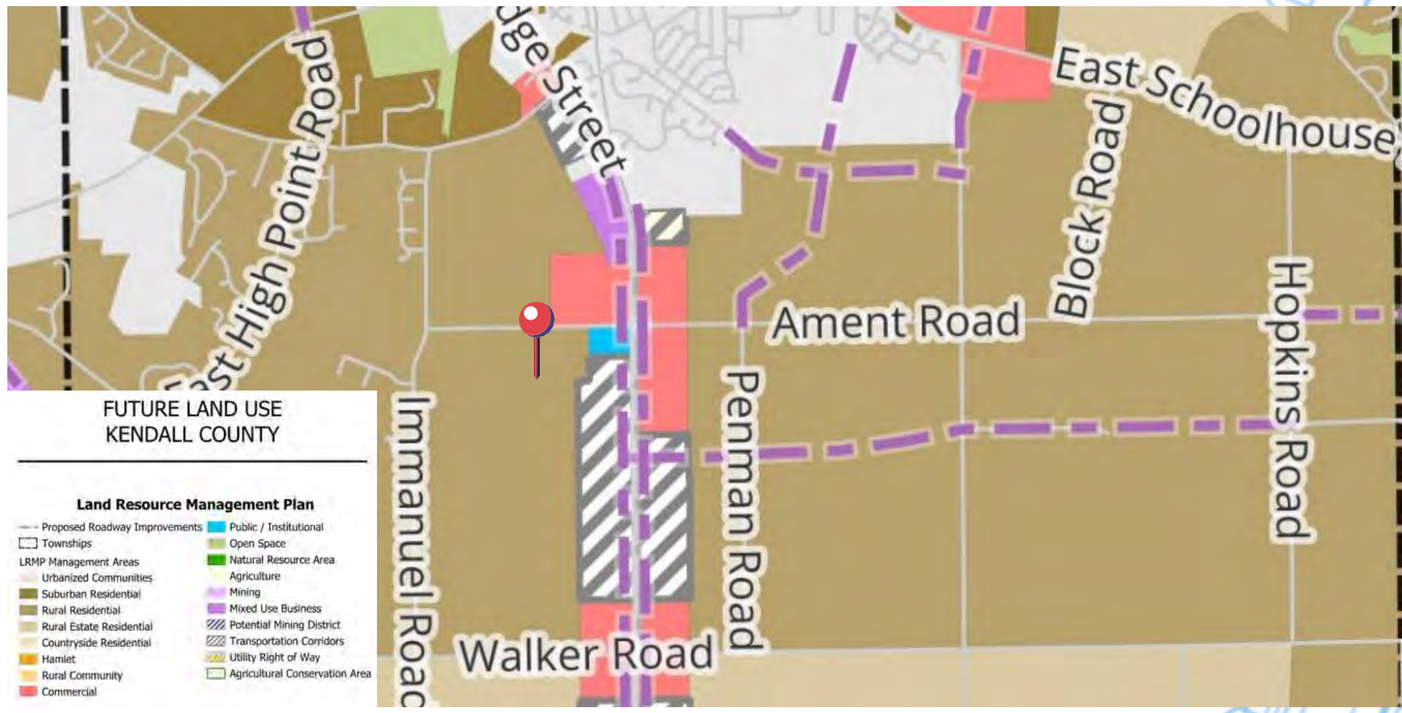
- **Zoned A1**
  - Commercial Solar Energy Facilities permitted by special use
- **Surrounded by A1 zoned parcels**
- **North**
  - R3 (Rancho Hernandez)
  - A1- Special Use (Cemetery)
- **South**
  - A1
- **Northeast**
  - A1- Special Use (Cross Lutheran Church)
- **West**
  - PUDs





COUNTY'S FUTURE LAND USE PLAN

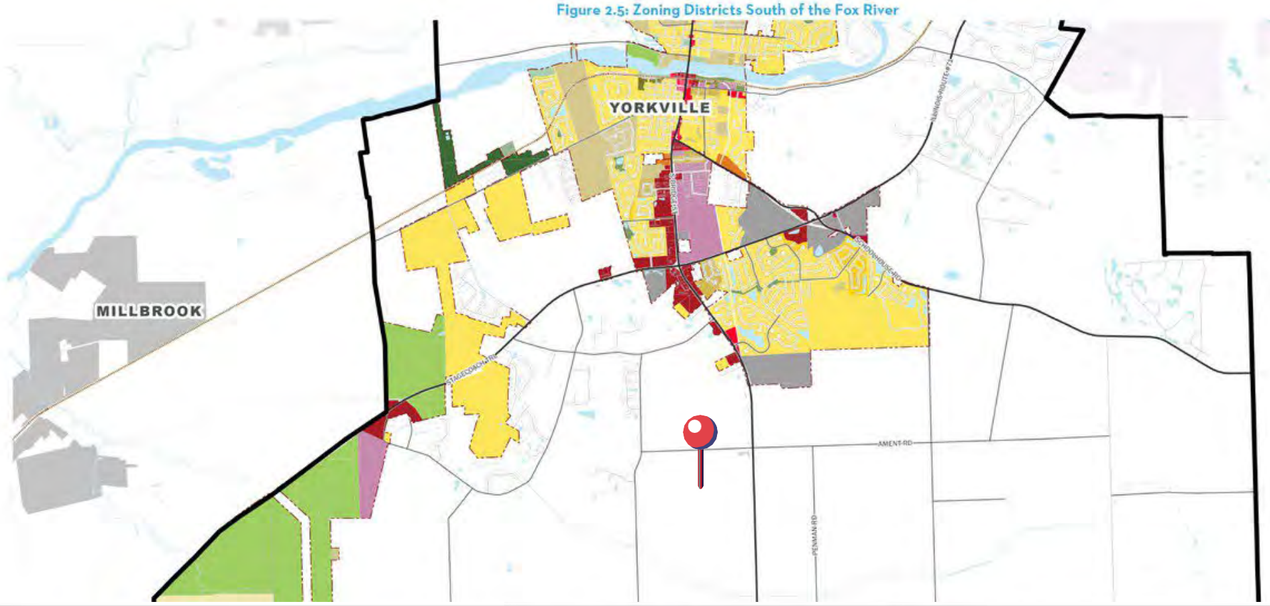
- Rural Residential
- Surrounded by Rural Residential
- Commercial to NE
- Transportation Corridor to E



YORKVILLE'S ZONING MAP

- **Located in "Planning Area"**
  - Yorkville did not require Annexation Agreement
- R-2 to NE
- PUD to NE
- "Due to 2008 recession, recently **planned residential subdivisions have yet to be fully built-out**." (2016 Yorkville Comp. Plan, 8)

Figure 2.5: Zoning Districts South of the Fox River



Legend - Zoning Districts

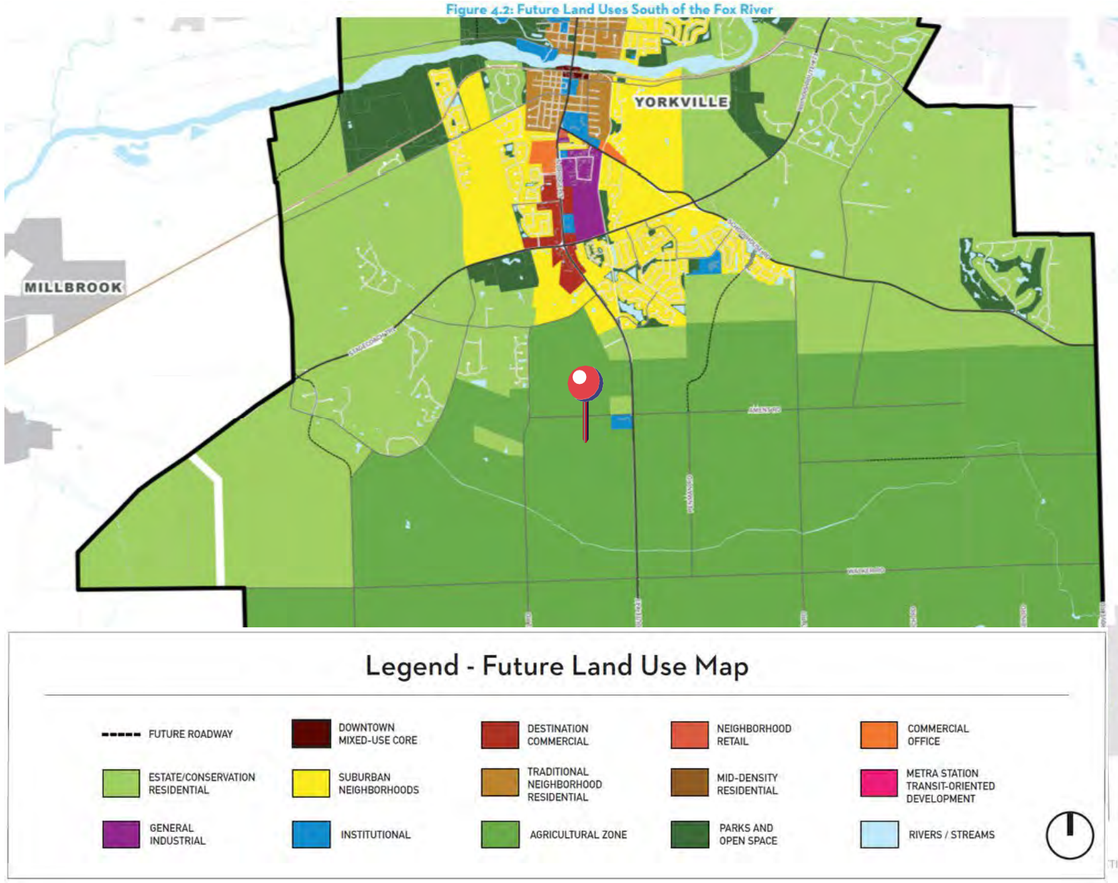
YORKVILLE BOUNDARY	E-1 - ESTATE RESIDENCE	R-3 - Multifamily ATTACHED RESIDENCE	B-1 - LOCAL BUSINESS	M-1 - LIMITED MANUFACTURING
PLANNING AREA	R-1 - SINGLE-FAMLY SUBURBAN RESIDENCE	R-4 - GENERAL MULTI-FAMILY RESIDENCE	B-2 - RETAIL COMMERCE BUSINESS	M-2 - GENERAL MANUFACTURING
FOREST PRESERVE	R-2 - SINGLE-FAMLY TRADITIONAL RESIDENCE	PUD - PLANNED UNIT DEVELOPMENT	B-3 - GENERAL BUSINESS	OS-1 - OPEN SPACE (PASSIVE)
A-1 - AGRICULTURAL	R-2D - TWO-FAMILY ATTACHED RESIDENCE	O - OFFICE	B-4 - SERVICE	OS-2 - OPEN SPACE (RECREATIONAL)

YORKVILLE'S FUTURE LAND USE PLAN

- Agricultural Zone
- Institutional to E (Church)
- No Commercial to NE
- No Transportation Corridor to E
- "The land use framework proposed in these past plans were based on the assumption of **continued, fast-paced residential and commercial growth, which did not materialize after the 2008 economic recession**." (2016 Yorkville Comp. Plan, 14)



Figure 4.2: Future Land Uses South of the Fox River



STATEWIDE SITING ACT

- Agricultural Impact Mitigation Agreement
- Setbacks
- 6-foot fence
- No component more than 20 feet in height
- Vegetative screening
- EcoCat consultation
- U.S. Fish and Wildlife consultation
- Illinois Department of Natural Resources recommendations (IDNR)
- Avoid/setback protected lands identified by IDNR and Illinois Nature Preserve Commission
- Illinois State Historic Preservation Office (SHPO) consultation
- Pollinator-Friendly Solar Site Act vegetative ground cover
- Other requirements not more restrictive than the Act





SPECIAL USE 1

- The establishment, maintenance, or operation of the special use will not be detrimental to or endanger the public health, safety, morals, comfort, or general welfare.

- **Finding – The Project will generate clean, renewable electricity while producing no air, noise, or water pollution, or ground contamination. The front portion of the parcel closest Ament Road will be retained for agricultural use as well as the surrounding land of the other parcel, which will create a natural screening during the growing season. The Petitioner submitted a vegetative management plan outlining the types of vegetation that will be planted, the timing of planting, and a maintenance plan for the vegetation.**





SPECIAL USE 2



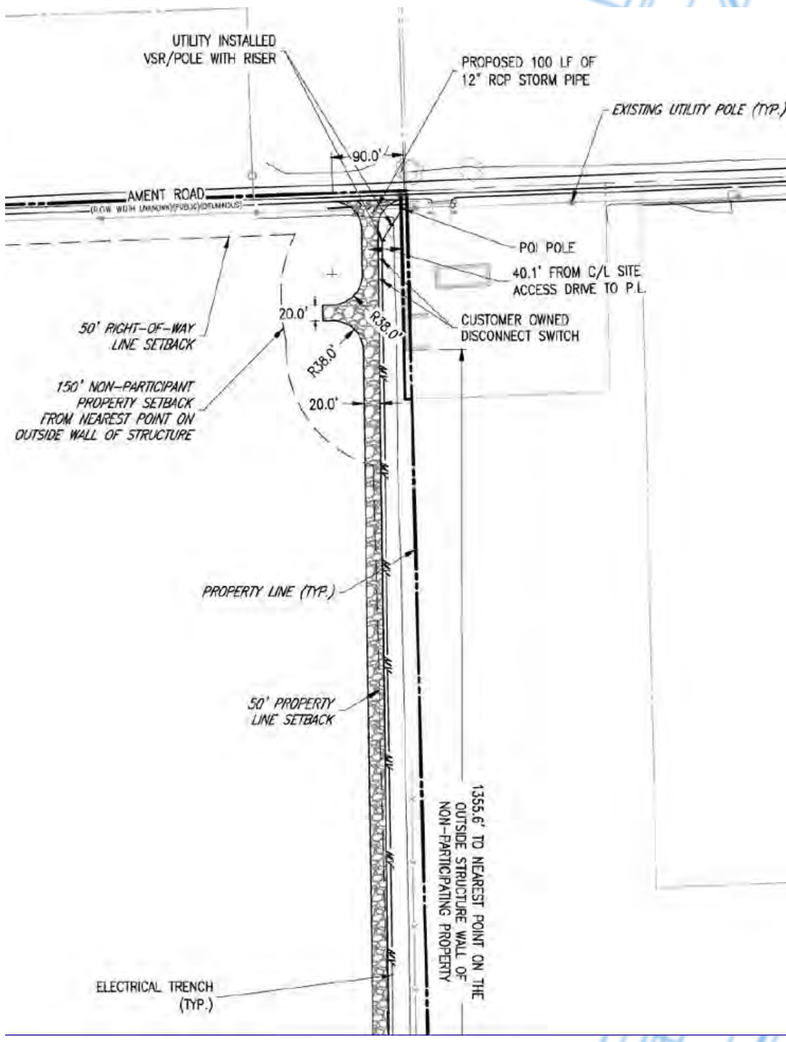
- The special use will not be substantially injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminish and impair property values within the neighborhood. The zoning classification of property within the general area of the property in question shall be considered in determining consistency with this standard. The proposed use shall make adequate provisions for appropriate buffers, landscaping, fencing, lighting, building materials, open space and other improvements necessary to ensure that the proposed use does not adversely impact adjacent uses and is compatible with the surrounding area and/or the County as a whole.

- **Finding – The Proposal will not interfere with the use and enjoyment of nearby properties. The surrounding properties are zoned primarily A-1 and will not be prevented from continuing any existing use or from pursuing future uses. The proposal's operations would be quiet and minimal traffic will occur after installation is completed. The solar panels are setback from Ament Road and neighboring houses to avoid negative visual impacts.**

SPECIAL USE 3

- Adequate utilities, access roads and points of ingress and egress, drainage, and/or other necessary facilities have been or are being provided.

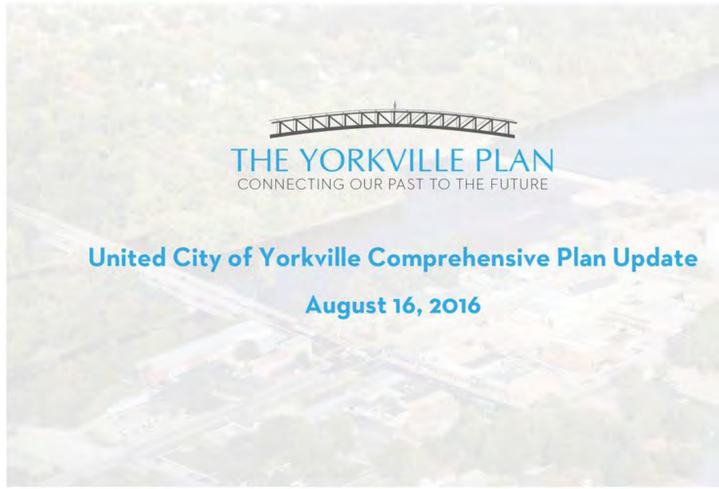
- **Finding – The Proposal will have adequate utility interconnections designed in collaboration with ComEd. The proposal does not require water, sewer, or any other public utility facilities to operate. The Petitioner will also build all roads and entrances at the facility and will enter into an agreement with Kendall Township regarding road use. After initial construction traffic, landscape maintenance and maintenance to the project components are anticipated to occur on an as-needed basis, consistent with the vegetative management plane. Existing traffic patterns will not be impacted in post-construction operations phase. A drain tile survey will be completed prior to construction and foundation design will work around or reroute any identified drain tiles to ensure proper drainage.**

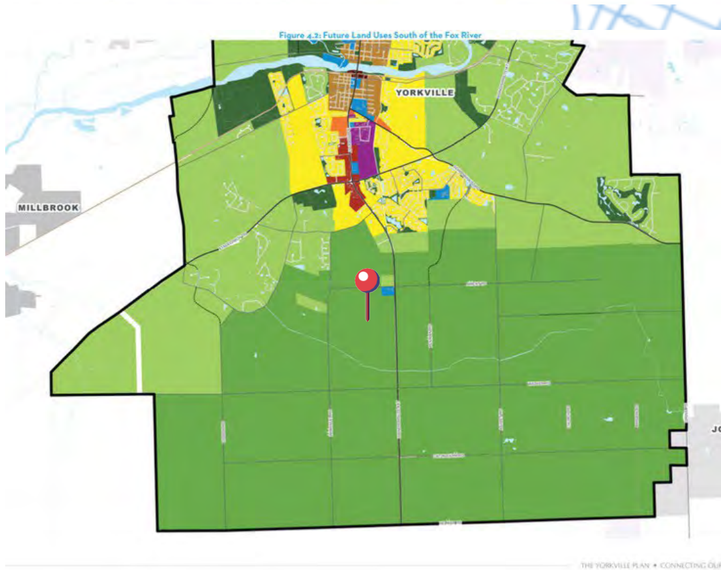


SPECIAL USE 4

- 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 County Board pursuant to the recommendation of the Zoning Board of Appeals.

- **Finding – If the requested variance is granted, the proposal meets all applicable regulations.**

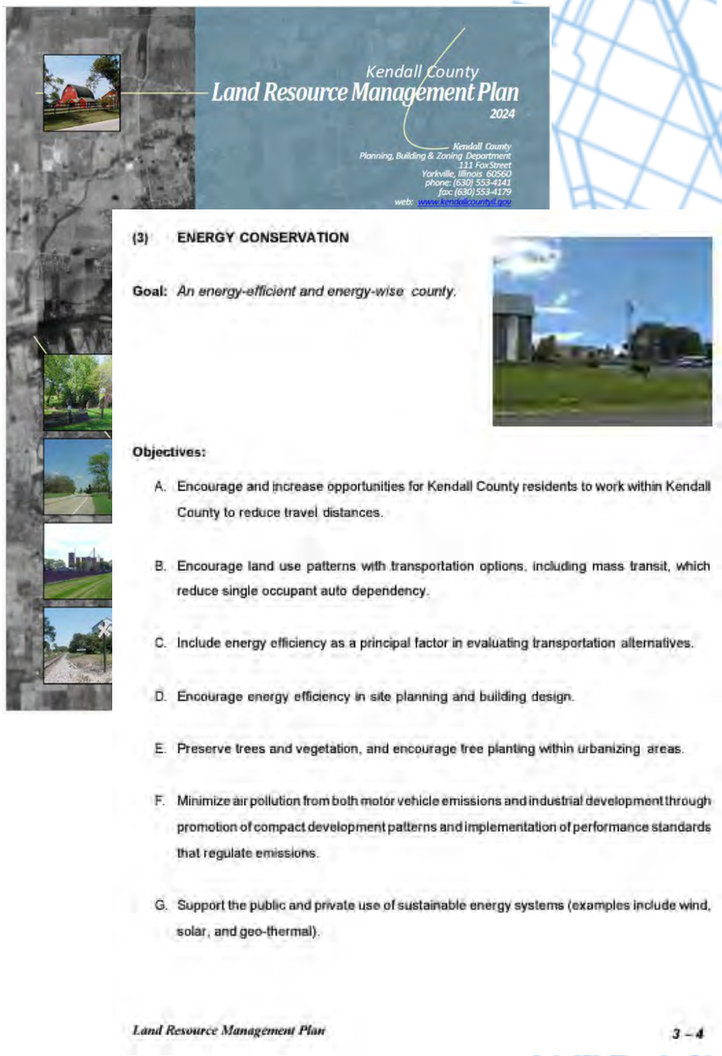




SPECIAL USE 5

- The special use is consistent with the purpose and objectives of the Land Resource Management Plan and other adopted County or municipal plans and policies.

- **Finding – The Proposal is also consistent with a goal and objective found on page 3 - 4 of the Land Resource Management Plan, " Support the public and private use of sustainable energy systems (examples include wind, solar, and geo-thermal)." ~~However,~~ The proposal is located on property classified as Rural Residential on the Future Land Use Map; however, the proposal is located on property classified as "Agricultural" on the City of Yorkville's Future Land Use Map. Yorkville's Economic Development Committee (EDC) and Planning and Zoning Commission (PZC) recommended to permit the solar farm and variance. The Kendall Township Planning Commission also recommend approval.**



Kendall County
Land Resource Management Plan
2024

Kendall County
Planning, Building & Zoning Department
111 Fox Street
Yorkville, Illinois 60560
phone: (630) 553-4141
fax: (630) 553-4179
web: www.kendallcountyil.gov

(3) ENERGY CONSERVATION

Goal: *An energy-efficient and energy-wise county.*

Objectives:

A. Encourage and increase opportunities for Kendall County residents to work within Kendall County to reduce travel distances.

B. Encourage land use patterns with transportation options, including mass transit, which reduce single occupant auto dependency.

C. Include energy efficiency as a principal factor in evaluating transportation alternatives.

D. Encourage energy efficiency in site planning and building design.

E. Preserve trees and vegetation, and encourage tree planting within urbanizing areas.

F. Minimize air pollution from both motor vehicle emissions and industrial development through promotion of compact development patterns and implementation of performance standards that regulate emissions.

G. Support the public and private use of sustainable energy systems (examples include wind, solar, and geo-thermal).

Land Resource Management Plan 3 – 4

VARIANCE 1

- That the particular physical surroundings, shape, or topographical condition of the specific property involved would result in a particular hardship or practical difficulty upon the owner if the strict letter of the regulations were carried out.

- **Finding – The subject property is located within one point five (1.5) miles of the Unified City of Yorkville. The Petitioner provided a letter from the City of Yorkville stating that Yorkville did not wish to annex the property or enter into a pre-annexation agreement.**



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

August 27, 2024

Matthew H. Asselmeier, AICP, CFM (VIA E-MAIL: masselmeier@kendallcountyil.gov)
Kendall County
Planning, Building & Zoning
111 West Fox Street
Yorkville, Illinois 60560

RE: Ament Road Solar // PINS: 05-16-300-006 & 05-17-400-005

Dear Mr. Asselmeier,

Section 7:01(D)(17)(a) of the Kendall County Zoning Ordinance states as follows:

> 17. Commercial Solar Energy Facility and Test Solar Energy Systems subject to the following conditions (Amended 5/16/23): a. All commercial solar energy facilities and test solar energy systems located within one point five (1.5) miles of a municipality shall either annex to the municipality or obtain an annexation agreement with the municipality requiring the municipality's regulations to flow through the property.

Please let this letter serve as the City of Yorkville's ("City") notice to Kendall County that the City does not currently seek to annex the above-referenced property or to enter into a pre-annexation agreement with the landowner and developer of this property.

Sincerely,

Krysti Barksdale-Noble

Krysti J. Barksdale-Noble, AICP
Community Development Director

Cc: Kathleen F. Orr, City Attorney kfo@ottosenlaw.com
Bart Olson, City Administrator BOlson@yorkville.il.us
Tom Ryan tryan@newleafenergy.com
Nicholas Sandiford nstandiford@schainbanks.com

VARIANCE 2

- That the conditions upon which the requested variation is based would not be applicable, generally, to other property within the same zoning classification.

- **Finding - Other A-1zoned properties within the one point five (1.5) miles of a municipality could request a similar variance, if the municipality refuses to annex or enter into a pre-annexation agreement.**

Memorandum

To: City Council
From: Krysti J. Barksdale-Noble, Community Development Director
CC: Bart Olson, City Administrator
Sara Mendez, Planner I
Date: August 14, 2024
Subject: **Ament Road Solar Farm – Pre-Annexation Agreement Inquiry**

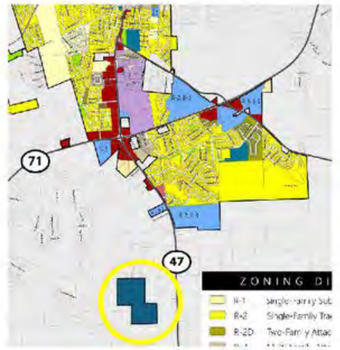
Summary

New Leaf Energy has submitted a proposal to develop a solar farm on a site located on Ament Road, west of IL 47. The site in question is currently unincorporated, not contiguous to the City of Yorkville, but falls within the City's 1.5-mile planning jurisdiction. As a result, they are seeking guidance on whether the City of Yorkville is interested in pursuing a pre-annexation agreement.

Key Considerations

New Leaf Energy, the developer of the recently annexed and approved community solar project located north of the BNSF railroad and east of Beecher Road, is proposing to develop a 5-megawatt commercial solar energy facility on approximately 40-acres of land located south of Ament Road and west of IL 47. The property is within unincorporated Kendall County and approximately 3,500 feet from Yorkville's corporate boundary. While not contiguous to the city, the property does fall within Yorkville's 1.5-mile planning jurisdiction.





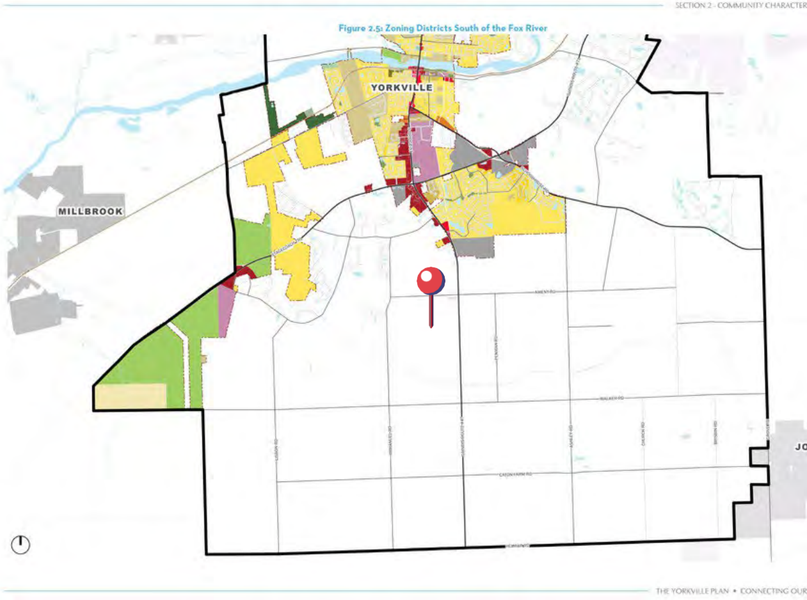
Below is a brief analysis of the approval process, considerations for and against pre-annexation and important proposal details.

1. **Approval Process:**
   - New Leaf Energy is pursuing special use approval through Kendall County.
   - They have the option to seek a pre-annexation agreement with Yorkville, which would require them to undergo the City's site review and building permitting processes.

VARIANCE 3

- That the alleged difficulty or hardship has not been created by any person presently having an interest in the property

- **Finding - The difficulty was created because the United City of Yorkville did not wish to enter into a pre-annexation agreement or annex the property**



VARIANCE 4

- That the granting of the variation will not materially be detrimental to the public welfareor substantially injurious to other property or improvements in the neighborhood in which the property is located.

- **Finding – Granting the variance would not be detrimental to the public or substantially injurious to other properties.**



VARIANCE 5



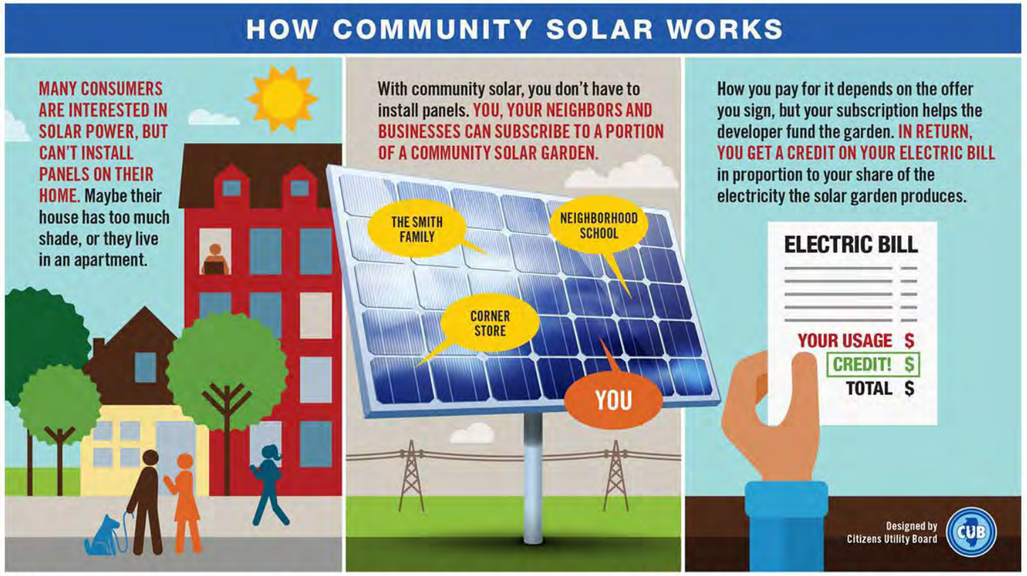
- That the proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets or increasethe danger of fire or endanger the public safety or substantially diminish or impair property values within the neighborhood.

- **Finding – The proposed variance would not impair light or air on adjacent property, cause congestion, increase the danger of fire, or negatively impact property values.**

Community Solar Primer

Community solar allows electricity consumers to realize the benefits of solar energy without having to place panels on their home or business.

Through community solar, consumers subscribe to a portion of the electricity produced by a solar project and in return receive credits on their electricity bill.



Note: Community solar projects have a maximum size of 5 Megawatts (MW) of electricity output—roughly 25,000 standard (2 x 1 meter) panels. Also, the utility is required to buy the energy output that hasn't been subscribed out in a solar garden.

Citizens Utility Board

new leaf energy

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Community Solar Primer: Differences with Utility-Scale

Community Solar: 25-35 Acres



- Interconnected directly to distribution grid; supplies nearby surrounding communities
- Provides discounted electricity to retail consumers
- 2-3 year development timeline

Utility-Scale Solar: >500 Acres



- Interconnected to high-voltage transmission; typically exports to demand elsewhere
- Power is sold on a wholesale basis to utilities and large commercial and industrial offtakers
- 5-7 year development timeline

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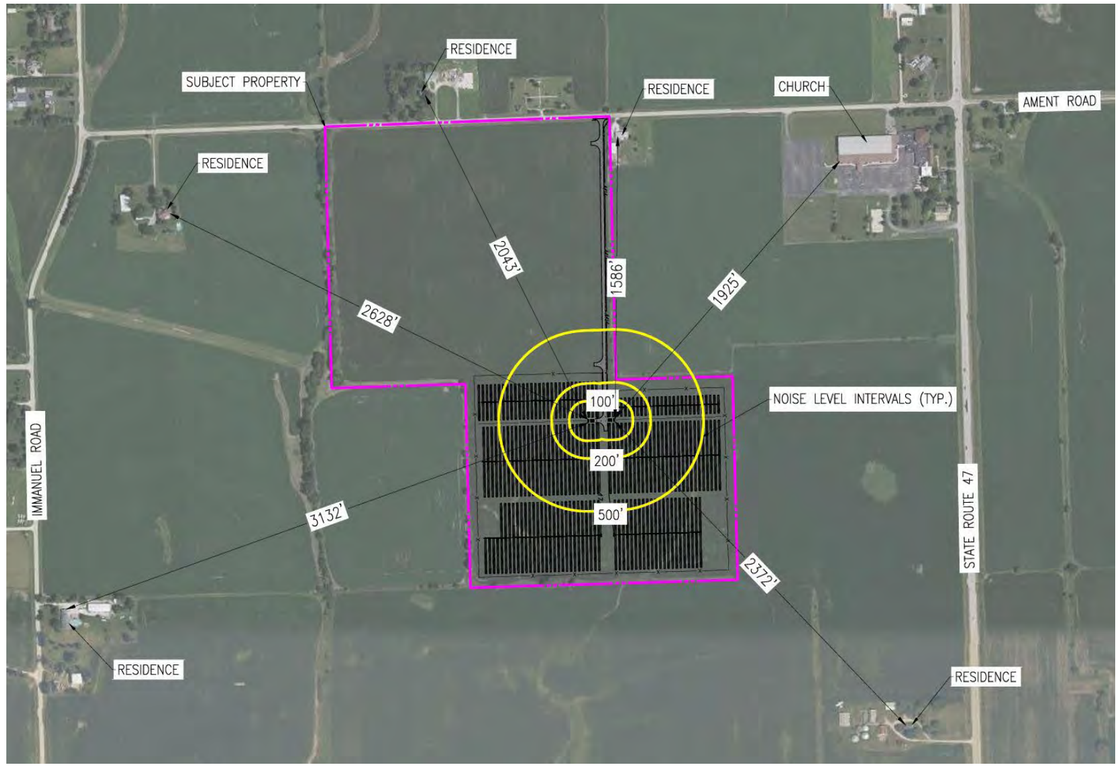
Noise Study Results

Noise Levels at 100’ Intervals:

100’ = 57 Decibels
(Similar to a air conditioner unit)

200’ = 51 Decibels

500’ = 43 Decibels
(Below Background Noise)



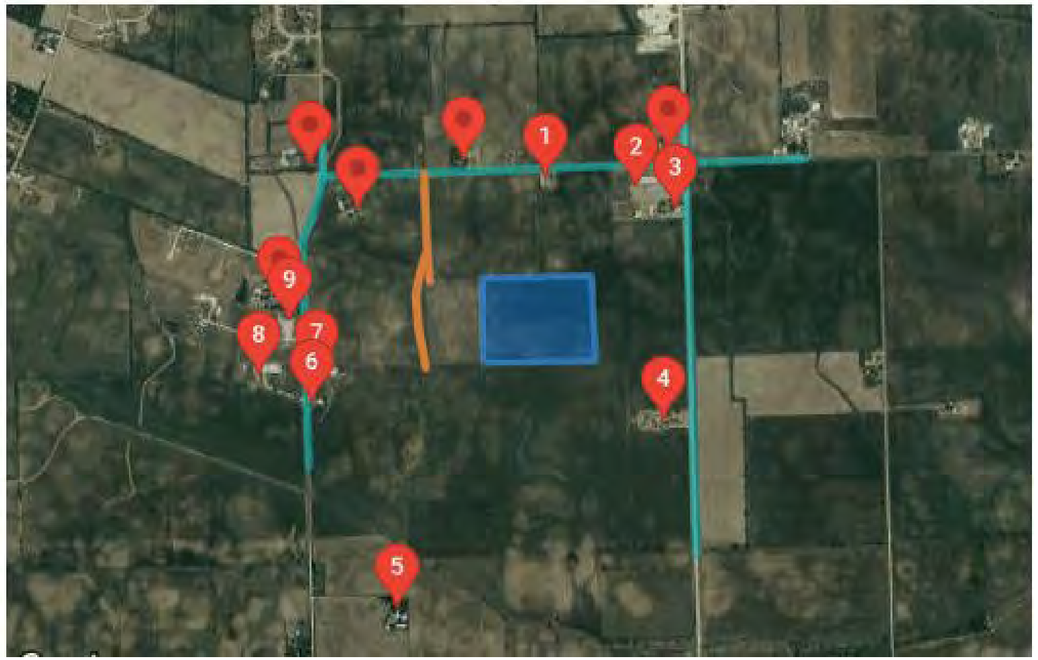
Prepared by New Leaf Energy, Inc

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Glare Study

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
Ament Road	0	0.0	0	0.0
Illinois Route 47	0	0.0	0	0.0
Immanuel Road	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

No glare was found at any of the receptors

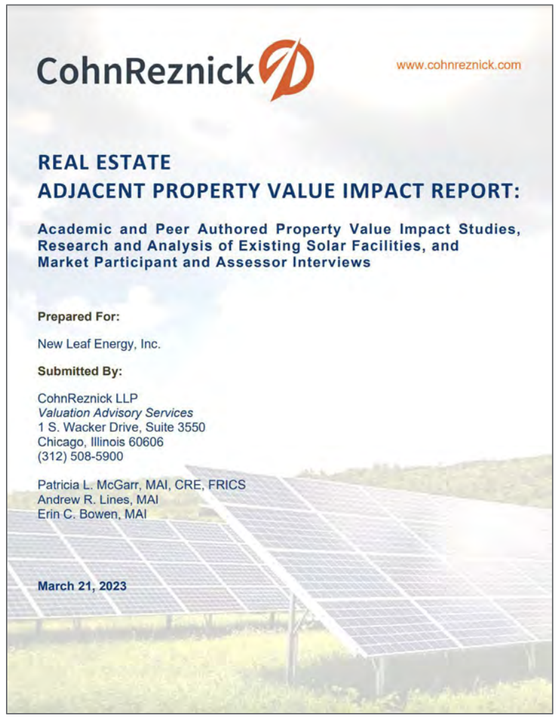


Prepared by Forge Solar, LLC on July 9, 2024

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CohnReznick Property Value Impact Study Results for Solar

- CohnReznick performed a Property Value Impact Study for New Leaf Energy to assess the impact of solar projects on nearby real estate.
- Study included interviews with Market Participants, County and Township Assessors in Illinois as to how the market evaluates:
  - Farmland with views to solar farms - No impact
  - Single-family homes with views to solar farms - No impact
- **Conclusion: no measurable impact to adjacent properties in:**
  - **Range of sales price**
  - **Conditions of sale**
  - **Overall marketability**

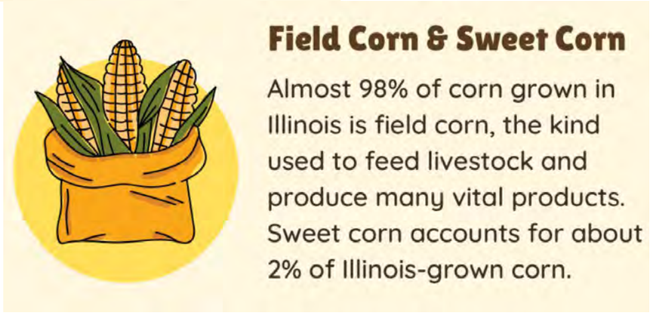


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Fun Facts







Field corn, or dent corn, is the most common type of corn. 98% of the corn grown in Illinois is field corn. Field corn has a hard outer-shell and is full of starch. The kernels on this type of corn are mature and dry before harvest occurs in the fall. Field corn is used in everything from livestock feed to ethanol production and can even be found in cereal, wallpaper, skateboards, cosmetics, and plastic!

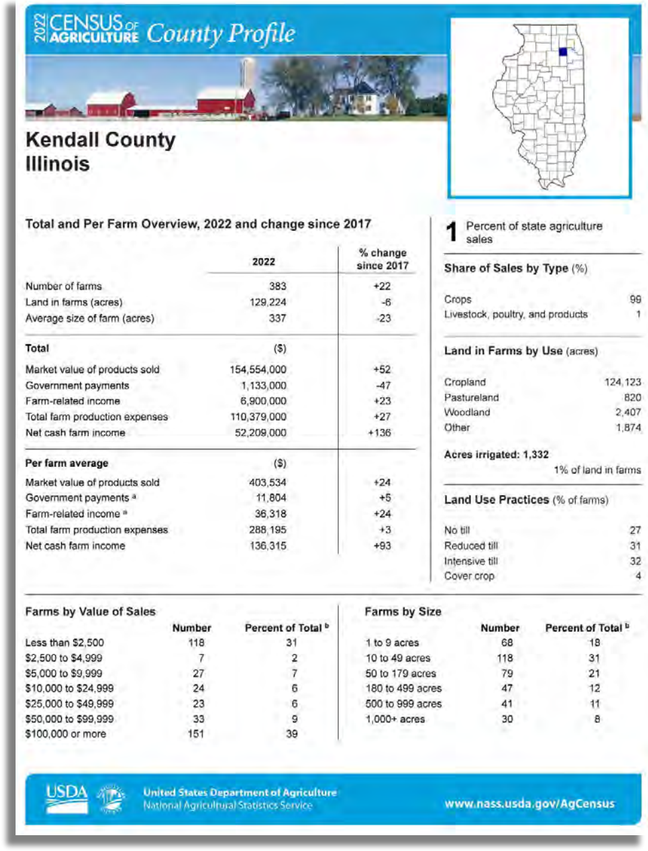
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Soil Conditions

Cropland
124,123 acres

Community Solar Site
40 acres

Percent of Farmland
.00032%



2022 CENSUS OF AGRICULTURE *County Profile*

Kendall County
Illinois

Total and Per Farm Overview, 2022 and change since 2017

	2022	% change since 2017
Number of farms	383	+22
Land in farms (acres)	129,224	-6
Average size of farm (acres)	337	-23
Total	($)	
Market value of products sold	154,554,000	+52
Government payments	1,133,000	-47
Farm-related income	6,900,000	+23
Total farm production expenses	110,379,000	+27
Net cash farm income	52,209,000	+136
Per farm average	($)	
Market value of products sold	403,534	+24
Government payments [a]	11,804	+5
Farm-related income [a]	36,318	+24
Total farm production expenses	288,195	+3
Net cash farm income	136,315	+93

1 Percent of state agriculture sales

Share of Sales by Type (%)

Crops	99
Livestock, poultry, and products	1

Land in Farms by Use (acres)

Cropland	124,123
Pastureland	820
Woodland	2,407
Other	1,874

Acres irrigated: 1,332
1% of land in farms

Land Use Practices (% of farms)

No till	27
Reduced till	31
Intensive till	32
Cover crop	4

Farms by Value of Sales

	Number	Percent of Total [b]
Less than $2,500	118	31
$2,500 to $4,999	7	2
$5,000 to $9,999	27	7
$10,000 to $24,999	24	6
$25,000 to $49,999	23	6
$50,000 to $99,999	33	9
$100,000 or more	151	39

Farms by Size

	Number	Percent of Total [b]
1 to 9 acres	68	18
10 to 49 acres	118	31
50 to 179 acres	79	21
180 to 499 acres	47	12
500 to 999 acres	41	11
1,000+ acres	30	8

USDA United States Department of Agriculture
National Agricultural Statistics Service
www.nass.usda.gov/AgCensus

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT
231 SOUTH LA SALLE STREET, SUITE 1500
CHICAGO IL 60604-1437

January 13, 2025

Regulatory Branch (LRC-2024-00481)

SUBJECT: No Permit Required (NPR) Letter for the Ament Road Solar Project in Yorkville, Kendall County, Illinois (Latitude 41.593804°N, Longitude -88.444237°W)

Janel Dhuse
3743 North Kenmore Avenue, #3
Chicago, Illinois 60613

Dear Ms. Dhuse:

The U.S. Army Corps of Engineers, Chicago District, has completed its review of your August 13, 2024 request that the U.S. Army Corps of Engineers issue a No Permit Required (NPR) letter with a Jurisdictional Determination (JD) for the above-referenced activity. The subject project has been assigned number LRC-2024-00481. Please reference this number in all future correspondence concerning this project.

Following a review of the Water Resources Delineation Report dated June 18, 2024, prepared by EnCAP, Inc., and a verification of the information submitted in the report, this office has determined that the subject property contains "waters of the United States" under the jurisdiction of this office and therefore, subject to regulation under Section 404 of the Clean Water Act, specifically: Wetland 1/Intermittent Creek. In addition, Farmed Wetand 1W & Farmed Wetland 1E have been determined to be non-jurisdictional. An Approved Jurisdictional Determination (AJD) is enclosed.

Following a review of the information you furnished to this office and assuming your project is conducted only as set forth in the plans titled “Site Use Permit Set, Ament Road – Kendall, IL” prepared by New Leaf Energy, this office has determined that a Department of the Army (DA) permit is not required to complete the proposed work as your request for a NPR letter states that you are not proposing to discharge dredged or fill material into any aquatic resource situated on the Subject Property. As a result, this office is issuing a NPR letter for the above-referenced activity. Please be aware that any unpermitted discharge into an area within the jurisdiction of this office may result in civil or criminal enforcement under the Clean Water Act, 33 U.S.C. 1319.

This letter is considered an approved jurisdictional determination for your subject site. If you object to this determination, you may appeal, according to 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and a Request for Appeal (RFA) form. If you request to appeal the above determination, you must submit a completed RFA form to the Great Lakes/Ohio River Division Office at the following address:

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Stormwater Management Permit Application

STORMWATER MANAGEMENT PERMIT

PERMIT APPLICATION #_____

Conformance with all Federal, State, and County Regulations is required. Applicants are encouraged to read the Stormwater Management Division of the Kendall County Code and consider a pre-application meeting with Department staff prior to submittal. See attached highlights of regulations.

Property: Name AMENT ROAD SOLAR 1, LLC

Owner Address 55 TECHNOLOGY DRIVE, SUITE 102 / LOWELL, MA 01851

Phone 800-818-5249

Agent: Name ATWELL, LLC

Address 1250 E. DIEHL ROAD, SUITE 300 / NAPERVILLE, IL 60563

Phone 630-281-8424

Site: Address or Location AMENT ROAD, KENDALL COUNTY, ILLINOIS

Tax Parcel # 05-16-300-006 & 05-17-400-005

Zoning/Land Use/Acres A-1 / AGRICULTURAL / 95.07 TOTAL

Proposed Development:
A 4.99 MW (AC) ground mounted solar power generating facility

Attachments: Plat_____ Construction Plans_____

Soils_____ Landscaping_____

Grading_____ Phasing_____

Other_____

Fees $_____ Processing Fee ($50.00)

$_____ Engineering Review Deposit ($2,500.00 *or* 2% of estimated cost of the proposed improvements, whichever is greater. A $3,500.00 Construction Inspection Services Fee and General Consultation Fee Might Be Required as the Project Progresses)

TOTAL $ _____ One check is acceptable made out to the Kendall County Treasurer

Staff will contact Applicant regarding schedule and reviews.

I hereby certify that the information on this application, on the documents attached, and on other submittals made during the review process is true and correct; that I am authorized to file this application; and that I agree to conform to all requirements set forth by the County and all conditions of the Kendall County Code related to stormwater management. I understand that by signing this form, that the property in question may be visited by County Staff and County Engineers throughout the permit and construction process. I also understand that I am responsible for all costs associated with this application. The applicant attests that they are free of debt or current on all debts owed to Kendall County as of the application date.

Owner's Signature (Including Middle Initial)_____ Date_____

Agent's Signature (Including Middle Initial) Nichole Beller Date 1/15/2025

Kendall County Planning, Building, & Zoning Department
111 West Fox Street, Room 203
Yorkville, Illinois 60560
Phone: (630) 553-4139, Fax (630) 553-4179
www.kendallcountyil.gov

Materials in a Solar Panel

COMPONENT	MATERIAL	TOTAL SHARE	REMARK
FRAME	Aluminum	10 % – 20 %	not hazardous
	Silicone	<1 %	not hazardous, see section 8
LAMINATE	Glass	60 % – 75 %	not hazardous
	Plastics (EVA, PET, PE, PPE, PC)	10 % – 15 %	no hazards known
	Silicon	2 % – 4 %	not hazardous
	Metals (Aluminum, Copper, Tin)	1 % – 3 %	not hazardous
	Lead	<0,1 %	hazardous
	Silver	<0,05 %	not hazardous

As of 2023, solar module manufacturers have removed lead solder from their panels altogether

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Decommissioning: Recycling

Solar panels recycling is not a massive market at present, but it is expected to grow as solar projects begin reaching end of life in the next two decades in Illinois.

- Currently there is one solar PV recycling facility in Illinois, Interco, which is located in Madison, IL (metro St. Louis).
  - Interco operates a 400,000 square-foot facility and processes over 250,000 salvage solar panels each year.
- It is expected that the State of Illinois will require panels to be recycled in the near future



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Establishing Meadows

- **Year 1:**
  - Cover Crop / Nurse Crop planting for site stabilization
    - By the end of the first growing season, planted areas will have 90% vegetative cover
  - First mowing for weed management and to encourage native growth
- **Year 2:**
  - 3x mowings to disrupt annual weeds from going to seed while encouraging native wildflowers to put energy into rooting deeply
    - By the end of year two, 50% of the vegetation will be native vs. non-invasive
- **Year 3:**
  - 1 complete site mowing
  - Integrated Vegetation Management (IVM) - Spot mowing, wicking, hand weeding and other methods are used to control invasive species and weeds.
  - Plug Plantings - Mature versions of the plants specified in the seed mix are installed to accelerate the establishment of the pollinator plants.
    - End of year three, 60% native with no non-native/invasive species being among the three most dominant species found on the site.
- **Year 4:**
  - IVM and Plug Planting
  - 2 complete site visits
    - Project monitoring and annual reporting
- **Year 5:**
  - By year five, a self-sustaining field of native pollinators will have been established
    - Project monitoring and reporting will continue





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Native Pollinators











NATIVE PLANT SEED MIX: 28.8 LBS/AC

GENUS/SPECIES	COMMON NAME	SEEDS/OZ	OZ/AC
ALLIUM CERNUUM	NODDING ONION	7,600	6.0
ASTER OOLENTANGIENSE	SKY BLUE ASTER	80,000	4.0
ASTRAGALUS CANADENSIS	CANADA MILK VETCH	17,000	2.0
ECHINACEA PALLIDA	PALE PURPLE CONEFLOWER	5,200	32.0
RUDBECKIA HIRTA	BLACK-EYED SUSAN	92,000	16.0
TRADESCANTIA OHIENSIS	OHIO SPIDERWORT	8,000	16.0
ZIZIA AUREA	GOLDEN ALEXANDERS	11,000	16.0
BOUTELOUA CURTIPENDULA	SIDE-OATS GRAMA	6,000	320.0
BROMUS KALMII	PRAIRIE BROME		4.0
CAREX BREVIOR	PLAINS OVAL SEDGE		8.0
CAREX VULPINOIDEA	BROWN FOX SEDGE	100,000	32.0
SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	16,000	6.0
	12 SPECIES		462 (28.8 LBS/AC)











new leaf energy

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Land Use Concept Plan

Tuttle, Burkhart, Kuhn and Holt Properties

Yorkville, Illinois

JEN LAND DESIGN, INC.
PLANNING • LANDSCAPE ARCHITECTURE
Jennifer Nelson, ASLA, Principal
Ph: 773.743.1320 fax: 773.743.1325 Email: jennifer@jenland.com

MPI
6860 North Frontage Road Suite 100
Burr Ridge, IL 60527
(630) 455-5400

Revisions
06-22-04 Holt Property
07-01-04
08-26-05 18.000 Sq. ft. Lot
07-11-05
12-15-05 Hwy 34/Route 71
01-25-06 Hwy 34/Route 71

Job # 3103
Date 04-13-04
Scale 1"=200'

Site Data

Total Site — Acres 616.44 — Density 100.00

Suburban Neighborhood — 334.91 — 49.70

Traditional Neighborhood — 280.53 — 39.53

Traditional Neighborhood
a) Within unincorp.
Total Site Density = 182.53/616.44
Gross Site Density = 182.53/334
Gross Residential Density = 2.11 (182.53/(616.44 - (5.74+13.13+20.54+41.44)))

Suburban Area	Acres	Density
Total	334.91	100.00
Patterson Road R.O.W.	11.75	3.11
Proposed Wheeler Road	10.06	1.81
Commercial	13.00	3.33
Commercial	3.00	0.72
Yorkville Bible	3.00	0.90
Open Space/Detention	41.44	10.69
Residential	142.17	38.76
	290.39	33.23

Total Density of 2.11 = 729
Total Number of Units = 2,343 Units
Gross Residential Density = 2,343/(616.44 - (729 (3.0 DU/Ac. (729 (3.0 DU/Ac)))

Fox Milford Area	Acres	Density
Total	3.64	1.37
Patterson Road R.O.W.		
Commercial	44.00	18.91
Open Space*	180.70	30.91
Residential	93.84	25.78

Total Density of 182.53 = 1,823
Gross Residential Density = 2,343/(616.44 - (729 (3.0 DU/Ac. (1,823 (3.0 DU/Ac)))

Residential Breakdown:

Single Family	Lot Size	Acres	Density	DU.	Persons
NH 1	13,000 Sq. Ft. Min.	57.91	14.03	194	553.9
NH 2	13,000 Sq. Ft. Min.	37.64	13.51	139	474
NH 3	13,000 Sq. Ft. Min.	23.94	13.51	139	474
NH 4	11,000 Sq. Ft. Min.	28.58	6.51	74	253
NH 5	10,000 Sq. Ft. Min.	38.58	6.51	74	253
NH 6	10,000 Sq. Ft. Min.	43.64	13.56	172	586
NH 7	10,000 Sq. Ft. Min.	31.00	8.56	87	297
NH 8	10,000 Sq. Ft. Min.	31.00	8.56	87	297
NH 9	10,000 Sq. Ft. Min.	74.15	8.51	86	293
NH 10	10,000 Sq. Ft. Min.	34.15	8.51	86	293
NH 11	10,000 Sq. Ft. Min.	13.51	4.68	47	160
Subtotal		418.03	106.08	1,364	4,650

Single Family	NH 1, 9, 12, 14 (See Above)	Acres	Density	DU.	Persons
Townhouse	NH 10	278.90	73.24	878	3,000
Condominium	NH 11	29.94	9.51	228	1,043
Total/Gross		32.68	8.68	242	826
		478.53	190.68	1,744	5,869

Open Space Breakdown:

Suburban*

Total	Acres
Detention	180.70
Fox Milford	32.68
Yorkville	51.44
Yorkville	13.51
Park Site	10.00
Yorkville	11.45

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 2025-08

Agenda Item Summary Memo

Title: Public Works and Parks Department Facility Update

Meeting and Date: City Council – February 11, 2025

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 #4

Tracking Number

CC 2025-09

Agenda Item Summary Memo

Title: Lake Michigan Water Project Update

Meeting and Date: City Council – February 11, 2025

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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